

## REVISED AGENDA

### NOTICE OF REGULAR MEETING

**TIME:** 6 p.m.

**DATE:** Tuesday, October 15, 2024

**PLACE:** Regular Meeting Place  
7051 Dublin Boulevard, Dublin, CA  
[www.dsrsd.com](http://www.dsrsd.com)

**Alternate teleconference location:**

**PLACE:** Tenaya Lodge at Yosemite, 1122 Highway 41, Fish Camp, CA 93623

*Agenda revised after publication to add teleconference participation.*

**Our mission is to protect public health and the environment by providing reliable and sustainable water, recycled water, and wastewater services in a safe, efficient, and fiscally responsible manner.**

1. CALL TO ORDER
2. PLEDGE TO THE FLAG
3. ROLL CALL
4. SPECIAL ANNOUNCEMENTS/ACTIVITIES
  - 4.A. New Employee Introductions
5. PUBLIC COMMENT (MEETING OPEN TO THE PUBLIC)

At this time those in the audience are encouraged to address the Board on any item of interest that is within the subject matter jurisdiction of the Board and not already included on tonight's agenda. Comments should not exceed five minutes. Speaker cards are available from the District Secretary and should be completed and returned to the District Secretary prior to addressing the Board. The President of the Board will recognize each speaker, at which time the speaker should proceed to the lectern. Written comments received by 3 p.m. on the day of the meeting will be provided to the Board.
6. AGENDA MANAGEMENT (CONSIDER ORDER OF ITEMS)
7. CONSENT CALENDAR

Matters listed under this item are considered routine and will be enacted by one Motion, in the form listed below. There will be no separate discussion of these items unless requested by a Member of the Board or the public prior to the time the Board votes on the Motion to adopt.

  - 7.A. Approve Meeting Minutes of October 1, 2024  
**Recommended Action:** Approve by Motion

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**Board of Directors**

Division 1 ♦ Dinesh Govindarao | Division 2 ♦ Ann Marie Johnson | Division 3 ♦ Richard Halket  
Division 4 ♦ Georgean Vonheeder-Leopold | Division 5 ♦ Arun Goel

- 7.B. Approve Amendment to the Capital Improvement Program Ten-Year Plan and Two-Year Budget to Increase the Street Overlay Modification Program (CIP 00-A003) Budget  
**Recommended Action:** Approve by Resolution
- 7.C. Adopt Revised Capital Financing and Debt Management Policy and Rescind Resolution No. 38-17  
**Recommended Action:** Adopt Policy by Resolution
- 7.D. Rescind Debt Disclosure Policy and Rescind Resolution No. 37-17  
**Recommended Action:** Rescind Policy by Resolution

8. BOARD BUSINESS

- 8.A. Adopt Resolution of Intention to Approve an Amendment to CalPERS Retirement Contract  
**Recommended Action:** Adopt by Resolution
- 8.B. Public Hearing: Consider Adoption of Proposed Final Initial Study/Mitigated Negative Declaration for the Reservoir 20B Project (CIP 14-W008)  
**Recommended Action:** Hold Public Hearing and Adopt by Resolution
- 8.C. Receive Report on Video Production of Board Meetings  
**Recommended Action:** Receive Report and Provide Direction

9. REPORTS

9.A. Boardmember Items

- 9.A.1. Joint Powers Authority and Committee Reports
- 9.A.2. Submittal of Written Reports for Day of Service Events Attended by Directors
- 9.A.3. Request New Agenda Item(s) Be Placed on a Future Board or Committee Agenda

9.B. Staff Reports

10. CLOSED SESSION

- 10.A. Conference with Real Property Negotiators Pursuant to Government Code Section 54956.8  
Property: A Portion of 7051 Dublin Blvd., Dublin CA  
District Negotiators: Jan Lee, General Manager  
Michelle Gallardo, Interim Administrative Services Director  
Negotiating Party: Eswar Vadya, Committee Chair, Troop 905 of Dublin, Twin Valley District,  
Golden Gate Area Council, Boy Scouts of America  
Under Negotiation: Price and Terms of Payment for Lease of Property

11. REPORT FROM CLOSED SESSION

12. ADJOURNMENT

*All materials made available or distributed in open session at Board or Board Committee meetings are public information and are available for inspection during business hours by calling the District Secretary at (925) 828-0515. A fee may be charged for copies. District facilities and meetings comply with the Americans with Disabilities Act. If special accommodations are needed, please contact the District Secretary as soon as possible, but at least two days prior to the meeting.*

**DUBLIN SAN RAMON SERVICES DISTRICT  
MINUTES OF A REGULAR MEETING OF THE BOARD OF DIRECTORS**

**October 1, 2024**

1. CALL TO ORDER

A regular meeting of the Board of Directors was called to order at 6 p.m. by President Johnson.

2. PLEDGE TO THE FLAG

3. ROLL CALL

Boardmembers present at start of meeting: President Ann Marie Johnson, Vice President Arun Goel, Director Richard M. Halket, Director Dinesh Govindarao, and Director Georgean M. Vonheeder-Leopold.

District staff present: Jan Lee, General Manager/Treasurer; Michelle Gallardo, Special Assistant to the General Manager/Interim Administrative Services Director; Steve Delight, Engineering Services Director/District Engineer; Ken Spray, Finance Director; Dan Gill, Operations Director; Douglas E. Coty, General Counsel; and Vivian Chiu, Management Analyst II/Acting District Secretary.

4. SPECIAL ANNOUNCEMENTS/ACTIVITIES

4.A. New Employee Introductions

Minh Nguyen, Construction Inspector I

Kyel Ramos, Construction Inspector I

Tara Layton, Utility Billing & Customer Services Representative II

Xuan-Thu Nguyen, Utility Billing & Customer Services Representative II

4.B. Review Boardroom Evacuation Procedures and Hold Emergency Evacuation Exercise

Operations Director Gill reviewed the item for the Board, provided instructions for a fire drill, and introduced Environmental Health and Safety Programs Administrator Dave Peters.

At 6:09 p.m., the Board and staff participating in the exercise exited the building and gathered at the portico instead of the open designated assembly area due to weather-related high temperatures outside. During the exercise, Mr. Peters described the assembly and reentry process.

At 6:16 p.m., the Board and staff returned to the Boardroom and conducted a debrief. The Board asked questions about 911 calls and emergency dispatch and provided feedback. Vice President Goel requested for a future active shooter emergency drill.

5. PUBLIC COMMENT (MEETING OPEN TO THE PUBLIC) – 6:21 p.m. No public comments received.

6. AGENDA MANAGEMENT (CONSIDER ORDER OF ITEMS) – No changes made.

7. CONSENT CALENDAR

Director Govindarao requested Item 7.B. be removed for discussion. The Board agreed to remove Item 7.B. for discussion, and took Consent Calendar Items 7.A. and 7.C. through 7.F. and passed these Items first.

Director Vonheeder-Leopold MOVED for approval of Items 7.A. and 7.C. through 7.F. on the Consent Calendar. Director Goel SECONDED the MOTION, which CARRIED with FIVE AYES.

7.A. Approve Regular Meeting Minutes of September 17, 2024 – Approved

7.B. REMOVED – Award Contract to GradeTech Inc. for the Wastewater Treatment Plant Fencing and Security Phase 2 Project (CIP 19-P003) – Approved

Director Govindarao requested additional information on staff's recommendation, given GradeTech Inc. is the lowest bidder and the only bidder with a bid amount below the engineer's estimate. The Board, Engineering Services Director Delight, and General Counsel Coty discussed various aspects of bidding requirements for public works projects, including evaluation of bids, rejection of bids, review of references, and filing of liens.

Director Govindarao MOVED to Award a Contract to GradeTech Inc. for the Wastewater Treatment Plant Fencing and Security Phase 2 Project (CIP 19-P003). Director Vonheeder-Leopold SECONDED the MOTION, which CARRIED with FIVE AYES.

7.C. Rescind the Acceptance of Gifts and Gratuity Policy and Resolution No. 51-11 – Approved – Resolution No. 37-24

7.D. Rescind the Workplace Violence Policy and Resolution No. 76-07 – Approved – Resolution No. 38-24

7.E. Adopt Revised Prohibition Against Harassment, Discrimination and Retaliation Policy and Rescind Resolution No. 21-20 – Approved – Resolution No. 39-24

7.F. Adopt Revised Social Media Policy and Rescind Resolution No. 8-20 – Approved – Resolution No. 40-24

8. BOARD BUSINESS

8.A. Receive Update on the Enterprise Resource Planning (ERP) System Conversion to Tyler Munis

Interim Administrative Services Director Gallardo introduced Senior Information Technology Analyst Jonathan Penaflor, who reviewed the item for the Board with a presentation (handed out to the Board and posted to the website as supplemental materials). The presentation covered the need for the ERP replacement and provided an overview of the new Tyler Munis features, the current status of the ERP conversion, planned activities, and future considerations for enhancing ERP functionality for District staff and customers.



The Board and staff discussed the software's longevity and cybersecurity, and the communication plan for launching the new customer payment portal. The Board recognized that implementing a new ERP system is a huge endeavor and commended staff for a job well done.

9. REPORTS

9.A. Boardmember Items

9.A.1. Joint Powers Authority and Committee Reports

DERWA Board Meeting of September 23, 2024

President Johnson invited comments on recent JPA activities. Directors felt the available staff reports adequately covered the many matters considered at the meeting and commented on some of the meeting activities.

9.A.2. Submittal of Written Reports for Day of Service Events Attended by Directors

Director Vonheeder-Leopold submitted written reports to Management Analyst II/Acting District Secretary Chiu. She reported that she attended the Alameda County Special Districts Association meeting and the California Association of Sanitation Agencies Board of Directors meeting, both on September 18. She summarized the activities and discussions at the meetings.

Director Halket submitted a written report to Management Analyst II/Acting District Secretary Chiu. He reported that he attended the California Special Districts Association Conference on September 9–12 in Indian Wells (a written report was electronically submitted before the September 17 Board meeting) and the WaterReuse Conference on September 15–17 in Garden Grove. He summarized the activities and discussions at the meetings.

9.A.3. Request New Agenda Item(s) Be Placed on a Future Board or Committee Agenda

Director Goel requested an active shooter training exercise, as brought up during Item 4.B.

9.B. Staff Reports – None

10. ADJOURNMENT

President Johnson adjourned the meeting at 7:21 p.m., in the memory of Bette Boatman, past Contra Costa Water District Boardmember for 46 years and past Association of California Water Agencies President, who passed away on September 19, 2024.

Submitted by,

Vivian Chiu, MMC  
Management Analyst II/Acting District Secretary

FOR: Nicole Genzale, CMC  
Executive Services Supervisor/District Secretary



**TITLE:** Approve Amendment to the Capital Improvement Program Ten-Year Plan and Two-Year Budget to Increase the Street Overlay Modification Program (CIP 00-A003) Budget

**RECOMMENDATION:**

Staff recommends the Board of Directors approve, by Resolution, an amendment to the Capital Improvement Program (CIP) Ten-Year Plan and Two-Year Budget for fiscal years 2024 and 2025 to increase the Street Overlay Modification Program (CIP 00-A003) budget by \$30,000 from \$160,000 to \$190,000 for fiscal year 2025.

**SUMMARY:**

The Capital Improvement Program Two-Year Budget includes the Street Overlay Modification Program (CIP 00-A003) (Program), which facilitates adjustments to the District's water valves and sanitary sewer manholes impacted by annual paving projects in the Cities of Dublin and San Ramon. To enhance coordination and cost efficiency, these infrastructure adjustments are incorporated into each city's paving contract documents. The respective cities manage these paving projects, and the District is invoiced for its proportional share of the project costs. While the Program's annual budget of \$160,000 has historically covered these expenses, rising construction costs have created a shortfall for fiscal year 2025. Staff recommends the Board approve a \$30,000 increase to the Program's budget from \$160,000 to \$190,000.

**DISCUSSION:**

Each year, the Cities of Dublin and San Ramon conduct street paving and resurfacing projects within their boundaries. These projects require the adjustment of the District's existing water valves and sanitary sewer manholes to match the final grade of the new pavement surface, and the District is obligated to pay for the adjustments. The District has established a collaborative arrangement with both cities, incorporating these infrastructure adjustments into each city's project costs as bid items. After contracts are awarded to the lowest bidders, the cities invoice the District for its share of the costs through the Tri-Valley Intergovernmental Reciprocal Services Master Agreement, a cooperative agreement between the agencies in the Tri-Valley used to pool resources to streamline procurement of professional and construction services. This arrangement ensures that the District secures the most cost-effective solution with the least impact to the public for the necessary work.

When the current CIP Plan and CIP Budget were adopted in June 2023, the Program's budget for fiscal year 2025 was set at \$160,000, which was expected to be sufficient to cover the District's expenses for both city projects. However, due to rising material and labor costs, the budget is no longer sufficient to fully fund both city projects in this fiscal year. Recent bids for the fiscal year 2025 paving projects in both cities indicate that the necessary adjustments to water valves and sanitary sewer manholes will require a total of \$175,000 from the Program—\$90,000 for the City of Dublin and \$85,000 for the City of San Ramon. To address potential construction uncertainties and change orders, staff recommends a \$15,000 contingency be added to the Program's budget. This contingency would accommodate any additional funding required for either project. As a result, staff proposes increasing the Program's budget by \$30,000, from \$160,000 to \$190,000 for fiscal year 2025.

The [Budget Accountability policy \(P400-24-2\)](#) requires the Board to approve an adjustment to a program budget. The increase to the Program's budget will be 50% funded by the Local Wastewater Replacement (Fund 210) and 50% funded by the Water Replacement (Fund 610). The adopted fund budgets for the Local Wastewater Replacement (Fund 210) and Water Replacement (Fund 610) for fiscal year 2025 have sufficient funding to cover the proposed budget increase.

|   |   |                            |
|---|---|----------------------------|
| Originating Department: Engineering and Technical Services  | Contact: R. Pendergraft/S. Delight  | Legal Review: Not Required |
| Financial Review: Not Required  | Cost and Funding Source: \$30,000 with 50% from Local Wastewater Replacement (Fund 210) and 50% from Water Replacement (Fund 610) |                            |
| Attachments: <input type="checkbox"/> None <input checked="" type="checkbox"/> Resolution<br><input type="checkbox"/> Ordinance <input type="checkbox"/> Task Order <input type="checkbox"/> Proclamation<br><input type="checkbox"/> Other (see list on right) | 7 of 336  |                            |

If the Board approves the increase to the Program's budget, staff will proceed with creating two projects from the Program to fund the adjustments to the District's water valves and sanitary sewer manholes impacted by annual paving projects in the Cities of Dublin and San Ramon for fiscal year 2025. The actual funding split for each project will be based on the percentage of local wastewater and water assets affected by the paving projects in each city.

RESOLUTION NO. \_\_\_\_\_

RESOLUTION OF THE BOARD OF DIRECTORS OF DUBLIN SAN RAMON SERVICES DISTRICT APPROVING AN AMENDMENT TO THE CAPITAL IMPROVEMENT PROGRAM TEN-YEAR PLAN FOR FISCAL YEARS 2024 THROUGH 2033 AND TWO-YEAR BUDGET FOR FISCAL YEARS 2024 AND 2025 TO INCREASE THE BUDGET FOR THE STREET OVERLAY MODIFICATION PROGRAM (CIP 00-A003)

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WHEREAS, the Board of Directors approved the District's Capital Improvement Program ("CIP") Ten-Year Plan for Fiscal Years 2024 through 2033 ("CIP Plan") on June 20, 2023, to serve as a budgetary planning document providing direction and guidance, in accordance with District policies, for the replacement and improvement of existing District facilities and the construction of new facilities; and

WHEREAS, the Board of Directors adopted the current CIP Two-Year Budget for Fiscal Years 2024 and 2025 ("CIP Budget") on June 20, 2023, as amended, authorizing fund budgets for fiscal years 2024 and 2025 to meet the District's capital infrastructure need; and

WHEREAS, the CIP Budget includes the Street Overlay Modification Program (CIP 00-A003) with an adopted fiscal year 2025 budget of \$160,000; and

WHEREAS, staff recommends an increase to the Street Overlay Modification Program (CIP 00-A003) by \$30,000 from \$160,000 to \$190,000; and

WHEREAS, the fund budgets for fiscal year 2025 remain as adopted.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF DUBLIN SAN RAMON SERVICES DISTRICT, a public agency located in the Counties of Alameda and Contra Costa, California, as follows:

The Street Overlay Modification Program (CIP 00-A003) is hereby increased to a total budget of \$190,000 in the CIP Two-Year Budget for Fiscal Year 2025, in accordance with the project description sheet attached as Exhibit "A."

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Res. No. \_\_\_\_\_

ADOPTED by the Board of Directors of Dublin San Ramon Services District, a public agency in the State of California, Counties of Alameda and Contra Costa, at its regular meeting held on the 15th day of October, 2024, and passed by the following vote:

AYES:

NOES:

ABSENT:

\_\_\_\_\_  
Ann Marie Johnson, President

ATTEST: \_\_\_\_\_  
Nicole Genzale, District Secretary

DSRSD CIP 10-Year Plan for FYEs 2024 through 2033

CATEGORY: GENERAL

Local Wastewater Replacement (Fund 210)

CIP No. 00-A003 Street Overlay Modification PROGRAM

Funding Allocation: 50% 210 50% 610

Project Manager: Rudy Portugal

Status: Continuing Program

**Project Summary:**  
The District is required to adjust infrastructure access to any increases in street grades. This project will raise manholes and valve boxes annually in conjunction with overlay projects conducted by the City of Dublin and City of San Ramon using the Tri-Valley Intergovernmental Reciprocal Services Agreement.

**Anticipated CEQA:** Categorical Exemption [CEQA Guideline 15301, 15302].  
**Reference:** Coordination meetings with City staff.  
**Fund Allocation Basis:** Fund split is based upon the number of valve boxes and manholes in the system. There are twice as many valve boxes as manholes, however, manholes cost twice as much to raise. Each project created will be based upon the actual work included.

10-Year Cash Flow and Estimated Project Cost:

| Prior | FYE 24  | FYE 25  | FYE 26  | FYE 27  | FYE 28  | FYE 29  | FYE 30  | FYE 31  | FYE 32  | FYE 33  | Future  |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0     | 160,000 | 190,000 | 160,000 | 160,000 | 160,000 | 160,000 | 160,000 | 160,000 | 160,000 | 160,000 | 800,000 |

Total Estimated Project Cost\$2,430,000

Current Adopted Budget\$2,400,000

Increase/(Decrease)\$30,000



**TITLE:** Adopt Revised Capital Financing and Debt Management Policy and Rescind Resolution No. 38-17

**RECOMMENDATION:**

Staff recommends the Board of Directors adopt, by Resolution, the revised Capital Financing and Debt Management policy and rescind Resolution No. 38-17.

**DISCUSSION:**

District policies are generally reviewed on a rotating four-year cycle to ensure that they remain current. The Capital Financing and Debt Management policy was first adopted in 2004 to provide a foundation for a well-managed debt program. The policy was last revised in 2017, subsequent to the passage of Senate Bill 1029 (2016), to meet the bill's requirement for state and local government debt issuers to report information regarding proposed and outstanding debt to the California Debt and Investment Advisory Commission.

In addition to the Capital Financing and Debt Management policy, the District has another policy relating to debt. The Debt Disclosure policy was adopted in 2014 to establish procedures to ensure compliance with all applicable federal and state securities laws related to debt issuance. Staff proposes the following changes to the Capital Financing and Debt Management policy (markups are shown in Attachment 1):

- Addition of a purpose statement
- Incorporation of the Debt Disclosure policy into the Capital Financing and Debt Management policy, such that all criteria and procedures for issuing and managing debt would be in a single document
- Minor edits to the combined policy to provide further clarity
- Addition of requisition request procedures for bond proceeds from the trustee bank

Staff also proposes to rescind the Debt Disclosure policy and has presented a separate item on this agenda for the rescission.

If adopted by the Board, the next review of the Capital Financing and Debt Management policy will be scheduled for 2028.

|  |   |                            |
|--|---|----------------------------|
| Originating Department: Finance  | Contact: K. Spray   | Legal Review: Not Required |
| Financial Review: Yes  | Cost and Funding Source: N/A  |                            |
| Attachments: <input type="checkbox"/> None <input checked="" type="checkbox"/> Resolution<br><input type="checkbox"/> Ordinance <input type="checkbox"/> Task Order <input type="checkbox"/> Proclamation<br><input checked="" type="checkbox"/> Other (see list on right) | Attachment 1 – Marked-up Capital Financing and Debt Management Policy |                            |





# Policy

|   |  |
|---|--|
| <b>Policy No.:</b> <del>P400-17-3</del>                             | <b>Type of Policy:</b> Finance                                   |
| <b>Policy Title:</b> Capital Financing and Debt Management          |  |
| <b>Policy Description:</b> Parameters for issuing and managing debt |  |
| <b>Approval Date:</b> <del>7/18/2017</del> 10/15/2024               | <b>Last Review Date:</b> <del>2017</del> 2024                    |
| <b>Approval Resolution No.:</b> <del>38-17</del>                    | <b>Next Review Date:</b> <del>2021</del> 2028                    |
| <b>Rescinded Resolution No.:</b> <del>16-14</del> 38-17             | <b>Rescinded Resolution Date:</b> <del>3/18/2014</del> 7/18/2017 |

The purpose of this ~~It is the~~ policy of the Board of Directors of Dublin San Ramon Services District ~~is to~~ establish a local debt policy in accordance with California Government Code Section 8855, which requires the issuer of debt to submit reports to the California Debt and Investment Advisory Commission that include a certification by the issuer that it has adopted local debt policies.:

## PURPOSE OF DEBT

The District will only use debt financing to purchase or construct build capital assets that cannot be acquired from either current revenues or above-minimum replacement reserves ~~and~~ to fund capital improvements and additions; it will not be used for operating and maintenance costs.

Lease-/~~P~~urchase agreements for the purchase of vehicles, equipment, and other capital assets shall generally be avoided, particularly if smaller quantities of the asset can be purchased on a pay-as-you-go basis.

## CRITERIA

The District will use the following criteria to evaluate pay-as-you-go versus pay-as-you-use or long-term financing in funding capital improvements.

### Factors Favoring Pay-As-You-Go Financing

- Adequate funds are available in the replacement and-/or expansion funds.
- Adding debt would adversely affect the District's cash flow position or operating flexibility.
- Market conditions are unstable or present difficulties in funding.

Policy No.: ~~P400-17-3~~

Policy Title: Capital Financing and Debt Management

**Factors Favoring Pay-As-You-Use Financing**

- Asset life is equal to or greater than the term of the financing. Asset will be paid for as it is used, hence “pay-as-you-use” financing.
- Revenues available for debt service are sufficient and reliable so that long-term financings can be sold at favorable interest rates.
- A project is mandated by state or federal requirements, and resources are insufficient or unavailable.
- The project is immediately required to meet District needs and current resources are insufficient or unavailable.

**TYPES OF DEBT**

The District may use any combination of fixed ~~and variable~~ rate bonds, commercial paper, bank loans, state loans, pension obligation bonds, or any other type of debt allowable by California law, not including variable-rate bonds or derivative products~~law~~.

Each debt issuance should be evaluated on an individual basis within the framework of the District’s long-term financial plan when determining the type of debt to issue.

Debt may be structured so as to pay interest only until project completion. Principal amortization shall be established to ensure full payment of the principal and interest on the debt over no more than ~~35~~ 30 years or the life of the asset, whichever is less.

**USE OF PROCEEDS**

**General** – Proceeds (including investment income on original sale proceeds) of capital obligations, other than proceeds used to pay costs of issuance, ~~should~~ shall be spent on capital expenditures. For this purpose, capital expenditures generally mean costs to acquire, construct, or improve assets (i.e., land, buildings, equipment etc.). Capital expenditures include design and planning costs related to the project, and include architectural, engineering, surveying, soil testing, environmental, and other similar costs incurred in the process of acquiring, constructing, improving or replacing the asset. Capital expenditures do not include operating expenses of the ~~P~~project.

**Reinvestment of Proceeds** – The District shall comply with all applicable ~~F~~federal, ~~S~~state, and contractual restrictions regarding the use and investment of bond proceeds. This includes compliance with restrictions on the types of investment securities allowed, restrictions on the allowable yield of some invested funds, as well as restrictions on the time period during over which some bond proceeds may be invested. To the extent that a bond issue is credit enhanced, the District shall adhere to the investment guidelines of the credit enhancement provider.

**Requirements of Indenture** – The District will comply with all terms and conditions of the appropriate legal documents related to the debt as described in Debt Disclosures below. Such limitations shall include, but not be limited to Investments in the Indenture.

Policy No.: ~~P400-17-3~~

Policy Title: Capital Financing and Debt Management

## PROFESSIONAL SERVICES

A variety of specialized service providers will be used to provide professional assistance with the determination of the type of financial obligation to use as well as the process of issuing securities. These will include but are not limited to:

- **Financial Advisor** – The Financial Advisor (Advisor) is a consultant who advises the District (issuer) on matters pertinent to the issue, such as structure, timing, marketing, fairness of pricing, terms and bond ratings. While the Advisor is legally able to serve as underwriter for an issue under certain circumstances, in order to avoid any appearance of a conflict of interest, the District shall not use the Advisor as an underwriter on any issuances where they have served as the Advisor.
- **Underwriter** – A dealer which purchases a new issue of municipal securities for resale. The underwriter may acquire the securities either by negotiation with the issuer or by award on the basis of competitive bidding.
- **Bond Counsel** – An attorney retained by the issuer to give a legal opinion that the issuer is authorized to issue proposed securities, the issuer has met all legal requirements necessary for issuance, and interest on the proposed securities will be exempt from taxation. Typically, bond counsel may prepare, or review and advise the issuer regarding authorizing resolutions or ordinances, trust indentures, official statements, validation proceedings and litigation.
- **Trustee** – A financial institution with trust powers which acts in a fiduciary capacity for the benefit of the bondholders in enforcing the terms of the bond contract.

## DEBT MANAGEMENT

The District will generally conduct financings on a competitive basis. However, negotiated financings may be used due to market volatility or the use of an unusual or complex financing or security structure.

The District will use credit enhancements such as letters of credit or insurance when necessary for marketing purposes, availability and cost-effectiveness.

The District will diligently monitor its compliance with bond covenants and ensure its adherence to federal arbitrage regulations and continuing disclosure requirements.

District staff and the financial advisor shall monitor the municipal bond market for opportunities to obtain interest savings by refinancing outstanding obligations [that are available for redemption](#).

## DEBT CAPACITY

The District will set user rates at levels needed to fully cover operations, [and](#) maintenance and [recurring capital replacement-administration](#), and to meet debt coverage covenant [requirements](#).

Appropriate reserve levels shall be established by the Board to minimize impacts to ratepayers when development fees are insufficient to pay for expansion-related debt.

Policy No.: ~~P400-17-3~~

Policy Title: Capital Financing and Debt Management

## ISSUANCE OF JOINT DEBT

The District may enter into joint debt issuances with any of its Joint Powers Agencies. Any joint debt issuance with other parties will stipulate that the involved parties will take no action that will be to the detriment of the other party as related to the debt.

## CREDIT RATING

Recognizing that the credit rating of the District has a direct impact on the cost of borrowing costs, the District shall take timely and appropriate actions to always maintain strong credit ratings and strive to retain ratings in the "AA" rating category from S&P and Fitch.

## DEBT DISCLOSURE~~S~~ PROCEDURES

### Article I—General

These Debt Disclosure Procedures (the "Disclosure Procedures") of Dublin San Ramon Services District (the "District") are intended to ensure that the District is in compliance with all applicable federal and state securities laws.

### Article II—Disclosure Coordinator

The Treasurer of the District shall be the disclosure coordinator of the District (the "Disclosure Coordinator").

### Article III—Internal Control Procedures

In order to comply with the following internal controls, the ~~Administrative Services Manager~~Finance Director and General Manager shall share responsibility to assure that disbursements are made only after each request for disbursement is substantiated with appropriate invoices, requisitions and other supporting documentation. Each of the aforementioned shall thoroughly review any request for disbursement and may request further documentation as may be deemed appropriate:

- To ensure that proceeds of any debt are issued in accordance with its governing documents and the Capital Financing and Debt Management policy, no disbursements shall be made without the written approval of the ~~Administrative Services Manager~~Finance Director and the General Manager. The draw request shall be provided to the Engineering Services Manager by the Contractor. Approval shall only be provided when the ~~Administrative Services Manager~~Finance Director is in receipt of an appropriate certification from the construction project manager with supporting invoices from suppliers and/or contractors evidencing appropriate ~~expenses~~payment requests in connection with the project.

Policy No.: ~~P400-17-3~~

Policy Title: Capital Financing and Debt Management

- Cumulative project payments are used periodically to prepare requisition reimbursement requests from bond proceeds held within the trustee bank. Requisitions are sequentially numbered and follow the format of total project costs-to-date, less prior requisitions, amount this requisition. The requisition also includes bank wiring instructions. The requisition must be signed by an authorized signer established with the trustee bank. Authority may be delegated to the Treasurer.
- In the case of an issue of bonds, the proceeds of which will be used by a governmental entity other than the District, the District may rely upon a certification by such other governmental entity that it has adopted the policies described in Senate Bill 1029 (2016).

#### Article IV—Review and Approval of Official Statements

The Disclosure Coordinator of the District shall review any Official Statement prepared in connection with any debt issuance by the District in order to ensure there are no misstatements or omissions of material information in any sections that contain descriptions of information prepared by the District.

In connection with its review of the Official Statement, the Disclosure Coordinator shall consult with third parties, including outside professionals assisting the District, and all members of District staff, to the extent that the Disclosure Coordinator concludes they should be consulted so that the Official Statement will include all “material” information (as defined for purposes of federal securities law).

As part of the review process, the Disclosure Coordinator shall submit all Official Statements to the Board of Directors for approval. ~~The cover letter used by the Disclosure Coordinator to submit the Official Statements shall be in substantially the form of Exhibit “A.”~~

The approval of an Official Statement by the Board of Directors shall be docketed as a new business matter and shall not be approved as a consent item. The Board of Directors shall undertake such review as deemed necessary by the Board of Directors, following consultation with the Disclosure Coordinator, to fulfill the Board of Director’s responsibilities under applicable federal and state securities laws. In this regard, the Disclosure Coordinator shall consult with the District’s disclosure counsel to the extent the Disclosure Coordinator considers appropriate.

#### Article V—Continuing Disclosure Filings

Under the continuing disclosure undertakings that the District ~~has~~ enter~~ed~~ into in connection with its debt offerings, the District is required each year to file annual reports with the Municipal Securities Rulemaking Board’s Electronic Municipal Market Access (“EMMA”) system in accordance with such undertakings. Such annual reports are required to include certain updated financial and operating information, and the District’s audited financial statements.

The District is also required under its continuing disclosure undertakings to file notices of certain events with EMMA.

The Disclosure Coordinator is responsible for establishing a system (which may involve the retention or one

**Policy No.:** ~~P400-17-3~~**Policy Title:** Capital Financing and Debt Management

or more consultants) by which:

(i) The District will make the annual filings required by its continuing disclosure undertakings on a complete and timely basis.

(ii) The District will file notices of enumerated events on a timely basis.

#### **Article VI—Public Statements Regarding Financial Information**

Whenever the District makes statements or releases information relating to its finances to the public that are reasonably expected to reach investors and the trading markets, the District is obligated to ensure that such statements and information are complete, true, and accurate in all material respects.

#### **Article VII—Training**

The Disclosure Coordinator shall ensure that the members of the District staff involved in the initial or continuing disclosure process and the Board of Directors are properly trained to understand and perform their responsibilities.

The Disclosure Coordinator shall arrange for disclosure training sessions conducted by the District's disclosure counsel. Such training sessions shall include education on these Disclosure Procedures, the District's disclosure obligations under applicable federal and state securities laws and the disclosure responsibilities and potential liabilities of members of the District's staff and members of the Board of Directors. Such training sessions may be conducted using a recorded presentation.

RESOLUTION NO. \_\_\_\_\_

RESOLUTION OF THE BOARD OF DIRECTORS OF DUBLIN SAN RAMON SERVICES DISTRICT REVISING THE CAPITAL FINANCING AND DEBT MANAGEMENT POLICY AND RESCINDING RESOLUTION NO. 38-17

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WHEREAS, on October 19, 2004, by Resolution No. 69-04, the Board of Directors adopted the Capital Financing and Debt Management policy to provide a foundation for a well-managed debt program; and

WHEREAS, on July 18, 2017, by Resolution No. 38-17, the Board of Directors revised the policy to meet the requirements prescribed by Senate Bill 1029 (2016); and

WHEREAS, the Debt Disclosure policy has been combined into the proposed revised Capital Financing and Debt Management policy to create a more comprehensive debt policy.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF DUBLIN SAN RAMON SERVICES DISTRICT, a public agency located in the Counties of Alameda and Contra Costa, California, that the revised Capital Financing and Debt Management policy, attached as Exhibit "A," is hereby adopted, and Resolution No. 38-17, attached as Exhibit "B," is hereby rescinded.

ADOPTED by the Board of Directors of Dublin San Ramon Services District, a public agency in the State of California, Counties of Alameda and Contra Costa, at its regular meeting held on the 15th day of October, 2024, and passed by the following vote:

AYES:

NOES:

ABSENT:

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Ann Marie Johnson, President

ATTEST: \_\_\_\_\_  
Nicole Genzale, District Secretary



# Policy

|   |   |
|---|---|
| <b>Policy No.:</b> Click here to enter text.                        | <b>Type of Policy:</b> Finance              |
| <b>Policy Title:</b> Capital Financing and Debt Management          |   |
| <b>Policy Description:</b> Parameters for issuing and managing debt |   |
| <b>Approval Date:</b> 10/15/2024                                    | <b>Last Review Date:</b> 2024               |
| <b>Approval Resolution No.:</b> Click here to enter text            | <b>Next Review Date:</b> 2028               |
| <b>Rescinded Resolution No.:</b> 38-17                              | <b>Rescinded Resolution Date:</b> 7/18/2017 |

The purpose of this policy of the Board of Directors of Dublin San Ramon Services District is to establish a local debt policy in accordance with California Government Code Section 8855, which requires the issuer of debt to submit reports to the California Debt and Investment Advisory Commission that include a certification by the issuer that it has adopted local debt policies.

## PURPOSE OF DEBT

The District will only use debt financing to purchase or construct capital assets that cannot be acquired from either current revenues or above-minimum replacement reserves to fund capital improvements and additions; it will not be used for operating and maintenance costs.

Lease/purchase agreements for the purchase of vehicles, equipment, and other capital assets shall generally be avoided, particularly if smaller quantities of the asset can be purchased on a pay-as-you-go basis.

## CRITERIA

The District will use the following criteria to evaluate pay-as-you-go versus pay-as-you-use or long-term financing in funding capital improvements.

### Factors Favoring Pay-As-You-Go Financing

- Adequate funds are available in the replacement and/or expansion funds.
- Adding debt would adversely affect the District's cash flow position or operating flexibility.
- Market conditions are unstable or present difficulties in funding.



Policy No.:

Policy Title: Capital Financing and Debt Management

**Factors Favoring Pay-As-You-Use Financing**

- Asset life is equal to or greater than the term of the financing. Asset will be paid for as it is used, hence “pay-as-you-use” financing.
- Revenues available for debt service are sufficient and reliable so that long-term financings can be sold at favorable interest rates.
- A project is mandated by state or federal requirements, and resources are insufficient or unavailable.
- The project is immediately required to meet District needs and current resources are insufficient or unavailable.

**TYPES OF DEBT**

The District may use any combination of fixed-rate bonds, commercial paper, bank loans, state loans, pension obligation bonds, or any other type of debt allowable by California law, not including variable-rate bonds or derivative products.

Each debt issuance should be evaluated on an individual basis within the framework of the District’s long-term financial plan when determining the type of debt to issue.

Debt may be structured so as to pay interest only until project completion. Principal amortization shall be established to ensure full payment of the principal and interest on the debt over no more than 30 years or the life of the asset, whichever is less.

**USE OF PROCEEDS**

**General** – Proceeds (including investment income on original sale proceeds) of capital obligations, other than proceeds used to pay costs of issuance, shall be spent on capital expenditures. For this purpose, capital expenditures generally mean costs to acquire, construct, or improve assets (i.e., land, buildings, equipment etc.). Capital expenditures include design and planning costs related to the project, and include architectural, engineering, surveying, soil testing, environmental, and other similar costs incurred in the process of acquiring, constructing, improving or replacing the asset. Capital expenditures do not include operating expenses of the project.

**Reinvestment of Proceeds** – The District shall comply with all applicable federal, state, and contractual restrictions regarding the use and investment of bond proceeds. This includes compliance with restrictions on the types of investment securities allowed, restrictions on the allowable yield of some invested funds, as well as restrictions on the time period during over which some bond proceeds may be invested. To the extent that a bond issue is credit enhanced, the District shall adhere to the investment guidelines of the credit enhancement provider.

**Requirements of Indenture** – The District will comply with all terms and conditions of the appropriate legal documents related to the debt as described in Debt Disclosures below. Such limitations shall include, but not be limited to Investments in the Indenture.

Policy No.:

Policy Title: Capital Financing and Debt Management

**PROFESSIONAL SERVICES**

A variety of specialized service providers will be used to provide professional assistance with the determination of the type of financial obligation to use as well as the process of issuing securities. These will include but are not limited to:

- **Financial Advisor** – The Financial Advisor (Advisor) is a consultant who advises the District (issuer) on matters pertinent to the issue, such as structure, timing, marketing, fairness of pricing, terms and bond ratings. While the Advisor is legally able to serve as underwriter for an issue under certain circumstances, in order to avoid any appearance of a conflict of interest, the District shall not use the Advisor as an underwriter on any issuances where they have served as the Advisor.
- **Underwriter** – A dealer which purchases a new issue of municipal securities for resale. The underwriter may acquire the securities either by negotiation with the issuer or by award on the basis of competitive bidding.
- **Bond Counsel** – An attorney retained by the issuer to give a legal opinion that the issuer is authorized to issue proposed securities, the issuer has met all legal requirements necessary for issuance, and interest on the proposed securities will be exempt from taxation. Typically, bond counsel may prepare, or review and advise the issuer regarding authorizing resolutions or ordinances, trust indentures, official statements, validation proceedings and litigation.
- **Trustee** – A financial institution with trust powers which acts in a fiduciary capacity for the benefit of the bondholders in enforcing the terms of the bond contract.

**DEBT MANAGEMENT**

The District will generally conduct financings on a competitive basis. However, negotiated financings may be used due to market volatility or the use of an unusual or complex financing or security structure.

The District will use credit enhancements such as letters of credit or insurance when necessary for marketing purposes, availability and cost-effectiveness.

The District will diligently monitor its compliance with bond covenants and ensure its adherence to federal arbitrage regulations and continuing disclosure requirements.

District staff and the financial advisor shall monitor the municipal bond market for opportunities to obtain interest savings by refinancing outstanding obligations that are available for redemption.

**DEBT CAPACITY**

The District will set user rates at levels needed to fully cover operations and maintenance and recurring capital replacement, and to meet debt coverage covenant requirements.

Appropriate reserve levels shall be established by the Board to minimize impacts to ratepayers when development fees are insufficient to pay for expansion-related debt.

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| <b>Policy No.:</b> | <b>Policy Title:</b> Capital Financing and Debt Management |
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## **ISSUANCE OF JOINT DEBT**

The District may enter into joint debt issuances with any of its Joint Powers Agencies. Any joint debt issuance with other parties will stipulate that the involved parties will take no action that will be to the detriment of the other party as related to the debt.

## **CREDIT RATING**

Recognizing that the credit rating of the District has a direct impact on the cost of borrowing costs, the District shall take timely and appropriate actions to always maintain strong credit ratings and strive to retain ratings in the “AA” rating category from S&P and Fitch.

## **DEBT DISCLOSURES**

### **General**

These Debt Disclosure Procedures (the “Disclosure Procedures”) of Dublin San Ramon Services District (the “District”) are intended to ensure that the District is in compliance with all applicable federal and state securities laws.

### **Disclosure Coordinator**

The Treasurer of the District shall be the disclosure coordinator of the District (the “Disclosure Coordinator”).

### **Internal Control Procedures**

In order to comply with the following internal controls, the Finance Director and General Manager shall share responsibility to assure that disbursements are made only after each request for disbursement is substantiated with appropriate invoices, requisitions and other supporting documentation. Each of the aforementioned shall thoroughly review any request for disbursement and may request further documentation as may be deemed appropriate:

- To ensure that proceeds of any debt are issued in accordance with its governing documents and the Capital Financing and Debt Management policy, no disbursements shall be made without the written approval of the Finance Director and the General Manager. The draw request shall be provided to the Engineering Services Manager by the Contractor. Approval shall only be provided when the Finance Director is in receipt of an appropriate certification from the construction project manager with supporting invoices from suppliers and/or contractors evidencing appropriate payment requests in connection with the project.
- Cumulative project payments are used periodically to prepare requisition reimbursement requests from bond proceeds held within the trustee bank. Requisitions are sequentially numbered and follow the format of total project costs-to-date, less prior requisitions, amount this requisition. The

**Policy No.:****Policy Title:** Capital Financing and Debt Management

requisition also includes bank wiring instructions. The requisition must be signed by an authorized signer established with the trustee bank. Authority may be delegated to the Treasurer.

- In the case of an issue of bonds, the proceeds of which will be used by a governmental entity other than the District, the District may rely upon a certification by such other governmental entity that it has adopted the policies described in Senate Bill 1029 (2016).

### **Review and Approval of Official Statements**

The Disclosure Coordinator of the District shall review any Official Statement prepared in connection with any debt issuance by the District in order to ensure there are no misstatements or omissions of material information in any sections that contain descriptions of information prepared by the District.

In connection with its review of the Official Statement, the Disclosure Coordinator shall consult with third parties, including outside professionals assisting the District, and all members of District staff, to the extent that the Disclosure Coordinator concludes they should be consulted so that the Official Statement will include all “material” information (as defined for purposes of federal securities law).

As part of the review process, the Disclosure Coordinator shall submit all Official Statements to the Board of Directors for approval. The approval of an Official Statement by the Board of Directors shall be docketed as a new business matter and shall not be approved as a consent item. The Board of Directors shall undertake such review as deemed necessary by the Board of Directors, following consultation with the Disclosure Coordinator, to fulfill the Board of Director’s responsibilities under applicable federal and state securities laws. In this regard, the Disclosure Coordinator shall consult with the District’s disclosure counsel to the extent the Disclosure Coordinator considers appropriate.

### **Continuing Disclosure Filings**

Under the continuing disclosure undertakings that the District enters into in connection with its debt offerings, the District is required each year to file annual reports with the Municipal Securities Rulemaking Board’s Electronic Municipal Market Access (“EMMA”) system in accordance with such undertakings. Such annual reports are required to include certain updated financial and operating information, and the District’s audited financial statements.

The District is also required under its continuing disclosure undertakings to file notices of certain events with EMMA.

The Disclosure Coordinator is responsible for establishing a system (which may involve the retention or one or more consultants) by which:

- (i) The District will make the annual filings required by its continuing disclosure undertakings on a complete and timely basis.
- (ii) The District will file notices of enumerated events on a timely basis.

|                    |  |
|--------------------|--|
| <b>Policy No.:</b> | <b>Policy Title:</b> Capital Financing and Debt Management |
|--------------------|--|

**Public Statements Regarding Financial Information**

Whenever the District makes statements or releases information relating to its finances to the public that are reasonably expected to reach investors and the trading markets, the District is obligated to ensure that such statements and information are complete, true, and accurate in all material respects.

**Training**

The Disclosure Coordinator shall ensure that the members of the District staff involved in the initial or continuing disclosure process and the Board of Directors are properly trained to understand and perform their responsibilities.

The Disclosure Coordinator shall arrange for disclosure training sessions conducted by the District's disclosure counsel. Such training sessions shall include education on these Disclosure Procedures, the District's disclosure obligations under applicable federal and state securities laws and the disclosure responsibilities and potential liabilities of members of the District's staff and members of the Board of Directors. Such training sessions may be conducted using a recorded presentation.

RESOLUTION NO. 38-17

## RESOLUTION OF THE BOARD OF DIRECTORS OF DUBLIN SAN RAMON SERVICES DISTRICT REVISING THE CAPITAL FINANCING AND DEBT MANAGEMENT POLICY AND RESCINDING RESOLUTION NO. 16-14

WHEREAS, on March 18, 2014, the Board last adopted the Capital Financing and Debt Management policy; and

WHEREAS, the District wishes to revise the Capital Financing and Debt Management policy to incorporate current language in regards to current debt structuring and the use of bond proceeds.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF DUBLIN SAN RAMON SERVICES DISTRICT, a public agency in the counties of Alameda and Contra Costa, California as follows:

1. The revised Capital Financing and Debt Management policy, attached as Exhibit A, is hereby adopted; and
2. Resolution No. 16-14, attached as Exhibit B, is hereby rescinded.

ADOPTED by the Board of Directors of Dublin San Ramon Services District, a public agency in the State of California, counties of Alameda and Contra Costa, at its regular meeting held on the 18th day of July 2017, and passed by the following vote:

AYES: 5 - Directors Georgean M. Vonheeder-Leopold, Madelyne A. Misheloff, Edward R. Duarte, D.L. (Pat) Howard, Richard M. Halket

NOES: 0

ABSENT: 0

  
Richard M. Halket, President

ATTEST:   
Nicole Genzale, District Secretary



**TITLE:** Rescind Debt Disclosure Policy and Rescind Resolution No. 37-17

**RECOMMENDATION:**

Staff recommends the Board of Directors rescind, by Resolution, the Debt Disclosure policy (P400-17-2) and rescind Resolution No. 37-17.

**DISCUSSION:**

District policies are generally reviewed on a rotating four-year cycle to ensure that they remain current. The District has two policies relating to debt: (1) Capital Financing and Debt Management policy established in 2004 to provide a foundation for a well-managed debt program and (2) Debt Disclosure policy adopted in 2014 to establish procedures to ensure compliance with all applicable federal and state securities laws related to debt issuance. The Debt Disclosure policy was last revised in 2017 to incorporate additional reporting requirements under Senate Bill 1029 (2016).

Staff proposes to rescind the Debt Disclosure policy after incorporating it into the Capital Financing and Debt Management policy, such that all criteria and procedures for issuing and managing debt would be in a single policy document. On this agenda is a separate item to adopt the revised Capital Financing and Debt Management policy with the added debt disclosure procedures.

|   |                              |                            |
|---|------------------------------|----------------------------|
| Originating Department: Finance   | Contact: K. Spray            | Legal Review: Not Required |
| Financial Review: Yes   | Cost and Funding Source: N/A |                            |
| Attachments: <input type="checkbox"/> None <input checked="" type="checkbox"/> Resolution<br><input type="checkbox"/> Ordinance <input type="checkbox"/> Task Order <input type="checkbox"/> Proclamation<br><input type="checkbox"/> Other (see list on right) | 27 of 336                    |                            |

RESOLUTION NO. \_\_\_\_\_

RESOLUTION OF THE BOARD OF DIRECTORS OF DUBLIN SAN RAMON SERVICES DISTRICT RESCINDING THE DEBT DISCLOSURE POLICY AND RESCINDING RESOLUTION NO. 37-17

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WHEREAS, on December 16, 2014, by Resolution No. 84-14, the Board of Directors adopted the Debt Disclosure policy to establish procedures to ensure compliance with all applicable federal and state securities laws related to debt issuance; and

WHEREAS, on July 18, 2017, by Resolution No. 37-17, the Board of Directors revised the policy to meet the requirements prescribed by Senate Bill 1029 (2016); and

WHEREAS, upon combining the Debt Disclosure policy into the Capital Financing and Debt Management policy to create a more comprehensive debt policy, the Debt Disclosure policy is no longer necessary.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF DUBLIN SAN RAMON SERVICES DISTRICT, a public agency located in the Counties of Alameda and Contra Costa, California, that the Debt Disclosure policy, attached as Exhibit "A," and Resolution No. 37-17, attached as Exhibit "B," are hereby rescinded.

ADOPTED by the Board of Directors of Dublin San Ramon Services District, a public agency in the State of California, Counties of Alameda and Contra Costa, at its regular meeting held on the 15th day of October, 2024, and passed by the following vote:

AYES:

NOES:

ABSENT:

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Ann Marie Johnson, President

ATTEST: \_\_\_\_\_  
Nicole Genzale, District Secretary





# Policy

|   |  |
|---|--|
| <b>Policy No.:</b> P400-17-2  | <b>Type of Policy:</b> Finance               |
| <b>Policy Title:</b> Debt Disclosure  |  |
| <b>Policy Description:</b> Procedures to ensure that the District is in compliance with all applicable federal and state securities laws related to debt issuances. |  |
| <b>Approval Date:</b> 7/18/2017   | <b>Last Review Date:</b> 2017                |
| <b>Approval Resolution No.:</b> 37-17   | <b>Next Review Date:</b> 2021                |
| <b>Rescinded Resolution No.:</b> 84-14  | <b>Rescinded Resolution Date:</b> 12/16/2014 |

It is the policy of the Board of Directors of Dublin San Ramon Services District:

## **Debt Disclosure Procedures**

### **Article I General**

These Debt Disclosure Procedures (the “Disclosure Procedures”) of Dublin San Ramon Services District (the “District”) are intended to ensure that the District is in compliance with all applicable federal and state securities laws.

### **Article II Disclosure Coordinator**

The Treasurer of the District shall be the disclosure coordinator of the District (the “Disclosure Coordinator”).

### **Article III Internal Control Procedures**

In order to comply with the following internal controls, the Administrative Services Manager and General Manager shall share responsibility to assure that disbursements are made only after each request for disbursement is substantiated with appropriate invoices, requisitions and other supporting documentation. Each of the aforementioned shall thoroughly review any request for disbursement and may request further documentation as may be deemed appropriate:

- To ensure that proceeds of any debt are issued in accordance with its governing documents and the Capital Financing and Debt Management policy, no disbursements shall be made without the

**Policy No.:** P400-17-2**Policy Title:** Debt Disclosure

written approval of the Administrative Services Manager and the General Manager. The draw request shall be provided to the Engineering Services Manager by the Contractor. Approval shall only be provided when the Administrative Services Manager is in receipt of an appropriate certification from the construction project manager with supporting invoices from suppliers and / or contractors evidencing appropriate expenses in connection with the project.

- In the case of an issue of bonds, the proceeds of which will be used by a governmental entity other than the District, the District may rely upon a certification by such other governmental entity that it has adopted the policies described in SB 1029.

#### **Article IV**

##### ***Review and Approval of Official Statements***

The Disclosure Coordinator of the District shall review any Official Statement prepared in connection with any debt issuance by the District in order to ensure there are no misstatements or omissions of material information in any sections that contain descriptions of information prepared by the District.

In connection with its review of the Official Statement, the Disclosure Coordinator shall consult with third parties, including outside professionals assisting the District, and all members of District staff, to the extent that the Disclosure Coordinator concludes they should be consulted so that the Official Statement will include all “material” information (as defined for purposes of federal securities law).

As part of the review process, the Disclosure Coordinator shall submit all Official Statements to the Board of Directors for approval. The cover letter used by the Disclosure Coordinator to submit the Official Statements shall be in substantially the form of Exhibit “A.”

The approval of an Official Statement by the Board of Directors shall be docketed as a new business matter and shall not be approved as a consent item. The Board of Directors shall undertake such review as deemed necessary by the Board of Directors, following consultation with the Disclosure Coordinator, to fulfill the Board of Director’s responsibilities under applicable federal and state securities laws. In this regard, the Disclosure Coordinator shall consult with the District’s disclosure counsel to the extent the Disclosure Coordinator considers appropriate.

#### **Article V**

##### ***Continuing Disclosure Filings***

Under the continuing disclosure undertakings that the District has entered into in connection with its debt offerings, the District is required each year to file annual reports with the Municipal Securities Rulemaking Board’s Electronic Municipal Market Access (“EMMA”) system in accordance with such undertakings. Such annual reports are required to include certain updated financial and operating information, and the District’s audited financial statements.

The District is also required under its continuing disclosure undertakings to file notices of certain events

**Policy No.:** P400-17-2**Policy Title:** Debt Disclosure

with EMMA.

The Disclosure Coordinator is responsible for establishing a system (which may involve the retention or one or more consultants) by which:

- (i) The District will make the annual filings required by its continuing disclosure undertakings on a complete and timely basis.
- (ii) The District will file notices of enumerated events on a timely basis.

#### **Article VI**

##### ***Public Statements Regarding Financial Information***

Whenever the District makes statements or releases information relating to its finances to the public that are reasonably expected to reach investors and the trading markets, the District is obligated to ensure that such statements and information are complete, true, and accurate in all material respects.

#### **Article VII**

##### ***Training***

The Disclosure Coordinator shall ensure that the members of the District staff involved in the initial or continuing disclosure process and the Board of Directors are properly trained to understand and perform their responsibilities.

The Disclosure Coordinator shall arrange for disclosure training sessions conducted by the District's disclosure counsel. Such training sessions shall include education on these Disclosure Procedures, the District's disclosure obligations under applicable federal and state securities laws and the disclosure responsibilities and potential liabilities of members of the District's staff and members of the Board of Directors. Such training sessions may be conducted using a recorded presentation.

RESOLUTION NO. 37-17

## RESOLUTION OF THE BOARD OF DIRECTORS OF DUBLIN SAN RAMON SERVICES DISTRICT REVISING THE DEBT DISCLOSURE POLICY AND RESCINDING RESOLUTION NO. 84-14

WHEREAS, existing law established the California Debt and Investment Advisory Commission to, among other things, maintain contact with state and local bond issuers, underwriters, investors and credit rating agencies; and

WHEREAS the law requires the Commission to collect, maintain, and provide comprehensive information on all state and all local debt authorization and issuance; and

WHEREAS Senate Bill 1029, which modified Government Code Section 8855, increases the reporting requirement to include a certification by the issuer that it has adopted local debt policies, which include specified provisions concerning the use of debt and that the contemplated debt issuance is consistent with those local debt policies; and

WHEREAS the District strives to ensure its policies are current and reflect best practices in the industry.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF DUBLIN SAN RAMON SERVICES DISTRICT, a public agency located in the Counties of Alameda and Contra Costa, California as follows:

1. The revised Debt Disclosure policy, attached as Exhibit A, is hereby adopted; and
2. Resolution No. 84-14, attached as Exhibit B, is hereby rescinded.

ADOPTED by the Board of Directors of the Dublin San Ramon Services District, a public agency in the State of California, Counties of Alameda and Contra Costa, at its regular meeting held on the 18th day of July, 2017, and passed by the following vote:

AYES: 5 - Directors Georgean M. Vonheeder-Leopold, Madelyne A. Misheloff,  
Edward R. Duarte, D.L. (Pat) Howard, Richard M. Halket

NOES: 0

ABSENT: 0

  
\_\_\_\_\_  
Richard M. Halket, President

ATTEST:

  
\_\_\_\_\_  
Nicole Genzale, District Secretary



**TITLE:** Adopt Resolution of Intention to Approve an Amendment to CalPERS Retirement Contract

**RECOMMENDATION:**

Staff recommends the Board of Directors adopt, by Resolution, a Resolution of Intention to approve an amendment to the retirement contract between the Dublin San Ramon Services District and the California Public Employees' Retirement System.

**DISCUSSION:**

In 2004, the Board approved an amendment to the District's contract with the California Public Employees' Retirement System ("CalPERS") to provide an enhanced retirement 2.7% at 55 benefit formula under the Public Employees' Retirement Law ("PERL") for local miscellaneous members ("Classic Members"). To fund the increased pension liability costs associated with the enhanced retirement formula for Classic Members, the District and its employees, through their respective bargaining units, agreed by memoranda of understanding, for Classic Members to share the cost of the enhanced benefit through a 2% employee cost share of the District's required employer contribution to CalPERS for a period of 20 years. The terms of these memoranda of understanding state that Classic Members would pay the 2% contribution cost share for a period of 20 years, ending with the pay period including January 1, 2025.

The District and the bargaining units negotiated and came to agreement during labor contract negotiations in 2021 for the current labor contracts, effective December 13, 2021, through December 21, 2025, to end the 2% employee cost share, effective the first day of the pay period including January 1, 2025, as specified in 2004 labor agreements. Effective December 23, 2024, which is the first day of the pay period that includes January 1, 2025, the District will take over the 2% contribution that has previously been paid for by the Classic Members as a cost share. During the labor contract negotiations in 2021 and budget process for the operating budget for fiscal years ending 2024 and 2025, staff accounted for the District to take over payment of the 2% contribution, effective December 23, 2024, and included this cost as part of the operating budget for fiscal year ending 2025. The removal of the cost share will not result in a change in the District's pension liabilities, as the District's pension liabilities are already assessed as if the District were paying the full employer contribution, including the 2% cost share currently paid by employees.

The attached Resolution of Intention is required by CalPERS to initiate amending the District's CalPERS contract to end the 2% employee cost share.

Following the Board's approval of the Resolution of Intention, the next steps to complete the CalPERS amendment and finalize the elimination of the Classic Members 2% employee cost share are to:

- File the executed Resolution of Intention to Approve an Amendment to Contract and required certification forms with the CalPERS Pension Contracts Division;
- Adopt a final Resolution to Approve An Amendment to Contract, approving the CalPERS contract amendment, during the regularly scheduled Board meeting on November 5, 2024; and
- File the final resolution and related documents with CalPERS before December 23, 2024.

Upon receipt of the executed resolution approving a contract amendment, CalPERS will approve the documents, add the effective date of December 23, 2024, for the amendment and provide the District with a fully executed retirement contract.

The District has fully complied with the applicable provisions of Government Code Section 7507 by publicly announcing this change to remove the Government Code Section 20516 employee cost share during this evening's Board meeting.

|   |                                 |                            |
|---|---------------------------------|----------------------------|
| Originating Department: Administrative Services   | Contact: S. Koehler/M. Gallardo | Legal Review: Not Required |
| Financial Review: Not Required  | Cost and Funding Source: N/A    |                            |
| Attachments: <input type="checkbox"/> None <input checked="" type="checkbox"/> Resolution<br><input type="checkbox"/> Ordinance <input type="checkbox"/> Task Order <input type="checkbox"/> Proclamation<br><input type="checkbox"/> Other (see list on right) | 33 of 336                       |                            |

RESOLUTION NO. \_\_\_\_\_

RESOLUTION OF THE BOARD OF DIRECTORS OF DUBLIN SAN RAMON SERVICES DISTRICT ADOPTING A RESOLUTION OF INTENTION TO APPROVE AN AMENDMENT TO THE RETIREMENT CONTRACT BETWEEN DUBLIN SAN RAMON SERVICES DISTRICT AND THE CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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WHEREAS, by Resolution No. 77-04 adopted on November 16, 2004, the Board of Directors approved an amendment to the retirement contract between the Dublin San Ramon Services District ("District") California Public Employees' Retirement System ("CalPERS") to provide the enhanced 2.7% at 55 retirement benefit formula for District employees; and

WHEREAS, under the California Government Code Section 20516, an agency and its employees may agree in writing, to share the costs of employer retirement contributions to CalPERS; and

WHEREAS, by Resolution No. 78-04 adopted on November 16, 2004, the Board approved a Memorandum of Understanding between the District and the Mid-Management Employees' Bargaining Unit, which specifies Government Code Section 20516 cost sharing for mid-management employees; and

WHEREAS, by Resolution No. 79-04 adopted on November 16, 2004, the Board approved a Memorandum of Understanding between the District and the Professional Employees' Bargaining Unit, which specifies Government Code Section 20516 cost sharing for professional employees; and

WHEREAS, by Resolution No. 80-04 adopted on November 16, 2004, the Board approved a Memorandum of Understanding between the District and the Stationary Engineers, Local 39, which specifies Government Code Section 20516 cost sharing for Local 39 employees; and

WHEREAS, by Resolution No. 45-07 adopted September 18, 2007, the Board approved a Memorandum of Understanding between the District and the Confidential Employees' Bargaining Unit, which specifies Government Code Section 20516 cost sharing for confidential employees; and

WHEREAS, the Board henceforth has approved Salary & Benefits Resolutions for Senior Management employees, which specify Government Code Section 20516 cost sharing for Senior Managers; and

WHEREAS, by Resolution No. 45-23 adopted on November 7, 2023, the Board approved the Personal Services Agreement between the District and the General Manager, which specifies Government Section 20516 cost sharing for the General Manager; and

WHEREAS, per the terms of the Board-approved Government Code Section 20516 cost share agreements, District employees would pay two percent of the employer retirement contribution to

Res. No. \_\_\_\_\_

CalPERS for the enhanced 2.7% at 55 retirement benefit formula for a period of twenty years until the pay period including January 1, 2025; and

WHEREAS, the twenty-year Government Code Section 20516 cost share agreements will end effective December 23, 2024, as the first day of the pay period including January 1, 2025, and;

WHEREAS, to remove the Government Code Section 20516 cost share, the Board is required to approve an amendment to the District's retirement contract with CalPERS; and

WHEREAS, approval of a Resolution of Intention to Approve an Amendment to Contract is the first step in the contract amendment process with CalPERS; and

WHEREAS, under Government Code Section 7507, the Board is required to publicly announce the intended change to the retirement contract in open session during a regularly scheduled Board meeting.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF DUBLIN SAN RAMON SERVICES DISTRICT, a public agency located in the Counties of Alameda and Contra Costa, California, that:

1. The Board of Directors authorizes the Board President, Ann Marie Johnson, to sign the Resolution of Intention to Approve an Amendment to Contract between the Board of Administration for the California Public Employees' Retirement System and the Board of Directors for Dublin San Ramon Services District, herein attached as Exhibit "A," indicating the Board's intention to amend the retirement contract as shown in the draft retirement contract amendment, herein attached as Exhibit "B."

2. The Board of Directors authorizes the District Secretary, Nicole Genzale, to certify the District has complied with the requirements for publicly announcing the intended change to the retirement contract in accordance with Government Code Section 7507, during open session of this regularly scheduled meeting on October 15, 2024.

\*\*\*\*\*

Res. No. \_\_\_\_\_

ADOPTED by the Board of Directors of Dublin San Ramon Services District, a public agency in the State of California, Counties of Alameda and Contra Costa, at its regular meeting held on the 15th day of October, 2024, and passed by the following vote:

AYES:

NOES:

ABSENT:

\_\_\_\_\_  
Ann Marie Johnson, President

ATTEST: \_\_\_\_\_  
Nicole Genzale, District Secretary



**RESOLUTION OF INTENTION  
TO APPROVE AN AMENDMENT TO CONTRACT  
BETWEEN THE  
BOARD OF ADMINISTRATION  
CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM  
AND THE  
BOARD OF DIRECTORS  
DUBLIN SAN RAMON SERVICES DISTRICT**

WHEREAS, the Public Employees' Retirement Law permits the participation of public agencies and their employees in the Public Employees' Retirement System by the execution of a contract, and sets forth the procedure by which said public agencies may elect to subject themselves and their employees to amendments to said Law; and

WHEREAS, one of the steps in the procedures to amend this contract is the adoption by the governing body of the public agency of a resolution giving notice of its intention to approve an amendment to said contract, which resolution shall contain a summary of the change proposed in said contract; and

WHEREAS, the following is a statement of the proposed change:

To end Section 20516 (Employees Sharing Cost of Additional Benefits) of 2% for local miscellaneous members.

NOW, THEREFORE, BE IT RESOLVED that the governing body of the above agency does hereby give notice of intention to approve an amendment to the contract between said public agency and the Board of Administration of the Public Employees' Retirement System, a copy of said amendment being attached hereto, as an "Exhibit" and by this reference made a part hereof.

