Partially Recirculated

Draft Environmental Impact Report

Old Arcata Road Rehabilitation & Pedestrian/Bikeway Improvements

City of Arcata

December 10, 2021

Partially Recirculated
Draft Environmental Impact Report
Old Arcata Road Rehabilitation & Pedestrian/Bikeway Improvements

SCH#: 2021010176

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1. Introduction and Summary

This partially recirculated Draft Environmental Impact Report (EIR) has been prepared to correct previously omitted wetland impacts and environmental impact analysis related specifically thereto. The Draft EIR was previously circulated from August 9, 2021 to September 27, 2021 following the public scoping process described in Section 1.4 below. A Final EIR was issued and publicly posted on November 23, 2021. Following posting of the Final EIR, the inadvertent omission of wetland impacts was discovered on December 1, 2021, and the City Council's planned certification of the EIR was subsequently postponed, pending the completion of the recirculation process as outlined in Section 15088.5 of the CEQA Guidelines. The partially recirculated Draft EIR will be electronically filed with the Office of Planning and Research on December 10, 2021 and recirculated for a 45-day period from December 13, 2021 through 5:00 p.m. on January 27, 2022.

Revisions to the partially recirculated Draft EIR are summarized in Table 1-1 and are predominantly limited to environmental impact analysis related to wetlands and special status plants. As an exception, errata from the previously posted Final EIR was brought forward into the Section 2 – Project Description. In accordance with Section 15088.5(c) of the CEQA Guidelines, the City requests that comments on the partially recirculated Draft EIR be limited to only the modifications presented in the recirculated document. In the updated Final EIR, the City will only respond to comments related to the portions of the Draft EIR that were recirculated per CEQA Guidelines 15088.5(f)(2). Specifically, the City will only respond to comments related to the updated impact analysis for special status plants and wetlands. For ease of reference, the City has included the entirety of the sections in which modifications related to wetlands, special status plants, and errata clarifications in the Project Description were made. Additions to text in Section 2 – Project Description, Section 3.3 – Biological Resources, and Section 4 – Alternatives Description and Analysis are shown in **bold underline** format.

Table 1-1 Revisions in the Partially Recirculated Draft EIR

Section	Summary of the Revision
Section 1 – Introduction and Summary	– Added a description of the recirculation rationale and process. – Summary of the revisions made to the Draft EIR during recirculation. – Added new mitigation measures specific to special status plants and wetlands in Table 1.2.
Section 2 – Project Description	– Brought forward errata from the previously posted Final EIR. Specification of the pavement overlay thickness added to Section 2.5.1 – Repaving Old Arcata Road and Adjacent Bike Lanes. – Brought forward errata from the previously posted Final EIR. Specification of detectable warning surfaces added to Section 2.5.4 – Crosswalks and Sped Humps. – Errata update to clarify existing speed humps will be upgraded and new speed humps are not currently proposed in Section 2.5.4. – Included minor text edits in Section 2.5.9 to clarify utility improvements are located in the public right of way only and upgrades/repairs would occur if the utilities were found to be defective upon inspection during the course of road resurfacing. – Addition of Section 2.5.10 – Wetland Establishment. – Section 2.9 – Required Approvals updated to reflect permits required as a result of impaction to wetlands.

Section	Summary of the Revision
Section 3.3 – Biological Resources, Impact BIO-c	– Added Mitigation Measure BIO-2 to require pre-construction plant surveys along an approximate 200 linear foot reach of Jacoby Creek Road under Impact BIO-A. – Updated environmental impact analysis under Impact BIO-C specifically related to impacts to wetlands. – Added Mitigation Measure BIO-3 and Mitigation Measure BIO-4 to avoid, minimize, and compensate for wetland impacts.
Section 4 – Alternatives Description and Analysis	– Updated text in Section 4.3.2 - Biological Resources, Section 4.4 – Comparison of Alternatives, Table 4.1, and Section 4.5 – Environmentally Superior Alternative to reflect wetland impacts to occur under the proposed Project and Alternative 2.
Appendix A – Updated 30% Design Sheets	– Corrected 30% Design Sheet C113 to show all delineated wetlands along Jacoby Creek Road. – Corrected 30% Design Sheets C106, C107, and C108 to clarify existing speed humps will be upgraded and new speed humps will not be constructed.

1.1 California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires that discretionary decisions by public agencies be subject to environmental review. CEQA requires an EIR to be prepared when it can be determined that substantial evidence supports a fair argument that significant environmental impacts may result from a project. The purpose of an EIR is to identify the significant effects of the project on the environment, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided (Public Resources Code [PRC] 13, Section 21002.1[a]). Each public agency is required to mitigate or avoid the significant effects on the environment of projects it approves or carries out whenever feasible. The environmental effects of a project that must be addressed include the significant effects of the project, growth-inducing effects of the project, and significant cumulative effects.

The purpose of an EIR is not to recommend either approval or denial of a project. Rather, CEQA requires decision-makers to balance the benefits of a project against its unavoidable environmental effects in deciding whether to carry out a project. The Lead Agency will consider the analysis in the Draft EIR and partially recirculated Draft EIR, comments received on the Draft EIR and partially recirculated Draft EIR, and responses to those comments before making a final decision. If significant environmental effects are identified, the Lead Agency must adopt “Findings” indicating whether feasible mitigation measures or alternatives exist that can avoid or reduce those effects. If environmental impacts are identified as significant and unavoidable after proposed mitigation, the Lead Agency may still approve the project if it determines that the social, economic, or other benefits outweigh the unavoidable impacts. The Lead Agency would then be required to prepare a “Statement of Overriding Considerations” that discusses the specific reasons for approving a project, based on information in the Draft EIR and partially recirculated Draft EIR, comments received on the Draft EIR and partially recirculated Draft EIR, and other information in the administrative record.

The partially recirculated Draft EIR follows the public circulation of the Draft EIR and is specific to environmental impacts related to wetlands and special status plants only and has been prepared and publicly circulated per Section 15088.5 of the CEQA Guidelines. This partially recirculated Draft EIR has been prepared by City of Arcata for the proposed Old Arcata Road Rehabilitation & Pedestrian/Bikeway Improvements Project (Project) pursuant to CEQA (PRC Section 21000 et seq.) and the CEQA Guidelines (Title 14 California Code of Regulations [CCR] Section 15000 et seq.).

1.2 Type of Environmental Impact Report

This Draft EIR is a Project EIR, as opposed to a Program EIR, pursuant to CEQA Guidelines Section 15161. A Project EIR is the most common type of EIR, examining the environmental impacts of a specific project. This type of EIR focuses on the changes in the environment that would result from the construction, development, and operation of a specific project.

1.3 Intended Uses of the EIR

The purpose of an EIR is to provide a clear understanding of the environmental impacts associated with the construction and operation of a project that is proposed by a public agency or private interest. EIRs are prepared to meet the requirements of CEQA when a proposed project may have a potential "significant" impact on the physical environment. An EIR is defined by the CEQA Guidelines as "… a detailed statement prepared to describe and analyze significant environmental effects of a project and discuss ways to mitigate or avoid the effects" (Title 14 CCR Section 15362). An EIR must include a description of the physical environmental conditions in the vicinity of a project, as they exist at the time the Notice of Preparation (NOP) is published, from both a local and regional perspective. This environmental setting normally constitutes the baseline physical conditions by which the Lead Agency determines whether an impact is significant. The EIR is used by decision-makers, Responsible and Trustee Agencies, and the public to understand and evaluate project proposals and assist in making decisions on project approvals and required permits.

EIRs are prepared under the direction of a Lead Agency. The Lead Agency is the decision-making body that would ultimately certify the adequacy of the EIR and approve the implementation of a project. The Lead Agency for the proposed Project is the City of Arcata (City).

In addition to the Lead Agency, other Responsible and Trustee Agencies may use this document in approving permits or providing recommendations for the Project. For this Project, these agencies and permits may include:

- City of Arcata Coastal Development Permit
- Humboldt County Coastal Development Permit
- Humboldt County Grading Permit
- Humboldt County Encroachment Permit
- North Coast Regional Water Quality Control Board Clean Water Act Section 401 Water Quality Certification
- USACE Clean Water Action Section 404 permit

1.4 Public Scoping Process and Summary of the Environmental Review Process to Date

On May 14, 2021, the City of Arcata issued an NOP for the Project. The NOP was issued in accordance with the CEQA Guidelines (Title 14 CCR Section 15082) with the intent of informing agencies and interested parties that an EIR would be prepared for the Project. A copy of the NOP can be found in Appendix A. The NOP was circulated between May 14, 2021, and June 21, 2021. An agency scoping meeting for the Project was held on-site at the City's pump station near the intersection of Old Arcata Road and Jacoby Creek Road. A public scoping meeting was held at the D Street Neighborhood Center on July 1, 2021. Comments provided in response to the NOP and during the public scoping meeting have been summarized by the City in Appendix B1 (Public Scoping Memo). Agency comments are included as Appendix B2 (Agency Scoping Comments). Additional comments received after the completion of the Final Initial Study/Mitigated Negative Declaration (ISMND; see Section 1.8 – Areas of Controversy and Key Issues to be Resolved) at the previous public hearing for the Project on May 19, 2021 and July 30, 2021 are included in their entirety in Appendix B3 (Public Scoping Comments).

The Draft EIR was initially made available for a 45-day public review on August 9, 2021. The review period ended at 5:00 pm on September 27, 2021. The document was made available for review at Arcata City Hall, located at 736 F Street, Arcata, California, 95521, the Arcata Public Library, located at 500 7th St, Arcata, CA 95521, and online at: https://www.cityofarcata.org/720/Old-Arcata-Road-Design-Project. The DEIR was sent to the State Clearinghouse and was published on August 9, 2021 for distribution to State agencies, and was distributed to local, State, and federal responsible and trustee agencies and tribal governments. The general public was advised of the DEIR through a Notice of Availability posted at the County Clerk's Office as required by law, and through a posting in the local newspaper, the Times Standard, on August 8, 2021. A public hearing before the Planning Commission on October 12, 2021 to receive comments on the DEIR was held after the end of circulation period to provide additional opportunity for comment. The Notice of Availability of the Draft EIR was also sent to the listserv of parties requesting notice on the project (217 recipients) and the City's "Land Use Planning and Environmental Determinations" listserv (94 recipients), as well as direct mailing to adjacent property owners and residents. Postcards were sent to 202 owners and 99 residents within and surrounding the Project Area boundary.

A Final EIR was prepared and provided to the City Council for review and consideration of certification of the EIR as a full disclosure of potential impacts, mitigation measures and alternatives. The Final EIR was sent to the public agencies who commented on the DEIR at least 10 days prior to the proposed certification date of the EIR per CEQA Guidelines Section 15088(b). Following posting of the Final EIR, the inadvertent omission of wetland impacts was discovered, and the City Council's planned certification of the EIR was subsequently postponed, pending the completion of the recirculation process as outlined in Section 15088.5 of the CEQA Guidelines.

1.5 Effects Found Not to be Significant

To provide more meaningful public disclosure, reduce the time and cost required to prepare an EIR, and focus on potentially significant effects on the environment of a proposed project, Lead Agencies can focus the discussion in the EIR on those potential effects of a project which the Lead Agency has determined are or may be significant. Lead agencies may limit discussion on other effects to a brief explanation as to why those effects are not potentially significant (PRC Section 21002.1 (e); CEQA Guidelines Sections 15128 and 15143). Effects related to Agricultural and Forest Resources, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, and Recreation were found not to be significant. These resource categories are further discussed in Chapter 5 of this EIR. Information used to determine which impacts would be potentially significant was derived from a review of the Project in the preparation and public review of the Initial Study, field work, feedback from agency consultation and input, and comments received on the NOP.

1.6 Availability of the Partially Recirculated Draft EIR and Public Comment Period

The partially recirculated Draft EIR will be circulated for 45 days, from December 13, 2021 through 5:00 p.m. on January 27, 2022, to allow interested individuals and public agencies to review and comment on the document. Document files will be made available upon request at Arcata City Hall, 736 F Street, Arcata, California and online at https://www.cityofarcata.org/720/Old-Arcata-Road-Design-Project. Comments may be submitted in writing via the United States Postal Service or via email. Written comments on the Draft EIR will be accepted by January 27, 2022 until 5:00 pm. Public agencies, interested organizations and individuals are encouraged to submit comments on the Draft EIR for consideration by the City. All written comments should be addressed to:

David Loya, Community Development Director
City of Arcata,
736 F Street
Arcata, CA 95521
707-825-5955
comdev@cityofarcata.org

In accordance with Section 15088.5(c) of the CEQA Guidelines, the City requests that comments on the partially recirculated Draft EIR be limited to only the modifications presented in the partially recirculated document as summarized in Table 1-1. In the updated Final EIR, the City will only respond to comments related to the parts of the Draft EIR that were recirculated. To facilitate understanding of the comments, please provide a separate sentence or paragraph for each comment and note the page and Chapter/Section of the Draft EIR to which the comment is directed. This approach to commenting will help the City provide a clear and meaningful response to each comment.

At the end of the public review period, written responses will be prepared for all substantive comments received on the Draft EIR during the circulation period. The comments and responses will then be included in the Final EIR and will be considered by the City Council prior to making a decision on the Project.

1.7 Organization of this Environmental Impact Report

This previously circulated Draft EIR is organized into Chapters, as identified and briefly described below. Chapters are further divided into Sections (e.g., Section 3.1, Aesthetics). The partially circulated Draft EIR only includes Chapter 1– Introduction and Summary, Chapter 2 – Project Description, Chapter 3.3 – Biological Resources, and Chapter 4 – Alternatives Description and Analysis.

Chapter 1 **Introduction and Summary.** Chapter 1 describes the purpose and organization of the Draft EIR, context, and terminology used in the Draft EIR. This Chapter also identifies the key issues to be resolved in the Draft EIR and summarizes the environmental impacts and mitigation measures to reduce or eliminate those impacts.

Chapter 2 **Project Description.** Chapter 2 describes the Project, including the Project objectives, location and setting, background, overall concept and proposed activities, and anticipated permits and approvals.

Chapter 3 **Environmental Setting, Impacts and Mitigation Measures.** For each environmental resource area (broken out into sections), Chapter 3 describes the existing environmental and regulatory setting, discusses the environmental impacts associated with the Project, identifies feasible mitigation measures to reduce or eliminate those impacts, and provides conclusions on significance.

Chapter 4 **Alternatives Description and Analysis.** Chapter 4 describes the alternatives to the Project that are being considered to mitigate the Project's environmental impacts while meeting the Project's objectives. This Chapter also identifies the Environmentally Suitable Alternative.

Chapter 5 **Other CEQA Required Sections.** Chapter 5 describes the unavoidable significant impacts, growth-inducing, and irreversible impacts of the Project.

Chapter 6 **List of Preparers.** Chapter 6 identifies the Draft EIR authors and consultants who provided analysis in support of the Draft EIR's conclusions.

Appendices **Appendices A-E.** The Draft EIR contained various key technical reports and publications that have been summarized or otherwise used for preparation of the Draft EIR. The partially recirculated Draft EIR includes two additional appendices. Appendix A of the partially recirculated Draft EIR includes four updated 30% design sheets. Appendix B of the partially recirculated Draft EIR includes documentation related to the June 2021 wetland delineation near Jacoby Creek Road.

1.8 Areas of Controversy and Key Issues to be Resolved

Section 15123 of the CEQA Guidelines requires an EIR to identify areas of controversy known to the Lead Agency, including issues raised by agencies and the public. The following provides a brief summary of the comments and issues identified during the scoping process for the EIR. Comments received on the NOP are included and summarized in Appendix B of this document.

An ISMND was previously prepared for the Project and publicly circulated. The ISMND was circulated between January 20, 2021 and February 22, 2021. The City received 39 comment letters and voicemails from agencies, organizations, and individuals. A Final ISMND and Response to Comments was then prepared and is posted on the City's website https://www.cityofarcata.org/720/Old-Arcata-Road-Design-Project in April 2021. The Response to Comments and Final ISMND are included as Appendix E.

Comments received on the ISMND included statements germane to CEQA as well as concerns regarding issues not considered to be environmental issues under CEQA, such as proposed changes to existing parking, potential changes to private landscaping and trees, requests for additional community engagement, and statements for or against the Project or specific elements thereof. Comments indicative of areas of controversy on environmental issues germane to CEQA included:

- Requests for an EIR and alternatives analysis, given statements in opposition to the proposed roundabout specifically, as well as concerns related to unanalyzed potential impacts to historic resources;
- Concerns related to how the Project would affect existing drainage issues within and near the Project Area;
- Concerns related to construction and operational noise, including potential noise related impacts that could affect the Mistwood School at the intersection of Jacoby Creek Road and Old Arcata Road; and
- Disagreement with the ISMND's findings pursuant to impacts to historic resources and Bayside's potential standing as a historic district.

1.9 Summary of Impacts and Mitigation Measures

Table 1-2 identifies, by resource category, the significant Project impacts, proposed mitigation measures, and post-mitigation significance. Additional information about the impacts and mitigation measures can be found in Chapter 3 of this Draft EIR, as referenced for each resource category.

Table 1-2 Summary of Impacts and Mitigation Measures. Note Text Additions Specific to the Partially Recirculated EIR are Indicated in Bold Underline Format for Ease of Reference.

Impact	Project Significance	Mitigation Measure	After-Mitigation Significance
Aesthetics			
Impact AES-1: Would the Project have a substantial adverse effect on a scenic vista?	Less than Significant	No mitigation proposed	Not Applicable
Impact AES-2: Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No Impact	No mitigation proposed	Not Applicable
Impact AES-3: In a non-urbanized area, would the Project 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).	Potentially Significant	**AES-1: Minimize Temporary Visual Impacts** The City shall avoid or substantially lessen visual impacts by reducing construction disturbance. Measures shall include: – The size of construction zones and staging areas shall be the minimum operable size. The location of such zones shall be adjusted to minimize visual impacts associated with construction vehicles, equipment and Project-specific activity. – To the extent feasible, alignments and locations of facilities shall be adjusted to avoid visually sensitive features and conditions that would result in major landform alteration or mature landscape removal. – The City shall restore or revegetate staging areas disturbed by construction activities, including restoring pre-Project topographic features and reseeding with species comparable to those removed or disturbed during construction.	Less than Significant with Mitigation
Impact AES-4: Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less than Significant	No mitigation proposed	Not Applicable
Impact AES-C-1: Would the Project contribute to a cumulatively significant impact to visual resources?	Less than Significant	No mitigation proposed	Not Applicable
Air Quality			
Impact AQ-1: Would the Project conflict with or obstruct implementation of the applicable air quality plan?	Less than Significant	No mitigation proposed	Not Applicable
Impact AQ-2: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region	Less than Significant	No mitigation proposed	Not Applicable

Impact	Project Significance	Mitigation Measure	After-Mitigation Significance
is non-attainment under an applicable federal or state ambient air quality standard?			
Impact AQ-3: Would the Project expose sensitive receptors to substantial pollutant concentrations?	Less than Significant	No mitigation proposed	Not Applicable
Impact AQ-4: Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less than Significant	No mitigation proposed	Not Applicable
Impact AQ-C-1: Would the Project contribute to a cumulatively significant impact to air quality?	Less than Significant	No mitigation proposed	Not Applicable
Biological Resources			
Impact BIO-1: Would the Project have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW, USFWS or NMFS?	Potentially Significant	**BIO-1: Avoidance and Minimization Measures for Red-Legged Frogs** Although Northern Red-legged Frog breeding is not documented in the Project Area, measures for this species are included because individual frogs may disperse for considerable distances and could enter construction areas. Mitigation Measure BIO-1 is proposed to minimize potential impacts to Northern Red-legged Frogs: 1. The City shall retain a qualified biologist to perform a pre-construction survey for the Northern Red-legged Frog within 24 hours prior to commencement of ground disturbance within 50 feet of suitable Northern Red-legged Frog habitat. Suitable habitat would be determined by the City's qualified biologist. The biologist would relocate any specimens that occur within the work-impact zone to nearby suitable habitat. 2. In the event that a Northern Red-legged Frog is observed in an active construction zone, the contractor shall halt construction activities in the area and the frog shall be moved to a safe location in similar habitat outside of the construction zone. **BIO-2: Protection of Special Status Plants** **Pre-construction surveys: Seasonally appropriate pre-construction surveys for special status plant species shall occur prior to construction within the planned area of disturbance along Jacoby Creek Road between 2266 Jacoby Creek Road and 2332 Jacoby Creek Road during the appropriate blooming time (spring or summer) for the target species. Survey methods shall comply with California Department of Fish and Wildlife (CDFW) rare plant survey protocols, and shall be performed by a qualified field botanist. Surveys shall be modified to include detection of juvenile (pre-flowering) colonies of perennial species when necessary. Any populations of special status**	Less than Significant with Mitigation

Impact	Project Significance	Mitigation Measure	After-Mitigation Significance
		plant species that are detected shall be mapped. Populations shall be flagged if avoidance is feasible and if populations are located adjacent to construction areas. The locations of any special status plant populations to be avoided shall be clearly identified in the contract documents (plans and specifications). If special status plant populations are detected where construction would have unavoidable impacts, the shoulder widening will be eliminated from the project at that location to avoid impacts to special status species.	
Impact BIO-2: Would the Project have a substantial adverse effect on any riparian habitat or other Sensitive Natural Community identified in local or regional plans, policies, regulations or by the CDFW or USFWS?	No Impact	No mitigation proposed	Not Applicable
Impact BIO-3: 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?	**Potentially Significant**	**BIO-3 Avoidance and Minimization Measures for Waters of the United States and Waters of the State** **The City shall implement the following avoidance and protection measures for Waters of the United States and Waters of the State:** **1. The City shall attempt to avoid or minimize impacts to wetlands/waters to the greatest extent feasible in the final design plans.** **2. ESA exclusion fencing shall be installed prior to construction to protect juxtaposed wetlands from inadvertent construction-related impacts. The locations of the ESA fencing shall be included on the final 100% design plan set for construction.** **BIO-4: Compensatory Mitigation for Wetland Impacts** **The City shall compensate for wetlands impacts through restoration, rehabilitation, and/or creation of wetland at a ratio of no less than 1:1.2 and to the satisfaction of the City and permitting agencies. A Wetlands Mitigation and Monitoring Plan shall be prepared in coordination with jurisdictional permitting agencies. Compensation for wetlands shall occur so there is no net loss of wetland habitat at ratios to be determined in consultation with and to the satisfaction of jurisdictional permitting agencies. Temporarily impacted wetlands shall be restored in place as part of the Project.** **The Plan shall be acceptable to jurisdictional permitting agencies and include the following elements: proposed mitigation ratios; description and size of the restoration or compensatory area; site preparation and design; plant species; planting design and techniques; maintenance activities; plant storage; irrigation requirements; success criteria;**	**Less than Significant with Mitigation**

Impact	Project Significance	Mitigation Measure	After-Mitigation Significance
		monitoring schedule; and remedial measures. The Plan shall be implemented by the City.	
Impact BIO-4: 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?	Potentially Significant	**BIO-5: Remove Vegetation Outside of Nesting Bird Season** The City would attempt to remove trees and other vegetation that could potentially contain nesting birds outside the bird nesting season (August 31st and February 1st). **BIO-6: Conduct Nest Survey and Establish Buffers** If vegetation removal or ground disturbance cannot be confined to work outside of the nesting season, a qualified ornithologist shall conduct pre-construction surveys within the vicinity of the Project Area, to check for nesting activity of native birds and to evaluate the site for presence of raptors and special-status bird species. The ornithologist shall conduct a minimum of one day pre-construction survey within the seven day period prior to vegetation removal and ground-disturbing activities. If ground disturbance and vegetation removal work lapses for seven days or longer during the breeding season, a qualified biologist shall conduct a supplemental avian pre-construction survey before Project work is reinitiated. If active nests are detected within the construction footprint or within the construction buffer established by the Project biologist, the biologist shall flag a buffer around each nest. Construction activities shall avoid nest sites until the biologist determines that the young have fledged or nesting activity has ceased. If nests are documented outside of the construction (disturbance) footprint, but within construction buffer, nest buffers would be implemented as needed. In general, the buffer size for common species would be determined on a case-by-case basis in consultation with the California Department of Fish and Wildlife (CDFW). Buffer sizes would take into account factors such as (1) roadway and other ambient noise levels, (2) distance from the nest to the roadway and distance from the nest to the active construction area, (3) noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity;(4) distance and amount of vegetation or other screening between the construction site and the nest; and (5) sensitivity of individual nesting species and behaviors of the nesting birds. If active nests are detected during the survey, the qualified ornithologist shall monitor all nests at least once per week to determine whether birds are being disturbed. Activities that might, in the opinion of the qualified ornithologist, disturb nesting activities (e.g., excessive noise), shall be prohibited within the buffer zone until such a determination is made. If signs of disturbance or distress are observed, the qualified ornithologist shall immediately implement adaptive measures to reduce disturbance. These measures may include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed, placement of	Less than Significant with Mitigation

Impact	Project Significance	Mitigation Measure	After-Mitigation Significance
		visual screens or sound dampening structures between the nest and construction activity, queuing trucks to distribute idling noise, locating vehicle access points and loading away from noise-sensitive receptors, reducing the number of noisy construction activities occurring simultaneously, and/or reorienting and/or relocating construction equipment to minimize noise at noise-sensitive receptors.	
Impact BIO-5: Would the Project conflict with any local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance?	Less than Significant	No mitigation proposed	Not Applicable
Impact BIO-6: 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?	No Impact	No mitigation proposed	Not Applicable
Impact BIO-C-1: Would the Project contribute to a cumulatively significant impact to biological resources?	Less than Significant	No mitigation proposed	Not Applicable
Cultural Resources			
Impact CR-1: Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	Less than Significant	No mitigation proposed	Not Applicable
Impact CR-2: Would the Project cause a substantial adverse change in the significance of a archaeological resource pursuant to Section 15064.5?	Potentially Significant	**CR-1: Develop and Implement an MOU with Consulting Tribes** The City shall develop an MOU with consulting tribes to that would include: – When and where tribal and archaeological monitors would be needed – Potential Preconstruction guided investigation needs that would occur prior to construction – Inadvertent discovery protocols and plans The MOU shall be developed prior to construction and implemented throughout the duration of Project construction.	Less than Significant with Mitigation
Impact CR-3: Would the Project disturb any human remains, including those interred outside of formal cemeteries?	Less than Significant	No mitigation proposed	Not Applicable
Impact CR-C-1: Would the Project contribute to a cumulatively significant impact to cultural resources?	No Impact	No mitigation proposed	Not Applicable
Energy Resources			

Impact	Project Significance	Mitigation Measure	After-Mitigation Significance
Impact ER-1: 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?	Less than Significant	No mitigation proposed	Not Applicable
Impact ER-2: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No Impact	No mitigation proposed	Not Applicable
Impact ER-C-1: Would the Project contribute to a cumulatively significant impact to energy resources?	Less than Significant	No mitigation proposed	Not Applicable
Geology and Soils			
Impact GEO-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? Refer to Division of Mines and Geology Special Publication 42?	No Impact	No mitigation proposed	Not Applicable
Impact GEO-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?	No Impact	No mitigation proposed	Not Applicable
Impact GEO-3: Would the Project directly or indirectly cause potential substantial adverse effects including the risk of loss, injury, or death involving liquefaction, landslides, or otherwise unstable soils?	No Impact	No mitigation proposed	Not Applicable
Impact GEO-4: Would the Project result in substantial soil erosion or the loss of topsoil?	Less than Significant	No mitigation proposed	Not Applicable
Impact GEO-5: 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?	No Impact	No mitigation proposed	Not Applicable

Impact	Project Significance	Mitigation Measure	After-Mitigation Significance
Impact GEO-6: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Potentially Significant	**GEO-1: Inadvertent Discovery of Paleontological Resources** If potential or paleontological resources are encountered during Project subsurface construction activities or geotechnical testing, all work within 50 feet of the find shall be stopped, and a qualified archaeologist funded by the City and approved by the City shall be contacted to evaluate the find, determine its significance, and identify any required mitigation. The applicant shall be responsible for implementing the mitigation prior to construction activities being re-started at the discovery site.	Less than Significant with Mitigation
Impact GEO-C-1: Would the Project contribute to a cumulatively significant impact to geology and soils?	No Impact	No mitigation proposed	Not Applicable
Greenhouse Gas Emissions			
Impact GHG-1: Would the Project generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than Significant	No mitigation proposed	Not Applicable
Impact GHG-2: Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?	Less than Significant	No mitigation proposed	Not Applicable
Impact GHG-C-1: Would the Project contribute to a cumulatively significant impact relative to GHG emissions?	No Impact	No mitigation proposed	Not Applicable
Hazards and Hazardous Materials			
Impact HAZ-1: Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less than Significant	No mitigation proposed	Not Applicable
Impact HAZ-2: 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?	Less than Significant	No mitigation proposed	Not Applicable
Impact HAZ-3: Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Less than Significant	No mitigation proposed	Not Applicable

Impact	Project Significance	Mitigation Measure	After-Mitigation Significance
Impact HAZ-4: Would the Project be located on a site which is included on a list of hazardous materials 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?	Potentially Significant	**HAZ-1: Evaluate and Manage Potential Contamination from "Roger's Garage"** Historical records of previous borings would be reviewed (if available) to mitigate duplicate boring efforts. If existing data is insufficient to evaluate potential contamination of soils to be excavated with the Project Area, additional pre-construction borings would occur. If sampled soil is found to be impacted by ADL, petroleum hydrocarbons, or other regulated contaminants, a Construction Soil Groundwater Monitoring Plan (SGMP) would be prepared prior to any construction activities. During construction, the SGMP would be implemented. **HAZ-2: Evaluate and Managed Aerially Deposited Lead** In areas of ground disturbance, pre-construction soil borings shall characterize lead concentrations in soil and groundwater in anticipation of construction activities. Once the areas of ground disturbance and potential dewatering are confirmed, a Preliminary Site Investigation (PSI) workplan shall identify location and number of borings necessary for pre-characterization and depth for sample collection. Historic soil boring information (if available) shall be reviewed to further define boring locations and mitigate duplicative borings. Laboratory analytical results of soil samples collected from the borings shall be utilized to ascertain whether health and safety concerns are present for construction workers and determine the potential for ADL impacted groundwater, and soil and/or groundwater handling and disposal options. Proposed soil borings and/or grab groundwater sample locations shall be determined following identification of the areas and depths of soil excavation and dewatering activities. If pre-construction TTLC soil characterization sampling indicates that concentrations of lead are elevated above 1,000 ppm, or if STLC analytical results are greater than 5 mg/l, then such data may indicate potential ADL impacts to groundwater. If construction activities include dewatering, and if laboratory analysis of pre-construction soil borings indicate elevated total and STLC concentrations of 1,000 ppm and 5 mg/L, respectively, then pre-construction groundwater characterization shall occur. If lead impacted soil or groundwater is identified during pre-construction characterization, then a SGMP shall be developed to identify protocols that should be utilized to proactively manage potentially impacted soil and groundwater within the Project alignment and reduce exposure to site workers. If pre-construction characterization indicates ADL impacts above STLC levels to soil and/or groundwater, site workers involved in excavation activities be trained in accordance with the Hazardous Waste Operations and Emergency Response (HAZWOPER) certification (Occupational Safety and Health Administration [OSHA] 1910.120).	Less than Significant with Mitigation
Impact HAZ-5: For a Project located within an airport land use plan or, where such a plan	No Impact	No mitigation proposed	Not Applicable