By: \_\_\_\_\_  
Presiding Officer

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date adopted and approved

(Amendment)  
CON-302



## EXHIBIT B

**California  
Public Employees' Retirement System**



# AMENDMENT TO CONTRACT

**Between the  
Board of Administration  
California Public Employees' Retirement System  
and the  
Board of Directors  
Dublin San Ramon Services District**



The Board of Administration, California Public Employees' Retirement System, hereinafter referred to as Board, and the governing body of the above public agency, hereinafter referred to as Public Agency, having entered into a contract effective July 1, 1968, and witnessed June 18, 1968, and as amended effective September 1, 1983, June 22, 1987, August 15, 1988, September 11, 1989, January 5, 1994, May 3, 1995, and November 22, 2004, which provides for participation of Public Agency in said System, Board and Public Agency hereby agree as follows:

- A. Paragraphs 1 through 12 are hereby stricken from said contract as executed effective November 22, 2004, and hereby replaced by the following paragraphs numbered 1 through 14 inclusive:
1. All words and terms used herein which are defined in the Public Employees' Retirement Law shall have the meaning as defined therein unless otherwise specifically provided. "Normal retirement age" shall mean age 55 for classic local miscellaneous members and age 62 for new local miscellaneous members.
  2. Public Agency shall participate in the Public Employees' Retirement System from and after July 1, 1968, making its employees as hereinafter provided, members of said System subject to all provisions of the Public Employees' Retirement Law except such as apply only on election of a contracting agency and are not provided for herein and to all amendments to said Law hereafter enacted except those, which by express provisions thereof, apply only on the election of a contracting agency.

3. Public Agency agrees to indemnify, defend and hold harmless the California Public Employees' Retirement System (CalPERS) and its trustees, agents and employees, the CalPERS Board of Administration, and the California Public Employees' Retirement Fund from any claims, demands, actions, losses, liabilities, damages, judgments, expenses and costs, including but not limited to interest, penalties and attorney fees that may arise as a result of any of the following:
  - (a) Public Agency's election to provide retirement benefits, provisions or formulas under this Contract that are different than the retirement benefits, provisions or formulas provided under the Public Agency's prior non-CalPERS retirement program.
  - (b) Any dispute, disagreement, claim, or proceeding (including without limitation arbitration, administrative hearing, or litigation) between Public Agency and its employees (or their representatives) which relates to Public Agency's election to amend this Contract to provide retirement benefits, provisions or formulas that are different than such employees' existing retirement benefits, provisions or formulas.
  - (c) Public Agency's agreement with a third party other than CalPERS to provide retirement benefits, provisions, or formulas that are different than the retirement benefits, provisions or formulas provided under this Contract and provided for under the California Public Employees' Retirement Law.
4. Employees of Public Agency in the following classes shall become members of said Retirement System except such in each such class as are excluded by law or this agreement:
  - a. Employees other than local safety members (herein referred to as local miscellaneous members).
5. In addition to the classes of employees excluded from membership by said Retirement Law, the following classes of employees shall not become members of said Retirement System:
  - a. **PERSONS COMPENSATED ON AN HOURLY BASIS; AND**
  - b. **SAFETY EMPLOYEES.**
6. The percentage of final compensation to be provided for each year of credited prior and current service as a classic local miscellaneous member in employment before and not on or after November 22, 2004, shall be determined in accordance with Section 21354 of said Retirement Law subject to the reduction provided therein for Federal Social Security (2% at age 55 Full and Modified).

7. The percentage of final compensation to be provided for each year of credited prior and current service as a classic local miscellaneous member in employment on or after November 22, 2004, shall be determined in accordance with Section 21354.5 of said Retirement Law subject to the reduction provided therein for Federal Social Security (2.7% at age 55 Full and Modified).
8. The percentage of final compensation to be provided for each year of credited prior and current service as a new local miscellaneous member shall be determined in accordance with Section 7522.20 of said Retirement Law (2% at age 62 Supplemental to Federal Social Security).
9. Public Agency elected and elects to be subject to the following optional provisions:
  - a. Section 20965 (Credit for Unused Sick Leave).
  - b. Section 20042 (One-Year Final Compensation) for classic local members only.
  - c. Section 21024 (Military Service Credit as Public Service).
  - d. Section 20516 (Employees Sharing Cost of Additional Benefits):

Section 21354.5 (2.7% @ 55 Full and Modified formula) for local miscellaneous members.

From and after November 22, 2004, and until the effective date of this amendment to contract, the miscellaneous employees of Public Agency shall be assessed an additional 2% of their compensation for a total contribution rate of 10% pursuant to Government Code Section 20516.
10. Public Agency, in accordance with Government Code Section 20790, ceased to be an "employer" for purposes of Section 20834 effective on September 1, 1983. Accumulated contributions of Public Agency shall be fixed and determined as provided in Government Code Section 20834, and accumulated contributions thereafter shall be held by the Board as provided in Government Code Section 20834.
11. Public Agency shall contribute to said Retirement System the contributions determined by actuarial valuations of prior and future service liability with respect to local miscellaneous members of said Retirement System.

12. Public Agency shall also contribute to said Retirement System as follows:

- a. A reasonable amount, as fixed by the Board, payable in one installment within 60 days of date of contract to cover the costs of administering said System as it affects the employees of Public Agency, not including the costs of special valuations or of the periodic investigation and valuations required by law.
- b. A reasonable amount, as fixed by the Board, payable in one installment as the occasions arise, to cover the costs of special valuations on account of employees of Public Agency, and costs of the periodic investigation and valuations required by law.

13. Contributions required of Public Agency and its employees shall be subject to adjustment by Board on account of amendments to the Public Employees' Retirement Law, and on account of the experience under the Retirement System as determined by the periodic investigation and valuation required by said Retirement Law.

14. Contributions required of Public Agency and its employees shall be paid by Public Agency to the Retirement System within fifteen days after the end of the period to which said contributions refer or as may be prescribed by Board regulation. If more or less than the correct amount of contributions is paid for any period, proper adjustment shall be made in connection with subsequent remittances. Adjustments on account of errors in contributions required of any employee may be made by direct payments between the employee and the Board.

B. This amendment shall be effective on the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

BOARD OF ADMINISTRATION  
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

BOARD OF DIRECTORS  
DUBLIN SAN RAMON SERVICES  
DISTRICT

BY \_\_\_\_\_  
MELODY BENAVIDES, CHIEF  
PENSION CONTRACTS AND PREFUNDING  
PROGRAMS DIVISION  
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

BY \_\_\_\_\_  
PRESIDING OFFICER

Witness Date \_\_\_\_\_

Attest: \_\_\_\_\_

Clerk \_\_\_\_\_



**TITLE:** Public Hearing: Consider Adoption of Proposed Final Initial Study/Mitigated Negative Declaration for the Reservoir 20B Project (CIP 14-W008)

**RECOMMENDATION:**

Staff recommends the Board of Directors take the following actions:

1. Hold a Public Hearing to consider comments on the proposed Final Initial Study/Mitigated Negative Declaration for the Reservoir 20B Project (CIP 14-W008).
2. Adopt, by Resolution, the proposed Final Initial Study/Negative Declaration for the Reservoir 20B Project (CIP 14-W008).

**SUMMARY:**

The Reservoir 20B Project (CIP 14-W008) (Project) includes the construction of a new below grade 1.3-million-gallon potable water reservoir to serve future homes in the Francis Ranch Development and the surrounding neighborhoods in eastern Dublin. Identified in the District's 2016 Water Master Plan, the Project is essential to meeting future water demands within the District's service area. In accordance with the California Environmental Quality Act (CEQA), a Draft Initial Study/Mitigated Negative Declaration (IS/MND) was prepared for the Project and made available for public review from August 13, 2024, to September 12, 2024. During the public review period, one comment letter was received from the City of Dublin, which was reviewed and incorporated into the proposed Final IS/MND. The proposed Final IS/MND finds that with implementation of mitigation measures, the Project can proceed with no significant environment impacts.

**DISCUSSION:**

The Project consists of constructing a 1.3-million-gallon pre-stressed concrete reservoir, entirely below grade. A primary factor in the decision to construct the reservoir below grade was made to minimize visual and environmental impacts on the neighboring community. In addition to the reservoir, the Project includes approximately 1,000 linear feet of 14-inch welded steel pipeline, storm drain system improvements, and installation of electrical power and Supervisory Control and Data Acquisition (SCADA) infrastructure to support reservoir operations. A staircase will provide access to the site, chosen as an alternative to a traditional access road, to further reduce community impacts. The design and construction of this reservoir align with the District's commitment to minimizing impacts to the surrounding area while ensuring the provision of reliable water infrastructure for future developments. Figure 1 shows the proposed location of the new reservoir.

**California Environmental Quality Act (CEQA):**

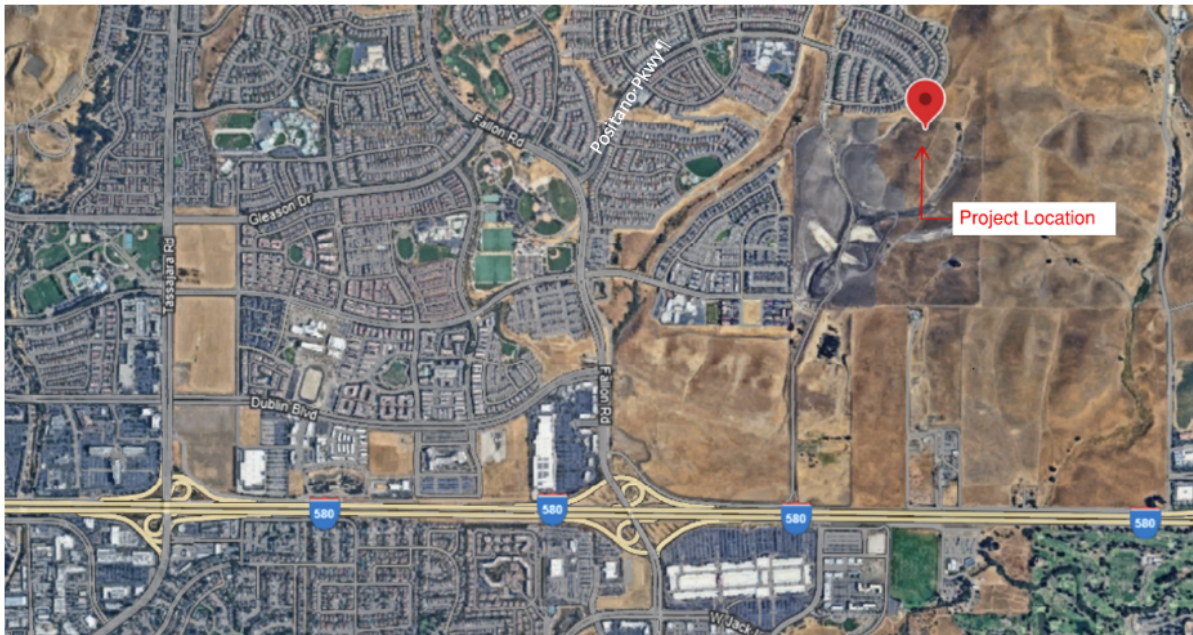
Passed in 1970, CEQA is a law that requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of proposed projects, and to reduce those environmental impacts to the extent feasible. Environmental impacts such as air quality, greenhouse gas emissions, noise, and transportation are assessed during the CEQA process. In accordance with CEQA, an Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared for the Reservoir 20B Project. The proposed Final IS/MND concludes that, with the implementation of specific mitigation measures identified in the Mitigation Monitoring and Reporting Program (MMRP), the Project will not result in significant environmental impacts.

As part of the CEQA process, a Notice of Intent (NOI) to adopt the IS/MND was published in the Valley Times on August

|   |                              |                            |
|---|------------------------------|----------------------------|
| Originating Department: Engineering and Technical Services  | Contact: S. Spala/S. Delight | Legal Review: Not Required |
| Financial Review: Not Required  | Cost and Funding Source: N/A |                            |
| Attachments: <input type="checkbox"/> None <input checked="" type="checkbox"/> Resolution<br><input type="checkbox"/> Ordinance <input type="checkbox"/> Task Order <input type="checkbox"/> Proclamation<br><input type="checkbox"/> Other (see list on right) | 42 of 336                    |                            |

13, 2024. The NOI and Draft IS/MND were submitted to the State Clearinghouse and the Alameda County Clerk for a 30-day public review period from August 13, 2024, to September 12, 2024. These documents were also made available to the public at the District’s administrative offices, at the Dublin Public Library, and on the District website.

**Figure 1. Project Location Map**



During the public review period, one letter was received from the City of Dublin (City). The City’s comments requested clarification on various aspects of the Initial Study, including details about the East Ranch Development, General Plan land use designation, potential visual impacts, air quality mitigation measures, and cultural resource impacts. Additionally, the City suggested revisions to ensure emergency vehicle access during construction and updates to Appendix B – Biological Resources Assessment for consistency throughout all sections of the proposed Final IS/MND. The District staff responded to these comments, which are incorporated into the proposed Final IS/MND. The comments received during the 30-day review period do not materially affect the conclusions of the proposed Final IS/MND.

Based on the entire record, staff has determined that no new significant environmental impacts have been identified during the public review process. The whole record includes this staff report and the proposed Final IS/MND, which includes public comments and responses. The mitigation measures outlined in the proposed Final IS/MND and identified in the MMRP (attached as Exhibits A and B to the Resolution), including dust abatement, erosion and sediment control, biological protection, worker awareness training, and protocols for unanticipated cultural or paleontological discoveries, will ensure that the Project will not result in significant environmental effects.

A public hearing will be held at the regular Board meeting of October 15, 2024, to consider any comments received during the public review period. The Board of Directors and members of the public are welcome to provide feedback on the proposed Final IS/MND. Should the comments remain non-substantial with responses able to be incorporated, staff recommends that the Board adopt the proposed Final IS/MND.

**Next Steps:**

Upon the Board’s adoption of the proposed Final IS/MND, staff will file a Notice of Determination with the Alameda County Clerk, complete property acquisition, secure necessary environmental permits, and finalize the design of the Project. The advertising and competitive bidding process for construction of the Project is expected to begin in summer 2025, with the Board considering the construction agreement at the time of award. The Project is expected to have a construction period lasting approximately one year and is budgeted for \$7.405 million in the approved Capital Improvement Program Two-Year Budget for Fiscal Years 2024 and 2025.

RESOLUTION NO. \_\_\_\_\_

RESOLUTION OF THE BOARD OF DIRECTORS OF DUBLIN SAN RAMON SERVICES DISTRICT ADOPTING FINAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION FOR THE RESERVOIR 20B PROJECT (CIP 14-W008), APPROVING THE PROJECT, AND AUTHORIZING AND DIRECTING THE FILING OF A NOTICE OF DETERMINATION

---

WHEREAS, the Dublin San Ramon Services District (“District”) Board of Directors approved the District’s Capital Improvement Program (“CIP”) Ten-Year Plan for Fiscal Years 2024 through 2033 (“CIP Plan”) by Resolution No. 26-23 on June 20, 2023, as amended, to serve as a budgetary planning document providing direction and guidance, in accordance with District policies, for the replacement and improvement of existing District facilities and the construction of new facilities; and

WHEREAS, the District Board of Directors adopted the current CIP Two-Year Budget for Fiscal Years 2024 and 2025 (“CIP Budget”) by Resolution No. 26-23 on June 20, 2023, as amended, authorizing project and fund budgets for fiscal years 2024 and 2025 to meet the District’s capital infrastructure needs; and

WHEREAS, the Reservoir 20B Project (CIP 14-W008) (“Project”) is included in the approved CIP Budget; and

WHEREAS, the Project will consist of a 1.3-million-gallon potable water storage tank to serve future homes in the Francis Ranch Development and the surrounding neighborhoods in eastern Dublin; and

WHEREAS, pursuant to the California Environmental Quality Act (“CEQA”) (California Public Resources Code, Section 21000 et. seq.) and the “CEQA Guidelines” (Title 14 of the California Code of Regulations, Section 15000 et. seq.), the District is the lead agency for purposes of environmental review of the Project; and

WHEREAS, in accordance with the CEQA Guidelines and the District’s Local CEQA Guidelines, the District prepared the Draft Initial Study/Mitigated Negative Declaration dated June 2024 for the Project (“Draft Initial Study/Mitigated Negative Declaration”), including measures to address and mitigate all potential environmental impacts to a “less than significant level” (“Mitigation Measures”); and

WHEREAS, the Draft Initial Study/Mitigated Negative Declaration for the Project was circulated for a 30-day public review period that began on August 13, 2024, and concluded on September 12, 2024; and

WHEREAS, the District submitted a Notice of Intent to Adopt a Mitigated Negative Declaration for the Reservoir 20B Project to the State Clearinghouse and the Alameda County Clerk, and placed such



Notice of Intent in the Valley Times, a newspaper of general circulation, for publication on August 13, 2024; and

WHEREAS, the Draft Initial Study/Mitigated Negative Declaration for the Project was duly noticed for a 30-day public review period from August 13, 2024, and to September 12, 2024, as provided by law; and

WHEREAS, the Draft Initial Study/Mitigated Negative Declaration for the Project was posted on the District website, and hard copies were made available for public review at the District's administrative offices and the Dublin Public Library during the 30-day public review period; and

WHEREAS, the District received one set of written comments in response to the Draft Initial Study/Mitigated Negative Declaration and has considered those comments prior to adoption of the Final Initial Study/Mitigated Negative Declaration dated September 2024; and

WHEREAS, with the implementation of specific Mitigation Measures as outlined in the Final Initial Study/Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Program, there will be no significant environmental effects resulting from the Project; and

WHEREAS, a public hearing concerning the District's intent to adopt a Final Initial Study/Mitigated Negative Declaration for the Project was duly noticed and held on October 15, 2024, at which time any interested parties were afforded an opportunity to be heard, in addition to the public review and comments referenced above; and

WHEREAS, the District has considered, prior to adoption of the Final Initial Study/Mitigated Negative Declaration for the Project, the Draft Initial Study/Mitigated Negative Declaration, the Mitigation Monitoring and Reporting Program, the staff report, and any comments received and responded to during the public review and hearing process.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF DUBLIN SAN RAMON SERVICES DISTRICT, a public agency located in the Counties of Alameda and Contra Costa, California, as follows:

1. The District Board of Directors ("Board") adopts the foregoing recitals as true and correct.
2. The Board hereby finds that with incorporation and implementation of the Mitigation Measures specified in the Final Initial Study/Mitigated Negative Declaration, no significant effects on the environment will result from the Project.
3. The Board hereby adopts the Final Initial Study/Mitigated Negative Declaration dated September 2024 for the proposed Project, attached as Exhibit "A."

Res. No. \_\_\_\_\_

4. The Board hereby adopts the Mitigation Monitoring and Reporting Program dated September 2024 for the proposed Project, attached as Exhibit "B," in accordance with Section 21081.6 of the Public Resources Code and the corresponding requirements of the CEQA Guidelines.

5. The Board hereby finds and declares that it has exercised its independent judgment and analysis and has considered the Final Initial Study/Mitigated Negative Declaration and all impacts and Mitigation Measures specified therein, all oral and written comments pertaining thereto received during the public review period and the public hearing, and hereby approves the Project conditioned upon the full performance of the Mitigation Measures.

6. The General Manager is hereby authorized and directed to sign and file a Notice of Determination with the Alameda County Clerk consistent with the foregoing findings and approvals pursuant to the CEQA Guidelines and the District Local CEQA Guidelines.

ADOPTED by the Board of Directors of Dublin San Ramon Services District, a public agency in the State of California, Counties of Alameda and Contra Costa, at its regular meeting held on the 15th day of October, 2024, and passed by the following vote:

AYES:

NOES:

ABSENT:

\_\_\_\_\_  
Ann Marie Johnson, President

ATTEST: \_\_\_\_\_  
Nicole Genzale, District Secretary



## Reservoir 20B Project

Final Initial Study – Mitigated Negative Declaration

SCH No. 2024080496

*prepared by*

**Dublin San Ramon Services District**

7051 Dublin Boulevard

Dublin, California 94568

Contact: Jason Ching, PE

*prepared with the assistance of*

**Rincon Consultants, Inc.**

449 15th Street, Suite 303

Oakland, California 94612

**October 2024**



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# Responses To Public Comments

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This section includes responses to comments received during public circulation of the Draft IS-MND prepared for the proposed project. Responses to comments were prepared to address the environmental concerns raised by the commenter and, if necessary, to indicate where and how the Draft IS-MND was revised to address pertinent environmental issues. Any changes made to the text of the Draft IS-MND correcting information, other than minor typographical corrections or minor working changes, are noted in this section as changes from the Draft IS-MND. The changes that occurred between the Draft IS-MND and Final IS-MND are shown in underline for text additions and ~~striketrough~~ for text deletions in the response to comments in this section.

The Draft IS-MND was circulated for a 30-day public review period that began on August 13, 2024, and concluded on September 12, 2024. The Dublin-San Ramon Services District (DSRSD) received one comment letter on the Draft IS-MND from the City of Dublin. The responses to the comment letter follow.

Each separate issue raised by the commenter has been assigned a number. The responses to each comment identify first the number of the comment letter, and then the number assigned to each issue (Response 1-1, for example, indicates that the response is for the first issue raised in comment Letter 1).

September 12, 2024

Jason Ching, P.E.  
DSRSD  
7051 Dublin Boulevard  
Dublin, CA 94568

sent via email: [ching@dsrsd.com](mailto:ching@dsrsd.com)

**Subject: City of Dublin Comments on Draft IS-MND for the Reservoir 20B Project**

Dear Jason,

The City of Dublin appreciates the opportunity to provide comments on the Draft Initial Study-Mitigated Negative Declaration (IS-MND) prepared for the Reservoir 20B Project (proposed project). The proposed project would involve installation of a pre-stressed concrete reservoir with a water storage capacity of 1.3 million gallons, diameter of approximately 102 feet and footprint of approximately 17,500 square feet, and would be located underground at the top of a hill within the Francis Ranch development, located on the west and east sides of Croak Road, south of South Terracina Drive in Dublin, CA.

The City of Dublin ("City") offers the following comments on the Draft Initial Study.

**Section 5. Surrounding Land Uses**

1. The project approval did not stop at the Planning Commission. It is more complex than that. Please refer to project development page: <https://dublin-development.citywork.com/>

**Section 6. General Plan Designation and Zoning**

1. The General Plan land use designation is shown as Parks/Public Recreation and should be changed to Rural Residential/Agriculture.

**Section 7. Project Background**

1. The Francis Ranch (East Ranch) development also includes APN 905-0002-001-01.

**Section 8. Description of the Project**

1. Please clarify how the reservoir will be filled. Will the reservoir be filled from the Francis Ranch main water line? Will the reservoir be kept in a full state most of the time?

**City Council**

925.833.6650

**City Manager**

925.833.6650

**Community Development**

925.833.6610

**Economic Development**

925.833.6650

**Finance/IT**

925.833.6640

**Fire Prevention**

925.833.6606

**Human Resources**

925.833.6605

**Parks & Community Services**

925.833.6645

**Police**

925.833.6670

**Public Works**

925.833.6630

100 Civic Plaza

Dublin, CA 94568

P 925.833.6650

F 925.833.6651

[www.dublin.ca.gov](http://www.dublin.ca.gov)

## 2. Figure 3, Proposed Project Components

- A. Figure 3 shows a potential future access road. Confirm if the future access road is within the proposed DSRSD parcel boundary and will not affect the limits of the IS MND.
- B. Show and label the conservation easement on the GHAD-owned parcel to the north of the project.
- C. Recent plans provided by DSRSD show the storm drain line on the east side of the tank. Provide the proposed storm drain alignment.

1-6

The City is concerned about potential impacts in the following topical areas: Aesthetics, Air Quality, Cultural Resources, Hydrology and Water Quality, Public Services, Utilities and Service Systems, and Mandatory Findings of Significance.

### Aesthetics

1. If a future permanent access road is incorporated, discuss how the project will minimize the impact to the open space and hillside views if retaining walls are required.
2. Discuss if cell phone towers will be installed at the reservoir and the impact to open space and hillside views.
3. Discuss how the project will minimize the impact to open space and hillside views with the installation of a new staircase.

1-7

### Air Quality

1. Mitigation Measure AQ-1, #8. The City of Dublin City Council adopted a Resolution Declaring the City of Dublin an Idle-Free City in 2021. The Resolution recommends that vehicles are turned off if idling would occur longer than 30 seconds. Revise the idling time accordingly.

1-8

### Cultural Resources

1. Section 5.c – would the project disturb any human remains, including those interred outside of formal cemeteries. If human remains are determined to prehistoric, mitigation measure CUL-1 would be applicable. This would effectively change this to Less than Significant Impact with Mitigation Incorporated.

1-9

### Hydrology & Water Quality

1. Question 10a: would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Please explain how chlorine will be neutralized or removed from planned and unplanned releases of water from the reservoir post-construction, prior to release to the City's storm drain system.
2. Question 10a: Please provide examples of when planned or unplanned releases to the City's storm drain system may occur.
3. 10.c. The project will include a temporary construction access road which is planned to be constructed near an open space low point located east of the proposed reservoir. Include information on the construction access road and no impacts to erosion and flood flows.

1-10



## Public Services

1. During construction, provide emergency vehicle and fire access for the project. The surrounding homes and vegetation must be accessible for fire protection in the event of a fire.

1-11

## Utilities and Service Systems

1. Matrix item 19.e, Comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Mark in the checklist as Less than Significant Impact.

1-12

## Mandatory Findings of Significance

1. b. Aesthetics. The installation of a new staircase is a permanent above-ground feature. Discuss how the project will minimize the impact of the visual character to open space and hillside views with the installation of a new staircase.

1-13

The City also had comments related to consistency of information between the Initial Study and the Biological Resources Assessment (Appendix B).

## Appendix B – Biological Resources Assessment (BRA)

1. Update the executive summary and project description stating the project includes an underground pre-stressed concrete reservoir. The BRA currently references a welded steel reservoir. The type of reservoir construction affects the required BMPs during construction to protect the environment from spills and illicit discharges.
2. Section 1.2, Project Description. The BRA describes two service road options to access the proposed reservoir which includes a northern roadway design option and a western roadway design option. The project description needs to be updated based on the updated plans. Based on discussions with DSRSD, both the northern and western roadway design options were replaced with the stair option.
3. Figure 2, Project Location Map. Figure 2 needs to be updated based on the latest plans from DSRSD to ensure consistency with the draft initial study and the appropriate areas are covered in the initial study.

1-14

Thank you for your consideration of our comments. The City looks forward to our continued cooperative and proactive effort in addressing the impacts of the proposed project. Should you have any questions or need additional information, please feel free to contact me at (925) 833-6630 or by e-mail at [laurie.sucgang@dublin.ca.gov](mailto:laurie.sucgang@dublin.ca.gov).

1-15

Sincerely,



Laurie Sucgang, P.E.

Assistant Public Works Director/City Engineer

cc: Gaspare Annibale, Community Development Department  
Gabby Abdon, Public Works Department  
Gary Ushiro, Public Works Department Consultant  
Shannan Young, Public Works Department  
Haley Ralston, Fallon Village GHAD Consultant

## Letter 1

**COMMENTER:** Laurie Sugang, P.E., Assistant Public Works Director/City Engineer, City of Dublin

**DATE:** September 12, 2024

### Response 1-1

This comment is introductory and summarizes the proposed project. This comment does not contain a substantive comment related to the adequacy, analysis, or conclusions of the IS-MND. No further response is required.

### Response 1-2

The commenter refers to Initial Study Section 5, *Surrounding Land Uses*, of the Draft IS-MND and provides a link to the City of Dublin's project development website.

The following revision has been made to Initial Study Section 5, *Surrounding Land Uses* to reflect the most recent (September 2024) status of the planned East Ranch Development:

Single-family residential land uses are located north and west of the project site, and undeveloped open space areas are located to the east and south. The undeveloped area south of the project site would eventually be developed as part of the planned East Ranch Development, for which permits for construction and grading have been submitted to the City of Dublin for review.

### Response 1-3

The commenter indicates the project site's General Plan land use designation should be Rural Residential/Agriculture, not Parks/Public Recreation as shown in Initial Study Section 6, *General Plan Designation and Zoning*.

The following revision has been made to Initial Study Section 6, *General Plan Designation and Zoning*, to reflect the correct project site land use designation:

The project site has a City of Dublin General Plan designation of Rural Residential/Agriculture. The project site is zoned as City of Dublin Planned Development (PD).

### Response 1-4

The commenter refers to Initial Study Section 7, *Project Background*, and states that the planned East Ranch Development also includes Assessor's Parcel No. 905-0002-001-01.

The following clarification revision has been made to Initial Study Section 7, *Project Background*:

In 2016, the District updated its Water Master Plan and identified the need to add additional potable water storage to the Zone 20 Pressure Zone in eastern Dublin. Currently, this pressure zone is served by one 3.3-million-gallon reservoir. To support Dublin planned development in this area, the District identified that a new reservoir (Reservoir 20B) with a storage volume of 1.3 million gallons would be needed in this pressure zone to support the planned East Ranch Development, a 573-unit single family residential development project proposed in APNs 905-0002-002-00 and 905-0002-001-01, and other future development in eastern Dublin.

## **Response 1-5**

The commenter asks how the proposed reservoir would be filled and if it would be kept in a full state most of the time.

The water storage tank would be filled via the proposed water main connection. The District anticipates that the water levels in the reservoir would be more cyclical rather than full most of the time; the reservoir would be filled and drained as demands are met and then refilled again once water levels are low. Routine cleaning would not require draining of the tank, as divers would be used to clean the inside of the tank. The only time the tank would be completely emptied is during specific maintenance procedures that require an emptied tank; however, such maintenance procedures are not anticipated to occur regularly. No revisions to the Draft IS-MND are required in response to this comment.

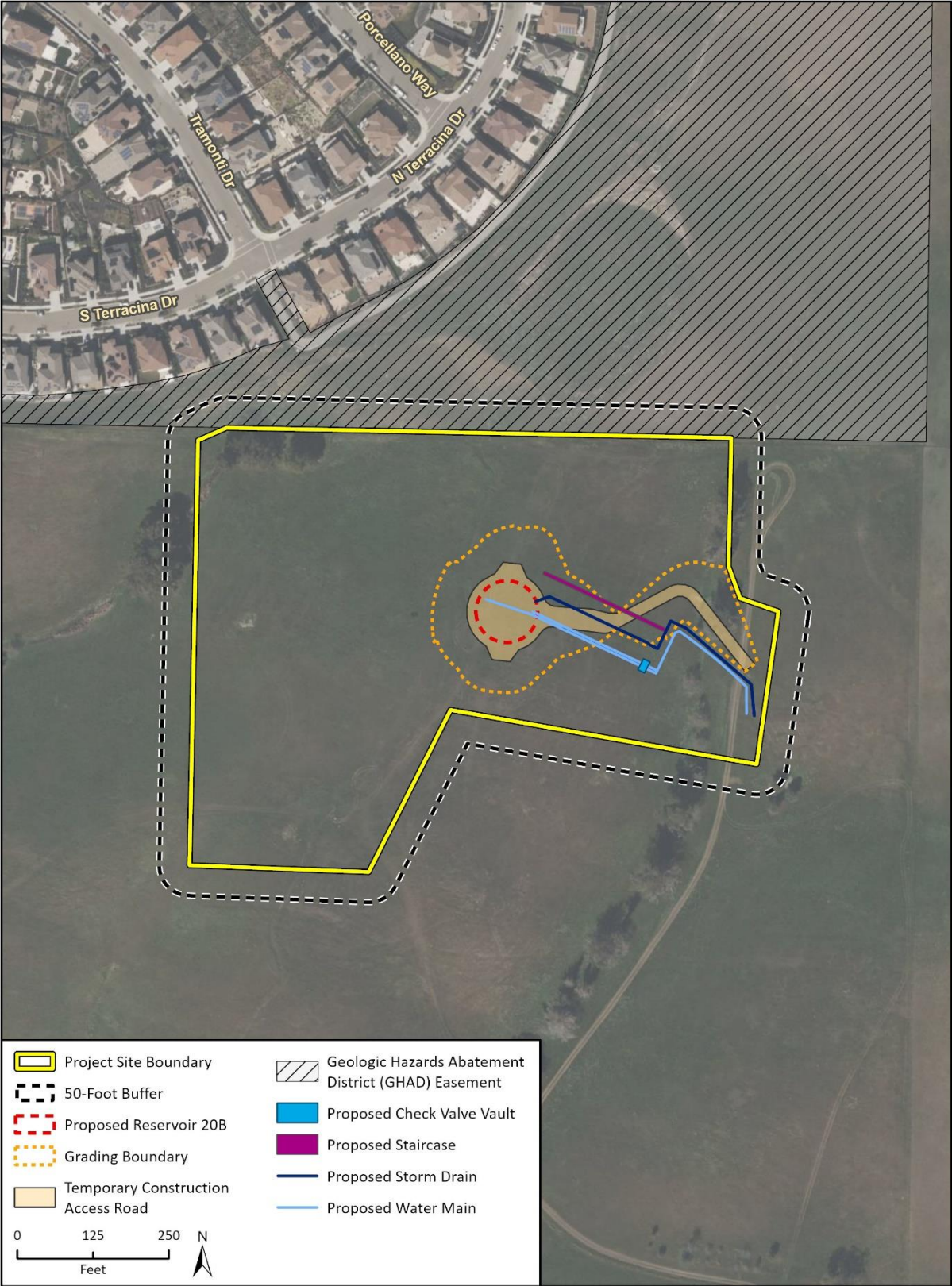
## **Response 1-6**

The commenter refers to Figure 3, *Proposed Project Components*, and asks if the potential future access road is within the proposed DSRSD parcel boundary. The commenter requests that the figure show the conservation easement in the Geologic Hazard Abatement District (GHAD) north of the project site and that the District provide the proposed storm drain alignment.

It should be noted that the potential future access road described in the Draft IS-MND is no longer proposed at this time, and the planned site access is the proposed staircase. The IS-MND has been revised to remove references to the potential future access road.

For informational purposes, the alignment of the potential future access road described in the Draft IS-MND did not cross the parcel boundary to the north of the site (please note that the project boundary outlined in yellow follows the parcel boundary lines to the north). It should be noted that the potential future access road described in the Draft IS-MND is no longer proposed at this time, and the planned site access is the proposed staircase. The IS-MND has been revised to remove references to the potential future access road.

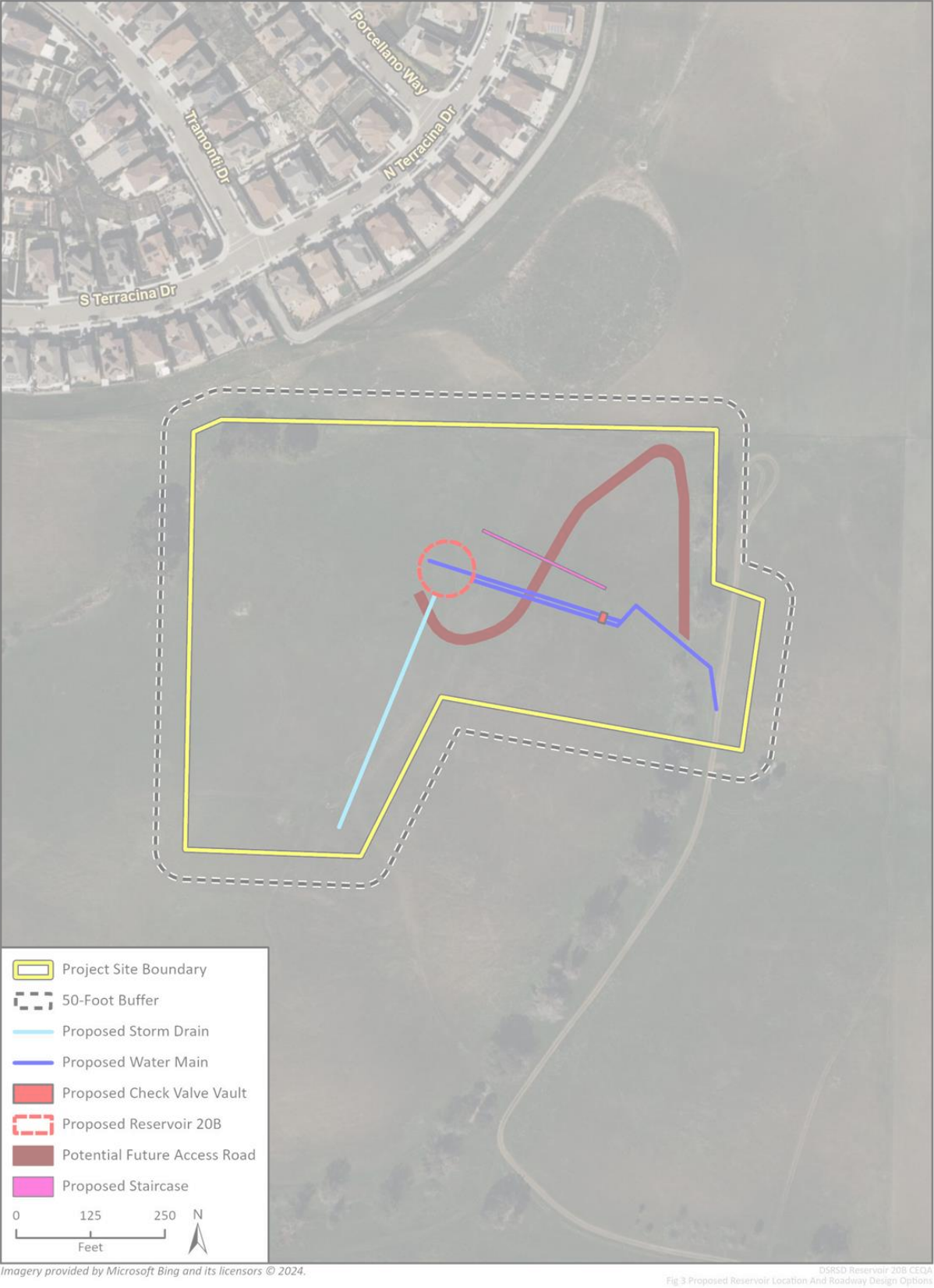
Figure 3, *Proposed Project Components*, (new and original figures provided below) has been revised to show the GHAD conservation easement and storm drain alignment, and remove the potential future access road:



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DSRSD Reservoir 20B CEQA  
Fig 3 Proposed Reservoir Location Sept 2024





## Response 1-7

The commenter requests that the potential aesthetics impacts associated with the potential future access road, possible retaining walls and cell phone towers, and the access staircase be discussed in the IS-MND.

No cell phone towers would be installed as part of the proposed project. DSRSD is not considering the installation of cell phone towers on the project site at this time or at a future date. However, the project would include a communication antenna, up to 12-feet in height. This has been added to Initial Study Section 8, *Description of Project*, as follows:

The project would also include an 8-foot chain-link fence surrounding the site for security purposes, and an antenna (up to 12 feet in height) for communication purposes.

It should be noted that the potential future access road described in the Draft IS-MND is no longer proposed at this time, and the planned site access is the proposed staircase. The IS-MND has been revised to remove references to the potential future access road. The planned site access is the proposed staircase. As discussed under criterion (a) in Environmental Checklist Section 1, *Aesthetics*, the proposed staircase would not result in a substantial adverse impact related to publicly accessible views of open space and hillsides. As noted under the criterion (a) discussion, the project site is also not visible from a scenic route due to intervening features. The discussion in Environmental Checklist Section 1, *Aesthetics*, has been revised as follows to reflect this clarification:

~~...The project would also not involve only permanent aboveground reservoir features, and the~~  
are the proposed staircase, chain-link fence, and communications antenna, which would be  
minimally visible from public spaces and would not have a substantial adverse effect on publicly accessible views of open space and hillsides.... [criterion a]

~~...Only a new staircase (necessary for maintenance access), chain-link fence (necessary for security), and antenna (necessary for communications) would remain as a permanent new features above ground on the project site....~~ [criterion c]

## Response 1-8

The commenter requests that Mitigation Measure AQ-1, Implement BAAQMD Basic Construction Mitigation Measures, be revised to limit maximum idling time of construction vehicles to 30 seconds, rather than five minutes, consistent with the City of Dublin's 2021 Resolution Declaring the City an Idle-Free City.

Project construction equipment would be required to limit idling time by Mitigation Measure AQ-1, and will reduce potential air quality impacts necessary to comply with BAAQMD's 2017 Clean Air Plan. DSRSD, however, acknowledges the 2021 Resolution declaring the City of Dublin an idle-free city and will encourage its contractors to not exceed the 30-second idling time. No revisions to the Draft IS-MND are required in response to this comment.

## Response 1-9

The commenter refers to Section 5, *Cultural Resources*, asks if the project would disturb human remains. The commenter also states that if human remains are determined to be prehistoric, Mitigation Measure CUL-1 would apply and this would change the impact conclusion of criterion (c) to less-than-significant with mitigation.

As discussed under criterion (c) of Environmental Checklist Section 5, *Cultural Resources*, if human remains are encountered during project construction, DSRSD and its construction contractors would comply with existing regulations, specifically State of California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. Both code sections require the stoppage of work upon discovery of human remains to prevent further disturbance of the site or nearby area which may contain adjacent remains. Therefore, Mitigation Measure CUL-1 is not necessary to address impacts related to potential discovery during construction of human remains, as State of California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98 already include respective requirement. No revisions to the Draft IS-MND are required in response to this comment.

### **Response 1-10**

The commenter refers to criterion (a) in Environmental Checklist Section 10, *Hydrology and Water Quality*, and asks how chlorine in water released from the reservoir would be neutralized or removed prior to discharge into the City of Dublin's storm drain system. The commenter also asks for examples of when releases of water may occur and for information regarding how the construction access road would not result in adverse impacts related to erosion and flood flows.

The District anticipates that discharges to the City's storm drain system would be rare. In the event that the reservoir needs to be drained for maintenance, the District would first utilize most of the water in the tank to the extent possible in its potable water distribution system. A relatively small amount of remaining water would need to be drained from the reservoir into the storm drain system. During planned releases of water from the reservoir, water would flow down drain lines to a catch basin. The District would add dechlorination tablets to the catch basin that would neutralize chlorine prior to the water's discharge into the City's storm drain system. The District anticipates that maintenance on the reservoir that requires the reservoir to be drained would occur approximately once every 10 years. Additionally, during an inspection an overflow may be required to test the system, in which case dechlorination tablets would be used as this would be a planned release.

In the event of an emergency in which the reservoir is completely full, water is not being extracted from the reservoir, and if all of the reservoir systems and alarms fail, it is possible that water could spill into the overflow pipe and into the City's storm drain system. The District does not anticipate this to occur; however, if an unplanned release of water were to occur, the potable water discharge would be covered as an exception under the National Pollutant Discharge Elimination System (NPDES) permit (Order No. WQ-2014-0194-DWQ).

As stated in Environmental Checklist Section 10, *Hydrology and Water Quality*, DSRSD and its construction contractor would be required to comply with the requirements of the NPDES Construction General Permit regarding erosion and dust control. Additionally, as stated therein, the project would involve the use of a water truck that would water the construction area as needed to prevent dust. No revisions to the Draft IS-MND are required in response to this comment.

### **Response 1-11**

The commenter refers to Environmental Checklist Section 15, *Public Services*. The commenter states emergency vehicle and fire access to the project site must be provided during construction, and the surrounding homes and vegetation must be accessible for fire protection.

Emergency access during project construction is discussed under criterion (d) in Environmental Checklist Section 15, *Public Services*. As discussed therein, the project would not require road closures and would not interfere with access to area roadways. Additionally, construction activities would be limited to the project site and would not result in access constraints to the existing residences and/or vegetation surrounding the project site, such as by blocking roadways or access routes, including existing narrow maintenance roads. Construction vehicles may use adjacent roadways to enter and exit the project site but would not be staged on an access road, maintenance road, or in front of a driveway and, thus, would not limit emergency access. No revisions to the Draft IS-MND are required in response to this comment.

### Response 1-12

The commenter requests that the checklist box for criterion 19(e) in Environmental Checklist Section 19, *Utilities and Service Systems*, be checked as “Less than Significant Impact.”

There was an error in the Draft IS-MND where the check box was missing from the published document. The appropriate box has been checked on the summary table provided in Environmental Checklist Section 19, *Utilities and Service Systems*.

### Response 1-13

The commenter refers to Environmental Checklist Section 21, *Mandatory Findings of Significance*, and requests discussion on how the project would minimize aesthetics impacts related to the access staircase.

Refer to Response 1-7 for a discussion of how the proposed staircase and/or potential future access road would not have result in a substantial adverse impact related to publicly accessible views of open space and hillsides. The following further clarification revision to criterion (b) of Environmental Checklist Section 21, *Mandatory Findings of Significance*, has been made:

- **Aesthetics.** Cumulative projects could result in changes to scenic vistas, visual character, and light and glare. Cumulative projects would alter views north of I-580, which is a County-designated scenic route, and would increase light and glare from individual development sites. Therefore, cumulative aesthetic impacts would be potentially significant. The project site would not install permanent above-ground features visible from a scenic highway or blocking scenic views, and would not install ~~or~~ permanent lighting; therefore, the project would not have a considerable contribution to this cumulative impact.

### Response 1-14

The commenter requests several revisions to the project description in Appendix B, *Biological Resources Assessment*, including updates to the executive summary and project description where the type of reservoir is specified as well as updates to the project description and project location figure based on the most recent design plans.

An old version of the Biological Resources Assessment was attached to the Draft IS-MND in error. The updated version, dated May 2024, had been revised to correct many of the errors noted by the commenter. The conclusions of the May 2024 Biological Resources Assessment do not differ from the February 2024 Biological Resources Assessment, which is the version that was included with the Draft IS-MND. However, the following revisions have been made to Appendix B of the Draft IS-MND, to correct a few additional minor errors and update the project location figure:



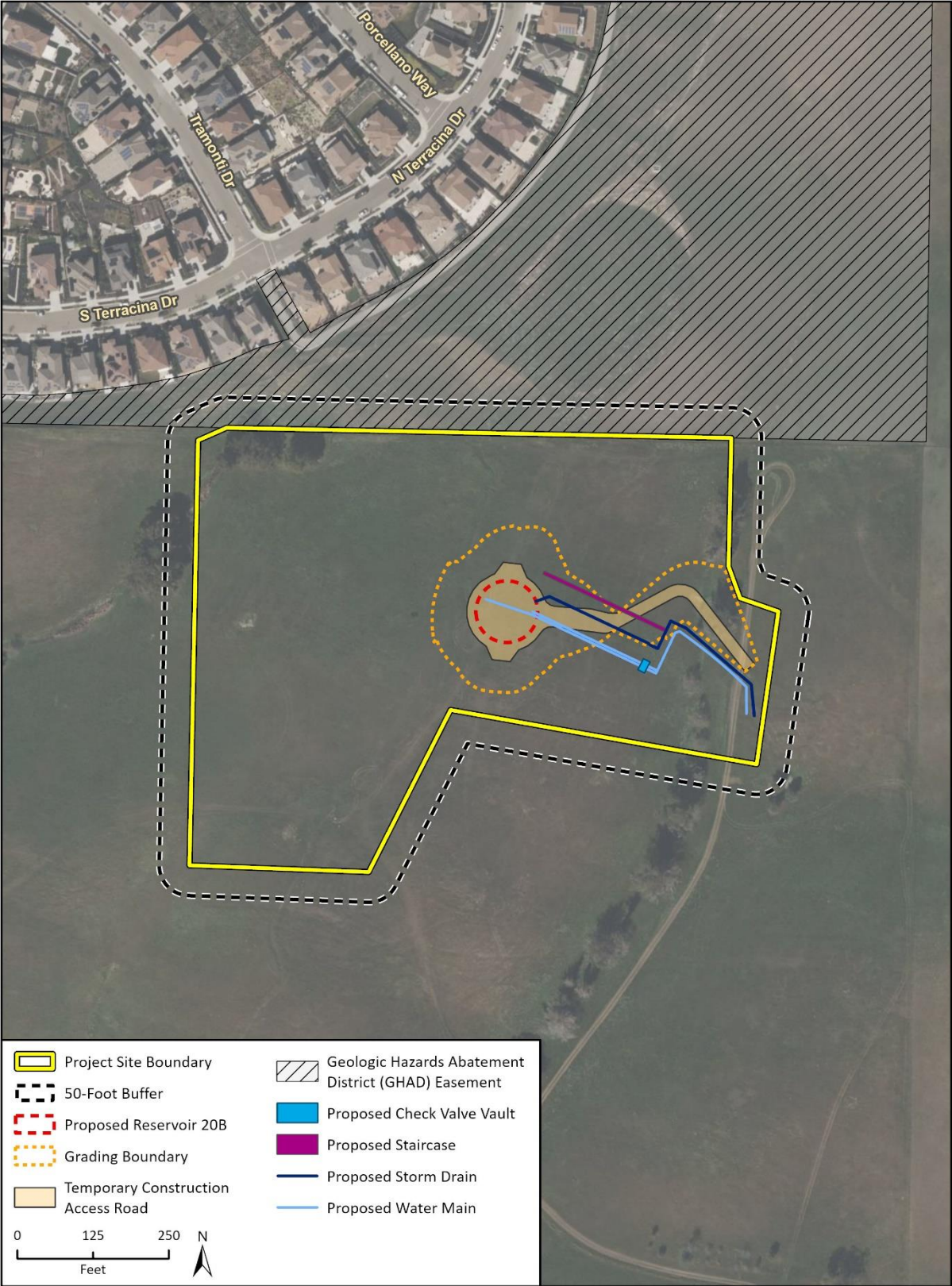
Page 1, *Executive Summary*:

...The project would involve construction of Reservoir 20B, an underground ~~welded steel~~ pre-stressed concrete reservoir with a storage capacity of approximately 1.3 million gallons....

Page 2, Section 1.2, *Project Description*:

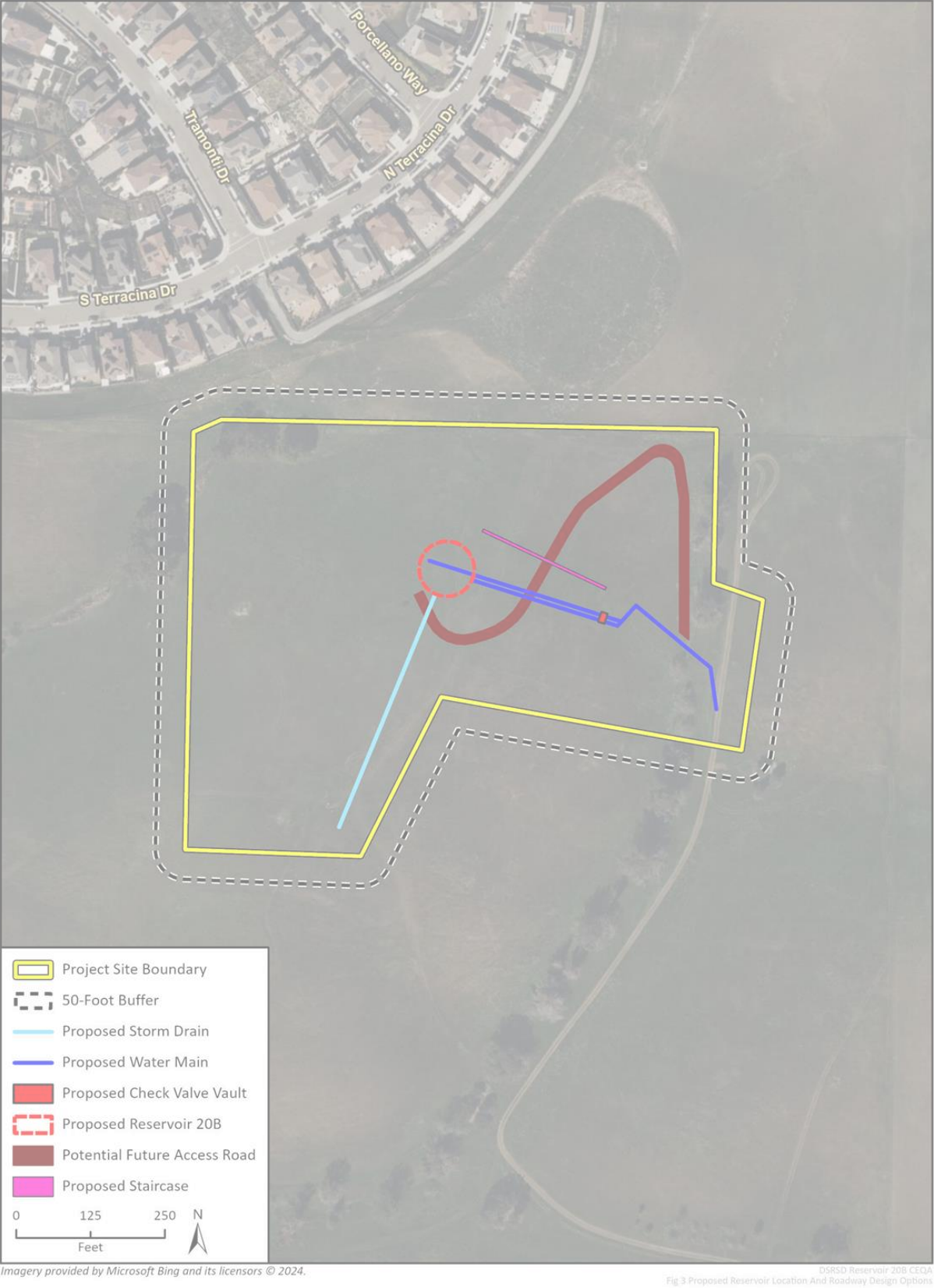
The project would involve construction of Reservoir 20B, an underground ~~welded steel~~ pre-stressed concrete reservoir with a storage capacity of approximately 1.3 million gallons....

Page 4, Figure 2, *Project Location Map*, (new and original figures provided below) has been revised to show the GHAD conservation easement and storm drain alignment):



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DSRSD Reservoir 20B CEQA  
Fig 3 Proposed Reservoir Location Sept 2024



## **Response 1-15**

This comment concludes the letter. This comment does not contain a substantive comment related to the adequacy, analysis, or conclusions of the Draft IS-MND. No further response is required.

# Initial Study

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## 1. Proposed Project Title

Reservoir 20B Project

## 2. Lead Agency/Project Sponsor and Contact

### **Lead Agency/Project Sponsor**

Dublin San Ramon Services District  
7051 Dublin Boulevard  
Dublin, California 94568

### **Contact Person**

Jason Ching, PE, Senior Engineer  
925-875-2263  
[ching@dsrsd.com](mailto:ching@dsrsd.com)

## 3. Scope and Use of this Document

This Initial Study-Mitigated Negative Declaration (IS-MND) provides an assessment of the potential impacts related to environmental resources that would result from constructing and operating the proposed Reservoir 20B Project (herein referred to as “proposed project” or “project”). The discussion and level of analysis are commensurate with the expected magnitude and severity of impacts related to specific environmental resources. This document addresses the environmental impacts related to installation, use, and maintenance of water storage and conveyance infrastructure. The analyses in the following sections are based on technical reports and studies prepared for the proposed project, which are included as appendices, supplemented with other public information sources as provided in the list of references.

This IS-MND evaluates the potential for impacts related to resource areas identified in Appendix G of the 2024 California Environmental Quality Act (CEQA) Guidelines. These resource areas include:

- |                                      |                                      |
|--------------------------------------|--------------------------------------|
| ▪ Aesthetics                         | ▪ Mineral Resources                  |
| ▪ Agriculture and Forestry Resources | ▪ Noise                              |
| ▪ Air Quality                        | ▪ Population and Housing             |
| ▪ Biological Resources               | ▪ Public Services                    |
| ▪ Cultural Resources                 | ▪ Recreation                         |
| ▪ Energy                             | ▪ Transportation                     |
| ▪ Geology and Soils                  | ▪ Tribal Cultural Resources          |
| ▪ Greenhouse Gas Emissions           | ▪ Utilities and Service Systems      |
| ▪ Hazards and Hazardous Materials    | ▪ Wildfire                           |
| ▪ Hydrology and Water Quality        | ▪ Mandatory Findings of Significance |
| ▪ Land Use and Planning              |                                      |

## 4. Project Location and Physical Setting

### Regional Location and Setting

The Dublin San Ramon Services District (District) service area includes the City of Dublin (water and wastewater services), south San Ramon (wastewater services only), Dougherty Valley (water services only), and City of Pleasanton (contracted wastewater services only) within Contra Costa and Alameda Counties in the San Francisco Bay Area, and the project site is located in the City of Dublin. The City of Dublin lies within the Tri-Valley area, which also includes the City of Livermore, City of San Ramon, Town of Danville, and unincorporated portions of Alameda and Contra Costa Counties. Regional vehicular access is primarily provided by I-580 and I-680. The regional project location is shown in Figure 1.

### Local Setting

The proposed project is located within the proposed East Ranch Development site, which is a planned residential development located on the west and east sides of Croak Road, south of South Terracina Drive. The project site is located within the City of Dublin near Dublin's eastern border and portions of unincorporated Alameda County, California, along the northern boundary of Assessor's Parcel Number (APN) 905-0002-002-00. Specifically, the undeveloped project site covers a total of approximately 12.2 acres of grassland and is located approximately 350 feet south of South Terracina Drive and 0.25 mile east of Croak Road. The project location is shown in Figure 2.

The project site is bordered by other portions of the City of Dublin to the north and west and unincorporated Alameda County to the east and south. Local vehicular access to the project site is primarily provided by Terracina Drive and Croak Road. Public transit in the vicinity of the site includes local school bus routes 2 and 502, which serve Fallon Middle School, Emerald Glen, Wells Middle School, and Dublin High School.

## 5. Surrounding Land Uses

Single-family residential land uses are located north and west of the project site, and undeveloped open space areas are located to the east and south. The undeveloped area south of the project site would eventually be developed as part of the planned East Ranch Development, for which ~~was approved in November 2021 by the City of Dublin Planning Commission.~~ permits for construction and grading have been submitted to the City of Dublin for review.

## 6. General Plan Designation and Zoning

The project site has a City of Dublin General Plan designation of ~~Parks/Public Recreation-Rural Residential/Agriculture~~. The project site is zoned as City of Dublin Planned Development (PD).



### Figure 1 Regional Location

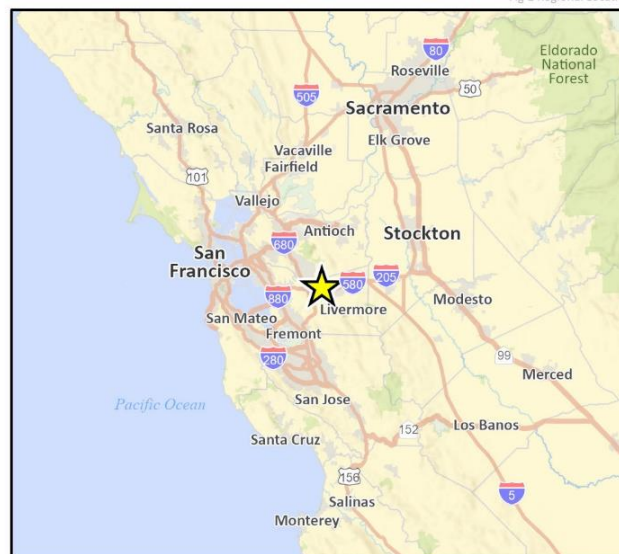
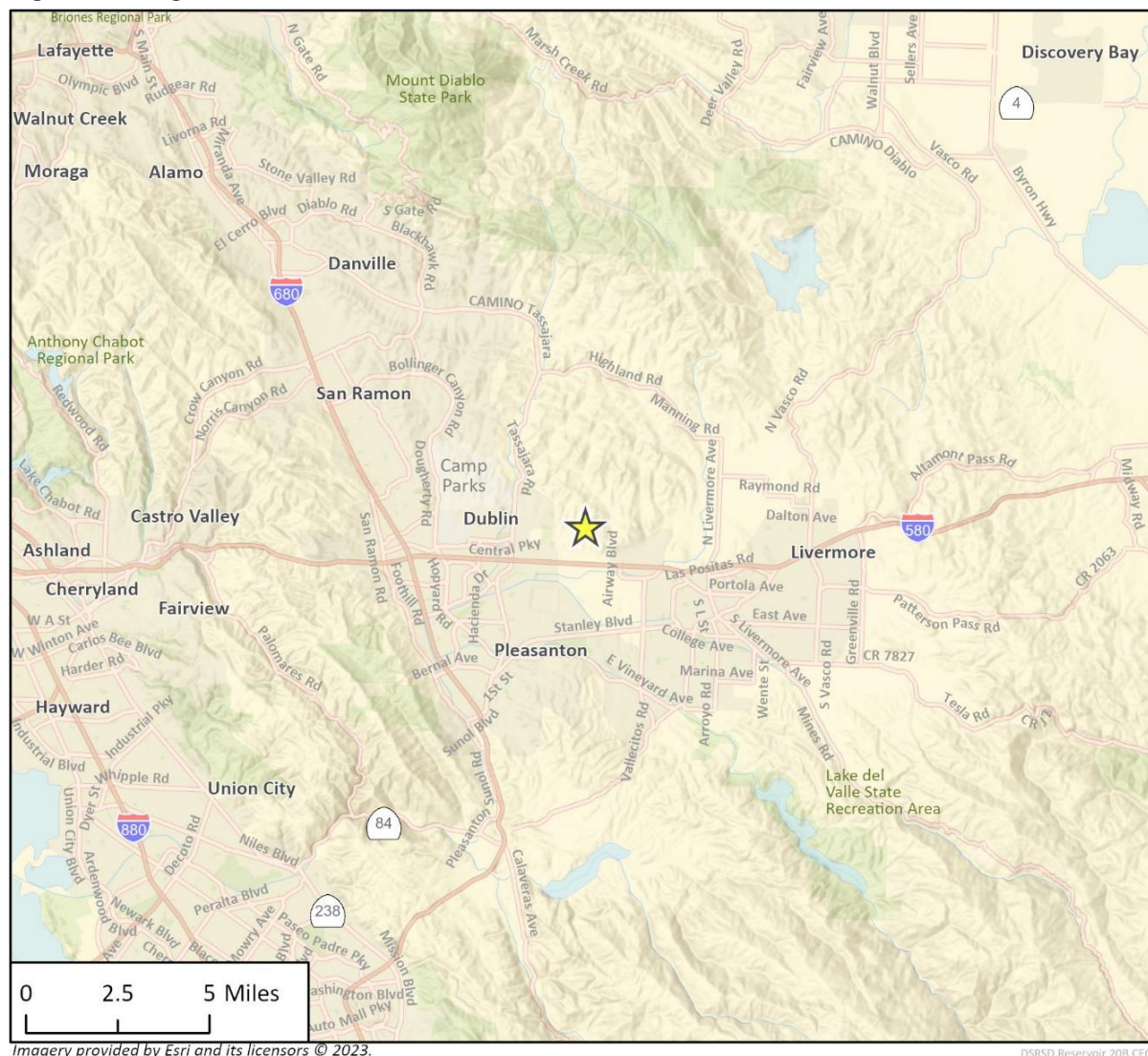
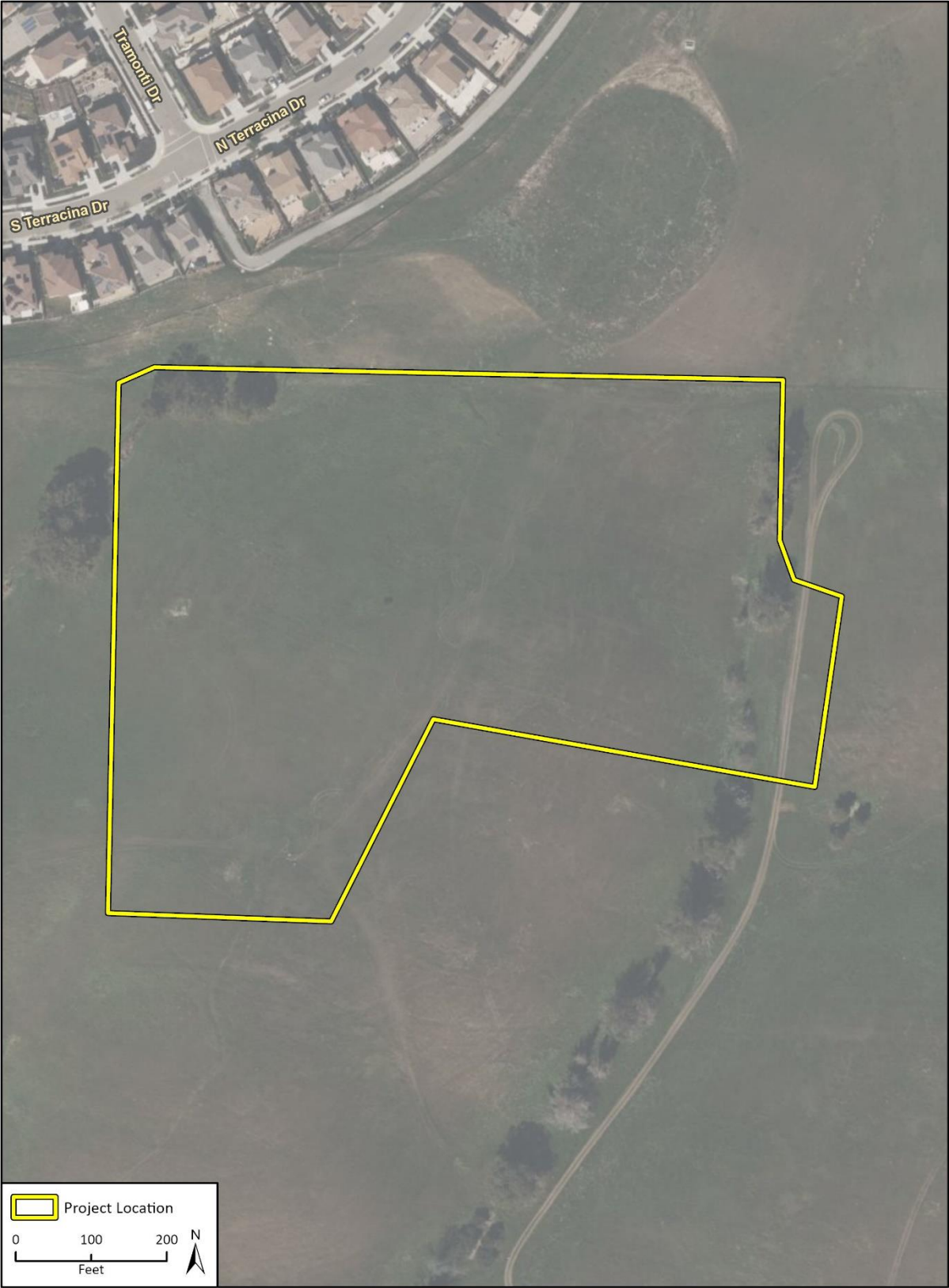


Figure 2 Project Location



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DSRSD Reservoir 208 CEQA  
Fig. 2 Project Site





Imagery provided by Microsoft Bing and its licensors © 2024.