Impact	Project Significance	Mitigation Measure	After-Mitigation Significance
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?			
Impact HAZ-6: Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No Impact	No mitigation proposed	Not Applicable
Impact HAZ-7: Would the Project expose people or structures to a significant risk of loss, injury, or death involving wildland fires?	Less than Significant	No mitigation proposed	Not Applicable
Impact HAZ-C-1: Would the Project result in a cumulatively significant impact from increased exposure of the public or environment to hazards or hazardous substances?	Less than Significant	No mitigation proposed	Not Applicable
Hydrology and Water Quality			
Impact HWQ-1: Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Potentially Significant	**HWQ-1: Water Quality Control Measures During Excavation** In instances where excavation occurs within the vicinity of stream channels, flowing ditches, or wetted waters of the U.S. or State, erosion and sediment control measures shall be implemented. These measures shall include installation and maintenance of silt-fence along channel banks or wetted waters as specified in Project designs, and development of erosion control plans to prevent inadvertent sediment delivery.	Less than Significant with Mitigation
Impact HWQ-2: 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?	No Impact	No mitigation proposed	Not Applicable
Impact HWQ-3: 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 result in substantial erosion or siltation on- or off-site?	No Impact	No mitigation proposed	Not Applicable
Impact HWQ-4: Would the Project substantially increase the rate or amount of	No Impact	No mitigation proposed	Not Applicable

Impact	Project Significance	Mitigation Measure	After-Mitigation Significance
surface runoff in a manner which would result in flooding on- or off-site?			
Impact HWQ-5: Would the Project 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?	Less than Significant	No mitigation proposed	Not Applicable
Impact HWQ-6: Would the Project 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?	Less than Significant	No mitigation proposed	Not Applicable
Impact HWQ-7: Would the Project impeded or redirect flood flows?	No Impact	No mitigation proposed	Not Applicable
Impact HWQ-8: Would the Project cause an increase in flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	Less than Significant	No mitigation proposed	Not Applicable
Impact HWQ-9: Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact	No mitigation proposed	Not Applicable
Impact HWQ-C1: Would the Project contribute to a cumulatively significant impact to hydrology and water quality?	Less than Significant	No mitigation proposed	Not Applicable
Noise			
Impact NOI-1: Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Less than Significant	No mitigation proposed	Not Applicable
Impact NOI-2: Would the Project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Less than Significant	No mitigation proposed	Not Applicable

Impact	Project Significance	Mitigation Measure	After-Mitigation Significance
Impact NOI-3: 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?	No Impact	No mitigation proposed	Not Applicable
Impact NOI-C-1: Would the Project contribute to a cumulatively significant impact from noise?	Less than Significant	No mitigation proposed	Not Applicable
Transportation			
Impact TR-1: Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	Less than significant	No mitigation proposed	Not Applicable
Impact TR-2: Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Less than significant	No mitigation proposed	Not Applicable
Impact TR-3: Would the Project substantially increase hazards due to geometric design features e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No Impact	No mitigation proposed	Not Applicable
Impact TR-4: Would the Project result in inadequate emergency access?	Potentially Significant	**TR-1: Maintain Emergency Access and Notify Emergency Responders** The City shall require contractors to provide adequate emergency access to all properties along the corridor during the construction process. At locations where the access to a nearby property is temporarily blocked, the contractor shall be required to have ready the means necessary to accommodate access by emergency vehicles to such properties, such as plating over excavations. As construction progresses, emergency providers shall be notified in advance of the timing, location, and duration of construction activities and the locations and durations of any temporary lane closures.	Less than Significant with Mitigation
Impact TR-C-1: Would the Project contribute to cumulatively significant impact related to transportation?	No impact	No mitigation proposed	Not Applicable
Tribal Cultural Resources			
Impact TCR-1: Would the Project cause a substantial adverse change in the significance of a tribal cultural resource listed	Potentially Significant	**CR-1: Develop and Implement an MOU with Consulting Tribes** *See Impact CR-2 for full text.*	Less than Significant with Mitigation

Impact	Project Significance	Mitigation Measure	After-Mitigation Significance
or eligible for listing in the California Register of Historic Resources, or in a local register of historic resources as defined in Public Resources Code section 5020.1(k)?			
Impact TCR-2: Would the Project cause a substantial adverse change in the significance of a tribal cultural resource that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to the criteria set forth in subdivision (c) of the Public Resources Code section 5024.1? In applying the criteria set forth in subdivision (c) of the Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	Potentially Significant	**CR-1: Develop and Implement an MOU with Consulting Tribes** *See Impact CR-2 for full text.*	Less than Significant with Mitigation
Impact TCR-C-1: Would the Project contribute to cumulatively significant impact related to Tribal Cultural Resources?	Less than Significant	No mitigation proposed	Not Applicable
Utilities and Service Systems			
Impact UTL-1: Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	No Impact	No mitigation proposed	Not Applicable
Impact UTL-2: Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	No Impact	No mitigation proposed	Not Applicable
Impact UTL-3: 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?	No Impact	No mitigation proposed	Not Applicable
Impact UTL-4: Would the Project generate solid waste in excess of State or local	Less than Significant	No mitigation proposed	Not Applicable

Impact	Project Significance	Mitigation Measure	After-Mitigation Significance
standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			
Impact UTL-5: Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact	No mitigation proposed	Not Applicable
Impact UTL-C-1: Would the Project contribute to cumulatively significant impact related to utilities and service systems?	No impact	No mitigation proposed	Not Applicable
Wildfire			
Impact WDF-1: Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?	No Impact	No mitigation proposed	Not Applicable
Impact WDF-2: 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?	Less than significant	No mitigation proposed	Not Applicable
Impact WDF-3: 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?	Less than significant	No mitigation proposed	Not Applicable
Impact WDF-4: Would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides as a result of runoff, post-fire slop instability, or drainage changes?	Less than significant	No mitigation proposed	Not Applicable
Impact WDF-C-1: Would the Project contribute to a cumulatively significant impact related to wildfire risk?	Less than significant	No mitigation proposed	Not Applicable

1.10 References

None.

2. Project Description

The Old Arcata Road Rehabilitation & Pedestrian/Bikeway Improvements Project (Project) would improve motorized and non-motorized transportation and user safety in Bayside, California (Figure 2-1). The Project would repave Old Arcata Road, include bike lanes on both sides of the roadway alignment, and improve and extend an existing shared use walkway along the west side of Old Arcata Road from approximately 600 feet south of the Buttermilk Road Roundabout and extending south to approximately 300 feet beyond the Jacoby Creek Road intersection. The total Project length is approximately one mile.

2.1 Project Background

In 2016, City Staff identified the need to address the lack of adequate bicycle and pedestrian facilities along Old Arcata Road within city limits (SHN and Omni Means 2017). The need for improvements was later substantiated during a City-led community design charrette process, which included the identification of deficiencies and potential improvements of the roadway. The results of the community design charrette led to the development of a Project Study Report (PSR) (City of Arcata 2017), and City Council selection of a preferred alternative in November 2017. In 2018 the City secured partial funding for Project development and construction through State Transportation Improvement Program (STIP).

The City first prepared an Initial Study/Proposed Mitigated Negative Declaration (ISMND) to comply with CEQA's environmental analysis and disclosure requirements. The ISMND was circulated between January 20, 2021, and February 22, 2021. The ISMND identified the likely environmental consequences associated with the Project, and recommended mitigation measures to reduce potentially significant impacts. See Appendix E for the Final ISMND and Response to Comments.

The Notice of Completion and ISMND were filed with the Office of Planning and Research State Clearinghouse on January 15, 2021, and the ISMND was made available for public review on January 20, 2021. The Notice of Intent was submitted to the Humboldt County Clerk-Recorder January 19, 2021 and was published in the Mad River Union on January 20, 2021. The review period ended at 5:00 pm on February 22, 2021. The document was made available for review at the City of Arcata website at https://www.cityofarcata.org/720/Old-Arcata-Road-Design-Project. The ISMND was distributed to local, State, and federal responsible and trustee agencies, and a notice of availability was distributed to regional tribal governments.

Written and voicemail comments were received from 39 individuals, agencies, or organizations. As described in Section 1.8 – Areas of Controversy and Key Issues to be Resolved, comments included statements for and against the Project, including the proposed roundabout at the intersection of Jacoby Creek Road and Old Arcata Road. Given the fair argument raised regarding disagreement with the ISMND's findings specific to potential impacts to historic resources and Bayside's potential standing as a historic district despite the ISMND's finding of no significant impacts to historical or other resources, the City decided to prepare an EIR for the Project.

The Draft EIR was initially made available for a 45-day public review on August 9, 2021. The review period ended at 5:00 pm on September 27, 2021. The City received numerous comments and prepared responses to all comments received during the public circulation period in the Final EIR. The Final EIR was issued and publicly posted on November 23, 2021. Following posting of the Final EIR, the inadvertent omission of wetland impacts was discovered on December 1, 2021, and the City Council's planned certification of the EIR was subsequently postponed, pending the completion of the recirculation process as outlined in Section 15088.5 of the CEQA Guidelines, reflected herein.

2.2 Purpose and Need

The purpose of the Project is to improve connectivity and safety on an existing roadway for non-motorized and motorized travelers in Bayside, California and increase the use of active modes of transportation. The Project is intended and designed to serve current City population. The Project was initially developed during a community-driven design charrette process for preliminary design concepts (SHN and Omni Means 2017). Project benefits include heightened driver awareness, particularly at the intersection of Jacoby Creek and Old Arcata Roads, and filling the gap for non-motorized travel between the Jacoby Creek School and Jacoby Creek Road. The Project would also reconstruct or rehabilitate the existing roadway pavement in order to extend its useful life.

Many of the existing walkways, driveways and curb ramps within the Project corridor are non-compliant with current accessibility codes and standards and create a barrier to pedestrian mobility. In addition, there is a lack of pedestrian facilities and connectivity between Hyland Street and Jacoby Creek Road, and a lack of pedestrian facilities on Hyland Street (sidewalks).

The existing roadway pavement (travel lanes and bike lanes) is extremely deteriorated and considered to be in “poor” condition with an average pavement condition index (PCI) of 61.6 (NCE 2017). Old Arcata Road is the primary backbone for the Bayside (southern Arcata) transportation network and pavement failure would result in significant social and economic impacts to the community, including residents and businesses. Old Arcata Road acts as an alternative route and oversized load route for Highway 101, provides access to important facilities such as the Sunnybrae Middle School, Jacoby Creek Elementary School, and the Bayside Post Office, provides access to unincorporated areas, and may serve as a future Humboldt Transit Authority bus route for public transportation.

The 2016 Caltrans EIR for the Eureka-Arcata Route 101 Corridor Improvement Project evaluated Level of Service for the Jacoby Creek Road and Old Arcata Road intersection for both 2013 and 2041. Level of Service is a standard to measure operating level (e.g., wait time for turning and maneuverability) and does not evaluate other safety conditions, such as speed, collisions, or pedestrian safety and access. While the 2013 Level of Service meets current standards, the 2041 Level of Service, especially for turning left onto Old Arcata Road from Jacoby Creek, was found to be very poor (Level of Service C for AM Peak Hours and Level of Service F for PM Peak Hours). Additionally, the Caltrans EIR noted that in 2008, a roundabout was installed at Indianola Cutoff and Old Arcata Road, which effectively and substantially reduced traffic speeds in the vicinity of this intersection (Caltrans 2016).

2.3 Goals and Objectives

The goal of the Project is to link critical activity centers within the Bayside community, including schools, neighborhood facilities, and residential areas. The Project seeks to accommodate the expected volume and diversity of users, which includes a range of ages, experience levels, speeds, trip purposes, and mobility modes. The Project includes the following objectives:

– Rehabilitate and reconstruct the roadway pavement, and improve traffic striping and signage
– Improve intersection safety at the intersection of Old Arcata and Jacoby Creek Roads, as well as other intersections within the Project corridor
– Extend pedestrian connectivity from Jacoby Creek Road intersection to Buttermilk Road intersection, and provide for safer routes to schools for students and families
– Increase multimodal transit use by improving bicycle and pedestrian facilities via shared use pathways, re-striped bicycle lanes, improved and extended sidewalks, and enhanced cross walks
– Decrease speed, calm traffic, improve traffic operations, and increase safety at the intersection of Jacoby Creek and Old Arcata Road, an area identified by the Bayside community as unsafe particularly for pedestrians and bicyclists due to speeding vehicles and an uncontrolled intersection
– Create a “gateway” at the southern entrance to Arcata

- Improve subsurface storm drainage infrastructure and accommodate additional City underground utility improvements as needed (water and sewer)
- Maintain consistency with City policies in the Transportation Element of the General Plan and the Bicycle and Pedestrian Master Plan for alternative transportation, and recommendations provided by the Transportation Safety Committee
- Improve traffic operations and pedestrian safety at Hyland Street near Jacoby Creek School
- Implement a project that does not require permanent right of way acquisitions
- Minimize potential environmental impacts to the extent feasible, particularly in the Coastal Zone
- Apply accepted traffic engineering standards to guide selected roadway and safety improvements

2.4 Project Location

The Project is primarily located within the limits of the City of Arcata (Figure 2-1). The proposed roundabout and other roadway improvements at the Jacoby Creek Road intersection, along with its eastern and southern approaches (on Jacoby Creek Road, and Old Arcata Road, respectively) are located within the jurisdiction of Humboldt County. The Coastal Zone boundary is located on the eastern edge of Old Arcata Road (Figure 2-2). The primary permitting jurisdiction resides with the Local Coastal Programs of both the City of Arcata and Humboldt County for their respective portions of the Project. Work would generally occur within the existing City of Arcata or Humboldt County right of ways. Necessary permissions will be received for any work outside existing right of ways.

The Project corridor along Old Arcata Road and Hyland Street is primarily bound by private residences, including medium-high density residential, rural residential, and low density residential housing. The Jacoby Creek Elementary School and Mistwood Education Center are located along the Project corridor, as are small businesses (zoned Commercial Mixed), a U.S. Post Office, and the Bayside Community Hall. The area between Highway 101 and Old Arcata Road includes Agricultural-Exclusive properties within the City of Arcata, in the Gannon Slough and Jacoby Creek bottomlands. Several small Public-Facility parcels are located adjacent to the Project corridor, including community gardens.

2.5 Project Components

The Project includes intersection and pedestrian safety improvements along Old Arcata Road. As described in more detail below, the Project includes road resurfacing, a paved walkway, sidewalks and curb ramps, crosswalks, speed humps, lighting, signage, a retaining wall, and stormwater drainage and infrastructure improvements. New pavement would extend into residential and commercial driveways along Old Arcata Road to ensure smooth transition between existing and new pavement elevations. Construction of a new sidewalk along approximately 375 feet of Hyland Street is also included in the Project. Particular constraints within the Project alignment may warrant adjustments to the standards to address site specific issues. Refer to Figure 2-3 through Figure 2-6 for an overview of key Project components. Briefly, the Project includes the following components:

- Repaving along Old Arcata Road and Adjacent Bike Lanes
- New and Replacement Pedestrian Walkways
- Crosswalks and Speed Humps
- Improvements Near Jacoby Creek Elementary School
- Jacoby Creek Road Roundabout
- Landscaping
- Lighting
- Utility Improvements

The Project would terminate approximately 300 feet south of the proposed Jacoby Creek Roundabout along Old Arcata Road. The Jacoby Creek Road pavement improvements would terminate approximately 400 feet east of the proposed roundabout. Drainage improvements on Jacoby Creek Road would terminate approximately 650 feet east of the roundabout.

The Project is being designed in accordance with the American Association of State Highway and Transportation Officials (AASHTO) A Policy on Geometric Design of Highways and Streets, 7th Edition (2018). In addition, the Project would be designed in accordance to other specific applicable standards, including the California Manual on Uniform Traffic Control Devices (MUTCD; CA MUTCD 202`); the 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design; the 2019 California Building Code and portions of the Caltrans Highway Design Manual, 7th Edition (2020). The design for the proposed roundabout geometrics, including bike ramps, follows the National Cooperative Highway Research Program (NCHRP) design standards (FHWA 2010). Design standards applied to proposed Pedestrian-Actuated Rectangular Rapid-Flashing Beacons (RRFB) follows the MUTCD Interim Approval for Optional Use of Pedestrian-Actuated Rectangular Rapid-Flashing Beacons at Uncontrolled Marked Crosswalks (IA-21).

As part of the Project design process, the City would conduct a design-level geotechnical and pavement investigation for the Project. The City will finalize 100% designs in accordance with the recommendations made in the Project's geotechnical and pavement investigation report.

2.5.1 Repaving Along Old Arcata Road and Adjacent Bike Lanes

Old Arcata Road would be repaved between the approximately 600 feet south of the Buttermilk Road to the proposed new roundabout at the Jacoby Creek Road intersection. Repaving would extend approximately 300 feet beyond the new roundabout along both Jacoby Creek Road and Old Arcata Road. The existing roadway width, alignment, and footprint would generally remain the same between the Buttermilk Road Roundabout and Hyland Street, including 10-foot wide travel lanes and adjacent five-foot wide bikes lanes. A left hand turn lane for northbound traffic is proposed at the Jacoby Creek School parking lot at the Hyland Street intersection. South of Hyland Street, the existing roadway alignment would be shifted east up to five feet to accommodate a new six-foot wide walkway, described below.

The existing asphalt roadway would be rehabilitated by overlaying the existing surface and/or grinding-out and replacing the existing surface. Excavation would not extend into the native subgrade, except in isolated areas where deeper excavations may be required to remediate poor soil/subgrade conditions. **The pavement overlay will be three to six inches thick.**

Portions of most existing driveways, including the Bayside Post Office driveway, would also be repaved throughout the Project Area.

2.5.2 Striping, Signage and Vehicle Control

The repaved Old Arcata Road and Jacoby Creek Road segments would include required striping and signage in order to comply with California Manual on Uniform Traffic Control Devices (MUTCD) requirements.

2.5.3 New and Replacement Pedestrian Walkways

The existing walkway between the Buttermilk Road Roundabout and Hyland Street would be replaced to a width of approximately six feet.

South of Hyland Street, the existing roadway alignment would be shifted east up to five feet to accommodate a new six feet wide walkway. The six feet wide walkway would be separated from the roadway by a five feet wide vegetated strip that would also be designed to convey stormwater where practical. Areas of new asphalt roadway would be constructed over 12 to 16 inches of base material and a similar depth of excavation.

2.5.4 Crosswalks and Speed Humps

Existing cross walks and speed humps would be upgraded coincident with repaving. ~~New~~ **Replacement of existing** speed humps ~~would be~~ located north of the Hyland Street intersection and south of Jacoby Creek School to improve safety and provide vehicular speed control. A raised crosswalk in front of Jacoby Creek School at the Hyland Street intersection would remain. Crosswalks would also be integrated into the new Jacoby Creek Road Roundabout, discussed below. All crosswalks across Old Arcata Road and Jacoby Creek Road are proposed to include user activated warning lights (e.g., LED enhanced signs or rectangular rapid-flashing beacons[RRFB]). **The crosswalks would also include detectable warning surfaces, which will be cast in wet concrete during construction and secured with anchors.**

2.5.5 Improvements Near Jacoby Creek Elementary School

In front of Jacoby Creek School, a new six feet wide sidewalk is proposed on the west side of the road in addition to a left hand turn lane for northbound Old Arcata Road. The on-street diagonal parking would be eliminated to accommodate the sidewalk and turn lane. Some minor modifications to the school parking lot are also proposed, including replacing a portion of the raised landscape island with paved parking stalls. Construction of a new sidewalk along approximately 375 feet of Hyland Street is also included in the Project. Where necessary, curb ramps and gutters would be integrated into the sidewalk design. A new retaining wall would be constructed near the Jacoby Creek Road roundabout.

New concrete for the retaining wall, sidewalks, and walkways will be colorized to improve visual connectivity to maintain consistency with the existing rural setting of the community. Stamped and colored concrete will be applied to roadway dividing medians. The retaining wall near the Jacoby Creek intersection would be approximately one foot above the road grade. Depending on the final design grade, a fence (approximately four feet tall) would be attached to the top of the retaining wall for edge protection. The fence would be transparent, most likely coated black chain link. A fence of similar style would also be installed on the opposite side of Old Arcata Road in front of the City pump station. The retaining wall and fencing would not impede views within or adjacent to the Project corridor or otherwise diminish the visual character of the vicinity.

The five paved diagonal parking spaces on Old Arcata Road in front of Jacoby Creek Elementary School would be eliminated in order to accommodate the proposed improvements.

2.5.6 Jacoby Creek Road Roundabout

A new roundabout is proposed for the intersection at Jacoby Creek Road and Old Arcata Road to improve traffic flow and user safety. Crosswalks, signage, lighting, and paved walkways would be integrated into the roundabout. A new retaining wall would extend along the west side of Old Arcata Road adjacent to the roundabout. The total length of the wall would be 200 feet. Modifications and repaving of the roadway that serves the Bayside Post Office may also be required.

The roundabout would be configured to be within existing City and County right of way with no permanent encroachments onto private property (easements may be required for temporary construction, but the Project has been designed to avoid all permanent acquisition of private property). Excavation to accommodate the roundabout and roadway approaches is expected to be approximately two to four feet, although some isolated deeper excavations may be required to remediate poor soil/subgrade conditions.

Concrete improvements associated with the roundabout, including the roundabout apron, sidewalk, and walkways would include integral color to darken the concrete and provide a weathered look, designed to blend into the existing community aesthetic and character and avoiding a stark visual alteration. If desired by community members, sculptural pieces may also be installed in the roundabout center, in coordination with the City and other stakeholders.

2.5.7 Landscaping

Trees removed during construction will be replaced in other nearby locations. Tree removal would be limited to one or two locations near the roundabout at the intersection of Jacoby Creek Road and Old Arcata Road. Tree removal would not occur on any private property. All tree plantings associated with the Project will include appropriate tree species designed to blend into surrounding mature vegetation.

The center of the roundabout will be mounded to a height of approximately three to five feet above grade and landscaped with appropriate vegetation species. Plantings would be consistent with other City roundabouts and public right of ways. The City anticipates using grasses and/or other drought tolerant species. All new plantings would be designed to maximize connectivity with existing landscaping and mature trees.

2.5.8 Lighting

The Project would include streetlight installation in conjunction with the new Jacoby Creek Road roundabout. Lighting would be designed to protect wildlife and nighttime views, including views of the night sky. The Project will be designed to be consistent with the City's design guidelines, Section 9.30.070 (Outdoor Lighting) of the Arcata Land Use Code, and the recommendations of the International Dark-Sky Association, which includes standards for fixtures, shielding, wattage, placement, height, and illumination levels. To comply with these requirements, lighting for the Project will be the minimum lumens necessary, directed downward, shielded, and pedestrian level when feasible. This will ensure lighting is contained within the site and does not cause significant lighting and glare impacts for surrounding land uses and sensitive habitat areas.

2.5.9 Utility Improvements

Utility improvements would include storm drain, sanitary sewer, and water infrastructure improvements. The Project includes improvements to the underground storm drain infrastructure that extends along the length of planned improvements in discrete locations. Improvements include new and upgraded storm drain catch basins, storm drain piping, and storm drain junction boxes. Excavation and trenching depths for storm drain systems will be approximately four feet to six feet max. Work would also include the installation of shallow swales to convey stormwater runoff.

Existing sanitary sewer laterals **in the public right of way** may be replaced with new cleanouts placed at the edge of the right of way **if they are found defective upon inspection during the course of road resurfacing**. Depth of excavation/trenching for sewer lateral replaced would be approximately three feet (six feet max).

Water service connections **in the public right of way** may be updated, along with resetting and/or installation of water meters within City/Public right of way **if they are found defective upon inspection during the course of road resurfacing.**

2.5.10 Wetland Establishment

If impacts to wetlands are unavoidable, the Project would include onsite wetland creation within the City's right-of-way between Old Arcata Road and Bayside Road at the compensatory ratios to be required by jurisdictional permitting agencies (Figure 2-2). Groundwater data would be obtained by the City and used to inform wetland design grading depths to ensure wetland hydrology criteria are met. The criteria for meeting wetland hydrology as defined by the U.S. Army Corps of Engineers (USACE) is flooding or ponding, or a water table within 12 inches of the soil surface for 14 or more consecutive days five out of ten years (50 percent of the time) (USACE 2010) Wetlands would be established by excavating to a target elevation.

2.6 Project Construction

Construction of the Project would involve construction staging, establishing site access, hauling, dewatering, and traffic control. A Temporary Traffic Control Plan would be developed by the contractor and approved by the City prior to Project implementation to ensure flow of traffic along the Project corridor.

Following construction, the contractor would demobilize and remove equipment, supplies, and construction wastes. The disturbed areas along the Project alignment would be restored to pre-construction conditions or stabilized with a combination of grass seed (broadcast or hydroseed), straw mulch, rolled erosion control fabric, rock, and other plantings/vegetation. Construction would primarily include trimming and/or removal of trees and vegetation, excavation and grading, concrete and asphalt paving, replacement of sanitary sewer laterals, and trenching and excavation to install new sanitary sewer laterals and storm drainage systems (inlets, pipes, and/or culverts). Construction would also include installation of new lighting, new and upgraded crosswalks and speed bumps, a retaining wall, and signage along the Project alignment. All construction activities would be accompanied by both temporary erosion and sediment control best management practices (BMPs) typically applied to all City projects.

It is not anticipated that any temporary utility extensions, such as electric power or water, would be required for construction.

2.6.1 Construction Time, Duration, and Hours

Construction would begin as soon as late 2022, extending into 2023. Construction is anticipated to occur over a six to eight month construction window. If feasible, vegetation clearing would occur during the non-bird nesting season, between August 31st and February 1st. Work near wetlands would only occur during the dry season between May and October. Compliance with the requirements contained in the Arcata General Plan Noise Element (Policies N-5d and N-5e) and the Arcata Land Use Code (Section 9.30.050[D][2]), will minimize potential noise impacts from short-term construction activities. These requirements place limitations on the days and hours of construction activities to allow construction schedules to take advantage of the weather and normal daylight hours, and to ensure that nearby residents as well as nonresidential activities are not disturbed by the early morning or late night activities. Hours of construction would be limited to 8:00 a.m. to 7:00 p.m. on Monday through Friday and from 9:00 a.m. to 7:00 p.m. on Saturdays. Heavy-equipment related construction activities are not allowed on Sundays. Construction on Sunday or legal and county holidays is not currently anticipated except for emergencies or with prior approval from the City of Arcata. All stationary and construction equipment are required to be maintained in good working order and fitted with factory approved muffler systems.

2.6.2 Construction Equipment

A variety of construction equipment would be used to build the Project. This would include, but not necessarily be limited to, excavators, backhoes, front end loaders, scrapers, graders, concrete saws, jackhammers, chainsaws, rollers, asphalt pavers, compactors, air compressors, generators, and pneumatic tools. A variety of trucks including concrete mixers, haul trucks, and water trucks would also be required. Site preparation, including demolition, clearing and grading of the Project site as necessary would require the removal and off-haul of materials. This would include, but not necessarily be limited to, vegetation, concrete, asphalt and fill, and certain existing utilities that would be removed and replaced.

2.6.3 Construction Staging Areas

Construction staging areas would be identified during the design phase of work and are expected to occur within the Project footprint, or within paved, graveled or designated, previously disturbed areas. For impact analysis purposes, two staging areas were preliminarily identified—one at the southern end of the Project corridor and the other at the northern end of the Project corridor. Spoils or construction materials would be stored on site within

previously designated staging areas only. Excess spoils would ultimately be hauled off-site for disposal and reuse by the contractor.

2.6.4 Construction Dewatering

If needed, temporary groundwater dewatering would be conducted to provide a dry work area. Dewatering would involve pumping water out of a trench or excavation. Groundwater would typically be pumped to Baker tanks (or other similar type of settling tank) or into a dewatering bag. Following the settling process provided by a tank or filter, the water would be used for dust control and compaction. Discharge water from Baker tanks would not be discharged into wetlands or any water bodies.

2.7 Operation and Maintenance

Following construction, general operation and maintenance activities associated with the proposed Project would be limited to typical roadway maintenance, including annual inspections, trash/debris removal, vegetation management, repaving, and painting.

2.8 Environmental Protection Actions Incorporated into the Project

The following actions are included as part of the Project to reduce or avoid potential adverse effects that could result from construction or operation of the Project. Additional mitigation measures are presented in the following analysis sections in Chapter 3, Environmental Analysis. Environmental protection actions and mitigation measures, together, would be included in a Mitigation Monitoring Program at the time that the Project is considered for approval.

2.8.1 Environmental Protection Action 1 – Stormwater Pollution Prevention Plan (SWPPP)

The Project will seek coverage under State Water Resources Control Board (Water Board) Order No. 2009-0009-DWQ, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities. The City will submit permit registration documents (notice of intent, risk assessment, site maps, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and certifications) to the Water Board. The SWPPP will address pollutant sources, best management practices, and other requirements specified in the Order. The SWPPP will include erosion and sediment control measures, and dust control practices to prevent wind erosion, sediment tracking, and dust generation by construction equipment. A Qualified SWPPP Practitioner will oversee implementation of the Project SWPPP, including visual inspections, sampling and analysis, and ensuring overall compliance.