20-10351-CR  
CRFig 2 Project Site

## 7. Project Background

In 2016, the District updated its Water Master Plan and identified the need to add additional potable water storage to the Zone 20 Pressure Zone in eastern Dublin. Currently, this pressure zone is served by one 3.3-million-gallon reservoir. To support Dublin planned development in this area, the District identified that a new reservoir (Reservoir 20B) with a storage volume of 1.3 million gallons would be needed in this pressure zone to support the planned East Ranch Development, a 573-unit single family residential development project proposed in APNs 905-0002-002-00 and 905-0002-001-01 ~~APN 905-0002-002-00~~, and other future development in eastern Dublin.

## 8. Description of Project

The project would involve installation of Reservoir 20B, a pre-stressed concrete reservoir with a storage capacity of approximately 1.3 million gallons.<sup>1</sup> The reservoir would have a diameter of approximately 102 feet and footprint of approximately 17,500 square feet. The reservoir would be located in APN 905-0002-002-00, underground at the top of a hill within the project site. At this location at the top of the hill, the reservoir would have a similar floor (pad) elevation (670 feet above mean sea level) to that of existing Reservoir 20A located approximately 1.4 miles northwest of the project site, so that the hydraulic gradient throughout the District Zone 20 system remain consistent.

The project would involve installation of an access staircase, as shown in Figure 3. ~~It is noted that a paved access road to the project site would not be constructed at this time; however, a potential future access road connecting to a cul-de-sac associated with the East Ranch development project is considered in this IS-MND.~~

The project also includes an approximately 425-linear foot new storm drain pipeline that would connect to a planned storm drain inlet of the East Ranch Development located south of the proposed storage tank. An approximately 1,000-linear foot new water supply main, including a check valve vault, would also be constructed between the proposed storage tank and proposed water main of the East Ranch Development located southeast of the proposed tank.

The project would also include an 8-foot chain-link fence surrounding the site for security purposes, and an antenna (up to 12 feet in height) for communication purposes.

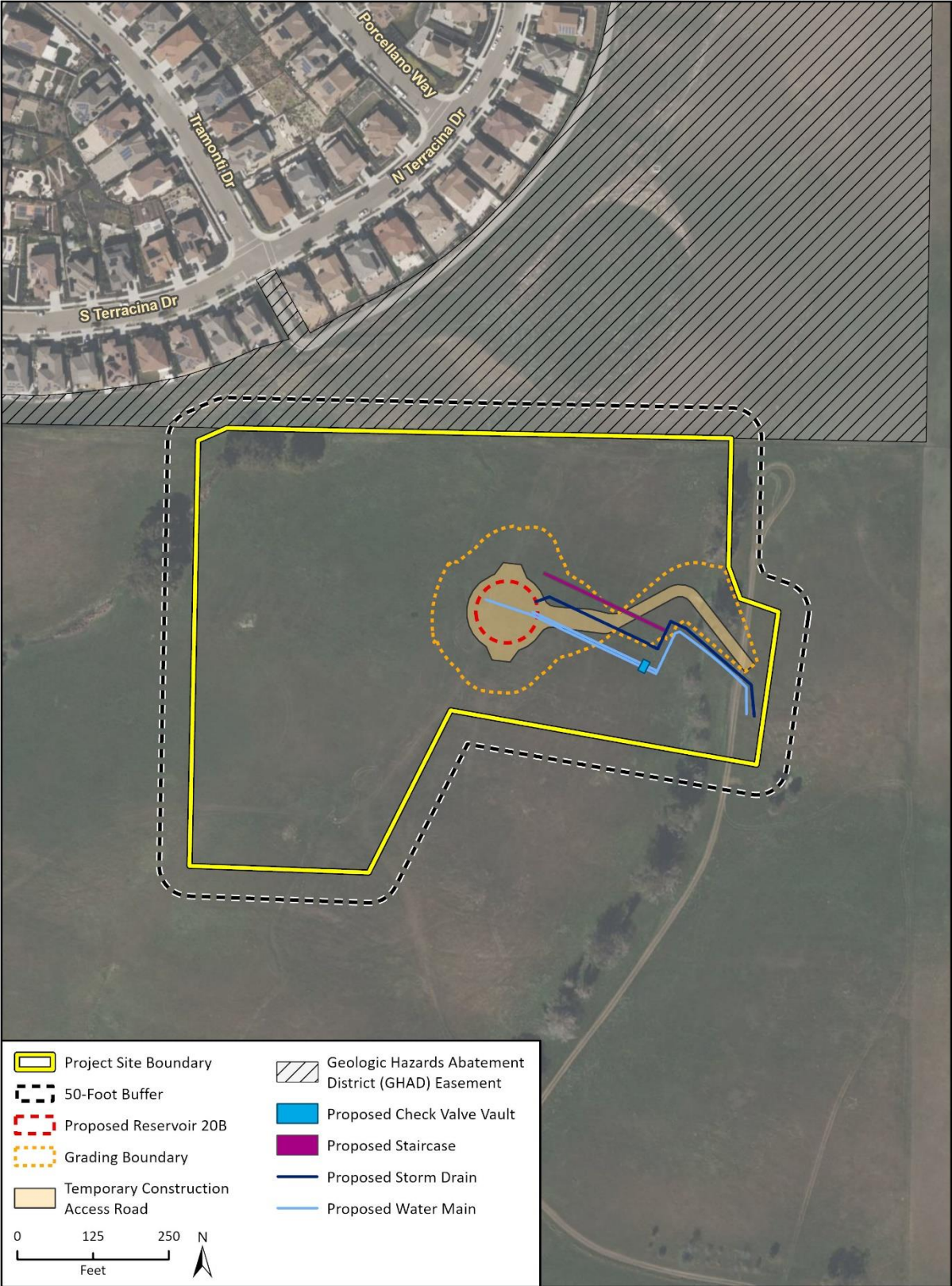
### Construction

The hilltop where the reservoir would be located would be graded to create a temporary construction pit for installation of the reservoir. The reservoir would require approximately 30,000 cubic yards of cut soil, of which approximately 26,000 cubic yards would be used as fill material, for a total soil export of approximately 12,000 cubic yards. Excavation to a depth of 35 feet would be required for the reservoir installation. In addition, construction of the proposed concrete staircase would result in a net export of approximately 9,000 cubic yards of soil. ~~The potential future access road could result in a net soil export of approximately 4,000 cubic yards.~~

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<sup>1</sup> The District will determine a final optimal reservoir capacity.

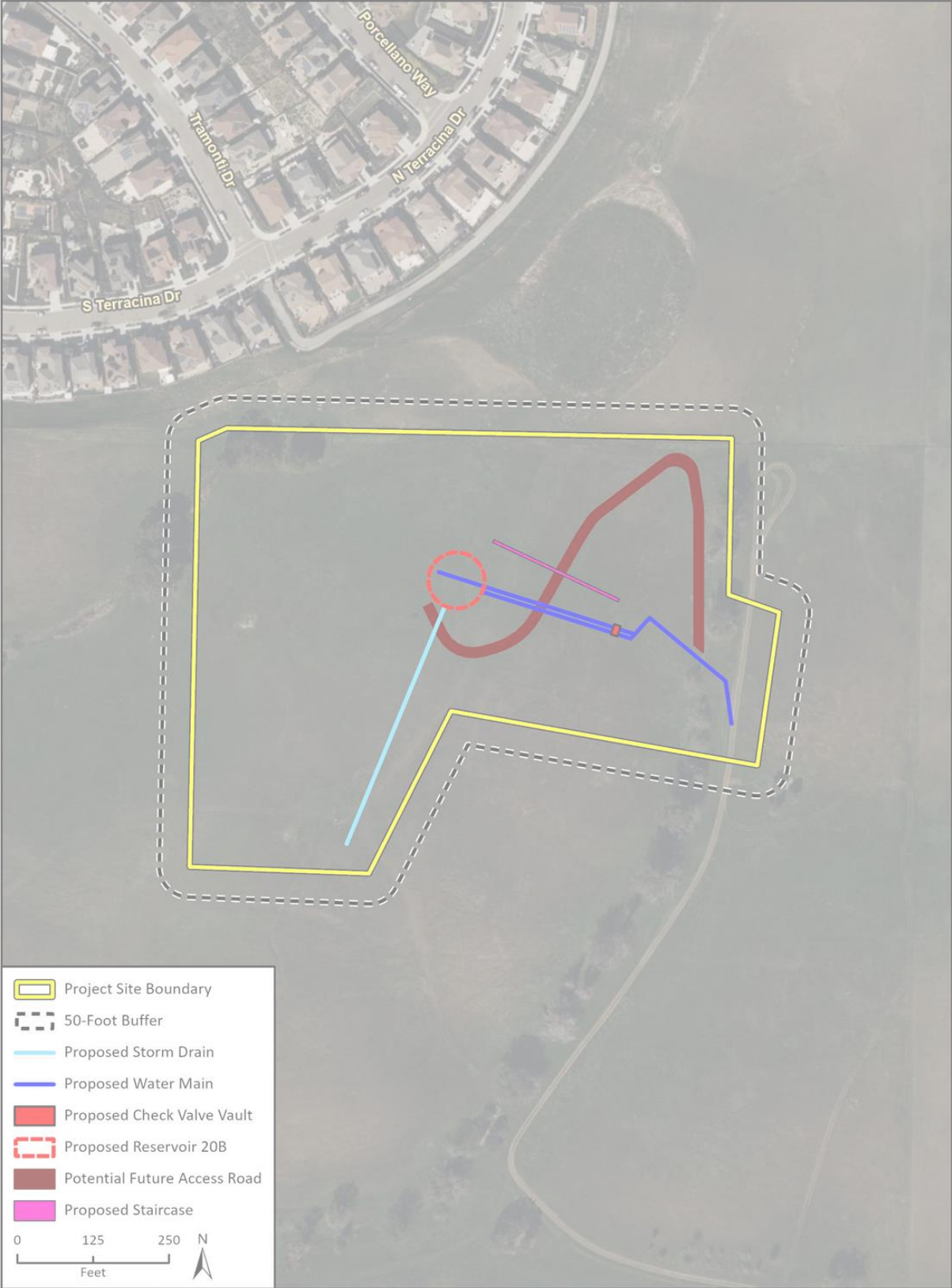
Figure 3 Proposed Project Components



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DSRSD Reservoir 20B CEQA  
Fig 3 Proposed Reservoir Location Sept 2024





Imagery provided by Microsoft Bing and its licensors © 2024.

DSRSO Reservoir 20B CEQA  
Fig 3 Proposed Reservoir Location And Roadway Design Options

Construction is anticipated to last up to approximately 15 months, with 1 month for grading, 2 to 3 weeks for site preparation, 1 month for pipeline and staircase installation, 10 months for reservoir installation, and 2 weeks for final ground restoration. Pipelines would be constructed via open trenching. The construction contract would be required by DSRSD to implement best management practices, such as watering exposed soils daily, preservation of existing vegetation, sediment control, and tracking control.

Once construction of the reservoir is complete, soil would be backfilled over the reservoir to restore the existing hilltop topography, and the reservoir would be located underground.

**Operation**

During operation, the reservoir would require approximately 104 vehicle trips per year (reflecting two one-way trips per month) for maintenance purposes.

**9. Cumulative Projects Scenario**

For purposes of CEQA cumulative impacts analysis, the cumulative projects scenario would include the construction and operation of the proposed project in addition to construction and operation of the following projects proposed within the project vicinity (approximately one mile):

- Francis Ranch (East Ranch)
- Dublin Fallon 580
- Righetti Property
- Branaugh Property

Projects included in the cumulative projects scenario and cumulative impacts are provided in Table 1 and shown in Figure 4.

**Table 1 Cumulative Development Projects**

| No. | Project Name               | Project Location   | Project Components   | Status  |
|-----|----------------------------|--|--|---|
| 1   | Francis Ranch (East Ranch) | 4038 Croak Road, immediately surrounding project site        | Site development of 165.5 acres with 573 residential units within six neighborhoods  | Under construction                            |
| 2   | Righetti Property          | Collier Canyon Road, 0.7 mile south of the project site      | Subdivision of the 49.6-acre site into four parcels to accommodate residential, industrial, commercial, and office development | Application under review                      |
| 3   | Branaugh Property          | 1881 Collier Canyon Road, 0.8 mile south of the project site | Construction of 78 to 97 medium-density residential units and an industrial development on a 40-acre site                      | Project approved by the City in February 2023 |
| 4   | Dublin Fallon 580          | East of Fallon Road, 0.9 mile southwest of the project site  | Subdivision of 192 acres into nine parcels to accommodate commercial, campus office, multi-family residential, and park uses.  | Application under review                      |

Source: City of Dublin 2024a; Office of Planning and Research 2024

Figure 4 Cumulative Projects







## 10. Assembly Bill 52 Consultation

On January 24, 2023, the District sent letters to representatives of tribes who have requested Assembly Bill 52 (AB 52) consultation, including the Amah Mutsun Tribal Band of Mission San Juan Bautista, Costanoan Rumsen Carmel Tribe, Indian Canyon Mutsun Band of Costanoan, Muwekma Ohlone Indian Tribe of the SF Bay Area, North Valley Yokuts Tribe, the Confederated Villages of Lisjan, the Ohlone Indian Tribe, Wilton Rancheria Tribe, and Wuksache Indian Tribe/Eshom Valley Band. Additional detail regarding responses and recommendations of tribal representatives is included in Environmental Checklist Section 18, *Tribal Cultural Resources*.

## 11. Required Approvals

### **District**

As the lead agency for the proposed project, the District-required approvals include:

- Adoption of this IS-MND; and
- Approval of the project and project grading plan.

### **Other Public Agencies**

The District has sole approval authority regarding the proposed project and this related IS-MND.

An Incidental Take Permit from the California Department of Fish and Wildlife may be required for project construction purposes pursuant to California Fish and Game Code Section 2081. Refer to Environmental Checklist Section 4, *Biological Resources* for further discussion details.



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## Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is “Potentially Significant” or “Less than Significant with Mitigation Incorporated” as indicated by the checklist on the following pages.

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Aesthetics                      | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality                        |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources      | <input type="checkbox"/> Energy  |
| <input checked="" type="checkbox"/> Geology and Soils    | <input type="checkbox"/> Greenhouse Gas Emissions           | <input type="checkbox"/> Hazards and Hazardous Materials               |
| <input type="checkbox"/> Hydrology and Water Quality     | <input type="checkbox"/> Land Use and Planning              | <input type="checkbox"/> Mineral Resources                             |
| <input type="checkbox"/> Noise                           | <input type="checkbox"/> Population and Housing             | <input type="checkbox"/> Public Services                               |
| <input type="checkbox"/> Recreation                      | <input type="checkbox"/> Transportation                     | <input checked="" type="checkbox"/> Tribal Cultural Resources          |
| <input type="checkbox"/> Utilities and Service Systems   | <input type="checkbox"/> Wildfire                           | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

## Determination

Based on this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “less than significant with mitigation incorporated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

- ☐ I find that although the proposed project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

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Signature

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Date

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Printed Name

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Title

# Environmental Checklist

## 1 Aesthetics

|   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact  | No Impact                           |
|---|--------------------------------------|--|-------------------------------------|-------------------------------------|
| Except as provided in Public Resources Code Section 21099, would the project:   |                                      |  |                                     |                                     |
| a. Have a substantial adverse effect on a scenic vista?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

a. *Would the project have a substantial adverse effect on a scenic vista?*

A scenic vista is a viewpoint that provides expansive views of a highly valued landscape for the public benefit. Although the Dublin General Plan does not define or identify scenic vistas, the Dublin General Plan Circulation/Scenic Highways and Land Use Elements establish policies to minimize impacts of development to County-designated scenic routes (City of Dublin 2022). Alameda County-designated scenic routes include Interstate (I-) 580, I-680, San Ramon Road, Dougherty Road, and Tassajara Road. Additionally, the Dublin General Plan Scenic Highways Element notes that the City intends to designate Fallon Road as a scenic route once it is extended north to connect with Tassajara Road (City of Dublin 2022). The nearest designated scenic routes to the project site are I-580, located approximately one mile south, and Fallon Road, located approximately 0.8 mile west. The project site is not visible from either route due to intervening features such as topography, vegetation, and development.

The project site is undeveloped and adjacent to existing and planned residential developments. Nearby roadways, sidewalks, and pathways provide public views of the project site and long-range

views of surrounding hillsides to the northeast and west. The project would involve construction and operation of a buried water reservoir and associated infrastructure, including underground water pipelines and a staircase. During construction, equipment and worker vehicles would be visible from surrounding public roadways, associated sidewalks, and pathways. However, construction and equipment staging would be temporary, and views of open space and hillsides would return to their existing conditions once construction is completed. ~~The project would also not involve only permanent aboveground reservoir features, and the~~ are the proposed staircase, chain-link fence, and communications antenna, which would be minimally visible from public spaces and would not have a substantial adverse effect on publicly accessible views of open space and hillsides. Therefore, the project would result in a less-than-significant impact related to effects on a scenic vista.

#### **LESS THAN SIGNIFICANT IMPACT**

- b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

Scenic resources are trees, rock outcroppings, ridgelines, water bodies, and historic buildings. The nearest officially designated State scenic highway is Interstate 680 (I-680), which is located approximately 5 miles west of the project site (California Department of Transportation [Caltrans] 2019). The project site is not visible from I-680 due to distance and intervening development and topography. Furthermore, there are no scenic resources on the project site. As such, the project could not substantially damage scenic resources. Therefore, the project would result in no impact related to scenic resources within a State scenic highway.

#### **NO IMPACT**

- c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

The project site is within the City of Dublin, which is an urbanized area. There are policies in the Dublin General Plan and standards within Dublin Municipal Code that pertain to scenic quality. Specifically, General Plan Policy 2.8.13.C requires development to blend harmoniously with surrounding natural and open space qualities and requires project design to reduce the visibility of development as much as practicable. Additionally, Municipal Code Chapter 8.32 outlines standards for Planned Development zones in Dublin that intend to encourage the efficient use of land while also maintaining consistency with the Dublin General Plan. Municipal Code Section 9.32.020 also requires utility distribution facilities to be located underground.

The project would consist of an underground water reservoir and associated pipelines. Once construction and installation of the reservoir is complete, soil would be backfilled, and the project site would be restored to be visually similar to existing conditions. Only a new staircase (necessary for maintenance access), chain-link fence (necessary for security), and antenna (necessary for communications) would remain as ~~a permanent new features~~ above ground on the project site. As such, the project would blend with the surrounding natural and open spaces adjacent to the project site and have minimal development visibility and, thus, would be consistent with General Plan Policy 2.8.13.C.

The proposed reservoir would provide water service to existing and planned development in the project area. The project would facilitate efficient use of surrounding land, which is planned for residential development, and, thus, would be consistent with Municipal Code Chapter 8.32 and residential development anticipated by the General Plan. The proposed reservoir would be located underground, consistent with Municipal Code Section 9.32.020. Therefore, the project would result in a less-than-significant impact related to conflict with applicable zoning and other regulations governing scenic quality.

**LESS THAN SIGNIFICANT IMPACT**

- d. *Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?*

The primary sources of nighttime light in the vicinity of the project site are residential structure illumination, street lighting, decorative landscape lighting, and motor vehicle headlights, as well as glare associated with windows and vehicles.

Policy 2.8.13.D requires exterior lighting to confine direct rays to the parcel or roadway where lighting is located to protect the darkness of the night sky, and Municipal Code Section 3.4.3 requires exterior lighting to be designed and located so that only the intended area is illuminated and off-site glare is prevented. However, the project would not include permanent lighting features or operations on site, and project construction would only occur during daytime hours. As such, the project would not introduce new sources of nighttime light at the project site that could adversely affect nighttime views in the area.

The project reservoir would be underground and, thus, not include potential sources of daytime glare. During construction, sources of daytime glare such as construction equipment or construction worker vehicles would be temporarily located on the project site. These sources of glare would be limited only to the construction period and would not adversely affect permanent daytime views of the area.

Therefore, the project would result in a less-than-significant impact related to creation of new sources of light or glare affecting nighttime and daytime views in the area.

**LESS THAN SIGNIFICANT IMPACT**

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## 2 Agriculture and Forestry Resources

|  | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact | No Impact                           |
|--|--------------------------------------|--|------------------------------------|-------------------------------------|
| Would the project:   |                                      |  |                                    |                                     |
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| b. Conflict with existing zoning for agricultural use or a Williamson Act contract?  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| d. Result in the loss of forest land or conversion of forest land to non-forest use?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |

- a. *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*
- b. *Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?*
- e. *Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?*

The project site is undeveloped and is not designated as, is not adjacent to, and is not proximate to lands classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance



(California Department of Conservation ([DOC] 2016). The project site is zoned as City of Dublin Planned Development (PD) (City of Dublin 2024b). The project site and surrounding areas are also not subject to Williamson Act contracts (DOC 2017). The project site does not currently contain agricultural resources and is not used as agricultural land. As such, the project would not result in the conversion of farmland to non-agricultural use or the cancellation of a Williamson Act contract. Therefore, the project would result in no impact related to conversion of designated farmland to non-agricultural use or conflict with agricultural land use zoning.

**NO IMPACT**

- c. *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*
- d. *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*
- e. *Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?*

While some trees are present on the undeveloped project site, the site itself is not considered forest or timberland, (California Department of Fish and Wildlife 2021). The project site is zoned for Planned Development (PD), not for forest or timberland uses (City of Dublin 2024b). The project site does not currently contain forest or timber resources and is not used as timberland. As such, the project would not convert forest or timberland uses or result in the conversion of off-site forest, timber, or agricultural lands to non-forest, non-timberland, or non-forest uses. Therefore, the project would result in no impact related to conversion of designated forest land to non-forest use or conflict with forest land use zoning.

**NO IMPACT**

### 3 Air Quality

|   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact  | No Impact                |
|---|--------------------------------------|--|-------------------------------------|--------------------------|
| Would the project:  |                                      |  |                                     |                          |
| a. Conflict with or obstruct implementation of the applicable air quality plan?   | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                            | <input type="checkbox"/>            | <input type="checkbox"/> |
| b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Expose sensitive receptors to substantial pollutant concentrations?  | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                            | <input type="checkbox"/>            | <input type="checkbox"/> |
| d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

*a. Would the project conflict with or obstruct implementation of the applicable air quality plan?*

The California Clean Air Act requires that air districts create a Clean Air Plan that describes how the jurisdiction will meet air quality standards. The most recently adopted air quality plan is the BAAQMD 2017 Plan.

A project that would not support the BAAQMD 2017 Plan goals would not be considered consistent with the 2017 Plan. The 2017 Plan goal related to air quality is to protect air quality and health at the regional and local scale by attaining all national and State air quality standards and eliminating disparities among Bay Area communities in cancer health risk from toxic air contaminants (TACs). On an individual project basis, consistency with BAAQMD quantitative thresholds is interpreted as demonstrating support for the 2017 Plan goals. As discussed under criterion (b) below, the project would not result in exceedances of BAAQMD thresholds for criteria air pollutants and, thus, would not conflict with the 2017 Plan's goal to attain air quality standards.

The 2017 Plan control strategy also includes feasible measures to reduce emissions of ozone precursors and reduce transport of ozone and its precursors to neighboring air basins. The 2017 Plan builds upon and enhances BAAQMD efforts to reduce emissions of these and other various TACs. The 2017 Plan does not include TAC control measures that apply directly to individual development projects. Instead, the control strategy includes control measures related to stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants. As discussed under criterion (b) below, the project would not result in exceedances of BAAQMD thresholds for TACs and, thus, would not conflict with the 2017 Plan's goal to attain air quality standards.

To be consistent with the 2017 Plan, the proposed project must include applicable control measures from the 2017 Plan. Therefore, the project would be required to implement Mitigation Measure AQ-1. With implementation of Mitigation Measure AQ-1, the project would be required to comply with *BAAQMD Basic Construction Mitigation Measures* and would not result in exceedances of BAAQMD thresholds for criteria air pollutants. Therefore, the project would result in a less-than-significant-with-mitigation-incorporated impact related to conflict with the 2017 Clean Air Plan and implementation of an applicable air quality plan.

## **Mitigation Measure**

### *AQ-1 Implement BAAQMD Basic Construction Mitigation Measures*

The following best management practices shall be required of the construction contractor:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered or maintain at least two feet of freeboard.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. Enclose, cover, water daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.)
6. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
7. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
8. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
9. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
10. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The air district's phone number shall also be visible to ensure compliance with applicable regulations.

## **LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED**

- b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

Criteria pollutants include some pollutants that are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere, including carbon monoxide, volatile organic compounds (VOC)/reactive organic gases (ROG), nitrogen oxides (NO<sub>x</sub>), particulate matter with diameters of ten microns or less (PM<sub>10</sub>) and 2.5 microns or less (PM<sub>2.5</sub>), sulfur dioxide, and lead. Other air pollutants are created indirectly through chemical reactions in the atmosphere,

such as ozone, which is created by atmospheric chemical and photochemical reactions primarily between ROG and NO<sub>x</sub>. Secondary pollutants include oxidants, ozone, and sulfate and nitrate particulates (i.e., smog).

The San Francisco Bay Area Air Basin (SFBAAB) is designated as nonattainment for the National Ambient Air Quality Standards (NAAQS) for ozone and PM<sub>2.5</sub> and the California Ambient Air Quality Standards (CAAQS) for ozone, PM<sub>2.5</sub>, and PM<sub>10</sub>. Project construction would generate temporary air pollutant emissions associated with fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) and exhaust emissions from heavy construction equipment and construction vehicles. Air pollutant emissions generated by project construction and operation were estimated using the California Emissions Estimator Model (CalEEMod), version 2022.1.1.21. Table 2 summarizes the estimated average daily emissions of pollutants during project construction. As shown therein, construction-related emissions would not exceed Bay Area Air Quality Management District (BAAQMD) regional thresholds for criteria pollutants. As such, project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard.

**Table 2 Project Average Daily Construction Emissions (lbs/day)**

| Construction Year                        | ROG       | NO <sub>x</sub> | PM <sub>10</sub> Exhaust | PM <sub>2.5</sub> Exhaust |
|--|-----------|-----------------|--------------------------|---------------------------|
| 2025                                     | 2         | 15              | 1                        | 1                         |
| 2026                                     | 1         | 2               | <1                       | <1                        |
| <b>Average Daily Emissions (lbs/day)</b> | <b>3</b>  | <b>17</b>       | <b>1</b>                 | <b>1</b>                  |
| BAAQMD Thresholds                        | 54        | 54              | 82                       | 54                        |
| <b>Threshold Exceeded?</b>               | <b>No</b> | <b>No</b>       | <b>No</b>                | <b>No</b>                 |

lbs/day = pounds per day; ROG = reactive organic gases, NO<sub>x</sub> = nitrogen oxides, PM<sub>10</sub> = particulate matter 10 microns in diameter or less, PM<sub>2.5</sub> = particulate matter 2.5 microns or less in diameter

Notes: All emissions modeling was completed made using CalEEMod. See Appendix A for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from "mitigated" results, which account for compliance with regulations and project design features. Emissions presented are the average daily modeled emissions.

Operation of the project would generate criteria air pollutant emissions associated with mobile sources (i.e., vehicle trips to and from the project site). Because the project would not require natural gas or electricity connections, the project would not result in energy or area source emissions during operation. Table 3 summarizes the project's annual and average daily operational emissions. As shown therein, operational emissions would not exceed BAAQMD regional thresholds for criteria pollutants. As such, project operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment, and project impacts related to criteria pollutant emissions from mobile and stationary sources would be less than significant.

**Table 3 Project Maximum Daily and Annual Operational Period Emissions**

| Emissions Source  | ROG       | NO <sub>x</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
|---|-----------|-----------------|------------------|-------------------|
| Maximum Annual Emissions (tons per year)                      | <1        | <1              | <1               | <1                |
| BAAQMD Threshold (tons/year)                                  | 10        | 10              | 15               | 10                |
| <b>Threshold Exceeded?</b>                                    | <b>No</b> | <b>No</b>       | <b>No</b>        | <b>No</b>         |
| Maximum Average Daily Emissions (pounds per day) <sup>1</sup> | <1        | <1              | <1               | <1                |
| BAAQMD Thresholds (lbs/day)                                   | 54        | 54              | 82               | 54                |
| <b>Threshold Exceeded?</b>                                    | <b>No</b> | <b>No</b>       | <b>No</b>        | <b>No</b>         |

ROG = reactive organic gases, NO<sub>x</sub> = nitrogen oxides, PM<sub>10</sub> = particulate matter 10 microns in diameter or less, PM<sub>2.5</sub> = particulate matter 2.5 microns or less in diameter

<sup>1</sup> Emissions presented are the highest of the winter and summer modeled emissions.

Notes: All emissions modeling was completed made using CalEEMod. See Appendix A for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from “mitigated” results, which account for compliance with regulations and project design features.

## LESS THAN SIGNIFICANT IMPACT

### c. *Would the project expose sensitive receptors to substantial pollutant concentrations?*

TACs are a broad class of compounds known to have health effects. They include but are not limited to criteria pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, diesel fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution, specifically TACs. Therefore, the majority of sensitive receptor locations are schools, hospitals, and residences. The closest sensitive receptors to the project site are single-family residences located approximately 500 feet north of the proposed reservoir. Localized air quality impacts to sensitive receptors typically result from CO hotspots and TACs.

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. Localized CO hotspots can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal one-hour standard of 35.0 ppm or the federal and state eight-hour standard of 9.0 ppm (CARB 2016). Based on estimations determined with CalEEMod, construction of the reservoir would require a maximum of approximately 108 trips during the grading phase (Appendix A). Operation of the project would result in approximately 104 trips per year. The City of Dublin regularly measures average daily traffic volumes of major roadways in Dublin. The two nearest roadways the City has published average daily traffic volumes for are Central Parkway, a two- to three-lane roadway providing access to residential areas surrounding the project site, and Positano Parkway, a one-lane roadway providing access to the residential area immediately north of the project site. Central Parkway is located approximately 0.4 mile southwest of the project site and has an average of 5,682 daily trips; Positano Parkway is located approximately 0.25 mile northwest of the project site and has an average of 11,943 daily trips (City of Dublin 2019). As such, the 108 grading phase construction trips and 104 annual operation trips

associated with the project would not exceed the BAAQMD screening thresholds of increasing roadway vehicle volume at affected intersections by 44,000 vehicles per hour.

The project would not include any stationary sources of air pollution once operational. The project would include 104 maintenance trips per year, which would not significantly increase traffic on area roadways and would not generate substantial TAC emissions. Construction-related activities would result in temporary project-generated emissions of diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, excavation, reservoir installation, and other construction activities. DPM was identified as a TAC by CARB in 1998 (CARB 2022). Generation of DPM from construction projects typically occurs in a single area for a short period of time. Construction of the proposed project would occur in phases over approximately 15 months. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time. However, young children are more sensitive to exposure to some carcinogens than adults. Therefore, the Office of Environmental Health Hazard Assessment has implemented age sensitivity factors that take into account the increased sensitivity of children during early development stages (i.e., 3<sup>rd</sup> trimester exposure to 16 years). Given the age sensitivity factors, exposure at a young age to even short-term projects have the potential to result in substantial risk exposure. The maximum daily PM<sub>10</sub> emissions would range from 0.73 to 2.54 lbs/day of exhaust (DPM), with the maximum emissions occurring during grading activities (Appendix A).

The proposed project would be consistent with the 2017 Plan requirements and control strategies intended to reduce emissions from construction equipment and activities. The proposed project would also comply with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than five minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation. Compliance with these requirements would minimize emissions of TACs during construction. However, given the construction area's proximity to nearby sensitive receptors, including single-family residences located approximately 500 feet north of the proposed reservoir, impacts from TACs could be potentially significant. However, implementation of Mitigation Measure AQ-2 would require the use of off-road diesel-powered construction equipment that meets or exceeds the most stringent and environmentally protective CARB and USEPA Tier 4 off-road emissions standards. The Tier 4 standards reduce DPM emissions by approximately 81 to 96 percent as compared to equipment that meet the Tier 2 off-road emissions standards, depending on the specific horsepower rating of each piece of equipment. Thus, with implementation of Mitigation Measure AQ-2, construction activities would not expose sensitive receptors to substantial TAC concentrations that would potentially exceed cancer risk greater than ten per one million population.

Therefore, project impacts related to TAC emissions from mobile and stationary sources would be less than significant.

## **Mitigation Measure**

### *AQ-2 Reduce Construction Criteria Pollutant and Toxic Air Contaminant Emissions*

The following measure shall be noted on construction plans and implemented during construction:

- All mobile off-road equipment (wheeled or tracked) greater than 50 horsepower used during construction activities shall meet the USEPA Tier 4 interim standards. Tier 4 certification can be for the original equipment or equipment that is retrofitted to meet the Tier 4 interim standards.

This requirement shall be incorporated into the contract agreement with the construction contractor. A copy of the equipment's certification or model year specifications shall be available upon request for all equipment on-site.

### **LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED**

- d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

During construction activities, heavy equipment and vehicles would emit odors associated with vehicle and engine exhaust and during idling. However, these odors would be intermittent and temporary and would cease upon completion, and odors would disperse with distance. Overall, project construction would not generate other emissions, such as those leading to odors, affecting a substantial number of people. Construction-related impacts would be less than significant.

Table 3-3 in the BAAQMD 2017 *CEQA Air Quality Guidelines* provides screening distances for land uses that have the potential to generate substantial odor complaints. The uses in the table include wastewater treatment plants, landfills or transfer stations, refineries, composting facilities, confined animal facilities, food manufacturing, smelting plants, and chemical plants (BAAQMD 2017b). Water facilities are not included in this list, and operation of the project would not generate other emissions, such as those leading to odors, that would affect a substantial number of people. No operational impacts would occur.

### **LESS THAN SIGNIFICANT IMPACT**

## 4 Biological Resources

|  | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact  | No Impact                           |
|--|--------------------------------------|--|-------------------------------------|-------------------------------------|
| Would the project:   |                                      |  |                                     |                                     |
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |



- a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

### **Special-Status Plants**

As assessed in detail within Appendix B (Biological Resources Assessment), forty-three (43) special-status plant species were identified to have occurrence records within the nine United States Geological Survey (USGS) quadrangles containing and surrounding the project site (California Department of Fish and Wildlife [CDFW] 2023a; California Native Plant Society 2023). All the reported species have specific habitat requirements (e.g., soil type, elevation, hydrologic condition, etc.). The project site existing conditions (land cover disturbed by mowing and grading) and the lack of suitable ecological conditions excluded most of the reported species; however, six species have low potential to occur within the project site: brittlescale (*Atriplex depressa*, California Rare Plant Rank [CRPR] 1B.2), Congdon's tarplant (*Centromadia parryi* ssp. *congdoni*, CRPR 1B.1), diamond-petaled California poppy (*Eschscholzia rhombipetala*, CRPR 1B.1), San Joaquin spearscale (*Extriplex joaquinana*, CRPR 1B.2), prostrate vernal pool navarretia (*Navarretia prostrata*, CRPR 1B.2), and saline clover (*Trifolium hydrophilum*, CRPR 1B.2). Suitable grassland habitat is present for these species within the project site; however, these species have low potential to occur at the project site due to the limited extent of habitat present and recent construction disturbance at the adjacent East Ranch Development Project site. Because these species only have a low potential to occur and were not observed on the project site, project construction would not substantially affect such plant species. Therefore, impacts related to special status plant species would be less than significant.

### **Special-Status Wildlife**

As assessed in detail within Appendix B (Biological Resources Assessment), forty-nine (49) special-status wildlife species were identified with known occurrence records within the nine USGS quadrangles containing and surrounding the project site (CDFW 2023a, 2023c; United States Fish and Wildlife Service (USFWS) 2023a). This list was reviewed and refined according to the potential for species to occur on the project site based on the presence and quality of habitats within the project site. Of these, three species have a moderate potential to occur within the project site: California red-legged frog (*Rana draytonii*), California tiger salamander (*Ambystoma californiense*), and loggerhead shrike (*Lanius ludovicianus*). Three species have a low potential to occur within the project site: San Joaquin kit fox (*Vulpes macrotis mutica*), burrowing owl (*Athene cunicularia*), and American badger (*Taxidea taxus*); unlike the special-status plants discussed above with low potential for occurrence, these special-status wildlife species are further evaluated below based on their regional significance and listing status.

The California red-legged frog (CRLF) is a federally threatened species and has a moderate potential to occur within the project site. CRLF occurs in lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Typical upland habitat consists of densely vegetated areas, downed woody vegetation, leaf litter, small mammal burrows, and human-made structures. The entirety of the project site falls within critical habitat for the species and 40 occurrences have been recorded within a 5-mile radius of the project site in the California Natural Diversity Database (CNDDDB; USFWS 2023b; CDFW 2023a). Suitable upland habitat for CRLF is present throughout the project site in the form of small mammal burrows and suitable breeding habitat can be found 0.33 mile west and 0.56 mile east of the project site. The species is unlikely to

be directly impacted by project construction activities unless individuals are dispersing through the project site during or after a rainfall event. Impacts to dispersing individuals would be significant if CRLF were present in the work area during construction, and individuals were injured or killed during construction activities (e.g., grading, excavation), or stuck by equipment or vehicles. Injury, mortality, or harassment of even a single individual would be considered “take” under the federal Endangered Species Act and, thus, a potentially significant impact. However, Mitigation Measures BIO-1 and BIO-2 would reduce potential impacts related to the CRLF to less-than-significant levels by requiring an environmental training for all workers, postponing work during rain events, conducting pre-construction surveys for the species, and avoiding impacts to the species, if detected.

The California tiger salamander (CTS) is a federally and State-identified threatened species and has moderate potential to occur within the project site. CTS are found primarily in grasslands, low foothills, and oak woodland habitats located within approximately 0.42 mile (671 meters) of breeding pools (Trenham and Shaffer 2005). During the non-breeding season, adults occur in upland habitats and occupy small mammal burrows and other subterranean cover, such as root hollows. Suitable upland habitat is present throughout the project site and potential suitable breeding habitat can be found 0.33 mile west and 0.56 mile east of the project site. There are 54 recorded occurrences of CTS within a 5-mile radius of the project site, with the most recent in 2019 (CDFW 2023a). This species is unlikely to be directly impacted by project construction activities unless individuals are dispersing through the project site during or after a rainfall event. Should the species be present on site during project construction, direct impacts could include injury or mortality of individuals through construction activities (e.g., grading, excavation) or strikes by equipment or vehicles. Injury, mortality, or harassment of even a single individual would be considered “take” under the federal Endangered Species Act and California Endangered Species Act and, thus, would be a potentially significant impact. However, Mitigation Measures BIO-1 and BIO-2 are required to reduce potential impacts related to CTS to less-than-significant levels by requiring an environmental training for all workers, postponing work during rain events, conducting pre-construction surveys for the species, and avoiding impacts to the species, if detected.

The San Joaquin kit fox (SJKF) is a federally endangered and state threatened species with a low potential to occur within the project site. SJKF is endemic to California west of the Sierra Nevada Mountains. This species occurs in the Central Valley generally from the Sacramento area south to the southern end of the San Joaquin Valley, in the Carrizo Plain, the Panoche Valley, and from northern San Luis Obispo County north through the Salinas Valley. SJKF are most commonly found in gently sloping to relatively flat terrain vegetated with grasslands or grassy open stages with scattered shrubby vegetation. Although burrows of sufficient size to accommodate SJKF were detected during the site survey, the species is unlikely to be present on the project site due to adjacent development and the ongoing active construction associated with the East Ranch Development Project to the south and west of the project site. However, the project site does provide suitable foraging habitat with numerous small mammal burrows (potential prey base) that are present throughout the area. The species may occur within the project site irregularly during dispersal or foraging. One known occurrence of SJKF has been documented within 5 miles of the project site in CNDDDB, though this occurrence is from 1975 and occurs approximately 2 miles to the east and separated by substantial development and Tassajara Road (CDFW 2023a). Strikes of foraging SJKF are unlikely given SJKF would avoid the area during construction and construction vehicles/equipment would be moving low speeds. Nevertheless, impacts related to SJKF, if present during construction, could include injury or mortality to foraging individuals if stuck by construction vehicles or equipment and, thus, would be a potentially significant impact. However, Mitigation Measure BIO-1 is required to reduce impacts related to SJKF to less-than-significant levels by

requiring an environmental training for all workers, including regarding the identification and biology of SJKF.

Burrowing owl is a CDFW Species of Special Concern (SSC) and has a low potential of occurring within the project site. Burrowing owls occupy open, treeless areas within grassland, low density scrub, and desert biomes. This species generally inhabits gently sloping areas, characterized by low, sparse vegetation, and is often associated with high densities of burrowing mammals (Poulin et al. 2011). Burrowing owls often use relatively disturbed areas such as agricultural fields, golf courses, cemeteries, and vacant urban lots in addition to natural breeding habitats. Nests are most often in fossorial animal burrows, such as California ground squirrel or American badger, but atypical nests such as culverts or rubble piles may also be used. Nest sites are typically selected in an area with a high density of burrows. The species is unlikely to inhabit burrows observed on the project site due to the ongoing construction associated with the East Ranch Development Project to the south and west of the project site. The project site does provide foraging habitat and a prey base (small mammals). There are 29 recorded occurrences of burrowing owl within a 5-mile radius of the project site in CNDDDB, with the most recent in 2020 (CDFW 2023a). Project activities causing injury or mortality of burrowing owl or burrow destruction or abandonment would be a violation of the California Fish and Game Code (CFGC) and the Migratory Bird Treaty Act (MBTA) and, thus, be a potentially significant impact. However, Mitigation Measures BIO-1 and BIO-3 are required to reduce impacts related to burrowing owl to less-than-significant levels by requiring an environmental training for all workers, conducting pre-construction surveys for the species<sup>2</sup>, and avoiding impacts to the species, if detected.

Loggerhead shrike is a CDFW SSC with a moderate potential to occur within the project site. Loggerhead shrike inhabits open habitat with short vegetation and well-spaced shrubs or low trees, particularly those with spines or thorns. This species can be found in agricultural fields, pastures, old orchards, riparian areas, desert scrublands, savannas, and prairies, and is frequently seen along mowed roadsides with access to fence lines and utility poles (Cornell Lab of Ornithology 2023). Although there are no recorded occurrences of the species within 5 miles of the project site in CNDDDB (CDFW 2023a), there have been multiple recorded sightings in community science databases within 5-miles of the project site (iNaturalist 2023; Cornell Lab of Ornithology 2023a). The open grassland habitat and the presence of suitable perching resources, such as barbed wire fencing, provide suitable foraging habitat. The species is unlikely to nest on the project site due to ongoing construction associated with the East Ranch Development Project to the south and west of the project site. Project activities causing injury or mortality to loggerhead shrike foraging on the project site or nesting near the project site, including from nest abandonment, would violate CFGC and the MBTA and, thus, be a potentially significant impact. However, Mitigation Measures BIO-1 and BIO-3 are required to reduce impacts related to loggerhead shrike to less-than-significant levels by requiring an environmental training for all workers, conducting pre-construction nesting surveys for the shrikes, and avoiding impacts to nesting shrikes, if detected.

American badger is a CDFW SSC and has a low potential of occurring within the project site. American badger inhabit dry, open habitats including grassland and open woodland (Quinn 2008). Suitable burrowing habitat requires dry, sandy soil. The species is most abundant in drier open stages of most shrub, forest, and herbaceous habitats with suitable soils to support burrows (Zeiner et al. 1990). The species is unlikely to inhabit burrows observed in project site due to the ongoing construction associated with the East Ranch Development Project to the south and west of the

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<sup>2</sup> Protocols recommended by the 2012 State of California Department of Fish and Game *Staff Report on Burrowing Owl Mitigation* are not recommended due to the low potential for burrowing owl to occur in the project site.

project site. There are five recorded occurrences of the species within a 5-mile radius in CNDDB, with the most recent in 2004 (CDFW 2023a). Impacts to American badgers, if present during construction, could include harassment or mortality of individuals by construction vehicles or equipment. Project activities causing injury or mortality of American badger would violate CFGC and, thus, be a potentially significant impact. However, Mitigation Measure BIO-1 is required to reduce direct impacts related to American badger to less-than-significant levels by requiring an environmental training for all workers to ensure the species is avoided in the unlikely scenario it is present.

Nesting special-status bird species and/or nesting birds protected under the MBTA and CFGC have potential to occur throughout the project site during the nesting season (February 1 to September 15). Should nesting birds be present within or near the project site during construction, direct impacts could include the destruction of nests through construction activities or the disturbance of nesting behavior through construction noise and activities. Indirect impacts to nesting birds could include the destruction or disturbance of nesting habitat. Nest destruction or abandonment would be a violation of CFGC code and the MBTA and, thus, be potentially significant. However, Mitigation Measures BIO-1, BIO-2, and BIO-3 are required to reduce impacts related to nesting birds to less-than-significant levels by providing protection for special status wildlife species that may occur on site during construction activities through worker training, pre-construction surveys, and impact avoidance.

Therefore, overall impacts related to special-status wildlife species would be less than significant with mitigation incorporated.

## **Mitigation Measures**

### *BIO-1 Prepare and Implement Worker Environmental Awareness Program (WEAP)*

Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend a WEAP training, conducted and prepared by a qualified biologist, to aid workers in recognizing special-status species, native or nesting birds and other biological resources that may occur in the construction area. The specifics of this program will include identification and habitats of special-status species with potential to occur at the project site, a description of the regulatory status and general ecological characteristics of sensitive resources, a review of the limits of construction, and an explanation of the mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared by the qualified biologist for distribution to all contractors, their employers, and other personnel involved with construction. All personnel shall sign a form provided by the trainer indicating they have attended the WEAP and understand the information presented to them.

### *BIO-2 Conduct CRLF and CTS Pre-construction Survey and Impact Avoidance*

A qualified biologist shall conduct a pre-construction survey within 7 days prior to initiation of construction activities. The USFWS and CDFW will be notified, as appropriate, should CRLF or CTS be observed within the project site.

To avoid impacts to CRLF and CTS, the construction crew shall check beneath staged equipment each morning prior to commencement of daily construction activities. Should CRLF or CTS occur within the staging areas, construction activities should be halted until the CRLF or CTS vacates the project site on its own or until a biologist with a USFWS Recovery Permit for CRLF or CTS relocates

the CRLF or CTS. A qualified biologist shall be present during initial grading and ground disturbing activities. Should CRLF or CTS be observed within the project site, the USFWS and CDFW, as appropriate, should be notified, and construction will be halted until either the CRLF or CTS exits the site on its own or until a qualified biologist approved by USFWS relocates the CRLF or CTS.

No work shall occur during a rain event (over 0.25 inch within a 24-hour period) unless a biologist is present on site to observe and monitor work activities. If work is suspended during a rain event, a qualified biologist shall inspect the site again prior to resuming work.

*BIO-3 Conduct Burrowing Owls, Raptors, and Other Nesting Birds Pre-construction Survey and Impact Avoidance*

To prevent the loss of active special-status and non-special-status bird nests, juveniles or adults, project activities including vegetation clearing shall be conducted outside of the breeding season (February 1 through August 31) to the extent feasible.

If project activities will occur between February 1 and August 31, a pre-construction nesting bird survey shall be conducted by a qualified biologist no more than 7 working days prior to the activity to survey for special-status and non-special-status bird and raptor nests. The survey area shall include the project footprint and a 100-foot buffer for passerine species, a 150-foot buffer for burrowing owls, and a 300-foot buffer for raptor species. Following the survey, the following shall be implemented:

- A nesting bird survey report shall be submitted to the District prior to the initiation of project activities. The report shall detail the results of the survey including identification of the location of any active nests, and make a determination if ongoing monitoring should be conducted and/or no-disturbance buffers should be established.
- If active nests are identified during the survey and/or work is scheduled to take place within 100 feet of active passerine nests, 150 feet of active burrowing owl burrows, or 300 feet of active raptor nests, a qualified biologist shall determine appropriate no-disturbance buffers. The buffer shall be the minimum distance required to avoid take of the nest and shall be determined based on the species identified, activities proposed, level of existing noise, and line of sight from the disturbance to the nest.
- A qualified biological monitor shall be present at the initiation of project activities occurring within 100 feet of active passerine nests, 150 feet of active burrowing owl burrows, or 300-feet of active raptor nests, to ensure that project activities do not negatively affect the success of the nest. Duration and frequency of monitoring shall be determined at the discretion of the qualified biologist.
- If nesting bird monitoring is conducted, a nesting bird monitoring report shall be submitted to the District detailing the results of monitoring activities. The report shall be submitted within 30 days of the completion of the activities or nesting season.

**LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED**

- b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

As detailed in Appendix B (Biological Resource Assessment), creeping wild rye turfs are considered a sensitive natural community. This community is located within 100 feet of the project site but not on the project site; as such, impacts specific to creeping wild rye turfs would not occur. In addition,

no riparian habitat or other sensitive natural communities are located on or proximate to the project site that could be impacted. Therefore, impacts related to sensitive natural communities would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

- c. *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No water areas, including jurisdictional waters or wetlands, exist within the project site; as such, no direct impacts would occur related to potential effect on State or federally protected wetlands. Indirect impacts from project construction activities could occur if sediment or pollutants were allowed to enter nearby waterways identified as jurisdictional waters or wetlands. Potential jurisdictional drainages within the vicinity of the project site include freshwater emergent wetlands areas that occur approximately 330 feet south of and 0.3 miles west of the project site, and Cottonwood Creek approximately 0.56 miles east of the project site. However, because construction would disturb more than one acre of land, the project would require the development of a stormwater pollution prevention plan (SWPPP). A SWPPP must describe the project site, the proposed facility, erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of construction sediment and erosion control measures, maintenance responsibilities, and non-stormwater management controls. Inspection of construction sites before and after storms is also required to identify stormwater discharge from the construction activity and to identify and implement erosion controls, where necessary.

With the preparation and implementation of the project-specific SWPPP, the project would not result in a substantial adverse effect on State or federally protected wetlands. Therefore, impacts related to protected wetlands would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

- d. *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Local potential for use of the project site as part of a wildlife corridor is possible due to its connections to open habitat and placement between aquatic resources. However, much of the land surrounding the project site has been recently disturbed due to the ongoing construction associated with the East Ranch Development Project. The project site also borders an existing housing track to the north. Additionally, the relatively small footprint of the project site, and the temporary construction associated with the project, would not substantially interfere with wildlife movement through the region, given that larger and more suitable open areas for wildlife movement are present to the south and east of the project site. Therefore, impacts related to wildlife corridors would be less-than-significant.

**LESS THAN SIGNIFICANT IMPACT**

- e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

No biological resources, including trees, that are protected by local policies and ordinances are present within the project site. Therefore, there would be no impact related to consistency with local biological resources protection policies.

**NO IMPACT**

- f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The project site does not fall within the boundaries of any Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or State habitat conservation plan. Therefore, there would be no impact related to consistency with approved habitat conservation plans.

**NO IMPACT**

## 5 Cultural Resources

|   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact  | No Impact                           |
|---|--------------------------------------|--|-------------------------------------|-------------------------------------|
| Would the project:  |                                      |  |                                     |                                     |
| a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?      | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c. Disturb any human remains, including those interred outside of formal cemeteries?                          | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

- a. *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

Between November 2022 and December 2023, Rincon conducted a cultural resources assessment in support of the project, which included: a cultural resources records search of the California Historical Resources Information System (CHRIS) through the Northwest Information Center (NWIC) located at Sonoma State University; a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search; a pedestrian field survey; and historical map and aerial imagery review. The background research and pedestrian field survey of the project site did not identify any built-environment historic resources within the project site. As such, the project has no potential to alter the significance of a historic resource. Therefore, the proposed project would result in no impact related to historical resources.

### NO IMPACT

- b. *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

No archaeological resources were identified within the project site during the background research or pedestrian field survey. Given the negative results of this review and previous study, the project site is considered to have a low potential for encountering subsurface archaeological deposits. This is based on the Cultural Resources Technical Report included as Appendix C. However, the absence of archaeological resources does not preclude their existence and it is possible that unanticipated archaeological deposits could be encountered and damaged during the ground-disturbing activities associated with construction (such as grading and excavation), especially if those activities occur in less-disturbed buried sediments. Consequently, the following mitigation measure is required to reduce potential impacts related to archaeological resources. Therefore, the proposed project would result in a less-than-significant-with-mitigation-incorporated impact related to archeological resources.



## **Mitigation Measure**

### *CUL-1 Halt Work and Evaluate Upon Unanticipated Discovery of a Cultural Resource*

In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the resource. If the resource is determined by the qualified archaeologist to be prehistoric, then a Native American representative shall also be contacted to participate in the evaluation of the resource. If the qualified archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be completed. If the resource proves to be eligible for the CRHR and significant impacts to the resource cannot be avoided via project redesign, a qualified archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of the California Code of Regulations (CCR) Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the qualified archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. The District shall review and approve the treatment plan and archaeological testing as appropriate, and the resulting documentation shall be submitted to the regional repository of the California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C).

### **LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED**

#### *c. Would the project disturb any human remains, including those interred outside of formal cemeteries?*

No formal cemeteries are within the project site, and the cultural resources records search did not identify cemeteries or archaeological resources containing human remains within the project site. However, the discovery of human remains is always a possibility during ground disturbances, as would be required for future development within the site. Human burials outside of formal cemeteries often occur in prehistoric archaeological contexts. In addition to being potential archaeological resources, human burials have specific provisions for treatment in Section 5097 of the California Public Resources Code. Additionally, the California Health and Safety Code (Sections 7050.5, 7051, and 7054) has specific provisions for the protection of human burial remains. Existing regulations address the illegality of interfering with human burial remains, and protects them from disturbance, vandalism, or destruction. Public Resources Code Section 5097.98 also addresses the disposition of Native American burials, protects such remains, and establishes the NAHC as the entity to resolve any related disputes.

If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific

removal and nondestructive analysis of human remains and items associated with Native American burials. Compliance with Public Resources Code Section 5097.98 and State of California Health and Safety Code Section 7050.5 would ensure impacts to human remains are less than significant.

**LESS THAN SIGNIFICANT IMPACT**

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## 6 Energy

|   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact  | No Impact                |
|---|--------------------------------------|--|-------------------------------------|--------------------------|
| Would the project:  |                                      |  |                                     |                          |
| a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- a. *Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

California, as a state, is one of the lowest per-capita-energy users in the United States, ranked 48<sup>th</sup> in the nation due to its energy efficiency programs and mild climate (United States Energy Information Administration 2022). The project would only require the usage of energy in the form of petroleum fuels (i.e., gasoline and diesel) for construction activities and maintenance trips. As such, project-related gasoline and diesel consumption are the focus of this analysis. Petroleum fuels are primarily consumed by on- and off-road equipment and diesel is primarily used by heavy duty-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and heavy-duty construction vehicles. Adopted in 2018, California Senate Bill 100 accelerates the State's Renewable Portfolio Standards Program, codified in the Public Utilities Act, by requiring electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045. In addition, the California Green Building Standards Code (CALGreen) requires efficiency measures to reduce energy use and provide energy reduction benefits.

### Construction

Project construction activities would include site preparation, including hauling material off site; excavation and construction of the reservoir and access staircase; and site backfill and restoration. During these construction activities, energy would be consumed in the form of petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, and vehicles used to transport materials to and from the site. As shown in Table 4, project construction would result in consumption of approximately 784 gallons of gasoline and approximately 100,528 gallons of diesel fuel. These construction energy consumption estimates are conservative, because they assume that all the construction equipment used in each construction phase are used every working day of that phase.

**Table 4 Estimated Fuel Consumption during Construction**

| Source   | Fuel Consumption (gallons) |         |
|--|----------------------------|---------|
|  | Gasoline                   | Diesel  |
| Construction Equipment & Water Truck/Hauling Trips   | –                          | 100,528 |
| Construction Worker Vehicle Trips  | 784                        | –       |
| See Appendix D (Construction and Operational Energy Calculations) for energy calculation sheets. |                            |         |

Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of California Code of Regulations Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes and would minimize unnecessary fuel consumption. Construction equipment would be also subject to the USEPA Construction Equipment Fuel Efficiency Standard, so would be required to minimize inefficient, wasteful, or unnecessary fuel consumption. These practices would result in efficient use of energy necessary to construct the project. In the interest of project cost efficiency, construction contractors also would not utilize fuel in a manner that is wasteful or unnecessary. As such, the project would not involve the inefficient, wasteful, and unnecessary consumption of energy during construction.

## Operation

The reservoir would require occasional operational maintenance vehicle trips, which would be approximately 104 trips per year. Energy consumption associated with maintenance trips would be relatively minimal and would only occur as needed. The project would also not introduce new electricity demands and would be consistent with similar water storage facilities and equipment energy used throughout California. Furthermore, the project would not introduce new permanent staffing needs. As such, the project would not involve the wasteful, inefficient, or unnecessary consumption of energy resources during operation.

Therefore, overall impacts related to energy consumption efficiency would be less than significant.

## LESS THAN SIGNIFICANT IMPACT

- b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

The District has not adopted a plan for renewable energy or energy efficiency with which the project could comply. The City of Dublin General Plan nor the Association of Bay Area Governments 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy contain policies related to renewable energy use or energy efficiency during construction. However, the Dublin CAP, and California Green Building Standards Code (CALGreen) provide local and State requirements related to renewable energy and energy efficiency. The project would comply with the Dublin CAP, which includes strategies to promote building efficiency and electrification, and Measure MM-2 (Reduce the Embodied GHG Emissions Associated with Building Materials) that requires new construction projects to utilize low carbon concrete to reduce lifecycle GHG emissions and the embodied carbon associated with construction projects (City of Dublin 2020). The project would also be compliant with CALGreen, which includes mandatory, specific requirements related to recycling, construction materials, and energy efficiency standards that would apply to construction of the project to minimize wasteful, inefficient, and unnecessary energy consumption.

With the project's consumption of gasoline and diesel nonrenewable fuels only during construction and in compliance with California Code of Regulations Title 13 Sections 2449 and 2485, USEPA Construction Equipment Fuel Efficiency Standard, the Dublin CAP, and CALGreen, the project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Therefore, there would be a less-than-significant impact related to consistency with local and State renewable energy and energy efficiency plans.

**LESS THAN SIGNIFICANT IMPACT**

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## 7 Geology and Soils

|   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact  | No Impact                           |
|---|--------------------------------------|--|-------------------------------------|-------------------------------------|
| Would the project:  |                                      |  |                                     |                                     |
| a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:  |                                      |  |                                     |                                     |
| 1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?             | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 2. Strong seismic ground shaking?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. Seismic-related ground failure, including liquefaction?  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. Landslides?  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Result in substantial soil erosion or the loss of topsoil?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?   | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                            | <input type="checkbox"/>            | <input type="checkbox"/>            |



- a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?*

The project site is located in a seismically active area of California; however, the project site is not located within an Alquist-Priolo Fault Zone (DOC 2019). Several known faults, such as the Pleasanton Fault (approximately 3.7 miles west of the project site), Calaveras Fault (approximately five miles west of the project site), and the Greenville Fault (approximately 7.3 miles east of the project site), and other faults exist in the vicinity of the project site (DOC 2019). However, these faults do not cross the project site. Therefore, the proposed project would not directly or indirectly cause potential adverse effects related to rupture of a known earthquake fault. Therefore, the project would result in no impact related to fault rupture hazards.

**NO IMPACT**

- a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?*

As described under criterion *a.1*, the project site is proximate to several active faults. Since January 2021, Alameda County has experienced 25 earthquakes with a magnitude greater than 2.5. However, none had a magnitude greater than 4.0, and earthquake damage generally does not occur until a magnitude reaches above 4.0 or 5.0 (United States Geological Survey 2022, 2024).

The project site could be subject to seismic ground shaking during an earthquake occurring along active faults in the region. A large seismic event, such as a seismic shaking or ground failure, could result in breakage of the proposed water reservoir and/or leakage from the reservoir. Construction of the reservoir would be subject to standards of the California Building Code (CBC), which provides building codes and standards for the design and construction of structures in California. Chapter 16 of the CBC contains definitions of seismic sources and the procedure used to calculate seismic forces on structures. Design and construction of the proposed project would consider the seismic environment and would comply with CBC design standards. The project would be located within a seismically active area and install new infrastructure built to the latest seismic code standards in an area that could be affected by seismic activity. A large seismic event that results in seismic ground shaking could result in breakage of reservoir, and potentially result in temporary water flow or flooding to downhill structures. In the event an earthquake compromises the reservoir during operation, DSRSD would temporarily cease operations and conduct emergency repairs as soon as practicable. The project would not include habitable development that could result in exposure of people to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. Therefore, the project would result in a less-than-significant impact related to seismic ground shaking hazards.

**LESS THAN SIGNIFICANT IMPACT**

- a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?*

As shown in Figure 8-1 of the Dublin General Plan Seismic Safety and Safety Element and the DOC Geologic Hazards Data Viewer, although the proposed project would be located in a seismically active area, the project site is not located within a mapped liquefaction zone (City of Dublin 2022, DOC 2019). The project would not involve any activities (such as fracking or mining) that could

trigger an earthquake that would in turn lead to damage from liquefaction. The project would not include habitable development that could result in exposure of people to loss, injury, or death involving seismic-related ground failure, including liquefaction. Therefore, the project would result in no impact related to seismic-related ground failure, including liquefaction.

#### **NO IMPACT**

- a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?*
- c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*

As shown in Figure 8-1 of the Dublin General Plan Seismic Safety and Safety Element and the DOC Geologic Hazards Data Viewer, the project site would overlap with mapped landslide zones (City of Dublin 2022, DOC 2019), and the project would disturb soils within these mapped landslide zones. While the reservoir would be constructed outside of mapped landslide zones, the potential access road would traverse these mapped landslide zones and would involve disturbing soils in these areas.

The project would comply with the City of Dublin Municipal Code Chapter 7.16 Grading Regulations, including preparation of site-specific geotechnical investigation and reports, to ensure that project grading activities do not result in unstable soils. Additionally, construction of the reservoir and the access staircase would be subject to standards of the CBC, which provides building codes and standards for the design and construction of structures in California. Chapter 16 of the CBC contains definitions of seismic sources and the procedure used to calculate seismic forces on structures. The CBC requires addressing soil-related hazards, such as treating hazardous soil conditions involving removal, proper fill selection, and compaction. The project would be required to comply with the CBC, and soils would be properly compacted beneath the reservoir's access staircase to minimize the project's potential to exacerbate existing landslide risk within the project site. As such, with project compliance with applicable grading and building standards, the proposed project would not substantially affect soil stability or increase the potential for on- or off-site landslides.

Although the proposed project would be located in a seismically active area, the project is not located in an earthquake-induced landslide hazard zone or liquefaction zone (DOC 2019). The proposed project would incorporate all applicable building standards and requirements in compliance with the California Building Standards Code and AWWA Standards for reservoir construction. As such, given project compliance with applicable building standards, the proposed project would not substantially affect soil stability or increase the potential for on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

Overall, project impacts related to landslide and other soil stability hazards would be less than significant.

#### **LESS THAN SIGNIFICANT IMPACT**

- b. Would the project result in substantial soil erosion or the loss of topsoil?*

Soil erosion or the loss of topsoil may occur when soils are disturbed but not secured or restored, such that wind or rain events may mobilize disturbed soils, resulting in their transport off the project site. Grading would result in a maximum net soil export of approximately ~~47,700~~ 21,000 cubic yards (12,000 cubic yards for the reservoir, and 9,000 cubic yards for the staircase, and ~~26,700~~ cubic yards).

~~for the potential future access road~~). Because construction would disturb more than one acre of land, the project would be subject to the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2012-0006-DWQ) adopted by the State Water Resources Control Board (SWRCB). Compliance with the NPDES permit requires each qualifying development project to file a Notice of Intent with the SWRCB. Project permit conditions require the development of a SWPPP, which must describe the project site, the facility, erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of construction sediment and erosion control measures, maintenance responsibilities, and non-stormwater management controls. Inspection of construction sites before and after storms is also required to identify stormwater discharge from the construction activity and to identify and implement erosion controls, where necessary. Project compliance with the surface and drainage requirements outlined in the Dublin Municipal Code Chapter 7.16 Grading Regulations would further reduce the potential for runoff and erosion impacts. With implementation of the project-specific NPDES permit and compliance with the local grading requirements, the project would not result in substantial soil erosion or loss of topsoil. Therefore, project impacts related to soil erosion and loss of topsoil would be less than significant.

#### **LESS THAN SIGNIFICANT IMPACT**

- d. *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

Expansive soils are those soils which can undergo substantial changes in volume (i.e., shrink-or-swell potential), due to variations in moisture content. The project site is underlain by siltstones and claystones, which are highly expansive (Berlogar Stevens & Associates 2019). The Uniform Building Code was superseded by the California Building Code in 1998. The project would be required to comply with the CBC, which requires treatment of soil conditions involving removal, proper fill selection, and compaction, and Dublin General Plan Seismic Safety and Safety Element Policy 8.2.1.B, which requires shrink-swell potential to be included with all soil reports and design recommendations. The CBC includes requirements to address soil-related hazards, including testing to identify expansive soils and design specifications where structures are to be constructed on expansive soils. Typical measures to treat expansive soil conditions involve removal, proper fill selection, and compaction. In cases where soil remediation is not feasible, the CBC requires structural reinforcement of foundations to resist the forces of expansive soils. Compliance with the requirements of the CBC, as well as the aforementioned General Plan policies, would reduce risks related to expansive soils. Grading would result in a maximum net soil export of approximately ~~47,700~~21,000 cubic yards (12,000 cubic yards for the reservoir, and 9,000 cubic yards for the staircase, ~~and 26,700 cubic yards for the potential future access road~~). Imported soil would be required to comply with CBC fill selection requirements. Furthermore, the project would not introduce habitable structures to the project site and would not create risks to life within the project site due to expansive soils. With implementation of the CBC, the project would not result in substantial direct or indirect risk to life or property due to location on expansive soils. Therefore, project impacts related to expansive soils would be less than significant.

#### **LESS THAN SIGNIFICANT IMPACT**

- e. *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

The project would not involve the development of habitable structures and, thus, no use of septic tanks or alternative wastewater disposal systems would be necessary. Therefore, no impact would occur related to soil capability support of alternative wastewater disposal systems.

**NO IMPACT**

- f. *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Paleontological resources, or fossils, are the evidence of once-living organisms preserved in the rock record. They include both the fossilized remains of ancient plants and animals and the traces thereof (e.g., trackways, imprints, burrows, etc.). Paleontological resources are not found in “soil” but are contained within the geologic deposits or bedrock that underlies the soil layer. Typically, fossils are greater than 5,000 years old (i.e., older than middle Holocene in age) and are typically preserved in sedimentary rocks. Although rare, fossils can also be preserved in volcanic rocks and low-grade metamorphic rocks under certain conditions (Society of Vertebrate Paleontology [SVP] 2010).

Rincon evaluated the paleontological sensitivity of the geologic units that underlie the project site based on the results of a paleontological locality search and a review of existing information in the scientific literature regarding known fossils within geologic units mapped at the project site. Following the literature review, a paleontological sensitivity classification (high, low, undetermined, or no potential) was assigned to each geologic unit mapped within the project site. This criterion is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present.

The geology of the region surrounding the project site was mapped by Dibblee and Minch (2006) who identified a single geologic unit, Livermore Gravel, underlying the project site. The Livermore Gravel primarily consists of gray, poorly consolidated clay but also includes gray, poorly consolidated pebbles, gravel, and sand (Dibblee and Minch 2006). The Livermore Gravel is Pliocene to early Pleistocene in age and has produced several significant fossil localities in Alameda County, producing taxa such as mammoths (*Mammuthus*), horse (*Equus*, *Pliohippus*), ground sloths, and turtles (Jefferson 2010; Paleobiology Database 2022; University of California Museum of Paleontology 2022). Given this fossil-producing history, the Livermore Gravel geologic unit has high paleontological sensitivity.

Rincon requested a fossil locality search from the University of California Museum of Paleontology. This locality search recovered no known fossil localities within the project site (Holroyd 2022). The nearest fossil locality comes from the campus of Las Positas College approximately 2 miles east of the project site and consists of a mammoth (*Mammuthus*) found in the Livermore Gravel. Other fossil localities are known throughout the Livermore Valley from Livermore Gravel and undifferentiated Pleistocene-aged alluvium. These localities primarily produce large mammal fossils and, more rarely, small mammals, reptiles, and birds, and these fossils generally occur within 16 feet of the surface.

Project ground-disturbing activities within previously undisturbed sediments with high paleontological sensitivity could result in significant impacts related to paleontological resources. Impacts would be significant if construction activities result in the destruction, damage, or loss of

scientifically important paleontological resources and associated stratigraphic and paleontological data. The project would include grading and excavations for the reservoir, water lines, and access staircase reaching more than 25 feet below the current grade. Previously undisturbed portions of the highly sensitive Livermore Gravel geologic unit would be impacted and, thus, a potentially significant impact would occur. However, Implementation of Mitigation Measure GEO-1 would reduce potential impacts related to paleontological resources to a less-than-significant level by requiring the recovery, identification, and curation of previously unrecovered fossils encountered during project construction.

Therefore, the project would result in a less-than-significant-with-mitigation-incorporated impact related to paleontological resources or unique geologic features.

## **Mitigation Measure**

### *GEO-1 Monitor and Mitigate for Paleontological Resources*

#### **QUALIFIED PROFESSIONAL PALEONTOLOGIST**

Prior to excavation, the District shall retain a Qualified Professional Paleontologist, as defined by the Society of Vertebrate Paleontology (SVP) (2010), who shall direct all mitigation measures related to paleontological resources.

#### **PALEONTOLOGICAL WORKER ENVIRONMENTAL AWARENESS PROGRAM**

Prior to the start of construction, the Qualified Professional Paleontologist or their designee shall conduct a paleontological Worker Environmental Awareness Program (WEAP) training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction personnel.

#### **PALEONTOLOGICAL MONITORING**

Full-time paleontological monitoring shall be conducted during ground-disturbing construction activities within previously undisturbed sediments. Paleontological monitoring shall be conducted by a paleontological monitor with experience with collection and salvage of paleontological resources and who meets the minimum standards of the SVP (2010) for a Paleontological Resources Monitor.

The Qualified Professional Paleontologist may recommend that monitoring be reduced in frequency or ceased entirely based on geologic observations. Such decisions shall be subject to review and approval by the District. In the event of a fossil discovery by the paleontological monitor or construction personnel, all work in the immediate vicinity of the find shall cease. The Qualified Professional Paleontologist shall evaluate the find before restarting construction activity in the area. If it is determined that the fossil(s) is (are) scientifically significant, the Qualified Professional Paleontologist shall complete the following conditions to mitigate impacts to significant fossil resources:

- a. **Fossil Salvage.** The paleontological monitor shall halt construction equipment within 50 feet of the find. Typically, fossils can be safely salvaged quickly by a single paleontological monitor and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. Bulk

matrix sampling may be necessary to recover small invertebrates or microvertebrates from within paleontologically sensitive deposits.

- b. **Fossil Preparation and Curation.** Significant fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the Qualified Professional Paleontologist.

#### **FINAL PALEONTOLOGICAL MITIGATION REPORT**

Upon completion of ground-disturbing activity (and curation of fossils if necessary), the Qualified Professional Paleontologist shall prepare a final report describing the results of the paleontological monitoring efforts associated with the project. The report shall include a summary of the field and laboratory methods, an overview of the project geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. The report shall be submitted to the District and, if monitoring efforts produced fossils, to the designated museum repository.

#### **LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED**

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## 8 Greenhouse Gas Emissions

|   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact  | No Impact                |
|---|--------------------------------------|--|-------------------------------------|--------------------------|
| Would the project:  |                                      |  |                                     |                          |
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?       | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- a. *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*
- b. *Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

The Dublin Climate Action Plan (CAP) 2030 and Beyond is a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b). The Dublin CAP includes strategies to promote building efficiency and electrification, and Measure MM-2 (Reduce the Embodied GHG Emissions Associated with Building Materials) requires new construction projects to utilize low carbon concrete to reduce lifecycle GHG emissions and the embodied carbon associated with construction projects (City of Dublin 2020). The project would comply with the requirements of the Dublin CAP, and thereby would not conflict with a local GHG reduction strategy and would not conflict with BAAQMD CEQA GHG Thresholds Option 1 (BAAQMD 2022)

In addition, as a public utility infrastructure project without residential, commercial, or office land uses, the project would not involve use of natural gas appliances or plumbing, would result in minimal operational vehicle miles traveled (VMT) with a maximum of 104 maintenance trips per year, and would not be required to provide electric vehicle parking or charging infrastructure.

As such, the project would not conflict with BAAQMD CEQA GHG Thresholds Option 2 (BAAQMD 2022). Therefore, project impacts related to generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs would be less than significant.

### LESS THAN SIGNIFICANT IMPACT



*This page intentionally left blank.*

## 9 Hazards and Hazardous Materials

|   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact  | No Impact                           |
|---|--------------------------------------|--|-------------------------------------|-------------------------------------|
| Would the project:  |                                      |  |                                     |                                     |
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

- a. *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*
- b. *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Project operation would involve water storage and not require routine transport or on-site storage of chemicals or potentially hazardous materials, and risk of spill would cease after construction would be completed. Project construction would temporarily increase the transport and use of hazardous materials in the project site through the operation of vehicles and equipment. Such substances include diesel fuel, oil, solvents, and other similar materials that could be brought onto the construction site for use and storage during the construction period and could introduce the potential for an accidental spill or release to occur. These materials would be contained within vessels specifically engineered for safe storage and would not be transported, stored, or used in quantities that would pose a significant hazard to the public or construction workers themselves. Project construction would require the excavation and transport of materials and soils that could possibly be contaminated by vehicle-related pollution (e.g., oil, gasoline, diesel, and other automotive chemicals). All such materials and soils removed during construction would be transported and disposed of in accordance with applicable codes and regulations to minimize potential hazards to construction workers and the surrounding community. Any use of potentially hazardous materials during project construction would comply with all local, State, and federal regulations regarding the handling of potentially hazardous materials, including Title 49 of the Code of Federal Regulations and Title 22, Division 4.5 of the CCR. In addition, hazardous materials used during project construction would be disposed of off-site in accordance with all applicable laws and regulations, including but not limited to the California Building and Fire Codes, as well as regulations of the federal and State Occupational Safety and Health Administrations.

Therefore, the project would result in a less-than-significant impact related to risks associated with the routine transport, use, or disposal of or reasonably foreseeable upset and accident conditions involving hazardous materials.

#### **LESS THAN SIGNIFICANT IMPACT**

- c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?*

As discussed above under criteria *a* and *b*, project construction may involve the temporary transport, storage, use, and disposal of hazardous materials, but the management of hazardous materials is governed by and would be in compliance with identified federal, State, and local regulations. The nearest school to the project site is Jose Maria Amador Elementary School, located approximately 0.5 mile northwest of the project site. As such, the project would not be able to potentially emit hazardous emissions or handle hazardous materials within 0.25 mile of an existing school. Therefore, the project would result in no impact related to risks associated with handling of hazardous materials within 0.25 mile of schools.

#### **NO IMPACT**

- d. *Would the project be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

The following databases compiled pursuant to Government Code Section 65962.5 were reviewed with regard to the project site for known hazardous materials contamination:

- EnviroStor Database, California Department of Toxic Substances Control (DTSC)
- GeoTracker Database, State Water Resources Control Board (SWRCB)
- California Environmental Protection Agency (CalEPA) Cortese List

According to these database searches, there are no known hazardous material sites within the project site or within 0.25 mile of the project site (DTSC 2024; SWRCB 2024; CalEPA 2024). The nearest hazardous material site listed in these databases is the Jordan Ranch E-5 Site, located approximately 0.5 mile southwest of the site (DTSC 2024; SWRCB 2024). This hazardous material site's status is listed as "completed – case closed," which indicates that required remediation occurred and the project is no longer a hazards or hazardous materials concern. As such, the project would not be located on a hazardous materials site on a list compiled pursuant to Government Code Section 65962.5 and would not create a significant hazard to the public or the environment. Therefore, the project would result in no impact related to risks associated with location on a listed hazardous materials site.

**NO IMPACT**

- e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

The nearest airport to the project site is the Livermore Municipal Airport, located approximately 1.5 miles southeast of the site. However, the project site is not located within that airport's influence area or within its mapped noise contours (Alameda County Community Development Agency 2012). Therefore, the project would not result in a safety hazard or excessive noise to workers in the project area. Therefore, the project would result in no impact related to risks associated with location proximate to an airport.

**NO IMPACT**

- f. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The project would not involve habitable development nor facilitate new facilities that would interfere with adopted emergency plans. In addition, the project would not obstruct, temporarily close, or alter existing roadways or require the construction of new public roadways that could be used as emergency evacuation routes. As such, the proposed project would not block emergency response or evacuation routes or interfere with adopted emergency response and emergency evacuation plans. Therefore, the project would result in no impact related to impairment or interference with implementation of an emergency response or evacuation plan.

**NO IMPACT**

- g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?*

According to maps prepared by CAL FIRE, the project site is designated as a Moderate Fire Hazard Severity Zone (FHSZ) and is within a Local Responsibility Area (CAL FIRE 2007). The project does not propose habitable development that could be subject to wildland fire nor would it result in other physical changes to the environment that could increase the risk of a wildland fire. As described further under Environmental Checklist Section 20, *Wildfire*, the proposed project would not expose people or structures to a substantial risk of loss, injury, or death involving wildland fires. Therefore, project impacts related to risks associated with exposure to wildland fires would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

# 10 Hydrology and Water Quality

|  | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact  | No Impact                           |
|--|--------------------------------------|--|-------------------------------------|-------------------------------------|
| Would the project:   |                                      |  |                                     |                                     |
| a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the Basin?                                  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: |                                      |  |                                     |                                     |
| (i) Result in substantial erosion or siltation on- or off-site;  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or                            | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (iv) Impede or redirect flood flows?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

- a. *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

The project site is located in the San Francisco Bay hydrologic region. The nearest surface water bodies to the project site are Cottonwood Creek, a creek that runs parallel to Doolan Road approximately 0.6-mile west of the project site; Arroyo Mocho, a stream approximately 1.6 miles southwest of the project site; several unnamed reservoirs approximately 1.7 miles south of the project site; and Shadow Cliffs Lake, approximately 3.5 miles south of the project site. The project site is also bisected by existing natural drainages, which flow in a north-south direction due to existing topography (United States Geological Survey 2023).

Project operation would involve an enclosed, undergrounded project reservoir and, thus, could not degrade surface or groundwater quality. Project construction has the potential to impact water quality through erosion and through debris carried in runoff. Construction would involve heavy equipment that could result in an increase in fuel, oil, and lubricants in stormwater runoff due to leaks or accidental releases. Erosion that would occur during project construction would be limited due to the relatively small project footprint. Project construction would include dust control via use of a water truck that would water the construction area as needed to prevent dust in areas of grading. Construction would disturb more than one acre and the project would comply with the requirements of the National Pollutant Discharge Elimination System Construction General Permit. As described in Environmental Checklist Section 9, *Hazards and Hazardous Materials*, accidental leaks or spills of hazardous materials that may occur during project construction would be cleaned up and disposed of in accordance with applicable regulations. In addition, compliance with State requirements would reduce impacts related to surface and ground water quality. As such, the project would not violate water quality standards or waste discharge requirements and would not substantially degrade surface or groundwater quality. Therefore, project impacts related to surface and groundwater quality would be less than significant.

#### **LESS THAN SIGNIFICANT IMPACT**

- b. *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*
- e. *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

The project site is subject to the 2017 Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan), established by the San Francisco Bay Regional Water Quality Control Board. The Basin Plan establishes narrative and numerical water quality objectives and includes total daily maximum loads, which are a calculation of the maximum amount of a pollutant a water body can have and still meet water quality objectives established by the region (San Francisco Bay Regional Water Quality Control Board 2017). As discussed in Environmental Checklist Section 9, *Hazards and Hazardous Materials*, the proposed project would not generate substantial erosion, and all accidental leaks or spills of hazardous materials that may occur during construction would be remediated in accordance with applicable regulations. As such, the project would not conflict with or obstruct implementation of the Basin Plan.

The District purchases potable water from the Zone 7 Water Agency (Zone 7). This water supply consists of a blend of surface water imported from the State Water Project, local runoff from the Del Valle watershed, and local groundwater previously recharged and extracted from the Livermore Valley Groundwater Basin. Prior to blending, imported water supplies are treated at one of Zone 7's

two water treatment facilities – Del Valle Water Treatment Plant and Patterson Pass Water Treatment Plant. The composition of the potable water supply (i.e. treated surface water to local runoff to groundwater ratio) varies year-to-year based on hydrologic conditions. In general, however, DSRSD receives a higher proportion of groundwater during periods of drought.

Zone 7 Water Agency is also the Groundwater Sustainability Agency for the Livermore Valley Groundwater Basin, and manages this basin via implementation of the Alternative Groundwater Sustainability Plan for the Livermore Valley Groundwater Basin, which was adopted in 2021. Zone 7 Water Agency only pumps groundwater that has been stored in the basin as part of its artificial recharge, and implements monitoring programs and management actions to ensure groundwater sustainability (Zone 7 Water Agency 2020). The project has been planned by DSRSD to serve planned growth and incorporated in its water supply planning, including the 2016 Water Master Plan update and the 2020 Urban Water Management Plan, that informed the Alternative Groundwater Sustainability Plan for the Livermore Valley Groundwater Basin. As such, the project would not introduce unplanned demand for groundwater and would not conflict with sustainable management of the Livermore Valley Groundwater Basin. Therefore, project impacts related to groundwater supplies, groundwater recharge, and consistency with water quality and sustainable groundwater management plans would be less than significant.

#### **LESS THAN SIGNIFICANT IMPACT**

- c. *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*
- (i) *Result in substantial erosion or siltation on- or off-site?*
  - (ii) *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*
  - (iii) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*
  - (iv) *Impede or redirect flood flows?*

The project would involve installation of a new water reservoir. The project would not include components that would result in alterations to the course of a stream or river. The reservoir would be located belowground, and surface conditions would be restored to existing topography after reservoir construction. Accordingly, existing drainage patterns would not be altered in the footprint of the reservoir. As discussed under criterion *b* in Environmental Checklist Section 7, *Geology and Soils*, the project would not result in substantial erosion or siltation on- or off-site. The proposed access staircase would be limited in area and would result in minimal changes to the existing topography of the project site. Runoff currently travels via sheet flow to nearby drainages, and the access staircase would not inhibit the existing drainage pattern. Although the access staircase would introduce new impervious surfaces to the project site, it would not result in a substantial increase in surface runoff. As such, the project would not substantially alter the existing drainage pattern in the project site compared to existing conditions. Therefore, impacts related to erosion, surface runoff, and flood flows would be less than significant.

#### **LESS THAN SIGNIFICANT IMPACT**



- d. *In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?*

According to flood hazard maps prepared by the Federal Emergency Management Agency (FEMA), the project site is located within flood zone X and is not within a flood hazard area (FEMA 2009). The project site is not proximate to the Pacific Ocean and is not within a tsunami hazard zone (DOC 2021). The closest surface water bodies that would be subject to seiche are several unnamed reservoirs approximately 1.7 miles south of the project site; due to distance and topography, the project site would not be impacted should a seiche occur. Additionally, the project would not require storage of potential pollutants within the project site. As such, the project would not risk release of pollutants due to project inundation. Therefore, no impacts would occur related to flood, tsunami, or seiche hazards.

**NO IMPACT**

# 11 Land Use and Planning

|  | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact | No Impact                           |
|--|--------------------------------------|--|------------------------------------|-------------------------------------|
| Would the project:   |                                      |  |                                    |                                     |
| a. Physically divide an established community?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |

a. *Would the project physically divide an established community?*

The project would involve construction of a new water reservoir in an undeveloped area of Dublin. The project would not impede access between existing surrounding residential areas and would not conflict with planned residential development. As such, the project would not physically divide an established community. Therefore, no project impact related to division of an established community would occur.

**NO IMPACT**

b. *Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

While DSRSD is not subject to the Dublin General Plan and municipal code, the following discussion is provided for informational purposes. The Dublin General Plan and municipal code contain several land use policies and standards with the purpose of avoiding or mitigating an environmental effect. Table 5 shows applicable General Plan policies that aim to avoid or mitigate environmental effects and the project’s consistency with those policies.

**Table 5 Project Consistency with City of Dublin General Plan and Municipal Code**

| Policy/Standard   | Project Consistency   |
|---|---|
| <b>City of Dublin General Plan</b>  |   |
| <b>7.3.1 A(1).</b> Maintain natural hydrologic systems.   | <b>Consistent.</b> As discussed under Environmental Checklist Section 10, <i>Hydrology and Water Quality</i> , the project would not substantially alter the existing drainage pattern of the project site. The project would consist of an underground water reservoir, and, because soil would be backfilled on top of the reservoir similar to existing conditions, the footprint of the reservoir would not substantially alter existing hydrologic systems. The access staircase and associated pipelines would follow existing grades and would require minimal excavation and not substantially alter natural hydrologic systems. Therefore, the project would be consistent with this policy. |
| <b>7.4.1 A(1).</b> Protect oak woodlands.<br><b>B(1).</b> Require preservation of oak woodlands. Where woodlands occupy slopes that otherwise could be graded and developed, permit allowable density to be transferred to another part of the site. Removal of an individual oak tree may be considered through the project review process.<br><b>B(2).</b> Enact and enforce the Heritage Tree Ordinance.                                     | <b>Consistent.</b> The project site does not contain oak woodlands and would not require tree removal. Therefore, the project would be consistent with these policies.  |
| <b>7.5.1 (A)2.</b> Require an air quality analysis for new development projects that could generate significant air emissions on a project and cumulative level. Air quality analyses shall include specific feasible measures to reduce anticipated air quality emissions to a less-than-significant California Environmental Quality Act (CEQA) level.  | <b>Consistent.</b> As discussed under Environmental Checklist Section 3, <i>Air Quality</i> , project-generated air emissions were modeled with CalEEMod (version 2020.4.0). CalEEMod modeling determined that the project is not anticipated to generate air emissions that would exceed applicable BAAQMD thresholds for air pollutants with implementation of Mitigation Measures AQ-1 and AQ-2. Therefore, the project would be consistent with this policy.  |
| <b>7.6.1 A(1).</b> Prevent premature urbanization of agricultural lands.  | <b>Consistent.</b> As discussed under Environmental Checklist Section 2, <i>Agriculture and Forestry Resources</i> , the project site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance and is not currently used for agriculture. The project would not urbanize agricultural lands. Therefore, the project would be consistent with this policy.  |
| <b>7.7.1 A(1).</b> Preserve Dublin's historic resources. Seven sites in the Primary Planning Area are listed in the California Archaeological Inventory, Northwest Information Center, at Sonoma State University including the church and school on the grounds of the Dublin Heritage Park and Museums. As many as a dozen potentially significant historic and prehistoric sites have been identified in the Eastern Extended Planning Area. | <b>Consistent.</b> As discussed under Environmental Checklist Section 5, <i>Cultural Resources</i> , the project area does not include any known cultural resources and the project would not result in significant impacts related to cultural resources with implementation of Mitigation Measures CUL-1. Therefore, the project would be consistent with this policy.  |
| <b>7.8.1 B(1).</b> Require revegetation of cut and fill slopes.<br><b>(4).</b> Access roads (including emergency access roads), arterial streets and collector streets that must pass through open space areas shall be designed to minimize grading to the maximum extent possible, so as not to damage the ecological and/or aesthetic value and characteristics of the open space area.  | <b>Consistent.</b> The construction of the reservoir would require grading of the existing hilltop and grading associated with the proposed staircase. Once construction is complete, soils would be revegetated, and soil would be backfilled over the reservoir to restore the hilltop's topography and vegetation. The reservoir, associated pipelines, and staircase would not substantially alter the ecological or aesthetic characteristics of the project site. Therefore, the project would be consistent with this policy.  |

| Policy/Standard   | Project Consistency  |
|---|--|
| <b>City of Dublin Municipal Code</b>  |  |
| <b>Chapter 7.16.</b> Grading Regulations. This chapter contains regulations to avoid pollution of water courses with sediments caused by surface runoff and to ensure that the use of a graded site is consistent with the City’s general plan.<br><br><b>Chapter 7.74.</b> Stormwater Management and Discharge Control. This chapter contains regulations to eliminate non-stormwater discharges into the municipal storm sewer and to reduce erosion and siltation. | <b>Consistent.</b> As discussed under Environmental Checklist Section 7, <i>Geology and Soils</i> , and Environmental Checklist Section 8, <i>Hydrology and Water Quality</i> , the project would be required to prepare a SWPP and comply with local grading regulations and would not result in substantial erosion or runoff. Therefore, through compliance with local grading and stormwater control regulations, the project would be consistent with this City policy. |
| <b>Chapter 5.28.</b> Noise. This chapter defines and prohibits unreasonable levels of noise.  | <b>Consistent.</b> As described under Environmental Checklist Section 13, <i>Noise</i> , the project would not exceed acceptable noise levels during construction and would not generate noise during operation. Therefore, the project would be consistent with this policy.  |
| Source: City Dublin 2022; Dublin Municipal Code   |  |

As demonstrated in Table 5, the project would not conflict with or be inconsistent with a land use policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Additionally, the project site is not within another land use plan area other than that of the Dublin General Plan and is not within an airport land use plan area. Therefore, no project impact related to consistency with current land use plans or policies would occur.

**NO IMPACT**

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## 12 Mineral Resources

|  | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact | No Impact                           |
|--|--------------------------------------|--|------------------------------------|-------------------------------------|
| Would the project:   |                                      |  |                                    |                                     |
| a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of The state?                                 | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |

- a. *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*
- b. *Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

According to Mineral Land Classification Maps prepared by the California Geological Survey, the project site is in an area where available geologic information indicates there is low potential for the presence of significant construction aggregate resources (California Geological Survey 2021). The City of Dublin General Plan states that mineral extraction areas are not present within Dublin (City of Dublin 2022). Regardless, the proposed project would not involve mineral extraction or changes in land use that could affect the availability of mineral resources, and the project site is not currently used for mineral resource extraction. Therefore, no impact related to availability of mineral resources would occur.

**NO IMPACT**

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# 13 Noise

|   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact  | No Impact                |
|---|--------------------------------------|--|-------------------------------------|--------------------------|
| Would the project result in:  |                                      |  |                                     |                          |
| a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Generation of excessive groundborne vibration or groundborne noise levels?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- a. *Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

## Construction

Noise-sensitive receivers nearest to the project site include single-family residences, located approximately 500 feet north of the proposed reservoir. Project construction activities would generate temporary noise in the project site vicinity, exposing sensitive receivers located north of the project site to increased noise levels. Construction noise would be generated by heavy-duty diesel construction equipment used for site preparation, excavation, reservoir and roadway construction, and site restoration. Each phase of construction would include a specific equipment mix and associated noise characteristics, depending on the equipment used during that phase. Construction equipment would be located as close as 45 feet to these properties but would typically operate at an average distance of 90 feet. Construction noise would be short-term and temporary at the individual locations of project construction activities, given that construction at each location would only occur for a fraction of the overall up to 15-month construction period. Construction noise at sensitive receptors near the project site was estimated using the FHWA Roadway Construction Noise Model (RCNM; FTA 2018). At a distance of 90 feet, one excavator, one grader, and one scraper would generate a noise level of approximately 79.1 dBA  $L_{eq}$  (RCNM Calculations are included in Appendix E). The grading phase was the only phase modeled in RCNM, because it would



be the loudest construction phase. Because the Dublin Municipal Code does not establish a quantitative noise threshold, this analysis conservatively uses the FTA's threshold of 80 dBA (8-hour  $L_{eq}$ ) for residential uses. Table 6 presents estimated construction noise levels at a distance of 90 feet for various pieces of heavy equipment anticipated to be utilized for project construction activities. As shown therein, noise from construction equipment would not exceed FTA's threshold of 80 dBA.

**Table 6 Estimated Construction Equipment Noise Levels<sup>1</sup>**

| Equipment           | Construction Noise Levels at 90 feet (dBA $L_{eq}$ ) <sup>1</sup> |
|---------------------|---|
| Excavator           | 71.6  |
| Grader              | 75.9  |
| Scraper             | 74.5  |
| <b>Threshold</b>    | <b>80.0</b>   |
| Threshold Exceeded? | No  |

dBA = A-weighted decibels;  $L_{eq}$  = equivalent noise level  
 Source: FTA 2018; Federal Highway Administration Roadway Construction Noise Model 2006

## Operation

Upon completion of construction, the reservoir and associated pipelines would be located underground and not generate noise. Routine maintenance trips would be occasional (104 trips per year). The addition of these maintenance trips to area roadways, which currently experience thousands of daily trips (as discussed further in Environmental Checklist Section 17, *Transportation*), would not result in a perceptible increase in roadway noise. As such, project operation would not generate a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of applicable standards.

Therefore, the project would result in a less-than-significant impact related to ambient noise levels.

## LESS THAN SIGNIFICANT IMPACT

- b. *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

The greatest anticipated source of vibration during general project construction activities would be from a roller, which may be used within 45 feet of the nearest residences when accounting for setbacks. A roller would create approximately 0.21 in/sec peak particle velocity (PPV) at a distance of 25 feet (Caltrans 2020). This would equal a vibration level of 0.11 in/sec PPV at a distance of 45 feet.<sup>3</sup> This would be lower than what is considered a distinctly perceptible impact for humans of 0.24 in/sec PPV, and the structural damage impact of 0.20 in/sec PPV. Therefore, although the equipment may be perceptible to nearby human receivers, temporary impacts associated with the use of construction equipment would be less than related Caltrans thresholds.

Since the proposed project would not include components with the potential to generate significant vibration during operation, such as manufacturing or heavy equipment, no operational vibration would occur.

<sup>3</sup>  $PPV_{Equipment} = PPV_{Ref} (25/D)^n$  (in/sec) = 0.210 (25/45)<sup>1.1</sup> (in/sec);  $PPV_{Ref}$  = reference PPV at 25 feet, D = distance, and n = 1.1

Therefore, the project would result in a less-than-significant impact related to generation of groundborne vibration.

**LESS THAN SIGNIFIC IMPACT**

- c. *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

The nearest airport to the project site is the Livermore Municipal Airport, located approximately 1.5 miles southeast of the site. However, the project site is not located within the airport's influence area or within its mapped noise contours (Alameda County Community Development Agency 2012). As such, the project would not expose workers to excessive noise in the project area. Therefore, the project would result in a less-than-significant impact related to airport noise exposure.

**LESS THAN SIGNIFICANT IMPACT**

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# 14 Population and Housing

|  | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact | No Impact |
|--|--------------------------------------|--|------------------------------------|-----------|
|--|--------------------------------------|--|------------------------------------|-----------|

Would the project:

- a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

☐

☐

☐

☒
- b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing Elsewhere?

☐

☐

☐

☒

- a. *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

b. *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

The project would involve construction and operation of a water reservoir to serve existing and planned development. The project would not include housing or other infrastructure that would lead directly to population growth. The project would facilitate additional water service to be provided by DSRSD in order to meet existing and planned water supply demand. The proposed project would not involve development of land that previously could not be developed due to water service constraints. As a result, the project would not indirectly induce substantial unplanned population growth. In addition, the project would not include components that displace existing people or result in the removal of housing. Therefore, no impacts related to population and housing would occur.

**NO IMPACT**

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# 15 Public Services

|  | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact | No Impact                           |
|--|--------------------------------------|--|------------------------------------|-------------------------------------|
| a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: |                                      |  |                                    |                                     |
| 1 Fire protection?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| 2 Police protection?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| 3 Schools?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| 4 Parks?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| 5 Other public facilities?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |

a. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

- 1 *Fire protection?*
- 2 *Police protection?*
- 3 *Schools?*
- 4 *Parks?*
- 5 *Other public facilities?*

The project would involve installation of a water reservoir and associated infrastructure and would not introduce new habitable infrastructure requiring additional fire or police protection services or schools or parks. As described in Environmental Checklist Section 14, *Population and Housing*, the project does not include development of structures or infrastructure that would directly or indirectly increase the population in Dublin. As such, the project would not result in the provision of new or physically altered public facilities or the need for other new or physically altered public

facilities. Therefore, no project impacts would occur related to provision or alteration of public service facilities.

**NO IMPACT**

16 Recreation

|  | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact | No Impact                           |
|--|--------------------------------------|--|------------------------------------|-------------------------------------|
| a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?                        | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |

- a. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*
- b. *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

As described in Environmental Checklist Section 14, *Population and Housing*, the project does not include development of structures or infrastructure that would directly or indirectly increase the population in Dublin. As such, the project would not increase the population served by local recreation facilities or otherwise result in increased demand for or degradation of those facilities. In addition, the project also would not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, no project impacts related to recreation facilities would occur.

**NO IMPACT**



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# 17 Transportation

|   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact  | No Impact                           |
|---|--------------------------------------|--|-------------------------------------|-------------------------------------|
| Would the project:  |                                      |  |                                     |                                     |
| a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?         | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)? | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d. Result in inadequate emergency access?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

*a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

DSRSD has not adopted a program, plan, ordinance, or policy addressing the circulation system. While DSRSD is not subject to Dublin programs, plans, ordinances, or policies, the following discussion is provided for informational purposes. The Dublin General Plan Circulation Element includes goals to promote transportation options and independent mobility, increase community safety, and minimize impacts related to vehicle emissions.

Construction-related vehicle trips would include construction workers traveling to and from the project site, haul trucks (for moving and importing soil), and other trucks associated with equipment and material deliveries. Based on estimations determined with CalEEMod, construction of the reservoir would require a maximum of approximately 108 trips during the grading phase (Appendix A). Operation of the project would result in approximately 104 trips per year. Such trips would occur on area roadways, such as Central Parkway and Positano Parkway. Construction trips would access the project site via South Terracina Drive or through roads in future East Ranch development in the adjacent Croak Property. Closures of area roadways would not be required during project construction, and construction equipment and worker vehicles would be staged on site or adjacent to the project site on the Croak Property. Given that construction would be a short-term and temporary activity, trips would account for a relatively small portion of existing traffic on area roadways, construction-related traffic impacts would not be substantial. As such, project construction would not conflict with a program, plan, ordinance, or policy addressing the circulation system impacts.

The proposed project would involve installation of a water reservoir and would not conflict with adopted policies, plans, or programs addressing the circulation system, including public transit,

bicycle, or pedestrian facilities. Operation of the project would include routine inspections and maintenance trips that would not substantially increase roadway vehicles along area roadways. As such, project operation would not conflict with a program, plan, ordinance, or policy addressing the circulation system.

Therefore, project impacts related to roadway vehicle, bicycle, and pedestrian circulation would be less than significant.

#### **LESS THAN SIGNIFICANT IMPACT**

- b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

CEQA Guidelines Section 15064.3(b) identifies criteria for evaluating transportation impacts. Specifically, the guidelines state VMT exceeding an applicable threshold of significance may indicate a significant impact. DSRSD has not adopted VMT thresholds; therefore, the City of Dublin's thresholds are used in this analysis. The City of Dublin established VMT thresholds of significance in its Transportation Impact Analysis Guidelines (Guidelines), adopted in July 2021. According to the City's Guidelines, a project would require a detailed VMT analysis unless it meets at least one of the City's five screening criteria. One screening criterion is Public Services projects, including but not limited to police and fire stations, public utilities, neighborhood parks, and public schools. The City's Guidelines states that these projects generally do not increase VMT and can be presumed to have less-than-significant VMT impacts, unless the project is sited in a location that would require employees or visitors to travel substantial distances (City of Dublin 2021).

The project would involve construction and operation of a DSRSD water reservoir and is a public services project. The project site would be accessible via existing area roadways and would not require DSRSD employees to travel substantial distances, as the project site is within the existing DSRSD service area. Therefore, the project would not require a detailed VMT analysis and can be presumed to have a less-than-significant impact related to VMT.

#### **LESS THAN SIGNIFICANT IMPACT**

- c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?*

The project would involve the construction of a new access staircase that would only be used by maintenance personnel during operation. The access staircase would not introduce a hazard due to a geometric design feature or incompatible use. Construction equipment would be staged outside of roadways, and operation of the project would not require the use of incompatible land use or equipment. Project operation would involve operational maintenance trips similar to existing vehicle trips required for adjacent development and utilities. As such, the project would not substantially increase hazards due to a geometric design feature or incompatible use. Therefore, no project impact would occur related to potential roadway hazards.

#### **NO IMPACT**

*d. Would the project result in inadequate emergency access?*

The project would not require road closures and would not interfere with access to area roadways. During project construction, construction equipment and vehicles would be staged on site and/or on the Croak Property, and during project operation the project would not generate a substantial amount of vehicle trips. The access staircase would be constructed consistent with required widths to provide adequate access to the site. As such, the project would not result in inadequate emergency access. Therefore, no project impact would occur related to emergency access adequacy.

**NO IMPACT**

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# 18 Tribal Cultural Resources

|  | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact | No Impact                |
|--|--------------------------------------|--|------------------------------------|--------------------------|
| Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:                   |                                      |  |                                    |                          |
| a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?  | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                            | <input type="checkbox"/>           | <input type="checkbox"/> |
| b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision I of Public Resources Code Section 5024.1? In applying the criteria set forth subdivision(c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                            | <input type="checkbox"/>           | <input type="checkbox"/> |

- a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?*
- b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set in subdivision (c) of Public Resources Code Section 5024.1?*

On January 24, 2023, the 8 following Native American Heritage Commission (NAHC)-identified local Native American tribal groups were formally notified that the Service initiated environmental review of the proposed project and were invited to provide consultation:

- Amah Mutsun Tribal Band of Mission San Juan Bautista,
- Costanoan Rumsen Carmel Tribe,
- Indian Canyon Mutsun Band of Costanoan,
- Muwekma Ohlone Indian Tribe of the SF Bay Area,
- North Valley Yokuts Tribe, the
- Ohlone Indian Tribe, the
- Confederated Villages of Lisjan, Wilton Rancheria Tribe, and the
- Wuksache Indian Tribe/Eshom Valley Band.

Under AB 52, Native American tribes have 30 days to respond and request further project information and formal consultation. On March 9, 2023, Ms. Kanyon Sayers-Roods, of the Indian Canyon Mutsun Band of Costanoan, responded to the District, via email, requesting consultation for the project under AB 52. Ms. Sayers-Roods identified that the project site is near the boundary of a potentially eligible cultural site, and requested a formal consultation meeting. The consultation meeting was held via Zoom on March 30, 2023, during which Ms. Sayers-Roods requested a cultural sensitivity training be provided to construction crews prior to the start of ground disturbance. No other tribes have requested consultation as of December 2023.

The District formally consulted with the Indian Canyon Mutsun Band of Costanoan under AB 52. The tribe identified a nearby cultural site and requested cultural sensitivity training be provided to construction crews prior to the start of ground disturbance. A Worker's Environmental Awareness Program training is included as Mitigation Measure TCR-1 below.

Although the project site does not contain any known tribal cultural resources listed on or eligible for listing on the CRHR or a local register, there is potential to uncover unknown buried archaeological and tribal cultural resources during project-related ground-disturbing construction activities. Such finds could potentially be considered tribal cultural resources eligible for listing in the CRHR or a local register or be considered a tribal cultural resource. Should project construction activities encounter and damage or destroy a tribal cultural resource or resources, impacts would be considered potentially significant. However, implementation of Mitigation Measure TCR-1 detailed below and Mitigation Measure CUL-1 detailed in Environmental Checklist Section 5, *Cultural Resources* would preserve tribal cultural resources in the event they are uncovered during project construction.

Since there would be no ground-disturbing activities during project operation, there would be no operational impact related to potential disturbance of tribal cultural resources.

Therefore, the proposed project would result in a less-than-significant-with-mitigation-incorporated impact related to tribal cultural resources.

## **Mitigation Measure**

### *TCR-1 Implement a Worker's Environmental Awareness Program*

A qualified archaeologist shall be retained to conduct a Worker's Environmental Awareness Program (WEAP) training on archaeological sensitivity for all construction personnel prior to the commencement of any ground-disturbing activities. The training shall be conducted by an archaeologist who meets or exceeds the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983). Archaeological sensitivity training shall

include a description of the types of cultural material that may be encountered, cultural sensitivity issues, the regulatory environment, and the proper protocol for treatment of the materials in the event of a find.

**LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED**



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## 19 Utilities and Service Systems

|  | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact  | No Impact                           |
|--|--------------------------------------|--|-------------------------------------|-------------------------------------|
| Would the project:   |                                      |  |                                     |                                     |
| a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?  | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

- a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

The project would involve construction and operation of a water reservoir and water pipeline, the potential environmental effects of which are analyzed throughout this IS-MND. As discussed throughout this IS-MND, the project would not result in significant environmental effects and would include implementation of mitigation measures when necessary to reduce potentially significant environmental effects. As such, the project would not result in significant environmental effects

related to the construction of new water supply facilities. Therefore, impacts related to provision of new or expanded water supply facilities would be less than significant.

The project would not involve construction and operation of wastewater facilities or result in the need for new or expanded wastewater facilities. Therefore, no impact would result related to provision of new or expanded wastewater facilities.

As discussed under Environmental Checklist Section 10, *Hydrology and Water Quality*, the project would not have a substantial effect on the amount of impervious surfaces as compared to existing conditions, because the reservoir and pipelines would be located underground. The proposed access staircase would minimally increase the amount of impervious surfaces within the project site but would not substantially alter the drainage patterns of the project site. Therefore, the proposed project would not increase stormwater flow such that new or expanded stormwater drainage systems would be necessary. Therefore, no impact would result related to provision of new or expanded stormwater facilities.

As discussed under Environmental Checklist Section 6, *Energy*, the project would not require electricity during operation. The project would also not require natural gas or telecommunication connections or use. As such, the project would not require or result in the relocation or construction of new or expanded electricity, natural gas, or telecommunication facilities. Therefore, no impact would result related to provision of new or expanded electricity, natural gas, or telecommunication facilities.

Overall, the project would not require or result in the relocation or construction of new or expanded water, wastewater, stormwater, electric power, natural gas, or telecommunications facilities in a manner that could cause significant environmental effects. Therefore, project impacts related to provision of utility facilities would be less than significant.

#### **LESS THAN SIGNIFICANT IMPACT**

- b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

The project would consist of a 1.3-million-gallon water reservoir that would increase DSRSD water supply capacity for existing and planned development within Dublin. The proposed reservoir was planned by DSRSD in its Water Master Plan Update (DSRSD 2016) and the 2020 Urban Water Management Plan (DSRSD 2021) that concluded that DSRSD is anticipated to have sufficient water supplies available for existing and planned development within Dublin during normal, dry, and multiple dry years. Nevertheless, the project would have no habitable uses and, thus, no water demand itself. Therefore, no project impact would result related to sufficiency of water supplies would be less than significant.

#### **NO IMPACT**

- c. *Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

The project would consist of an improvement to the DSRSD potable water supply system and would serve existing and planned development within Dublin. The project would not generate wastewater or discharge any water into the wastewater collection system. Therefore, there would be no project impacts related to wastewater treatment infrastructure.

**NO IMPACT**

- d. *Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*
- e. *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Construction activities may temporarily generate solid waste, including soils and construction waste, which would be disposed of in accordance with all applicable federal, State, and local statutes and regulations. Grading would result in a maximum net soil export of approximately ~~47,700~~21,000 cubic yards (12,000 cubic yards for the reservoir, and 9,000 cubic yards for the staircase, and ~~26,700~~ cubic yards for the potential future access road). Soil not used as fill in different construction sites and other construction debris would be transported to the Altamont Landfill, approximately 10 miles northeast of the project site. Altamont Landfill has a remaining capacity of 65.4 million cubic yards, and soils excavated during project construction would represent less than 1 percent of the landfill's remaining capacity (California Department of Recycling and Resource Recovery 2019). As such, the project would not generate solid waste in excess of the capacity of local infrastructure.

The project would be required to comply with all applicable laws and regulations related to solid waste generation, collection, and disposal. The project would result in a short-term and temporary increase in solid waste generation during construction but would not substantially affect standard solid waste operations of any landfill accepting waste. Recycling and reuse activities during construction would comply with the California Integrated Waste Management Act of 1989 (AB 939). Once operational, the project would include unmanned facilities that would not generate solid waste. Therefore, project impacts related to solid waste generation and consistency with solid waste reduction regulations would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

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## 20 Wildfire

|  | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact | No Impact                           |
|--|--------------------------------------|--|------------------------------------|-------------------------------------|
| If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:   |                                      |  |                                    |                                     |
| a. Substantially impair an adopted emergency response plan or Emergency evacuation plan?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?   | <input type="checkbox"/>             | <input type="checkbox"/>                                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |

- a. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

According to maps prepared by CAL FIRE, the project site is designated as a Moderate FHSZ and is within a Local Responsibility Area (LRA) (CAL FIRE 2007). The project site would be served by the Alameda County Fire Department. The nearest State Responsibility Areas (SRAs) are located north and east of the project site immediately outside Dublin city limits. The project site is surrounded by Moderate FHSZ in all directions. The nearest High FHSZ is located approximately 0.9 mile northeast of the project site along Doolan Road, and the nearest Very High FHSZ is located approximately 5.5 miles southwest of the project site along Foothill Road in the City of Pleasanton (CAL FIRE 2007).

Construction of the project would not require closure of area roadways, and operation of the project would not substantially increase roadway vehicle volumes on area roadways. The project would not introduce habitable structures to the project site. As such, the project would not interfere

with access to area emergency evacuation routes or interfere with the City's ability to implement emergency response plans or evacuation plans. Therefore, no project impact would occur with regard to impairment of an emergency response or evacuation plan.

**NO IMPACT**

- b. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

According to guidance provided by CAL FIRE, sloping land increases susceptibility to wildfire, because fire typically burns faster up steep slopes (CAL FIRE 2000). The proposed reservoir would be located on top of a hill, which then slopes downward toward the proximate residential development. In the event of a wildfire, fire would generally burn faster upslope toward the project site and existing development. However, being a reservoir project, the project does not include any habitable development, and thus, the project would not introduce occupants to the project area. The predominant prevailing wind direction in Dublin is from west to east (WeatherSpark 2022). Wind would direct wildfires to the east away from the project site and existing development; however, this assumption cannot be relied upon as localized shifts in wind direction can occur at any time, and nearby sensitive receptors may be exposed to wildfire pollutants.

During construction of the project, construction equipment may produce sparks that could ignite vegetation. However, the project would be required to comply with regulations related to construction equipment and fire suppressants, including but not limited to California Public Resources Code Section 4442, which requires spark arrestors on potentially-spark inducing equipment. During operation, the project would not involve activities that could increase the risk of wildfire ignition, and the project would not introduce new occupants to the project area.

As such, the project would not exacerbate existing wildfire risk and would not substantially increase the risk of exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, and no occupants would inhabit the project site. Therefore, no project impact related to occupant pollutant exposure would occur.

**NO IMPACT**

- c. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

The project would involve the construction of a new water reservoir and an access staircase within a LRA designated as a Moderate FHSZ. No additional infrastructure would be implemented, and no extensions beyond the project site into an SRA would occur. The project would not require the installation of fuel breaks, emergency water sources, powerlines, or aboveground utilities. The project would be located adjacent to a developed area already served by the Alameda County Fire Department. As such, project operation would not exacerbate fire risk compared to existing conditions. Therefore, no project operational impact would result related to exacerbation of fire risk would be less than significant.

**NO IMPACT**

- d. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

Vegetation on hillslopes helps to stabilize soil, slow water flow, and support percolation into the soil. Severe wildfires damage trees, the shrub canopy, vegetation, and soil. Once vegetation burns, a greater surface area of soil is exposed to the elements, and the lack of roots decreases the structural integrity of the soil. Thus, wildfire burn areas typically endure an increased runoff after intense rainfall, which can put residences and structures downslope of a burned area at risk of localized floods and landslides.

As discussed in Environmental Checklist Section 10, *Hydrology and Water Quality*, the project would conform to design requirements associated with proper site preparation and grading practices and would implement surface drainage improvements and erosion control measures as well as construction best management practices (BMPs). Construction BMPs would be implemented during grading operations, as specified in the SWPPP, to stabilize graded slopes and prevent excessive runoff and erosion.

The project would not substantially alter the topography of the project site compared to existing conditions because the reservoir would be located underground, and construction of the access staircase would not substantially alter the existing topography of the site. As discussed under Environmental Checklist Section 7, *Geology and Soils*, the reservoir would be constructed outside of mapped landslide zones; ~~however, the potential access road alignment would traverse mapped landslide zones.~~ Construction of the reservoir, associated infrastructure would be subject to standards of the CBC, and soils would be properly compacted beneath the reservoir's access staircase to minimize the project's potential to exacerbate existing landslide risk within the project site. As such, with project compliance with applicable building standards, the project would not substantially affect soil stability or increase the potential for on- or off-site landslides.

Additionally, as discussed under Environmental Checklist Section 10, *Hydrology and Water Quality*, the project is not located within a flood hazard zone and would not substantially alter runoff amounts or drainage patterns in the vicinity of the project site due to involvement of an enclosed, undergrounded water reservoir that would essentially maintain the existing topography of the project site. As such, the project would not substantially affect flooding, runoff potential, or drainage on site or off site.

Nevertheless, the project would not result in any additional people or habitable structures on site or off site. Therefore, no project impact would occur related to exposure of people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes, and impacts would be less than significant.

**NO IMPACT**



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## 21 Mandatory Findings of Significance

|   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorporated | Less than<br>Significant<br>Impact | No Impact                |
|---|--------------------------------------|--|------------------------------------|--------------------------|
| Does the project:   |                                      |  |                                    |                          |
| a. Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                            | <input type="checkbox"/>           | <input type="checkbox"/> |
| b. Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?   | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                            | <input type="checkbox"/>           | <input type="checkbox"/> |
| c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?  | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                            | <input type="checkbox"/>           | <input type="checkbox"/> |

- a. *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

Potential impacts to biological resources are addressed in Environmental Checklist Section 4, *Biological Resources*. As described therein, there is moderate potential for certain special-status species to occur on the project site, including California red-legged frog, California tiger salamander, and loggerhead shrike. However, the project site is limited in size, as compared to the total size of habitats supporting fish and wildlife species, and the project would only result in temporary impacts to special-status species during construction, as the proposed reservoir would be located underground and would not affect any species during operation. Due to the local scale of the

proposed project, the proposed project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. This impact would be less than significant with the implementation of Mitigation Measures BIO-1 through BIO-3.

As discussed in Environmental Checklist Section 5, *Cultural Resources*, the proposed project would not modify or disturb any known historical resources, and therefore the proposed project would not cause a substantial change in the significance of a historical resource. Project implementation would not impact known subsurface archaeological deposits, and DSRSD and the construction contractor for the proposed project would implement the standard procedures for evaluation, consultation, avoidance, and data recovery of unanticipated archaeological resources, if discovered during construction. Because the proposed project would not eliminate known important examples of the major periods of California history or prehistory, this impact would be less than significant with the implementation of Mitigation Measure CUL-1.

#### **LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED**

- b. *Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

As described in Environmental Checklist Sections 1 through 20, the project would result in less-than-significant impacts (sometimes with mitigation incorporated) or no impacts related to the environment with respect to all environmental issues. This is largely because project construction activities would be temporary, low-intensity, and would not significantly alter the environmental baseline condition. In addition, upon the completion of construction, there would be minimal operational and maintenance needs of the proposed reservoir. As such, cumulative impact discussions below are primarily focused on construction-related cumulative impacts.

Cumulative impacts could occur if the construction of other cumulative projects identified in Table 1 occurs at the same time as project construction and in the same geographic scope, such that the effects of similar impacts of multiple projects could combine to create greater levels of impact than would occur at the project level. For example, if the construction of other projects in the area occurs at the same time as project activities, combined (i.e., cumulative) air quality and noise impacts may be greater than at the project level.

At least four planned development projects are located within one mile of the project site, which are summarized in the Project Description in Table 1. The exact construction timing of these projects is not known at this time; therefore, it is conservatively assumed that construction of these planned projects could overlap in time with construction of the project.

Project impacts are primarily temporary, localized effects that would occur during construction activities. As determined in this IS-MND document, no impacts would occur with regard to the following topics and, as such, do not need to be discussed in terms of cumulative impacts since cannot combine with other cumulative projects to result in cumulative impacts: agriculture/forestry resources, land use, mineral resources, population/housing, public services, recreation, and wildfire. Thus, the potential for the project to contribute to cumulative impacts would be limited to the infrequent periods of project activities and the following issue areas:

- **Aesthetics.** Cumulative projects could result in changes to scenic vistas, visual character, and light and glare. Cumulative projects would alter views north of I-580, which is a County-designated scenic route, and would increase light and glare from individual development sites. Therefore, cumulative aesthetic impacts would be potentially significant. The project site would not install permanent above-ground features visible from a scenic highway or blocking scenic views, and would not install ~~or~~ permanent lighting; therefore, the project would not have a considerable contribution to this cumulative impact.
- **Air Quality.** The BAAQMD is designated nonattainment for ozone CAAQS and NAAQS, PM<sub>10</sub> CAAQS, and PM<sub>2.5</sub> NAAQS. Therefore, cumulative air quality exceedances currently exist for these pollutants, and, given that all the cumulative projects' construction would result in criteria pollutant and TAC emissions, there could be a significant cumulative air quality impact. As discussed in Environmental Checklist Section 3, *Air Quality*, project construction activities would not generate emissions of this air pollutant exceeding BAAQMD significance thresholds, which are intended to assess whether a project's contribution to existing cumulative air quality impacts is considerable. Therefore, the project's contribution to cumulative air quality impacts would not be cumulatively considerable.
- **Biological Resources.** Most cumulative impacts related to biological resources occur when a disproportionate number of cumulative projects occur at once and regionally impact a local population of a special-status species, riparian habitat, sensitive natural communities, wetlands, or other locally protected biological resources. In this case, the identified cumulative projects (please refer to Table 1) would occur in undeveloped areas. These projects would include elements that have the potential to result in significant cumulative impacts related to special-status plant and wildlife species or sensitive natural communities. Due to the nature of these projects and the discretionary approvals required for each one, several of these development projects would be required to undergo CEQA review, which would identify the extent of biological resource impacts and require appropriate mitigation of those impacts. Projects exempt from CEQA would be required to undergo City review, and would be subject to existing Dublin Municipal Code requirements and standard conditions of approval. Given the uncertainty in the extent of impacts associated with these projects, this analysis conservatively assumes a significant cumulative impact to biological resources would occur. The project would be required to implement Mitigation Measures BIO-1 through BIO-3 to reduce potential impacts to biological resources to a less-than-significant level such that project-level impacts would not result in a cumulatively considerable contribution to this cumulative impact.
- **Cultural, Paleontological, and Tribal Cultural Resources.** Cumulative development in the region would continue to disturb areas with the potential to contain cultural, paleontological and tribal cultural resources. Cultural, paleontological, and tribal cultural resources could be damaged or destroyed from the construction of cumulative projects could be significant. As mentioned above, the cumulative development projects have undergone or would be required to undergo CEQA review, which would determine the extent of potential cultural, paleontological, and tribal cultural resources impacts and mitigate those impacts appropriately. Projects exempt from CEQA would be required to undergo City review, and would be subject to existing Dublin Municipal Code requirements and standard conditions of approval. If these cumulative projects would result in impacts to known or unknown cultural, paleontological, or tribal cultural resources, impacts to such resources would be addressed on a case-by-case basis. Given the uncertainty in the extent of impacts associated with these projects, this analysis conservatively assumes a significant cumulative impact to cultural, paleontological, and tribal cultural resources would occur. The proposed project would be required to implement Mitigation

Measures CUL-1, GEO-1, and TCR-1 to reduce potential impacts to cultural, paleontological, and tribal cultural resources to a less-than-significant level such that project-level impacts would not result in a cumulatively considerable contribution to this cumulative impact.

- **Energy.** Cumulative projects would be required to comply with applicable state and local regulations and standards that require efficient energy use. Therefore, cumulative energy impacts are less than significant, and the project would not result in a considerable contribution to this impact.
- **Greenhouse Gas Emissions.** Contribution of GHG emissions to the global atmosphere and resultant climate change are, by definition, cumulative impacts. As discussed in Environmental Checklist Section 8, *Greenhouse Gas Emissions*, the adverse environmental impacts of cumulative GHG emissions, including sea level rise, increased average temperatures, more drought years, and more large forest fires, are already occurring. Construction of cumulative projects would result in GHG emissions being added to the atmosphere. As a result, cumulative construction impacts related to GHG emissions are significant. As discussed in Environmental Checklist Section 8, *Greenhouse Gas Emissions*, the project would not conflict with an applicable plan, policy, or regulation related to reducing GHG emissions and would therefore not result in a cumulatively considerable contribution to this cumulative impact.
- **Geology and Soils.** Impacts to geology and soils tend to be localized, due to the nature of such impacts. For example, landslides, erosion, and liquefaction are highly localized, and impacts from one project would at most affect adjacent properties in most cases. Cumulative projects would be required to comply with applicable state and local regulations and standards that would address geology and soils impacts. Therefore, cumulative geology and soils impacts are less than significant, and the project would not result in a considerable contribution to this impact.
- **Hazards and Hazardous Materials.** Cumulative projects would be required to comply with applicable state and local regulations and standards that would address hazards and hazardous materials impacts, including risks related to the transport, storage, or disposal of hazardous materials; and reasonably foreseeable upset of hazardous materials. Therefore, cumulative hazards and hazardous materials impacts are less than significant, and the project would not result in a considerable contribution to this impact.
- **Hydrology and Water Quality.** Cumulative projects would be required to comply with applicable state and local regulations and standards that would address hydrology and water quality impacts, including water quality standards, sustainable groundwater management, erosion and siltation, and contributions to flooding. Therefore, cumulative hydrology and water quality impacts are less than significant, and the project would not result in a considerable contribution to this impact.
- **Noise.** Overlapping construction activities associated with other cumulative projects in conjunction with project activities could result in cumulative noise impacts related to a temporary increase in ambient noise levels at the same noise-sensitive receivers located throughout the area, especially during construction activities. However, cumulative projects, including the project would be subject to compliance with the noise level limits established in Dublin Municipal Code Chapter 5.28. Therefore, cumulative construction noise impacts would be less than significant, and the project would not result in a considerable contribution to this impact.
- **Transportation.** Overlapping construction schedules associated with other cumulative projects in conjunction with project activities could result in cumulative transportation impacts, such as

impacts related to VMT and emergency access during construction. Cumulative projects would be required to be evaluated with the City's VMT thresholds, and would either be screened out from a VMT analysis or be required to complete a VMT analysis to determine the project's potential impacts. Projects would also be subject to State requirements to achieve a reduction in project-generated VMT. Therefore, cumulative construction transportation impacts would be less than significant, and the project would not result in a considerable contribution to this impact.

- **Utilities and Service Systems.** Cumulative projects would increase the demand for utilities and service systems, including water, wastewater, stormwater, electric power, natural gas, and telecommunications facilities. The construction of new facilities could result in significant cumulative impacts. Because the proposed project would not require the construction or relocation of such facilities, it would not have a considerable contribution to this cumulative impact. Cumulative projects would be required to comply with applicable state and local regulations and standards that require solid waste reduction. Therefore, cumulative solid waste impacts are less than significant, and the project would not result in a considerable contribution to this impact.

Therefore, the project, with implementation of identified mitigation, would not result in impacts that are cumulatively considerable.