2.9 Required Agency Approvals

The following permits and approvals are likely to be required prior to construction.

- CEQA compliance
- NEPA compliance
- City of Arcata Coastal Development Permit
- Humboldt County Coastal Development Permit
- Humboldt County Grading Permit
- Humboldt County Encroachment Permit

- **North Coast Regional Water Quality Control Board Clean Water Act Section 401 Water Quality Certification**
- **USACE Clean Water Action Section 404 permit**

2.10 AB 52 Consultation

The CEQA requires lead agencies to determine if a proposed Project would have a significant effect on tribal cultural resources. The CEQA Guidelines define tribal cultural resources as: (1) a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American Tribe that is listed or eligible for listing on the California Register of Historical Resources, or on a local register of historical resources as defined in PRC Section 5020.1(k); or (2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant according to the historical register criteria in PRC Section 5024.1(c), and considering the significance of the resource to a California Native American tribe.

The City had previously engaged with tribal representative through the AB 52 process during the ISMND prepared for the Project. Coordination with the tribes remains active and ongoing. To complete AB 52 required for this EIR, the City again sent notification letters to the Wiyot Tribe, Blue Lake Rancheria, and Bear River Rancheria on June 11, 2021. The three tribes responded, noting tribal cultural resourced had not been identified in the Area of Potential Effect at this time and that the EIR need not address AB 52 specifically. In their responses, the tribes recommended a tribal monitor be present during archaeological testing and data recovery in locations known to be sensitive. This request has been integrated into the Project (see Section 3.4 – Cultural Resources, Mitigation Measure CR-1). The City sent the three tribes an AB 52 closure letter on July 27, 2021.

2.10.1 Project Site Assessment and Special Studies

Table 2-1 below depicts studies completed, study topic and study author for the proposed Project. Given Caltrans has funding and National Environmental Policy Act (NEPA) responsibilities for the Project, all reports included in Table 2-1 have also been reviewed and approved by Caltrans.

Table 2-1 Project Site Special Studies Summary

Name of Study	Topic of Study	Study Author
Preliminary Environmental Study	Environmental Analysis Required for the Project	GHD
Historic Properties Survey Report for the Old Arcata Road Improvements Project	Historic and Archeological Resources	Pacific Legacy, William Rich and Associates, and JRP Historical Consulting
Archaeology Survey Report for the Old Arcata Road Improvements Project	Archaeological Resources	Pacific Legacy and William Rich and Associates
Historic Resources Evaluation Report for the Old Arcata Road Improvements Project	Historic Resources	JRP Historical Consulting
Old Arcata Road Historic Resources Report	Historic Resources	JRP Historical Consulting
Post-Review Discovery and Monitoring Plan for the Old Arcata Road Improvements Project	Archaeological Resources	Pacific Legacy
Environmentally Sensitive Area Action Plan for Cultural Resources for the Old Arcata Road Improvements Project	Archaeological Resources	Pacific Legacy
Phased Identification and Evaluation Plan for the Old Arcata Road Improvements Project	Archaeological Resources	Pacific Legacy
Final Special Status Plant Survey and ESHA Evaluation for the Old Arcata Road Improvement Project	Special Status Plants and Environmentally Sensitive Habitat Areas (ESHA)	GHD
Old Arcata Road Wetland Delineation Report	Wetlands	GHD
Natural Environment Study – Old Arcata Road Rehabilitation & Pedestrian/Bikeway Improvements	Natural Resources	Northstar Environmental
Initial Site Assessment – Old Arcata Road Improvements Project	Hazards	GHD
Visual Resources Technical Memorandum for the Old Arcata Road Improvement Project	Visual Resources/Aesthetics	GHD
Vertical Area of Potential Effect (APE) – Old Arcata Road Improvement Project	Design	GHD

2.11 References

American Association of State Highway and Transportation Officials (AASHTO). 2018. A Policy on Geometric Design of Highways and Streets, 7th Edition.

California Building Standards Commission. 2020. 2019 California Building Code, Title 24, Part 2, Volume 1 of 2.

Caltrans. 2016. Eureka-Arcata Route 101 Corridor Improvement Project, Humboldt County, California. Environmental Impact Report/Statement, Volume I of IV, State Clearinghouse Number 200109035.

Caltrans. 2021. California Manual on Uniform Traffic Control Devices (CA MUTCD) 2014 Edition Revision 6, March 30, 2021.

City of Arcata. 2017. Project Study Report (PSR) Old Arcata Road Rehabilitation & Pedestrian/Bikeway Improvements. Arcata, California.

Department of Justice. 2010. 2010 ADA Standards for Accessible Design.

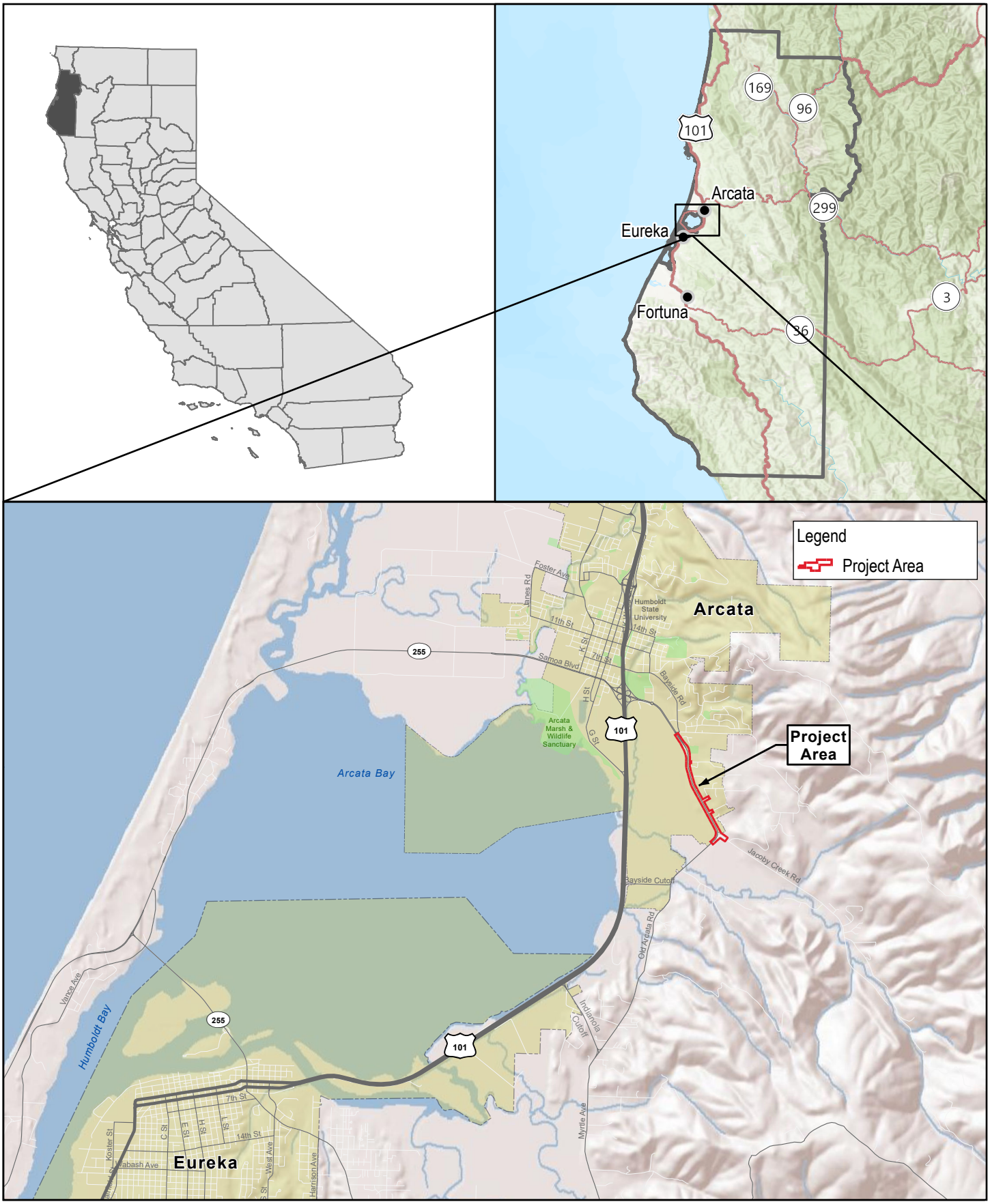
Federal Highway Administration (FHWA). 2018. MUTCD Interim Approval for Optional Use of Pedestrian-Actuated Rectangular Rapid-Flashing Beacons at Uncontrolled Marked Crosswalks (IA-21).

Federal Highway Administration (FHWA). 2010. NCHRP Report 672, Roundabouts: An Informational Guide.

NCE. 2017. City of Arcata Pavement Management Update (2016-17) Final Report October 2017. Prepared for the City of Arcata.

SHN Engineers and Geologists (SHN) and Omni Means Engineering Solutions. 2017. Community Charrette for Design Success: Design Charrette and Preliminary Concept Designs Old Arcata Road Improvements Project.

USACE. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). U.S. Army Corps of Engineers.



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GHD

City of Arcata
Old Arcata Road Improvements

Project No. **11159130**
Revision No. **-**
Date **6/11/2021**

Vicinity Map

FIGURE 2-1

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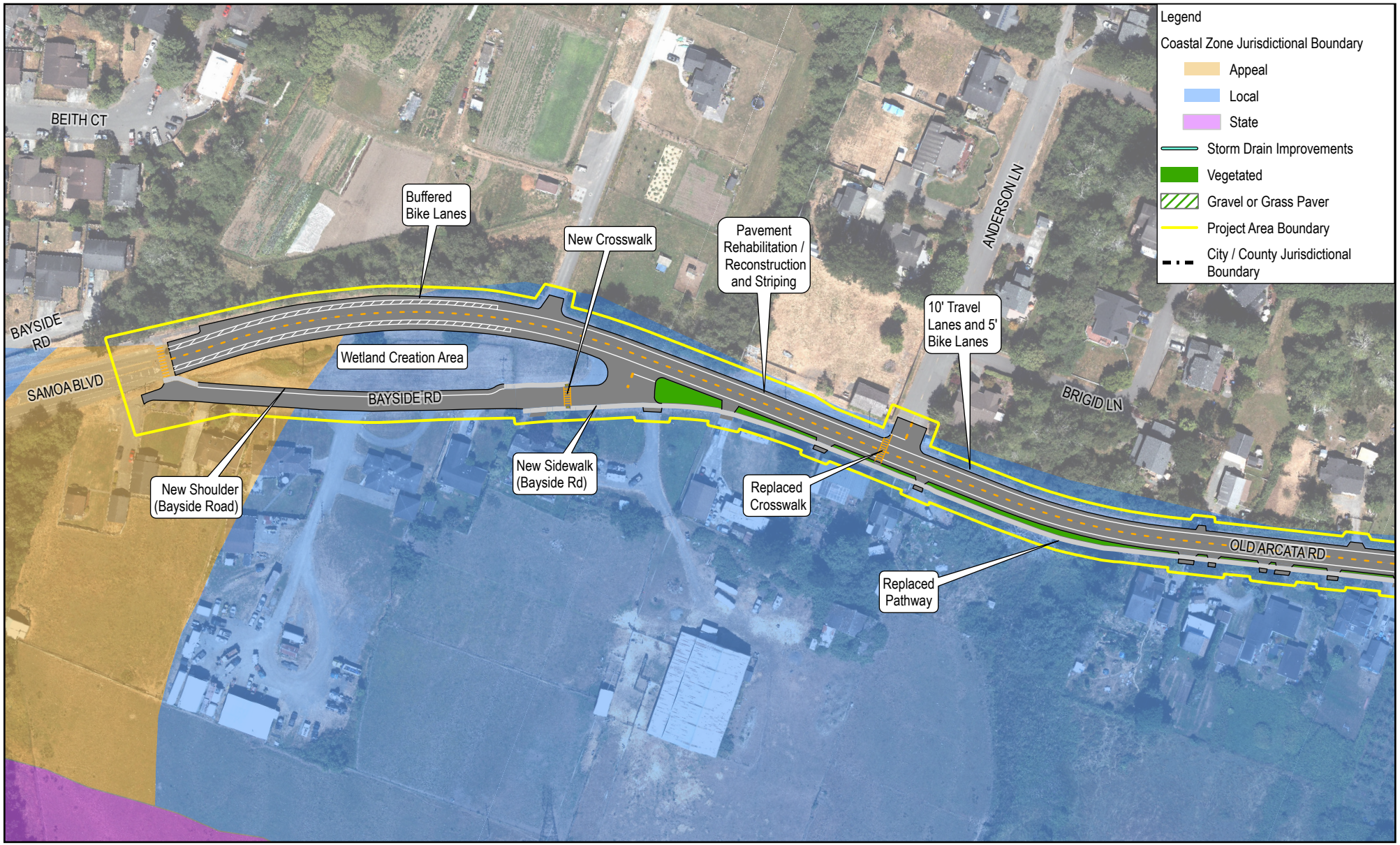

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City of Arcata
Old Arcata Road Improvements

Project No. **11159130**
Revision No. **-**
Date **12/7/2021**

Project Components

FIGURE 2-2

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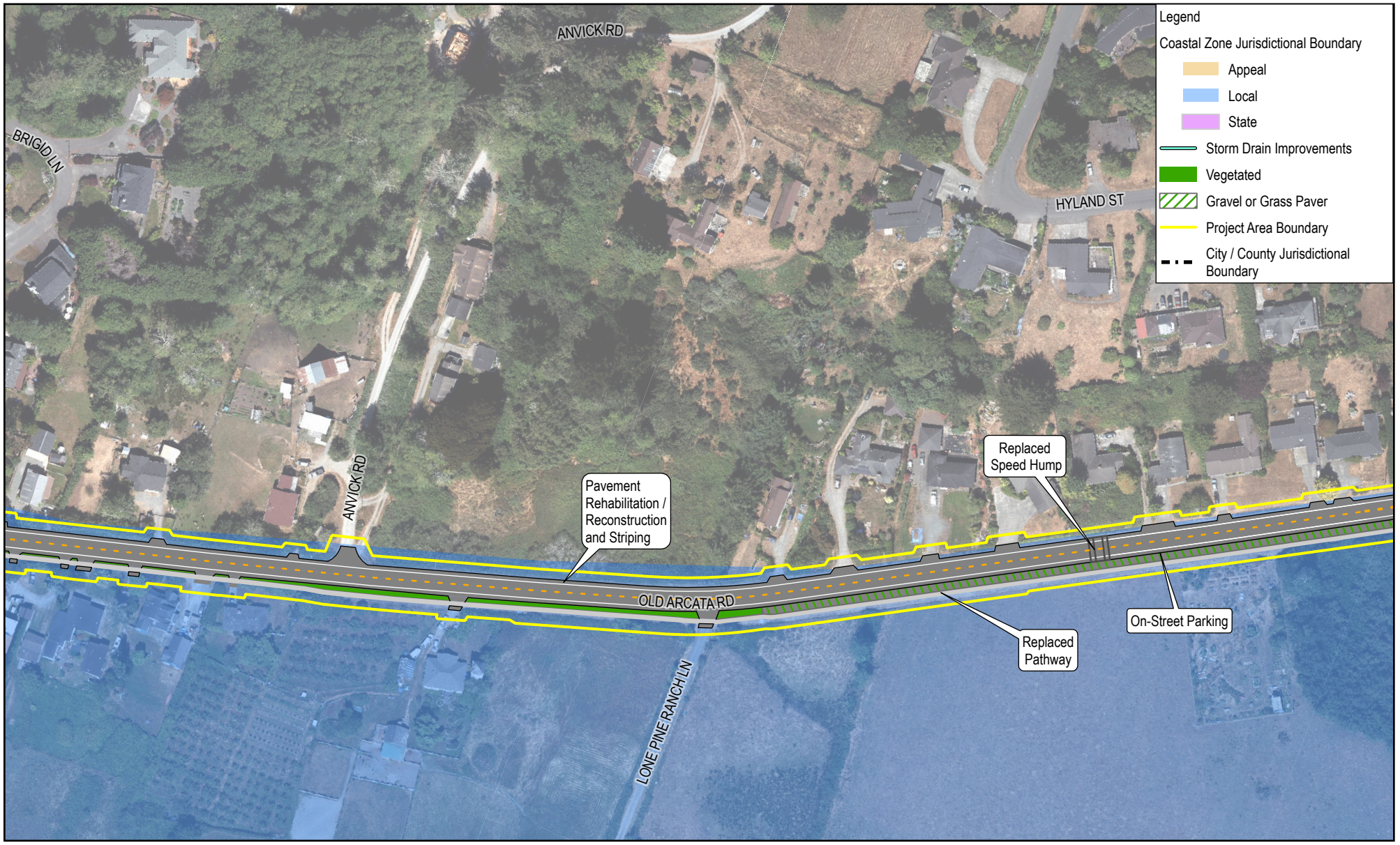

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City of Arcata
Old Arcata Road Improvements

Project No. **11159130**
Revision No. **-**
Date **12/7/2021**

Project Components

FIGURE 2-3

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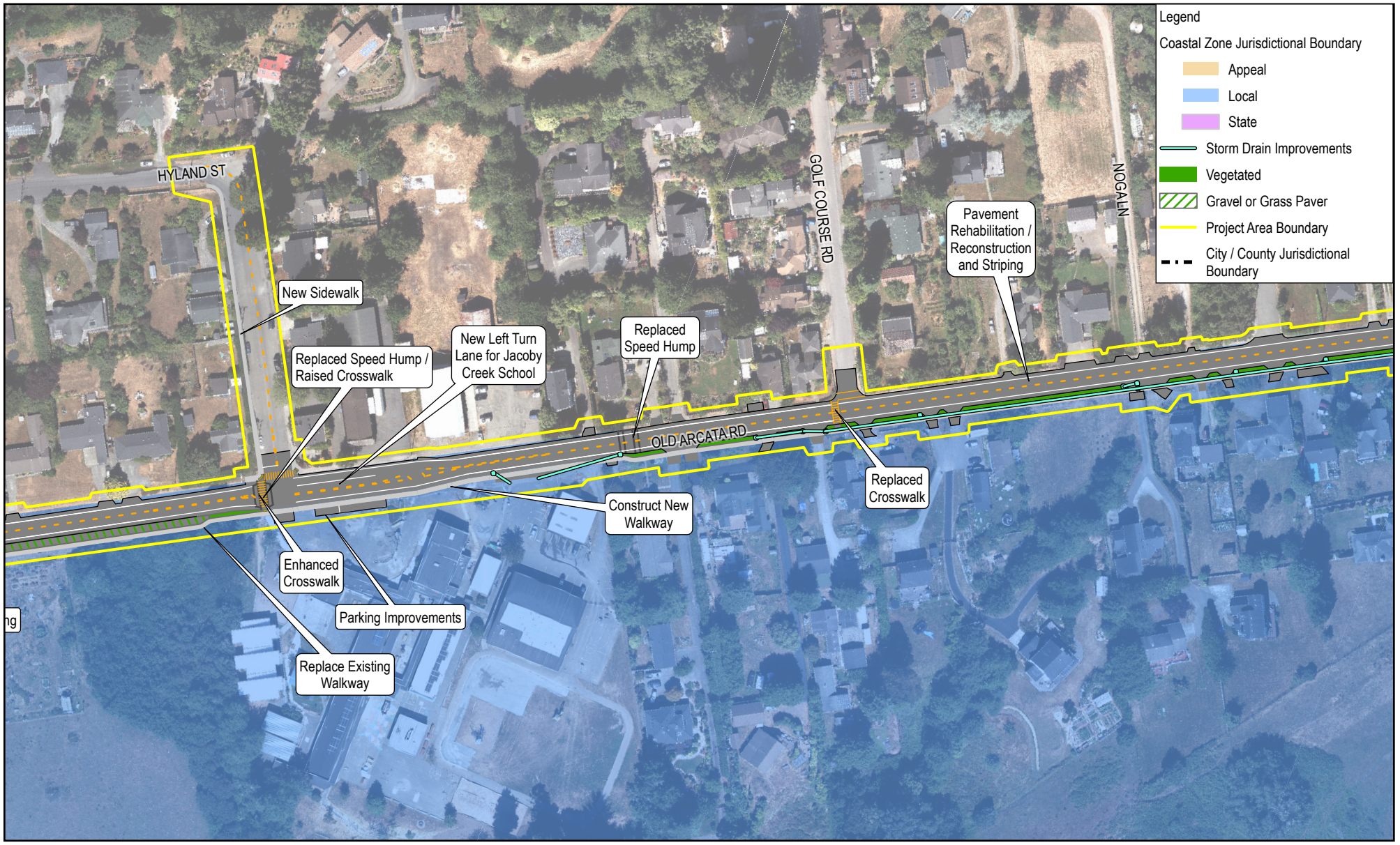

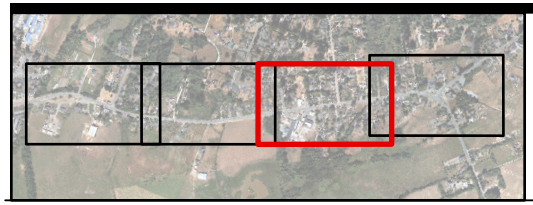

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City of Arcata
Old Arcata Road Improvements

Project No. **11159130**
Revision No. **-**
Date **12/7/2021**

Project Components

FIGURE 2-4

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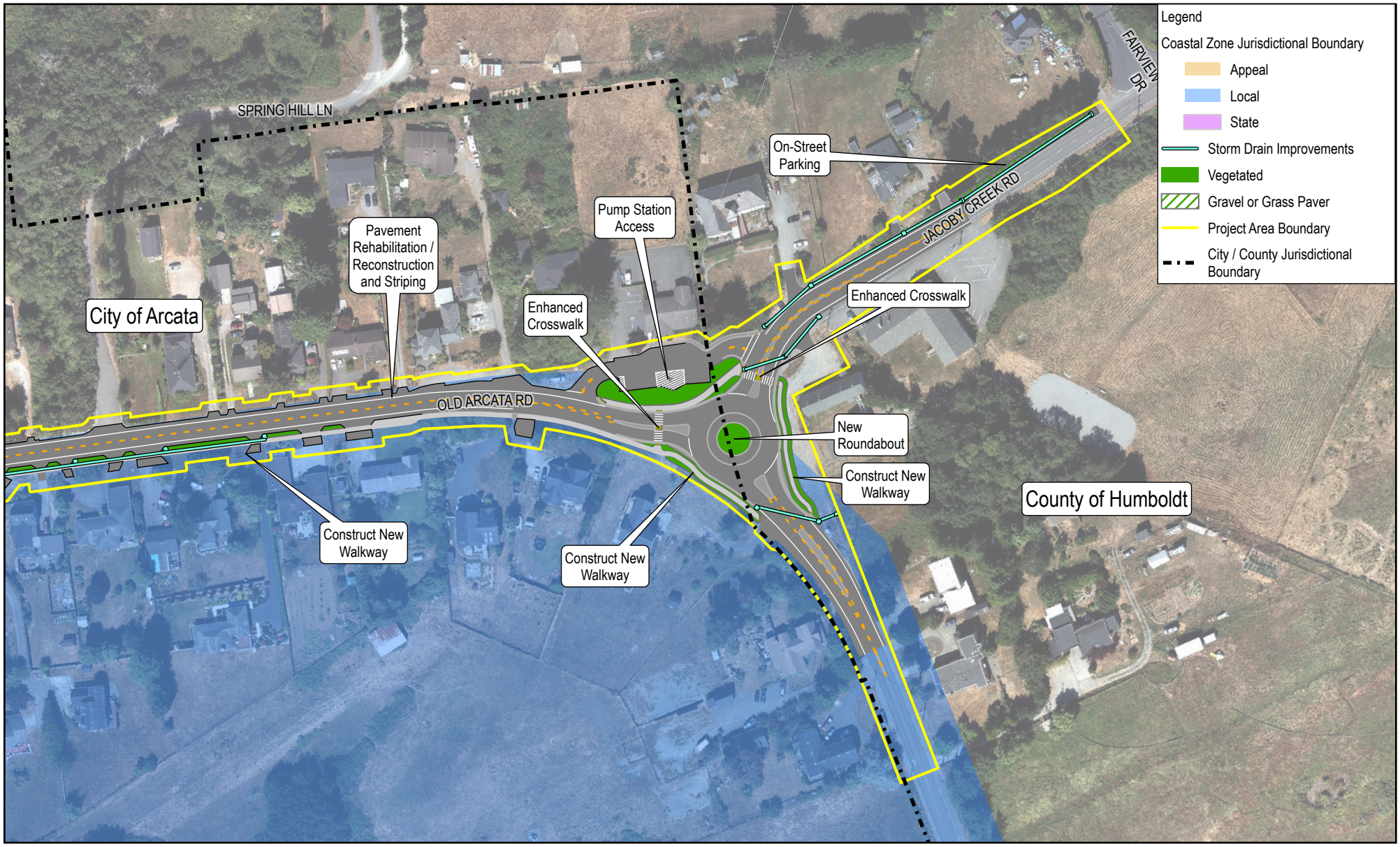

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GHD

City of Arcata
Old Arcata Road Improvements

Project No. **11159130**
Revision No. **-**
Date **12/7/2021**

Project Components

FIGURE 2-5

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3.3 Biological Resources

This section evaluates potential impacts related to biological resources during construction and operation of the Project. To provide the basis for this evaluation, the Setting section describes the biological setting. The Regulatory Framework section describes the regulatory background that applies to the Project. The Impact Analysis section establishes the thresholds of significance, evaluates potential impacts to biological resources, and identifies the significance of impacts.

3.3.1 Study Area

The biological study area (BSA) for biological resources includes the footprint of the Project Area, as well as a five to 10-foot buffer around the perimeter of the Project Area. An additional 600-foot buffer was applied to the north end of proposed Project improvements to accommodate any potential design changes. Given the entire Project would take place within the public right of way along the established roadway corridor, larger-scale biological impacts beyond the established BSA would not occur. The BSA is shown in Figure 2 of the Natural Environment Study (NES) prepared for the Project by Northstar Environmental (2019), included as Appendix D.

3.3.2 Setting

Existing Habitat Conditions

The BSA, running approximately north by northwest from Bayside to Arcata, is located on the median between two distinct geographic regions. West of the site are the Bayside Bottoms mud flats and Gannon Slough, low profile wetland features supporting drainage to Humboldt Bay and possessing numerous standing waters. East of the site is Fickle Hill, characterized by low elevation foothills drained by numerous creeks. The most prominent creeks near the site are Beith Creek (approximately 50 feet north of the BSA), North Jacoby Creek (located in the BSA, culverted under Old Arcata Road near Spring Hill Lane), and Grotzman Creek (located north and west of the BSA). The elevation within the BSA ranges from approximately 20 to 55 feet above mean sea level. Annual precipitation averages 41-53 inches and mean annual temperature ranges from 52-55 degrees Fahrenheit.

The BSA lies entirely on the Hookton-Tablebluff soils complex, which is comprised of largely undifferentiated alluvial and aeolian sediment forming loams and silty clay-loams in the top 5 feet of soil. Specific groundwater depths are currently unknown at the Project location, but National Resource Conservation Service (NRCS) estimates range from 10 to 40 inches below ground surface. Topography slopes from 2 to 9 percent grade. The soils range from poorly to moderately well-drained and possess a moderately low water transmissivity value (0.20 – 0.60 inches per hour). Field surveys performed by GHD in 2018 also indicated the presence of naturally occurring gravels in varying frequencies, and larger quantities of gravel placed by humans in drainage ditches.

Habitat Types

The Project Area is within the Redwood – Douglas Fir vegetation community (ICE 1997 cited in Northstar Environmental 2019) with Old Arcata Road the dominant feature throughout the BSA. The botanical survey conducted by GHD identified individual redwood trees adjacent to Old Arcata Road but determined they did not constitute a forest community and are not considered Environmentally Sensitive Habitat Areas (ESHA). The majority of the BSA includes paved roadway. No special concern habitats or natural communities exist within the BSA.

Aquatic Resources

The BSA consists of two types of identified U.S. Army Corp of Engineers (USACE) jurisdictional wetlands that were classified using Cowardin nomenclature from *Classification of Wetlands and Deepwater Habitats of the United States* (Federal Geographic Data Committee 2013 cited in GHD 2021) - Palustrine Emergent Persistent Wetlands and Palustrine Broad-leaved Deciduous Scrub-Shrub Wetlands. The USACE issued a Preliminary Jurisdictional Determination (PJD) on March 28, 2019. BSA also contains one-parameter wetlands meeting

Coastal Commission requirements based only on wetland (facultative wetland plants [FAC] or wetter) vegetation (lack of hydric soils and wetlands hydrology). These wetlands were mapped based on dominant native vegetation as one-parameter willow series. The one-parameter willow series was mapped to the willow canopy dripline. Areas where the canopy extends over pavement were also mapped. No two-parameter wetlands were identified. A 2021 wetland delineation update focused on a small wetland located near the intersection of Old Arcata Road and Jacoby Creek Road (GHD 2021). The 2021 wetland delineation update concluded that the evaluated area did not meet three-parameter wetland criteria, and an updated PJD was submitted to the USACE for review (GHD 2021). The USACE concurred and issued a revised jurisdictional determination (USACE 2021).

The Palustrine Emergent Persistent Wetland and the Palustrine Scrub-Shrub, Broad leaved Deciduous Wetlands occurred primarily within roadside ditches along the northeast side of Old Arcata Road. The Palustrine Emergent Persistent Wetland consisted primarily of an herbaceous layer and the Palustrine Scrub-Shrub, Broad leaved Deciduous Wetlands consisted of tree, shrub, and herbaceous vegetation layers. Willow species (*Salix* spp.) were the dominant trees in the shrub-scrub wetlands often occurring with Himalayan blackberry (*Rubus armeniacus*) and California blackberry (*Rubus ursinus*) in the shrub layer. Hydrophytic vegetation was dominant within all wetland areas.

Sensitive Natural Communities

No sensitive vegetation alliances, including riparian, were identified within the BSA based on CDFW's Hierarchical List of Natural Communities (California Department of Fish and Wildlife [CDFW] 2018b cited in Northstar Environmental 2019). Communities noted in the CDFW Hierarchical List of Natural Communities with a 1,2, or 3 are considered sensitive. Some individual redwood trees (*Sequoia sempervirens*) occur within the BSA. On the northern end of the BSA near the Buttermilk Lane roundabout, there are a few young redwood trees that appear to have been planted. North of Jacoby Creek Elementary School, between a fence line and the sidewalk, there are two mature redwood trees and a small (<5 feet. tall) sapling located between the two larger trees. The Sequoia sempervirens Forest Alliance has a Global listing of G3 and State Ranking of S3 (CDFW 2018b cited in Northstar Environmental 2019). None of the redwood trees within the BSA are connected to a forest and therefore they do not constitute a Forest Alliance. Redwood trees are not considered special-status plant species as individuals and are not considered ESHA.

Special-Status Plant Species and ESHA

On June 18 and July 31, 2018, the BSA was surveyed in an effort to identify if federal, state and/or California Native Plant Society (CNPS) listed plant species are present. No special status species were observed during the protocol level surveys in 2018. Vegetation mapping to screen for Environmentally Sensitive Habitat Areas (ESHA) occurred on August 31, 2018 and September 20, 2018. Within the assessment area, three sensitive plant communities have a documented potential to exist according to the California Natural Diversity Database (CNDDB) - upland Douglas-fir forest, northern coastal salt marsh, and northern foredune grassland. None of these communities were observed within the BSA. See Table 3.3-1 - Potential for Special Status Plants to Occur within the Study Area, for a summary of special status plants evaluated in the NES.

Wildlife and Avian Resources

The USFWS Information for Planning and Consultation (IPaC) website was consulted for a list of federally listed species and critical habitat that might be present within the proposed Project Area and the BSA. Additionally, the CNDDB list of Federally and State-listed species was reviewed for species that may potentially occur in the BSA. Surveys indicated there were no special-status species or their potential habitats within the BSA. The Project Area contains habitat suitable for nesting migratory birds. Species with the potential to be affected by Project activities are those that nest in the vegetation and trees adjacent to Old Arcata Road. See Table 3.3-1 for a summary of special status avian species evaluated in the NES. While aquatic habitat is not present in the BSA, potential habitat exists for the Northern Red-legged Frog (*Rana aurora*) adjacent to the BSA. No additional special-status wildlife species or their habitats were identified within the BSA. See Table 3.3-1 for a summary of special status wildlife evaluated in the NES.

Table 3.3-1 Potential for Special-status Species to Occur within the Study Area

Species	Status[1]	Habitat Requirements[2]	Potential to Occur On-site
Mammals			
Fisher (*Pekania pennanti)*	USFWS Proposed Threatened, CA Threatened, CDFW Species of Special Concern	Late-successional coniferous or mixed forests. Key habitat components include relatively large diameter trees, high canopy closure, large trees (hardwood and conifer) with cavities, and large down wood.	Low Potential. Suitable habitat is absent from the BSA.
Sonoma Tree Vole (*Arborimus pomo)*	CDFW Species of Special Concern	Nests high in the canopy in wet, old-growth forests.	Low Potential. Suitable habitat is absent from BSA.
Townsend's Big-eared Bat (*Corynorhinus townsendii)*	CDFW Species of Special Concern	Uses caves, mines, and isolated buildings (e.g., barns) for day and night roosting, maternity roosting, and hibernacula. Occasionally uses hollow trees and bridges for day or night roosting.	Moderate Potential. Habitat is generally absent in the BSA; however, habitat is adjacent to the BSA and a potential to occur does exist.
Birds			
Northern Spotted Owl (*Strix occidentalis caurina)*	Threatened	Inhabit older forested habitats required for nesting, roosting, and foraging. Specifically require multi-layered, multi-species canopy with moderate to high canopy closure.	Low Potential. Habitat is absent from the BSA.
Western Snowy Plover (*Charadrius nivosus nivosus)*	Threatened	Breeds on coastal beaches. Generally breeding occurs above the high tide line on coastal beaches, sand spits, dune-backed beaches, sparsely vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries.	Low Potential. Habitat is absent from the BSA.
Yellow-billed Cuckoo (*Coccyzus americanus)*	Threatened	Breeds mostly in dense deciduous stands, including forest edges, tall thickets, dense second growth, overgrown orchards, and scrubby oak woods. Often found in willow groves around marshes.	Low Potential. Habitat is absent from the BSA.
White-tailed Kite (*Elanus leucurus)*	CDFW Fully Protected	Common in savannas, open woodlands, marshes, desert grasslands, partially cleared lands, and cultivated fields.	Moderate Potential. Habitat is generally absent in the BSA; however, habitat is adjacent to the BSA and a potential to occur does exist.
Mountain Plover (*Charadrius montanus)*	CDFW Species of Special Concern	Breeds on open plains at moderate elevations. Winters in short-grass plains and fields, plowed fields, and sandy deserts. Usually not found near bodies of water or even wet soil.	Low Potential. Habitat is absent from the BSA.
American Peregrine Falcon (*Falco peregrinus anatum)*	CDFW Fully Protected	Breeds in open landscapes with cliffs (or skyscrapers) for nest sites.	Low Potential. Habitat is absent from the BSA.

Species	Status[1]	Habitat Requirements[2]	Potential to Occur On-site
Bryant's Savannah Sparrow (*Passerculus sandwichensis alaudinus)*	CDFW Species of Special Concern	Inhabit grasslands with few trees, including meadows, pastures, grassy roadsides, sedge wetlands, and cultivated fields planted with cover crops like alfalfa. Near oceans, they also inhabit tidal saltmarshes and estuaries.	Low Potential. Suitable habitat is absent from the BSA.
California Brown Pelican (*Pelecanus occidentalis californicus)*	CDFW Fully Protected	Nest in colonies on offshore islands free from predators. Roost communally in areas that are near adequate food supplies, have a physical barrier from predators, and provide protection from wind or high surf.	Low Potential. Habitat is absent from the BSA.
Yellow Rail (*Coturnicops noveboracensis)*	CDFW Species of Special Concern	Breeding birds typically inhabit fresh and brackish-water marshes, preferring the higher (drier) margins.	Low Potential. Habitat is absent from the BSA and the Project Area is outside of the Yellow Rail's known range.
Fish			
Tidewater Goby (*Eucyclogobius newberryi)*	USFWS Endangered, CDFW Species of Special Concern	Inhabits lagoons formed by streams running into the sea.	No Potential. Suitable aquatic habitat is absent from the BSA.
Green Sturgeon (*Acipenser medirostris)*	USFWS Threatened, CDFW Species of Special Concern	Found in riverine, estuarine, and marine habitats along the west coast of North America, spending substantial portions of their lives in marine waters.	No Potential. Suitable aquatic habitat is absent from the BSA.
Longfin Smelt (*Spirinchus thaleichthys)*	USFWS Candidate, CA Threatened	Found in bays, estuaries, and nearshore coastal areas, and migrate into freshwater rivers to spawn.	No Potential. Suitable aquatic habitat is absent from the BSA.
Eulachon (*Thaleichthys pacificus)*	USFWS Threatened	Found near the bottom of the continental shelf, usually at depths of 20-200m. Spawning occurs within tidal influence of river mouth.	No Potential. Suitable aquatic habitat is absent from the BSA.
Coho Salmon (*Oncorhynchus kisutch)*	USFWS Threatened, CA Threatened	Spawning occurs in small streams with stable gravel substrates. The remainder of the life cycle is spent foraging in estuarine and marine waters of the Pacific Ocean.	No Potential. Suitable aquatic habitat is absent from the BSA.
Steelhead Trout (*Oncorhynchus mykiss irideus)*	USFWS Threatened	Spawn in fast-flowing, gravel-bottomed, well-oxygenated rivers and streams.	No Potential. Suitable aquatic habitat is absent from the BSA.
Chinook Salmon (*Oncorhynchus tshawytscha)*	USFWS Threatened	Juveniles may spend 3 months to 2 years in freshwater before migrating to estuarine areas and then into the ocean to feed and mature. They prefer streams that are deeper and larger than those used by other Pacific salmon species.	No Potential. Suitable aquatic habitat is absent from the BSA.

Species	Status[1]	Habitat Requirements[2]	Potential to Occur On-site
Coastal Cutthroat Trout (*Oncorhynchus clarkii clarkii)*	CDFW Species of Special Concern	Inhabit a large range along the Pacific coast. They prefer estuaries, lagoons, and small, low-gradient coastal streams.	No Potential. Suitable aquatic habitat is absent from the BSA.
Pacific Lamprey (*Entosphenus tridentatus)*	CDFW Species of Special Concern	Typically found in stream and river reaches that have relatively stable flow conditions. Spawning occurs in medium-sized rivers and smaller tributary streams.	No Potential. Suitable aquatic habitat is absent from the BSA.
Reptiles			
Western Pond Turtle (*Emys marmorata)*	CDFW Species of Special Concern	Inhabits calm and quiet ponds, marshes, and pools.	Low Potential. Habitat is absent from the BSA.
Amphibians			
Pacific Tailed Frog (*Ascaphus truei)*	CDFW Species of Special Concern	Inhabits cold, fast-moving streams with cobblestone bottoms.	Low Potential. Habitat is absent from the BSA.
Foothill Yellow-legged Frog (*Rana boylii)*	CA Threatened, CDFW Species of Special Concern	Typically inhabits rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands.	Low Potential. Habitat is absent from the BSA.
Northern Red-legged Frog (*Rana aurora)*	CDFW Species of Special Concern	Typically found in woods adjacent to streams. Found in humid forests, woodlands, grasslands, and streamsides with plant cover. Breeding habitat is in permanent water sources (lakes, ponds, streams, etc.).	Moderate Potential. Habitat is generally absent in the BSA; however, habitat is adjacent to the BSA and a potential to occur does exist.
Southern Torrent Salamander (*Rhyacotriton variegatus)*	CDFW Species of Special Concern	Found in shallow, cold, clear, well-shaded streams, waterfalls and seepages, particularly those running through talus and under rocks all year, in mature old-growth forests.	Low Potential. Habitat is absent from the BSA.
Plants			
Western lily (*Lilium occidentale)*	USFWS Endangered, CA Endangered	Grows at the edges of sphagnum bogs and in forest or thicket openings along the margins of ephemeral ponds and small channels. It also grows in coastal prairie and scrub near the ocean where fog is common.	Low Potential. Habitat is absent from the BSA.

Species	Status[1]	Habitat Requirements[2]	Potential to Occur On-site

Potential to Occur:

No Potential Habitat on and adjacent to the Project Area is clearly unsuitable for the species requirements (cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

Low Potential Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the Project Area is unsuitable or of very poor quality. The species is not likely to be found in the Project Area.

Moderate Potential Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the Project Area is unsuitable. The species has a moderate probability of being found in the Project Area.

High Potential All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the Project Area is highly suitable. The species has a high probability of being found in the Project Area.

Table compiled from CDFW California Natural Diversity Database (CNDDB), U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Species List, and the National Marine Fisheries Service (NMFS) West Coast Fisheries Database Electronic Inventory searches of the Arcata South, Arcata North, Blue Lake, Korbel, Iaqua Buttes, McWhinney Creek, Fields Landing, Eureka and Tyee City USGS 7.5 Minute Quadrangles (CDFW 2018, CNPS 2018, NMFS 2018, USFWS 2018). Potential to occur is determined based on habitat availability and nearest known documented records.

3.3.3 Regulatory Framework

Many sensitive biological resources in California, including species, habitats, and aquatic resources, are protected and/or regulated by federal, state, and local laws and policies. Those applicable to the Project are summarized below.

Federal

Clean Water Act, Section 404

The Clean Water Act (CWA; 1977, as amended) establishes the basic structure for regulating discharges of pollutants into Waters of the U.S. It gives the U.S. Environmental Protection Agency (EPA) the authority to implement pollution control programs, including setting wastewater standards for industry and water quality standards for contaminants in surface waters. The CWA makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, without a permit under its provisions.

Proposed discharges of dredged or fill material into Waters of the U.S. require USACE authorization under Section 404 of the CWA [33 U.S.C. 1344]. Regulations implementing CWA Section 404 define “Waters of the U.S.” to include intrastate waters (such as, lakes, rivers, streams, wetlands, and natural ponds) that the use, degradation, or destruction of could affect interstate or foreign commerce. Wetlands are defined for regulatory purposes as “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 Code of Federal Regulations [CFR] 328.3; 40 CFR 230.3). Projects are reviewed by USACE under standard (i.e., individual) or general (i.e., nationwide, programmatic, or regional) permits. The type of permit process used to consider a project is determined by the USACE and based on project parameters.

Clean Water Act, Section 401

In California, the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) review projects for compliance with State and Federal water quality standards under Section 401 of the Clean Water Act. In Humboldt County, the North Coast RWQCB (NCRWQCB) is responsible for certifying that a federally permitted project meets state water quality objectives (§401 CWA, and Title 23 CCR 3830, et seq.) before the permit is issued. Activities in areas that are outside of the jurisdiction of the USACE (e.g., isolated wetlands, vernal pools, or stream banks above the ordinary high water mark) are regulated by the nine RWQCBs, under the authority of the Porter-Cologne Act, and may require the issuance of either individual or general waste discharge requirements (WDR) (see below).As described in Section 2.8.1 – Environmental Protection Action 1 – Stormwater Pollution Prevention Plan (SWPPP), the City would submit permit registration documents (notice of intent, risk assessment, site maps, SWPPP, annual fee, and certifications) to the Water Board. The SWPPP would address pollutant sources, best management practices, and other requirements specified in the Order. The SWPPP would include erosion and sediment control measures, and dust control practices to prevent wind erosion, sediment tracking, and dust generation by construction equipment. A Qualified SWPPP Practitioner would oversee implementation of the Project SWPPP, including visual inspections, sampling and analysis, and ensuring overall compliance.

Executive Order 11990

Executive Order 11990 (1977) furthers the protection of wetlands through avoidance of long and short-term adverse impacts associated with the destruction or modification of wetlands where practicable. The order requires all federal agencies managing federal lands, sponsoring federal projects, or funding state or local projects to assess the effects of their actions on wetlands. The agencies are required to follow avoidance, mitigation, and preservation procedures. The Presidential Wetland Policy of 1993 and subsequent reaffirmation of the policy in 1995 supports protection and restoration of wetlands, while advocating for increased fairness of federal regulatory programs.

Executive Order 13112, Invasive Species

Executive Order 13112 was issued in 1999 to enhance federal coordination and response to the complex and accelerating problem of invasive species. It provides policy direction to promote coordinated efforts of federal, state, and local agencies in monitoring, detecting, preventing, evaluating, managing, and controlling the spread of invasive species and increasing the effectiveness of scientific research and public outreach affecting the spread and impacts of invasive species.

Federal Endangered Species Act

The Endangered Species Act (ESA) of 1973 (16 USC 1531 *et seq*.) establishes a national policy that all federal departments and agencies provide for the conservation of threatened and endangered species and their habitats. The Secretary of the Interior and the Secretary of Commerce are designated in the ESA as responsible for: (1) maintaining a list of species likely to become endangered within the foreseeable future throughout all or a significant portion of its range (threatened) and that are currently in danger of extinction throughout all or a significant portion of its range (endangered); (2) carrying out programs for the conservation of these species; and (3) rendering opinions regarding the impact of proposed federal actions on listed species. The ESA also outlines what constitutes unlawful taking, importation, sale, and possession of listed species and specifies civil and criminal penalties for unlawful activities.

Pursuant to the requirements of the ESA, an agency reviewing a project within its jurisdiction must determine whether any Federally listed or proposed species may be present in the project region, and whether the proposed project would result in "take" of such species. The ESA prohibits "take" of a single threatened and endangered fish or wildlife species except under certain circumstances and only with authorization from USFWS or NOAA Fisheries through a permit under Section 7 (for federal entities or federal actions) or 10(a) (for non-federal entities) of the Act. "Take" under the ESA includes activities such as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USFWS regulations define harm to include "significant habitat modification or degradation." On June 29, 1995, a U.S. Supreme Court ruling further defined harm to include habitat modification "…where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." Of note, federally listed plants are not protected from take, although it is illegal to collect or maliciously harm them on Federal land.

In addition, an agency reviewing a project is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under the ESA or result in the destruction or adverse modification of critical habitat for such species (16 USC 1536[3][4]). Critical Habitat is defined by the ESA as a specific geographic area containing features essential for the conservation of an endangered or threatened species. Under Section 7 of the ESA, critical habitat should be evaluated if designated for Federally listed species that may be present in the project vicinity and/or potentially impacted by the project.

Coastal Zone Management Act

The Coastal Zone Management Act (CZMA) was passed in 1972 and established a national policy and national program for the management, beneficial use, protection, and development of land and water resources of the nation's coastal zones. The voluntary national program was meant to encourage coastal states to develop and implement coastal zone management plans. The California Coastal Act (CCA) (further described below) is the foundation of the California Coastal Management Program which is California's coastal zone management plan. The CZMA requires that federal development activities and development requiring federal permits or funding affecting land or water areas or resources within the coastal zone are consistent with the provisions of the act and approved coastal zone management plans. In California, outside of San Francisco Bay, the California Coastal Management Program is implemented and enforced by the California Coastal Commission (CCC).

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711) as amended established federal responsibilities for the protection of nearly all species of birds, their eggs, and nests. A migratory bird is defined as any species

or family of birds that live, reproduce, or migrate within or across international borders at some point during their annual life cycle. The MBTA prohibits the take, possession, buying, selling, purchasing, or bartering of any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Only exotic species such as Rock Pigeons (*Columba livia*), House Sparrows (*Passer domesticus*), and European Starlings (*Sturnus vulgaris*) are exempt from protection.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) was originally enacted in 1940 in order to protect the national emblem of the United States, the Bald Eagle. At that time, the Bald Eagle was experiencing significant population pressures from hunting, egg collection, and habitat loss (Buehler 2000). This act was expanded in 1962 to include protections for the Golden Eagle (*Aquila chrysaetos*), which was also experiencing precipitous population declines due to habitat loss, hunting, and electrocution from power lines (Kochert et al. 2002).

The current federal statute as amended (16 U.S.C. 668-668d) includes criminal penalties for anyone, including individuals, associations, partnerships, and corporations who “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or in any manner any bald eagle commonly known as the American eagle or any golden eagle, alive or dead, or any part, nest, or egg thereof” without a permit (16 U.S.C. § 668a).

A BGEPA take permit may be required if a proposed activity is near an active or inactive eagle nest, roosting site, or foraging site. This is particularly true if the project is near breeding habitat (as opposed to wintering habitat or migratory stop-over sites). The act applies to all activities that may impact eagles, including projects without a federal nexus. If there is a possibility that the project could “non-purposefully take” eagles (unavoidable take associated with, but not the purpose of an activity) the USFWS may issue a programmatic take permit. In this case, the permit would be subject to conditions or mitigation measures to minimize impacts. Post-construction monitoring and annual reports may also be required (50 CFR 22.26).

State

California Environmental Quality Act

Rare or endangered plant or wildlife species are defined in the CEQA Guidelines Section 15380. Endangered means that survival and reproduction in the wild are in immediate jeopardy. Rare means that a species is either presently threatened with extinction or that it is likely to become endangered within the foreseeable future. A species of animal or plant shall be presumed to be rare or endangered if it is listed in 14 California Administrative Code (CAC) 670.2 or 670.5, or 50 CFR 17.11 or 17.12 pursuant to the ESA as threatened or endangered.

California Coastal Act

The CCA (California Public Resources Code [PRC] Sections 30000 et seq) was enacted by the State Legislature in 1976 to provide long-term protection of California’s 1,100-mile (1,770 kilometers) coastline for the benefit of current and future generations. CCA policies constitute the standards used by the CCC in its coastal development permit decisions and for the review of local coastal programs (LCPs) prepared by local governments and submitted to the CCC for approval. These policies are also used by the CCC to review federal activities that affect the coastal zone (see Coastal Zone Management Act above). Among other things, the policies require:

– Protection and expansion of public access to the shoreline;
– Protection, enhancement and restoration of environmentally sensitive habitats;
– Protection of productive agricultural lands, commercial fisheries and archaeological resources; and
– Protection of the scenic beauty of coastal landscapes and seascapes;

The CCA defines an “environmentally sensitive habitat area” (ESHA) as an “area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and

which could be easily disturbed or degraded by human activities and developments" (Section 30107.5). Three important elements define an ESHA:

1. A geographic area can be designated ESHA because of the presence of individual species of plants or animals or because of the presence of a particular habitat;
2. In order for an area to be designated as ESHA, the species or habitat must be either rare or it must be especially valuable; and,
3. The area must be easily disturbed or degraded by human activities.

Section 30240 states in part that:

– ESHA shall be protected against significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.
– Development in areas adjacent to ESHA and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas and shall be compatible with the continuance of those habitat and recreation areas.

While there is not a specific list of habitats considered to be ESHA for the state or county, the CCC through the CCA and counties or municipalities through LCPs are the jurisdictional agencies that exert authority in identifying and protecting ESHA during project review and permitting. In order for the CCC to determine if areas are to be classified as ESHA's, they often refer to CDFW's list of statewide Sensitive Natural Communities. Sensitive Natural Communities are defined by CNDDB as those with a State ranking of 1, 2 or 3 (S1, S2, or S3). The CCC generally considers Sensitive Natural Communities to be ESHAs. Thus, the Sensitive Natural Communities discussed in Impact BIO-2 would also likely be considered ESHA under the CCA.

Additional Coastal Act policies relevant to the proposed Project include:

Section 30231

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained, and where feasible, restored through, among other means, minimizing adverse effects of wastewater discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging wastewater reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30233

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland; provided, however, that in no event shall the size of the wetland area used for such boating facility, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, be greater than 25 percent of the total wetland area to be restored.

(4) *In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities.*

(5) *Incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*

(6) *Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*

(7) *Restoration purposes.*

(8) *Nature study, aquaculture, or similar resource-dependent activities.*

Section 30607.1

Where any dike and fill development is permitted in wetlands in conformity with this division, mitigation measures shall include, at a minimum, either acquisition of equivalent areas of equal or greater biological productivity or opening up equivalent areas to tidal action; provided, however, that if no appropriate restoration site is available, an in-lieu fee sufficient to provide an area of equivalent productive value or surface areas shall be dedicated to an appropriate public agency, or such replacement site shall be dedicated to an appropriate public agency, or such replacement site shall be purchased before the dike or fill development may proceed. Such mitigation measure shall not be required for temporary or short-term fill or diking: provided, that a bond or other evidence of financial responsibility is provided to assure that restoration will be accomplished in the shortest feasible time.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter Cologne) was passed in 1969 and assigns overall authority for water rights and water quality protection to the SWRCB and directs the nine RWQCBs to develop and enforce water quality standards within their boundaries. Through Porter-Cologne, the RWQCBs are responsible for regulating any activity, including waste discharges, that would, or that have the potential to, impair the beneficial uses of water bodies.

The SWRCB utilizes WDRs to regulate activities that may affect waters of the state or that may discharge water in a diffuse matter. As described above, any federally sponsored or permitted activity that may result in a discharge to a water body must be certified under CWA Section 401 that the proposed activity would comply with state water quality standards. In practice, a CWA Section 401 Water Quality Certification incorporates a “General Waste Discharge Requirement for Dredge and Fill Discharges”, so a project specific WDR is not typically required. A WDR is, however, required when a CWA Section 401 Water Quality Certification is not, or if the project is particularly complex.

In the Project Area, the NCRWQCB regulates construction in Waters of the U.S. and Waters of the State, including activities in wetlands, under both the CWA and Porter Cologne (California Water Code, Division 7).

Executive Order W-59-93, State Wetland Conservation Policy

The California Wetlands Conservation Policy (Executive Order W-59-93) establishes a primary objective to “ensure no overall net loss…of wetlands acreage and values in California.” The RWQCBs implement this policy and the Basin Plan Wetland Fill Policy, both of which require mitigation for wetland impacts.

California Endangered Species Act

The California Endangered Species Act (CESA) includes provisions for the protection and management of species listed by the State of California as endangered, threatened, or designated as candidates for such listing (California Fish and Game Code (FGC) Sections 2050 through 2085). The CESA generally parallels the main provisions of the ESA and is administered by CDFW, which maintains a list of state threatened and endangered species as well as candidate species. The CESA requires consultation “to ensure that any action authorized by a state lead agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of the species”

(Section 2053). California plants and animals declared to be endangered or threatened are listed in 14 California Code of Regulations (CCR) 670.2 and 14 CCR 670.5, respectively. The State prohibits the incidental take of species listed pursuant to CESA or candidate species unless that take is permitted by CDFW. Under CESA, "take" is defined as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." It does not include protection of habitat unless alteration or removal of habitat would result in direct "take" (as defined above) of an individual animal.

California Fish and Game Code (FGC) - Birds of Prey and Native Nesting Birds

Section 3503 of the FGC prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Subsection 3503.5 specifically prohibits the take, possession, or destruction of any birds in the orders Falconiformes (hawks and eagles) or Strigiformes (owls) and their eggs or nests. These provisions, along with the federal MBTA, essentially serve to protect nesting native birds. Non-native species, including the European Starling, Rock Dove, and House Sparrow, are not afforded protection under the MBTA or FGC.

California FGC - Fully Protected Species

The CDFW enforces the FGC, which provides protection for "fully protected birds" (Section 3511), "fully protected mammals" (Section 4700), "fully protected reptiles and amphibians" (Section 5050), and "fully protected fish" (Section 5515). As fully protected species, the CDFW cannot authorize any project or action that would result in "take" of these species even with an incidental take permit.

Species of Special Concern

The CDFW maintains a list of Species of Special Concern. A Species of Special Concern is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

– is extirpated from the State or, in the case of birds, is extirpated in its primary season or breeding role;
– is listed as Federally-, but not State-, threatened or endangered; meets the State definition of threatened or endangered but has not formally been listed;
– is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status; or
– has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.

Species of Special Concern are species that are declining in California, and if current population and habitat trends continue could warrant listing pursuant to CESA or the ESA. Species of Special Concern receive consideration under CEQA.

Native Plant Protection Act

The CDFW administers the California Native Plant Protection Act (CNPPA) (Sections 1900–1913 of the FGC). These sections allow the California Fish and Game Commission to designate rare and endangered plant species and to notify landowners of the presence of such species. Section 1907 of the FGC allows the Commission to regulate the "taking, possession, propagation, transportation, exportation, importation, or sale of any endangered or rare native plants." Section 1908 further directs that "[n]o person shall import into this state, or take, possess, or sell within this state, except as incident to the possession or sale of the real property on which the plant is growing, any native plant, or any part or product thereof, that the Commission determines to be an endangered native plant or rare native plant."

Sensitive Natural Communities

The Manual of California Vegetation Online, describes California vegetation types, also known as "natural communities," and categorizes them into a hierarchical structure of alliances and associations. CDFW's CNDDB

evaluates the rarity and threats to these natural communities and ranks them into set categories, known as a state ranking. Alliances and associations with a CNDDB State ("S") ranking of S1 through S3 are defined as Sensitive Natural Communities and impacts to them should be assessed during CEQA project review. State ranking includes the following:

- S1 = Critically Imperiled – Critically imperiled in the state because of extreme rarity (often five or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.
- S2 = Imperiled – Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.
- S3 = Vulnerable – Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
- S4 = Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- S5 = Secure – Common, widespread, and abundant in the state.

California Invasive Plant Council

The California Invasive Plant Council (Cal-IPC) keeps an inventory categorizing plants that threaten California's natural areas. The inventory includes invasive plants that currently cause environmental damage or economic harm in California as well as a "Watch List" of plants that are a high risk of becoming invasive in the future. The inventory represents the best available knowledge of invasive plant experts in California. Categorization is based on an assessment of ecological impacts, conducted with transparent science-based criteria and expert review. The inventory has no regulatory authority, rather is intended to be utilized as a management resource. The categorization or ratings of Cal-IPC plants are in accordance with the following:

- **High** – These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically. European beachgrass and dense-flowered cordgrass are Cal-IPC rated as High.
- **Moderate** – These species have substantial and apparent-but generally not severe-ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.
- **Limited** – These species are invasive, but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.
- **Alert** – An Alert is listed on species with High or Moderate impacts that have limited distribution in California but may have the potential to spread much further.
- **Watch** – These species have been assessed as posing a high risk of becoming invasive in the future in California.

Public Trust Lands

The State Lands Commission (SLC) has jurisdiction and management authority over all public trust lands, including ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the common law Public Trust Doctrine which requires they be managed for the benefit of the public consistent with the provisions of Public trust (e.g., commerce, navigation, fisheries, recreation). Review by the SLC and issuance of a new, or amendment of an existing surface lease may be required for a project under SLC

jurisdiction. No lands within the Project Area are under the jurisdiction of the SLC, and therefore no lease or permit from the SLC is warranted.

Regional and Local

Most of the Project Area is within the City of Arcata, except for the southern extent which is within Humboldt County jurisdiction. A small portion of the Project within County jurisdiction is also within the Coastal Zone, at the intersection of Jacoby Creek Road and Old Arcata Road. Therefore, this section includes City of Arcata General Plan and City's Local Coastal Program policies for the portions of the Project within City limits and within the Coastal Zone. This section also includes Humboldt County General Plan policies for the area within County jurisdiction, and regulations from the County's Local Coastal Program - Humboldt Bay Area Plan for the area co-located within County jurisdiction and within the Coastal Zone.

City of Arcata General Plan

The City of Arcata General Plan contains guidelines for biological resources within the Open Space Element, and Resource Conservation and Management Element. The following policies from the Arcata General Plan are applicable to the City-jurisdictional portion of the proposed Project.

OS-1: Overall Open Space System

Designate, maintain, and enhance the quality, and increase the amount of permanently protected open space in the Arcata Planning Area, including natural resource areas; resource production areas; outdoor recreation areas; and areas subject to health and safety hazards. These areas are to be protected, linked together in a network wherever practical for accessibility, managed for resource production and maintained for enjoyment by City residents and visitors.