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- c. *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

In general, impacts to human beings are associated with air quality, hazards and hazardous materials, noise, and transportation impacts. As discussed in Environmental Checklist Section 3, *Air Quality*, the proposed project would not result in significant air quality impacts during construction or operation with implementation of Mitigation Measure AQ-1. As discussed in Environmental Checklist Section 9, *Hazards and Hazardous Materials*, compliance with federal, State, and local laws regulating the transportation of hazardous materials would minimize the potential for an accidental release of hazardous materials during construction, and the project would not involve the use of hazardous materials during operation. As discussed in Environmental Checklist Section 13, *Noise*, the project would not generate substantial temporary or permanent increases in ambient noise levels in the vicinity of the project site. As discussed in Environmental Checklist Section 17, *Transportation*, the project would not result in substantial new vehicle trips in the vicinity of the project site. Therefore, the project would not adversely affect human beings, directly or indirectly, and impacts would be less than significant with mitigation incorporated.

#### **LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED**

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# Appendix A

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CalEEMod Output Files

# DSRSD Reservoir Detailed Report

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## 8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

| Data Field                  | Value                                 |
|-----------------------------|---------------------------------------|
| Project Name                | DSRSD Reservoir                       |
| Construction Start Date     | 1/1/2025                              |
| Operational Year            | 2026                                  |
| Lead Agency                 | —                                     |
| Land Use Scale              | Project/site                          |
| Analysis Level for Defaults | County                                |
| Windspeed (m/s)             | 3.00                                  |
| Precipitation (days)        | 14.8                                  |
| Location                    | N Terracina Dr, Dublin, CA 94568, USA |
| County                      | Alameda                               |
| City                        | Dublin                                |
| Air District                | Bay Area AQMD                         |
| Air Basin                   | San Francisco Bay Area                |
| TAZ                         | 1677                                  |
| EDFZ                        | 1                                     |
| Electric Utility            | Pacific Gas & Electric Company        |
| Gas Utility                 | Pacific Gas & Electric                |
| App Version                 | 2022.1.1.21                           |

## 1.2. Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
|------------------|------|------|-------------|-----------------------|------------------------|--------------------------------|------------|-------------|
|                  |      |      |             |                       |                        |                                |            | 179 of 336  |

|                            |      |          |      |      |      |      |   |   |
|----------------------------|------|----------|------|------|------|------|---|---|
| Other Non-Asphalt Surfaces | 17.5 | 1000sqft | 12.0 | 0.00 | 0.00 | 0.00 | — | — |
|----------------------------|------|----------|------|------|------|------|---|---|

1.3. User-Selected Emission Reduction Measures by Emissions Sector

| Sector       | #      | Measure Title          |
|--------------|--------|------------------------|
| Construction | C-10-A | Water Exposed Surfaces |

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit.             | TOG  | ROG  | NOx  | CO   | SO2  | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2  | CO2T   | CH4  | N2O  | R    | CO2e   |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|--------|--------|------|------|------|--------|
| Daily, Summer (Max) | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —      | —      | —    | —    | —    | —      |
| Unmit.              | 2.78 | 2.33 | 18.3 | 20.0 | 0.05 | 0.80  | 0.00  | 0.80  | 0.74   | 0.00   | 0.74   | —    | 5,228  | 5,228  | 0.21 | 0.04 | 0.00 | 5,246  |
| Mit.                | 2.78 | 2.33 | 18.3 | 20.0 | 0.05 | 0.80  | 0.00  | 0.80  | 0.74   | 0.00   | 0.74   | —    | 5,228  | 5,228  | 0.21 | 0.04 | 0.00 | 5,246  |
| % Reduced           | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —      | —      | —    | —    | —    | —      |
| Daily, Winter (Max) | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —      | —      | —    | —    | —    | —      |
| Unmit.              | 8.65 | 15.0 | 63.7 | 61.3 | 0.17 | 2.54  | 17.9  | 20.4  | 2.34   | 7.49   | 9.83   | —    | 19,545 | 19,545 | 0.84 | 0.84 | 0.29 | 19,817 |
| Mit.                | 8.65 | 15.0 | 63.7 | 61.3 | 0.17 | 2.54  | 7.90  | 10.4  | 2.34   | 3.17   | 5.51   | —    | 19,545 | 19,545 | 0.84 | 0.84 | 0.29 | 19,817 |
| % Reduced           | —    | —    | —    | —    | —    | —     | 56%   | 49%   | —      | 58%    | 44%    | —    | —      | —      | —    | —    | —    | —      |
| Average Daily (Max) | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —      | —      | —    | —    | —    | —      |
| Unmit.              | 2.17 | 1.81 | 14.7 | 15.5 | 0.04 | 0.62  | 1.28  | 1.90  | 0.57   | 0.50   | 1.08   | —    | 4,360  | 4,360  | 0.18 | 0.08 | 0.34 | 4,388  |



|              |      |      |      |      |      |      |      |      |      |      |      |   |       |       |      |      |      |       |
|--------------|------|------|------|------|------|------|------|------|------|------|------|---|-------|-------|------|------|------|-------|
| Mit.         | 2.17 | 1.81 | 14.7 | 15.5 | 0.04 | 0.62 | 0.56 | 1.19 | 0.57 | 0.21 | 0.79 | — | 4,360 | 4,360 | 0.18 | 0.08 | 0.34 | 4,388 |
| % Reduced    | —    | —    | —    | —    | —    | —    | 56%  | 38%  | —    | 58%  | 27%  | — | —     | —     | —    | —    | —    | —     |
| Annual (Max) | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —     | —     | —    | —    | —    | —     |
| Unmit.       | 0.40 | 0.33 | 2.69 | 2.84 | 0.01 | 0.11 | 0.23 | 0.35 | 0.10 | 0.09 | 0.20 | — | 722   | 722   | 0.03 | 0.01 | 0.06 | 727   |
| Mit.         | 0.40 | 0.33 | 2.69 | 2.84 | 0.01 | 0.11 | 0.10 | 0.22 | 0.10 | 0.04 | 0.14 | — | 722   | 722   | 0.03 | 0.01 | 0.06 | 727   |
| % Reduced    | —    | —    | —    | —    | —    | —    | 56%  | 38%  | —    | 58%  | 27%  | — | —     | —     | —    | —    | —    | —     |

## 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year                 | TOG  | ROG  | NOx  | CO   | SO2     | PM10E | PM10D   | PM10T | PM2.5E | PM2.5D  | PM2.5T | BCO2 | NBCO2  | CO2T   | CH4     | N2O     | R       | CO2e   |
|----------------------|------|------|------|------|---------|-------|---------|-------|--------|---------|--------|------|--------|--------|---------|---------|---------|--------|
| Daily - Summer (Max) | —    | —    | —    | —    | —       | —     | —       | —     | —      | —       | —      | —    | —      | —      | —       | —       | —       | —      |
| 2025                 | 2.78 | 2.33 | 18.3 | 20.0 | 0.05    | 0.80  | 0.00    | 0.80  | 0.74   | 0.00    | 0.74   | —    | 5,228  | 5,228  | 0.21    | 0.04    | 0.00    | 5,246  |
| Daily - Winter (Max) | —    | —    | —    | —    | —       | —     | —       | —     | —      | —       | —      | —    | —      | —      | —       | —       | —       | —      |
| 2025                 | 8.65 | 7.11 | 63.7 | 61.3 | 0.17    | 2.54  | 17.9    | 20.4  | 2.34   | 7.49    | 9.83   | —    | 19,545 | 19,545 | 0.84    | 0.84    | 0.29    | 19,817 |
| 2026                 | 2.70 | 15.0 | 17.3 | 20.4 | 0.05    | 0.73  | 0.21    | 0.90  | 0.68   | 0.05    | 0.69   | —    | 5,231  | 5,231  | 0.21    | 0.04    | 0.02    | 5,249  |
| Average Daily        | —    | —    | —    | —    | —       | —     | —       | —     | —      | —       | —      | —    | —      | —      | —       | —       | —       | —      |
| 2025                 | 2.17 | 1.81 | 14.7 | 15.5 | 0.04    | 0.62  | 1.28    | 1.90  | 0.57   | 0.50    | 1.08   | —    | 4,360  | 4,360  | 0.18    | 0.08    | 0.34    | 4,388  |
| 2026                 | 0.37 | 0.71 | 2.40 | 2.88 | 0.01    | 0.10  | 0.01    | 0.11  | 0.10   | < 0.005 | 0.10   | —    | 714    | 714    | 0.03    | 0.01    | 0.01    | 717    |
| Annual               | —    | —    | —    | —    | —       | —     | —       | —     | —      | —       | —      | —    | —      | —      | —       | —       | —       | —      |
| 2025                 | 0.40 | 0.33 | 2.69 | 2.84 | 0.01    | 0.11  | 0.23    | 0.35  | 0.10   | 0.09    | 0.20   | —    | 722    | 722    | 0.03    | 0.01    | 0.06    | 727    |
| 2026                 | 0.07 | 0.13 | 0.44 | 0.53 | < 0.005 | 0.02  | < 0.005 | 0.02  | 0.02   | < 0.005 | 0.02   | —    | 118    | 118    | < 0.005 | < 0.005 | < 0.005 | 119    |

## 2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year                 | TOG  | ROG  | NOx  | CO   | SO2     | PM10E | PM10D   | PM10T | PM2.5E | PM2.5D  | PM2.5T | BCO2 | NBCO2  | CO2T   | CH4     | N2O     | R       | CO2e   |
|----------------------|------|------|------|------|---------|-------|---------|-------|--------|---------|--------|------|--------|--------|---------|---------|---------|--------|
| Daily - Summer (Max) | —    | —    | —    | —    | —       | —     | —       | —     | —      | —       | —      | —    | —      | —      | —       | —       | —       | —      |
| 2025                 | 2.78 | 2.33 | 18.3 | 20.0 | 0.05    | 0.80  | 0.00    | 0.80  | 0.74   | 0.00    | 0.74   | —    | 5,228  | 5,228  | 0.21    | 0.04    | 0.00    | 5,246  |
| Daily - Winter (Max) | —    | —    | —    | —    | —       | —     | —       | —     | —      | —       | —      | —    | —      | —      | —       | —       | —       | —      |
| 2025                 | 8.65 | 7.11 | 63.7 | 61.3 | 0.17    | 2.54  | 7.90    | 10.4  | 2.34   | 3.17    | 5.51   | —    | 19,545 | 19,545 | 0.84    | 0.84    | 0.29    | 19,817 |
| 2026                 | 2.70 | 15.0 | 17.3 | 20.4 | 0.05    | 0.73  | 0.21    | 0.90  | 0.68   | 0.05    | 0.69   | —    | 5,231  | 5,231  | 0.21    | 0.04    | 0.02    | 5,249  |
| Average Daily        | —    | —    | —    | —    | —       | —     | —       | —     | —      | —       | —      | —    | —      | —      | —       | —       | —       | —      |
| 2025                 | 2.17 | 1.81 | 14.7 | 15.5 | 0.04    | 0.62  | 0.56    | 1.19  | 0.57   | 0.21    | 0.79   | —    | 4,360  | 4,360  | 0.18    | 0.08    | 0.34    | 4,388  |
| 2026                 | 0.37 | 0.71 | 2.40 | 2.88 | 0.01    | 0.10  | 0.01    | 0.11  | 0.10   | < 0.005 | 0.10   | —    | 714    | 714    | 0.03    | 0.01    | 0.01    | 717    |
| Annual               | —    | —    | —    | —    | —       | —     | —       | —     | —      | —       | —      | —    | —      | —      | —       | —       | —       | —      |
| 2025                 | 0.40 | 0.33 | 2.69 | 2.84 | 0.01    | 0.11  | 0.10    | 0.22  | 0.10   | 0.04    | 0.14   | —    | 722    | 722    | 0.03    | 0.01    | 0.06    | 727    |
| 2026                 | 0.07 | 0.13 | 0.44 | 0.53 | < 0.005 | 0.02  | < 0.005 | 0.02  | 0.02   | < 0.005 | 0.02   | —    | 118    | 118    | < 0.005 | < 0.005 | < 0.005 | 119    |

## 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit.             | TOG  | ROG  | NOx  | CO   | SO2  | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4  | N2O  | R    | CO2e |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|------|------|
| Daily, Summer (Max) | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | —    | —    |
| Unmit.              | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | —    | —    |

|                     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Unmit.              | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily (Max) | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| Unmit.              | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual (Max)        | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| Unmit.              | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Sector              | TOG  | ROG  | NOx  | CO   | SO2  | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4  | N2O  | R    | CO2e |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|------|------|
| Daily, Summer (Max) | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | —    | —    |
| Mobile              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Area                | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Energy              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Water               | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Waste               | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Total               | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | —    | —    |
| Mobile              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Area                | —    | 0.08 | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | —    | —    |
| Energy              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Water               | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Waste               | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Total               | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

|               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Average Daily | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| Mobile        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Area          | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 | 0.00 | —    | 0.00 | —    | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Energy        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 | 0.00 | —    | 0.00 | —    | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Water         | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Waste         | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Total         | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual        | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| Mobile        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Area          | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 | 0.00 | —    | 0.00 | —    | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Energy        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 | 0.00 | —    | 0.00 | —    | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Water         | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Waste         | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Total         | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Sector              | TOG  | ROG  | NOx  | CO   | SO2  | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4  | N2O  | R    | CO2e |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|------|------|
| Daily, Summer (Max) | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | —    | —    |
| Mobile              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Area                | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Energy              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Water               | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Waste               | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Total               | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

|                     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Daily, Winter (Max) | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| Mobile              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Area                | —    | 0.08 | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| Energy              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 | 0.00 | —    | 0.00 | —    | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Water               | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Waste               | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Total               | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily       | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| Mobile              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Area                | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 | 0.00 | —    | 0.00 | —    | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Energy              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 | 0.00 | —    | 0.00 | —    | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Water               | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Waste               | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Total               | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual              | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| Mobile              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Area                | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 | 0.00 | —    | 0.00 | —    | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Energy              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 | 0.00 | —    | 0.00 | —    | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Water               | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Waste               | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | —    | 0.00 |
| Total               | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

### 3. Construction Emissions Details

#### 3.1. Site Preparation (2025) - Unmitigated

## Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location                    | TOG  | ROG  | NOx  | CO   | SO2     | PM10E | PM10D | PM10T | PM2.5E | PM2.5D  | PM2.5T  | BCO2 | NBCO2 | CO2T  | CH4     | N2O     | R    | CO2e  |
|-----------------------------|------|------|------|------|---------|-------|-------|-------|--------|---------|---------|------|-------|-------|---------|---------|------|-------|
| Onsite                      | —    | —    | —    | —    | —       | —     | —     | —     | —      | —       | —       | —    | —     | —     | —       | —       | —    | —     |
| Daily, Summer (Max)         | —    | —    | —    | —    | —       | —     | —     | —     | —      | —       | —       | —    | —     | —     | —       | —       | —    | —     |
| Daily, Winter (Max)         | —    | —    | —    | —    | —       | —     | —     | —     | —      | —       | —       | —    | —     | —     | —       | —       | —    | —     |
| Off-Road Equipment          | 3.29 | 2.77 | 23.0 | 23.1 | 0.07    | 0.86  | —     | 0.86  | 0.79   | —       | 0.79    | —    | 7,317 | 7,317 | 0.30    | 0.06    | —    | 7,342 |
| Dust From Material Movement | —    | —    | —    | —    | —       | —     | 2.12  | 2.12  | —      | 0.23    | 0.23    | —    | —     | —     | —       | —       | —    | —     |
| Onsite truck                | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00  | 0.00  | 0.00  | 0.00   | 0.00    | 0.00    | —    | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Average Daily               | —    | —    | —    | —    | —       | —     | —     | —     | —      | —       | —       | —    | —     | —     | —       | —       | —    | —     |
| Off-Road Equipment          | 0.15 | 0.13 | 1.07 | 1.07 | < 0.005 | 0.04  | —     | 0.04  | 0.04   | —       | 0.04    | —    | 341   | 341   | 0.01    | < 0.005 | —    | 342   |
| Dust From Material Movement | —    | —    | —    | —    | —       | —     | 0.10  | 0.10  | —      | 0.01    | 0.01    | —    | —     | —     | —       | —       | —    | —     |
| Onsite truck                | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00  | 0.00  | 0.00  | 0.00   | 0.00    | 0.00    | —    | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Annual                      | —    | —    | —    | —    | —       | —     | —     | —     | —      | —       | —       | —    | —     | —     | —       | —       | —    | —     |
| Off-Road Equipment          | 0.03 | 0.02 | 0.20 | 0.20 | < 0.005 | 0.01  | —     | 0.01  | 0.01   | —       | 0.01    | —    | 56.4  | 56.4  | < 0.005 | < 0.005 | —    | 56.6  |
| Dust From Material Movement | —    | —    | —    | —    | —       | —     | 0.02  | 0.02  | —      | < 0.005 | < 0.005 | —    | —     | —     | —       | —       | —    | —     |

|                     |         |         |         |      |      |      |         |         |      |         |         |   |      |      |         |         |         |      |
|---------------------|---------|---------|---------|------|------|------|---------|---------|------|---------|---------|---|------|------|---------|---------|---------|------|
| Onsite truck        | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |
| Offsite             | —       | —       | —       | —    | —    | —    | —       | —       | —    | —       | —       | — | —    | —    | —       | —       | —       | —    |
| Daily, Summer (Max) | —       | —       | —       | —    | —    | —    | —       | —       | —    | —       | —       | — | —    | —    | —       | —       | —       | —    |
| Daily, Winter (Max) | —       | —       | —       | —    | —    | —    | —       | —       | —    | —       | —       | — | —    | —    | —       | —       | —       | —    |
| Worker              | 0.07    | 0.07    | 0.06    | 0.68 | 0.00 | 0.00 | 0.17    | 0.17    | 0.00 | 0.04    | 0.04    | — | 161  | 161  | < 0.005 | 0.01    | 0.02    | 163  |
| Vendor              | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |
| Hauling             | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |
| Average Daily       | —       | —       | —       | —    | —    | —    | —       | —       | —    | —       | —       | — | —    | —    | —       | —       | —       | —    |
| Worker              | < 0.005 | < 0.005 | < 0.005 | 0.03 | 0.00 | 0.00 | 0.01    | 0.01    | 0.00 | < 0.005 | < 0.005 | — | 7.53 | 7.53 | < 0.005 | < 0.005 | 0.01    | 7.65 |
| Vendor              | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |
| Hauling             | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |
| Annual              | —       | —       | —       | —    | —    | —    | —       | —       | —    | —       | —       | — | —    | —    | —       | —       | —       | —    |
| Worker              | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.25 | 1.25 | < 0.005 | < 0.005 | < 0.005 | 1.27 |
| Vendor              | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |
| Hauling             | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |

3.2. Site Preparation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location            | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Onsite              | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Daily, Summer (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |

|                             |      |      |      |      |         |      |      |      |      |         |         |   |       |       |         |         |      |       |
|-----------------------------|------|------|------|------|---------|------|------|------|------|---------|---------|---|-------|-------|---------|---------|------|-------|
| Daily, Winter (Max)         | —    | —    | —    | —    | —       | —    | —    | —    | —    | —       | —       | — | —     | —     | —       | —       | —    | —     |
| Off-Road Equipment          | 3.29 | 2.77 | 23.0 | 23.1 | 0.07    | 0.86 | —    | 0.86 | 0.79 | —       | 0.79    | — | 7,317 | 7,317 | 0.30    | 0.06    | —    | 7,342 |
| Dust From Material Movement | —    | —    | —    | —    | —       | —    | 0.83 | 0.83 | —    | 0.09    | 0.09    | — | —     | —     | —       | —       | —    | —     |
| Onsite truck                | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Average Daily               | —    | —    | —    | —    | —       | —    | —    | —    | —    | —       | —       | — | —     | —     | —       | —       | —    | —     |
| Off-Road Equipment          | 0.15 | 0.13 | 1.07 | 1.07 | < 0.005 | 0.04 | —    | 0.04 | 0.04 | —       | 0.04    | — | 341   | 341   | 0.01    | < 0.005 | —    | 342   |
| Dust From Material Movement | —    | —    | —    | —    | —       | —    | 0.04 | 0.04 | —    | < 0.005 | < 0.005 | — | —     | —     | —       | —       | —    | —     |
| Onsite truck                | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Annual                      | —    | —    | —    | —    | —       | —    | —    | —    | —    | —       | —       | — | —     | —     | —       | —       | —    | —     |
| Off-Road Equipment          | 0.03 | 0.02 | 0.20 | 0.20 | < 0.005 | 0.01 | —    | 0.01 | 0.01 | —       | 0.01    | — | 56.4  | 56.4  | < 0.005 | < 0.005 | —    | 56.6  |
| Dust From Material Movement | —    | —    | —    | —    | —       | —    | 0.01 | 0.01 | —    | < 0.005 | < 0.005 | — | —     | —     | —       | —       | —    | —     |
| Onsite truck                | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Offsite                     | —    | —    | —    | —    | —       | —    | —    | —    | —    | —       | —       | — | —     | —     | —       | —       | —    | —     |
| Daily, Summer (Max)         | —    | —    | —    | —    | —       | —    | —    | —    | —    | —       | —       | — | —     | —     | —       | —       | —    | —     |



|                     |         |         |         |      |      |      |         |         |      |         |         |   |      |      |         |         |         |      |
|---------------------|---------|---------|---------|------|------|------|---------|---------|------|---------|---------|---|------|------|---------|---------|---------|------|
| Daily, Winter (Max) | —       | —       | —       | —    | —    | —    | —       | —       | —    | —       | —       | — | —    | —    | —       | —       | —       | —    |
| Worker              | 0.07    | 0.07    | 0.06    | 0.68 | 0.00 | 0.00 | 0.17    | 0.17    | 0.00 | 0.04    | 0.04    | — | 161  | 161  | < 0.005 | 0.01    | 0.02    | 163  |
| Vendor              | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |
| Hauling             | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |
| Average Daily       | —       | —       | —       | —    | —    | —    | —       | —       | —    | —       | —       | — | —    | —    | —       | —       | —       | —    |
| Worker              | < 0.005 | < 0.005 | < 0.005 | 0.03 | 0.00 | 0.00 | 0.01    | 0.01    | 0.00 | < 0.005 | < 0.005 | — | 7.53 | 7.53 | < 0.005 | < 0.005 | 0.01    | 7.65 |
| Vendor              | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |
| Hauling             | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |
| Annual              | —       | —       | —       | —    | —    | —    | —       | —       | —    | —       | —       | — | —    | —    | —       | —       | —       | —    |
| Worker              | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.25 | 1.25 | < 0.005 | < 0.005 | < 0.005 | 1.27 |
| Vendor              | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |
| Hauling             | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |

### 3.3. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location            | TOG  | ROG  | NOx  | CO   | SO2  | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2  | CO2T   | CH4  | N2O  | R | CO2e   |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|--------|--------|------|------|---|--------|
| Onsite              | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —      | —      | —    | —    | — | —      |
| Daily, Summer (Max) | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —      | —      | —    | —    | — | —      |
| Daily, Winter (Max) | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —      | —      | —    | —    | — | —      |
| Off-Road Equipment  | 8.17 | 6.86 | 57.9 | 57.6 | 0.14 | 2.45  | —     | 2.45  | 2.26   | —      | 2.26   | —    | 14,798 | 14,798 | 0.60 | 0.12 | — | 14,849 |

|                              |      |      |      |      |         |      |      |      |      |      |      |   |       |       |      |         |      |       |
|------------------------------|------|------|------|------|---------|------|------|------|------|------|------|---|-------|-------|------|---------|------|-------|
| Dust From Material Movement: | —    | —    | —    | —    | —       | —    | 16.3 | 16.3 | —    | 7.08 | 7.08 | — | —     | —     | —    | —       | —    | —     |
| Onsite truck                 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Average Daily                | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —    | —       | —    | —     |
| Off-Road Equipment           | 0.54 | 0.45 | 3.81 | 3.79 | 0.01    | 0.16 | —    | 0.16 | 0.15 | —    | 0.15 | — | 973   | 973   | 0.04 | 0.01    | —    | 976   |
| Dust From Material Movement: | —    | —    | —    | —    | —       | —    | 1.07 | 1.07 | —    | 0.47 | 0.47 | — | —     | —     | —    | —       | —    | —     |
| Onsite truck                 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Annual                       | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —    | —       | —    | —     |
| Off-Road Equipment           | 0.10 | 0.08 | 0.70 | 0.69 | < 0.005 | 0.03 | —    | 0.03 | 0.03 | —    | 0.03 | — | 161   | 161   | 0.01 | < 0.005 | —    | 162   |
| Dust From Material Movement: | —    | —    | —    | —    | —       | —    | 0.20 | 0.20 | —    | 0.09 | 0.09 | — | —     | —     | —    | —       | —    | —     |
| Onsite truck                 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Offsite                      | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —    | —       | —    | —     |
| Daily, Summer (Max)          | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —    | —       | —    | —     |
| Daily, Winter (Max)          | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —    | —       | —    | —     |
| Worker                       | 0.15 | 0.15 | 0.14 | 1.53 | 0.00    | 0.00 | 0.37 | 0.37 | 0.00 | 0.09 | 0.09 | — | 361   | 361   | 0.01 | 0.02    | 0.04 | 366   |
| Vendor                       | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Hauling                      | 0.33 | 0.09 | 5.60 | 2.14 | 0.03    | 0.08 | 1.16 | 1.24 | 0.08 | 0.32 | 0.40 | — | 4,386 | 4,386 | 0.23 | 0.71    | 0.25 | 4,603 |

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|               |         |         |         |      |         |         |         |         |         |         |         |   |      |      |         |         |      |      |
|---------------|---------|---------|---------|------|---------|---------|---------|---------|---------|---------|---------|---|------|------|---------|---------|------|------|
| Average Daily | —       | —       | —       | —    | —       | —       | —       | —       | —       | —       | —       | — | —    | —    | —       | —       | —    | —    |
| Worker        | 0.01    | 0.01    | 0.01    | 0.10 | 0.00    | 0.00    | 0.02    | 0.02    | 0.00    | 0.01    | 0.01    | — | 23.9 | 23.9 | < 0.005 | < 0.005 | 0.04 | 24.3 |
| Vendor        | 0.00    | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00 |
| Hauling       | 0.02    | 0.01    | 0.36    | 0.14 | < 0.005 | 0.01    | 0.08    | 0.08    | 0.01    | 0.02    | 0.03    | — | 288  | 288  | 0.02    | 0.05    | 0.28 | 303  |
| Annual        | —       | —       | —       | —    | —       | —       | —       | —       | —       | —       | —       | — | —    | —    | —       | —       | —    | —    |
| Worker        | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00    | 0.00    | < 0.005 | < 0.005 | 0.00    | < 0.005 | < 0.005 | — | 3.96 | 3.96 | < 0.005 | < 0.005 | 0.01 | 4.02 |
| Vendor        | 0.00    | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00 |
| Hauling       | < 0.005 | < 0.005 | 0.07    | 0.03 | < 0.005 | < 0.005 | 0.01    | 0.01    | < 0.005 | < 0.005 | < 0.005 | — | 47.7 | 47.7 | < 0.005 | 0.01    | 0.05 | 50.1 |

3.4. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location                    | TOG  | ROG  | NOx  | CO   | SO2  | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2  | CO2T   | CH4  | N2O  | R    | CO2e   |
|-----------------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|--------|--------|------|------|------|--------|
| Onsite                      | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —      | —      | —    | —    | —    | —      |
| Daily, Summer (Max)         | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —      | —      | —    | —    | —    | —      |
| Daily, Winter (Max)         | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —      | —      | —    | —    | —    | —      |
| Off-Road Equipment          | 8.17 | 6.86 | 57.9 | 57.6 | 0.14 | 2.45  | —     | 2.45  | 2.26   | —      | 2.26   | —    | 14,798 | 14,798 | 0.60 | 0.12 | —    | 14,849 |
| Dust From Material Movement | —    | —    | —    | —    | —    | —     | 6.36  | 6.36  | —      | 2.76   | 2.76   | —    | —      | —      | —    | —    | —    | —      |
| Onsite truck                | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00   |
| Average Daily               | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —      | —      | —    | —    | —    | —      |
| Off-Road Equipment          | 0.54 | 0.45 | 3.81 | 3.79 | 0.01 | 0.16  | —     | 0.16  | 0.15   | —      | 0.15   | —    | 973    | 973    | 0.04 | 0.01 | —    | 386    |

|                              |         |         |         |      |         |      |         |         |      |         |         |   |       |       |         |         |      |       |
|------------------------------|---------|---------|---------|------|---------|------|---------|---------|------|---------|---------|---|-------|-------|---------|---------|------|-------|
| Dust From Material Movement: | —       | —       | —       | —    | —       | —    | 0.42    | 0.42    | —    | 0.18    | 0.18    | — | —     | —     | —       | —       | —    | —     |
| Onsite truck                 | 0.00    | 0.00    | 0.00    | 0.00 | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Annual                       | —       | —       | —       | —    | —       | —    | —       | —       | —    | —       | —       | — | —     | —     | —       | —       | —    | —     |
| Off-Road Equipment           | 0.10    | 0.08    | 0.70    | 0.69 | < 0.005 | 0.03 | —       | 0.03    | 0.03 | —       | 0.03    | — | 161   | 161   | 0.01    | < 0.005 | —    | 162   |
| Dust From Material Movement: | —       | —       | —       | —    | —       | —    | 0.08    | 0.08    | —    | 0.03    | 0.03    | — | —     | —     | —       | —       | —    | —     |
| Onsite truck                 | 0.00    | 0.00    | 0.00    | 0.00 | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Offsite                      | —       | —       | —       | —    | —       | —    | —       | —       | —    | —       | —       | — | —     | —     | —       | —       | —    | —     |
| Daily, Summer (Max)          | —       | —       | —       | —    | —       | —    | —       | —       | —    | —       | —       | — | —     | —     | —       | —       | —    | —     |
| Daily, Winter (Max)          | —       | —       | —       | —    | —       | —    | —       | —       | —    | —       | —       | — | —     | —     | —       | —       | —    | —     |
| Worker                       | 0.15    | 0.15    | 0.14    | 1.53 | 0.00    | 0.00 | 0.37    | 0.37    | 0.00 | 0.09    | 0.09    | — | 361   | 361   | 0.01    | 0.02    | 0.04 | 366   |
| Vendor                       | 0.00    | 0.00    | 0.00    | 0.00 | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Hauling                      | 0.33    | 0.09    | 5.60    | 2.14 | 0.03    | 0.08 | 1.16    | 1.24    | 0.08 | 0.32    | 0.40    | — | 4,386 | 4,386 | 0.23    | 0.71    | 0.25 | 4,603 |
| Average Daily                | —       | —       | —       | —    | —       | —    | —       | —       | —    | —       | —       | — | —     | —     | —       | —       | —    | —     |
| Worker                       | 0.01    | 0.01    | 0.01    | 0.10 | 0.00    | 0.00 | 0.02    | 0.02    | 0.00 | 0.01    | 0.01    | — | 23.9  | 23.9  | < 0.005 | < 0.005 | 0.04 | 24.3  |
| Vendor                       | 0.00    | 0.00    | 0.00    | 0.00 | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Hauling                      | 0.02    | 0.01    | 0.36    | 0.14 | < 0.005 | 0.01 | 0.08    | 0.08    | 0.01 | 0.02    | 0.03    | — | 288   | 288   | 0.02    | 0.05    | 0.28 | 303   |
| Annual                       | —       | —       | —       | —    | —       | —    | —       | —       | —    | —       | —       | — | —     | —     | —       | —       | —    | —     |
| Worker                       | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00    | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 3.96  | 3.96  | < 0.005 | < 0.005 | 0.01 | 4.02  |
| Vendor                       | 0.00    | 0.00    | 0.00    | 0.00 | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |

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|         |         |         |      |      |         |         |      |      |         |         |         |   |      |      |         |      |      |      |
|---------|---------|---------|------|------|---------|---------|------|------|---------|---------|---------|---|------|------|---------|------|------|------|
| Hauling | < 0.005 | < 0.005 | 0.07 | 0.03 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 47.7 | 47.7 | < 0.005 | 0.01 | 0.05 | 50.1 |
|---------|---------|---------|------|------|---------|---------|------|------|---------|---------|---------|---|------|------|---------|------|------|------|

### 3.5. Pipeline/Access Road Installation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location            | TOG  | ROG  | NOx  | CO   | SO2     | PM10E   | PM10D | PM10T   | PM2.5E  | PM2.5D | PM2.5T  | BCO2 | NBCO2 | CO2T  | CH4     | N2O     | R    | CO2e       |
|---------------------|------|------|------|------|---------|---------|-------|---------|---------|--------|---------|------|-------|-------|---------|---------|------|------------|
| Onsite              | —    | —    | —    | —    | —       | —       | —     | —       | —       | —      | —       | —    | —     | —     | —       | —       | —    | —          |
| Daily, Summer (Max) | —    | —    | —    | —    | —       | —       | —     | —       | —       | —      | —       | —    | —     | —     | —       | —       | —    | —          |
| Off-Road Equipment  | 1.57 | 1.32 | 10.5 | 11.9 | 0.03    | 0.44    | —     | 0.44    | 0.41    | —      | 0.41    | —    | 3,298 | 3,298 | 0.13    | 0.03    | —    | 3,309      |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00  | 0.00    | 0.00    | 0.00   | 0.00    | —    | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00       |
| Daily, Winter (Max) | —    | —    | —    | —    | —       | —       | —     | —       | —       | —      | —       | —    | —     | —     | —       | —       | —    | —          |
| Off-Road Equipment  | 1.57 | 1.32 | 10.5 | 11.9 | 0.03    | 0.44    | —     | 0.44    | 0.41    | —      | 0.41    | —    | 3,298 | 3,298 | 0.13    | 0.03    | —    | 3,309      |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00  | 0.00    | 0.00    | 0.00   | 0.00    | —    | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00       |
| Average Daily       | —    | —    | —    | —    | —       | —       | —     | —       | —       | —      | —       | —    | —     | —     | —       | —       | —    | —          |
| Off-Road Equipment  | 0.09 | 0.08 | 0.63 | 0.72 | < 0.005 | 0.03    | —     | 0.03    | 0.02    | —      | 0.02    | —    | 199   | 199   | 0.01    | < 0.005 | —    | 199        |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00  | 0.00    | 0.00    | 0.00   | 0.00    | —    | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00       |
| Annual              | —    | —    | —    | —    | —       | —       | —     | —       | —       | —      | —       | —    | —     | —     | —       | —       | —    | —          |
| Off-Road Equipment  | 0.02 | 0.01 | 0.12 | 0.13 | < 0.005 | < 0.005 | —     | < 0.005 | < 0.005 | —      | < 0.005 | —    | 32.9  | 32.9  | < 0.005 | < 0.005 | —    | 33.0       |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00  | 0.00    | 0.00    | 0.00   | 0.00    | —    | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00       |
| Offsite             | —    | —    | —    | —    | —       | —       | —     | —       | —       | —      | —       | —    | —     | —     | —       | —       | —    | 193 of 336 |

|                     |      |      |      |      |      |      |      |      |      |      |      |   |      |      |      |      |      |      |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|---|------|------|------|------|------|------|
| Daily, Summer (Max) | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —    | —    | —    | —    | —    | —    |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —    | —    | —    | —    | —    | —    |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily       | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —    | —    | —    | —    | —    | —    |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual              | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —    | —    | —    | —    | —    | —    |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.6. Pipeline/Access Road Installation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location            | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Onsite              | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Daily, Summer (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |

|                     |      |      |      |      |         |         |      |         |         |      |         |   |       |       |         |         |      |       |
|---------------------|------|------|------|------|---------|---------|------|---------|---------|------|---------|---|-------|-------|---------|---------|------|-------|
| Off-Road Equipment  | 1.57 | 1.32 | 10.5 | 11.9 | 0.03    | 0.44    | —    | 0.44    | 0.41    | —    | 0.41    | — | 3,298 | 3,298 | 0.13    | 0.03    | —    | 3,309 |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Daily, Winter (Max) | —    | —    | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —     | —     | —       | —       | —    | —     |
| Off-Road Equipment  | 1.57 | 1.32 | 10.5 | 11.9 | 0.03    | 0.44    | —    | 0.44    | 0.41    | —    | 0.41    | — | 3,298 | 3,298 | 0.13    | 0.03    | —    | 3,309 |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Average Daily       | —    | —    | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —     | —     | —       | —       | —    | —     |
| Off-Road Equipment  | 0.09 | 0.08 | 0.63 | 0.72 | < 0.005 | 0.03    | —    | 0.03    | 0.02    | —    | 0.02    | — | 199   | 199   | 0.01    | < 0.005 | —    | 199   |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Annual              | —    | —    | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —     | —     | —       | —       | —    | —     |
| Off-Road Equipment  | 0.02 | 0.01 | 0.12 | 0.13 | < 0.005 | < 0.005 | —    | < 0.005 | < 0.005 | —    | < 0.005 | — | 32.9  | 32.9  | < 0.005 | < 0.005 | —    | 33.0  |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Offsite             | —    | —    | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —     | —     | —       | —       | —    | —     |
| Daily, Summer (Max) | —    | —    | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —     | —     | —       | —       | —    | —     |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Vendor              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Hauling             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Daily, Winter (Max) | —    | —    | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —     | —     | —       | —       | —    | —     |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |

|               |      |      |      |      |      |      |      |      |      |      |      |   |      |      |      |      |      |      |
|---------------|------|------|------|------|------|------|------|------|------|------|------|---|------|------|------|------|------|------|
| Vendor        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling       | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —    | —    | —    | —    | —    | —    |
| Worker        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling       | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual        | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —    | —    | —    | —    | —    | —    |
| Worker        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling       | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.7. Reservoir Installation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location            | TOG  | ROG  | NOx  | CO   | SO2  | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T  | CH4  | N2O  | R    | CO2e  |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|------|-------|
| Onsite              | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —    | —    | —     |
| Daily, Summer (Max) | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —    | —    | —     |
| Off-Road Equipment  | 2.78 | 2.33 | 18.3 | 20.0 | 0.05 | 0.80  | —     | 0.80  | 0.74   | —      | 0.74   | —    | 5,228 | 5,228 | 0.21 | 0.04 | —    | 5,246 |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00  |
| Daily, Winter (Max) | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —    | —    | —     |
| Off-Road Equipment  | 2.78 | 2.33 | 18.3 | 20.0 | 0.05 | 0.80  | —     | 0.80  | 0.74   | —      | 0.74   | —    | 5,228 | 5,228 | 0.21 | 0.04 | —    | 5,246 |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00  |



|                     |      |      |      |      |         |      |      |      |      |      |      |   |       |       |      |         |      |       |
|---------------------|------|------|------|------|---------|------|------|------|------|------|------|---|-------|-------|------|---------|------|-------|
| Average Daily       | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —    | —       | —    | —     |
| Off-Road Equipment  | 1.35 | 1.13 | 8.84 | 9.69 | 0.02    | 0.39 | —    | 0.39 | 0.36 | —    | 0.36 | — | 2,527 | 2,527 | 0.10 | 0.02    | —    | 2,536 |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Annual              | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —    | —       | —    | —     |
| Off-Road Equipment  | 0.25 | 0.21 | 1.61 | 1.77 | < 0.005 | 0.07 | —    | 0.07 | 0.07 | —    | 0.07 | — | 418   | 418   | 0.02 | < 0.005 | —    | 420   |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Offsite             | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —    | —       | —    | —     |
| Daily, Summer (Max) | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —    | —       | —    | —     |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Vendor              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Hauling             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Daily, Winter (Max) | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —    | —       | —    | —     |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Vendor              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Hauling             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Average Daily       | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —    | —       | —    | —     |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Vendor              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Hauling             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Annual              | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —    | —       | —    | —     |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |

|         |      |      |      |      |      |      |      |      |      |      |      |   |      |      |      |      |      |      |
|---------|------|------|------|------|------|------|------|------|------|------|------|---|------|------|------|------|------|------|
| Vendor  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.8. Reservoir Installation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location            | TOG  | ROG  | NOx  | CO   | SO2     | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T  | CH4  | N2O     | R    | CO2e  |
|---------------------|------|------|------|------|---------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|---------|------|-------|
| Onsite              | —    | —    | —    | —    | —       | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —       | —    | —     |
| Daily, Summer (Max) | —    | —    | —    | —    | —       | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —       | —    | —     |
| Off-Road Equipment  | 2.78 | 2.33 | 18.3 | 20.0 | 0.05    | 0.80  | —     | 0.80  | 0.74   | —      | 0.74   | —    | 5,228 | 5,228 | 0.21 | 0.04    | —    | 5,246 |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Daily, Winter (Max) | —    | —    | —    | —    | —       | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —       | —    | —     |
| Off-Road Equipment  | 2.78 | 2.33 | 18.3 | 20.0 | 0.05    | 0.80  | —     | 0.80  | 0.74   | —      | 0.74   | —    | 5,228 | 5,228 | 0.21 | 0.04    | —    | 5,246 |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Average Daily       | —    | —    | —    | —    | —       | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —       | —    | —     |
| Off-Road Equipment  | 1.35 | 1.13 | 8.84 | 9.69 | 0.02    | 0.39  | —     | 0.39  | 0.36   | —      | 0.36   | —    | 2,527 | 2,527 | 0.10 | 0.02    | —    | 2,536 |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |
| Annual              | —    | —    | —    | —    | —       | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —       | —    | —     |
| Off-Road Equipment  | 0.25 | 0.21 | 1.61 | 1.77 | < 0.005 | 0.07  | —     | 0.07  | 0.07   | —      | 0.07   | —    | 418   | 418   | 0.02 | < 0.005 | —    | 420   |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00  | 0.00 | 0.00    | 0.00 | 0.00  |

|                     |      |      |      |      |      |      |      |      |      |      |      |   |      |      |      |      |      |      |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|---|------|------|------|------|------|------|
| Offsite             | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —    | —    | —    | —    | —    | —    |
| Daily, Summer (Max) | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —    | —    | —    | —    | —    | —    |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —    | —    | —    | —    | —    | —    |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily       | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —    | —    | —    | —    | —    | —    |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual              | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —    | —    | —    | —    | —    | —    |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.9. Reservoir Installation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location            | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Onsite              | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Daily, Summer (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |

|                           |      |      |      |      |         |      |      |      |      |      |      |   |       |       |         |         |      |       |
|---------------------------|------|------|------|------|---------|------|------|------|------|------|------|---|-------|-------|---------|---------|------|-------|
| Daily,<br>Winter<br>(Max) | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —       | —       | —    | —     |
| Off-Road<br>Equipment     | 2.70 | 2.26 | 17.3 | 20.0 | 0.05    | 0.73 | —    | 0.73 | 0.68 | —    | 0.68 | — | 5,231 | 5,231 | 0.21    | 0.04    | —    | 5,249 |
| Onsite<br>truck           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Average<br>Daily          | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —       | —       | —    | —     |
| Off-Road<br>Equipment     | 0.31 | 0.26 | 1.96 | 2.27 | 0.01    | 0.08 | —    | 0.08 | 0.08 | —    | 0.08 | — | 594   | 594   | 0.02    | < 0.005 | —    | 596   |
| Onsite<br>truck           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Annual                    | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —       | —       | —    | —     |
| Off-Road<br>Equipment     | 0.06 | 0.05 | 0.36 | 0.41 | < 0.005 | 0.02 | —    | 0.02 | 0.01 | —    | 0.01 | — | 98.3  | 98.3  | < 0.005 | < 0.005 | —    | 98.6  |
| Onsite<br>truck           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Offsite                   | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —       | —       | —    | —     |
| Daily,<br>Summer<br>(Max) | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —       | —       | —    | —     |
| Daily,<br>Winter<br>(Max) | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —       | —       | —    | —     |
| Worker                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Vendor                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Hauling                   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Average<br>Daily          | —    | —    | —    | —    | —       | —    | —    | —    | —    | —    | —    | — | —     | —     | —       | —       | —    | —     |
| Worker                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Vendor                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |
| Hauling                   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00  | 0.00  | 0.00    | 0.00    | 0.00 | 0.00  |

|         |      |      |      |      |      |      |      |      |      |      |      |   |      |      |      |      |      |      |
|---------|------|------|------|------|------|------|------|------|------|------|------|---|------|------|------|------|------|------|
| Annual  | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —    | —    | —    | —    | —    | —    |
| Worker  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

### 3.10. Reservoir Installation (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location            | TOG  | ROG  | NOx  | CO   | SO2     | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T  | CH4     | N2O     | R           | CO2e  |
|---------------------|------|------|------|------|---------|-------|-------|-------|--------|--------|--------|------|-------|-------|---------|---------|-------------|-------|
| Onsite              | —    | —    | —    | —    | —       | —     | —     | —     | —      | —      | —      | —    | —     | —     | —       | —       | —           | —     |
| Daily, Summer (Max) | —    | —    | —    | —    | —       | —     | —     | —     | —      | —      | —      | —    | —     | —     | —       | —       | —           | —     |
| Daily, Winter (Max) | —    | —    | —    | —    | —       | —     | —     | —     | —      | —      | —      | —    | —     | —     | —       | —       | —           | —     |
| Off-Road Equipment  | 2.70 | 2.26 | 17.3 | 20.0 | 0.05    | 0.73  | —     | 0.73  | 0.68   | —      | 0.68   | —    | 5,231 | 5,231 | 0.21    | 0.04    | —           | 5,249 |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00  | 0.00    | 0.00    | 0.00        | 0.00  |
| Average Daily       | —    | —    | —    | —    | —       | —     | —     | —     | —      | —      | —      | —    | —     | —     | —       | —       | —           | —     |
| Off-Road Equipment  | 0.31 | 0.26 | 1.96 | 2.27 | 0.01    | 0.08  | —     | 0.08  | 0.08   | —      | 0.08   | —    | 594   | 594   | 0.02    | < 0.005 | —           | 596   |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00  | 0.00    | 0.00    | 0.00        | 0.00  |
| Annual              | —    | —    | —    | —    | —       | —     | —     | —     | —      | —      | —      | —    | —     | —     | —       | —       | —           | —     |
| Off-Road Equipment  | 0.06 | 0.05 | 0.36 | 0.41 | < 0.005 | 0.02  | —     | 0.02  | 0.01   | —      | 0.01   | —    | 98.3  | 98.3  | < 0.005 | < 0.005 | —           | 98.6  |
| Onsite truck        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00  | 0.00    | 0.00    | 0.00        | 0.00  |
| Offsite             | —    | —    | —    | —    | —       | —     | —     | —     | —      | —      | —      | —    | —     | —     | —       | —       | —201 of 336 |       |

|                     |      |      |      |      |      |      |      |      |      |      |      |   |      |      |      |      |      |      |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|---|------|------|------|------|------|------|
| Daily, Summer (Max) | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —    | —    | —    | —    | —    | —    |
| Daily, Winter (Max) | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —    | —    | —    | —    | —    | —    |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily       | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —    | —    | —    | —    | —    | —    |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual              | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    | — | —    | —    | —    | —    | —    | —    |
| Worker              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.11. Paving/Ground Restoration (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location            | TOG  | ROG  | NOx  | CO   | SO2  | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T  | CH4  | N2O  | R | CO2e  |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|---|-------|
| Onsite              | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —    | — | —     |
| Daily, Summer (Max) | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —    | — | —     |
| Daily, Winter (Max) | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —    | — | —     |
| Off-Road Equipment  | 1.98 | 1.67 | 14.5 | 19.6 | 0.04 | 0.69  | —     | 0.69  | 0.64   | —      | 0.64   | —    | 3,796 | 3,796 | 0.15 | 0.03 | — | 3,809 |

|                         |      |      |      |      |         |         |      |         |         |      |         |   |      |      |         |         |      |      |
|-------------------------|------|------|------|------|---------|---------|------|---------|---------|------|---------|---|------|------|---------|---------|------|------|
| Architect Coatings      | —    | 13.2 | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —    | —    | —       | —       | —    | —    |
| Paving                  | —    | 0.00 | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —    | —    | —       | —       | —    | —    |
| Onsite truck            | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00 |
| Average Daily           | —    | —    | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —    | —    | —       | —       | —    | —    |
| Off-Road Equipment      | 0.06 | 0.05 | 0.44 | 0.59 | < 0.005 | 0.02    | —    | 0.02    | 0.02    | —    | 0.02    | — | 114  | 114  | < 0.005 | < 0.005 | —    | 115  |
| Architect ural Coatings | —    | 0.40 | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —    | —    | —       | —       | —    | —    |
| Paving                  | —    | 0.00 | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —    | —    | —       | —       | —    | —    |
| Onsite truck            | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00 |
| Annual                  | —    | —    | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —    | —    | —       | —       | —    | —    |
| Off-Road Equipment      | 0.01 | 0.01 | 0.08 | 0.11 | < 0.005 | < 0.005 | —    | < 0.005 | < 0.005 | —    | < 0.005 | — | 18.9 | 18.9 | < 0.005 | < 0.005 | —    | 19.0 |
| Architect ural Coatings | —    | 0.07 | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —    | —    | —       | —       | —    | —    |
| Paving                  | —    | 0.00 | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —    | —    | —       | —       | —    | —    |
| Onsite truck            | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00 |
| Offsite                 | —    | —    | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —    | —    | —       | —       | —    | —    |
| Daily, Summer (Max)     | —    | —    | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —    | —    | —       | —       | —    | —    |
| Daily, Winter (Max)     | —    | —    | —    | —    | —       | —       | —    | —       | —       | —    | —       | — | —    | —    | —       | —       | —    | —    |
| Worker                  | 0.08 | 0.07 | 0.07 | 0.79 | 0.00    | 0.00    | 0.21 | 0.21    | 0.00    | 0.05 | 0.05    | — | 197  | 197  | < 0.005 | 0.01    | 0.02 | 200  |
| Vendor                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 200  |

|               |         |         |         |         |      |      |         |         |      |         |         |   |      |      |         |         |         |      |
|---------------|---------|---------|---------|---------|------|------|---------|---------|------|---------|---------|---|------|------|---------|---------|---------|------|
| Hauling       | 0.00    | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |
| Average Daily | —       | —       | —       | —       | —    | —    | —       | —       | —    | —       | —       | — | —    | —    | —       | —       | —       | —    |
| Worker        | < 0.005 | < 0.005 | < 0.005 | 0.02    | 0.00 | 0.00 | 0.01    | 0.01    | 0.00 | < 0.005 | < 0.005 | — | 5.98 | 5.98 | < 0.005 | < 0.005 | 0.01    | 6.06 |
| Vendor        | 0.00    | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |
| Hauling       | 0.00    | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |
| Annual        | —       | —       | —       | —       | —    | —    | —       | —       | —    | —       | —       | — | —    | —    | —       | —       | —       | —    |
| Worker        | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.99 | 0.99 | < 0.005 | < 0.005 | < 0.005 | 1.00 |
| Vendor        | 0.00    | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |
| Hauling       | 0.00    | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |

3.12. Paving/Ground Restoration (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location                | TOG  | ROG  | NOx  | CO   | SO2  | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T  | CH4  | N2O  | R    | CO2e  |
|-------------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|------|-------|
| Onsite                  | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —    | —    | —     |
| Daily, Summer (Max)     | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —    | —    | —     |
| Daily, Winter (Max)     | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —    | —    | —     |
| Off-Road Equipment      | 1.98 | 1.67 | 14.5 | 19.6 | 0.04 | 0.69  | —     | 0.69  | 0.64   | —      | 0.64   | —    | 3,796 | 3,796 | 0.15 | 0.03 | —    | 3,809 |
| Architect ural Coatings | —    | 13.2 | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —    | —    | —     |
| Paving                  | —    | 0.00 | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —    | —    | —     |
| Onsite truck            | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00  |
| Average Daily           | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —     | —    | —    | —    | —     |



|                        |         |         |         |      |         |         |      |         |         |         |         |   |      |      |         |         |      |      |
|------------------------|---------|---------|---------|------|---------|---------|------|---------|---------|---------|---------|---|------|------|---------|---------|------|------|
| Off-Road Equipment     | 0.06    | 0.05    | 0.44    | 0.59 | < 0.005 | 0.02    | —    | 0.02    | 0.02    | —       | 0.02    | — | 114  | 114  | < 0.005 | < 0.005 | —    | 115  |
| Architectural Coatings | —       | 0.40    | —       | —    | —       | —       | —    | —       | —       | —       | —       | — | —    | —    | —       | —       | —    | —    |
| Paving                 | —       | 0.00    | —       | —    | —       | —       | —    | —       | —       | —       | —       | — | —    | —    | —       | —       | —    | —    |
| Onsite truck           | 0.00    | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00 |
| Annual                 | —       | —       | —       | —    | —       | —       | —    | —       | —       | —       | —       | — | —    | —    | —       | —       | —    | —    |
| Off-Road Equipment     | 0.01    | 0.01    | 0.08    | 0.11 | < 0.005 | < 0.005 | —    | < 0.005 | < 0.005 | —       | < 0.005 | — | 18.9 | 18.9 | < 0.005 | < 0.005 | —    | 19.0 |
| Architectural Coatings | —       | 0.07    | —       | —    | —       | —       | —    | —       | —       | —       | —       | — | —    | —    | —       | —       | —    | —    |
| Paving                 | —       | 0.00    | —       | —    | —       | —       | —    | —       | —       | —       | —       | — | —    | —    | —       | —       | —    | —    |
| Onsite truck           | 0.00    | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00 |
| Offsite                | —       | —       | —       | —    | —       | —       | —    | —       | —       | —       | —       | — | —    | —    | —       | —       | —    | —    |
| Daily, Summer (Max)    | —       | —       | —       | —    | —       | —       | —    | —       | —       | —       | —       | — | —    | —    | —       | —       | —    | —    |
| Daily, Winter (Max)    | —       | —       | —       | —    | —       | —       | —    | —       | —       | —       | —       | — | —    | —    | —       | —       | —    | —    |
| Worker                 | 0.08    | 0.07    | 0.07    | 0.79 | 0.00    | 0.00    | 0.21 | 0.21    | 0.00    | 0.05    | 0.05    | — | 197  | 197  | < 0.005 | 0.01    | 0.02 | 200  |
| Vendor                 | 0.00    | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00 |
| Hauling                | 0.00    | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00 |
| Average Daily          | —       | —       | —       | —    | —       | —       | —    | —       | —       | —       | —       | — | —    | —    | —       | —       | —    | —    |
| Worker                 | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00    | 0.00    | 0.01 | 0.01    | 0.00    | < 0.005 | < 0.005 | — | 5.98 | 5.98 | < 0.005 | < 0.005 | 0.01 | 6.06 |
| Vendor                 | 0.00    | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00 |
| Hauling                | 0.00    | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00 |

|         |         |         |         |         |      |      |         |         |      |         |         |   |      |      |         |         |         |      |
|---------|---------|---------|---------|---------|------|------|---------|---------|------|---------|---------|---|------|------|---------|---------|---------|------|
| Annual  | —       | —       | —       | —       | —    | —    | —       | —       | —    | —       | —       | — | —    | —    | —       | —       | —       | —    |
| Worker  | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.99 | 0.99 | < 0.005 | < 0.005 | < 0.005 | 1.00 |
| Vendor  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |
| Hauling | 0.00    | 0.00    | 0.00    | 0.00    | 0.00 | 0.00 | 0.00    | 0.00    | 0.00 | 0.00    | 0.00    | — | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00 |

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use                   | TOG  | ROG  | NOx  | CO   | SO2  | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4  | N2O  | R    | CO2e |
|----------------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|------|------|
| Daily, Summer (Max)        | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | —    | —    |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total                      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max)        | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | —    | —    |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total                      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual                     | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | —    | —    |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total                      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use                   | TOG  | ROG  | NOx  | CO   | SO2  | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4  | N2O  | R    | CO2e |
|----------------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|------|------|
| Daily, Summer (Max)        | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | —    | —    |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total                      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max)        | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | —    | —    |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total                      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual                     | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | —    | —    |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total                      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|----------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
|----------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|

|                            |   |   |   |   |   |   |   |   |   |   |   |   |      |      |      |      |   |      |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|------|------|------|------|---|------|
| Daily, Summer (Max)        | — | — | — | — | — | — | — | — | — | — | — | — | —    | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Daily, Winter (Max)        | — | — | — | — | — | — | — | — | — | — | — | — | —    | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Annual                     | — | — | — | — | — | — | — | — | — | — | — | — | —    | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use                   | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4  | N2O  | R | CO2e |
|----------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|---|------|
| Daily, Summer (Max)        | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Daily, Winter (Max)        | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |

|                            |   |   |   |   |   |   |   |   |   |   |   |   |      |      |      |      |   |      |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|------|------|------|------|---|------|
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Annual                     | — | — | — | — | — | — | — | — | — | — | — | — | —    | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use                   | TOG  | ROG  | NOx  | CO   | SO2  | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4  | N2O  | R | CO2e |
|----------------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|---|------|
| Daily, Summer (Max)        | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Daily, Winter (Max)        | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Annual                     | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use                   | TOG  | ROG  | NOx  | CO   | SO2  | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4  | N2O  | R | CO2e |
|----------------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|---|------|
| Daily, Summer (Max)        | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Daily, Winter (Max)        | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Annual                     | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Source              | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |

|                                |      |      |      |      |      |      |   |      |      |   |      |   |      |      |      |      |   |      |
|--------------------------------|------|------|------|------|------|------|---|------|------|---|------|---|------|------|------|------|---|------|
| Consum<br>Products             | —    | 0.04 | —    | —    | —    | —    | — | —    | —    | — | —    | — | —    | —    | —    | —    | — | —    |
| Architect<br>ural<br>Coatings  | —    | 0.04 | —    | —    | —    | —    | — | —    | —    | — | —    | — | —    | —    | —    | —    | — | —    |
| Landsca<br>pe<br>Equipme<br>nt | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                          | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Daily,<br>Winter<br>(Max)      | —    | —    | —    | —    | —    | —    | — | —    | —    | — | —    | — | —    | —    | —    | —    | — | —    |
| Consum<br>er<br>Products       | —    | 0.04 | —    | —    | —    | —    | — | —    | —    | — | —    | — | —    | —    | —    | —    | — | —    |
| Architect<br>ural<br>Coatings  | —    | 0.04 | —    | —    | —    | —    | — | —    | —    | — | —    | — | —    | —    | —    | —    | — | —    |
| Total                          | —    | 0.08 | —    | —    | —    | —    | — | —    | —    | — | —    | — | —    | —    | —    | —    | — | —    |
| Annual                         | —    | —    | —    | —    | —    | —    | — | —    | —    | — | —    | — | —    | —    | —    | —    | — | —    |
| Consum<br>er<br>Products       | —    | 0.01 | —    | —    | —    | —    | — | —    | —    | — | —    | — | —    | —    | —    | —    | — | —    |
| Architect<br>ural<br>Coatings  | —    | 0.01 | —    | —    | —    | —    | — | —    | —    | — | —    | — | —    | —    | —    | —    | — | —    |
| Landsca<br>pe<br>Equipme<br>nt | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                          | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Source                 | TOG  | ROG  | NOx  | CO   | SO2  | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4  | N2O  | R | CO2e |
|------------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|---|------|
| Daily, Summer (Max)    | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Consumer Products      | —    | 0.04 | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Architectural Coatings | —    | 0.04 | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Landscape Equipment    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                  | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00  | —     | 0.00  | 0.00   | —      | 0.00   | —    | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Daily, Winter (Max)    | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Consumer Products      | —    | 0.04 | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Architectural Coatings | —    | 0.04 | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Total                  | —    | 0.08 | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Annual                 | —    | —    | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Consumer Products      | —    | 0.01 | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Architectural Coatings | —    | 0.01 | —    | —    | —    | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |



|                   |      |      |      |      |      |      |   |      |      |   |      |   |      |      |      |      |   |      |
|-------------------|------|------|------|------|------|------|---|------|------|---|------|---|------|------|------|------|---|------|
| Landscape Equipme | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total             | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use                   | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4  | N2O  | R | CO2e |
|----------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|---|------|
| Daily, Summer (Max)        | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Daily, Winter (Max)        | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Annual                     | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use                   | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4  | N2O  | R | CO2e |
|----------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|---|------|
| Daily, Summer (Max)        | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Daily, Winter (Max)        | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Annual                     | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use            | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |

|                            |   |   |   |   |   |   |   |   |   |   |   |      |      |      |      |      |   |      |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|------|------|------|------|------|---|------|
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Daily, Winter (Max)        | — | — | — | — | — | — | — | — | — | — | — | —    | —    | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Annual                     | — | — | — | — | — | — | — | — | — | — | — | —    | —    | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use                   | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4  | N2O  | R | CO2e |
|----------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|---|------|
| Daily, Summer (Max)        | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                      | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Daily, Winter (Max)        | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —    | —    | — | —    |
| Other Non-Asphalt Surfaces | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | — | 0.00 |

|                                  |   |   |   |   |   |   |   |   |   |   |   |      |      |      |      |      |   |      |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|------|------|------|------|------|---|------|
| Total                            | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Annual                           | — | — | — | — | — | — | — | — | — | — | — | —    | —    | —    | —    | —    | — | —    |
| Other<br>Non-Asphalt<br>Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total                            | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use            | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Daily, Winter (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Annual              | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use            | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total               | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total               | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual              | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total               | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type      | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Daily, Winter (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Annual              | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|----------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| 217 of 336     |     |     |     |    |     |       |       |       |        |        |        |      |       |      |     |     |   |      |

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total               | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total               | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual              | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total               | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type      | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Daily, Winter (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Annual              | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipme<br>Type           | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily,<br>Summer<br>(Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total                     | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Daily,<br>Winter<br>(Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total                     | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Annual                    | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total                     | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipme<br>nt<br>Type     | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily,<br>Summer<br>(Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total                     | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Daily,<br>Winter<br>(Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total                     | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Annual                    | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total                     | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type      | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Daily, Winter (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Annual              | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetation          | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R           | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|-------------|------|
| Daily, Summer (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | —           | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | —           | —    |
| Daily, Winter (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | —           | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | —           | —    |
| Annual              | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | —220 of 336 | —    |



|       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use            | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Daily, Winter (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Annual              | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species             | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Avoided             | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Subtotal            | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Sequestered         | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Subtotal            | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Removed             | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subtotal                  | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| —                         | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily,<br>Winter<br>(Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided                   | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal                  | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequest<br>ered           | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal                  | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Remove<br>d               | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal                  | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| —                         | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual                    | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided                   | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal                  | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequest<br>ered           | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal                  | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Remove<br>d               | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal                  | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| —                         | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetatio<br>n | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|----------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
|----------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total               | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total               | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual              | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total               | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use            | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Daily, Winter (Max) | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Annual              | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |
| Total               | —   | —   | —   | —  | —   | —     | —     | —     | —      | —      | —      | —    | —     | —    | —   | —   | — | —    |

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
|---------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily,<br>Summer<br>(Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided                   | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal                  | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequest<br>ered           | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal                  | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Remove<br>d               | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal                  | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| —                         | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily,<br>Winter<br>(Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided                   | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal                  | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequest<br>ered           | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal                  | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Remove<br>d               | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal                  | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| —                         | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual                    | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided                   | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal                  | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequest<br>ered           | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal                  | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

|          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Remove d | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| —        | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 5. Activity Data