Applicable sub-policies:

- ***OS-1d**: Linkages between open space areas – Policy OS-1 – Linkage of open space lands, especially along biological corridors and greenways, is important for animal migration, nonmotorized vehicle transportation, and community recreation, and shall be encouraged. Trails along levees or adjacent to railroad tracks and street rights-of-way can serve as links to parks, open space, and natural areas. Easements shall also be considered as a lower cost alternative to preserving links between open space.*
- ***OS-1e**: Appropriate uses and development limitations within open space lands – Policy OS-1 – Certain open space areas contain wetlands and other critical habitat and must be preserved in a natural condition and enhanced. Other areas can accommodate managed activities such as mining and timber harvesting, subject to sustainable yield policies RC-6 and RC-8 in the Resource Conservation & Management Element, while other areas shall be designated for interpretive and recreational use. Each designated open space area of the City shall be evaluated by the appropriate City advisory board (e.g., Creeks & Wetlands Committee) to determine the resources present, the acceptable level of use, and appropriate preservation. The management of, and development in, open space areas are subject to applicable policies of the Resource Conservation and Management and Land Use Elements.*

OS-2: Natural Resources Protection & Enhancement

Designate, maintain, and enhance natural resource areas, including sensitive habitat areas, necessary to sustain plant and animal life and native biological diversity.

Applicable sub-policies:

- ***OS-2b**: Development limitations and management for maintenance of biotic resources and diversity, including aquatic resources and sensitive habitats – Policy OS-2 – Creeks, marshes, and wetlands are significant components of Arcata's natural open space system. The City shall restore and maintain this system for the benefit of residents, visitors, fish, and wildlife.*

The Arcata Bay and tidelands represent an important natural edge and open space feature of the City. Buildings, landform alterations, or access routes in this area shall be of a design and scale that preservers open space and natural characteristics and maintains public views to the Bay.

Local creeks which flow openly through the developed portion of the community shall have biological corridors and greenways established and shall be maintained as visual assets to any developments which adjoin them. The natural features of the Mad River corridor, Arcata's creeks and adjacent areas, marshes, and other wetland areas, shall be retained.

Unique vegetation and wildlife areas shall remain in a natural condition. Such areas include sand dunes and backdune woodlands, eel grass area, salt marshes, and special habitats (tern and osprey nesting areas, cormorant rookery, harbor seal area and egret roost). The policies of this element shall also call for protection for habitat of species that become threatened in the future.

RC-1: Natural Biological Diversity/Ecosystem Function

Set an overarching policy that emphasizes the overall value of biological diversity and the fact that all natural resources are optimized when they function as part of a healthy ecosystem.

Applicable sub-policies:

- ***RC-1a:** Maintain biological and ecological integrity – Policy RC-1 – Maintaining ecological balance, system function, biological integrity, and natural diversity is the primary focus of the Resource Conservation and Management Element. Protecting ecological functions of natural habitats, and natural drainage and infiltration processes, will enhance natural ecosystems in the Planning Area. Ecological system functions elements and processes are maintained through the following measures:*

  1. *The structure and composition of ecological systems within the City shall contain the same native plant and animal species, in the same relative abundances and proportions, which are found in the least-disturbed natural ecosystems in the Planning Area.*
  2. *The ecological functions performed by ecological systems in the City shall resemble the functions of the least-disturbed natural ecosystems in the Planning Area.*
  3. *Ecological systems and natural processes are not disrupted by exotic organisms to a significant degree.*
  4. *Ecological systems and natural processes are not to be disrupted by land use activities to a significant degree (e.g., a culvert or other drainage device that blocks fish passage).*

  An "adaptive management" approach shall be utilized to maintain ecological and biological integrity, including monitoring the status of ecological systems in the City and adjusting City implementation of this Plan, in order to more closely approximate the conditions provided in the Planning Area's least-disturbed natural ecosystems.

- ***RC-1b:** Non-native plant and animal species – Policy RC-1 – Some non-native species, such as pampas grass (Cortaderia jubata), Himalaya berry (Rubus discolor), Scotch broom (Cytisus scoparius), blue gum eucalyptus (Eucalyptus globulus), English ivy (Hedera helix), English holly (Ilex aquifolium), and cotoneaster (Cotoneaster franchetii), are invasive exotics that can and do displace native species. The presence of these non-native species reduces the area's natural diversity, biological integrity and aesthetics. Only native species, or species demonstrated to be non-invasive, shall be used in public landscapes and are to be strongly encouraged in private landscapes. The City shall provide public information that explains why invasive species are a problem. The City shall also maintain a program that recommends effective but non-toxic eradication measures, and eradicates non-native species on public lands where they are displacing native species.*

- ***RC-1c:** Habitat value protection – Policy RC-1 – Environmentally sensitive habitat areas (ESHA) shall be protected against any significant disruption of their habitat values, and only uses dependent on and compatible with maintaining those resources shall be allowed within ESHAs. Proposed development in*

areas adjacent to ESHAs shall be sited and designed to prevent impacts which would significantly degrade such areas, and must be compatible with the continuance of such habitat areas.

- ***RC-1d:** Sensitive habitat definition – Policy RC-1 – The City declares the following to be ESHAs within the Planning Area:*

  1. *Rivers, creeks, sloughs, and associated riparian habitats: Mad River; Jacoby Creek; Beith Creek; Grotzman Creek; Campbell Creek; Jolly Giant Creek; Janes Creek; Gannon Slough; Butcher Slough; and McDaniel Slough.*

  2. *Wetlands, estuaries, and associated riparian habitats: Arcata Bay; Mad River Slough; Liscom Slough; Butcher Slough; the Aldergrove marshes and ponds; and the Arcata Marsh and Wildlife Sanctuary.*

  3. *Other unique habitat areas: waterbird rookeries; shorebird concentration sites; habitat for all rare, threatened, or endangered species on federal or state lists; and vegetated dunes.*

  4. *Public Trust lands such as grazed or farmed wetlands (i.e., diked/reclaimed former tidelands).*

- ***RC-1e:** Threshold of City review for sensitive habitat effects – Policy RC-1 – Development on parcels designated Natural Resource [NR] on the Land Use Plan Map, or within 250 feet of such a designation, or development potentially affecting a sensitive habitat area, shall be required to be in conformance with applicable habitat protection policies of this Element. All proposed development plans, including grading and drainage plans, submitted as part of a planning entitlement application for these areas, shall show the precise locations of all sensitive habitat areas on the site plan.*

- ***RC-1f**: Sensitive habitat buffer requirement – Policy RC-1 – A setback separating all permitted development from adjacent sensitive habitat areas shall be required. The purpose of such setbacks shall be to prevent any degradation of the ecological functions provided by the habitat area as a result of the development. The following shall apply to such setbacks:*

  1. *The minimum width of setbacks for streams and wetlands shall be as provided in policies RC-2 and RC-3, respectively.*

  2. *The minimum width of all other habitat setbacks shall be 100 feet, unless the designated setback would eliminate all reasonable use of the property.*

  3. *A definition and map of sensitive habitat will be maintained by the City.*

<u>RC-3: Wetlands Management</u>

To protect existing wetlands areas and their functional capacities and values, maintain a standard of "no net loss" in area and value, restore degraded wetland areas, enhance wetlands functions, and create additional wetland areas to replace historical losses.

Applicable sub-policies:

- ***RC-3a:** Requirement for wetland delineation and study – Policy RC-3 – All proposed development applications shall include a site plan that shows the precise location of any wetlands that exist on the subject property. Any application for development on a parcel where wetlands may be present shall include a wetland reconnaissance or delineation report as follows:*

  1. *The reconnaissance or wetlands delineation and report shall be based upon field investigations and shall be prepared by a professional or technical expert qualified in wetlands biology or plant ecology.*

  2. *For purposes of this plan, wetlands shall include coastal zone lands where one or more of the following three characteristics are present or non-coastal zoned lands where two or more of the following three characteristics are present:*

a. *Source of water (surface or subsurface) which is present for sufficient periods to promote hydric soils formation or growth of hydrophytic plant species;*

b. *Hydric soils; or*

c. *Hydrophytic plants.*

1. *Where a reconnaissance indicates the probable existence of wetlands, marsh reeds detailed wetland delineation shall be required, including a map with the best available contour information showing where each of the three factors are present and the precise boundaries of any areas which are determined to be wetlands.*

2. *If wetlands or any size are found to exist on the property, an analysis of the potential functional or habitat value of the wetland shall be provided.*

- ***RC-3b:*** *Filling of wetlands – Policy RC-3 – The following shall apply:*

1. *Filling of wetlands shall be prohibited in the Coastal Zone, unless it can be demonstrated that:*

a. *the wetland restrictions, if imposed, would render a parcel, not subject to the Public Trust, unusable for any use permitted by the land use plan;*

b. *there is no feasible, environmentally superior alternative to wetland fill for development of a permitted use; and*

c. *the fill is the least amount necessary to allow development of permitted uses.*

1. *Filling of wetlands outside the Coastal Zone may be permitted only when the following has been demonstrated by the project proponent:*

a. *the fill is the least amount necessary to allow a reasonable and harmonious configuration of development on the parcel;*

b. *the wetlands proposed to be filled are small and isolated, and have limited functional value when compared to larger, contiguous wetland areas.*

2. *Filling of wetlands shall only be authorized if appropriate mitigation, resulting in "no net loss" in area and value of wetlands, is provided. Mitigation may consist of creating and maintaining a new wetland of equal or greater functional capacity and value than the wetland proposed to be filled, restoration of previously degraded wetlands, or enhancement of existing wetland areas.*

- ***RC-3c:*** *Designation of Environmental Buffer Areas (EBA) – Policy RC-3 – An EBA shall be established to separate all permitted development from adjacent existing wetlands which are to be preserved in a natural state and new wetland areas which are created as a mitigation. The EBA's purpose is to remain in a natural state in order to protect wetland ecosystems and their associated habitat areas from destruction or degradation. The extent of the EBA shall be established based upon analyses and recommendations contained in a site-specific wetland delineation study, but shall include the wetland area and a setback area which shall generally range from a 50 foot minimum to a 100 foot maximum. Specific findings, based on evidence provided for City review, shall be required for setbacks less than 100 feet.*

- ***RC-3d:*** *Allowable uses and activities in Environmental Buffer Areas – Policy RC-3 – The following compatible land uses and activities may be permitted in EBAs, subject to all other policies in this Element, including those requiring avoidance of impacts and other mitigation requirements*

1. *Resource restoration or enhancement projects*

2. *Farming consistent with policy RC-3l*

3. *Outdoor recreation activities, such as bird watching, hiking, boating, horseback riding, and similar activities*

4. *Education, scientific research, and use of nature trails*
5. *Drainage ditches when compatible with wetland function*
6. *Minor modifications of existing, serviceable structures*
7. *Fencing to prevent livestock from degrading wetlands and riparian vegetation*

Any use, construction, grading or removal of vegetation which is not listed above shall be prohibited.

- ***RC-3h:** Designation of wetland protection zones – Policy RC-3 – The Wetland and Stream Protection Combining (WSP) Zone shall be applied to wetlands, wetland setbacks, wetland buffer areas and modified wetland buffer areas, as defined in the City's Land Use Code, at the time of development review and approval.*

  A wetlands map, maintained by the City, will show the general location of wetlands, riparian corridors, and uplands within the City limits and urban services zone. All development within or adjacent to the areas identified on the map as wetlands or riparian corridors shall comply with City Wetlands Development Standards and shall include the following:

  1. *A wetland delineation*
  2. *A mitigation plan for impacted areas*
  3. *Setback areas from delineated wetlands*
  4. *Easements for onsite delineated wetlands*
  5. *Permitted and protected uses/activities within delineated wetland areas*
  6. *Fencing to prevent livestock from degrading wetlands and riparian vegetation*

  A Wetlands Buffer Area shall be required to protect the areas shown as wetlands on the Wetlands Map. All development within the buffer areas shall comply with the Wetlands Buffer Area Development Standards of the Coastal Land Use and Development Guide.

- ***RC-3j:** Minimum mitigation requirements for wetland impacts – Policy RC-3 – Diking or filling of a wetland that is otherwise in accordance with the policies of this General Plan, shall, at a minimum, require the following mitigation measures, monitoring program, and funding.*

  1. *A detailed restoration plan, monitoring program, and funding source for each site shall be required as part of the project application. The restoration plan shall include provisions for restoration to equal or greater wetland biological productivity. The monitoring program shall include reporting requirements that document mitigation success. Dedication of the land to a public agency, purchase, or other stewardship method which permanently restricts the use of the site to habitat and open space purposes, shall be required. The site shall be dedicated, purchased, or other stewardship agreed upon, and mitigation funding shall be provided, prior to any permitted diking or filling.*
  2. *Areas adequate to maintain functional capacity shall be opened to tidal action, or other sources of surface water shall be provided. This provision shall apply to diked or filled areas which themselves are not environmentally sensitive habitat areas, but would become so if, as part of a restoration program, they are opened to tidal action or provided with other sources of surface water. All of the provisions for restoration, purchase (if necessary), and dedication described under part 1 shall apply to any program or activity performed pursuant to this policy.*
  3. *Mitigation shall, to the maximum extent feasible, be of the same type as the wetland to be filled (e.g., freshwater marsh for freshwater marsh, saltwater marsh for saltwater marsh, etc.).*

4. *Where no suitable private or public restoration or enhancement sites are available, or where a wetlands mitigation bank in Arcata's Planning Area has been established that provides suitable replacement area, an in-lieu fee may be required to be paid. The fees shall be paid to an appropriate public agency for use in the restoration or enhancement of an area of equivalent productive value or surface area, or to the entity managing the wetlands mitigation bank.*

- ***RC-3k**: Wetland functional capacity maintenance requirement – Policy RC-3 – Diking, filling, or dredging of a wetland or estuary shall maintain or enhance the functional capacity of these resources. Functional capacity means the ability of the wetland or estuary to be physically and biologically self-sustaining and to maintain natural species diversity. In order to establish that the functional capacity is being maintained, all of the following must be demonstrated:*

  1. *Presently-occurring plant and animal populations in the ecosystem will not be altered in a manner that would impair the long-term stability of the ecosystem (i.e., natural species diversity, abundance and composition are essentially unchanged as the result of the project).*

  2. *A species that is rare or endangered will not be significantly adversely affected.*

  3. *Consumptive (e.g., fishing aquaculture and hunting) or non-consumptive (e.g., water quality and research opportunity) values of the wetland or estuary ecosystem will not be significantly reduced.*

City of Arcata – Local Coastal Plan

The policies within the City of Arcata's Local Coastal Plan that regulate biological resources include Coastal Act policies Section 30607.1, 30121, 30231, 30233 which are listed above and referenced here.

Section 30607.1

Where any dike and fill development is permitted in wetlands in conformity with this division, mitigation measures shall include, at a minimum, either acquisition of equivalent areas of equal or greater biological productivity or opening up equivalent areas to tidal action; provided, however, that if no appropriate restoration site is available, an in-lieu fee sufficient to provide an area of equivalent productive value or surface areas shall be dedicated to an appropriate public agency, or such replacement site shall be dedicated to an appropriate public agency, or such replacement site shall be purchased before the dike or fill development may proceed. Such mitigation measure shall not be required for temporary or short-term fill or diking: provided, that a bond or other evidence of financial responsibility is provided to assure that restoration will be accomplished in the shortest feasible time.

Section 30121

"Wetland" means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.

Section 30231

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained, and where feasible, restored through, among other means, minimizing adverse effects of wastewater discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging wastewater reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30233

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less

environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland; provided, however, that in no event shall the size of the wetland area used for such boating facility, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, be greater than 25 percent of the total wetland area to be restored.

(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities.

(5) Incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource-dependent activities.

Humboldt County General Plan

The goals and policies within the Humboldt County General Plan that regulate biological resources within the County-jurisdictional portion of the Project Area, outside of the Coastal Zone, include the following:

BR-G1. Threatened and Endangered Species

Sufficient recovery of threatened and endangered species to support de-listing.

BR-G2. Sensitive and Critical Habitat

A mapped inventory of sensitive and critical habitat where biological resource protection policies apply.

BR-G3. Benefits of Biological Resources

Fish and wildlife habitats protected on a sustainable basis to generate long-term public, economic, and environmental benefits.

BR-P1. Compatible Land Uses

Area containing sensitive habitats shall be planned and zoned for uses compatible with the long-term sustainability of the habitat. Discretionary land uses and building activity in proximity to sensitive habitats shall be conditioned or otherwise permitted to prevent significant degradation of sensitive habitat, to the extent feasible consistent with California Department of Fish and Wildlife guidelines or recovery strategies.

BR-P2. Critical Habitat

Discretionary projects which use federal permits or federal funds on private lands that have the potential to impact critical habitat shall be conditioned to avoid significant habitat modification or destruction consistent with federally adopted Habitat Recovery Plans or interim recovery strategies.

BR-P7. Wetland Identification

The presence of wetlands in the vicinity of a proposed project shall be determined during the review process for discretionary projects and for ministerial building and grading permit applications, when the proposed building development activity involves new construction or expansion of existing structures or grading activities. Wetland delineation by a qualified professional shall be required when wetland characterization and limits cannot be easily inventoried and identified by site inspection.

BR-P8. Wetlands Banking

The County supports the development of a wetlands banking system that minimizes potential conversion of prime agriculture lands to wetlands.

BR-P10. Invasive Plant Species

The County shall cooperate with public and private efforts to manage and control noxious and exotic invasive plant species. The County shall recommend measures to minimize the introduction of noxious and exotic invasive plant species in landscaping, grading and major vegetation clearing activities.

BR-P11. Biological Resource Maps

Biological resource maps shall be consulted during the ministerial and discretionary permit review process in order to identify habitat concerns and to guide mitigation for discretionary projects that will reduce biological resource impacts to below levels of significance, consistent with CEQA.

BR-P12. Agency Review

The County shall request the California Department of Fish and Wildlife, as well as other appropriate trustee agencies and organizations, to review plans for development within Sensitive Habitat, including Streamside Management Areas. The County shall request NOAA Fisheries or U.S. Fish and Wildlife Service to review plans for development within critical habitat if the project includes federal permits or federal funding. Recommended mitigation measures to reduce impacts below levels of significance shall be considered during project approval, consistent with CEQA.

Humboldt Bay Area Plan – Local Coastal Plan

The goals and policies within the Humboldt Bay Area Plan that regulate biological resources within the County-jurisdictional portion of the Coastal Zone within Project Area include the following:

3.30 Natural Resources Protection Policies and Standards – ESHA – 30240

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.

3.30 Natural Resources Protection Policies and Standards – Diking, Filling, or Dredging of Open Coastal Waters, Wetlands, and Estuaries – 30233

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

1. New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

2. *Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
3. *In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland; provided, however, that in no event shall the size of the wetland area used for such boating facility, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, be greater than 25 percent of the total wetland area to be restored.*
4. *In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities.*
5. *Incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
6. *Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
7. *Restoration purposes.*
8. *Nature study, aquaculture, or similar resource-dependent activities.*

3.30 Natural Resources Protection Policies and Standards – Coastal Streams, Riparian Vegetation and Marine Resources

Marine resources shall be maintained, enhanced, and, where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Use of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

3.30 Natural Resources Protection Policies and Standards - Coastal Streams, Riparian Vegetation and Marine Resources Section – 30231

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

3.30 Natural Resources Protection Policies and Standards – Wetland Buffer –Section 6(d)

Outside an urban limit line, the setback shall be between 100 and 200 feet, depending upon the size and sensitivity of the wetland, drainage boundaries, vegetation, adjacent uses, and the potential impacts of the project on the wet habitat values. The precise width of the setback shall be sufficient to prevent significant effects to the wetland.

3.30 Natural Resources Protection Policies and Standards – Development within Wetland Buffer –Section 6(f)

All new development within the wetland buffer shall include the following mitigation measures:

(1) Not more than 25% of the lot surface shall be effectively impervious.

(2) The release rate of storm runoff to adjacent wetlands shall not exceed the natural rate of storm runoff for a 50 year storm of 10 minute duration.

(3) Stormwater outfalls, culverts, gutters, and the like shall be dissipated.

(4) Septic systems or alternative waste disposal systems must meet standards of the Humboldt-Del Norte Health Department and the Regional Water Quality Control Board.

(5) Areas disturbed during construction, grading, etc., within 100 feet of the mean high water line, shall be restored to original contours and sufficiently and promptly replanted with vegetation naturally occurring in the immediate area.

(6) Development and construction shall minimize cut and fill operations and erosion and sedimentation potentials through construction of temporary and permanent sediment basins, sediment basins, seeding or planting bare soil, diversion of runoff away from graded areas and areas heavily used during construction, and, when feasible, avoidance of grading during the rainy season (November through April).

3.3.4 Evaluation Criteria and Significance Thresholds

For the purpose of this Draft EIR, the evaluation criteria and significance thresholds summarized below are used to determine whether the Project would have a significant effect related to biological resources, as defined by the CEQA Guidelines (Appendix G), if it would:

– 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 CDFW, USFWS or NMFS;
– Have a substantial adverse effect on any riparian habitat or other Sensitive Natural Community identified in local or regional plans, policies, regulations, or by CDFW or USFWS;
– 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;
– 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;
– Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
– Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

3.3.5 Methodology

The evaluation of potential impacts to biological resources is based on results from the NES completed for the Project, which includes by appendix a **2018** wetland delineation, rare plant evaluation, and ESHA evaluation (Northstar Environmental 2019; **Draft EIR** Appendix D – Natural Environment Study). Biological resources were evaluated with respect to the established BSA, which covers the extent of the proposed impact area plus a buffer zone of five to ten feet around the perimeter. The BSA was also extended north to include the existing roundabout at Buttermilk Lane.

A **second** wetland delineation update completed on June 23, 2021, focused on a small area near the intersection of Old Arcata Road and Jacoby Creek Road where a small wetland had been delineated in 2018, located outside the Coastal Zone. The area is commonly used for parking and is highly impacted by ongoing roadside use. The updated 2021 delineation concluded the evaluated area did not meet three-parameter wetland criteria **(nor two parameter definition),** and an updated Preliminary Jurisdictional Determination (PJD) and the updated GHD (2021) report was submitted to the USACE for review. The USACE concurred and issued a jurisdictional determination (USACE 2021).

The BSA as established in 2018 was subsequently expanded approximately 200 feet eastward on Jacoby Creek Road to accommodate proposed drainage improvements. The expanded area of the BSA along Jacoby Creek Road (approximately 200 feet) was not previously evaluated for wetlands. Thus, on December 3, 2021, the small addition to the BSA that was not captured in the initial 2018 or June 21, 2021, wetland delineation was evaluated for wetlands by a qualified wetland scientist, and an additional three-parameter wetland ditch was delineated along the north side of Jacoby Creek Road between the residences at 2266 Jacoby Creek Road and 2332 Jacoby Creek Road. Delineated wetlands along Jacoby Creek Road resulting from all three wetland delineation field evaluations are shown in Figure 3.3-1 – Jacoby Creek Road Wetlands.

3.3.6 Impacts and Mitigation Measures

Impact Analysis

Note- Impact analysis below is limited only to changes made in the partially recirculated Draft EIR specific to special status plants and wetlands. The balance of the impact analysis has been excluded from this partially recirculated Draft EIR for ease of reference but remains incorporated into Draft EIR without modification.

Impact BIO-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? (Less than Significant with Mitigation)**

Special-status Plant Species and ESHA

On June 18 and July 31, 2018 the BSA was surveyed in an effort to identify if federal, state and/or CNPS listed plant species were present. No special status species were observed during the protocol level surveys in 2018 within the BSA (GHD 2018). Vegetation mapping to screen for ESHA occurred on August 31, 2018 and September 20, 2018. **Following the 2018 survey of the BSA, a small extension of the BSA occurred along Jacoby Creek Road between the residences at 2266 Jacoby Creek Road and 2332 Jacoby Creek Road. Prior to construction, special status plant surveys will occur along this stretch of roadway (approximately 200 linear feet), as described in Mitigation Measure BIO-2.** Within the assessment area, three sensitive plant communities have a documented potential to exist according to the CNDDB, including upland Douglas-fir forest, northern coastal salt marsh, and northern foredune grassland (CDFW 2018a cited in Northstar Environmental 2019). None of these communities were observed within the BSA. Palustrine emergent persistent wetlands, palustrine broad-leaved deciduous scrub-shrub wetlands, and one-parameter wetlands occur within the BSA. The one-parameter wetlands meet the Coastal Commission requirements based on dominance of wetland (FAC or wetter) vegetation, in this case willows (*Salix* spp.) but would not be impacted by the Project. Given special-status plants were not documented in the Project Area and one-parameter wetlands that could be considered ESHA would not be disturbed, no impact would result.

Mitigation

Mitigation Measure BIO-2 shall be implemented to protect potential special status plants located between 2266 Jacoby Creek Road and 2332 Jacoby Creek Road.

Mitigation Measure BIO-2: Protection of Special Status Plants

Pre-construction surveys: Seasonally appropriate pre-construction surveys for special status plant species shall occur prior to construction within the planned area of disturbance along Jacoby Creek Road between 2266 Jacoby Creek Road and 2332 Jacoby Creek Road during the

appropriate blooming time (spring or summer) for the target species. Survey methods shall comply with CDFW rare plant survey protocols, and shall be performed by a qualified field botanist. Surveys shall be modified to include detection of juvenile (pre-flowering) colonies of perennial species when necessary. Any populations of special status plant species that are detected shall be mapped. Populations shall be flagged if avoidance is feasible and if populations are located adjacent to construction areas. The locations of any special status plant populations to be avoided shall be clearly identified in the contract documents (plans and specifications). If special status plant populations are detected where construction would have unavoidable impacts, the shoulder widening will be eliminated from the project at that location to avoid impacts to special status species.

With the implementation of Mitigation Measures BIO-2, potential impacts to special status plant communities and special status plants would be less than significant.

Impact BIO-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?

Based on the wetland delineation completed in 2018 for the Project, the BSA consists of two types of identified U.S. Army Corp of Engineers (USACE) jurisdictional wetlands that were classified using Cowardin nomenclature from *Classification of Wetlands and Deepwater Habitats of the United States* (Federal Geographic Data Committee 2013 cited in GHD 2021), Palustrine Emergent Persistent Wetlands and Palustrine Broad-leaved Deciduous Scrub-Shrub Wetlands. The BSA also contains one-parameter wetlands meeting Coastal Commission requirements based only on wetland (FAC or wetter) vegetation (lack of hydric soils and wetlands hydrology). These wetlands were mapped based on dominant native vegetation as one-parameter willow series. The one-parameter willow series was mapped to the willow canopy dripline. Areas where the canopy extends over pavement were also mapped. The Palustrine Emergent Persistent Wetland and the Palustrine Scrub-Shrub, Broad leaved Deciduous Wetlands occurred primarily within roadside ditches along the northeast side of Old Arcata Road. The Palustrine Emergent Persistent Wetland consisted primarily of an herbaceous layer and the Palustrine Scrub-Shrub, Broad leaved Deciduous Wetlands consisted of tree, shrub, and herbaceous vegetation layers. Willow species (*Salix* spp.) were the dominant trees in the shrub-scrub wetlands often occurring with Himalayan blackberry (*Rubus armeniacus*) and California blackberry (*Rubus ursinus*) in the shrub layer. Hydrophytic vegetation was dominant within all wetland areas. Figures 2:1-5 of Appendix B –Natural Environment Report shows the results of the original 2018 wetland delineation.

A **June 23**, 2021, wetland delineation update focused on a small area near the intersection of Old Arcata Road and Jacoby Creek Road where a small wetland (0.002 acres of Palustrine Emergent) had **originally** been delineated in 2018. The area is commonly used for informal parking and is highly impacted by ongoing roadside use. The **June 23**, 2021, delineation included two pits to collect soil data. No obligate vegetation was observed. Observed plant species were facultative and/or invasive and non-native to California. Soils did not meet USACE/NRCS 2018 Hydric Soils Indicator Guide criteria. The updated **June 23**, 2021, delineation concluded the evaluated area did not meet **two-parameter or** three-parameter wetland criteria, and an updated wetlands report and Preliminary Jurisdictional Determination (PJD) was submitted to the USACE for review (Appendix B). The USACE concurred and issued a jurisdictional determination (USACE 2021).

On December 3, 2021, the addition to the BSA (approximately 200 linear feet) that was not captured in the initial 2018 or June 21, 2021 wetland delineation was evaluated for wetlands by a qualified wetland scientist, and an additional roadside ditch was mapped and presumed to be a three-parameter wetland along the north side of Jacoby Creek Road between the residences at 2266 Jacoby Creek Road and 2332 Jacoby Creek Road. Delineated wetlands along Jacoby Creek Road resulting from all three wetland delineation field evaluations are shown in Figure 3.3-1 – Jacoby Creek Road Wetlands.

Based on the combined results of all three wetland delineations, most of the identified wetlands within the BSA would be entirely omitted from the construction boundary to avoid potential impacts. Temporary and permanent impacts to occur as a result of the Project specifically include:

- **Permanent impacts to several small lengths of three-parameter wetland ditches along Jacoby Creek Road, totaling approximately 2,650 square feet/0.06 acres (see Figure 3.3-1 – Jacoby Creek Road Wetlands).**
- **Permanent impacts to approximately 20 square feet of three-parameter coastal wetland along Bayside Road near the northern end of the Project alignment (see Figure 3.3.-2 Wetlands Near Bayside Road); and**
- **Temporary impacts to approximately 1,300 square feet (0.03 acres) of three-parameter wetlands along Old Arcata Road. Temporarily impacted wetlands would be fully restored in place during construction by or following the close of construction, as included in Mitigation Measure BIO-4.**

Mitigation Measure BIO-3 and Mitigation Measure BIO-4 have been incorporated into the Project to ensure impacts to these wetland areas are minimized and fully mitigated, reducing the impact to wetlands to a less than significant level. As the design progresses, if additional unavoidable impacts to delineated wetlands are determined to occur, Mitigation Measure BIO-3 and Mitigation Measure BIO-4 would also apply. Compensatory mitigation included under Mitigation BIO-4 would occur at a location of equal or greater habitat value to the satisfaction of jurisdictional permitting agencies. Compensatory mitigation would occur at the on-site Wetland Creation Area included in the Project and/or a more suitable off-site location.

Juxtaposed wetlands to be avoided during construction would be protected by installing Environmentally Sensitive Area (ESA) exclusion fencing to ensure construction equipment or personnel do not inadvertently impact juxtaposed wetlands, as included in Mitigation Measure BIO-3. The location of ESA fencing would be shown on the final 100% design plan set for construction.

In addition, the Project would adhere to Environmental Protection Action 1 to prepare a SWPPP prior to construction and required by the North Coast Regional Water Quality Control Board (see Section 2.8.1 – Environmental Protection Action 1 Stormwater Pollution Prevention Plan). Measures to protect water quality, Waters, and wetlands within or near the Project footprint specifically would include:

- Within 10 days of completion of construction in those areas where subsequent ground disturbance would not occur for 10 calendar days or more, disturbed areas shall be temporarily stabilized to reduce the potential for short-term erosion. Prior to a rain event or when there is a greater than 50 percent possibility of rain within the next 24 hours, as forecasted by the National Weather Service, appropriate BMPs would be installed upon completion of the day's activities to control erosion and prevent sediment laden stormwater from leaving the construction area.
- Suitable perimeter control BMPs, such as silt fences, or straw wattles shall be placed below all construction activities at the edge of surface water features to intercept sediment before it reaches the waterway. These BMPs shall be installed prior to any clearing or grading activities.
- Spoil and stockpile sites shall be located such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, swales shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion.
- Sediment control measures shall be in place prior to the onset of the rainy season and would be monitored and maintained in good working condition until disturbed areas have been revegetated.
- A site-specific spill prevention plan shall be implemented for potentially hazardous materials. The plan shall include the proper handling and storage of all potentially hazardous materials, as well as the proper procedures for cleaning up and reporting any spills. If necessary, containment berms shall be constructed to prevent spilled materials from reaching surface water features.
- Equipment and hazardous materials shall be stored 50 feet away from surface water features. Fueling of equipment shall take place greater than 75 feet from any surface water feature.

Given the SWPPP requirements established in Environmental Protection Action 1, the protection of juxtaposed wetlands via the installation of ESA exclusion fencing prior to construction, delineated one-parameter wetlands would not be impacted, and impacts to three-parameters wetlands would be mitigated under Mitigation Measure BIO-3 and Mitigation Measure BIO-4, any potential wetland-related impact would be less than significant.

Mitigation

Mitigation Measure BIO-3 and Mitigation Measure BIO-4 shall be implemented to protect wetlands:

> **Mitigation Measure BIO-3: Avoidance and Minimization Measures for Waters of the United States and Waters of the State**
>
> **The City shall implement the following avoidance and protection measures for Waters of the United States and Waters of the State:**
>
> 1. **The City shall attempt to avoid or minimize impacts to wetlands/waters to the greatest extent feasible in the final design plans.**
> 2. **ESA exclusion fencing shall be installed prior to construction to protect juxtaposed wetlands from inadvertent construction-related impacts. The locations of the ESA fencing shall be included on the final 100% design plan set for construction.**
>
> **Mitigation Measure BIO-4: Compensatory Mitigation for Wetlands Impacts**
>
> **The City shall compensate for wetlands impacts through restoration, rehabilitation, and/or creation of wetland at a ratio of no less than 1:1.2 and to the satisfaction of the City and permitting agencies. A Wetlands Mitigation and Monitoring Plan shall be prepared in coordination with jurisdictional permitting agencies. Compensation for wetlands shall occur so there is no net loss of wetland habitat at ratios to be determined in consultation with and to the satisfaction of jurisdictional permitting agencies. Temporarily impacted wetlands shall be restored in place as part of the Project.**
>
> **The Plan shall be acceptable to jurisdictional permitting agencies and include the following elements: proposed mitigation ratios; description and size of the restoration or compensatory area; site preparation and design; plant species; planting design and techniques; maintenance activities; plant storage; irrigation requirements; success criteria; monitoring schedule; and remedial measures. The Plan shall be implemented by the City.**

Mitigation Measures BIO-3 and BIO-4 requires protection of juxtaposed wetlands, avoidance and minimization of permanent impacts and temporary impacts to wetlands during construction, restoration of pre-Project conditions at the conclusion of construction, and compensation of wetlands thereby reducing any potential impacts to wetlands to a less-than-significant level.

Level of Significance: Less than significant after mitigation.

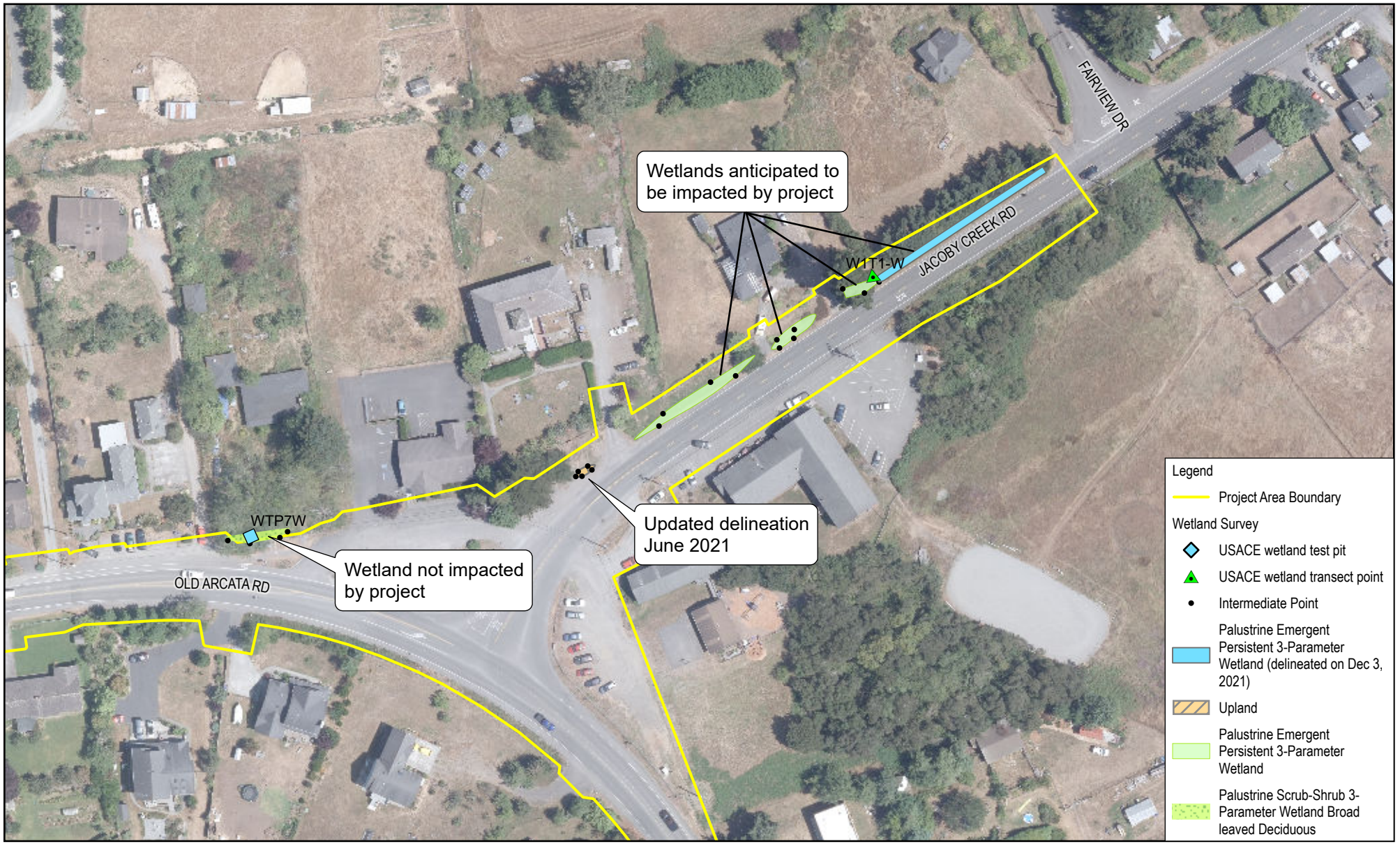
3.3.7 References

GHD. 2021. *Old Arcata Road Improvement Project Wetland Delineation Rev. 2.* Prepared for Submission to the U.S. Army Corps of Engineers.

GHD. 2018. *Special Status Plant Survey and ESHA Evaluation for Old Arcata Road Improvement Project*.

Northstar Environmental. 2019. *Natural Environment Study for the Old Arcata Road Improvements Project*. Prepared for GHD and the City of Arcata. Lake Forest, CA.

U.S. Army Corps of Engineers. 2021. *Jurisdictional Determination for Old Arcata Road Improvements Project*.



Paper Size ANSI A

0 30 60 90 120

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

N

GHD

City of Arcata
Old Arcata Road Improvements

Wetlands Near Jacoby Creek Road

Project No. **11159130**
Revision No. **-**
Date **12/8/2021**

FIGURE 3-3.1

G:\111\11159130 Arcata Old Arcata Road Improvements\08-GIS\Maps\Deliverables\20210610_CoastalZone\11159130_OldArcataRoad_CoastalZoneMapset.aprx
Print date: 08 Dec 2021 - 10:02

Data source: AirPhoto_2019_MapService: . Created by: zporteous

Paper Size ANSI A

0 5 10 15 20

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

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GHD

City of Arcata
Old Arcata Road Improvements

Project No. **11159130**
Revision No. **-**
Date **12/8/2021**

Wetlands Near Bayside Road

FIGURE 3-3.2

G:\111\11159130 Arcata Old Arcata Road Improvements\08-GIS\Maps\Deliverables\20210610_CoastalZone\11159130_OldArcataRoad_CoastalZoneMapset.aprx
Print date: 08 Dec 2021 - 10:02

Data source: AirPhoto_2019_MapService: . Created by: zporteous

4. Alternatives Description and Analysis

4.1 Introduction

This chapter presents the alternatives analysis for the Project. Section 15126.6(a) of the CEQA Guidelines require an Environmental Impact Report (EIR) to "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives." An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that would foster informed decision making and public participation. An EIR is not required to consider alternatives that are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. In addition, an EIR must identify alternatives that were considered by the lead agency and were rejected as infeasible during the scoping process and should briefly explain the reasons underlying the lead agency's determination (CEQA Guidelines Section 15126 [(c]).

For ease of reference, the project objectives identified in Chapter 2, the Project Description, are repeated below:

- Rehabilitate and reconstruct the roadway pavement, and improve traffic striping and signage
- Improve intersection safety at the intersection of Old Arcata and Jacoby Creek Roads, as well as other intersections within the Project corridor
- Extend pedestrian connectivity from Jacoby Creek Road intersection to Buttermilk Road intersection, and provide for safer routes to schools for students and families
- Increase multimodal transit use by improving bicycle and pedestrian facilities via shared use pathways, re-striped bicycle lanes, improved and extended sidewalks, and enhanced cross walks
- Decrease speed, calm traffic, improve traffic operations, and increase safety at the intersection of Jacoby Creek and Old Arcata Road, an area identified by the Bayside community as unsafe particularly for pedestrians and bicyclists due to speeding vehicles and an uncontrolled intersection
- Create a "gateway" at the southern entrance to Arcata
- Improve subsurface storm drainage infrastructure and accommodate additional City underground utility improvements as needed (water and sewer)
- Maintain consistency with City policies in the Transportation Element of the General Plan and the Bicycle and Pedestrian Master Plan for alternative transportation, and recommendations provided by the Transportation Safety Committee
- Improve traffic operations and pedestrian safety at Hyland Street near Jacoby Creek School
- Implement a project that does not require permanent right of way acquisitions
- Minimize potential environmental impacts to the extent feasible, particularly in the Coastal Zone
- Apply accepted traffic engineering standards to guide selected roadway and safety improvements

One of the alternatives analyzed must be the "No Project" alternative. CEQA Guidelines Section 15126.6(e)(1) states that the purpose of describing and analyzing the no project alternative is "to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." The no project analysis is required to "discuss the existing conditions at the time the notice of preparation is published…as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" (Section 15126.6[e][2]).

4.1.1 Identifying Project Alternatives

In 2017, the City lead a community design charrette process that involved members of the Bayside and neighboring communities. The design charrette process included the identification of deficiencies and potential improvements of the roadway. The results of the community design charrette led to the development of a Project Study Report (PSR) (City of Arcata 2017). Potential alternatives identified through the charrette process were further described and evaluated by the PSR. The alternatives had similar costs as they included similar features and materials with slightly varying quantities.

The City first prepared an Initial Study/Proposed Mitigated Negative Declaration (ISMND) to comply with CEQA's environmental analysis and disclosure requirements. The ISMND was circulated between January 20, 2021, and February 22, 2021. Written and voicemail comments were received from 39 individuals, agencies, or organizations. As described in Section 1.8 – Areas of Controversy and Key Issues to be Resolved, comments included statements for and against the Project, including the proposed roundabout at the intersection of Jacoby Creek Road and Old Arcata Road. Comments on the ISMND include requests for an alternatives analysis. Potential alternatives raised by the ISMND comments are repeated by comments on the Notice of Preparation, as described below.

A Notice of Preparation (NOP) was circulated for the Project in May of 2021, describing the proposed rehabilitation activities to be conducted within the Project Area. The NOP and comments received during the scoping period can be found in Appendix A and Appendix B, respectively. Comments germane to CEQA received during scoping included:

– Concern about street lighting proposed near the roundabout
– Potential impacts to historical resources
– Concern about the current road condition and the unmet need for bicycle and pedestrian safety
– Support for a T-Intersection alternative
– Support for a roundabout configuration
– Support for additional speed reducing measures, such as speed humps
– Requests for additional speed enforcement measures

Project alternatives have been explored to consider scoping period comments, as well as comments previously received via public comment on the Initial Study/Mitigated Negative Declaration (IS/MND, see Section 1.8 – Areas of Controversy and Key Issues to be Resolved).

4.2 Alternatives Considered but Rejected

During the preliminary planning of the Project and the scoping process for the EIR, several alternatives to the Project were evaluated and/or suggested. These alternatives are summarized below and were evaluated to determine if they meet the qualifications for alternatives receiving full EIR analysis, as required under CEQA.

In accordance with CEQA Guidelines Section 15126.6(a), an alternative must meet the following three criteria:

1. The alternative must attain most of a project's basic objectives;
2. The alternative must avoid or substantially reduce the significant environmental impacts of a proposed project; and
3. The alternative must be potentially feasible.

An EIR need not analyze an alternative whose impact cannot be reasonably ascertained and whose implementation is remote and speculative. Furthermore, an EIR need not consider every conceivable alternative, but must consider a reasonable range of alternatives that would foster well-informed decision-making and public participation.

Alternatives for Old Arcata Road were conceived by identifying and developing alternatives the following two main components of the proposed Project: 1) improvements for the corridor road between Buttermilk Lane and Jacoby Creek Road, and 2) the Jacoby Creek Road intersection. The following Project elements would remain applicable to all alternatives except the No Project Alternative:

> The road pavement would overlayed or reconstructed throughout the whole Project Area. the pavement section would include up to 1.33' of class II aggregate base and 0.5' of asphalt concrete. Striping would be done to separate bicycle lanes. The current separated path located in the northern part of the Project Area would be replaced by a 6' wide separated concrete path that meets ADA standards. The path would require approximately 0.5' depth of class II aggregate base and 0.33' of concrete. The vegetated buffer strip between the separated path and the roadway would convey runoff act as a low impact design (LID) feature for stormwater runoff. The northern segment where Bayside Road and Old Arcata Road connect Bayside Road into a shared road with a widened shoulder to accommodate pedestrians.

Rejected Alternative A addresses an alternative configuration for pedestrian and roadway improvements along the Old Arcata Road corridor. Rejected Alternatives B through G address alterative configurations and improvements to the intersection of Old Arcata Road and Jacoby Road.

4.2.1 **Rejected Alternative A (Intersection)** Larger Roundabout Footprint

During conceptual design development, unconstrained roundabout footprints were considered. Rejected Alternative A consisted of an unconstrained roundabout footprint that would be larger than the proposed Project's footprint. An unconstrained roundabout footprint would provide improved traffic flow, fastpaths (the fastest any vehicle can navigate through the roundabout, ignoring striping), and truck turning radii. However, the unconstrained roundabout footprints resulted in private property encroachment and increased proximity to the Mistwood Education Center.

Rejected Alternative A was rejected for further consideration because it would not achieve the proposed Project's objectives of implementing a project that does not require permanent right of way acquisitions. An unconstrained roundabout also would have resulted in increased roadway proximity to the Mistwood Education Center, compared to the proposed Project. Additionally, the alternative would not avoid or substantially reduce potential significant impacts of the proposed Project.

4.2.2 **Rejected Alternative B (Intersection)** Mini Roundabout Footprint

During conceptual design development, more constrained roundabout footprints were considered. Rejected Alternative B consisted of a more constrained mini roundabout that would have a smaller footprint than the proposed Project's footprint. Mini roundabouts are typically best suited to environments where speeds are already low. Because of the higher approach speeds of both westbound Jacoby Creek Road, and northbound Old Arcata Road (45 MPH and 35 MPH, respectively), special consideration must be given to the mini roundabout placement, and the alignment/geometry of approaching lanes. The central island would also be required to be fully mountable to accommodate trucks and vehicles with larger turning radii.

The result is that although a more constrained roundabout footprint would be smaller than the footprint of the proposed Project, the design configuration would require the roundabout to be positioned such that there is the potential to encroach on private property located to the west. The required alignment and geometry for the approach lanes on Jacoby Creek Road may result in additional encroachment onto private property to the west. A speed hump on Jacoby Creek Road would also be needed to control westbound speeds approaching the intersection. Several driveways may also be impacted, requiring relocation or limited access (e.g., right-in/right-out only) to accommodate required splitter island. The required fully mountable central island to accommodate trucks and larger vehicles which would eliminate opportunities for landscaping in the central island.

Rejected Alternative B was rejected for further consideration because it would not achieve the Project's objectives of implementing a project that does not require permanent right of way acquisitions. A mini roundabout also would likely restrict driveway access to private properties.

4.2.3 Rejected Alternative C (Intersection) T Intersection at Jacoby Creek Road, Multi Way Stop Control

Rejected Alternative C included retaining a T intersection at the intersection of Jacoby Creek and Old Arcata, to be controlled by an all-way stop, also called a Multi Way Stop Control (MWSC). However, transportation design analysis determined that the intersection likely would not likely meet applicable engineering guidance criteria for installing additional stop signs, known as warrant criteria (GHD 2021). The intersection falls within both the City of Arcata and the County of Humboldt jurisdiction. While the City of Arcata does have policies/guidelines for MWSC installation, the County does not. Therefore, an initial transportation design analysis was conducted using the guidance provided in Section 2B.07 Multiway Stop Applications of the California Manual on Uniform Traffic Control (CA MUTCD) and City of Arcata's Policy on implementing MWSC Intersections.

The GHD (2021) review of warrant criteria determined that the intersection likely would not meet the key CA MUTCD criteria for justification of a MWSC, including not meeting the minimum volume warrant and not meeting the crash warrants. Per the CA MUTCD, a 'warrant' describes the threshold condition based upon average or normal conditions that, if found to be satisfied as part of an engineering study, shall result in analysis of other traffic conditions or factors to determine whether a traffic control device or other improvement is justified (CalSTA/Caltrans 2014). Additionally, the analysis determined that the intersection would score up to nine points using the City of Arcata's Policy; however, 20 points is needed to warrant consideration of a MWSC.

Therefore, Rejected Alternative C does not meet the CEQA Guidelines requirement of being potentially feasible, and is rejected from further consideration. Additionally, Alternative C was rejected for further consideration because it would not achieve the Project objective to apply accepted engineering standards to guide selected roadway and safety improvements.

4.2.4 Rejected Alternative D (Intersection) T Intersection at Jacoby Creek Road with A Traffic Signal

Rejected Alternative D included retaining a T intersection at the intersection of Jacoby Creek and Old Arcata, to be controlled by a traffic signal. However, the GHD (2021) warrant criteria review determined that the intersection likely would not meet applicable engineering guidance criteria for installing a traffic signal.

The transportation design analysis was conducted using the guidance provided in Chapter 4C Traffic Control Signal Needs Studies, Section 4C.02 through Section 4C.10 of the CA MUTCD. Specifically, the following warrants were evaluated for the study intersection based on the collected accident, speed, and traffic volume data:

- Section 4C.02 Warrant 1, Eight-Hour Vehicular Volume:
- Section 4C.03 Warrant 2, Four-Hour Vehicular Volume:
- Section 4C.04 Warrant 3, Peak Hour:
- Section 4C.05 Warrant 4, Pedestrian Volume:
- Section 4C.06 Warrant 5, School Crossing:
- Section 4C.07 Warrant 6, Coordinated Signal System:
- Section 4C.08 Warrant 7, Crash Experience:
- Section 4C.09 Warrant 8, Roadway Network:
- Section 4C.10 Warrant 9, Intersection near a Grade Crossing:

Based on the review of available data in relation to the above warrants, GHD (2021) determined that a traffic signal at the intersection would likely fall short of meeting required warrant criteria. Therefore, Rejected Alternative D does not meet the CEQA Guidelines requirement of being potentially feasible, and is rejected from further consideration. Additionally, Alternative D was rejected for further consideration because it would not achieve the Project objective to apply accepted engineering standards to guide selected roadway and safety improvements.

4.2.5 **Rejected Alternative E** Unmodified T Intersection at Jacoby Creek Road with Speed Enforcement

Rejected Alternative E included updating the existing T intersection at the intersection of Jacoby Creek and Old Arcata without modification. Speed enforcement applied to increase speed control in the Project vicinity was suggested by some members of the public as an alternative to a roundabout during public comment on the ISMND prepared for the proposed Project, as well as the EIR scoping. Implementing a speed control option, such installation and use of a traffic enforcement camera or increasing police presence, could be costly. Additionally, traffic enforcement cameras have not be utilized elsewhere in the City of Arcata, and it would be infeasible to have constant police presence at the intersection.

Rejected Alternative E was rejected for further consideration because it would not achieve the following Project objectives: improve intersection safety at the intersection of Old Arcata and Jacoby Creek Roads; increase multimodal use by improving bicycle and pedestrian facilities via improved bicycle lanes, improved and extended sidewalks, and enhanced cross walks; decrease speed, calm traffic, improve traffic operations, and increase safety at the intersection of Jacoby Creek and Old Arcata Road; maintain consistency with City policies in the Transportation Element of the General Plan and the Bicycle and Pedestrian Master Plan for alternative transportation, and recommendations provided by the Transportation Safety Committee; create a “gateway” at the southern entrance to Arcata; and, apply accepted traffic engineering standards to guide selected roadway and safety improvements.

4.2.6 **Rejected Alternative F (Intersection)** Historic Old Arcata Road and Jacoby Creek Road Alignment

Rejected Alternative F consists of modifying the intersection of Jacoby Creek Road and Old Arcata Rod to realign the roads and intersection to their original historic alignment, as shown in Image 4-2. The historic alignment was offered as an alternative to a roundabout during public comment on the ISMND and EIR scoping.

The intersection configuration of Rejected Alternative F is not consistent with current uses, including the post office, pump station, and contemporary traffic volumes. The historic alignment would realign traffic adjacent to the Mistwood Education Center and the Bayside Post Office. Additionally, implementation of a historic alignment alternative would include a sharp horizontal curve of Old Arcata Road, which would likely require an all-way stop due to reduce turning and speed hazards.

Rejected Alternative F was rejected for further consideration because it would not achieve the following Project objectives: improve intersection safety at the intersection of Old Arcata and Jacoby Creek Roads; increase multimodal use by improving bicycle and pedestrian facilities via improved and extended sidewalks, and enhanced cross walks; decrease speed, calm traffic, improve traffic operations, and increase safety at the intersection of Jacoby Creek and Old Arcata Road; maintain consistency with City policies in the Transportation Element of the General Plan and the Bicycle and Pedestrian Master Plan for alternative transportation, and recommendations provided by the Transportation Safety Committee; create a “gateway” at the southern entrance to Arcata; and, apply accepted traffic engineering standards to guide selected roadway and safety improvements.

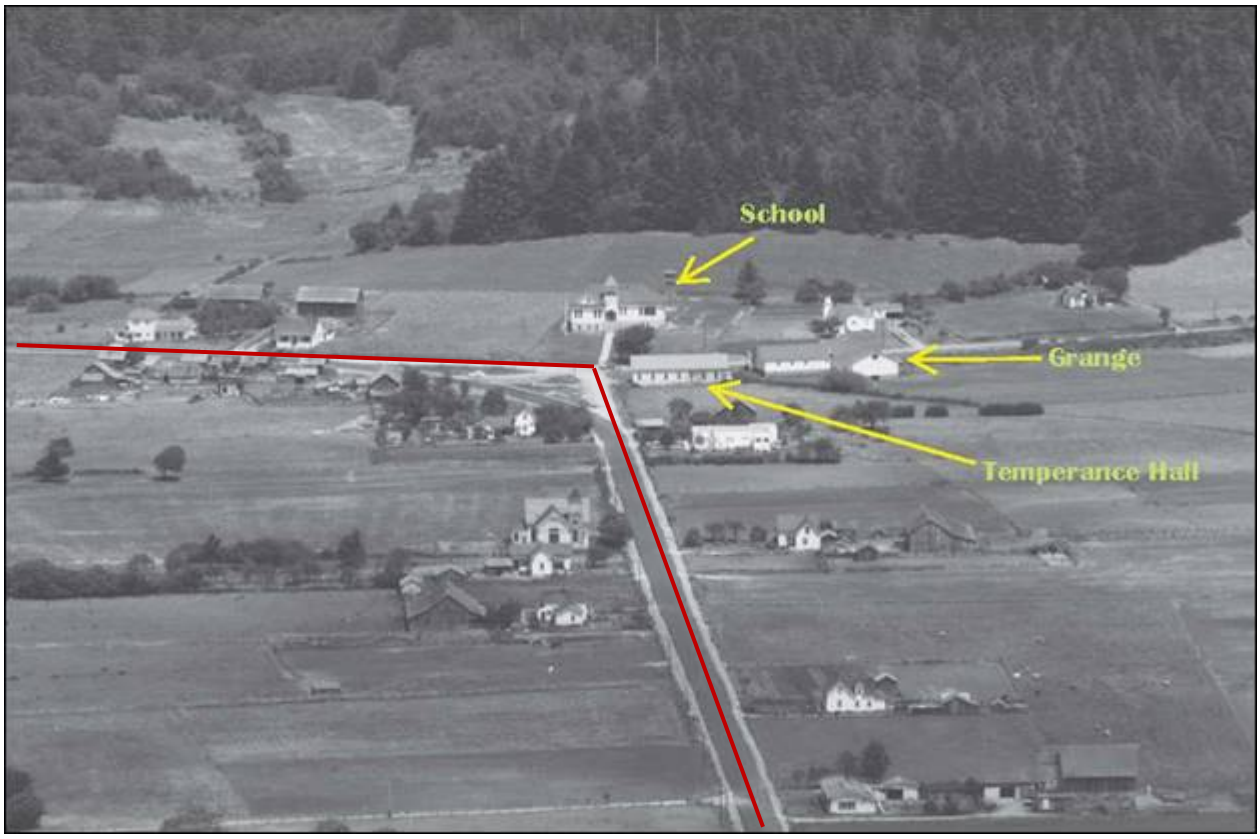

Image 4-2 Rejected Alternative F Historic Alignment Photograph Dated 1947 (JRP 2020). The historic alignment is shown in red.

4.3 Analysis of Alternatives

This section describes the Project alternatives that were selected and analyzed in accordance with CEQA Guidelines Section 15126.6(a). As described above in Section 4.2, several other potential alternatives were evaluated, but were determined to be infeasible, would not attain most of the Project's basic objectives, or would not avoid or substantially reduce significant impacts of the proposed Project and have been rejected.

The two alternatives to the proposed Project evaluated further in this EIR include the No Project Alternative and the T-Intersection Alternative. Resource categories identified as having no impacts under the proposed Project are not discussed below in detail.

As the proposed Project would result in no impact to Agricultural and Forestry Resources, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, and Recreation (see Section 5.1 – Environmental Issues Determined Not to be Significant), the No Project Alternative and T-Intersection Alternative are considered to be equivalent for those resource categories as identified in the CEQA Appendix G checklist and are not discussed further.

A comparison of alternatives is provided in Section 4.4. The environmentally superior alternative is described in Section 4.5.

4.3.1 Alternative 1: No Project Alternative

Description

Under a No Project Alternative, the Project corridor would remain in its existing condition without change. Gaps in bicycle and pedestrian facilities along Old Arcata Road between Jacoby Creek School and Jacoby Creek Road

would remain. The existing walkways, driveways and curb ramps within the Project corridor that are non-compliant with current accessibility codes and standards would remain unaltered and continue to be a barrier to pedestrian mobility. The current roadway and turning configurations for Jacoby Creek School parking lot at the Hyland Street intersection would remain unaltered, and no left-turn lane for northbound traffic would be constructed. No modifications to the Jacoby Creek School parking lot would occur. The five paved diagonal parking space along Old Arcata Road in front of Jacoby Creek School would remain.

The intersection of Old Arcata Road and Jacoby Creek Road would remain in its existing configuration, and no new sidewalk, crosswalk, signage, landscaping, or other improvements would be constructed. Additionally, no retaining wall would be constructed near the intersection.

The existing asphalt roadway, identified as extremely deteriorated and considered to be in “poor” condition, would continue to degrade, but would be resurfaced at an unknown future date according to current city practice and roadway prioritizations (NCE 2017). The existing street lights located at the Jacoby Creek Road intersection would remain, and Old Arcata Road would continue to have some power-pole-mounted lights. Existing trees would remain, and no increase or modification of landscaping would occur.

Existing utility infrastructure, including storm drain, sanitary sewer lines, and water service lines, would remain, and no improvements to that infrastructure would occur.

Analysis

For the purposes of this EIR, impact levels for the No Project Alternative assume continued use and degradation of Old Arcata Road and Jacoby Creek Road. The roadway would not be resurfaced. However, the No Project Alternative is not considered a ‘project’ under CEQA and implementation of mitigation measures through a CEQA document or CEQA process would not apply.

Aesthetics

The No Impact Alternative would not include any visual change. However, the No Project Alternative would also not include many of the visual enhancements proposed by the Project, such as stamped concrete, colored concrete, landscape vegetation, and bicycle lanes and buffered pathways, that improve the visual character of the Project corridor. The impact to aesthetics would be less under the No Project Alternative.