### 5.1. Construction Schedule

| Phase Name                        | Phase Type            | Start Date | End Date  | Days Per Week | Work Days per Phase | Phase Description |
|-----------------------------------|-----------------------|------------|-----------|---------------|---------------------|-------------------|
| Site Preparation                  | Site Preparation      | 1/30/2025  | 2/21/2025 | 5.00          | 17.0                | —                 |
| Grading                           | Grading               | 2/24/2025  | 3/27/2025 | 5.00          | 24.0                | —                 |
| Pipeline/Access Road Installation | Building Construction | 3/28/2025  | 4/28/2025 | 5.00          | 22.0                | —                 |
| Reservoir Installation            | Building Construction | 4/29/2025  | 2/27/2026 | 5.00          | 219                 | —                 |
| Paving/Ground Restoration         | Paving                | 3/2/2026   | 3/16/2026 | 5.00          | 11.0                | —                 |

### 5.2. Off-Road Equipment

#### 5.2.1. Unmitigated

| Phase Name       | Equipment Type            | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|------------------|---------------------------|-----------|-------------|----------------|---------------|------------|-------------|
| Site Preparation | Tractors/Loaders/Backhoes | Diesel    | Average     | 2.00           | 8.00          | 84.0       | 0.37        |
| Site Preparation | Excavators                | Diesel    | Average     | 2.00           | 8.00          | 36.0       | 0.38        |
| Site Preparation | Scrapers                  | Diesel    | Average     | 2.00           | 8.00          | 423        | 0.48        |
| Site Preparation | Off-Highway Trucks        | Diesel    | Average     | 2.00           | 8.00          | 376        | 0.38        |
| Grading          | Tractors/Loaders/Backhoes | Diesel    | Average     | 2.00           | 8.00          | 84.0       | 0.37        |
| Grading          | Rubber Tired Dozers       | Diesel    | Average     | 2.00           | 8.00          | 367        | 0.40        |

|                                   |                              |        |         |      |      |      |      |
|-----------------------------------|------------------------------|--------|---------|------|------|------|------|
| Grading                           | Excavators                   | Diesel | Average | 4.00 | 8.00 | 36.0 | 0.38 |
| Grading                           | Graders                      | Diesel | Average | 2.00 | 8.00 | 148  | 0.41 |
| Grading                           | Scrapers                     | Diesel | Average | 2.00 | 8.00 | 423  | 0.48 |
| Grading                           | Off-Highway Trucks           | Diesel | Average | 4.00 | 8.00 | 376  | 0.38 |
| Grading                           | Other Construction Equipment | Diesel | Average | 2.00 | 8.00 | 82.0 | 0.42 |
| Pipeline/Access Road Installation | Plate Compactors             | Diesel | Average | 2.00 | 8.00 | 8.00 | 0.43 |
| Pipeline/Access Road Installation | Forklifts                    | Diesel | Average | 2.00 | 8.00 | 82.0 | 0.20 |
| Pipeline/Access Road Installation | Rollers                      | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Pipeline/Access Road Installation | Surfacing Equipment          | Diesel | Average | 2.00 | 8.00 | 399  | 0.30 |
| Pipeline/Access Road Installation | Trenchers                    | Diesel | Average | 2.00 | 8.00 | 40.0 | 0.50 |
| Reservoir Installation            | Air Compressors              | Diesel | Average | 2.00 | 8.00 | 37.0 | 0.48 |
| Reservoir Installation            | Cranes                       | Diesel | Average | 1.00 | 8.00 | 367  | 0.29 |
| Reservoir Installation            | Forklifts                    | Diesel | Average | 1.00 | 8.00 | 82.0 | 0.20 |
| Reservoir Installation            | Generator Sets               | Diesel | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Reservoir Installation            | Off-Highway Trucks           | Diesel | Average | 2.00 | 8.00 | 376  | 0.38 |
| Reservoir Installation            | Other Construction Equipment | Diesel | Average | 3.00 | 8.00 | 82.0 | 0.42 |
| Paving/Ground Restoration         | Plate Compactors             | Diesel | Average | 1.00 | 8.00 | 8.00 | 0.43 |
| Paving/Ground Restoration         | Graders                      | Diesel | Average | 2.00 | 8.00 | 148  | 0.41 |
| Paving/Ground Restoration         | Pavers                       | Diesel | Average | 2.00 | 8.00 | 81.0 | 0.42 |
| Paving/Ground Restoration         | Paving Equipment             | Diesel | Average | 2.00 | 8.00 | 89.0 | 0.36 |

|                           |                     |        |         |      |      |      |      |
|---------------------------|---------------------|--------|---------|------|------|------|------|
| Paving/Ground Restoration | Rollers             | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Paving/Ground Restoration | Surfacing Equipment | Diesel | Average | 1.00 | 8.00 | 399  | 0.30 |

5.2.2. Mitigated

| Phase Name                        | Equipment Type               | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|-----------------------------------|------------------------------|-----------|-------------|----------------|---------------|------------|-------------|
| Site Preparation                  | Tractors/Loaders/Backhoes    | Diesel    | Average     | 2.00           | 8.00          | 84.0       | 0.37        |
| Site Preparation                  | Excavators                   | Diesel    | Average     | 2.00           | 8.00          | 36.0       | 0.38        |
| Site Preparation                  | Scrapers                     | Diesel    | Average     | 2.00           | 8.00          | 423        | 0.48        |
| Site Preparation                  | Off-Highway Trucks           | Diesel    | Average     | 2.00           | 8.00          | 376        | 0.38        |
| Grading                           | Tractors/Loaders/Backhoes    | Diesel    | Average     | 2.00           | 8.00          | 84.0       | 0.37        |
| Grading                           | Rubber Tired Dozers          | Diesel    | Average     | 2.00           | 8.00          | 367        | 0.40        |
| Grading                           | Excavators                   | Diesel    | Average     | 4.00           | 8.00          | 36.0       | 0.38        |
| Grading                           | Graders                      | Diesel    | Average     | 2.00           | 8.00          | 148        | 0.41        |
| Grading                           | Scrapers                     | Diesel    | Average     | 2.00           | 8.00          | 423        | 0.48        |
| Grading                           | Off-Highway Trucks           | Diesel    | Average     | 4.00           | 8.00          | 376        | 0.38        |
| Grading                           | Other Construction Equipment | Diesel    | Average     | 2.00           | 8.00          | 82.0       | 0.42        |
| Pipeline/Access Road Installation | Plate Compactors             | Diesel    | Average     | 2.00           | 8.00          | 8.00       | 0.43        |
| Pipeline/Access Road Installation | Forklifts                    | Diesel    | Average     | 2.00           | 8.00          | 82.0       | 0.20        |
| Pipeline/Access Road Installation | Rollers                      | Diesel    | Average     | 2.00           | 8.00          | 36.0       | 0.38        |
| Pipeline/Access Road Installation | Surfacing Equipment          | Diesel    | Average     | 2.00           | 8.00          | 399        | 0.30        |
| Pipeline/Access Road Installation | Trenchers                    | Diesel    | Average     | 2.00           | 8.00          | 40.0       | 0.50        |

|                           |                              |        |         |      |      |      |      |
|---------------------------|------------------------------|--------|---------|------|------|------|------|
| Reservoir Installation    | Air Compressors              | Diesel | Average | 2.00 | 8.00 | 37.0 | 0.48 |
| Reservoir Installation    | Cranes                       | Diesel | Average | 1.00 | 8.00 | 367  | 0.29 |
| Reservoir Installation    | Forklifts                    | Diesel | Average | 1.00 | 8.00 | 82.0 | 0.20 |
| Reservoir Installation    | Generator Sets               | Diesel | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Reservoir Installation    | Off-Highway Trucks           | Diesel | Average | 2.00 | 8.00 | 376  | 0.38 |
| Reservoir Installation    | Other Construction Equipment | Diesel | Average | 3.00 | 8.00 | 82.0 | 0.42 |
| Paving/Ground Restoration | Plate Compactors             | Diesel | Average | 1.00 | 8.00 | 8.00 | 0.43 |
| Paving/Ground Restoration | Graders                      | Diesel | Average | 2.00 | 8.00 | 148  | 0.41 |
| Paving/Ground Restoration | Pavers                       | Diesel | Average | 2.00 | 8.00 | 81.0 | 0.42 |
| Paving/Ground Restoration | Paving Equipment             | Diesel | Average | 2.00 | 8.00 | 89.0 | 0.36 |
| Paving/Ground Restoration | Rollers                      | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Paving/Ground Restoration | Surfacing Equipment          | Diesel | Average | 1.00 | 8.00 | 399  | 0.30 |

5.3. Construction Vehicles

5.3.1. Unmitigated

| Phase Name       | Trip Type    | One-Way Trips per Day | Miles per Trip | Vehicle Mix   |
|------------------|--------------|-----------------------|----------------|---------------|
| Site Preparation | —            | —                     | —              | —             |
| Site Preparation | Worker       | 20.0                  | 11.7           | LDA,LDT1,LDT2 |
| Site Preparation | Vendor       | —                     | 8.40           | HHDT,MHDT     |
| Site Preparation | Hauling      | 0.00                  | 20.0           | HHDT          |
| Site Preparation | Onsite truck | —                     | —              | HHDT          |
| Grading          | —            | —                     | —              | —             |



|                                   |              |      |      |               |
|-----------------------------------|--------------|------|------|---------------|
| Grading                           | Worker       | 45.0 | 11.7 | LDA,LDT1,LDT2 |
| Grading                           | Vendor       | —    | 8.40 | HHDT,MHDT     |
| Grading                           | Hauling      | 62.5 | 20.0 | HHDT          |
| Grading                           | Onsite truck | —    | —    | HHDT          |
| Pipeline/Access Road Installation | —            | —    | —    | —             |
| Pipeline/Access Road Installation | Worker       | 0.00 | 11.7 | LDA,LDT1,LDT2 |
| Pipeline/Access Road Installation | Vendor       | 0.00 | 8.40 | HHDT,MHDT     |
| Pipeline/Access Road Installation | Hauling      | 0.00 | 20.0 | HHDT          |
| Pipeline/Access Road Installation | Onsite truck | —    | —    | HHDT          |
| Reservoir Installation            | —            | —    | —    | —             |
| Reservoir Installation            | Worker       | 0.00 | 11.7 | LDA,LDT1,LDT2 |
| Reservoir Installation            | Vendor       | 0.00 | 8.40 | HHDT,MHDT     |
| Reservoir Installation            | Hauling      | 0.00 | 20.0 | HHDT          |
| Reservoir Installation            | Onsite truck | —    | —    | HHDT          |
| Paving/Ground Restoration         | —            | —    | —    | —             |
| Paving/Ground Restoration         | Worker       | 25.0 | 11.7 | LDA,LDT1,LDT2 |
| Paving/Ground Restoration         | Vendor       | —    | 8.40 | HHDT,MHDT     |
| Paving/Ground Restoration         | Hauling      | 0.00 | 20.0 | HHDT          |
| Paving/Ground Restoration         | Onsite truck | —    | —    | HHDT          |

### 5.3.2. Mitigated

| Phase Name       | Trip Type    | One-Way Trips per Day | Miles per Trip | Vehicle Mix   |
|------------------|--------------|-----------------------|----------------|---------------|
| Site Preparation | —            | —                     | —              | —             |
| Site Preparation | Worker       | 20.0                  | 11.7           | LDA,LDT1,LDT2 |
| Site Preparation | Vendor       | —                     | 8.40           | HHDT,MHDT     |
| Site Preparation | Hauling      | 0.00                  | 20.0           | HHDT          |
| Site Preparation | Onsite truck | —                     | —              | HHDT          |

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|                                   |              |      |      |               |
|-----------------------------------|--------------|------|------|---------------|
| Grading                           | —            | —    | —    | —             |
| Grading                           | Worker       | 45.0 | 11.7 | LDA,LDT1,LDT2 |
| Grading                           | Vendor       | —    | 8.40 | HHDT,MHDT     |
| Grading                           | Hauling      | 62.5 | 20.0 | HHDT          |
| Grading                           | Onsite truck | —    | —    | HHDT          |
| Pipeline/Access Road Installation | —            | —    | —    | —             |
| Pipeline/Access Road Installation | Worker       | 0.00 | 11.7 | LDA,LDT1,LDT2 |
| Pipeline/Access Road Installation | Vendor       | 0.00 | 8.40 | HHDT,MHDT     |
| Pipeline/Access Road Installation | Hauling      | 0.00 | 20.0 | HHDT          |
| Pipeline/Access Road Installation | Onsite truck | —    | —    | HHDT          |
| Reservoir Installation            | —            | —    | —    | —             |
| Reservoir Installation            | Worker       | 0.00 | 11.7 | LDA,LDT1,LDT2 |
| Reservoir Installation            | Vendor       | 0.00 | 8.40 | HHDT,MHDT     |
| Reservoir Installation            | Hauling      | 0.00 | 20.0 | HHDT          |
| Reservoir Installation            | Onsite truck | —    | —    | HHDT          |
| Paving/Ground Restoration         | —            | —    | —    | —             |
| Paving/Ground Restoration         | Worker       | 25.0 | 11.7 | LDA,LDT1,LDT2 |
| Paving/Ground Restoration         | Vendor       | —    | 8.40 | HHDT,MHDT     |
| Paving/Ground Restoration         | Hauling      | 0.00 | 20.0 | HHDT          |
| Paving/Ground Restoration         | Onsite truck | —    | —    | HHDT          |

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

| Phase Name                | Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---------------------------|--|--|--|--|-----------------------------|
| Paving/Ground Restoration | 0.00                                     | 0.00                                     | 0.00   | 0.00   | 31,363                      |

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

| Phase Name                | Material Imported (cy) | Material Exported (cy) | Acres Graded (acres) | Material Demolished (sq. ft.) | Acres Paved (acres) |
|---------------------------|------------------------|------------------------|----------------------|-------------------------------|---------------------|
| Site Preparation          | —                      | —                      | 34.0                 | 0.00                          | —                   |
| Grading                   | —                      | 12,000                 | 96.0                 | 0.00                          | —                   |
| Paving/Ground Restoration | 0.00                   | 0.00                   | 0.00                 | 0.00                          | 12.0                |

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

| Land Use                   | Area Paved (acres) | % Asphalt |
|----------------------------|--------------------|-----------|
| Other Non-Asphalt Surfaces | 12.0               | 0%        |

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4  | N2O     |
|------|--------------|-----|------|---------|
| 2025 | 0.00         | 204 | 0.03 | < 0.005 |
| 2026 | 0.00         | 204 | 0.03 | < 0.005 |

5.9. Operational Mobile Sources

5.9.1. Unmitigated

| Land Use Type              | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|----------------------------|---------------|----------------|--------------|------------|-------------|--------------|------------|----------|
| Other Non-Asphalt Surfaces | 0.00          | 0.00           | 0.00         | 0.00       | 0.00        | 0.00         | 0.00       | 0.00     |

5.9.2. Mitigated

| Land Use Type              | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|----------------------------|---------------|----------------|--------------|------------|-------------|--------------|------------|----------|
| Other Non-Asphalt Surfaces | 0.00          | 0.00           | 0.00         | 0.00       | 0.00        | 0.00         | 0.00       | 0.00     |

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

| Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|--|--|--|--|-----------------------------|
| 0  | 0.00                                     | 0.00   | 0.00   | 31,363                      |

5.10.3. Landscape Equipment

| Season      | Unit   | Value |
|-------------|--------|-------|
| Snow Days   | day/yr | 0.00  |
| Summer Days | day/yr | 180   |

5.10.4. Landscape Equipment - Mitigated

| Season      | Unit   | Value |
|-------------|--------|-------|
| Snow Days   | day/yr | 0.00  |
| Summer Days | day/yr | 180   |

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

| Land Use                   | Electricity (kWh/yr) | CO2 | CH4    | N2O    | Natural Gas (kBTU/yr) |
|----------------------------|----------------------|-----|--------|--------|-----------------------|
| Other Non-Asphalt Surfaces | 0.00                 | 204 | 0.0330 | 0.0040 | 0.00                  |

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

| Land Use                   | Electricity (kWh/yr) | CO2 | CH4    | N2O    | Natural Gas (kBTU/yr) |
|----------------------------|----------------------|-----|--------|--------|-----------------------|
| Other Non-Asphalt Surfaces | 0.00                 | 204 | 0.0330 | 0.0040 | 0.00                  |

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

| Land Use                   | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|----------------------------|-------------------------|--------------------------|
| Other Non-Asphalt Surfaces | 0.00                    | 0.00                     |

5.12.2. Mitigated

| Land Use                   | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|----------------------------|-------------------------|--------------------------|
| Other Non-Asphalt Surfaces | 0.00                    | 0.00                     |

5.13. Operational Waste Generation

5.13.1. Unmitigated

| Land Use                   | Waste (ton/year) | Cogeneration (kWh/year) |
|----------------------------|------------------|-------------------------|
| Other Non-Asphalt Surfaces | 0.00             | —                       |

5.13.2. Mitigated

| Land Use                   | Waste (ton/year) | Cogeneration (kWh/year) |
|----------------------------|------------------|-------------------------|
| Other Non-Asphalt Surfaces | 0.00             | —                       |

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

| Land Use Type | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|---------------|----------------|-------------|-----|---------------|----------------------|-------------------|----------------|
|---------------|----------------|-------------|-----|---------------|----------------------|-------------------|----------------|

5.14.2. Mitigated

| Land Use Type | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|---------------|----------------|-------------|-----|---------------|----------------------|-------------------|----------------|
|---------------|----------------|-------------|-----|---------------|----------------------|-------------------|----------------|

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

| Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|----------------|-----------|-------------|----------------|---------------|------------|-------------|
|----------------|-----------|-------------|----------------|---------------|------------|-------------|

5.15.2. Mitigated

| Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|----------------|-----------|-------------|----------------|---------------|------------|-------------|
|----------------|-----------|-------------|----------------|---------------|------------|-------------|

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

| Equipment Type | Fuel Type | Number per Day | Hours per Day | Hours per Year | Horsepower | Load Factor |
|----------------|-----------|----------------|---------------|----------------|------------|-------------|
|----------------|-----------|----------------|---------------|----------------|------------|-------------|

5.16.2. Process Boilers

| Equipment Type | Fuel Type | Number | Boiler Rating (MMBtu/hr) | Daily Heat Input (MMBtu/day) | Annual Heat Input (MMBtu/yr) |
|----------------|-----------|--------|--------------------------|------------------------------|------------------------------|
|----------------|-----------|--------|--------------------------|------------------------------|------------------------------|

5.17. User Defined

| Equipment Type | Fuel Type |
|----------------|-----------|
|----------------|-----------|

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|--------------------------|----------------------|---------------|-------------|
|--------------------------|----------------------|---------------|-------------|

5.18.1.2. Mitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|--------------------------|----------------------|---------------|-------------|
|--------------------------|----------------------|---------------|-------------|

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|--------------------|---------------|-------------|
|--------------------|---------------|-------------|

5.18.1.2. Mitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|--------------------|---------------|-------------|
|--------------------|---------------|-------------|

5.18.2. Sequestration

5.18.2.1. Unmitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|-----------|--------|------------------------------|------------------------------|
|-----------|--------|------------------------------|------------------------------|

5.18.2.2. Mitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|-----------|--------|------------------------------|------------------------------|
|-----------|--------|------------------------------|------------------------------|

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

| Climate Hazard               | Result for Project Location | Unit                                       |
|------------------------------|-----------------------------|--|
| Temperature and Extreme Heat | 16.6                        | annual days of extreme heat                |
| Extreme Precipitation        | 3.60                        | annual days with precipitation above 20 mm |
| Sea Level Rise               | —                           | meters of inundation depth                 |
| Wildfire                     | 17.3                        | annual hectares burned                     |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events.

Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters



Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

| Climate Hazard               | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|------------------------------|----------------|-------------------|-------------------------|---------------------|
| Temperature and Extreme Heat | N/A            | N/A               | N/A                     | N/A                 |
| Extreme Precipitation        | N/A            | N/A               | N/A                     | N/A                 |
| Sea Level Rise               | N/A            | N/A               | N/A                     | N/A                 |
| Wildfire                     | N/A            | N/A               | N/A                     | N/A                 |
| Flooding                     | N/A            | N/A               | N/A                     | N/A                 |
| Drought                      | N/A            | N/A               | N/A                     | N/A                 |
| Snowpack Reduction           | N/A            | N/A               | N/A                     | N/A                 |
| Air Quality Degradation      | N/A            | N/A               | N/A                     | N/A                 |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3. Adjusted Climate Risk Scores

| Climate Hazard               | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|------------------------------|----------------|-------------------|-------------------------|---------------------|
| Temperature and Extreme Heat | N/A            | N/A               | N/A                     | N/A                 |
| Extreme Precipitation        | N/A            | N/A               | N/A                     | N/A                 |
| Sea Level Rise               | N/A            | N/A               | N/A                     | N/A                 |
| Wildfire                     | N/A            | N/A               | N/A                     | N/A                 |
| Flooding                     | N/A            | N/A               | N/A                     | N/A                 |
| Drought                      | N/A            | N/A               | N/A                     | N/A                 |
| Snowpack Reduction           | N/A            | N/A               | N/A                     | N/A                 |

|                         |     |     |     |     |
|-------------------------|-----|-----|-----|-----|
| Air Quality Degradation | N/A | N/A | N/A | N/A |
|-------------------------|-----|-----|-----|-----|

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

| Indicator                       | Result for Project Census Tract |
|---------------------------------|---------------------------------|
| Exposure Indicators             | —                               |
| AQ-Ozone                        | 32.1                            |
| AQ-PM                           | 18.2                            |
| AQ-DPM                          | 54.0                            |
| Drinking Water                  | 38.9                            |
| Lead Risk Housing               | 0.79                            |
| Pesticides                      | 9.48                            |
| Toxic Releases                  | 35.7                            |
| Traffic                         | 83.0                            |
| Effect Indicators               | —                               |
| CleanUp Sites                   | 0.00                            |
| Groundwater                     | 10.6                            |
| Haz Waste Facilities/Generators | 50.1                            |
| Impaired Water Bodies           | 33.2                            |
| Solid Waste                     | 52.9                            |

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|                                 |      |
|---------------------------------|------|
| Sensitive Population            | —    |
| Asthma                          | 26.9 |
| Cardio-vascular                 | 20.3 |
| Low Birth Weights               | 72.1 |
| Socioeconomic Factor Indicators | —    |
| Education                       | 28.1 |
| Housing                         | 0.39 |
| Linguistic                      | 59.8 |
| Poverty                         | 0.74 |
| Unemployment                    | 33.6 |

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

| Indicator              | Result for Project Census Tract |
|------------------------|---------------------------------|
| Economic               | —                               |
| Above Poverty          | 99.80751957                     |
| Employed               | 93.82779417                     |
| Median HI              | 99.26857436                     |
| Education              | —                               |
| Bachelor's or higher   | 98.42166046                     |
| High school enrollment | 100                             |
| Preschool enrollment   | 74.99037598                     |
| Transportation         | —                               |
| Auto Access            | 92.6344155                      |
| Active commuting       | 63.09508533                     |
| Social                 | —                               |
| 2-parent households    | 97.44642628                     |

|  |             |
|--|-------------|
| Voting                                       | 79.76389067 |
| Neighborhood                                 | —           |
| Alcohol availability                         | 97.0101373  |
| Park access                                  | 57.11535994 |
| Retail density                               | 10.08597459 |
| Supermarket access                           | 17.34890286 |
| Tree canopy                                  | 28.96188887 |
| Housing                                      | —           |
| Homeownership                                | 95.95791095 |
| Housing habitability                         | 99.96150391 |
| Low-inc homeowner severe housing cost burden | 97.83138714 |
| Low-inc renter severe housing cost burden    | 99.08892596 |
| Uncrowded housing                            | 89.4649044  |
| Health Outcomes                              | —           |
| Insured adults                               | 94.12293084 |
| Arthritis                                    | 0.0         |
| Asthma ER Admissions                         | 73.6        |
| High Blood Pressure                          | 0.0         |
| Cancer (excluding skin)                      | 0.0         |
| Asthma                                       | 0.0         |
| Coronary Heart Disease                       | 0.0         |
| Chronic Obstructive Pulmonary Disease        | 0.0         |
| Diagnosed Diabetes                           | 0.0         |
| Life Expectancy at Birth                     | 83.4        |
| Cognitively Disabled                         | 96.3        |
| Physically Disabled                          | 95.1        |
| Heart Attack ER Admissions                   | 58.4        |

|                                       |      |
|---------------------------------------|------|
| Mental Health Not Good                | 0.0  |
| Chronic Kidney Disease                | 0.0  |
| Obesity                               | 0.0  |
| Pedestrian Injuries                   | 19.6 |
| Physical Health Not Good              | 0.0  |
| Stroke                                | 0.0  |
| Health Risk Behaviors                 | —    |
| Binge Drinking                        | 0.0  |
| Current Smoker                        | 0.0  |
| No Leisure Time for Physical Activity | 0.0  |
| Climate Change Exposures              | —    |
| Wildfire Risk                         | 0.0  |
| SLR Inundation Area                   | 0.0  |
| Children                              | 17.1 |
| Elderly                               | 83.1 |
| English Speaking                      | 53.0 |
| Foreign-born                          | 86.9 |
| Outdoor Workers                       | 98.2 |
| Climate Change Adaptive Capacity      | —    |
| Impervious Surface Cover              | 29.4 |
| Traffic Density                       | 96.1 |
| Traffic Access                        | 54.8 |
| Other Indices                         | —    |
| Hardship                              | 5.0  |
| Other Decision Support                | —    |
| 2016 Voting                           | 78.8 |

7.3. Overall Health & Equity Scores

| Metric  | Result for Project Census Tract |
|---|---------------------------------|
| CalEnviroScreen 4.0 Score for Project Location (a)                                  | 21.0                            |
| Healthy Places Index Score for Project Location (b)                                 | 99.0                            |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535)           | No                              |
| Project Located in a Low-Income Community (Assembly Bill 1550)                      | No                              |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No                              |

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.  
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

| Screen                               | Justification   |
|--------------------------------------|---|
| Land Use                             | Consistent with the Project Description   |
| Construction: Construction Phases    | Per applicant provided construction schedule  |
| Construction: Off-Road Equipment     | Per applicant provided construction equipment list. Water trucks and concrete trucks assumed to be "other construction equipment", while hauling trucks assumed to be "off-highway trucks". |
| Construction: Architectural Coatings | BAAQMD Regulation 8 Rule 3, nonflat coating   |
| Operations: Architectural Coatings   | BAAQMD Regulation 8 Rule 3  |
| Operations: Water and Waste Water    | WTP 100% aerobic  |

# Appendix B

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Biological Resources Assessment



# Reservoir 20B Project

## Biological Resources Assessment

*prepared for*

**Dublin San Ramon Services District**

7051 Dublin Boulevard

Dublin, California 94568

Contact: Jason Ching, PE

*prepared by*

**Rincon Consultants, Inc.**

449 15th Street, Suite 303

Oakland, California 94612

**May 2024**

***(Updated September 2024)***



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# Executive Summary

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This document provides the findings of a Biological Resources Assessment (BRA) prepared by Rincon Consultants, Inc. for the Dublin San Ramon Services District's (District) proposed Reservoir 20B Project (project) in the City of Dublin in Alameda County, California. The project would involve construction of Reservoir 20B, an underground ~~welded steel~~ pre-stressed concrete reservoir with a storage capacity of approximately 1.3 million gallons. This report documents existing conditions at the project site and provides an assessment of potential impacts to sensitive biological resources based on proposed project plans.

The biological study area for this BRA report includes the project site plus a 50-foot buffer. The study area consists of native and non-native grasslands and barren areas.

Six special-status plant species and six special-status animal species have potential to occur in the study area. Recommended avoidance and minimization measures are identified to reduce potential impacts related to these species to a less-than-significant level.

No sensitive natural communities, jurisdictional waters, or essential wildlife corridors or habitat linkages occur within the study area.

# 1 Introduction

---

## 1.1 Project Location

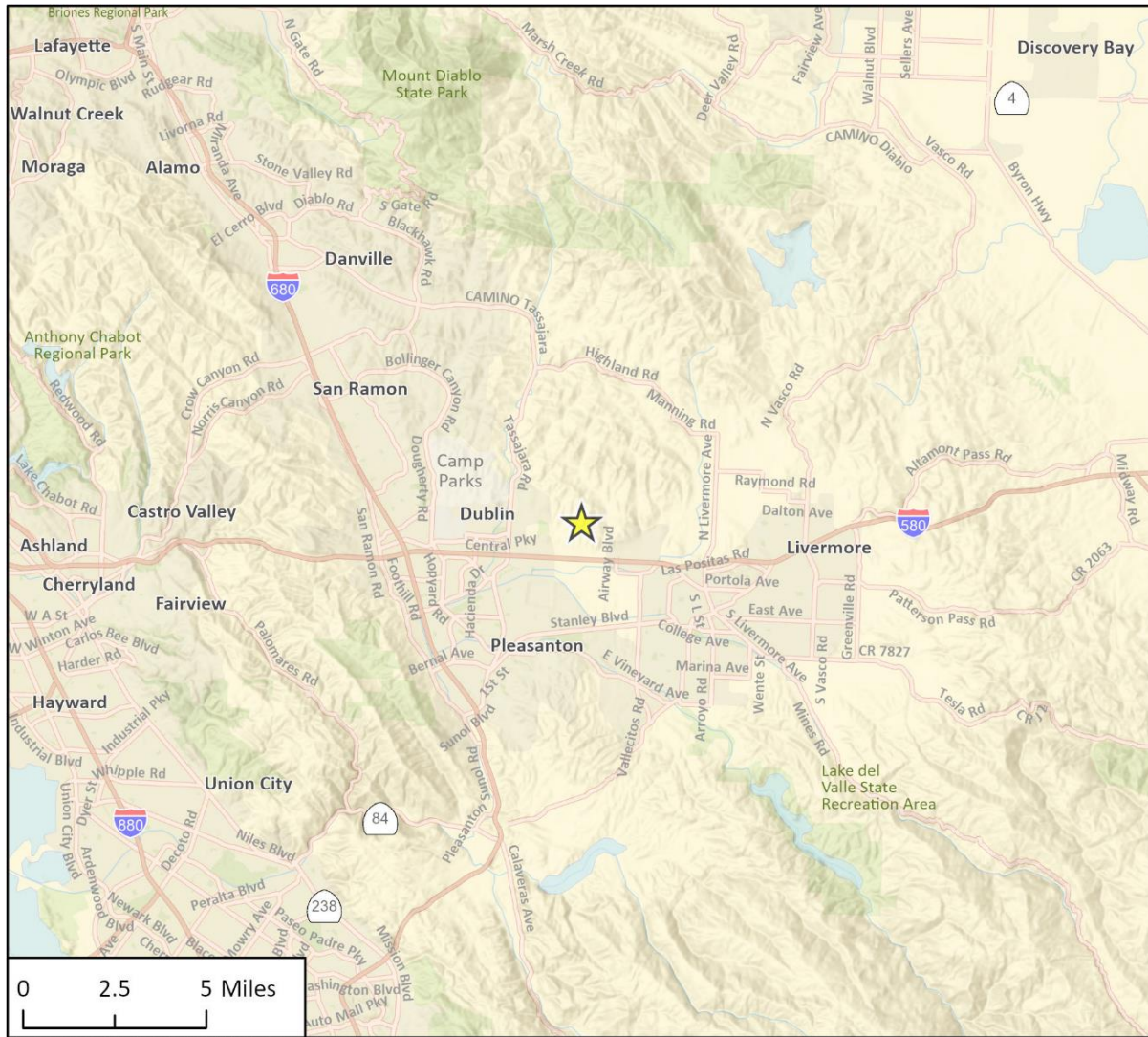
The project site is located near the eastern border of the City of Dublin in Alameda County, California (Figure 1). The project site is located along the northern boundary of Assessor's Parcel Number (APN) 905-0002-002-00 and within the proposed East Ranch Development site, which is a planned residential development located on the west and east sides of Croak Road south of South Terracina Drive. . The regional project location is shown in Figure 1. The project site boundary is located at 37.716301°W latitude and -121.834733°N longitude, within the *Livermore, California* 7.5-minute United States Geological Survey (USGS) quadrangle (Figure 2). The study area for this project is defined as the project site boundary plus a 50-foot buffer around the site. The study area also overlaps with the adjacent East Ranch Development Project, which is currently under construction.

## 1.2 Project Description

The project would involve construction of Reservoir 20B, an underground ~~welded steel~~ pre-stressed concrete reservoir with a storage capacity of approximately 1.3 million gallons. The reservoir would have an outside diameter of approximately 102 feet and an area of approximately 17,500 square feet. The reservoir would be located at the top of a hill within the parcel. At this location, the reservoir would have a similar elevation to that of existing Reservoir 20A (670 feet above mean sea level) so that pressures throughout the District's system remain consistent. The water tank would be located on a 0.4-acre concrete pad approximately 350 feet south of South Terracina Drive and approximately 0.25-mile east of Croak Road.

The project would involve installation of an access staircase, as shown in Figure 2. It is noted that a paved access road to the project site will not be constructed at this time; however, a potential future access road connecting to a cul-de-sac associated with the East Ranch development project is considered as part of the project. The project also includes an approximately 425-linear foot new storm drain pipeline that would connect to a planned storm drain inlet of the East Ranch Development located south of the proposed storage tank. An approximately 1,000-linear foot new water supply main, including a check valve vault, would also be constructed between the proposed storage tank and proposed water main of the East Ranch Development located southeast of the proposed tank. The project would also tie in to the sewer line of the East Ranch Development; the location of this connection is not known at this time, but additional ground disturbance and sewer connection installation within the project site is considered as part of the project.

The hilltop where the reservoir would be located would be graded to create a temporary construction pit for installation of the reservoir. The reservoir would require approximately 30,000 cubic yards of cut soil, of which approximately 26,000 cubic yards would be used as fill material, for a total soil export of approximately 12,000 cubic yards. Excavation to a depth of 35 feet would be required for the reservoir installation. In addition, construction of the proposed concrete staircase would result in a net export of approximately 9,000 cubic yards of soil. The potential future access road could result in a net soil export of approximately 4,000 cubic yards.

**Figure 1 Regional Location Map**

★ Project Location

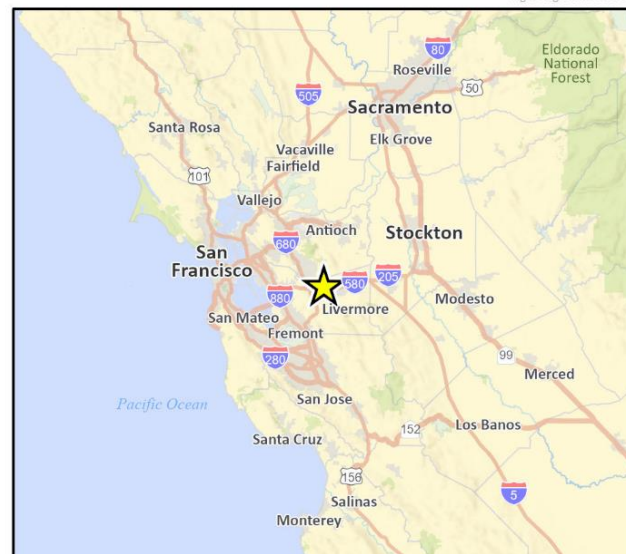
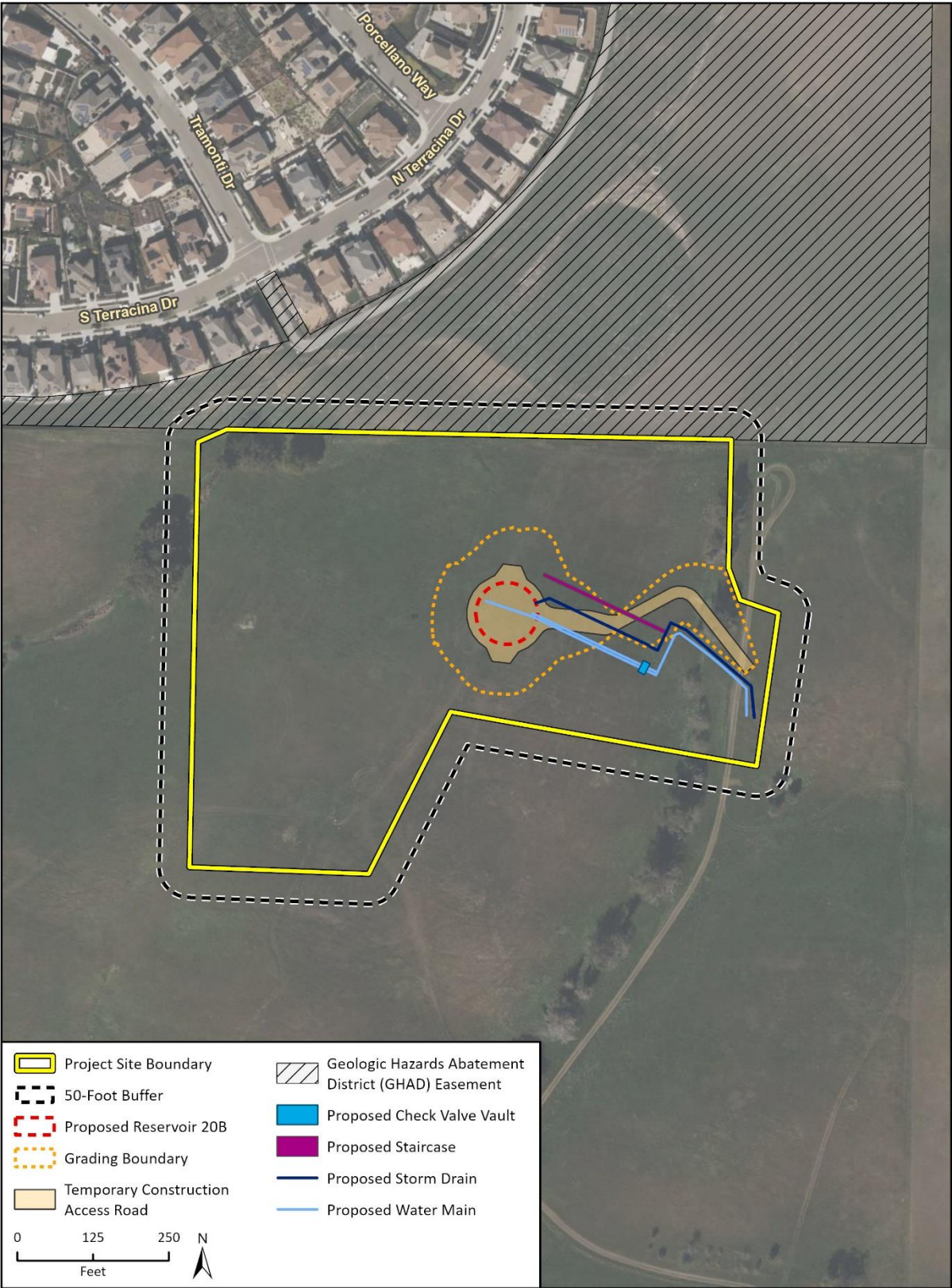


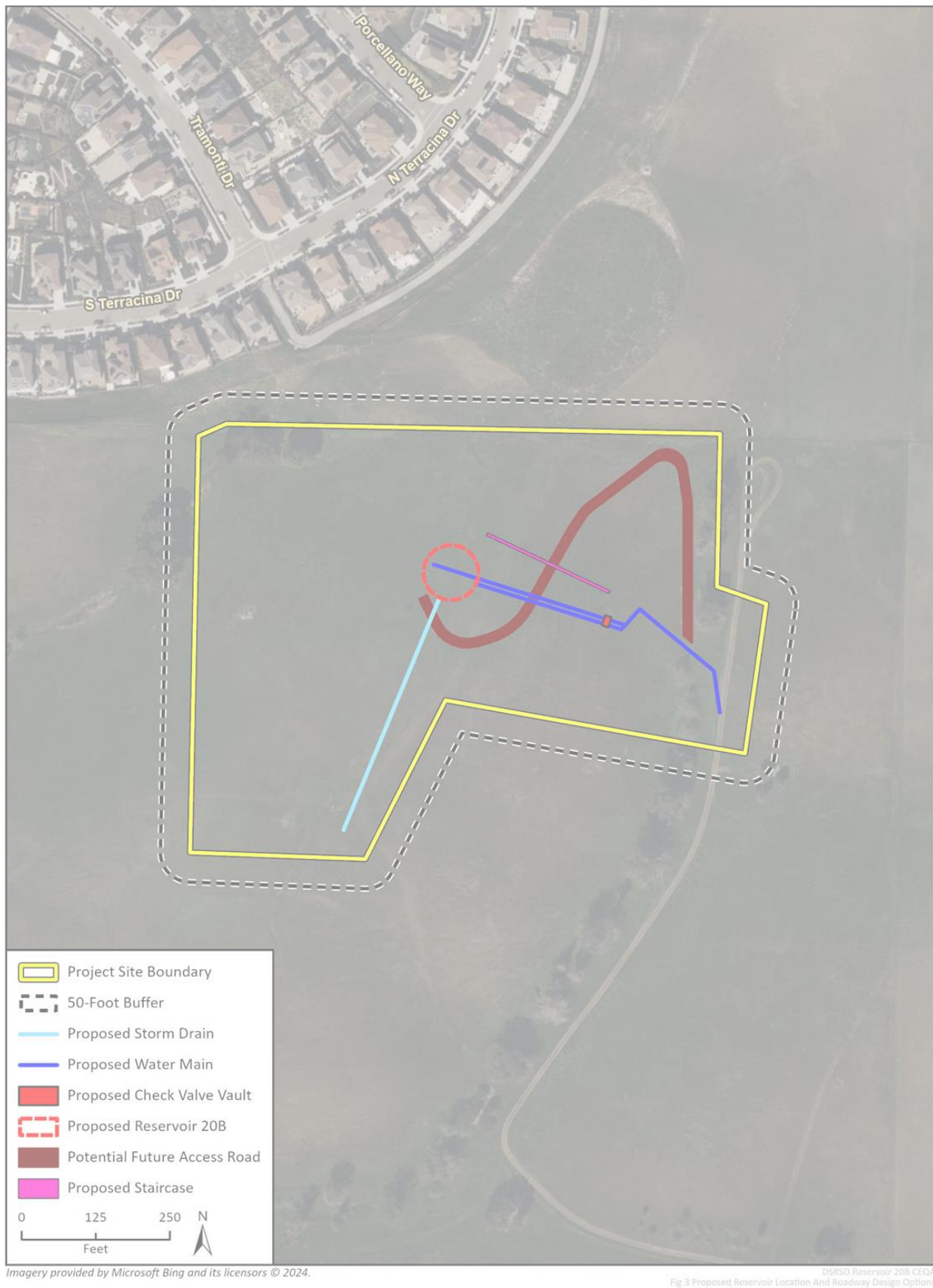


Figure 2 Project Location Map



Imagery provided by Microsoft Bing and its licensors © 2024.

DSRSD Reservoir 20B CEQA  
Fig 3 Proposed Reservoir Location Sept 2024



## 2 Methodology

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### 2.1 Regulatory Overview

Regulated or sensitive resources studied and analyzed herein include special-status plant and animal species, nesting birds, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, and locally protected resources, such as protected trees. Regulatory authority over biological resources is shared by Federal, State, and local authorities. Primary authority for regulation of general biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, the City of Dublin).

#### 2.1.1 Definition of Special-Status Species

For the purposes of this report, special-status species include:

- Species listed as candidate, threatened, or endangered under the federal Endangered Species Act (FESA). Species that are under review may be included if there is a reasonable expectation of listing within the life of the project;
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA);
- Species designated as fully protected, species of special concern, or watch list by the California Department of Fish and Wildlife (CDFW); and
- Species designated as locally important by the City of Dublin and/or otherwise protected through local ordinance or policy.

#### 2.1.2 Environmental Statutes

For the purpose of this report, potential impacts to biological resources were analyzed based on the following statutes (Appendix A):

- CEQA
- FESA
- CESA
- Federal Clean Water Act (CWA)
- California Fish and Game Code (CFGF)
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act
- City of Dublin General Plan and Municipal Code



### 2.1.3 Criteria for Determining CEQA Significance

The following significance criteria, as defined by the *CEQA Guidelines Appendix G Initial Study Checklist*, were used to guide the evaluation of potential environmental effects. Based on these criteria, the proposed project would have a significant effect on biological resources if it would:

- a) *Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*
- b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.*
- c) *Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*
- d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.*
- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.*
- f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.*

## 2.2 Literature Review

Rincon reviewed relevant agency databases and literature for baseline information on biological resources potentially occurring within the *Livermore, California* USGS quadrangle and the eight surrounding USGS quadrangles (*Byron Hot Springs, Mendenhall Springs, Altamont, Dublin, Tassajara, Diablo, La Costa Valley, and Niles, California*). The review included information available in peer-reviewed journals, standard reference materials (e.g., Nafis 2022 and Sawyer et al. 2009), and agency and public databases containing occurrences for special-status biological resources, including the California Natural Diversity Database (CNDDDB; CDFW 2023a), the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California (2023), eBird (Cornell Lab of Ornithology 2023a), the Biogeographic Information and Observation System (BIOS; CDFW 2023b), and the U.S. Fish and Wildlife Service (USFWS) Information for Consultation and Planning (IPaC) site (USFWS 2023a). The USFWS Critical Habitat Portal (USFWS 2023b), the USFWS National Wetlands Inventory (NWI; USFWS 2023c), the CDFW Special Animals List (CDFW 2023d), the CDFW Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2023e), and the CDFW Wildlife Habitat Relationship System (Zeiner et al. 1988-1990) were also reviewed for information regarding special-status species with potential to occur in the vicinity of the study area. Additionally, Rincon reviewed aerial photographs, topographic maps, soil survey maps, geologic maps, and climatic data for the study area and regional vicinity.

## 2.3 Field Reconnaissance Survey

A biological resource reconnaissance-level site survey was conducted to assess the habitat suitability for special-status species with potential to occur, map vegetation communities and landcover types, document and map the presence of any sensitive biological resources, identify potential jurisdictional waters or wetlands, document any wildlife connectivity features, and record all observations of plant and wildlife species within the study area. Rincon biologists, Caleb Yakel and Bayley Elenzweig, conducted the site visit on November 30, 2023, between the hours of 0830 and 1230. The weather consisted of sunny, clear skies with a temperature of 66 degrees Fahrenheit (°F) and winds of 0 to 5 miles per hour. The survey consisted of walking the extent of the study area and documenting all biological resources observed throughout. A Juniper Systems Geode™ GPS unit was used to accurately map resources. Site photographs taken during the survey are included in Appendix B. A list of all plant and wildlife species observed is included in Appendix C.

## 3 Existing Conditions

---

### 3.1 Physical Characteristics

#### 3.1.1 Topography and Geography

The study area is located in the City of Dublin, approximately 20 miles east of the San Francisco Bay. The climate in this region is mild and temperate, and most of the rainfall occurs during the winter months. The average annual high temperature is 89.0 °F and the average annual low temperature is 36.7 °F. The average annual precipitation is 14.18 inches (Western Regional Climate Center 2023). The study area consists of native and non-native annual grasslands. Elevations within the study area range from 585-705 feet above mean sea level. Single-family residential land use occurs to the north and west of the project site, and undeveloped open space areas are to the east and south. A wildlife exclusion fence has been installed as part of the ongoing East Ranch Development Project near the northern boundary of the project site and runs east to west (Appendix B; Photographs 1, 2, and 5).

#### 3.1.2 Watershed and Drainages

The study area is within the Lower Arroyo Mocho Watershed (Hydrologic Unit Code [HUC]: 180500040302; United States Environmental Protection Agency [USEPA] 2023a). The NWI maps a freshwater emergent wetland (Palustrine [P], Emergent [EM], Persistent [1], and Temporarily Flooded [A]) within the study area and approximately 330 feet south of the study area. The freshwater wetland within the study area is located in the portion associated with the East Ranch Development, which has been graded. At the time of the site visit, no discernable aquatic feature was present in this location. The wetland south of the study area remains. Cottonwood Creek (Riverine [R], Intermittent [4], Streambed [SB], and Temporarily Flooded) is located approximately 0.56 mile east of the project boundary and a freshwater emergent wetland (PEM1A) is located approximately 0.3-mile west of study area.

#### 3.1.3 Soils

The U.S. Department of Agriculture, Natural Resources Conservation Service (USDA NRCS) Web Soil Survey depicts two soil map units in the study area: Linne clay loam, 15 to 30 percent slopes and Linne clay loam, 30 to 45 percent slopes (USDA NRCS 2023a). The Linne series consists of moderately deep, well-drained soils that formed in material weathered from sandstone and shale and are typically found in mountain slopes and hillslopes. The Linne clay loam, 15 to 30 percent slopes and Linne clay loam, 30 to 45 percent slopes soil map units are not included on the National Hydric Soils List (USDA NRCS 2023b). The Linne clay loam, 15 to 30 percent slopes can be found on the western side of the of the study area and the Linne clay loam, 30 to 45 percent slopes is associated with the east side of the study area.

#### 3.1.4 Vegetation and Other Land Cover

Vegetation community characterizations for this analysis were based on the classification systems presented in *A Manual of California Vegetation, Second Edition* (MCV2; Sawyer et al. 2009). Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) is still used for reference and historical perspective, though its classifications are no longer supported by

the State of California and have been superseded by the MCV2. Plant species nomenclature and taxonomy used for this BRA follow the treatments described within the second edition of *The Jepson Manual* (Baldwin et al. 2012).

Three vegetation communities and two land cover types were identified within the study area during the field reconnaissance survey (Table 1 and Figure 3). Descriptions of the habitat and land cover types within the study area are provided below. Appendix C provides a full list of plant species observed during the field reconnaissance survey.

**Table 1 Habitat and Land Cover Types in the Study**

| Land Cover/MCV Vegetation Alliance<br>(Common Name) | MCV Vegetation Alliance (Scientific Name) <sup>1</sup>  | Sensitive? |
|---|---|------------|
| Upland mustards or star-thistle fields              | <i>Brassica nigra</i> - <i>Centaurea (solstitialis, melitensis)</i><br>Herbaceous Semi-Natural Alliance | No         |
| Wild oats and annual brome grasslands               | <i>Avena</i> spp. - <i>Bromus</i> spp. Herbaceous Semi-Natural Alliance                                 | No         |
| Ashy ryegrass - creeping wildrye turfs              | <i>Leymus cinereus</i> - <i>Leymus triticoides</i> Herbaceous Alliance                                  | Yes (S3)   |
| Barren/graded                                       | N/A   | N/A        |
| Developed   | N/A   | N/A        |

### Upland Mustards or Star-Thistle Fields

Upland mustards or star-thistle fields comprise the majority of the study area's vegetative cover and often occur in active agricultural and fallow land. The alliance is characterized by a dominance of black mustard (*Brassica nigra*), field mustard (*Brassica rapa*), Italian thistle (*Carduus pycnocephalus*), Maltese star-thistle (*Centaurea melitensis*), yellow star-thistle (*Centaurea solstitialis*), cardoon (*Cynara cardunculus*), carnation spurge (*Euphorbia terracina*), shortpod mustard (*Hirschfeldia incana*), dyer's woad (*Isatis tinctoria*) or wild radish (*Raphanus sativus*) or similar ruderal forb in the herbaceous layer (CNPS 2023). In the study area, black mustard and yellow star-thistle are the dominant ruderals in areas with this land cover. Other non-natives present include wild oats (*Avena fatua*), slender oats (*Avena barbata*), fennel (*Foeniculum vulgare*), field bindweed (*Convolvus arvensis*), foxtail (*Hordeum murinum*), and pennyroyal (*Mentha pulegium*) in the north-east depressional/ drainage area. Natives observed during the reconnaissance survey include doveweed (*Croton setigerus*), lupines (*Lupinus* spp.), willowherb (*Epilobium* sp.), and narrowleaf milkweed (*Asclepias fascicularis*).

### Wild Oats and Annual Brome Grasslands

Wild oats and annual brome grasslands are located in the northeast portion of the study area. The alliance is characterized by dominance or co-dominance of wild oats, slender oats, stiff brome (*Brachypodium distachyon*), greater quaking grass (*Briza maxima*), ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), and/or foxtail with other non-natives in the herbaceous layer. In the study area, this land cover is mostly comprised of wild and slender oats with soft brome, fennel, field bindweed, and foxtail. Natives observed during the reconnaissance survey include doveweed (*Croton setigerus*), lupines, and willowherb.

Figure 3 Vegetation and Landcovers



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20-10351 B10  
Fig X Project Site and Vegetation



## Creeping Wildrye Turfs

Creeping wildrye turfs are a native vegetative community that typically occur in drained floodplains, playas, drainage and valley bottoms, and marsh margins characterized by mesic flat to sloping topography and often alkaline or saline clays and loams. Creeping wildrye turfs in the study area are located mostly in depressional areas with hydric soils in the east boundaries of the study area that have not been graded. These communities are fragmented by the ongoing construction associated with the East Ranch Development Project. Creeping wildrye turfs are characterized by a dominance or co-dominance of basin wild rye (*Leymus cinereus*) and/or creeping wild rye (*Leymus triticoides*) with western ragweed (*Ambrosia psilostachya*), yerba mansa (*Anemopsis californica*), purple three-awn (*Aristida purpurea*), wild oat, *Bromus* spp., one-spike oatgrass (*Danthonia unispicata*), saltgrass (*Distichlis spicata*), squirreltail (*Elymus elymoides*), *Hordeum* spp., arctic rush (*Juncus arcticus*), perennial ryegrass (*Lolium perenne*), one-sided blue grass (*Poa secunda*) or seaside arrowgrass (*Triglochin maritima*) in the herbaceous layer. Creeping wild rye is recognized as a facultative (FAC) plant and can be found in wetlands and in uplands. Creeping wildrye turfs are a sensitive natural community (S3) but are located outside the project boundary.

## Graded/Barren

Portions of the study area have been recently graded as a part of the overlapping East Ranch Development Project, which is currently under construction. This land is currently barren with no vegetative cover.

## Developed

This land cover type includes paved roads and residential development at the north edge of the study area.

## 3.2 General Wildlife

Wildlife observed within the study area included several different bird and mammal species commonly found in undeveloped open areas. Eurasian collared dove (*Streptopelia decaocto*), turkey vulture (*Cathartes aura*), and American crow (*Corvus brachyrhynchos*) were observed flying overhead. A single California scrub-jay (*Aphelocoma californica*) and Say's phoebe (*Sayornis saya*) were observed perched on barbed wire fence and on the ground foraging within the northern undisturbed portion of the study area. A single American kestrel (*Falco sparverius*) was also observed foraging along the northern portion of the study area. One individual red-tailed hawk (*Buteo jamaicensis*) was seen perched on a eucalyptus tree, located within the north-eastern portion of the study area, and later observed soaring overhead just northeast of the study area boundary. Wild turkey (*Meleagris gallopavo*) were seen foraging within the northern undisturbed portion of the study area. A single coyote (*Canis latrans*) and a small group of black-tailed deer (*Odocoileus hemionus columbianus*) were observed moving through the northeastern undisturbed portion of the study area. Small (4 inches diameter and below) to moderately (4 inches diameter and above) sized burrows were observed throughout the undisturbed regions of the study area. A complete list of wildlife species observed during the field reconnaissance survey is provided in Appendix C.

## 4 Sensitive Biological Resources

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This section discusses special-status species and sensitive biological resources observed within the study area and evaluates the potential for the project site to support additional sensitive biological resources. Assessments for the potential occurrence of special-status species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDDB and other sources, species occurrence records from other sites in the vicinity of the survey area, previous reports for the project site, and the results of surveys of the project site. The potential for each special-status species to occur in the study area was evaluated according to the following criteria:

- **No Potential.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable on the site if present (e.g., oak trees). Protocol surveys (if conducted) did not detect species.
- **Low Potential.** Few of the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site. Protocol surveys (if conducted) did not detect species.
- **Moderate Potential.** Some of the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High Potential.** All the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- **Present.** Species is observed on the site or has been recorded (e.g., CNDDDB, other reports) on the site recently (within the last 5 years).

### 4.1 Special-status Species

#### 4.1.1 Special-status Plant Species

Rincon evaluated 43 special-status plant species for their potential to occur within the study area (Appendix D). Thirty (30) of these species have documented occurrences within 5 miles of the study area (CDFW 2023a; CNPS 2023). Thirty-seven (37) special-status plant species are not expected or have no potential to occur within the study area due to the absence of suitable habitats (i.e., cismontane woodland, chaparral, vernal pools), the lack of suitable soils (i.e. serpentine, rocky) and prevalence of non-native grasslands in most of the study area. Six special-status plant species have low potential to occur within the study area.(Table 2). Suitable grassland habitat is present for these species within the study area; however, these species have low potential to occur due to the limited extent of habitat present and recent disturbance within the study area.



**Table 2 Special-Status Plant Species with Potential to Occur within the Study Area**

| Scientific Name                                | Common Name                      | Status | Potential to Occur |
|--|----------------------------------|--------|--------------------|
| <i>Atriplex depressa</i>                       | Brittlescale                     | 1B.2   | Low Potential      |
| <i>Centromadia parryi</i> ssp. <i>congdoni</i> | Congdon's tarplant               | 1B.1   | Low Potential      |
| <i>Eschscholzia rhombipetala</i>               | diamond-petaled California poppy | 1B.1   | Low Potential      |
| <i>Extriplex joaquinana</i>                    | San Joaquin spearscale           | 1B.2   | Low Potential      |
| <i>Navarretia prostrata</i>                    | prostrate vernal pool navarretia | 1B.2   | Low Potential      |
| <i>Trifolium hydrophilum</i>                   | Saline clover                    | 1B.2   | Low Potential      |

1B.1 - Plants presumed extirpated in California and either rare or extinct elsewhere  
1B.2 - Plants rare, threatened, or endangered in California and elsewhere

### Brittlescale

Brittlescale is an annual herb in the goosefoot family (Chenopodiaceae) found in alkali clay chenopod scrub, meadows and seeps, playas, valley and foothill grassland, and vernal pools from 5 to 1,050 feet. Known associated species include *Calystegia* species and exotic oats and bromes.

There is suitable habitat for brittlescale in the alkaline clay grasslands present in the study area, and especially around recently-graded drainage area in the east portion of the study area. Due to ground disturbance in the vicinity of suitable habitat in the study area, there is a low potential for this species to occur (CDFW 2023a).

### Congdon's Tarplant

Congdon's tarplant is an annual herb in the sunflower family (Asteraceae), that is severely threatened by development. This species typically occurs in alkaline soils in valley and foothill grasslands from 0 to 755 feet. Known associated species in the nearby area include field bindweed, Italian ryegrass, and non-native ruderal herbs.

Potentially suitable habitat is located in the drainage areas and slopes in the eastern and northern portions of the study area, where soils are alkaline. Nearby occurrences have been documented in similar conditions, including a very large population of over 100,000 plants located 0.5 mile southwest of the study area (CDFW 2023a). Due to limited habitat and recent disturbance in the study area, this species has a low potential to occur.

### Diamond-petaled California Poppy

Diamond-petaled California poppy is a small (2-inch tall) annual herb in the poppy family (Papaveraceae) thought to be locally extirpated in Alameda County until 1997. It can be found in grazed and historically grazed lands. There is a small window of survey opportunity due to its short blooming period, thus it is thought that many possible populations of this species have been overlooked in eastern Alameda County.

Historically grazed lands on site provide suitable habitat for this species. Historic recorded occurrences begin just outside the 5-mile radius, north, south, and east of the study area, including one south and one eastern population recently discovered. The study area is in the identified range of this species (CNDDB 2023). Growth of non-native grasses and ruderal herbs can overcrowd suitable habitat for the species. Given the dense growth of non-native grasses and ruderal plant species in the study area, there is a low potential for the diamond-petaled California poppy to occur.

## San Joaquin Spearscale

San Joaquin spearscale is an annual herb in the goosefoot family (Chenopodiaceae) found in alkali sink scrub and wetlands, alkali meadow, and valley and foothill grasslands from 0 to 2,740 feet. Known associated species include salt grass, bird's foot trefoil, Italian ryegrass, and docks.

San Joaquin spearscale has potential to occur in suitable alkaline habitat in the study area, especially near recently-graded drainage area. Twelve (12) occurrences of this species have been recorded in the 5-mile radius of the study area, including seven occurrences within 1 mile (CDFW 2023a). Due to the recent disturbance and limited habitat in the study area, there is a low potential for this species to occur.

## Prostrate Vernal Pool Navarretia

Prostrate vernal pool navarretia is an annual herb in the phlox family (Polemoniaceae) found in mesic and alkaline meadows, seeps and vernal pools within coastal scrub, and valley and foothill grassland habitat from 10 to 3,970 feet. Known associated species include brome grasses (*Bromus ssp.*), saltbushes, oats (*Avena ssp.*), and vernal pool species such as flatface calicoflower (*Downingia pulchella*; CDFW 2023a).

Although there are no vernal pools present within the study area, prostrate vernal pool navarretia has a low potential to occur due to limited presence of suitable alkaline habitat and recent development. Additionally, this species has a reported occurrence on previously grazed land 0.5 mile southwest of the study area (CDFW 2023a).

## Saline Clover

Saline clover is an annual herb in the pea family (Fabaceae) found in alkaline soils in marshes and swamps, valley and foothill grassland, and vernal pools from 0 to 985 feet. Known associated species include *Atriplex* species, Congdon's tarplant, and exotic grasses.

Although there are no vernal pools present within the study area, saline clover has low potential to occur due to presence of suitable alkaline soils by drainage areas in the east and north portions of the study area. Several desiccated individual trifolium were observed by Rincon during the reconnaissance survey, but were not identifiable at the time of the site visit (CDFW 2023a).

## 4.1.2 Special-status Wildlife Species

Forty-nine (49) special status animal species were identified with known occurrence records within the nine USGS quadrangles containing and surrounding the study area (CDFW 2023a; CDFW 2023c; USFWS 2023a). This list was reviewed and refined according to the potential for species to occur within the study area based on the presence and quality of habitats within the study area. Of these, 15 species have the potential to occur within the study area, including three federally listed species. Three of these species have a moderate potential to occur within the study area. These three species will be addressed further below. Three species with low potential to occur within the study area will also be further evaluated due to their regional significance and listing status. Table 3 provides a summary of these species.

**Table 3 Special-Status Wildlife Species with Potential to Occur within the Study Area**

| Common Name                 | Scientific Name                | Status | Potential to Occur                |
|-----------------------------|--------------------------------|--------|-----------------------------------|
| California red-legged frog  | <i>Rana draytonii</i>          | FT/SSC | Moderate Potential (non-breeding) |
| California tiger salamander | <i>Ambystoma californiense</i> | FT/ST  | Moderate Potential (non-breeding) |
| Loggerhead shrike           | <i>Lanius ludovicianus</i>     | SSC    | Moderate Potential                |
| San Joaquin kit fox         | <i>Vulpes macrotis mutica</i>  | FE/ST  | Low Potential (non-breeding)      |
| Burrowing owl               | <i>Athene cunicularia</i>      | SSC    | Low Potential                     |
| American badger             | <i>Taxidea taxus</i>           | SSC    | Low Potential                     |

FE = Federally Endangered; FT = Federally Threatened; ST = State Threatened; SSC = California Department of Fish and Wildlife Species of Special Concern

### California Red-legged Frog

The California red-legged frog (CRLF) is a federally threatened species that occurs in lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. It typically inhabits quiet pools of streams, marshes, and ponds. All life history stages are most likely to be encountered in and around breeding sites, which include coastal lagoons, marshes, springs, permanent and semi-permanent natural ponds, and ponded and backwater portions of streams, as well as artificial impoundments such as stock ponds, irrigation ponds, and siltation ponds. Eggs are typically deposited in permanent pools, attached to emergent vegetation. This species typically requires 11 to 20 weeks of permanent water for larval development and must have access to estivation habitat. Suitable upland habitat must provide sufficient moisture to prevent desiccation and sufficient cover to provide protection from predators. Typical upland habitat consists of densely vegetated areas, downed woody vegetation, leaf litter, small mammal burrows, and human-made structures (i.e., culverts, livestock troughs, spring-boxes, abandoned sheds; USFWS 2002). CRLF can disperse from 200 feet to over 2 miles from aquatic habitat, “without apparent regard for topography, vegetation type or riparian corridors” (USFWS 2010). Average dispersal or migration rates of CRLF depend on site conditions.