Air Quality

The No Impact Alternative would not result in any emissions. The impact to Air Quality would be less under the No Project Alternative.

Biological Resources

The No Impact Alternative would not result in any disturbance to biological resources. The impact to Biological Resources would be less under the No Project Alternative.

Cultural Resources

The No Project Alternative would not modify or disturb any archaeological resources. The impact to Cultural Resources would be less under the No Project Alternative.

Energy

The No Impact Alternative would not result in any energy consumption. The impact to Energy would be less under the No Project Alternative.

Geology and Soils

The No Impact Alternative would not result in disturbance to geologic or soil resources. The impact to Geology and Soils would be less under the No Project Alternative.

Greenhouse Gas Emissions

The No Impact Alternative would not result in any greenhouse gas emissions. The impact to Greenhouse Gas would be less under the No Project Alternative.

Hazards and Hazardous Materials

Soil characterization and, if needed, remediation required by the Project near Roger's Garage would not occur under a No Project Alternative. If any soil contamination were to remain, it would persist and clean up would not result. Thus, the No Project Alternative would be potentially more impactful, as any existing contamination would not be remediated.

Hydrology and Water Quality

The No Impact Alternative would not result in any hydrology or water quality impacts. The impact to Hydrology and Water Quality would be less under the No Project Alternative.

Noise

The No Project Alternative would not reduce operational noise through the Project Area due to a quieter, smoother roadway surface. The No Project Alternative also would not include traffic calming measures such as the roundabout, splitter islands, and improved signage. The existing noise environment at the intersection would remain. Nose-related impacts under a No Project Alternative would be greater than the proposed Project.

Transportation

The No Project Alternative would not include improved pedestrian and bicycle facilities along Old Arcata Road, or improved pedestrian and bicycle facilities at the intersection of Old Arcata Road and Jacoby Creek Road. Existing hazards to pedestrian and bicyclists would remain. Transportation-related impacts under a No Project alternative would be greater than the proposed Project.

Tribal Cultural Resources

The No Impact Alternative would not result in any Tribal Cultural Resource impacts. As tribal cultural resources were not identified in the Project Area as a result of AB 52 consultation with designated tribal representatives. However, the No Project Alternative is unlikely to encounter unknown tribal historic resources and, therefore, the impact to Tribal Cultural Resources would be less than the proposed Project.

Utilities and Service Systems

The No Project Alternative would not include needed water, sewer, or other utility improvements. Thus, the No Project Alternative is more impactful than the proposed Project.

Wildfire

The No Impact Alternative would not result in any wildfire-related impacts. The impact to Wildfire would be less under the No Project Alternative.

4.3.2 Alternative 2: T Intersection at Jacoby Creek with Improvements and Additional Traffic Calming Measures

Description

Alternative 2 would implement the Project as proposed, except for the roundabout at the intersection of Old Arcata Road and Jacoby Creek Road (See Figure 4-1, Alternative Layout). Instead of a new roundabout, the existing T-intersection would be retained, and traffic patterns would remain the same as under existing conditions. Through traffic would remain on Old Arcata Road, and the stop sign on Jacoby Creek Road would be retained. Improvements at the intersection would include a mountable concrete apron to divide turning lanes on westbound Jacoby Creek Road, at the stop sign. The accessway to the Bayside Post Office would be repaved

and restriped, with formal parking added on the north side of the utility island. The paved roadway area at the Jacoby Creek Road would be reduced to calm traffic, and mountable aprons would be installed to accommodate vehicles with larger turning radii. The new pathway/sidewalk along Old Arcata Road would transition into a new LED or rapid rectangular flashing beacon (RRFB) enhanced crosswalk with curb ramps at the northern end of the intersection. The crosswalk would include a pedestrian refuge, which is a median with a refuge area that is intended to help protect pedestrians who are crossing multiple lane roads. The crosswalk would connect to a new sidewalk on the southern and eastern edge of the lift station utility island. New crosswalks and curb ramps would provide connectivity to both entrance/exits of the improved Bayside Post Office accessway. A fourth new crosswalk with LED or RRFB and a set of curb ramps would provide connectivity across Jacoby Creek Road near the Bayside Grange, linking to a new sidewalk in front of the Bayside Grange and Mistwood Education Center. The intersection would be repaved and restriped; signage would be updated, including signage posting speed limits of 25 miles per hour. Bicycle lanes would be re-striped on Old Arcata Road, through the intersection. As with the proposed Project, the T-Intersection Alternative would be located entirely within the public right of way. Traffic calming measures would be integrated into the T-Intersection alternative to the degree feasible, including additional traffic calming measures along the Old Arcata Road corridor, north and south of Jacoby Creek School. Traffic calming measures would include mountable median islands, center delineators, and radar feedback signs.

Analysis

Aesthetics

Under Alternative 2, the same improvements as the proposed Project would be implemented, except that the intersection of Old Arcata Road and Jacoby Creek Road would be retained as a T-intersection, with the same traffic pattern as the existing environment but with additional traffic calming measures to improve safety and reduce speeds. Improvements to the intersection would include new concrete aprons, repaving and restriping accessway to the Bayside Post Office, as well as multiple shoulder, crosswalk, sidewalk, bike lane, and other multi-model improvements.

Alternative 2 would have similar to slightly reduced aesthetics impacts with a potential to temporarily block or alter existing view through the presence of heavy machinery, materials stockpiling and storage, and construction-related safety signage and channelizers, and roadside vegetation (trees) removal. Therefore, the potential impact to aesthetics is expected to be the same under Alternative 2.

Air Quality

Under Alternative 2, the amount of construction activity would be similar to the proposed Project. Therefore, the generation of criteria area pollutants and dust during construction of Alternative 2 would be similar to the proposed Project. The air quality impacts associated with the proposed Project were determined to be less than significant with implementation of Environmental Protection Action 1, which would require provisions that the City and its contractor prepare and adhere to a SWPPP prior to construction, to ensure compliance under the required Construction General Permit administered by the North Coast Regional Water Quality Control Board. The SWPPP would include dust control measures, as a matter of standard protocol. Dust control measures in the SWPPP would reduce potential fugitive dust emission and particulate matter impacts, providing consistency with Quality Regulation 1, Rule 104 (D), Fugitive Dust Emissions. The impacts of Alternative 2 would similarly be less than significant with implementation of Environmental Protection Action 1.

Biological Resources

Impacts to biological resources associated with the proposed Project were determined to be less than significant with implementation of mitigation measures. Comparative to the proposed Project, impacts to biological resources under Alternative 2 would be marginally reduced due to the reduction in area that would be disturbed at the intersection of Old Arcata Road and Jacoby Creek Road.

Based on the current 30% design, the proposed Project would impact several lengths of wetland ditch (approximately 2,650 square feet/0.06 acres) along the north side of Jacoby Creek Road and approximately 30 square feet of wetlands near Bayside Road. Temporary impacts of approximately 1,300

square feet (0.03 acres) to wetlands along Old Arcata Road would also occur. All wetlands impacted by the Project would be fully mitigated under Mitigation Measure BIO-3 and Mitigation Measure BIO-4, which require efforts to minimize impacts to wetlands and compensatory mitigation to the satisfaction of jurisdictional permitting agencies where wetland impacts are unavoidable. With the implementation of Mitigation Measure BIO-3 and Mitigation Measure BIO-4, impacts to wetlands under the proposed Project would be less than significant.

Alternative 2 would also impact wetlands, although to a slightly less extent. Permanent impacts to wetlands along Jacoby Creek Road would not occur. Permanent wetland impacts would be limited to approximately 20 square feet near Bayside Road. Temporary impacts to wetlands would be equivalent to the proposed Project and include approximately 1,300 square feet (0.03 acres) along Old Arcata Road. As with the proposed Project, all wetlands impacted by Alternative 2 would be fully mitigated under Mitigation Measure BIO-3 and Mitigation Measure BIO-4, which require efforts to minimize impacts to wetlands and compensatory mitigation to the satisfaction of jurisdictional permitting agencies where wetland impacts are unavoidable. With the implementation of Mitigation Measure BIO-3 and Mitigation Measure BIO-4, impacts to wetlands under Alternative 2 would be less than significant.

However, the potential to impact each of the species and resource identified in Section 3.3 (Biological Resources) during the construction phase would remain the same under Alternative 2, and all identified mitigation measures (Mitigation Measures BIO-1, 2, 3, ~~and~~ 4, **5 and 6**) would remain applicable. Therefore, the impacts related to biological resources for Alternative 2 would be equivalent to the proposed Project.

Cultural Resources

Under the proposed Project, impacts to historical resources were determined to be less than significant. As described in Section 3.4, Cultural Resources, three built historic resources were identified in the vicinity of the intersection of Old Arcata Road and Jacoby Creek Road; the Old Jacoby Creek School at 2212 Jacoby creek Road, the Temperance Hall at 1928 Old Arcata Road, and the Bayside Grange at 2297 Jacoby Creek Road. The proposed Project would not diminish the integrity of location, design, materials, workmanship, or association of the Old Jacoby Creek School, Temperance Hall, Bayside Grange, or any historic district because the Project would not physically alter any of these properties. Although the integrity of feeling and setting would be modified, this Draft EIR found that this would not result in a substantial adverse change under CEQA, as the feeling and setting would not be altered to a significant degree. The proposed Project components are modest in scale and sympathetic to the surroundings; improvements to the intersection as realigned in 1946 are not to the original intersection, and the setting is already a mixture of old and new build environment. Alternative 2 would similarly result in a less than significant impact to historic resources, as the components would be modest in scale and sympathetic to the surroundings.

Under the proposed Project, cultural resources impacts were determined to be less than significant with implementation of mitigation. Alternative 2 would result in slightly less disturbance at the Project site due to a slightly smaller footprint at the intersection of Old Arcata Road and Jacoby Creek Road. The area of ground disturbance under Alternative 2 is only minimally smaller than the Project footprint, and only at the intersection of Old Arcata Road and Jacoby Creek Road.

The same mitigation measures for the proposed Project (Mitigation Measures CR-1) would be applicable to Alternative 2 (see Section 3.4). Implementation of Mitigation Measure CR-1 would reduce the impact to archaeological resources by requiring the development and implementation of a MOU with consulting Tribes that would include archaeological monitoring, guided investigation prior to construction, and inadvertent discovery protocols and plans.

With implementation of mitigation measures identified above, the Alternative 2 potential for impacts to archaeological resources (Impact CR-2) would be similarly reduced to a less-than-significant level. Therefore, impacts to archeological resources and historic resources would be equivalent to those under the Project.

Energy

Comparatively, construction-related energy use under Alternative 2 would be equivalent to the proposed Project. As with the proposed Project, Alternative 2 would result in a less than significant impact to energy resources because it would not result in a substantial increase in energy use, in inefficient, wasteful, or unnecessary consumption of fuels or other energy resources, or conflict with an applicable plan for energy efficiency.

Geology and Soils

Although Alternative 2 would result in slightly smaller footprint than the proposed Project at the intersection of Old Arcata Road and Jacoby Creek Road, the general risk for encountering undiscovered unique paleontological resources would remain the same as the proposed Project. Paleontological resources are highly unlikely to be encountered regardless, as no deep excavation greater than 8 ft is planned. Additionally, potential for soil loss due to construction related erosion would be equivalent. The same Best Management Practices (BMPS) and EPA 1 (SWPPP) would apply to Alternative 2 as with the proposed Project.

The same mitigation measures for the proposed Project would apply to Alternative 2 to reduce potential impacts to construction-related impacts to paleontological resources to a less than significant level (reference Section 3.6). Therefore, impacts related to geology and soils under Alternative 2 would be equivalent to what would occur under the proposed Project.

Greenhouse Gas Emissions

Similar to the proposed Project, Alternative 2 would result in a temporary increase in GHG emissions during Project construction, including exhaust emissions from on-road haul trucks, worker commute vehicles, and off-road heavy-duty equipment. Comparatively, construction related GHG emissions associated with Alternative 2 would substantially be the same as the estimated emissions for the proposed Project. As with the proposed Project, Alternative 2 would result in a less than significant impact to GHG emissions, because neither the Project nor Alternative 2 would exceed the quantitative emissions threshold, impede the State in meeting the AB 32 greenhouse gas reduction goals, or conflict with the City's adopted Climate Action Plan. As with the proposed Project, Alternative 2 would improve bicycle and pedestrian infrastructure and therefore is consistent with and supports the City's Community Greenhouse Gas Reduction Plan. As with the proposed Project, operations of Alternative 2 would not result in a new source of GHG emissions as it would not increase the vehicle capacity, speed, or vehicle miles traveled of the Project roadway. Under the proposed Project, there would be improved traffic flow through the intersection and an associated reduction in future idling during Project operation. As such, the proposed Project and Alternative 2 may result in a reduction in operational GHG emissions as compared to continued use of the intersection without Project improvements. Additionally, there would likely be long-term GHG benefits from improved operation and smoother pavement surfaces. Therefore, impacts related to greenhouse gas emissions under Alternative 2 would be equivalent to what would occur under the proposed Project.

Hazards and Hazardous Materials

Although Alternative 2 would result in slightly smaller footprint than the proposed Project at the intersection of Old Arcata Road and Jacoby Creek Road, the general risk for accidental spills of construction fuels and accidental fire ignition during construction would remain the same as the proposed Project. Under Alternative 2, construction activity and excavation would still occur in proximity to the Roger's Garage on Old Arcata Road, and would still result in the need for handling potentially hazardous building materials (e.g., contaminated soils) and potentially aerially deposited lead along the roadway. The same mitigation measures for the proposed Project would apply to Alternative 2 to reduce construction-related impacts associated with managing potential contamination from Roger's Garage and aerially deposited lead to a less than significant level (reference Section 3.8). Therefore, impacts related to hazards and hazardous materials under Alternative 2 would be equivalent to what would occur under the proposed Project.

Hydrology and Water Quality

Alternative 2 would be located on the same site as the proposed Project and would include the same general level of excavation and earthwork, with the exception that the configuration of the intersection of Old Arcata Road

and Jacoby Road would be slightly smaller. Similar to the proposed Project, Alternative 2 would require implementation of Environmental Protection Action 1, which requires implementation of storm water controls during construction to ensure compliance with applicable requirements and to prevent erosion, sedimentation, or water quality impacts from occurring. In addition, the same mitigation measure for the proposed Project related to water quality control measures during excavation would be required for Alternative 2 to reduce impacts to a less than significant level (reference Section 3.9). Therefore, impacts related to hydrology and water quality under Alternative 2 would be equivalent to what would occur under the proposed Project.

Noise

Similar to the proposed Project, Alternative 2 would generate construction-related noise associated with the use of heavy equipment for construction. The activities under Alternative 2 would generally occur for the same amount of time and utilize the same equipment as the proposed Project. Similar to the proposed Project, Alternative 2 would reduce operational noise through the Project Area due to a quieter, smoother roadway surface and traffic calming measures such as speed humps and improve signage. Alternative 2 would not place the intersection of Old Arcata Road closer to existing noise receptors; however, Alternative 2 would not reduce the amount of acceleration and braking associated with stopping, turning, and reaccelerating at the current intersection. Under the proposed Project, the proposed roundabout would further decrease operational noise by reducing the amount of acceleration and braking associated with stopping, turning, and reaccelerating at the current intersection, including near the Mistwood Education Center. Under Alternative 2, the existing noise environment of acceleration and breaking associated with stopping, turning, and reaccelerating at the intersection would remain. Therefore, the impacts related to noise for Alternative 2 would be equivalent to or greater than the proposed Project.

Transportation

Transportation impacts associated with Alternative 2 would be equivalent to the proposed Project as it is anticipated that the construction phase would still require similar, if not equivalent, construction worker and equipment trips. Alternative 2 would include the same pedestrian and bicycle facilities along Old Arcata Road, and substantially similar pedestrian and bicycle facilities at the intersection of Old Arcata Road and Jacoby Creek Road as the proposed Project. However, as a deviation, the crosswalk across Jacoby Creek Road would lack a pedestrian refuge island. Implementation of Mitigation Measure TR-1 would be applicable to Alternative 2 and would reduce the impact of temporary construction to emergency access to a less than significant level by requiring adequate emergency access to all properties along the corridor, and advanced notification of construction activity details to emergency responders (reference Section 3.11 – Transportation). Therefore, potential transportation-related impacts under Alternative 2 would be equivalent to what would occur under the proposed Project.

Tribal Cultural Resources

Under the proposed Project, tribal cultural resource impacts were determined to be less than significant with implementation of mitigation. Alternative 2 would result in slightly less disturbance at the Project site due to a smaller footprint at the intersection of Old Arcata Road and Jacoby Creek Road. The area of ground disturbance under Alternative 2 is only minimally smaller than the Project footprint, and only at the intersection of Old Arcata Road and Jacoby Creek Road.

The same mitigation measures for the proposed Project (Mitigation Measures CR-1) would be applicable to Alternative 2 (see Section 3.12). Implementation of Mitigation Measure CR-1 would reduce the impact to tribal cultural resources by requiring the development and implementation of a MOU with consulting Tribes that would include archaeological monitoring, guided investigation prior to construction, and inadvertent discovery protocols and plans.

With implementation of mitigation measures identified above, the potential for impacts to tribal cultural resources (Impact TCR-1 and TRC-2) would continue to be reduced to a less than significant level as with the proposed Project. Therefore, Alternative 2 impacts to Tribal Cultural Resources would be equivalent to those under the proposed Project

Utilities and Service Systems

Utility and service system impacts associated with Alternative 2 would be equivalent to the proposed Project. Alternative 2 would have the same water, sewer, and utility improvements as the proposed Project. Therefore, impacts to public services and utilities associated with Alternative 2 would be less than significant (reference section 3.13 Utilities and Service Systems), and equivalent to what would occur under the proposed Project.

Wildfire

Wildfire impacts associated with Alternative 2 would be equivalent to the proposed Project. Alternative 2 would be located on the same site as the proposed Project and would be subject to the same fire ignition risks and exposure to wildfire. Therefore, impacts to wildfire under Alternative 2 would be equivalent to what would occur under the proposed Project.

4.4 Comparison of Alternatives

Table 4-1 (Comparison of Alternatives to the Proposed Project) compares the impacts of the proposed Project with each of the alternatives. As summarized in Table 4-1, the No Project Alternative does not result in any impacts to environmental resources as identified in the CEQA Appendix G checklist, as disturbance would not result. As noted in Section 4.3.1 above, the No Project alternative, existing environmental concerns would remain:

– Hazards – Legacy contamination that may remain near the former site of Roger's Garage would persist, unevaluated.
– Noise – Reductions in operational noise achievable under the proposed Project would not occur; and
– Transportation – Improvements to pedestrian and bicycle safety and transportation facilities would not occur. Level of Service (LOS) at the intersection of Old Arcata Road and Jacoby Creek Road would continue to degrade.

Potential environmental impacts resulting from Alternative 2 are generally equivalent to the proposed Project (Table 4-1). Neither alternative would result in any unmitigated significant impacts and required mitigation for both Alternative 2 and the proposed Project would be equivalent. Both a modified T-intersection and a roundabout at the intersection of Old Arcata Road and Jacoby Creek Road would result in similar visual changes, such as new sidewalks, curbs, crosswalks, stamped and colorized concrete, fencing, and landscaping. Neither alternative would result in tall structures or visually obscuring features. Air quality, energy, and greenhouse gas emissions would be equivalent for the proposed Project and Alternative 2, as the same amount of construction and operational resources would be required to implement each. Biological impacts for the proposed Project and Alternative 2 would be equivalent. Aside from removal of several trees within the public right of way at the intersection of Old Arcata Road and Jacoby Creek Road, all other vegetation removal would be equivalent. **The proposed Project would require small-scale impacts to roadside ditches that are considered three-parameter wetlands and associated compensatory mitigation, including permanent impacts to approximately 2,670 square feet (0.06 acres) and temporary impacts to approximately 1,300 square feet (0.03 acres). Alternative 2 would also impact wetlands, although to a less extent. Alternative 2 would permanently impact approximately 20 square feet of wetlands near Bayside Road and temporarily impact approximately 1,300 square feet (0.03 acres).**

Potential impacts to cultural resources would be equivalent, as both the proposed Project and Alternative 2 have similar ground disturbance footprints required for construction.

Table 4-1 Comparison of Alternatives to the Proposed Project

Potential Impact	Project	Alternative 1 No Project	Alternative 2 T-Intersection Jacoby Creek with Improvements
Aesthetics	Aesthetic impacts would be less than significant after mitigation and occur as a result of Project construction (e.g., temporary visual impacts from construction).	No visual change would occur.	Same as proposed Project.
Air Quality	Air quality impacts, including generation of emissions during construction, would be less than significant.	No air quality impacts or emissions would occur. Reductions in vehicle emissions by improving facilities for pedestrian and bicycle transit would not be achieved.	Same as proposed Project.
Biological Resources	**Mitigation measures would be implemented to ensure biological and aquatic resources were protected. Wetland impacts would be minimal and would be fully mitigated via required compensatory mitigation required by jurisdictional permitting agencies under Mitigation Measure BIO-3 and Mitigation Measure BIO-4. Impacts would be less than significant after mitigation.**	No biological impacts would occur.	**Mitigation measures would be implemented to ensure biological and aquatic resources were protected. Wetland impacts would be minimal and would be fully mitigated via required compensatory mitigation required by jurisdictional permitting agencies under Mitigation Measure BIO-3 and Mitigation Measure BIO-4. Impacts would be less than significant after mitigation.**
Cultural Resources	Impacts to cultural and historic resources would not occur. Inadvertent discovery protocols would be implemented to protect any uncovered resources not identified by the Project's cultural resource investigation and related tribal consultation.	No cultural or historic resource impacts would occur.	Same as proposed Project.
Energy	Impacts to energy would be less than significant.	No energy impacts would occur. Reductions in vehicle-related fossil fuels by improving facilities for pedestrian and bicycle transit would not be achieved.	Same as proposed Project.
Geology and Soils	Impacts to geologic and soil resources would not occur. Inadvertent discovery protocols would be implemented to protect any uncovered paleontological resources.	No changes to geologic or soil resources would occur.	Same as proposed Project.

Potential Impact	Project	Alternative 1 No Project	Alternative 2 T-Intersection Jacoby Creek with Improvements
Greenhouse Gas Emissions	Impacts to greenhouse gas emissions would be less than significant.	No greenhouse gas emissions impacts would occur. Reductions in vehicle emissions by improving facilities for pedestrian and bicycle transit would not be achieved.	Same as proposed Project.
Hazards and Hazardous Materials	Hazards and Hazardous Materials impacts would be less than significant after mitigation and occur as a result of Project construction (e.g., disturbance of contaminated soils during construction).	No changes to hazards or hazardous materials would occur. Potential legacy contamination that may remain near the former Roger's Garage would persist.	Same as proposed Project.
Hydrology and Water Quality	Hydrology and Water Quality impacts would be less than significant after mitigation and occur as a result of Project construction (e.g., disturbance of soils during construction).	No changes to hydrology would occur. Improvements to the existing ad hoc storm drainage system would not occur.	Same as proposed Project.
Noise	Impacts from noise would be less than significant.	No changes to noise would occur.	Same as proposed Project for construction. More than proposed Project and less than No Project for operation but remaining less than significant.
Transportation	Transportation impacts would be less than significant after mitigation and occur as a result of Project construction (e.g., emergency access during construction).	No changes to transportation would occur. The deteriorating roadway throughout the Project Area and depreciating LOS at the intersection of Old Arcata Road and Jacoby Creek Road would persist.	Same as proposed Project.
Tribal Cultural Resources	Impacts to cultural and historic resources would not occur. Inadvertent discovery protocols would be implemented to protect any uncovered resources not identified by the Project's cultural resource investigation and related tribal consultation.	No tribal resource impacts would occur.	Same as proposed Project.
Utility and Service Systems	Impacts related to utilities and service systems would be less than significant.	No changes to utilities would occur.	Same as proposed Project.
Wildfires	Impacts related to wildfires would be less than significant.	No changes to utilities would occur.	Same as proposed Project.

4.5 Environmentally Superior Alternative

As shown in Table 4-1, Comparison of Alternatives to the Proposed Project, the environmental impacts of the proposed Project, Alternative 1 (No Project Alternative), and Alternative 2 (T-Intersection Jacoby Creek with Improvements) would be substantially similar or equivalent. Of the three alternatives, the No Project Alternative is the least environmentally impactful alternative, as it avoids disturbance to the Project Area and would not result in any changes compared to existing conditions. However, the No Project Alternative would fail to meet any of the Project objectives.

The proposed Project and Alternative 2 (Modified T-Intersection) would result in **similar** environmental impacts and require identical mitigation measures to ensure any potential environmental impact remains less than significant. The ground disturbance footprint required for Alternative 2 would be only negligibly smaller near the intersection of Old Arcata Road and Jacoby Creek Road and identical for the balance of the Project Area. Absent a roundabout, operational noise at the intersection is expected to be higher than would be achieved under the proposed Project; however, operational noise under both alternatives would not be environmentally significant. **Neither of the three alternatives considered would result in any unmitigatable significant environmental impacts.** As such, the proposed Project and Alternative 2 are considered environmentally equivalent.

4.6 References

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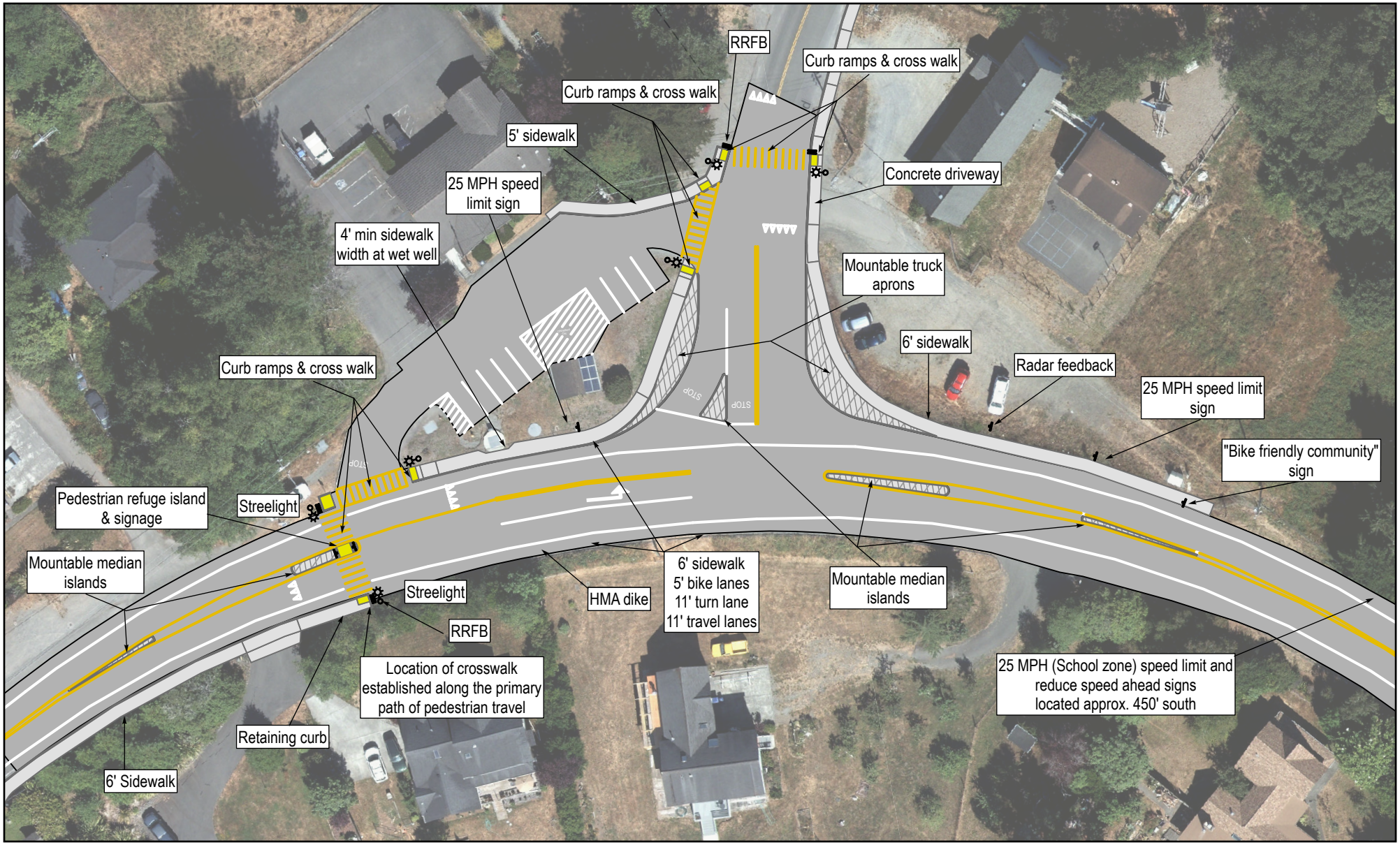
Nichols Consulting Engineers (NCE) (2017). City of Arcata Pavement Management Update (2016-17)-Final Report. NCE Project Number 599.03.55.

SHN Engineers and Geologists (SHN) and Omni Means Engineering Solutions. 2017. Community Charrette for Design Success: Design Charrette and Preliminary Concept Designs Old Arcata Road Improvements Project.