The entirety of the study area falls within critical habitat for the species and 40 occurrences have been recorded within a 5-mile radius of the study area in CNDDB (IPAC 2023; CDFW 2023a). The most recent occurrence, 2020, was recorded approximately 0.5-mile west of the study area within a drainage swale. Suitable breeding habitat is not present within the study area. However, numerous burrows with entrance diameters of 4 inches and below were observed throughout the non-disturbed portions of the study area and may provide suitable upland refugia habitat for the species. Potential breeding habitat exists in the form of a drainage swale, approximately 0.25-mile west of the study area, and Cottonwood Creek, an intermittent stream, is located approximately 0.6-mile east of the study area. Given that the study area is located between these two aquatic resources, there is a moderate potential for this species to occur within the study area.

### California Tiger Salamander

The California tiger salamander (CTS) is a federally and state threatened species found primarily in grasslands, low foothills, and oak woodland habitats located within approximately 0.42-mile (671meters) of breeding pools (Trenham and Shaffer 2005). CTS breeds in long-lasting rain pools (e.g., seasonal ponds, vernal pools, slow-moving streams) that are often turbid, and occasionally in permanent ponds lacking fish predators. Adults spend 90 percent of their lives underground. Breeding habitat includes wetland and open water habitats. During the non-breeding season, adults

occur in upland habitats and occupy small mammal burrows and other subterranean cover, such as root hollows. CTS migrates nocturnally to aquatic sites to breed during relatively warm winter or spring rains. Juveniles emigrate at night from the drying pools to upland refuge sites, such as rodent burrows and cracks in the soil.

There are 54 recorded occurrences of CTS within a 5-mile radius of the study area, with the most recent in 2019 (CDFW 2023a). Suitable breeding habitat is not present within the study area. However, numerous burrows with entrance diameters of 4 inches and below were observed throughout the non-disturbed portions of the study area and may provide suitable upland habitat for the species. Potential breeding habitat exists in the form of a drainage swale, approximately 0.25-mile west of the study area, and Cottonwood Creek, is located approximately 0.6-mile east of the study area. Given that the study area is located between these two aquatic resources, there is a moderate potential for this species to occur within the study area.

### **San Joaquin Kit Fox**

The San Joaquin kit fox (SJKF) is a federally endangered and state threatened species. SJKF is endemic to California west of the Sierra Nevada Mountains. This species occurs in the Central Valley generally from the Sacramento area south to the southern end of the San Joaquin Valley, in the Carrizo Plain, the Panoche Valley, and from northern San Luis Obispo County north through the Salinas Valley. Individuals are about the size of a house cat, weighing 4-7 pounds and are approximately 30 inches in length. Diet consists primarily of kangaroo rats (*Dipodomys* sp.) and other small mammals, occasionally including black-tailed jackrabbits, desert cottontails, and ground squirrels (*Otospermophilus* sp.) The SJKF will also eat insects, reptiles, small birds, bird eggs, and vegetation. Predators include coyotes, large raptors, bobcat, red fox, and feral dogs. SJKF are most commonly found in gently sloping to relatively flat terrain vegetated with grasslands or grassy open stages with scattered shrubby vegetation. They may occur on a limited basis in areas under less intense agricultural production, such as dry-land grain farming and orchards, and they are known to occur in urban areas (CSU Stanislaus 2021). The species requires loose-textured sandy soils for burrowing, and breeding can occur from December to March. Pups are born within dens after a 48- to 52-day gestation period (USEPA 2021b).

One known occurrence of SJKF has been documented within 5 miles of the study area in CNDDDB (CDFW 2023a). Several burrows with entrance diameters over 4 inches were observed within the northern portion of the study area. These burrows were located just north of an orange construction/exclusion fence that ran through the study area running east to west. Smaller burrows were also observed throughout the open grassland habitat within the study area and may provide foraging opportunities. However, due to the study area being adjacent to housing development, and active construction ongoing around the project site, the habitat is likely unsuitable. There is a low potential for SJKF to pass through the area during dispersal and foraging activity.

### **Burrowing Owl**

Burrowing owl is a CDFW Species of Special Concern (SSC) that occupies open, treeless areas within grassland, low density scrub, and desert biomes. This species generally inhabits gently sloping areas, characterized by low, sparse vegetation, and is often associated with high densities of burrowing mammals (Poulin et al. 2011). Burrowing owls often use relatively disturbed areas such as agricultural fields, golf courses, cemeteries, and vacant urban lots in addition to natural breeding habitats. Nests are most often in fossorial animal burrows, such as California ground squirrel or

American badger, but atypical nests such as culverts or rubble piles may also be used. Nest sites are typically selected in an area with a high density of burrows.

There are 29 recorded occurrences of burrowing owl within a 5-mile radius of the study area in CNDDDB, with the most recent in 2020 (CDFW 2023a). This species has also been observed nesting near the study area in past studies (Haag 2005). However, these areas have largely been developed or graded, especially to the west and south. The grassland habitat in the study area and numerous ground squirrel burrows throughout the study area provide suitable habitat for this species. There is a low potential for this species to occur within the study area.

### **Loggerhead Shrike**

Loggerhead shrike is a CDFW SSC that inhabits open country with short vegetation and well-spaced shrubs or low trees, particularly those with spines or thorns. The species can be found in agricultural fields, pastures, old orchards, riparian areas, desert scrublands, savannas, and prairies, and is frequently seen along mowed roadsides with access to fence lines and utility poles (Cornell Lab of Ornithology 2023). Diet includes insects and other arthropods, amphibians, reptiles, small mammals and birds. Loggerhead shrikes often build their nests in thorny vegetation, including in brush piles or tumbleweeds. Eggs are laid from March to May in California, and young become independent in July or August.

Although there are no recorded occurrences of the species within 5 miles of the study area in CNDDDB (CDFW 2023a), there have been multiple recorded sightings in iNaturalist and eBird databases throughout the general area (iNaturalist 2023; Cornell Lab of Ornithology 2023a). The open grassland habitat and the presence of suitable perching resources, such as barbed wire fence, provide suitable foraging habitat. There is a moderate potential for this species to pass through the study area for foraging opportunities.

### **American Badger**

American badger is a CDFW SSC that is found in dry, open habitats including grassland and open woodland. It is a highly specialized, semi-fossorial mustelid (Quinn 2008). Suitable burrowing habitat requires dry, sandy soil. The species is most abundant in drier open stages of most shrub, forest, and herbaceous habitats with suitable soils to support burrows (Zeiner et al. 1990). Breeding occurs in summer and early fall, with young being born from March to April.

There are five recorded occurrences of the species within a 5-mile radius in CNDDDB, with the most recent in 2004 (CDFW 2023a). Grassland and friable soils, suitable for excavating dens, are present throughout the study area. Several burrows with entrance diameters over 4 inches were observed throughout the northern portion of the study area. These burrows were located just north of an orange construction/exclusion fence that ran through the study area running east to west. Smaller ground squirrel burrows were also observed throughout the study area and may provide foraging opportunities. This species is sensitive to disturbance and thus has low potential to occur within the study area.

### 4.1.3 Other Protected Species

#### **Nesting Birds**

Non-game migratory birds protected under the MBTA and CFGC have the potential to breed and forage within the study area. Suitable nesting habitat within the study area could include human-made structures and the ground surface. Shrubs, trees, and power poles within 500 feet of the project site could provide suitable nesting habitat for raptors and other birds.

## 4.2 Sensitive Natural Communities and Critical Habitat

The study area is located in Critical Habitat Subunit CCS-2A for California red-legged frog. Forty (40) occurrences have been recorded within a 5-mile radius of the study area in CNDDDB (CDFW 2023a). While suitable breeding habitat is not present in the study area, there are appropriate conditions for upland dispersal and habitat. Rincon observed a dense cover of burrows in the non-disturbed portions of the study area, many of which had entrance diameters of 4 inches and below. Potential breeding habitat is present 0.25-mile west and 0.6-mile east of the study area.

Creeping wild rye turfs found in the study area are considered vulnerable statewide (S3). Rincon observed creeping wild rye turfs in eastern portions of the study area along drainages from the north and east, largely fragmented by recent ground disturbance associated with the East Ranch Development Project. However, creeping wild rye turfs do not occur within the project boundary.

## 4.3 Jurisdictional Waters and Wetlands

No jurisdictional waters or wetlands exist within the study area. The freshwater emergent wetland surrounding the drainage that is mapped in the NWI on the eastern side of the study area (USFWS 2023c) has been previously graded. Small portions of the drainage are still present outside of the study area, including freshwater emergent wetlands approximately 330 feet south of the study area.

## 4.4 Wildlife Movement

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network. The California Essential Habitat Connectivity Project commissioned by the California Department of Transportation (Caltrans) and CDFW; identifies “Natural Landscape Blocks” which support native biodiversity and the “Essential Connectivity Areas” which link them (Spencer et al. 2010).

The study area is not identified by the CDFW BIOS Database as a Natural Landscape Block or Essential Connectivity Area. On a smaller scale, drainages in the eastern study area and the creek offsite to the west are likely used as wildlife movement corridors to connect to undeveloped lands north, east, south, and west of the study area. While lands west of the study area have recently been developed, intact open corridors for wildlife border creeks and drainages that connect through the study area to ideal habitat. Additionally, the study area has potential upland habitat for both CRLF and CTS, with aquatic breeding habitat for these species located off site 0.25 mile to the west

and 0.6 mile to the east. Therefore, while the study area is not mapped on a larger scale as a wildlife corridor, due to its location between these two potential breeding areas, it may function as a habitat area or connection for local amphibians. Recent disturbance east, west, and south of the project site has likely reduced suitable habitat in the study area and its potential for use as a movement corridor.

There are no breeding locations for amphibians, or associated ponds that may be used as nursery sites for such species in the study area. Burrowing owls and American badgers using the area for nesting and denning, respectively, may also utilize the study area to connect to larger habitat after breeding and rearing. Migratory and other special-status birds have been observed using the study area for foraging.

## 4.5 Resources Protected by Local Policies and Ordinances

No resources protected by the City of Dublin policies and ordinances are present within the study area.

## 4.6 Habitat Conservation Plans

The study area does not fall within the boundaries of any Habitat Conservation Plan, Natural Conservation Community Plan or other approved local, regional, or state Habitat Conservation Plan.

## 5 Impact Analysis and Avoidance and Minimization Measures

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This section discusses the potential impacts and effects to special-status species and sensitive biological resources that may occur from implementation of the project and provides recommended avoidance and minimization measures that would reduce those impacts where applicable. The analysis and recommendations are based on the CEQA Guidelines Appendix G Initial Study Checklist.

### 5.1 Special-Status Species

The proposed project would have a significant effect on biological resources if it would:

- a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*

#### 5.1.1 Special-status Plant Species

Six special-status plant species have a low potential to occur within the study area. Therefore, no significant impacts to special-status plant species are expected. While all of these plants occur on CRPR Lists 1 and 2, none are protected under FESA or CESA. Furthermore, even if these plant species were to occur within the study area, the small size of the study area would not be likely to contain a large number of the individual plant species that would have a significant impact on the population of any of the six plant species. Thus, the project is expected to have no effect on any protected plant species.

#### 5.1.2 Special-status Wildlife Species

Six special-status wildlife species have the potential to occur within the study area. Three of these species have moderate potential and the other three have low potential to occur in the study area. SJKF has low potential to occur but is protected under FESA and CESA. Recommended avoidance and mitigation measures for reducing potential effects to a less-than-significant level are provided below.

##### **California Red-legged Frog**

There is moderate potential for CRLF to occur within the study area. Suitable upland habitat for CRLF is present throughout the study area in the form of small mammal burrows and suitable breeding habitat can be found 0.33-mile west and 0.56-mile east of the study area. The study area also falls within critical habitat for the species.

The species is unlikely to be directly impacted by project activity unless individuals are dispersing through the project site during or after a rainfall event. Impacts to dispersing individuals would be significant if CRLF were present in the work area during construction or operations, and individuals were injured or killed during construction activities (e.g., grading, excavation), or stuck by equipment or vehicles. While still significant, the likelihood of impacts during operations is less given potential impacts are limited to the minimal trips along the constructed access staircase on



the project site. Injury, mortality, or harassment of even a single individual would be significant under CEQA and would be considered “take” under the ESA. No impacts to breeding habitat are expected. Mitigation Measures BIO-1 and BIO-2 provide recommendations for reducing potential impacts to the CRLF to less-than-significant levels by requiring an environmental training for all workers, postponing work during rain events, conducting pre-construction surveys for the species, and avoiding impacts to the species, if detected.

### **California Tiger Salamander**

There is moderate potential for CTS to occur within the study area. Suitable upland habitat is present throughout the study area in the form of small mammal burrows and potential suitable breeding habitat can be found 0.33-mile west and 0.56-mile east of the study area.

This species is unlikely to be directly impacted by project activity unless individuals are dispersing through the study area during or after a rainfall event. Should the species be present on-site during construction or operations, direct impacts could include injury or mortality of individuals through construction activities (e.g., grading, excavation) or strikes by equipment or vehicles. Injury, mortality, or harassment of even a single individual would be considered significant under CEQA and would be considered “take” under the ESA and CESA. Mitigation Measures BIO-1 and BIO-2 are recommended to reduce potential impacts to CTS to less-than-significant levels by requiring an environmental training for all workers, postponing work during rain events, conducting pre-construction surveys for the species, and avoiding impacts to the species, if detected.

### **San Joaquin Kit Fox**

There is low potential for SJKF to occur within the study area. Although burrows of sufficient size to accommodate SJKF were detected during the site survey, the species is unlikely to be present on the project site due to adjacent development and the ongoing active construction associated with the East Ranch Development Project surrounding the project site. However, the project site does provide suitable foraging habitat with numerous small mammal burrows (potential prey base) that are present throughout the area. The species may occur within the project site irregularly during dispersal or foraging. One known occurrence of SJKF has been documented within 5 miles of the project site in CNDDDB, though this occurrence is from 1975 and occurs approximately 2 miles to the east and separated by substantial development and Tassajara Road (CDFW 2023a).

Impacts to SJKF, if present during construction, could include injury or mortality to foraging individuals if stuck by construction vehicles or equipment. However, strikes of foraging SJKF are unlikely given SJKF would avoid the area during construction and construction vehicles/equipment would be moving at a low rate of speed. Mitigation Measure BIO-1 would require environmental training for all workers, including on the identification and biology of SJKF to ensure impacts are avoided. With implementation of Mitigation Measure BIO-1, impacts to SJKF would be less than significant.

### **Burrowing Owl**

Burrowing owls have a low potential to occur within the study area. The species is unlikely to inhabit burrows observed in the area due to the ongoing construction associated with the East Ranch Development Project surrounding the study area. The study area does provide foraging habitat and a prey base (small mammals).

Project activities causing injury or mortality of burrowing owl or burrow destruction or abandonment would be potentially significant and would be a violation of CFGC and the MBTA. Mitigation Measures BIO-1 and BIO-3 are recommended to reduce impacts to burrowing owl to less-than-significant levels by requiring an environmental training for all workers, conducting pre-construction surveys for the species, and avoiding impacts to the species, if detected.

### **Loggerhead Shrike**

Loggerhead shrikes have moderate potential to occur within the study area. The species is unlikely to nest in the study area due to ongoing construction associated with the East Ranch Development project surrounding the study area. However, the open grassland habitat and the presence of suitable perching resources, such as barbed wire fencing, provide suitable foraging habitat.

Project activities causing injury or mortality to loggerhead shrike foraging on the project site or nesting near the project site, including from nest abandonment, would be potentially significant and would violate CFGC and the MBTA. Mitigation Measures BIO-1 and BIO-3 are recommended to reduce impacts to loggerhead shrike to less than significant levels by requiring an environmental training for all workers, conducting pre-construction nesting surveys for the shrikes, and avoiding impacts to nesting shrikes, if detected.

### **American Badger**

American badgers have a low potential to occur within the study area. The species is unlikely to inhabit burrows observed in the area due to the ongoing construction associated with the East Ranch Development Project surrounding the study area.

Impacts to American badgers, if present during construction, could include harassment or mortality of individuals by construction vehicles or equipment. Project activities causing injury or mortality of American badger would be potentially significant and would violate CFGC. Mitigation Measure BIO-1 is recommended to reduce direct impacts to American badger to less than significant levels by requiring an environmental training for all workers to ensure the species is avoided, in the unlikely scenario it is present.

## **5.1.3 Nesting Birds**

Nesting special-status bird species and/or nesting birds protected under the MBTA and CFGC have potential to occur throughout the study area during the nesting season (February 1 to September 15). Should nesting birds be present within or near the project site during construction, direct impacts could include the destruction of nests through construction activities or the disturbance of nesting behavior through construction noise and activities. Indirect impacts to nesting birds could include the destruction or disturbance of nesting habitat. Nest destruction or abandonment would be a violation of CFGC code and the MBTA. Mitigation Measures BIO-1 and BIO-3 are recommended to reduce impacts to nesting birds to less than significant levels.

## **5.1.4 Recommended Avoidance and Minimization Measures**

### *BIO-1 Worker Environmental Awareness Program (WEAP)*

Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend a WEAP training, conducted and prepared by a qualified biologist, to aid workers in recognizing special-status species, native or nesting birds and

other biological resources that may occur in the construction area. The specifics of this program will include identification and habitats of special-status species with potential to occur at the project site, a description of the regulatory status and general ecological characteristics of sensitive resources, a review of the limits of construction, and an explanation of the mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared by the qualified biologist for distribution to all contractors, their employers, and other personnel involved with construction. All personnel shall sign a form provided by the trainer indicating they have attended the WEAP and understand the information presented to them.

#### *BIO-2 CRLF and CTS Pre-construction Survey and Impact Avoidance*

A qualified biologist shall conduct a pre-construction survey within 7 days prior to initiation of construction activities. The USFWS and CDFW will be notified, as appropriate, should CRLF or CTS be observed within the project site.

To avoid impacts to CRLF and CTS, the construction crew shall check beneath staged equipment each morning prior to commencement of daily construction activities. Should CRLF or CTS occur within the staging areas, construction activities should be halted until the CRLF or CTS vacates the project site on its own or until a biologist with a USFWS Recovery Permit for CRLF or CTS relocates the CRLF or CTS. A qualified biologist shall be present during initial grading and ground disturbing activities. Should CRLF or CTS be observed within the project site, the USFWS and CDFW, as appropriate, should be notified, and construction will be halted until either the CRLF or CTS exits the site on its own or until a qualified biologist approved by USFWS relocates the CRLF or CTS.

No work shall occur during a rain event (over 0.25 inch within a 24-hour period). If a rain event occurs, a qualified biologist shall inspect the site again prior to resuming work.

#### *BIO-3 Pre-construction Survey and Impact Avoidance for Burrowing Owls, Raptors, and Other Nesting Birds*

To prevent the loss of active special-status and non-special-status bird nests, juveniles or adults, project activities including vegetation clearing shall be conducted outside of the breeding season (February 1 through August 31) to the extent feasible.

If project activities will occur between February 1 and August 31, a pre-construction nesting bird survey shall be conducted by a qualified biologist no more than 7 working days prior to the activity to survey for special-status and non-special-status bird and raptor nests. The survey area shall include the project footprint and a 100-foot buffer for passerine species, a 150-foot buffer for burrowing owls, and a 300-foot buffer for raptor species. Following the survey, the following shall be implemented:

- A nesting bird survey report shall be submitted to the District prior to the initiation of project activities. The report shall detail the results of the survey including identification of the location of any active nests, and make a determination if ongoing monitoring should be conducted and/or no-disturbance buffers should be established.
- If active nests are identified during the survey and/or work is scheduled to take place within 100 feet of active passerine nests, 150 feet of active burrowing owl burrows, or 300 feet of active raptor nests, a qualified biologist shall determine appropriate no-disturbance buffers. The buffer shall be the minimum distance required to avoid take of the nest and shall be determined based

on the species identified, activities proposed, level of existing noise, and line of sight from the disturbance to the nest.

- A qualified biological monitor shall be present at the initiation of project activities occurring within 100 feet of active passerine nests, 150 feet of active burrowing owl burrows, or 300-feet of active raptor nests, to ensure that project activities do not negatively affect the success of the nest. Duration and frequency of monitoring shall be determined at the discretion of the qualified biologist.
- If nesting bird monitoring is conducted, a nesting bird monitoring report shall be submitted to the District detailing the results of monitoring activities. The report shall be submitted within 30 days of the completion of the activities or nesting season.

## 5.2 Sensitive Natural Communities and Critical Habitat

The proposed project would have a significant effect on biological resources if it would:

- b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.*

Creeping wild rye turfs are considered a sensitive natural community, (S3, or vulnerable statewide). This community is located within the study area but outside the project site boundary; therefore, impacts to creeping wild rye turfs would not occur. No riparian habitat or other sensitive natural communities would be impacted. The impact would be less than significant.

## 5.3 Jurisdictional Waters and Wetlands

The proposed project would have a significant effect on biological resources if it would:

- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*

No jurisdictional waters or wetlands exist within the study area and no direct impacts are anticipated. Indirect impacts from project activities could occur if sediment or pollutants were allowed to enter nearby waterways. Potentially jurisdictional drainages within the vicinity of the study area include freshwater emergent wetlands areas that occur approximately 330 feet south and 0.3mile west of the project site, and Cottonwood Creek approximately 0.56-mile east of the project site. However, because construction would disturb more than one acre of land, the project would require the development of a stormwater pollution prevention plan (SWPPP). A SWPPP must describe the site, the facility, erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of construction sediment and erosion control measures, maintenance responsibilities, and non-stormwater management controls. Inspection of construction sites before and after storms is also required to identify stormwater discharge from the construction activity and to identify and implement erosion controls, where necessary.

Therefore, the project would not result in substantial adverse effect on state or federally protected wetlands, and impacts would be less than significant.

## 5.4 Wildlife Movement

The proposed project would have a significant effect on biological resources if it would:

- d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites*

Local potential for use of the project site as part of a wildlife corridor is possible due to its connections to open habitat and placement between aquatic resources. However, much of the land surrounding the project site has been recently disturbed due to the ongoing construction associated with the East Ranch Development Project. The project site also borders an existing housing track to the north. Additionally, the relatively small footprint of the project site, and the temporary construction associated with the project, is unlikely to significantly impede wildlife movement through the region while larger and more suitable open areas are present to the south and east of the project site. Therefore, the impact would be less than significant.

## 5.5 Resources Protected by Local Policies and Ordinances

The proposed project would have a significant effect on biological resources if it would:

- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance*

No resources protected by local policies and ordinances, including trees, are present within the project site. There would be no impact.

## 5.6 Habitat Conservation Plans

The proposed project would have a significant effect on biological resources if it would:

- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.*

The study area does not fall within the boundaries of any Habitat Conservation Plan, Natural Conservation Community Plan or other approved local, regional, or state habitat conservation plan. There would be no impact.

## **6 Limitations, Assumptions, and Use Reliance**

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This Biological Resources Assessment has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. Reconnaissance biological surveys for certain taxa may have been conducted as part of this assessment but were not performed during a particular blooming period, nesting period, or particular portion of the season when positive identification would be expected if present, and therefore, cannot be considered definitive. The biological surveys are limited also by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis or re-establish populations in the future. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, review of CNDDDB RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDDB, may vary with regard to accuracy and completeness. In particular, the CNDDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

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# Appendix A

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Regulatory Setting

# Regulatory Setting

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The following is a brief summary of the regulatory context under which biological resources are managed at the federal, state, and local levels. A number of federal and state statutes provide a regulatory structure that guides the protection of biological resources. Agencies with the responsibility for protection of biological resources within the project site include the following:

- U.S. Army Corps of Engineers (wetlands and other waters of the United States)
- U.S. Fish and Wildlife Service (federally listed species and migratory birds)
- National Marine Fisheries Service (marine wildlife and anadromous fishes)
- San Francisco Regional Water Quality Control Board (waters of the State)
- California Department Fish and Wildlife (riparian areas, streambeds, and lakes; state-listed species; nesting birds, marine resources)
- California Coastal Commission
- City of Dublin General Plan

## United States Army Corps of Engineers

The United States Army Corps of Engineers (USACE) is responsible for administering several federal programs related to ensuring the quality and navigability of the nation's waters.

### Clean Water Act Section 404

Congress enacted the Clean Water Act (CWA) “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” Section 404 of the CWA authorizes the Secretary of the Army, acting through the USACE, to issue permits regulating the discharge of dredged or fill materials into the “navigable waters at specified disposal sites.”

Section 502 of the CWA further defines “navigable waters” as “waters of the United States, including the territorial seas.” “Waters of the United States” are broadly defined at 33 CFR Part 328.3 to include navigable waters, perennial and intermittent streams, lakes, rivers, ponds, as well as wetlands, marshes, and wet meadows. In recent years, the USACE and US Environmental Protection Agency (USEPA) have undertaken several efforts to modernize their regulations defining “waters of the United States” (e.g., the 2015 Clean Water Rule and 2020 Navigable Waters Protection Rule), but these efforts have been frustrated by legal challenges which have invalidated the updated regulations. Thus, the agencies’ longstanding definition of “waters of the United States,” which dates from 1986, remains in effect albeit with supplemental guidance interpreting applicable court decisions as described below.

### Waters of the U.S.

In summary, USACE and USEPA regulations define “waters of the United States” as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;

3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
  - i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
  - ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - iii. Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States;
5. Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;
6. The territorial sea; and
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in items 1-6 above.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the USEPA.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA are not waters of the United States.

The lateral limits of USACE jurisdiction in non-tidal waters is defined by the "ordinary high-water mark" (OHWM) unless adjacent wetlands are present. The OHWM is a line on the shore or edge of a channel established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed upon the bank, shelving, changes in the character of soil, destruction of vegetation, or the presence of debris (33 CFR 328.3(e)). As such, waters are recognized in the field by the presence of a defined watercourse with appropriate physical and topographic features. If wetlands occur within, or adjacent to, waters of the United States, the lateral limits of USACE jurisdiction extend beyond the OHWM to the outer edge of the wetlands (33 CFR 328.4 (c)). The upstream limit of jurisdiction in the absence of adjacent wetlands is the point beyond which the OHWM is no longer perceptible (33 CFR 328.4; see also 51 FR 41217).

## **Wetlands**

The USACE defines wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3). The USACE's delineation procedures identify wetlands in the field based on indicators of three wetland parameters: hydrophytic vegetation, hydric soils, and wetland hydrology. The following is a discussion of each of these parameters.

### *Hydrophytic Vegetation*

Hydrophytic vegetation dominates areas where frequency and duration of inundation or soil saturation exerts a controlling influence on the plant species present. Plant species are assigned wetland indicator status according to the probability of their occurring in wetlands. More than fifty

percent of the dominant plant species must have a wetland indicator status to meet the hydrophytic vegetation criterion. The USACE published the National Wetland Plant List (USACE 2018), which separates vascular plants into the following four basic categories based on plant species frequency of occurrence in wetlands:

- **Obligate Wetland (OBL).** Almost always occur in wetlands
- **Facultative Wetland (FACW).** Usually occur in wetlands, but occasionally found in non-wetlands
- **Facultative (FAC).** Occur in wetlands or non-wetlands
- **Facultative Upland (FACU).** Usually occur in non-wetlands, but may occur in wetlands
- **Obligate Upland (UPL).** Almost never occur in wetlands

The USACE considers OBL, FACW and FAC species to be indicators of wetlands. An area is considered to have hydrophytic vegetation when greater than 50 percent of the dominant species in each vegetative stratum (tree, shrub, and herb) fall within these categories. Any species not appearing on the United States Fish and Wildlife Service's list is assumed to be an upland species, almost never occurring in wetlands. In addition, an area needs to contain at least 5% vegetative cover to be considered as a vegetated wetland.

### *Hydric Soils*

Hydric soils are saturated or inundated for a sufficient duration during the growing season to develop anaerobic or reducing conditions that favor the growth and regeneration of hydrophytic vegetation. Field indicators of wetland soils include observations of ponding, inundation, saturation, dark (low chroma) soil colors, bright mottles (concentrations of oxidized minerals such as iron), gleying (indicates reducing conditions by a blue-grey color), or accumulation of organic material. Additional supporting information includes documentation of soil as hydric or reference to wet conditions in the local soils survey, both of which must be verified in the field.

### *Wetland Hydrology*

Wetland hydrology is inundation or soil saturation with a frequency and duration long enough to cause the development of hydric soils and plant communities dominated by hydrophytic vegetation. If direct observation of wetland hydrology is not possible (as in seasonal wetlands), or records of wetland hydrology are not available (such as stream gauges), assessment of wetland hydrology is frequently supported by field indicators, such as water marks, drift lines, sediment deposits, or drainage patterns in wetlands.

### *Limitations on Jurisdiction Based on Sackett v. USEPA Supreme Court Decision*

On May 25, 2023, the Supreme Court issued its decision on the petition from the Sacketts, a family in Idaho that was subject to a compliance order from the USEPA for backfilling their lot near Priest Lake, which the USEPA claimed contained federally regulated wetlands. The wetlands in question were adjacent to a ditch that fed a creek that ultimately drained into Priest Lake, a navigable water body. The USEPA asserted that the Sacketts had violated the law by filling the wetlands on their property without a permit. The Court's decision addressed controversy over whether, and under what conditions, the CWA reaches navigable waters' tributaries or adjacent wetlands. The Supreme Court's decision in *Sackett* provides definitive guidance to the agencies in determining the limits of their Clean Water Act authority. Major tenets of the decision have been incorporated into the agencies' current regulations through the September 2023 Conforming Rule.

The Court decided:

- “Adjacent wetlands” are WOTUS only if there is a continuous surface connection between the wetland and a navigable or relatively permanent water body, such that it is difficult to determine the boundary between the wetland and the water body. The opinion notes that “temporary interruptions to surface connection may sometimes occur because of phenomena like low tides or dry spells.” The agencies addressed this element by defining the term “adjacent” to mean “having a continuous surface connection” in the Conforming Rule.
- The Significant Nexus Standard, introduced by the Court in prior decisions, is not mentioned in the Clean Water Act and should not be used. The Court determined that the standard applies ecological factors whose use in determining jurisdiction is not supported by the statute. The Conforming Rule removed significant nexus considerations from the definition.
- Although jurisdiction over tributaries was not addressed by the Court, the decision stated that “...the [Clean Water Act’s] use of “waters” encompasses only those relatively permanent, standing or continuously flowing bodies of water forming geographical features that are described in ordinary parlance as streams, oceans, rivers, and lakes.” The Conforming Rule makes clear that only relatively permanent tributaries qualify as “waters of the United States.”

## Rivers and Harbors Act Section 10

Section 10 of the Rivers and Harbors Act of 1899 requires authorization from the USACE for the construction of any structure in or over any navigable water of the United States. Structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, re-channelization, or any other modification of a navigable water of the United States, and applies to all structures and work. It further includes, without limitation, any wharf, dolphin, weir, boom breakwater, jetty, groin, bank protection (e.g., riprap, revetment, bulkhead), mooring structures such as pilings, aerial or subaqueous power transmission lines, intake or outfall pipes, permanently moored floating vessel, tunnel, artificial canal, boat ramp, aids to navigation, and any other permanent, or semi-permanent obstacle or obstruction. It is important to note that Section 10 applies only to navigable waters, and thus does not apply to work in non-navigable wetlands or tributaries. In some cases, Section 10 authorization is issued by the USACE concurrently with CWA Section 404 authorization, such as when certain Nationwide Permits are used.

## Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) have jurisdiction over “waters of the State,” which are defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code sec. 13050(e)). These agencies also have responsibilities for administering portions of the CWA.

## Clean Water Act Section 401

Section 401 of the CWA requires an applicant requesting a federal license or permit for an activity that may result in any discharge into navigable waters (such as a Section 404 Permit) to provide state certification that the proposed activity will not violate state and federal water quality standards. In California, CWA Section 401 Water Quality Certification (Section 401 Certification) is

issued by the RWQCBs and by the SWRCB for multi-region projects. The process begins when an applicant submits an application to the RWQCB and informs the USACE (or the applicable agency from which a license or permit was requested) that an application has been submitted. The USACE will then determine a “reasonable period of time” for the RWQCB to act on the application; this is typically 60 days for routine projects and longer for complex projects but may not exceed one year. When the period has elapsed, if the RWQCB has not either issued or denied the application for Section 401 Certification, the USACE may determine that Certification has been waived and issue the requested permit. If a Section 401 Certification is issued it may include binding conditions, imposed either through the Certification itself or through the requested federal license or permit.

## Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code section 13000 et seq.), the policy of the State is as follows:

- The quality of all the waters of the State shall be protected
- All activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason
- The State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation

The Porter-Cologne Act established nine RWQCBs (based on watershed boundaries) and the SWRCB, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The SWRCB provides program guidance and oversight, allocates funds, and reviews RWQCB decisions. In addition, the SWRCB allocates rights to the use of surface water. The RWQCBs have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The SWRCB and RWQCBs have numerous nonpoint source related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

Section 13260 of the Porter-Cologne Act requires any person discharging or proposing to discharge waste that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate RWQCB. The RWQCB may then authorize the discharge, subject to conditions, by issuing Waste Discharge Requirements (WDRs). While this requirement was historically applied primarily to outfalls and similar point source discharges, the SWRCB’s *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*, effective May 2020, make it clear that the agency will apply the Porter-Cologne Act’s requirements to discharges of dredge and fill material as well. The *Procedures* state that they are to be used in issuing CWA Section 401 Certifications and WDRs, and largely mirror the existing review requirements for CWA Section 404 Permits and Section 401 Certifications, incorporating most elements of the USEPA’s *Section 404(b)(1) Guidelines*. Following issuance of the *Procedures*, the SWRCB produced a consolidated application form for dredge/fill discharges that can be used to obtain a CWA Section 401 Water Quality Certification, WDRs, or both.



## **Non-Wetland Waters of the State**

The SWRCB and RWQCBs have not established regulations for field determinations of waters of the state except for wetlands currently. In many cases the RWQCBs interpret the limits of waters of the State to be bounded by the OHWM unless isolated conditions or ephemeral waters are present. However, in the absence of statewide guidance each RWQCB may interpret jurisdictional boundaries within their region and the SWRCB has encouraged applicants to confirm jurisdictional limits with their RWQCB before submitting applications. As determined by the RWQCB, waters of the State may include riparian areas or other locations outside the OHWM, leading to a larger jurisdictional area over a given water body compared to the USACE.

## **Wetland Waters of the State**

Procedures for defining wetland waters of the State pursuant to the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* went into effect May 28, 2020. The SWRCB defines an area as wetland if, under normal circumstances:

- The area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;
- The duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and
- The area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The SWRCB's *Implementation Guidance for the Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State* (2020), states that waters of the U.S. and waters of the State should be delineated using the standard USACE delineation procedures, taking into consideration that the methods shall be modified only to allow for the fact that a lack of vegetation does not preclude an area from meeting the definition of a wetland.

## **United States Fish and Wildlife Service**

The United States Fish and Wildlife Service (USFWS) implements several laws protecting the Nation's fish and wildlife resources, including the Endangered Species Act (ESA; 16 United States Code [USC] Sections 153 et seq.), the Migratory Bird Treaty Act (MBTA; 16 USC Sections 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668).

## **Endangered Species Act**

The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the ESA. Generally, the USFWS implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species. Projects that would result in "take" of any threatened or endangered wildlife species, or a threatened or endangered plant species if occurring on federal land, are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of the ESA, depending on the involvement by the federal government in funding, authorizing, or carrying out the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. "Take" under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to

engage in any such conduct. Proposed or candidate species do not have the full protection of the ESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

## Migratory Bird Treaty Act

The MBTA of 1918 implements four international conservation treaties that the U.S. entered into with Canada in 1916, Mexico in 1936, Japan in 1972, and Russia in 1976. It is intended to ensure the sustainability of populations of all protected migratory bird species. The law has been amended with the signing of each treaty, as well as when any of the treaties were amended, such as with Mexico in 1976 and Canada in 1995. The MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the USFWS.

The list of migratory bird species protected by the law, in regulations at 50 CFR Part 10.13, is primarily based on bird families and species included in the four international treaties. A migratory bird species is included on the list if it meets one or more of the following criteria:

1. It occurs in the United States or U.S. territories as the result of natural biological or ecological processes and is currently, or was previously listed as, a species or part of a family protected by one of the four international treaties or their amendments.
2. Revised taxonomy results in it being newly split from a species that was previously on the list, and the new species occurs in the United States or U.S. territories as the result of natural biological or ecological processes.
3. New evidence exists for its natural occurrence in the United States or U.S. territories resulting from natural distributional changes and the species occurs in a protected family.

In 2004, the Migratory Bird Treaty Reform Act limited the scope of the MBTA by stating the MBTA applies only to migratory bird species that are native to the United States or U.S. territories, and that a native migratory bird species is one that is present as a result of natural biological or ecological processes. The MBTRA requires the USFWS to publish a list of all nonnative, human-introduced bird species to which the MBTA does not apply, and an updated list was published in 2020. The 2020 update identifies species belonging to biological families referred to in treaties the MBTA implements but are not protected because their presence in the United States or U.S. territories is solely the result of intentional or unintentional human-assisted introductions.

## Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits anyone, without a permit issued by the USFWS, from “taking” bald or golden eagles, including their parts (including feathers), nests, or eggs. The Act provides criminal penalties for persons who “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof.” The Act defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.”

“Disturb” means “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

## California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) derives its authority from the Fish and Game Code of California and administers several State laws protecting fish and wildlife resources and the habitats upon which they depend.

### California Endangered Species Act

The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 et. seq.) prohibits take of state listed threatened or endangered. Take under CESA is defined as "Hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" (Fish and Game Code sec. 86). This definition does not prohibit indirect harm by way of habitat modification, except where such harm is the proximate cause of death of a listed species. Where incidental take would occur during construction or other lawful activities, CESA allows the CDFW to issue an Incidental Take Permit upon finding, among other requirements, that impacts to the species have been minimized and fully mitigated. Unlike the federal ESA, CESA's protections extend to candidate species during the period (typically one year) while the California Fish and Game Commission decides whether the species warrants CESA listing.

### Native Plant Protection Act

The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (Fish and Game Code Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare, and prohibits the take of listed plant species. Effective in 2015, CDFW promulgated regulations (14 CCR 786.9) under the authority of the NPPA, establishing that the CESA's permitting procedures would be applied to plants listed under the NPPA as "Rare." With this change, there is little practical difference for the regulated public between plants listed under CESA and those listed under the NPPA.

### Fully Protected Species Laws

The CDFW enforces Sections 3511, 4700, 5050, and 5515 of the Fish and Game Code, which prohibit take of species designated as Fully Protected. The CDFW is not allowed to issue an Incidental Take Permit for Fully Protected species; therefore, impacts to these species must be avoided. The exception is situations where a Natural Community Conservation Plan (NCCP) is in place that authorizes take of the fully protected species.

### Avian Protection Laws

California Fish and Game Code sections 3503, 3503.5, and 3513 describe unlawful take, possession, or destruction of native birds, nests, and eggs. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Section 3513 makes it a state-level offense to take any bird in violation of the federal Migratory Bird Treaty Act.

## Protection of Lakes and Streambeds

California Fish and Game Code section 1602 states that it is unlawful for any person to “substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake” without first notifying the California Department of Fish and Wildlife (CDFW) of that activity. Thereafter, if CDFW determines and informs the entity that the activity will not substantially adversely affect any existing fish or wildlife resources, the entity may commence the activity. If, however, CDFW determines that the activity may substantially adversely affect an existing fish or wildlife resource, the entity may be required to obtain from CDFW a Streambed Alteration Agreement (SAA), which will include reasonable measures necessary to protect the affected resource(s), before the entity may conduct the activity described in the notification. Upon receiving a complete Notification of Lake/Streambed Alteration, CDFW has 60 days to present the entity with a Draft SAA. Upon review of the Draft SAA by the applicant, any problematic terms are negotiated with CDFW and a final SAA is executed.

The CDFW has not defined the term “stream” for the purposes of implementing its regulatory program under Section 1602, and the agency has not promulgated regulations directing how jurisdictional streambeds may be identified, or how their limits should be delineated. However, four relevant sources of information offer insight as to the appropriate limits of CDFW jurisdiction as discussed below.

- **The plain language of Section 1602 of CFGC** establishes the following general concepts:
  - References “river,” “stream,” and “lake”
  - References “natural flow”
  - References “bed,” “bank,” and “channel”
- **Applicable court decisions**, in particular *Rutherford v. State of California* (188 Cal App. 3d 1276 (1987)), which interpreted Section 1602’s use of “stream” to be as defined in common law. The Court indicated that a “stream” is commonly understood to:
  - Have a source and a terminus
  - Have banks and a channel
  - Convey flow at least periodically, but need not flow continuously and may at times appear outwardly dry
  - Represent the depression between the banks worn by the regular and usual flow of the water
  - Include the area between the opposing banks measured from the foot of the banks from the top of the water at its ordinary stage, including intervening sand bars
  - Include the land that is covered by the water in its ordinary low stage
  - Include lands below the OHWM
- **CDFW regulations** defining “stream” for other purposes, including sport fishing (14 CCR 1.72) and streambed alterations associated with cannabis production (14 CCR 722(c)(21)), which indicate that a stream:
  - Flows at least periodically or intermittently
  - Flows through a bed or channel having banks
  - Supports fish or aquatic life

- Can be dry for a period of time
- Includes watercourses where surface or subsurface flow supports or has supported riparian vegetation
- **Guidance documents**, including *A Field Guide to Lake and Streambed Alteration Agreements* (CDFG 1994) and *Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants* (Brady and Vyverberg 2013), which suggest the following:
  - A stream may flow perennially or episodically
  - A stream is defined by the course in which water currently flows, or has flowed during the historic hydrologic course regime (approximately the last 200 years)
  - Width of a stream course can reasonably be identified by physical or biological indicators
  - A stream may have one or more channels (single thread vs. compound form)
  - Features such as braided channels, low-flow channels, active channels, banks associated with secondary channels, floodplains, islands, and stream-associated vegetation, are interconnected parts of the watercourse
  - Canals, aqueducts, irrigation ditches, and other means of water conveyance can be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife
  - Biologic components of a stream may include aquatic and riparian vegetation, all aquatic wildlife including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system
  - The lateral extent of a stream can be measured in different ways depending on the particular situation and the type of fish or wildlife resource at risk

The tenets listed above, among others, are applied to establish the boundaries of streambeds in various environments. Importance of each factor may be weighted based on site-specific considerations and the applicability of the indicators to the streambed at hand.

## Local Jurisdiction

### City of Dublin General Plan: Open Space Conservation and Recreation Element

#### **Policies Pertaining to Biological Resources**

Chapter 7 of the Environmental Resources Management: Conservation Element of the City of Dublin General Plan Includes the following goals, objectives, and policies to protect biological resources:

#### *7.2 Stream Corridors and Riparian Vegetation*

Dublin's Primary and Eastern Extended Planning Areas are located within Livermore Drainage Unit which is one of two major drainage basins in the Alameda Creek Watershed. Of the many streams in the Livermore Drainage Unit, two flow through Dublin's Primary and Eastern Extended Planning Areas – Alamo Creek and Tassajara Creek, respectively. Alamo Creek runs in a north-south direction just west of Dougherty Road; Tassajara Creek also runs in a north-south

direction and is located just west of Tassajara Road. Portions of these creeks have been channelized and remaining sections are being improved as a result of subdivision developments.

### **7.2.1 All Planning Areas**

#### **A. Guiding Policies**

1. Protect riparian vegetation as a protective buffer for stream quality and for its value as a habitat and aesthetic resource.
2. Promote access to stream corridors for passive recreational use and to allow stream maintenance and improvements as necessary, while respecting the privacy of owners of property abutting stream corridors.

#### **B. Implementing Policies**

1. Enforce Watercourse Ordinance 52-87 for developed areas of the city.
2. Require open stream corridors of adequate width to protect all riparian vegetation, improve access, and prevent flooding caused by blockage of streams.
3. Require revegetation of creek banks with species characteristic of local riparian vegetation, where construction requires creekbank alteration.

## **7.3 Erosion And Siltation Control**

### **7.3.1 All Planning Areas**

#### **A. Guiding Policies**

1. Maintain natural hydrologic systems.
2. Regulate grading and development on steep slopes.

#### **B. Implementing Policies**

1. Enforce the requirements of the Municipal Regional Permit for stormwater issued by the San Francisco Bay Regional Water Quality Control Board or any subsequent permit as well as Chapter 7 (Public Works) and Chapter 9 (Subdivisions) of the Dublin Municipal Code for maintenance of water quality and protection of stream courses.
2. Review development proposals to insure site design that minimizes soil erosion and volume and velocity of surface runoff.
3. Restrict development on slopes over 30 percent.

### **7.3.2 Western Extended Planning Area**

#### **A. Guiding Policies**

1. Maintain natural hydrologic systems. Contain any net increase of runoff on-site or with approved off-site measures.
2. Regulate grading and development on steep slopes, with special concern for potential problems of erosion and siltation.

#### **B. Implementing Policies**

1. Require erosion control plans for proposed development. Erosion control plans shall include recommendations for preventing erosion and scour of drainageways, consistent with biological and visual values.
2. In general, restrict areas of steep slopes (more than 30%) to permanent open

space, as part of an overall cluster development concept on approved plans. Any development in otherwise restricted areas shall require substantial mitigation which has considerable benefit to the community, in keeping with the standards of General Plan Policy 3.2.2.A.1.

3. Development projects shall comply with the requirements of the Municipal Regional Permit for stormwater issued by the San Francisco Bay Regional Water Quality Control Board or any subsequent permit as well as Dublin Municipal Code Chapter 7 (Public Works) and Chapter 9 (Subdivisions).

#### *7.4 Oak Woodlands*

Most of the oak woodland within the Dublin Planning Area is concentrated in the Western Extended Planning Area. In addition to California Live Oaks, other species such as laurel are a vital part of this plant community. This woodland has important visual and biological qualities.

##### **7.4.1 Primary and Eastern Extended Planning Areas**

###### **A. Guiding Policy**

1. Protect oak woodlands.

###### **B. Implementing Policies**

1. Require preservation of oak woodlands. Where woodlands occupy slopes that otherwise could be graded and developed, permit allowable density to be transferred to another part of the site. Removal of an individual oak tree may be considered through the project review process.
2. Enact and enforce the Heritage Tree Ordinance.

# Appendix B

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Site Photographs





**Photograph 1.** View from the northeastern project boundary of the drainage area, facing east with the study area boundary to the east. Wildlife exclusion fence at left



**Photograph 2.** Overview of star-thistle fields and non-native grassland, facing northeast from the center of the study area





**Photograph 3.** View of the edge of the study area, facing south from the eastern project boundary



**Photograph 4.** View of the edge of the study area, facing north from the northern project boundary





**Photograph 5.** View of the study area and bordering properties, facing south from the northern project boundary



**Photograph 6.** Representative burrow in the study area, looking down



**Photograph 7.** View of the study area boundary, facing west from the eastern project boundary



# Appendix C

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Floral and Faunal Compendium

### Plant Species Observed Within the Biological Study Area on November 30, 2023

| Scientific Name                | Common Name         | Status | Native or Introduced            |
|--------------------------------|---------------------|--------|---------------------------------|
| <b>Shrubs</b>                  |                     |        |                                 |
| <i>Eucalyptus globulus</i>     | eucalyptus          | None   | Introduced, Cal-IPC (limited)   |
| <b>Herbs</b>                   |                     |        |                                 |
| <i>Centaurea solstitialis</i>  | Yellow star thistle | None   | Introduced, Cal-IPC (high)      |
| <i>Brassica nigra</i>          | black mustard       | None   | Introduced, Cal-IPC (moderate)  |
| <i>Cynara cardunculus</i>      | wild artichoke      | None   | Introduced, Cal-IPC (moderate)  |
| <i>Mentha puligium</i>         | pennyroyal          | None   | Introduced, Cal-IPC (moderate)  |
| <i>Convolvulus arvensis</i>    | field bindweed      | None   | Introduced, CDFA noxious threat |
| <i>Croton setigerus</i>        | doveweed            | None   | Native                          |
| <i>Asclepias fascicularis</i>  | narrowleaf milkweed | None   | Native                          |
| <i>Epilobium ciliatum</i>      | fringed willowherb  | None   | Native                          |
| <i>Lupinus sp.</i>             | lupine species      | None   | Native                          |
| <i>Foeniculum vulgare</i>      | fennel              | None   | Introduced, Cal-IPC (moderate)  |
| <i>Trifolium albopurpureum</i> | rancheria clover    | None   | Native                          |
| <i>Rumex crispus</i>           | curly dock          | None   | Introduced, Cal-IPC (limited)   |
| <i>Silybum marianum</i>        | milk thistle        | None   | Introduced, Cal-IPC (limited)   |
| <b>Grasses</b>                 |                     |        |                                 |
| <i>Avena fatua</i>             | wild oats           | None   | Introduced, Cal-IPC (moderate)  |
| <i>Avena barbata</i>           | slender oats        | None   | Introduced, Cal-IPC (moderate)  |
| <i>Bromus diandrus</i>         | ripgut brome        | None   | Introduced, Cal-IPC (moderate)  |
| <i>Bromus hordeaceus</i>       | soft chess          | None   | Introduced, Cal-IPC (limited)   |
| <i>Elymus triticoides</i>      | creeping wild rye   | None   | Native                          |
| <i>Hordeum murinum</i>         | foxtail             | None   | Introduced, Cal-IPC (moderate)  |
| <i>Festuca perennis</i>        | Italian ryegrass    | None   | Introduced                      |

**Wildlife Species Observed Within the Biological Study Area on November 30, 2023**

| Scientific Name                        | Common Name            | Status | Native or Introduced |
|--|------------------------|--------|----------------------|
| <b>Birds</b>                           |                        |        |                      |
| <i>Streptopelia decaocto</i>           | Eurasian collared-dove | None   | Introduced           |
| <i>Cathartes aura</i>                  | turkey vulture         | None   | Native               |
| <i>Corvus brachyrhynchos</i>           | American crow          | None   | Native               |
| <i>Aphelocoma californica</i>          | California scrub-jay   | None   | Native               |
| <i>Sayornis saya</i>                   | Say's phoebe           | None   | Native               |
| <i>Falco sparverius</i>                | American kestrel       | None   | Native               |
| <i>Buteo jamaicensis</i>               | red-tailed hawk        | None   | Native               |
| <i>Meleagris gallopavo</i>             | wild turkey            | None   | Introduced           |
| <b>Mammals</b>                         |                        |        |                      |
| <i>Canis latrans</i>                   | coyote                 | None   | Native               |
| <i>Odocoileus hemionus columbianus</i> | black-tailed deer      | None   | Native               |

# Appendix D

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## Special-status Species Evaluation Tables



## Special-status Plant Species in the Regional Vicinity of the Project Boundary

| Scientific Name<br>Common Name  | Status<br>Fed/State ESA<br>CRPR | Habitat Requirements   | Potential<br>to Occur | Rationale  |
|---|---------------------------------|--|-----------------------|--|
| <i>Amsinckia grandiflora</i><br>large-flowered fiddleneck                       | FE/SE<br>G1/S1<br>1B.1          | Annual herb. Cismontane woodland, valley and foothill grassland. Annual grassland in various soils. Elevations: 885-1805ft. (270-550m.) Blooms (Mar)Apr-May.         | No potential          | Suitable habitat is absent. Cismontane woodland is not present in the study area. Grasslands present are dominated by non-native grasses and ruderal herbs and the native communities are fragmented. There are two occurrences within a 3 mile radius of the study area, the most recent in 2018 (CDFW 2023a).  |
| <i>Arctostaphylos auriculata</i><br>Mt. Diablo manzanita                        | None/None<br>G2/S2<br>1B.3      | Perennial evergreen shrub. Chaparral, cismontane woodland. In canyons and on slopes. On sandstone. Elevations: 445-2135ft. (135-650m.) Blooms Jan-Mar.               | No potential          | Suitable habitat is absent. Chaparral and cismontane woodland are not present in the study area.   |
| <i>Arctostaphylos manzanita</i> ssp. <i>laevigata</i><br>Contra Costa manzanita | None/None<br>G5T2/S2<br>1B.2    | Perennial evergreen shrub. Chaparral. Rocky slopes. Elevations: 1410-3610ft. (430-1100m.) Blooms Jan-Mar(Apr).   | No potential          | Suitable habitat is absent. Chaparral and rocky slopes are not present in the study area. Additionally, this species is limited to higher elevations not present in the study area.  |
| <i>Astragalus tener</i> var. <i>tener</i><br>alkali milk-vetch                  | None/None<br>G2T1/S1<br>1B.2    | Annual herb. Playas, valley and foothill grassland, vernal pools. Alkaline. Elevations: 5-195ft. (1-60m.) Blooms Mar-Jun.  | No potential          | Playas and vernal pools are not present in the study area. Potentially suitable habitat is present in the study area in grasslands in the drainage area in the eastern portion of the study area, where soils are alkaline. This portion of the study area is small and the study area is west of this species' range, making occurrence less likely. One occurrence was recorded in 2018 within a 5-mile radius (CDFW 2023a). |
| <i>Atriplex cordulata</i> var. <i>cordulata</i><br>heartscale                   | None/None<br>G3T2/S2<br>1B.2    | Annual herb. Chenopod scrub, meadows and seeps, valley and foothill grassland. Alkaline (sometimes). Elevations: 0-1835ft. (0-560m.) Blooms Apr-Oct.                 | No potential          | Chenopod scrub is not present in the study area. Present grasslands are mostly dominated by non-native grasses and ruderal herbs. This species' range is limited to east of the study area.  |
| <i>Atriplex depressa</i><br>brittlescale  | None/None<br>G2/S2<br>1B.2      | Annual herb. Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, vernal pools. Alkaline, clay. Elevations: 5-1050ft. (1-320m.) Blooms Apr-Oct. | Low potential         | Chenopod scrub, playas, and vernal pools are not present in the study area. Potentially suitable habitat is present in the study area in grasslands in the drainage area in the eastern portion of the study area, where soils are alkaline. One occurrence has been recorded within a 5-mile radius (CDFW 2023a).   |

Dublin San Ramon Services District  
Reservoir 20B Project

| Scientific Name<br>Common Name  | Status<br>Fed/State ESA<br>CRPR | Habitat Requirements  | Potential<br>to Occur | Rationale   |
|---|---------------------------------|---|-----------------------|---|
| <i>Atriplex minuscule</i><br>lesser saltscale                             | None/None<br>G2/S2<br>1B.1      | Annual herb. Chenopod scrub, playas, valley and foothill grassland. Alkaline, sandy. Elevations: 50-655ft. (15-200m.) Blooms May-Oct.   | No potential          | Suitable habitat is absent. Chenopod scrub and playas are not present in the study area and grasslands are in clay and clay-loam soils, not sandy soils. One occurrence has been recorded within a 5-mile radius (CDFW 2023a).  |
| <i>Balsamorhiza macrolepis</i><br>big-scale balsamroot                    | None/None<br>G2/S2<br>1B.2      | Perennial herb. Chaparral, cismontane woodland, valley and foothill grassland. Serpentine (sometimes). Elevations: 150-5100ft. (45-1555m.) Blooms Mar-Jun.                                    | No potential          | Chaparral and cismontane woodland are not present in the study area.  |
| <i>Blepharizonia plumosa</i><br>big tarplant                              | None/None<br>G1G2/S1S2<br>1B.1  | Annual herb. Valley and foothill grassland. Clay (usually). Elevations: 100-1655ft. (30-505m.) Blooms Jul-Oct.  | No potential          | Suitable habitat is present in the non-native grasslands in the study area and edge of the drainage area. While this species will grow with annual non-native grasses, the rarity of this species and lack of occurrences in the 5-mile radius (CDFW 2023a) make occurrence unlikely.   |
| <i>Calochortus pulchellus</i><br>Mt. Diablo fairy-lantern                 | None/None<br>G2/S2<br>1B.2      | Perennial bulbiferous herb. Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. On wooded and brushy slopes. Elevations: 100-2755ft. (30-840m.) Blooms Apr-Jun. | No potential          | Suitable habitat is absent. Chaparral, cismontane woodland, and riparian woodland are not present in the study area. While there is grassland present, there are no wooded and brushy slopes ideal for this species.  |
| <i>Centromadia parryi</i> ssp. <i>congonii</i><br>Congdon's tarplant      | None/None<br>G3T2/S2<br>1B.1    | Annual herb. Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. Elevations: 0-755ft. (0-230m.) Blooms May-Oct(Nov).                                      | Low Potential         | Suitable habitat is present in the drainage area and adjacent grasslands. Due to the disturbed nature of much of the study area, potential habitat is limited. Fourteen occurrences have been recorded in the 5-mile radius (CDFW 2023a).   |
| <i>Chloropyron molle</i> ssp. <i>hispidum</i><br>hispid salty bird's-beak | None/None<br>G2T1/S1<br>1B.1    | Annual herb (hemiparasitic). Meadows and seeps, playas, valley and foothill grassland. Alkaline. Elevations: 5-510ft. (1-155m.) Blooms Jun-Sep.   | No potential          | Potentially suitable habitat is present in the study area in the drainage area in the eastern portion of the study area, where soils are alkaline. 1 occurrence has been recorded in the study area (CDFW 2023a).   |
| <i>Chloropyron palmatum</i><br>palmate-bracted bird's-beak                | FE/SE<br>G1/S1<br>1B.1          | Annual herb (hemiparasitic). Chenopod scrub, valley and foothill grassland. Alkaline. Elevations: 15-510ft. (5-155m.) Blooms May-Oct.   | No potential          | Potentially suitable habitat is absent in the study area. While soils are necessarily alkaline in drainage area in the eastern portion of the study area, this species host plant is <i>Distichlis spicata</i> , which prefers saline soils that are not present. 1 occurrence has been recorded in the 5-mile radius of the study area (CDFW 2023a). |

| Scientific Name<br>Common Name  | Status<br>Fed/State ESA<br>CRPR | Habitat Requirements   | Potential<br>to Occur | Rationale   |
|---|---------------------------------|--|-----------------------|---|
| <i>Deinandra bacigalupii</i><br>Livermore tarplant                              | None/SE<br>G1/S1<br>1B.1        | Annual herb. Meadows and seeps.<br>Alkaline meadows. Elevations: 490-605ft.<br>(150-185m.) Blooms Jun-Oct.   | No potential          | The only known occurrences of this plant are within the 5-mile radius of the study area (CDFW 2023a). Some of the drainage area on the east side of the study area may support this species, where soils are alkaline and appeared hydric, but recent disturbance and area size makes occurrence unlikely.                      |
| <i>Delphinium californicum</i> ssp. <i>interius</i><br>Hospital Canyon larkspur | None/None<br>G3T3/S3<br>1B.2    | Perennial herb. Chaparral, cismontane woodland, coastal scrub. In wet, boggy meadows, openings in chaparral and in canyons. Elevations: 640-3595ft. (195-1095m.) Blooms Apr-Jun. | No potential          | Suitable habitat is absent. Chaparral, cismontane woodland, are coastal scrub are not present in the study area.  |
| <i>Delphinium recurvatum</i><br>recurved larkspur                               | None/None<br>G2?/S2?<br>1B.2    | Perennial herb. Chenopod scrub, cismontane woodland, valley and foothill grassland. Alkaline. Elevations: 10-2590ft. (3-790m.) Blooms Mar-Jun.                                   | No potential          | Suitable habitat is absent. Chenopod scrub and cismontane woodland are not present in the study area. This species is limited to the eastern edge of the Coastal Range and the Central Valley, which does not include the study area.   |
| <i>Eriogonum truncatum</i><br>Mt. Diablo buckwheat                              | None/None<br>G1/S1<br>1B.1      | Annual herb. Chaparral, coastal scrub, valley and foothill grassland. Dry, exposed clay or sandy substrates. Elevations: 10-1150ft. (3-350m.) Blooms Apr-Sep(Nov-Dec).           | No potential          | Suitable habitat is absent; this species is known only to occur on Mt. Diablo.  |
| <i>Eryngium jepsonii</i><br>Jepson's coyote-thistle                             | None/None<br>G2/S2<br>1B.2      | Perennial herb. Valley and foothill grassland, vernal pools. Clay. Elevations: 10-985ft. (3-300m.) Blooms Apr-Aug.   | No potential          | While there may be portions of the study area that are suitable habitat, this species has been pushed further east than the study area by construction and habitat loss. No occurrences are recorded in the 5-mile area (CDFW 2023a).   |
| <i>Eschscholzia rhombipetala</i><br>diamond-petaled California poppy            | None/None<br>G1/S1<br>1B.1      | Annual herb. Valley and foothill grassland. Alkaline, clay slopes and flats. Elevations: 0-3200ft. (0-975m.) Blooms Mar-Apr.   | Low potential         | Suitable habitat is present in the study area. Due to its small size, this species can be easily missed and new occurrences in non-native grassland habitat in eastern Alameda have been recently recorded, despite previously being regarded as locally extirpated. One recorded occurrence in the 5-mile radius (CDFW 2023a). |

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| Scientific Name<br>Common Name                        | Status<br>Fed/State ESA<br>CRPR | Habitat Requirements  | Potential<br>to Occur | Rationale   |
|---|---------------------------------|---|-----------------------|---|
| <i>Extriplex joaquinana</i><br>San Joaquin spearscale | None/None<br>G2/S2<br>1B.2      | Annual herb. Chenopod scrub, meadows and seeps, playas, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with <i>Distichlis spicata</i> , <i>Frankenia</i> , etc. Elevations: 5-2740ft. (1-835m.) Blooms Apr-Oct.      | Low Potential         | Suitable habitat is present in the drainage area including creeping wild rye turfs and non-native grasslands. There have been 12 occurrences recorded in the 5-mile radius (CDFW 2023a), many of which were growing in similar conditions. Recent disturbance in and around this habitat lowers the potential for occurrence. |
| <i>Fritillaria liliacea</i><br>fragrant fritillary    | None/None<br>G2/S2<br>1B.2      | Perennial bulbiferous herb. Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland. Often on serpentine; various soils reported though usually on clay, in grassland. Elevations: 10-1345ft. (3-410m.) Blooms Feb-Apr.    | No potential          | No suitable habitat present. The range of this species is limited to more western areas than the study area (CDFW 2023a).   |
| <i>Helianthella castanea</i><br>Diablo helianthella   | None/None<br>G2/S2<br>1B.2      | Perennial herb. Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Azonal soils, Partial shade (often), rocky (usually). Elevations: 195-4265ft. (60-1300m.) Blooms Mar-Jun. | No potential          | Suitable habitat is absent. Dry rocky soil and partial shade are absent in the study area. Two known occurrences in the 5-mile radius are recorded (CDFW 2023a).  |
| <i>Hesperolinon breweri</i><br>Brewer's western flax  | None/None<br>G2/S2<br>1B.2      | Annual herb. Chaparral, cismontane woodland, valley and foothill grassland. Often in rocky serpentine soil in serpentine chaparral and serpentine grassland. Elevations: 100-3100ft. (30-945m.) Blooms May-Jul.                                       | No potential          | Suitable habitat is absent. Chaparral, cismontane woodland, and rocky soils are not present in the study area. Much of the study area is non-native grassland and soils are clay or clay-loam.  |
| <i>Legenere limosa</i><br>legenere                    | None/None<br>G2/S2<br>1B.1      | Annual herb. Vernal pools. In beds of vernal pools. 1-. Elevations: 5-2885ft. (1-880m.) Blooms Apr-Jun.   | No potential          | Suitable habitat is absent. Vernal pools are not present in the study area.   |
| <i>Leptosyne hamiltonii</i><br>Mt. Hamilton coreopsis | None/None<br>G2/S2<br>1B.2      | Annual herb. Cismontane woodland. On steep shale talus with open southwestern exposure. Elevations: 1805-4265ft. (550-1300m.) Blooms Mar-May.   | No potential          | Suitable habitat is absent. Cismontane woodland and steep shale talus are not present in the study area and this species is limited to high elevation and mountainous terrain.  |
| <i>Malacothamnus hallii</i><br>Hall's bush-mallow     | None/None<br>G2/S2<br>1B.2      | Perennial deciduous shrub. Chaparral, coastal scrub. Some populations on serpentine. Elevations: 35-2495ft. (10-760m.) Blooms (Apr)May-Sep(Oct).  | No potential          | Suitable habitat is absent. Chaparral and coastal scrub are not present in the study area.  |

| Scientific Name<br>Common Name                                  | Status<br>Fed/State ESA<br>CRPR | Habitat Requirements   | Potential<br>to Occur | Rationale   |
|---|---------------------------------|--|-----------------------|---|
| <i>Monolopia gracilens</i><br>woodland woollythreads            | None/None<br>G3/S3<br>1B.2      | Annual herb. Broad-leaved upland forest, chaparral, cismontane woodland, north coast coniferous forest, valley and foothill grassland. Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns, but may have only weak affinity to serpentine. Elevations: 330-3935ft. (100-1200m.) Blooms (Feb)Mar-Jul. | No potential          | Suitable habitat is absent. Broad-leaved upland forest, chaparral, cismontane woodland, north coast coniferous forest, and sandy to rocky soils are not present in the study area. Grasslands in the study area are dominated by non-native grasses and ruderal herbs. The small community of native grasses are fragmented and in clay/clay-loam. There are no recorded occurrences in the 5-mile radius (CDFW 2023a). |
| <i>Navarretia prostrata</i><br>prostrate vernal pool navarretia | None/None<br>G2/S2<br>1B.2      | Annual herb. Coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools. Alkaline soils in grassland, or in vernal pools. Mesic, alkaline sites. Elevations: 10-3970ft. (3-1210m.) Blooms Apr-Jul.  | Low Potential         | A presumed extant population is located a quarter mile southwest of the study area (CDFW 2023a), though it may have been recently affected by disturbance. Alkaline grassland in the study area could potentially support this species. The study area does not support vernal pools and has been recently disturbed.   |
| <i>Phacelia phacelioides</i><br>Mt. Diablo phacelia             | None/None<br>G2/S2<br>1B.2      | Annual herb. Chaparral, cismontane woodland. Adjacent to trails, on rock outcrops and talus slopes; sometimes on serpentine. Elevations: 1640-4495ft. (500-1370m.) Blooms Apr-May.   | No potential          | Suitable habitat is absent. Chaparral, cismontane woodland, rock outcrops, and talus are not present in the study area and this species is limited to high-elevation and mountainous terrain.   |
| <i>Plagiobothrys glaber</i><br>hairless popcornflower           | None/None<br>GX/SX<br>1A        | Annual herb. Marshes and swamps, meadows and seeps. Coastal salt marshes and alkaline meadows. Elevations: 50-590ft. (15-180m.) Blooms Mar-May.  | No potential          | Suitable habitat is absent. Marshes and swamps, and meadows and seeps are not present in the study area. One occurrence on a roadside 1.5 miles away in 2003 prior to continued development (CDFW 2023a).   |
| <i>Polemonium carneum</i><br>Oregon polemonium                  | None/None<br>G3G4/S2<br>2B.2    | Perennial herb. Coastal prairie, coastal scrub, lower montane coniferous forest. Elevations: 0-6005ft. (0-1830m.) Blooms Apr-Sep.  | No potential          | Suitable habitat is absent. Coastal prairie, coastal scrub, and lower montane coniferous forest are absent in the study area.   |
| <i>Puccinellia simplex</i><br>California alkali grass           | None/None<br>G2/S2<br>1B.2      | Annual herb. Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools. Alkaline, vernal mesic. Sinks, flats, and lake margins. Elevations: 5-3050ft. (2-930m.) Blooms Mar-May.   | No potential          | Suitable habitat absent. Sinks, flats, and lake margins are not present in the study area.  |
| <i>Ravenella exigua</i><br>chaparral harebell                   | None/None<br>G2/S2<br>1B.2      | Chaparral. Rocky sites, usually on serpentine in chaparral. 275-1250m. Blooms May-Jun.   | No potential          | Suitable habitat is absent. Chaparral and rocky sites are not present in the study area.  |

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| Scientific Name<br>Common Name   | Status<br>Fed/State ESA<br>CRPR | Habitat Requirements   | Potential<br>to Occur | Rationale  |
|--|---------------------------------|--|-----------------------|--|
| <i>Senecio aphanactis</i><br>chaparral ragwort                                   | None/None<br>G3/S2<br>2B.2      | Annual herb. Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. Elevations: 50-2625ft. (15-800m.) Blooms Jan-Apr(May).  | No potential          | Suitable habitat is absent. Chaparral, cismontane woodland, coastal scrub, and drying alkaline flats are not present in the study area.  |
| <i>Spergularia macrotheca</i> var. <i>longistyla</i><br>long-styled sand-spurrey | None/None<br>G5T2/S2<br>1B.2    | Perennial herb. Marshes and swamps, meadows and seeps. Alkaline. Elevations: 0-835ft. (0-255m.) Blooms Feb-May.  | No potential          | Suitable habitat is absent. Marshes and swamps, meadows and seeps are not present in the study area.   |
| <i>Streptanthus albidus</i> ssp. <i>peramoenus</i><br>most beautiful jewelflower | None/None<br>G2T2/S2<br>1B.2    | Annual herb. Chaparral, cismontane woodland, valley and foothill grassland. Serpentine outcrops, on ridges and slopes. Elevations: 310-3280ft. (95-1000m.) Blooms (Mar)Apr-Sep(Oct).   | No potential          | Suitable habitat is absent. Chaparral, cismontane woodland, and serpentine outcrops are not present in the study area.   |
| <i>Streptanthus hispidus</i><br>Mt. Diablo jewelflower                           | None/None<br>G2/S2<br>1B.3      | Annual herb. Chaparral, valley and foothill grassland. Talus or rocky outcrops. Elevations: 1200-3935ft. (365-1200m.) Blooms Mar-Jun.  | No potential          | Suitable habitat is absent. Chaparral, rocky outcrops, and talus are not present in the study area. This species is limited to high-elevation and mountainous terrain.   |
| <i>Stuckenia filiformis</i> ssp. <i>alpina</i><br>northern slender pondweed      | None/None<br>G5T5/S2S3<br>2B.2  | Perennial rhizomatous herb (aquatic). Marshes and swamps. Shallow, clear water of lakes and drainage channels. Elevations: 985-7055ft. (300-2150m.) Blooms May-Jul.  | No potential          | Suitable habitat is absent. There is no aquatic habitat present in the study area.   |
| <i>Suaeda californica</i><br>California seablite                                 | FE/None<br>G1/S1<br>1B.1        | Perennial evergreen shrub. Marshes and swamps. Margins of coastal salt marshes. Elevations: 0-50ft. (0-15m.) Blooms Jul-Oct.   | No potential          | Suitable habitat is absent. There is no aquatic habitat present in the study area.   |
| <i>Trifolium hydrophilum</i><br>saline clover                                    | None/None<br>G2/S2<br>1B.2      | Annual herb. Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. Elevations: 0-985ft. (0-300m.) Blooms Apr-Jun.  | Low potential         | Potentially suitable habitat is present in the alkaline grasslands in the drainage area. The only recorded occurrence within 5 miles, 1 mile southwest of the study area from 2018, may have been extirpated (CDFW 2023a). |
| <i>Triquetrella californica</i><br>coastal triquetrella                          | None/None<br>G2/S2<br>1B.2      | Moss. Coastal bluff scrub, coastal scrub. Grows within 30m from the coast in coastal scrub, grasslands and in open gravels on roadsides, hillsides, rocky slopes, and fields. On gravel or thin soil over outcrops. Elevations: 35-330ft. (10-100m.) | No potential          | Suitable habitat is absent. Coastal bluff scrub, coastal scrub, gravel, and thin soils over outcrops are not present in the study area.  |

| Scientific Name<br>Common Name                                  | Status<br>Fed/State ESA<br>CRPR | Habitat Requirements   | Potential<br>to Occur | Rationale  |
|---|---------------------------------|--|-----------------------|--|
| <i>Tropidocarpum capparideum</i><br>caper-fruited tropidocarpum | None/None<br>G1/S1<br>1B.1      | Annual herb. Valley and foothill grassland.<br>Alkaline clay. Elevations: 5-1495ft. (1-<br>455m.) Blooms Mar-Apr.                                | No potential          | Potentially suitable habitat is present, but this species' range has been pushed east by development. The study area is within historic range of this species. |
| <i>Viburnum ellipticum</i><br>oval-leaved viburnum              | None/None<br>G4G5/S3?<br>2B.3   | Perennial deciduous shrub. Chaparral, cismontane woodland, lower montane coniferous forest. Elevations: 705-4595ft. (215-1400m.) Blooms May-Jun. | No potential          | Suitable habitat is absent. Chaparral, cismontane woodland, and lower montane coniferous forest are not present in the study area.                             |

Regional Vicinity refers to within a 9-quad search radius of site.

#### Status (Federal/State)

FE = Federal Endangered  
 FT = Federal Threatened  
 FPE = Federal Proposed Endangered  
 FPT = Federal Proposed Threatened  
 FD = Federal Delisted  
 FC = Federal Candidate  
 SE = State Endangered  
 ST = State Threatened  
 SCE = State Candidate Endangered  
 SCT = State Candidate Threatened  
 SR = State Rare  
 SD = State Delisted  
 SSC = CDFW Species of Special Concern  
 FP = CDFW Fully Protected  
 WL = CDFW Watch List

#### CRPR (CNPS California Rare Plant Rank)

1A = Presumed extirpated in California, and rare or extinct elsewhere  
 1B = Rare, Threatened, or Endangered in California and elsewhere  
 2A = Presumed extirpated in California, but common elsewhere  
 2B = Rare, Threatened, or Endangered in California, but more common elsewhere  
 3 = Need more information (Review List)  
 4 = Limited Distribution (Watch List)

#### CRPR Threat Code Extension

.1 = Seriously endangered in California (>80% of occurrences threatened/high degree and immediacy of threat)  
 .2 = Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat)  
 .3 = Not very endangered in California (<20% of occurrences threatened/low degree and immediacy of threat)

#### Other Statuses

G1 or S1 Critically Imperiled Globally or Subnationally (state)  
 G2 or S2 Imperiled Globally or Subnationally (state)  
 G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)  
 G4/5 or S4/5 Apparently secure, common and abundant  
 GH or SH Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery

#### Additional notations may be provided as follows

T – Intraspecific Taxon (subspecies, varieties, and other designations below the level of species)  
 Q – Questionable taxonomy that may reduce conservation priority  
 ? – Inexact numeric rank

### Special-status Wildlife Species in the Regional Vicinity of the Project Site

| Scientific Name<br>Common Name                             | Status<br>Fed/State ESA<br>CDFW | Habitat Requirements  | Potential<br>to Occur | Rationale  |
|--|---------------------------------|---|-----------------------|--|
| <b>Invertebrates</b>                                       |                                 |   |                       |  |
| <i>Bombus caliginosus</i><br>obscure bumble bee            | None/None<br>G2G3/S1S2          | Coastal areas from Santa Barbara County north to Washington state. Food plant genera include <i>Baccharis</i> , <i>Cirsium</i> , <i>Lupinus</i> , <i>Lotus</i> , <i>Grindelia</i> and <i>Phacelia</i> .   | No potential          | Although ground burrows are present on site, significant floral resources are not present within the study area. No occurrences have been recorded in the regional vicinity of the study area. |
| <i>Bombus crotchii</i><br>Crotch bumble bee                | None/SCE<br>G2/S2               | Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .                            | No potential          | Although ground burrows are present on site, significant floral resources are not present within the study area. One occurrence has been recorded within a 5-mile radius (CDFW 2023a).         |
| <i>Bombus occidentalis</i><br>western bumble bee           | None/SCE<br>G3/S1               | Once common and widespread, the species has declined precipitously from central CA to southern B.C., perhaps from disease. .  | No potential          | Although ground burrows are present on site, significant floral resources are not present within the study area. Two occurrences have been recorded within a 5-mile (CDFW 2023a).              |
| <i>Branchinecta longiantenna</i><br>longhorn fairy shrimp  | FE/None<br>G2/S2                | Endemic to the eastern margin of the Central Coast mountains in seasonally astatic grassland vernal pools. Inhabit small, clear-water depressions in sandstone and clear-to-turbid clay/grass-bottomed pools in shallow swales.                           | No potential          | No wetlands or vernal pools occur within the study area thus, suitable habitat is absent. One known occurrence has been recorded within a 5-mile radius (CDFW 2023a).                          |
| <i>Branchinecta lynchi</i><br>vernal pool fairy shrimp     | FT/None<br>G3/S3                | Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools. | No potential          | No wetlands or vernal pools occur within the study area thus, suitable habitat is absent. One known occurrence has been recorded within a 5-mile radius (CDFW 2023a).                          |
| <i>Branchinecta mesoallensis</i><br>midvalley fairy shrimp | None/None<br>G2/S2S3            | Vernal pools in the Central Valley. .   | No potential          | No wetlands or vernal pools occur within the study area thus, suitable habitat is absent.  |
| <i>Efferia antiochi</i><br>Antioch efferian robberfly      | None/None<br>G1G2/S1S2          | Known only from Contra Costa and Fresno counties. .   | No potential          | The study area is outside of the species range.  |
| <i>Gonidea angulata</i><br>western ridged mussel           | None/None<br>G3/S2              | Primarily creeks and rivers and less often lakes. Originally in most of state, now extirpated from Central and Southern California. .   | No potential          | No creek, rivers, or lakes are present within the study area.  |



| Scientific Name<br>Common Name  | Status<br>Fed/State ESA<br>CDFW | Habitat Requirements   | Potential<br>to Occur | Rationale  |
|---|---------------------------------|--|-----------------------|--|
| <i>Helminthoglypta nickliniana bridgesi</i><br>Bridges' coast range shoulderband          | None/None<br>G3T1/S1S2          | Inhabits open hillsides of Alameda and Contra Costa counties. Tends to colonize under tall grasses and weeds.  | Low potential         | Non-native grassland present within the study area may provide suitable habitat, especially in areas supporting thistles and star thistle. There are no recorded occurrences within a 5-mile radius of the study area (CDFW 2023a).  |
| <i>Hygrotus curvipes</i><br>curved-foot hygrotus diving beetle                            | None/None<br>G2/S2              | Aquatic; known only from Alameda and Contra Costa counties. .  | No potential          | No aquatic habitat is present within the study area.   |
| <i>Lepidurus packardii</i><br>vernal pool tadpole shrimp                                  | FE/None<br>G3/S3                | Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.  | No potential          | No wetlands or vernal pools occur within the study area thus, suitable habitat is absent.  |
| <i>Danaus plexippus pop. 1</i><br>Monarch butterfly - California overwintering population | FC/None<br>G4T12Q/S2            | Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, Monterey cypress), with nectar and water sources nearby.  | No potential          | There are no protected groves of trees to support roosting. Suitable floral resources and water sources are not present within the study area.   |
| <i>Linderiella occidentalis</i><br>California linderiella                                 | None/None<br>G2G3/S2S3          | Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity, and total dissolved solids.  | No potential          | No wetlands or vernal pools occur within the study area; thus, suitable habitat is absent.   |
| <b>Reptiles</b>   |                                 |  |                       |  |
| <i>Emys marmorata</i><br>western pond turtle  | None/None<br>G3G4/S3<br>SSC     | A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying. | Low potential         | Suitable aquatic habitat is not present within the study area, or within 0.5-km of the study area. However, there is one known occurrence within a pond along Cottonwood Creek in 2010, located approximately 0.56-mile east of the study area. Eleven known occurrences have been recorded within a 5-mile radius (CDFW 2023a). |
| <i>Masticophis flagellum ruddocki</i><br>San Joaquin coachwhip                            | None/None<br>G5T2T3/S3<br>SSC   | Open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in the San Joaquin Valley. Needs mammal burrows for refuge and oviposition sites.  | No potential          | The study area is outside of the species range.  |

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| Scientific Name<br>Common Name   | Status<br>Fed/State ESA<br>CDFW | Habitat Requirements  | Potential<br>to Occur | Rationale   |
|--|---------------------------------|---|-----------------------|---|
| <i>Masticophis lateralis euryxanthus</i><br>Alameda whipsnake                                    | FT/ST<br>G4T2/S2                | Typically found in chaparral and scrub habitats but will also use adjacent grassland, oak savanna and woodland habitats. Mostly south-facing slopes and ravines, with rock outcrops, deep crevices or abundant rodent burrows, where shrubs form a vegetative mosaic with oak trees and grasses.  | No potential          | No chaparral or scrub habitat is present within or adjacent to the study area. No occurrences have been recorded in a 5-mile radius of the study area (CDFW 2023a).   |
| <i>Phrynosoma blainvillii</i><br>coast horned lizard   | None/None<br>G4/S4<br>SSC       | Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.  | No potential          | Suitable sandy habitat is absent, and no occurrences have been recorded within 5 miles of the study area (CDFW 2023a).  |
| <b>Amphibians</b>  |                                 |   |                       |   |
| <i>Ambystoma californiense</i> pop. 1<br>California tiger salamander - central<br>California DPS | FT/ST<br>G2G3T3/S3<br>WL        | Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.  | Moderate potential    | Numerous burrows with entrance diameters of 4 inches and below were observed throughout the non-disturbed portions of the study area. A drainage and freshwater emergent wetland are located approximately 0.3-mile west of the study area. There are no vernal pools present throughout or nearby the study area. There are fifty-four recorded occurrences within a 5-mile radius (CDFW 2023a). |
| <i>Rana boylei</i> pop. 4<br>foothill yellow-legged frog - central<br>coast DPS                  | FT/SE<br>G3T2/S2                | San Francisco Peninsula and Diablo Range south of San Francisco Bay Estuary, and south through the Santa Cruz and Gabilan Mountains east of the Salinas River in the southern inner Coast Ranges. Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying and at least 15 weeks to attain metamorphosis. | No potential          | Suitable stream habitat is absent and no occurrences have been recorded within 5 miles of the study area (CDFW 2023a).  |

| Scientific Name<br>Common Name   | Status<br>Fed/State ESA<br>CDFW | Habitat Requirements  | Potential<br>to Occur | Rationale   |
|--|---------------------------------|---|-----------------------|---|
| <i>Rana draytonii</i><br>California red-legged frog                                      | FT/None<br>G2G3/S2S3<br>SSC     | Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.                | Moderate potential    | The study area falls within critical habitat for the species (IPAC 2023). Numerous burrows with entrance diameters of 4 inches and below were observed throughout the non-disturbed portions of the study area. There is no suitable shrubby or riparian habitat present within the study area. However, there is a drainage approximately 0.3 mile west of the study area and Cottonwood Creek, an intermittent stream, is located approximately 0.56 mile east of the study area. There are forty recorded occurrences within a 5-mile radius of the study area (CDFW 2023a). |
| <i>Spea hammondi</i><br>western spadefoot  | None/None<br>G2G3/S3S4<br>SSC   | Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.   | No potential          | Although grassland habitat is present, no vernal pools are present within or near the study area. No known occurrences have been recorded within 5-mile radius of study area (CDFW 2023a).  |
| <b>Fish</b>  |                                 |   |                       |   |
| <i>Oncorhynchus mykiss irideus</i> pop. 8<br>steelhead - central California coast<br>DPS | FT/None<br>G5T3Q/S3             | DPS includes all naturally spawned populations of steelhead (and their progeny) in streams from the Russian River to Aptos Creek, Santa Cruz County, California (inclusive). Also includes the drainages of San Francisco and San Pablo Bays. | No potential          | No aquatic habitat is present within the study area.  |
| <b>Birds</b>   |                                 |   |                       |   |
| <i>Accipiter cooperii</i><br>Cooper's hawk   | None/None<br>G5/S4<br>WL        | Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks.  | Low potential         | There is no suitable nesting habitat present within the study area and no known occurrences within a 5-mile radius (CDFW 2023a). However, there are multiple recent research grade occurrences nearby in iNaturalist (2023) and the nearby creek to the east may host suitable nesting habitat. The open grasslands found within the study area may provide suitable foraging habitat.  |
| <i>Accipiter striatus</i><br>sharp-shinned hawk  | None/None<br>G5/S4<br>WL        | Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers riparian areas. North-facing slopes with plucking perches are critical requirements. Nests usually within 275 ft of water.                   | No potential          | There is no suitable riparian or woodland habitat present within the study area and no bodies of water are in close proximity. No known occurrences have been recorded within 5-mile radius (CDFW 2023a; iNaturalist 2023).   |

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| Scientific Name<br>Common Name                      | Status<br>Fed/State ESA<br>CDFW | Habitat Requirements  | Potential<br>to Occur | Rationale  |
|---|---------------------------------|---|-----------------------|--|
| <i>Agelaius tricolor</i><br>tricolored blackbird    | None/ST<br>G1G2/S2<br>SSC       | Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.   | No potential          | There is no suitable open water or nesting habitat present within the study area. There are six known occurrences within a 5-mile radius with the most recent in 2014 (CDFW 2023a).  |
| <i>Ammodramus savannarum</i><br>grasshopper sparrow | None/None<br>G5/S3<br>SSC       | Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.   | Low potential         | Although the study area does not contain native grassland, the dominant non-native grassland covered hills may provide suitable nesting habitat. No known occurrences have been recorded within 5 miles (CDFW 2023a).  |
| <i>Aquila chrysaetos</i><br>golden eagle            | None/None<br>G5/S3<br>FP<br>WL  | Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.  | Low potential         | The study area consists of rolling hills but no suitable cliff-walled canyons or large trees located in open areas for nesting habitat. Open grassland found throughout the study area may provide suitable foraging habitat. One occurrence was recorded within 5 miles in 1992 (CDFW 2023a). |
| <i>Ardea herodias</i><br>great blue heron           | None/None<br>G5/S4              | Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.  | No potential          | There is no suitable foraging habitat present within the study area  |
| <i>Athene cunicularia</i><br>burrowing owl          | None/None<br>G4/S2<br>SSC       | Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.   | Low potential         | There are numerous burrows present throughout the non-native grassland habitat found throughout the study area. There is one known occurrence 1-mile northeast of the study area in 2010, and a total of 29 occurrences within a 5-mile radius (CDFW 2023a).                                   |
| <i>Buteo regalis</i><br>ferruginous hawk            | None/None<br>G4/S3S4<br>WL      | Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.   | Low potential         | Open grassland habitat is present throughout the study area. There are two known occurrences recorded within a 5-mile radius, with the most recent in 2003 (CDFW 2023a).   |
| <i>Buteo swainsoni</i><br>Swainson's hawk           | None/ST<br>G5/S4                | Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannas, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations. | Low potential         | The open non-native grassland may present suitable foraging habitat. However, there is no suitable breeding habitat present within the study area. No known occurrences have been recorded within 5 miles of the study area (CDFW 2023a).  |

| Scientific Name<br>Common Name                              | Status<br>Fed/State ESA<br>CDFW | Habitat Requirements  | Potential<br>to Occur | Rationale   |
|---|---------------------------------|---|-----------------------|---|
| <i>Circus hudsonius</i><br>northern harrier                 | None/None<br>G5/S3<br>SSC       | Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.  | No potential          | There are no marsh habitats present within or nearby the study area. One known occurrence within 5-mile radius in 1992 (CDFW 2023a).  |
| <i>Elanus leucurus</i><br>white-tailed kite                 | None/None<br>G5/S3S4<br>FP      | Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.   | Low potential         | Although the study area is comprised of rolling hills, there are no scattered oaks, marshes, or woodlands present within or nearby the study area. However, individuals may pass through for foraging. There are two known occurrences within a 5-mile radius, with the most recent in 2009 (CDFW 2023a).   |
| <i>Eremophila alpestris actia</i><br>California horned lark | None/None<br>G5T4Q/S4<br>WL     | Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.   | No potential          | There are no suitable short-grass prairie, meadow, coastal plain, or alkali flat habitats present within or nearby the study area. There are two known occurrences within a 5-mile radius, with the most recent recorded in 1992 (CDFW 2023a).  |
| <i>Falco mexicanus</i><br>prairie falcon                    | None/None<br>G5/S4<br>WL        | Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.   | Low potential         | There are no suitable cliffs within or nearby the study area for breeding. However, the open hilly non-native grassland found throughout the study area may provide suitable foraging habitat. Five known occurrences have been recorded within a 5-mile radius, with the most recent in 2008 (CDFW 2023a). |
| <i>Gymnogyps californianus</i><br>California condor         | FE/SE<br>G1/S2                  | Occurs in rocky shrublands, coniferous forests, and oak savanna. They use cliffs or large trees as nesting sites, and often use rock crevices where there is minimal disturbance. Condors feed on carrion of large megafauna such as cattle, goats, deer, and smaller mammals such as rabbits or coyotes. | No potential          | There is no suitable habitat within or nearby the study area.   |
| <i>Haliaeetus leucocephalus</i><br>bald eagle               | FD/SE<br>G5/S3<br>FP            | Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.  | No potential          | There is no suitable open water or nesting habitat present within the study area. No occurrences have been recorded within 5-miles (CDFW 2023a).  |

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| Scientific Name<br>Common Name                                      | Status<br>Fed/State ESA<br>CDFW | Habitat Requirements   | Potential<br>to Occur | Rationale  |
|---|---------------------------------|--|-----------------------|--|
| <i>Lanius ludovicianus</i><br>loggerhead shrike                     | None/None<br>G4/S4<br>SSC       | Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.   | Moderate potential    | Suitable nesting habitat is not present; however, this species may forage in the open grassland habitat found within study area. Barbed wire fencing runs through the study area and may provide suitable perching for hunting. No known occurrences have been recorded within 5 miles (CDFW 2023a). |
| <i>Laterallus jamaicensis coturniculus</i><br>California black rail | None/ST<br>G3T1/S2<br>FP        | Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.  | No potential          | There are no suitable fresh or salt marsh habitats present within the study area. No occurrences have been recorded within 5-miles of study area (CDFW 2023a).   |
| <i>Melospiza melodia pusillula</i><br>Alameda song sparrow          | None/None<br>G5T2T3/S2<br>SSC   | Resident of salt marshes bordering south arm of San Francisco Bay. Inhabits Salicornia marshes; nests low in Grindelia bushes (high enough to escape high tides) and in Salicornia.  | No potential          | There is no suitable salt marsh habitat present within the study area. No occurrences have been recorded within 5-miles of the study area (CDFW 2023a).  |
| <i>Sternula antillarum browni</i><br>California least tern          | FE/SE<br>G4T2T3Q/S2<br>FP       | Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, land fills, or paved areas.   | No potential          | There is no suitable sandy beach habitat or bodies of water present within or nearby the study area. No known occurrences have been recorded within 5 miles (CDFW 2023a).  |
| <b>Mammals</b>  |                                 |  |                       |  |
| <i>Antrozous pallidus</i><br>pallid bat                             | None/None<br>G4/S3<br>SSC       | Found in a variety of habitats including deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in crevices of rock outcrops, caves, mine tunnels, buildings, bridges, and hollows of live and dead trees which must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. | No potential          | There are no suitable roosting habitats present within or nearby the study area. No known occurrences have been recorded within 5 miles of the study area (CDFW 2023a).  |
| <i>Corynorhinus townsendii</i><br>Townsend's big-eared bat          | None/None<br>G4/S2<br>SSC       | Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open, hanging from walls & ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance.   | No potential          | There are no suitable roosting habitats present within or nearby the study area. No known occurrences have been recorded within 5 miles of the study area (CDFW 2023a).  |

| Scientific Name<br>Common Name  | Status<br>Fed/State ESA<br>CDFW | Habitat Requirements   | Potential<br>to Occur | Rationale   |
|---|---------------------------------|--|-----------------------|---|
| <i>Dipodomys heermanni berkeleyensis</i><br>Berkeley kangaroo rat       | None/None<br>G4T1/S2            | Open grassy hilltops and open spaces in chaparral and blue oak/foothill pine woodlands. Needs fine, deep, well-drained soil for burrowing.   | No potential          | No suitable woodland types are present within or nearby the study area. No known occurrences have been recorded within 5 miles of the study area (CDFW 2023a).  |
| <i>Lasiurus cinereus</i><br>hoary bat                                   | None/None<br>G3G4/S4            | Typically roosts in trees in deciduous and coniferous forests and woodlands but occasionally roosts in rocks crevices. Forages in open areas, typically along riparian corridors or over water. Diet primarily consists of moths.  | No potential          | There are no suitable roosting habitats present within or nearby the study area. No known occurrences have been recorded within 5 miles of the study area (CDFW 2023a).   |
| <i>Myotis yumanensis</i><br>Yuma myotis                                 | None/None<br>G5/S4              | Occurs in a variety of lowland and upland habitats including desert scrub, riparian, and woodlands and forests. Distribution is closely tied to bodies of water. Roosts in a variety of areas including caves, cliffs, mines, crevices in live trees, and buildings and other man-made structures. | No potential          | There are no suitable roosting habitats present within or nearby the study area. No known occurrences have been recorded within 5 miles of the study area (CDFW 2023a).   |
| <i>Neotoma fuscipes annectens</i><br>San Francisco dusky-footed woodrat | None/None<br>G5T2T3/S2S3<br>SSC | Typically found in forest habitats with moderate to dense understory. Can occur in chaparral, riparian woodlands, and coniferous forests, particularly redwood. Builds middens out of grasses, leaves, and woody debris. This subspecies is found only in the San Francisco Bay region.            | No potential          | There is no chaparral or woodland habitat present within the study area.  |
| <i>Taxidea taxus</i><br>American badger                                 | None/None<br>G5/S3<br>SSC       | Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.   | Low<br>potential      | Several burrows with entrance diameters over 4 inches were observed within the northern portion of the study area. These burrows were located just north of an orange exclusion fence that ran through the study area going east to west. Smaller burrows are also present throughout the open grassland habitat within the study area which may provide foraging opportunities. There are five known occurrences recorded within a 5-mile radius, with the most recent in 2004 (CDFW 2023a). |

Dublin San Ramon Services District  
**Reservoir 20B Project**

| Scientific Name<br>Common Name                       | Status<br>Fed/State ESA<br>CDFW | Habitat Requirements  | Potential<br>to Occur | Rationale  |
|--|---------------------------------|---|-----------------------|--|
| <i>Vulpes macrotis mutica</i><br>San Joaquin kit fox | FE/ST<br>G4T2/S3                | Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base. | Low potential         | Several burrows with entrance diameters over 4 inches were observed within the northern portion of the project footprint. These burrows were located just north of an orange construction/exclusion fence that ran through the study area going east to west. Smaller burrows are also present throughout the open grassland habitat within the study area which may provide foraging opportunities. However, due to the study area being adjacent to housing development, and active construction ongoing around the study area, the habitat is likely unsuitable. Additionally, there is only one known occurrence recorded within a 5-mile radius from 1975 (CDFW 2023a). |

Regional Vicinity refers to within a 9-quadrant search radius of site.

**Status (Federal/State)**

FE = Federal Endangered  
 FT = Federal Threatened  
 FPE = Federal Proposed Endangered  
 FPT = Federal Proposed Threatened  
 FD = Federal Delisted  
 FC = Federal Candidate  
 SE = State Endangered  
 ST = State Threatened  
 SCE = State Candidate Endangered  
 SCT = State Candidate Threatened  
 SR = State Rare  
 SD = State Delisted  
 SSC = CDFW Species of Special Concern  
 FP = CDFW Fully Protected  
 WL = CDFW Watch List

**CRPR (CNPS California Rare Plant Rank)**

1A = Presumed extirpated in California, and rare or extinct elsewhere  
 1B = Rare, Threatened, or Endangered in California and elsewhere  
 2A = Presumed extirpated in California, but common elsewhere  
 2B = Rare, Threatened, or Endangered in California, but more common elsewhere  
 3 = Need more information (Review List)  
 4 = Limited Distribution (Watch List)

**CRPR Threat Code Extension**

.1 = Seriously endangered in California (>80% of occurrences threatened/high degree and immediacy of threat)  
 .2 = Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat)  
 .3 = Not very endangered in California (<20% of occurrences threatened/low degree and immediacy of threat)



| Scientific Name  | Status   |                      | Potential |           |
|--|--|----------------------|-----------|-----------|
| Common Name  | Fed/State ESA  | Habitat Requirements | to Occur  | Rationale |
| Other Statuses   |  |                      |           |           |
| G1 or S1   | Critically Imperiled Globally or Subnationally (state)   |                      |           |           |
| G2 or S2   | Imperiled Globally or Subnationally (state)  |                      |           |           |
| G3 or S3   | Vulnerable to extirpation or extinction Globally or Subnationally (state)                                |                      |           |           |
| G4/5 or S4/5   | Apparently secure, common and abundant   |                      |           |           |
| GH or SH   | Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery |                      |           |           |
| Additional notations may be provided as follows  |  |                      |           |           |
| T – Intraspecific Taxon (subspecies, varieties, and other designations below the level of species) |  |                      |           |           |
| Q – Questionable taxonomy that may reduce conservation priority                                    |  |                      |           |           |
| ? – Inexact numeric rank   |  |                      |           |           |

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# Appendix C

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Confidential Cultural Resources Technical Report

## CONFIDENTIAL APPENDIX

\*\*To protect sensitive information about the location and nature of cultural resources, this appendix is not included in the public draft of this document.

# Appendix D

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Energy Calculations

## DSRSD Reservoir

Last Updated: 2/12/2024

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors [1]:

|              |        |                      |        |
|--------------|--------|----------------------|--------|
| HP: 0 to 100 | 0.0588 | HP: Greater than 100 | 0.0529 |
|--------------|--------|----------------------|--------|

Values above are expressed in gallons per horsepower-hour/BSFC.

| CONSTRUCTION EQUIPMENT       |   |           |            |             |                                   |                     |
|------------------------------|---|-----------|------------|-------------|-----------------------------------|---------------------|
| Construction Equipment       | # | Hours per |            | Load Factor | Construction Phase                | Fuel Used (gallons) |
|                              |   | Day       | Horsepower |             |                                   |                     |
| Scrapers                     | 2 | 8         | 367        | 0.48        | Site Preparation Phase            | 2,533               |
| Off-Highway Trucks           | 2 | 8         | 402        | 0.38        | Site Preparation Phase            | 2,196               |
| Tractors/Loaders/Backhoes    | 2 | 8         | 97         | 0.37        | Site Preparation Phase            | 574                 |
| Excavators                   | 2 | 8         | 158        | 0.38        | site Preparation Phase            | 863                 |
| Tractors/Loaders/Backhoes    | 2 | 8         | 97         | 0.37        | Grading Phase                     | 810                 |
| Rubber Tired Dozers          | 2 | 8         | 247        | 0.4         | Grading Phase                     | 2,005               |
| Excavators                   | 4 | 8         | 158        | 0.38        | Grading Phase                     | 2,437               |
| Graders                      | 2 | 8         | 187        | 0.41        | Grading Phase                     | 1,556               |
| Scrapers                     | 2 | 8         | 367        | 0.48        | Grading Phase                     | 3,576               |
| Off-Highway Trucks           | 4 | 8         | 402        | 0.38        | Grading Phase                     | 6,201               |
| Other Construction Equipment | 2 | 8         | 172        | 0.42        | Grading Phase                     | 1,466               |
| Plate Compactors             | 2 | 8         | 8          | 0.43        | Pipeline/Access Road Installation | 71                  |
| Forklifts                    | 2 | 8         | 89         | 0.2         | Pipeline/Access Road Installation | 368                 |
| Rollers                      | 2 | 8         | 80         | 0.38        | Pipeline/Access Road Installation | 629                 |
| Surfacing Equipment          | 2 | 8         | 263        | 0.3         | Pipeline/Access Road Installation | 1,468               |
| Trenchers                    | 2 | 8         | 78         | 0.5         | Pipeline/Access Road Installation | 807                 |
| Air Compressors              | 2 | 8         | 78         | 0.48        | Reservoir Installation            | 7,709               |
| Cranes                       | 1 | 8         | 231        | 0.29        | Reservoir Installation            | 6,204               |
| Forklifts                    | 1 | 8         | 89         | 0.2         | Reservoir Installation            | 1,833               |
| Generator Sets               | 1 | 8         | 84         | 0.74        | Reservoir Installation            | 6,400               |
| Off-Highway Trucks           | 2 | 8         | 402        | 0.38        | Reservoir Installation            | 28,294              |
| Other Construction Equipment | 3 | 8         | 172        | 0.42        | Reservoir Installation            | 20,070              |
| Plate Compactors             | 1 | 8         | 8          | 0.43        | Paving Phase                      | 18                  |
| Graders                      | 2 | 8         | 187        | 0.41        | Paving Phase                      | 713                 |
| Pavers                       | 2 | 8         | 130        | 0.42        | Paving Phase                      | 508                 |
| Paving Equipment             | 2 | 8         | 97         | 0.37        | Paving Phase                      | 371                 |
| Rollers                      | 2 | 8         | 80         | 0.38        | Paving Phase                      | 314                 |
| Surfacing Equipment          | 1 | 8         | 263        | 0.3         | Paving Phase                      | 367                 |
| Total Fuel Used              |   |           |            |             |                                   | 100,362 (Gallons)   |

| Construction Phase                | Days of Operation |
|-----------------------------------|-------------------|
| Site Preparation Phase            | 17                |
| Grading Phase                     | 24                |
| Pipeline/Access Road Installation | 22                |
| Reservoir Installation            | 219               |
| Paving Phase                      | 11                |
| Total Days                        | 293               |

| WORKER TRIPS                      |         |       |                     |                     |
|-----------------------------------|---------|-------|---------------------|---------------------|
| Construction Phase                | MPG [2] | Trips | Trip Length (miles) | Fuel Used (gallons) |
| Site Preparation Phase            | 25.3    | 20    | 11.7                | 157.23              |
| Grading Phase                     | 25.3    | 45    | 11.7                | 499.45              |
| Pipeline/Access Road Installation | 25.3    | 0     | 11.7                | 0.00                |
| Reservoir Installation            | 25.3    | 0     | 11.7                | 0.00                |
| Paving Phase                      | 25.3    | 25    | 11.7                | 127.17              |
| Total                             |         |       |                     | 783.85              |

| HAULING AND VENDOR TRIPS             |         |       |                     |                     |
|--------------------------------------|---------|-------|---------------------|---------------------|
| Trip Class                           | MPG [2] | Trips | Trip Length (miles) | Fuel Used (gallons) |
| HAULING TRIPS                        |         |       |                     |                     |
| Site Preparation Phase               | 7.6     | 0     | 20.0                | 0.00                |
| Grading Phase                        | 7.6     | 63    | 20.0                | 165.79              |
| Pipeline/Access Road Installation    | 7.6     | 0     | 20.0                | 0.00                |
| Reservoir Installation               | 7.6     | 0     | 20.0                | 0.00                |
| Paving Phase                         | 7.6     | 0     | 20.0                | 0.00                |
| Total                                |         |       |                     | 165.79              |
| VENDOR TRIPS                         |         |       |                     |                     |
| Site Preparation Phase               | 7.6     | 0     | 8.4                 | 0.00                |
| Grading Phase                        | 7.6     | 0     | 8.4                 | 0.00                |
| Pipeline/Access Road Installation    | 7.6     | 0     | 8.4                 | 0.00                |
| Reservoir Installation               | 7.6     | 0     | 8.4                 | 0.00                |
| Paving Phase                         | 7.6     | 0     | 8.4                 | 0.00                |
| Total                                |         |       |                     | -                   |
| Total Gasoline Consumption (gallons) |         |       |                     | 784                 |
| Total Diesel Consumption (gallons)   |         |       |                     | 100,528             |

Sources:

[1] United States Environmental Protection Agency. 2021. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES3.0.2*. September. Available at: <https://www.epa.gov/system/files/documents/2021-08/420r21021.pdf>.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2021. *National Transportation Statistics*. Available at: <https://www.bts.gov/topics/national-transportation-statistics>.

# Appendix E

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RCNM Calculations

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 2/12/2024

Case Description: Grading Phase

|  |             | ---- Receptor #1 ---- |          |        |                    |           |         |      |       |                              |     |      |         |      |       |
|--|-------------|-----------------------|----------|--------|--------------------|-----------|---------|------|-------|------------------------------|-----|------|---------|------|-------|
|  |             | Baselines (dBA)       |          |        |                    |           |         |      |       |                              |     |      |         |      |       |
| Description                            | Land Use    | Daytime               | Evening  | Night  |                    |           |         |      |       |                              |     |      |         |      |       |
| Single-Family Residences               | Residential | 65                    | 55       | 50     |                    |           |         |      |       |                              |     |      |         |      |       |
|  |             | Equipment             |          |        |                    |           |         |      |       |                              |     |      |         |      |       |
|  |             | Spec                  |          | Actual | Receptor           | Estimated |         |      |       |                              |     |      |         |      |       |
|  |             | Impact                | Lmax     | Lmax   | Distance           | Shielding |         |      |       |                              |     |      |         |      |       |
| Description                            |             | Device                | Usage(%) | (dBA)  | (dBA)              | (feet)    | (dBA)   |      |       |                              |     |      |         |      |       |
| Excavator                              |             | No                    | 40       |        | 80.7               | 90        | 0       |      |       |                              |     |      |         |      |       |
| Grader                                 |             | No                    | 40       | 85     |                    | 90        | 0       |      |       |                              |     |      |         |      |       |
| Scraper                                |             | No                    | 40       |        | 83.6               | 90        | 0       |      |       |                              |     |      |         |      |       |
|  |             | Results               |          |        |                    |           |         |      |       |                              |     |      |         |      |       |
|  |             | Calculated (dBA)      |          |        | Noise Limits (dBA) |           |         |      |       | Noise Limit Exceedance (dBA) |     |      |         |      |       |
|  |             |                       |          |        | Day                |           | Evening |      | Night |                              | Day |      | Evening |      | Night |
| Equipment                              |             | *Lmax                 | Leq      | Lmax   | Leq                | Lmax      | Leq     | Lmax | Leq   | Lmax                         | Leq | Lmax | Leq     | Lmax | Leq   |
| Excavator                              |             | 75.6                  | 71.6     | N/A    | N/A                | N/A       | N/A     | N/A  | N/A   | N/A                          | N/A | N/A  | N/A     | N/A  | N/A   |
| Grader                                 |             | 79.9                  | 75.9     | N/A    | N/A                | N/A       | N/A     | N/A  | N/A   | N/A                          | N/A | N/A  | N/A     | N/A  | N/A   |
| Scraper                                |             | 78.5                  | 74.5     | N/A    | N/A                | N/A       | N/A     | N/A  | N/A   | N/A                          | N/A | N/A  | N/A     | N/A  | N/A   |
|  | Total       | 79.9                  | 79.1     | N/A    | N/A                | N/A       | N/A     | N/A  | N/A   | N/A                          | N/A | N/A  | N/A     | N/A  | N/A   |
| *Calculated Lmax is the Loudest value. |             |                       |          |        |                    |           |         |      |       |                              |     |      |         |      |       |

\*Calculated Lmax is the Loudest value.



## **Mitigation Monitoring and Reporting Program**

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CEQA requires that a reporting or monitoring program (MMRP) be adopted as part of final CEQA documentation for the conditions of project approval that are necessary to mitigate or avoid significant effects on the environment (Public Resources Code 21081.6). This MMRP is intended to track and ensure compliance with adopted mitigation measures during the project implementation phases, which in the case of this MMRP includes the timeframes prior to, during, and at the end of construction. For each mitigation measure recommended in the Final Initial Study – Mitigated Negative Declaration (Final IS-MND), specifications are made herein that identify the action required, the monitoring that must occur, and the agency or department responsible for oversight.

Dublin San Ramon Services District  
**Reservoir 20B Project**

| Mitigation Measure/<br>Condition of Approval  | Action Required   | Monitoring Timing      | Monitoring Frequency | Responsible Agency                         | Com-<br>pliance Veri-<br>fication Initial | Com-<br>pliance Veri-<br>fication Date | Com-<br>pliance Veri-<br>fication Comments |
|---|---|------------------------|----------------------|--|---|--|--|
| <b>Air Quality</b>  |   |                        |                      |  |   |  |  |
| <b>AQ-1: Implement BAAQMD Basic Construction Mitigation Measures</b>  |   |                        |                      |  |   |  |  |
| The following best management practices shall be required of the construction contractor:   | Ensure that BAAQMD best management practices are included in the construction contractor agreement. | Prior to construction. | Once                 | Dublin San Ramon Services District (DSRSD) |   |  |  |
| 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.  | Confirm that the best management practices are implemented.   | During construction.   | As needed            |  |   |  |  |
| 2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered or maintain at least two feet of freeboard.   |   |                        |                      |  |   |  |  |
| 3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.   |   |                        |                      |  |   |  |  |
| 4. All vehicle speeds on unpaved roads shall be limited to 15 mph.  |   |                        |                      |  |   |  |  |
| 5. Enclose, cover, water daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.)   |   |                        |                      |  |   |  |  |
| 6. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.   |   |                        |                      |  |   |  |  |
| 7. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.  |   |                        |                      |  |   |  |  |
| 8. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points. |   |                        |                      |  |   |  |  |

| Mitigation Measure/<br>Condition of Approval   | Action Required   | Monitoring Timing      | Monitoring<br>Frequency | Responsible<br>Agency | Com-<br>pliance<br>Verifi-<br>cation<br>Initial | Com-<br>pliance<br>Verifi-<br>cation<br>Date | Com-<br>pliance<br>Verifi-<br>cation<br>Comments |
|--|---|------------------------|-------------------------|-----------------------|---|--|--|
| 9. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.  |   |                        |                         |                       |   |  |  |
| 10. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The air district's phone number shall also be visible to ensure compliance with applicable regulations.                                     |   |                        |                         |                       |   |  |  |
| <b>AQ-2: Reduce Construction Criteria Pollutant and Toxic Air Contaminant Emissions</b>  |   |                        |                         |                       |   |  |  |
| The following measure shall be noted on construction plans and implemented during construction:  | Ensure that the construction criteria pollutant and toxic air contaminant measure is included in the construction plans and specifications. | Prior to construction. | Once                    | DSRSD                 |   |  |  |
| <ul style="list-style-type: none"> <li>All mobile off-road equipment (wheeled or tracked) greater than 50 horsepower used during construction activities shall meet the USEPA Tier 4 interim standards. Tier 4 certification can be for the original equipment or equipment that is retrofitted to meet the Tier 4 interim standards.</li> </ul> | Confirm implementation.   | During construction.   | As needed               |                       |   |  |  |
| This requirement shall be incorporated into the contract agreement with the construction contractor. A copy of the equipment's certification or model year specifications shall be available upon request for all equipment on-site.   |   |                        |                         |                       |   |  |  |
| <b>Biological Resources</b>  |   |                        |                         |                       |   |  |  |
| <b>BIO-1: Prepare and Implement Worker Environmental Awareness Program (WEAP)</b>  |   |                        |                         |                       |   |  |  |
| Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction  | Retain a qualified biologist to conduct the WEAP training.  | Prior to construction. | Once                    | DSRSD                 |   |  |  |

Dublin San Ramon Services District  
**Reservoir 20B Project**

| Mitigation Measure/<br>Condition of Approval   | Action Required   | Monitoring Timing                       | Monitoring Frequency | Responsible Agency | Compliance Verification Initial | Compliance Verification Date | Compliance Verification Comments |
|--|---|---|----------------------|--------------------|---------------------------------|------------------------------|----------------------------------|
| shall attend a WEAP training, conducted and prepared by a qualified biologist, to aid workers in recognizing special-status species, native or nesting birds and other biological resources that may occur in the construction area. The specifics of this program will include identification and habitats of special-status species with potential to occur at the project site, a description of the regulatory status and general ecological characteristics of sensitive resources, a review of the limits of construction, and an explanation of the mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared by the qualified biologist for distribution to all contractors, their employers, and other personnel involved with construction. All personnel shall sign a form provided by the trainer indicating they have attended the WEAP and understand the information presented to them. | Review the signature sheet to confirm all new construction personnel complete the WEAP training.  | Prior to and during construction.       | As needed            |                    |                                 |                              |                                  |
| <b>BIO-2: Conduct CRLF and CTS Pre-construction Survey and Impact Avoidance</b>  |   |   |                      |                    |                                 |                              |                                  |
| A qualified biologist shall conduct a pre-construction survey within 7 days prior to initiation of construction activities. The USFWS and CDFW will be notified, as appropriate, should CRLF or CTS be observed within the project site.   | Retain a qualified biologist to conduct the pre-construction survey.  | Within 7 days prior to construction.    | Once                 | DSRSD              |                                 |                              |                                  |
| To avoid impacts to CRLF and CTS, the construction crew shall check beneath staged equipment each morning prior to commencement of daily construction activities. Should CRLF or CTS occur within the staging areas, construction activities should be halted until the CRLF or CTS vacates the project site on its own or until a biologist with a USFWS  | Retain a qualified biologist to monitor initial ground disturbance and grading activities.  | Initial ground disturbance and grading. | Once and as needed.  |                    |                                 |                              |                                  |
|  | Halt all activities if CRLF or CTS occur within staging areas or are observed within the project site until the CRLF or CTS exit the site.  | During construction.                    | As needed            |                    |                                 |                              |                                  |
|  | Retain a qualified biologist to monitor work during rain events and ensure that the qualified biologist reinspects the site before work resumes if there is a work stoppage during rain events. | During construction.                    | As needed            |                    |                                 |                              |                                  |

| Mitigation Measure/<br>Condition of Approval  | Action Required  | Monitoring Timing                          | Monitoring Frequency | Responsible Agency | Compliance Verification Initial | Compliance Verification Date | Compliance Verification Comments |
|---|--|--|----------------------|--------------------|---------------------------------|------------------------------|----------------------------------|
| Recovery Permit for CRLF or CTS relocates the CRLF or CTS. A qualified biologist shall be present during initial grading and ground disturbing activities. Should CRLF or CTS be observed within the project site, the USFWS and CDFW, as appropriate, should be notified, and construction will be halted until either the CRLF or CTS exits the site on its own or until a qualified biologist approved by USFWS relocates the CRLF or CTS.   |  |  |                      |                    |                                 |                              |                                  |
| No work shall occur during a rain event (over 0.25 inch within a 24-hour period) unless a biologist is present on site to observe and monitor work activities. If work is suspended during a rain event, a qualified biologist shall inspect the site again prior to resuming work.   |  |  |                      |                    |                                 |                              |                                  |
| <b>BIO-3: Conduct Burrowing Owls, Raptors, and Other Nesting Birds Pre-construction Survey and Impact Avoidance</b>   |  |  |                      |                    |                                 |                              |                                  |
| To prevent the loss of active special-status and non-special-status bird nests, juveniles or adults, project activities including vegetation clearing shall be conducted outside of the breeding season (February 1 through August 31) to the extent feasible.  | Limit all initial project activities, including tree removal and vegetation clearing, to the time period between September 1 and January 31.                     | Prior to construction.                     | Once                 | DSRSD              |                                 |                              |                                  |
| If project activities will occur between February 1 and August 31, a pre-construction nesting bird survey shall be conducted by a qualified biologist no more than 7 working days prior to the activity to survey for special-status and non-special-status bird and raptor nests. The survey area shall include the project footprint and a 100-foot buffer for passerine species, a 150-foot buffer for burrowing owls, and a 300-foot buffer for raptor species. Following the survey, the following shall be implemented: | Retain a qualified biologist to conduct pre-construction surveys if initial site disturbance cannot be conducted between September 1 and January 31.             | No more than 7 days prior to construction. | Once                 |                    |                                 |                              |                                  |
|   | Review and approve the nesting bird survey report.   | Prior to construction.                     | Once                 |                    |                                 |                              |                                  |
|   | If nests are identified, the qualified biologist shall establish no disturbance buffers, and shall monitor project activities conducted within the buffer areas. | During construction.                       | As needed            |                    |                                 |                              |                                  |
| <ul style="list-style-type: none"> <li>A nesting bird survey report shall be submitted to the District prior to the initiation of project activities. The report</li> </ul>   | Review and approve the nesting bird monitoring report, if monitoring is conducted.   | During construction.                       | As needed            |                    |                                 |                              |                                  |

Dublin San Ramon Services District  
**Reservoir 20B Project**

| Mitigation Measure/<br>Condition of Approval | Action Required  | Monitoring Timing | Monitoring<br>Frequency | Responsible<br>Agency | Com-<br>pliance<br>Verifi-<br>cation<br>Initial | Com-<br>pliance<br>Verifi-<br>cation<br>Date | Com-<br>pliance<br>Verifi-<br>cation<br>Comments |
|--|--|-------------------|-------------------------|-----------------------|---|--|--|
|  | shall detail the results of the survey including identification of the location of any active nests, and make a determination if ongoing monitoring should be conducted and/or no-disturbance buffers should be established.   |                   |                         |                       |   |  |  |
|  | <ul style="list-style-type: none"> <li>If active nests are identified during the survey and/or work is scheduled to take place within 100 feet of active passerine nests, 150 feet of active burrowing owl burrows, or 300 feet of active raptor nests, a qualified biologist shall determine appropriate no-disturbance buffers. The buffer shall be the minimum distance required to avoid take of the nest and shall be determined based on the species identified, activities proposed, level of existing noise, and line of sight from the disturbance to the nest.</li> <li>A qualified biological monitor shall be present at the initiation of project activities occurring within 100 feet of active passerine nests, 150 feet of active burrowing owl burrows, or 300-feet of active raptor nests, to ensure that project activities do not negatively affect the success of the nest. Duration and frequency of monitoring shall be determined at the discretion of the qualified biologist.</li> <li>If nesting bird monitoring is conducted, a nesting bird monitoring report shall be submitted to the District detailing the results of monitoring activities. The report shall be submitted within 30 days of the completion of the activities or nesting season.</li> </ul> |                   |                         |                       |   |  |  |

| Mitigation Measure/<br>Condition of Approval  | Action Required  | Monitoring Timing  | Monitoring Frequency | Responsible Agency | Compliance Verification Initial | Compliance Verification Date | Compliance Verification Comments |
|---|--|--|----------------------|--------------------|---------------------------------|------------------------------|----------------------------------|
| <b>Cultural Resources</b>   |  |  |                      |                    |                                 |                              |                                  |
| <b>CUL-1: Halt Work and Evaluate Upon Unanticipated Discovery of a Cultural Resource</b>  |  |  |                      |                    |                                 |                              |                                  |
| In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the resource. If the resource is determined by the qualified archaeologist to be prehistoric, then a Native American representative shall also be contacted to participate in the evaluation of the resource. If the qualified archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be completed. If the resource proves to be eligible for the CRHR and significant impacts to the resource cannot be avoided via project redesign, a qualified archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of the California Code of Regulations (CCR) Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the qualified archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. The District shall review and | Require in the construction contract that all ground disturbing activities within 50 feet halt if an archaeological resource is discovered.  | Prior to construction.   | Once.                | DSRSD              |                                 |                              |                                  |
|   | Retain a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology to evaluate the resource.   | During construction, upon discovery of an archaeological find.               | As needed.           |                    |                                 |                              |                                  |
|   | If the resource is prehistoric, contact a Native American representative.  | During construction, upon classification of the find as prehistoric.         | As needed.           |                    |                                 |                              |                                  |
|   | If a CRHR eligible resource cannot be avoided, review and approve a data recovery plan and treatment plan prepared by the qualified archaeologist. Submit the plan to the regional repository of California Historical Resources Information System. | During construction, upon the determination that the find cannot be avoided. | As needed.           |                    |                                 |                              |                                  |

Dublin San Ramon Services District  
**Reservoir 20B Project**

| Mitigation Measure/<br>Condition of Approval  | Action Required   | Monitoring Timing   | Monitoring Frequency | Responsible Agency | Compliance Verification Initial | Compliance Verification Date | Compliance Verification Comments |
|---|---|---|----------------------|--------------------|---------------------------------|------------------------------|----------------------------------|
| approve the treatment plan and archaeological testing as appropriate, and the resulting documentation shall be submitted to the regional repository of the California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C).   |   |   |                      |                    |                                 |                              |                                  |
| <b>Geology and Soils</b>  |   |   |                      |                    |                                 |                              |                                  |
| <b>GEO-1: Monitor and Mitigate Paleontological Resources</b>  |   |   |                      |                    |                                 |                              |                                  |
| <b>QUALIFIED PROFESSIONAL PALEONTOLOGIST.</b><br>Prior to excavation, the District shall retain a Qualified Professional Paleontologist, as defined by the Society of Vertebrate Paleontology (SVP) (2010), who shall direct all mitigation measures related to paleontological resources.  | Retain a qualified professional paleontologist as defined by the SVP to conduct a WEAP for all construction personnel.  | Prior to construction.  | Once.                | DSRSD              |                                 |                              |                                  |
| <b>PALEONTOLOGICAL WORKER ENVIRONMENTAL AWARENESS PROGRAM.</b><br>Prior to the start of construction, the Qualified Professional Paleontologist or their designee shall conduct a paleontological Worker Environmental Awareness Program (WEAP) training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction personnel.  | Retain a SVP-qualified paleontologist to monitor ground disturbance of undisturbed sediment and conduct fossil salvage and preparation as necessary.  | During construction.  | As needed.           |                    |                                 |                              |                                  |
| <b>PALEONTOLOGICAL MONITORING.</b> Full-time paleontological monitoring shall be conducted during ground-disturbing construction activities within previously undisturbed sediments. Paleontological monitoring shall be conducted by a paleontological monitor with experience with collection and salvage of paleontological resources and who meets the minimum standards of the SVP (2010) for a Paleontological Resources Monitor. The Qualified Professional Paleontologist may recommend that monitoring be reduced in | Halt all work upon discovery of a paleontological resource until the qualified paleontologist has conducted all necessary mitigation measures.<br>Review and approve the paleontological mitigation report. | During construction, if a paleontological resource is discovered.<br>At the end of construction activities. | As needed.<br>Once.  |                    |                                 |                              |                                  |



| Mitigation Measure/<br>Condition of Approval  | Action Required | Monitoring Timing | Monitoring<br>Frequency | Responsible<br>Agency | Com-<br>pliance<br>Verifi-<br>cation<br>Initial | Com-<br>pliance<br>Verifi-<br>cation<br>Date | Com-<br>pliance<br>Verifi-<br>cation<br>Comments |
|---|-----------------|-------------------|-------------------------|-----------------------|---|--|--|
| frequency or ceased entirely based on geologic observations. Such decisions shall be subject to review and approval by the District. In the event of a fossil discovery by the paleontological monitor or construction personnel, all work in the immediate vicinity of the find shall cease. The Qualified Professional Paleontologist shall evaluate the find before restarting construction activity in the area. If it is determined that the fossil(s) is (are) scientifically significant, the Qualified Professional Paleontologist shall complete the following conditions to mitigate impacts to significant fossil resources: |                 |                   |                         |                       |   |  |  |
| a) <b>Fossil Salvage.</b> The paleontological monitor shall halt construction equipment within 50 feet of the find. Typically, fossils can be safely salvaged quickly by a single paleontological monitor and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. Bulk matrix sampling may be necessary to recover small invertebrates or microvertebrates from within paleontologically sensitive deposits.  |                 |                   |                         |                       |   |  |  |
| b) <b>Fossil Preparation and Curation.</b> Significant fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the Qualified Professional Paleontologist.   |                 |                   |                         |                       |   |  |  |

| Mitigation Measure/<br>Condition of Approval   | Action Required  | Monitoring Timing   | Monitoring Frequency  | Responsible Agency | Compliance Verification Initial | Compliance Verification Date | Compliance Verification Comments |
|--|--|---|-----------------------|--------------------|---------------------------------|------------------------------|----------------------------------|
| <b>FINAL PALEONTOLOGICAL MITIGATION REPORT.</b> Upon completion of ground-disturbing activity (and curation of fossils if necessary), the Qualified Professional Paleontologist shall prepare a final report describing the results of the paleontological monitoring efforts associated with the project. The report shall include a summary of the field and laboratory methods, an overview of the project geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. The report shall be submitted to the District and, if monitoring efforts produced fossils, to the designated museum repository. |  |   |                       |                    |                                 |                              |                                  |
| <b>Tribal Cultural Resources</b>   |  |   |                       |                    |                                 |                              |                                  |
| <b>TCR-1: Implement a Worker's Environmental Awareness Program</b>   |  |   |                       |                    |                                 |                              |                                  |
| A qualified archaeologist shall be retained to conduct a Worker's Environmental Awareness Program (WEAP) training on archaeological sensitivity for all construction personnel prior to the commencement of any ground-disturbing activities. The training shall be conducted by an archaeologist who meets or exceeds the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983). Archaeological sensitivity training shall include a description of the types of cultural material that may be encountered, cultural sensitivity issues, the regulatory environment, and the proper protocol for treatment of the materials in the event of a find. | Retain a qualified archaeologist to conduct the WEAP training.<br><br>Review the signature sheet to confirm all new construction personnel complete the WEAP training. | Prior to construction.<br><br>Prior to and during construction. | Once<br><br>As needed | DSRSD              |                                 |                              |                                  |

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**TITLE:** Receive Report on Video Production of Board Meetings

**RECOMMENDATION:**

Staff recommends the Board of Directors receive a report on video production of Board Meetings and provide direction.

**DISCUSSION:**

From November 2012 to October 2018, the District recorded Board meetings and published them on the DSRSD website. In 2018 and 2019, the Board provided direction to staff on audio/video, lighting, and sound improvements to the District Office Boardroom, for the purpose of improving the recording and publishing of Board meetings for the public. Recording and publishing Board meetings demonstrate the Board's commitment to transparency and conveniently provide customer access to District business and the Board's deliberation of important issues related to water and wastewater services, in alignment with the District's Strategic Plan goal to *"Maintain a high level of customer service and community relations through public outreach, education and partnership efforts"* by building *"public awareness of the District's priorities, initiatives, systems, and services."*

Staff members have worked to implement the audio/video improvements needed to resume the recording and publishing of Board meetings. These efforts have been impacted by a number of events, including the 2018 District Office flood, COVID-19, and available technical support. With the Boardroom improvements now completed and the services of a remote video production provider (GovTV, Inc.) secured, staff members have spent the last year testing the system's functionality and video production capabilities, replacing equipment, defining video graphics elements, and documenting procedures for staff to operate the on-site equipment.

On October 15, staff will provide an update on the current status, remaining tasks, and schedule for resuming the recording and publishing of Board meetings.

|   |                              |                            |
|---|------------------------------|----------------------------|
| Originating Department: Administrative Services   | Contact: M. Gallardo         | Legal Review: Not Required |
| Financial Review: Not Required  | Cost and Funding Source: N/A |                            |
| Attachments: <input checked="" type="checkbox"/> None <input type="checkbox"/> Resolution<br><input type="checkbox"/> Ordinance <input type="checkbox"/> Task Order <input type="checkbox"/> Proclamation<br><input type="checkbox"/> Other (see list on right) | 336 of 336                   |                            |