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Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

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GHD

City of Arcata
Old Arcata Road Improvements

Project No. **11159130**
Revision No. **-**
Date **7/26/2021**

Alternative Layout

FIGURE 4-1

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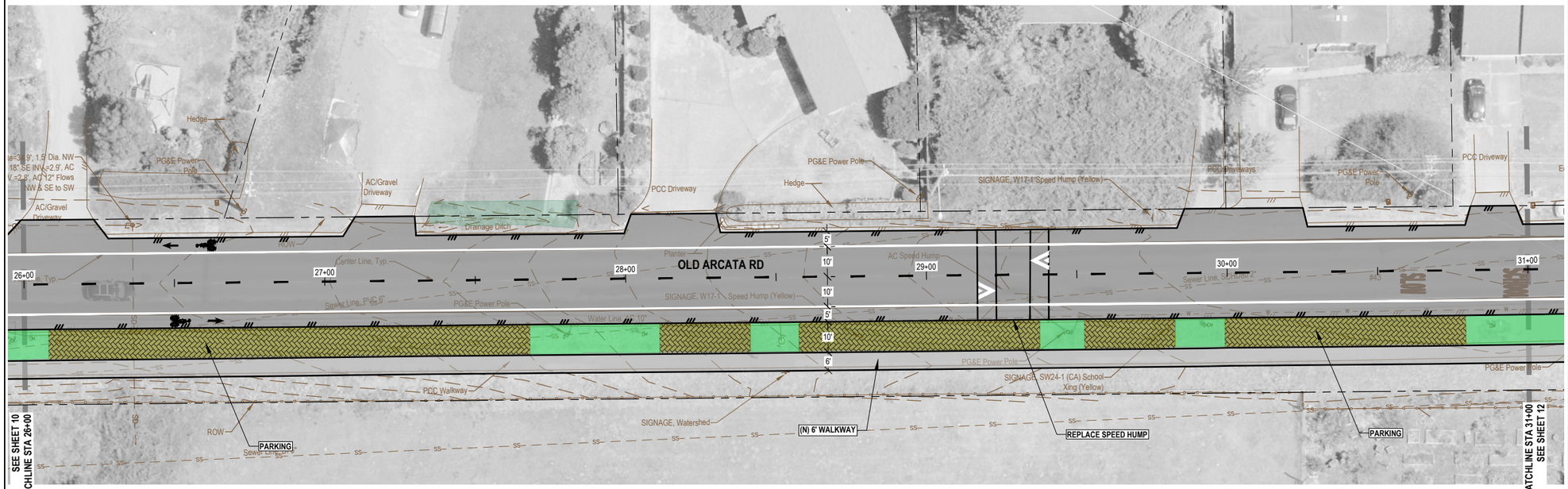
Data source: AirPhoto_2019_MapService:
World Topographic Map: Esri Community Maps Contributors, BuildingFootprintUSA, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA

Appendix A

Updated 30% Design Sheets



PLAN VIEW
OLD ARCATA RD - STA 26+00 TO STA 31+00
SCALE: AS SHOWN

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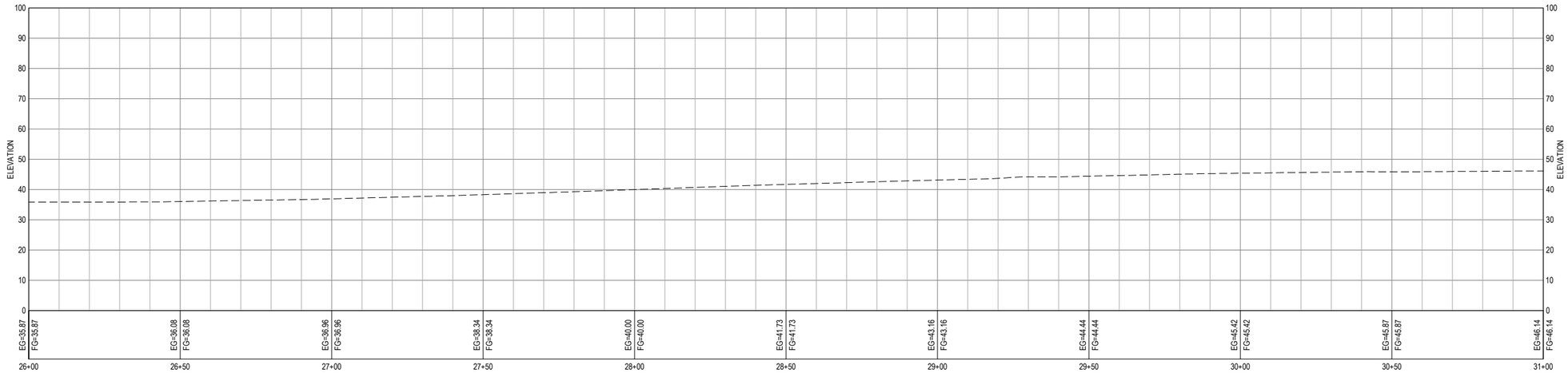

PROFILE VIEW
OLD ARCATA RD - STA 26+00 TO STA 31+00
SCALE: AS SHOWN

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0 20' 40' VERTICAL

SHEET KEYNOTES

1.

BEING DEVELOPED

LINE & HATCH LEGEND

- PALUSTRINE EMERGENT
- PALUSTRINE SCRUB-SHRUB
- (N) ASPHALT OVERLAY
- (N) CONCRETE
- (N) LANDSCAPE BUFFER
- (N) GRAVEL OR GRASS PAVER
- RIGHT-OF-WAY / PROPERTY LINE
- (N) EDGE OF PAVEMENT
- (E) EDGE OF PAVEMENT

SHEET GENERAL NOTES

1. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM THE BEST INFORMATION AVAILABLE. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICES ALERT BY DIALING 811 A MINIMUM OF TWO BUSINESS DAYS PRIOR TO ANY EXCAVATION.
2. CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING WORK.

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City of Arcata

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Drafting Check	J. WOLF	Design Check	J. WOLF
Project Manager	J. WOLF	Date	12/9/2021
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Title OLD ARCATA RD - STA 26+00 TO STA 31+00
Project No. 11159130
Original Size ANSI D
Sheet No. C-106
Sheet 11 of 19

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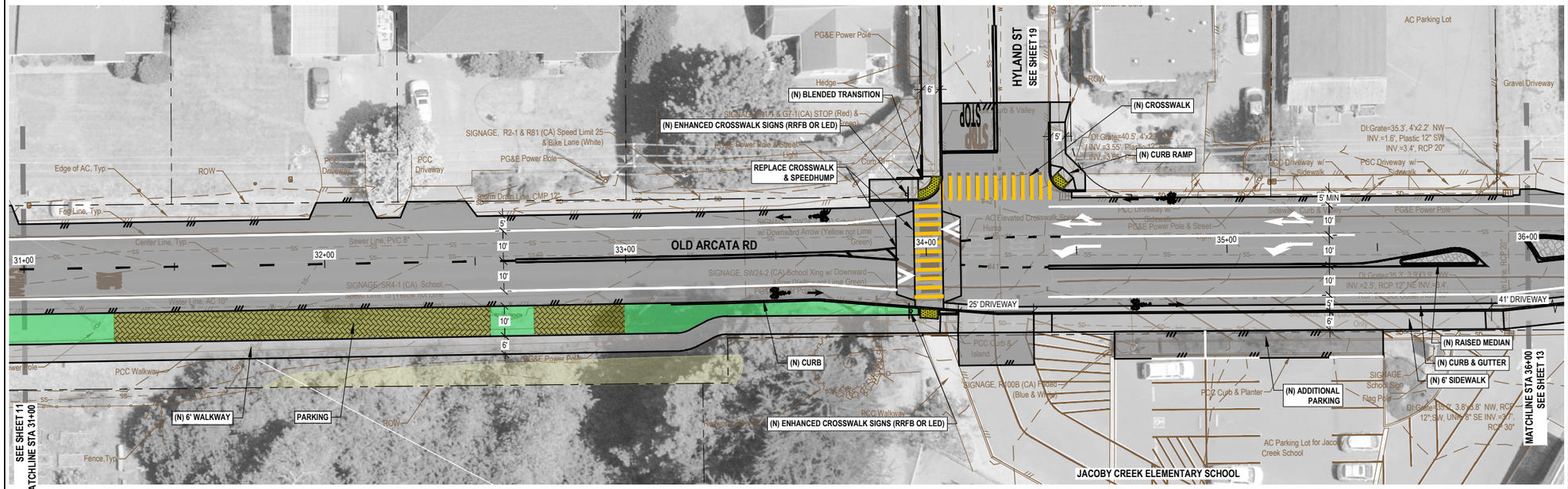

PLAN VIEW
OLD ARCATA RD - STA 31+00 TO STA 36+00
SCALE: AS SHOWN

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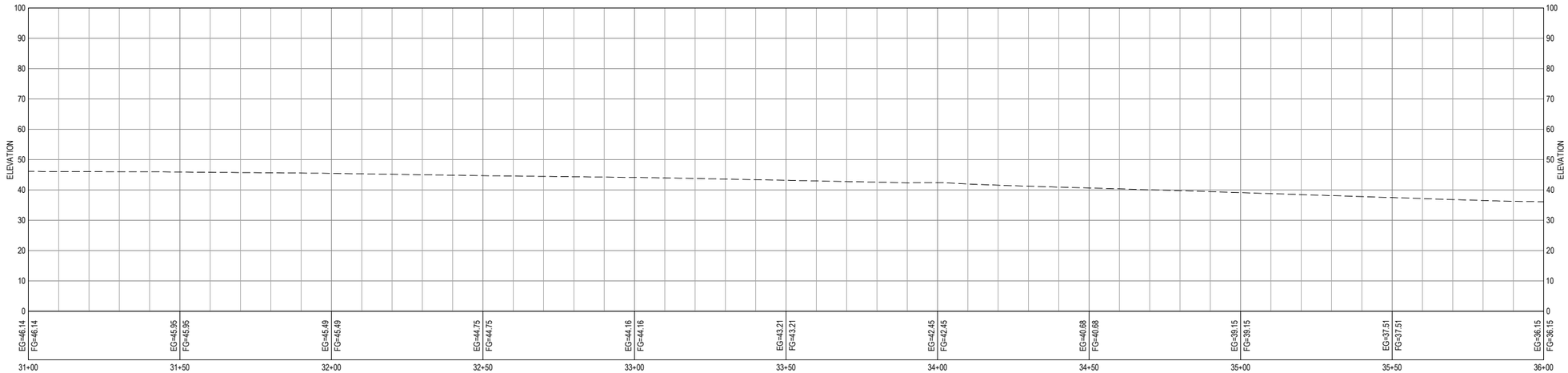

PROFILE VIEW
OLD ARCATA RD - STA 31+00 TO STA 36+00
SCALE: AS SHOWN

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0 20' 40' VERTICAL

SHEET KEYNOTES

1.

BEING DEVELOPED

LINE & HATCH LEGEND

- PALUSTRINE EMERGENT
- PALUSTRINE SCRUB-SHRUB
- (N) ASPHALT OVERLAY
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Title TURN LANE OPTION
OLD ARCATA RD - STA 31+00 TO STA 36+00
Project No. 11159130
Original Size ANSI D
Sheet No. C-107
Sheet 12 of 19

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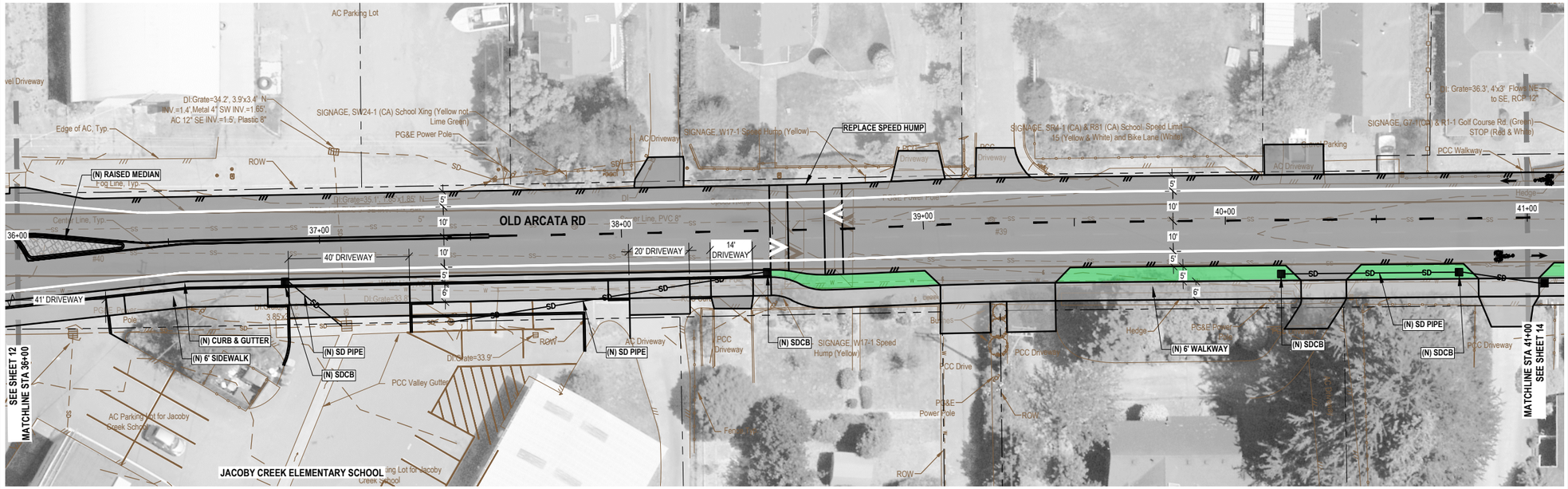

PLAN VIEW
OLD ARCATA RD - STA 36+00 TO STA 41+00
SCALE: AS SHOWN

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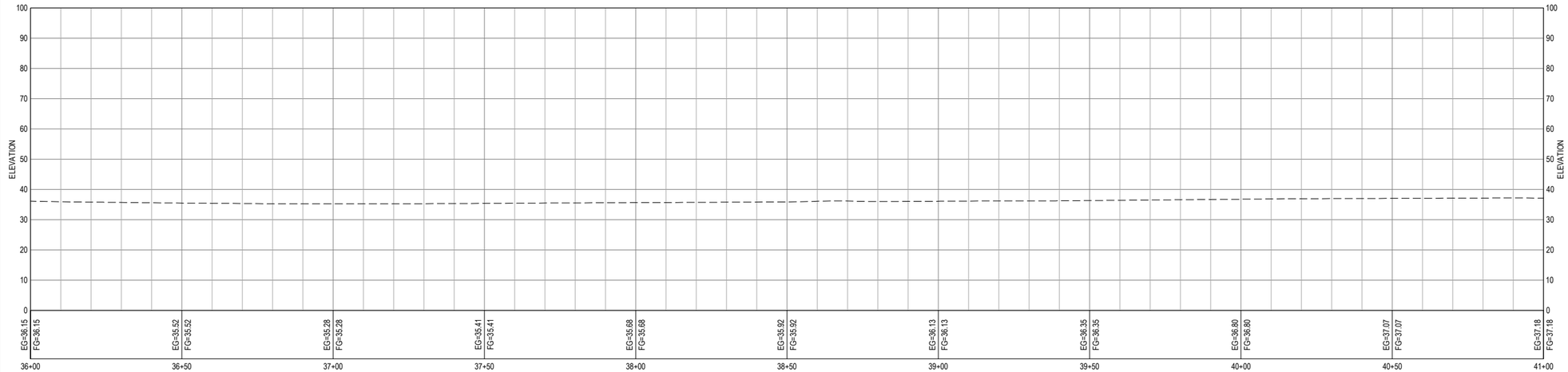

PROFILE VIEW
OLD ARCATA RD - STA 36+00 TO STA 41+00
SCALE: AS SHOWN

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0 20' 40' VERTICAL

SHEET KEYNOTES

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BEING DEVELOPED

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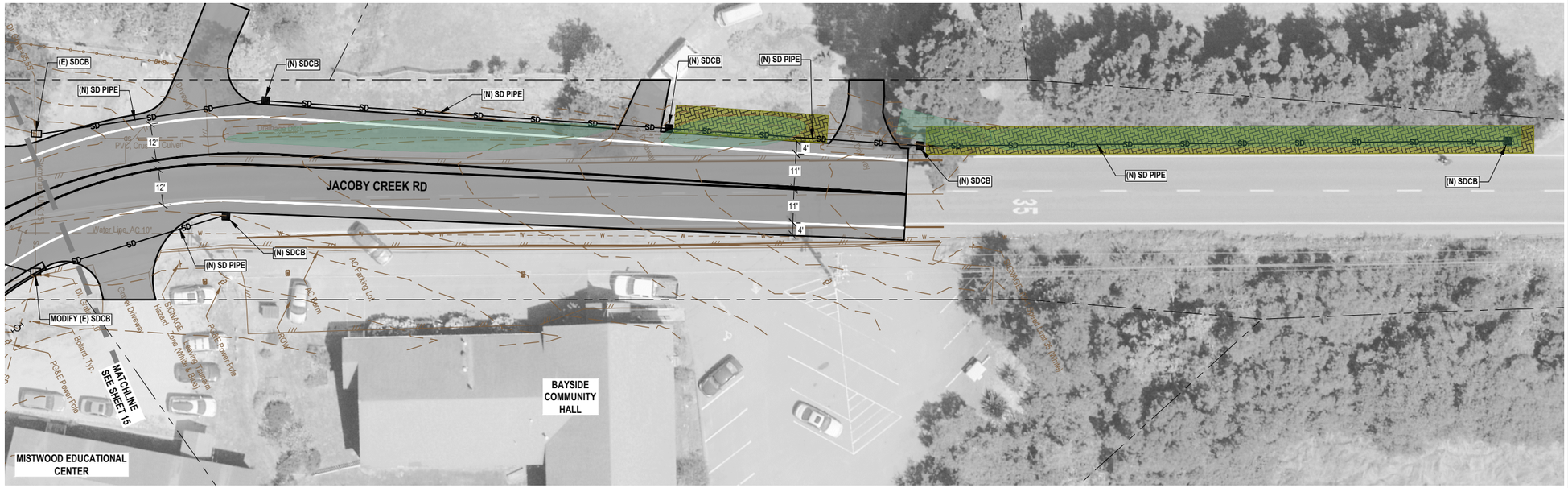
Sheet 13 of 19

Plot Date: 9 December 2021 - 1:10 PM Plotted By: Owen Goode Filename: \\ghdnet\ghd\US\Eureka\Projects\111\11159130 arcata old arcata road improvements\06-CAD\Sheets\11159130_OAR_XX-XX PP SHEETS.dwg



ROUNDABOUT
JACOBY CREEK RD

SCALE: AS SHOWN

0 10' 20' 40'

N

SHEET KEYNOTES

1.

BEING DEVELOPED

LINE & HATCH LEGEND

- PALUSTRINE EMERGENT
- PALUSTRINE SCRUB-SHRUB
- (N) ASPHALT OVERLAY
- (N) CONCRETE
- (N) LANDSCAPE BUFFER
- (N) GRAVEL OR GRASS PAVER
- RIGHT-OF-WAY / PROPERTY LINE
- (N) EDGE OF PAVEMENT
- (E) EDGE OF PAVEMENT

SHEET GENERAL NOTES

1. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM THE BEST INFORMATION AVAILABLE. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICES ALERT BY DIALING 811 A MINIMUM OF TWO BUSINESS DAYS PRIOR TO ANY EXCAVATION.
2. CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING WORK.

DRAFT 30% PLANS

NOT FOR CONSTRUCTION

Bar is one inch on original size sheet

0 1"

GHD Inc.
718 Third Street
Eureka California 95501 USA
T 1 707 443 8326 F 1 707 444 8330 W www.ghd.com

Drawn	O.GOODE	Designer	J.WOLF
Drafting Check	J.WOLF	Design Check	D.CAISSE
Project Manager	J.WOLF	Date	
This document shall not be used for construction unless signed and sealed for construction.		Scale	AS SHOWN

Client CITY OF ARCATA
Project OLD ARCATA ROAD REHABILITATION & PEDESTRIAN/BIKEWAY IMPROVEMENTS
Title JACOBY CREEK RD - STA XX+XX TO STA XX+XX
Project No. 11159130
Original Size ANSI D
C-113
18 19

Plot Date: 8 December 2021 - 11:38 AM Plotted By: Owen Goode
Filename: \\ghdnet\ghd\US\Eureka\Projects\111\11159130 arcata old arcata road improvements\06-CAD\Sheets\11159130_OAR_XX-XX PP3 SHEETS.dwg

Appendix B

June 2021 Wetland Delineation Documentation

Technical Memorandum

June 29, 2021

To	Kasey Sirkin, USACE	**Tel**	(707) 443-0855
Copy to	Netra Khahtri, City of Arcata; Andrea Hilton, GHD	**Email**	l.k.sirkin@usace.army.mil
From	Kerry McNamee, GHD	**Ref. No.**	11159130
Subject	Old Arcata Road Improvement Project 2021 Wetland Delineation Update		

Greetings Kasey,

This Technical Memorandum is in regards to the proposed Old Arcata Road Improvement Project (Project), and presents the findings of a subsequent delineation conducted at a specific area in question within the Project Area boundary.

Purpose

The subsequent delineation was conducted following a site visit in which the area in question did not appear to be a wetland, located along the north side of Jacoby Creek Road approximately 175 feet from the intersection with Old Arcata Road (the area in question is outlined in yellow on the attached Figure 1). Therefore, GHD wetland scientists conducted a follow up delineation at the area in question on June 23, 2021. The area in question was found to not meet wetland parameters (vegetation, soils, hydrology), and therefore is not considered a three-parameter wetland and non-jurisdictional by the U.S. Army Corps of Engineers (USACE). Data from the subsequent delineation is summarized below.

Data Overview

Two GHD wetland scientists visited the area in question on June 23, 2021 and dug two pits to collect vegetation, soils and hydrology data. The two pits are labelled CP-1 and CP-2, ("Confirmation Point"), on the attached Figure 1. Conditions at both CP-1 and CP-2 do not meet all three parameters to be considered a USACE-jurisdictional wetland resource under the Clean Water Act. Datasheets for CP-1 and CP-2 are attached to this Technical Memo as Attachment 2.

Vegetation

- No obligate vegetation was observed at either CP-1 or CP-2.
- The majority of species observed are considered Facultative, meaning they occur in wetlands 34% to 66% of the time, making these species statistically equally likely to occur in wetlands or uplands.
- Most species are invasive and non-native to California.

Soils

- Soils at both sites contained very gravelly sandy loams, and which consisted of riverrun fill material in the upper horizon.
- CP-1 contained potentially hydric soils due to the chroma of 3 and low value (< 2), and presence of redoximorphic conditions in the lower horizon (9.5-13 inches). However, the lower horizon started at a depth greater than 8 inches to the surface, and is therefore not meeting any hydric soils indicators per the USDA/NRCS 2018 Hydric Soils Indicator Guide.

- CP-2 contained soils with low chromas (< 2), and low value (< 2), however did not contain any redoximorphic features or other indicators (such as odors) of hydric soil conditions.

Hydrology

- No surface water was present at both CP-1 and CP-2, however this area is known to seasonally pool during the wet winter months as it is located between a culvert and storm drain.
- No primary indicators were observed at CP-1 and CP-2, however one secondary indicator (Geomorphic Position) was observed at both sites.

Conclusion

The original Wetland Delineation Report (January 2019) has been updated to remove the area in question, and will be resubmitted for an updated Preliminary Jurisdictional determination from the USACE. If warranted, please contact Kerry McNamee at (707) 267-2207 or at Kerry.McNamee@ghd.com to discuss this memo.

Regards

Kerry McNamee
Environmental Planner

Cced: Netra Khatri, P.E., City of Arcata
Andrea Hilton, GHD

Attachment 1: Figures

Attachment 2: Datasheets

Attachments

Attachment 1

Figure

Paper Size ANSI A

0 5.5 11 16.5 22

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

City of Arcata
Old Arcata Road Improvement Project

2021 Wetland Area of Investigation

Project No. **11159130**
Revision No. **-**
Date **6/30/2021**

FIGURE 1

\\ghdnet\ghd\US\Eureka\Projects\111\11159130 Arcata Old Arcata Road Improvements\08-GIS\Maps\Deliverables\WetlandMemo_20210630\11159130_WetlandMemo.aprx
Print date: 30 Jun 2021 - 13:47

Data source: . Created by: zporteous

Legend

- Project Study Boundary

Wetland Survey

- CC upland test pit
- USACE wetland test pit
- USACE wetland transect point
- Intermediate Point
- Upland Ditch
- 1-Parameter Willow Series, Dripline
- 1-Parameter Willow Series, Dripline over Pavement
- Palustrine Emergent Persistent 3-Parameter Wetland
- Palustrine Scrub-Shrub 3-Parameter Wetland Broad leaved Deciduous

Paper Size ANSI B

0 25 50 75 100

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

N

GHD

City of Arcata
Old Arcata Road Improvements

Wetland Delineation

Project No. **11159130**
Revision No. **E**
Date **8/4/2021**

FIGURE 2- 1

\\ghdnet\ghd\US\Eureka\Projects\111\11159130 Arcata Old Arcata Road Improvements\08-GIS\Maps\Deliverables\11159130_02_WetDelin_RevF.mxd
Print date: 04 Aug 2021 - 08:45

Data source: . Created by: zporteous

W6T1-W

Legend

- Project Study Boundary

Wetland Survey

- CC upland test pit
- USACE wetland test pit
- USACE wetland transect point
- Intermediate Point
- Upland Ditch
- 1-Parameter Willow Series, Dripline
- 1-Parameter Willow Series, Dripline over Pavement
- Palustrine Emergent Persistent 3-Parameter Wetland
- Palustrine Scrub-Shrub 3-Parameter Wetland Broad leaved Deciduous

Paper Size ANSI B

0 25 50 75 100

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

N

GHD

City of Arcata
Old Arcata Road Improvements

Wetland Delineation

Project No. **11159130**
Revision No. **E**
Date **8/4/2021**

FIGURE 2- 2

\\ghdnet\ghd\US\Eureka\Projects\111\11159130 Arcata Old Arcata Road Improvements\08-GIS\Maps\Deliverables\11159130_02_WetDelin_RevF.mxd
Print date: 04 Aug 2021 - 08:45

Data source: . Created by: zporteous

W2T2-W

Legend

- Project Study Boundary

Wetland Survey

- CC upland test pit
- USACE wetland test pit
- USACE wetland transect point
- Intermediate Point
- Upland Ditch
- 1-Parameter Willow Series, Dripline
- 1-Parameter Willow Series, Dripline over Pavement
- Palustrine Emergent Persistent 3-Parameter Wetland
- Palustrine Scrub-Shrub 3-Parameter Wetland Broad leaved Deciduous

Paper Size ANSI B

0 25 50 75 100

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

N

GHD

City of Arcata
Old Arcata Road Improvements

Wetland Delineation

Project No. **11159130**
Revision No. **E**
Date **8/4/2021**

FIGURE 2- 3

\\ghdnet\ghd\US\Eureka\Projects\111\11159130 Arcata Old Arcata Road Improvements\08-GIS\Maps\Deliverables\11159130_02_WetDelin_RevF.mxd
Print date: 04 Aug 2021 - 08:45

Data source: . Created by: zporteous

Legend

- Project Study Boundary

Wetland Survey

- CC upland test pit
- USACE wetland test pit
- USACE wetland transect point
- Intermediate Point
- Upland Ditch
- 1-Parameter Willow Series, Dripline
- 1-Parameter Willow Series, Dripline over Pavement
- Palustrine Emergent Persistent 3-Parameter Wetland
- Palustrine Scrub-Shrub 3-Parameter Wetland Broad leaved Deciduous

Paper Size ANSI B

0 25 50 75 100

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

N

GHD

City of Arcata
Old Arcata Road Improvements

Wetland Delineation

Project No. **11159130**
Revision No. **E**
Date **8/4/2021**

FIGURE 2- 4

\\ghdnet\ghd\US\Eureka\Projects\111\11159130 Arcata Old Arcata Road Improvements\08-GIS\Maps\Deliverables\11159130_02_WetDelin_RevF.mxd
Print date: 04 Aug 2021 - 08:46

Data source: . Created by: zporteous

Legend

- Project Study Boundary
- **Wetland Survey**
- CC upland test pit
- USACE wetland test pit
- USACE wetland transect point
- Intermediate Point
- Upland Ditch
- 1-Parameter Willow Series, Dripline
- 1-Parameter Willow Series, Dripline over Pavement
- Palustrine Emergent Persistent 3-Parameter Wetland
- Palustrine Scrub-Shrub 3-Parameter Wetland Broad leaved Deciduous

Paper Size ANSI B

0 25 50 75 100

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

N

GHD

City of Arcata
Old Arcata Road Improvements

Wetland Delineation

Project No. **11159130**
Revision No. **E**
Date **8/4/2021**

FIGURE 2- 5

\\ghdnet\ghd\US\Eureka\Projects\111\11159130 Arcata Old Arcata Road Improvements\08-GIS\Maps\Deliverables\11159130_02_WetDeln_RevF.mxd
Print date: 04 Aug 2021 - 08:46

Data source: . Created by: zporteous

Attachment 2

Data Sheets

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region

See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Old Arcata Road Improvement Project | City/County: Arcata/Humboldt | Sampling Date: 6/23/2021

Applicant/Owner: Humboldt County | State: CA | Sampling Point: CP-1

Investigator(s): M. Schwarz, K. McNamee | Section, Township, Range: 3, T5N, 1RE

Landform (hillside, terrace, etc.): Flat road shoulder | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): LRR A | Lat: 40.842391 | Long: -124.063341 | Datum: WGS84

Soil Map Unit Name: Hookton-Tablebluff complex, 2 to 9 percent slopes | NWI classification: None (upland)

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Vegetation dominated by invasive species. Hydric soil not present. Wetland hydrology present via secondary indicators.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 2 sf)			
1. *Trifolium repens*	25	Yes	FAC
2. *Plantago major*	10	Yes	FAC
3. *Poa annua*	10	Yes	FAC
4. *Matricaria discoidea*	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	50	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	50 (A)		155 (B)

Prevalence Index = B/A = 3.10

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ 5 - Wetland Non-Vascular Plants[1]
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: CP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-9.5	2.5Y 3/2	100					Sandy	very gravelly sandy loam; riverrun fill
9.5-13	10YR 3/1	96	7.5YR 7/6	4	C	M	Sandy	contained variegated soil

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

Although the second soil horizon contains redoximorphic features, it started deeper than the hydric soil indicators (such as F6).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (**MLRA 1, 2 4A, and 4B**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling location is between a culvert and storm drain.

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region

See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Old Arcata Road Improvement Project City/County: Arcata/Humboldt Sampling Date: 6/23/2021

Applicant/Owner: Humboldt County State: CA Sampling Point: CP-2

Investigator(s): M. Schwarz, K. McNamee Section, Township, Range: 3, T5N, 1RE

Landform (hillside, terrace, etc.): Flat road shoulder Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): LRR A Lat: 40.842410 Long: -124.063377 Datum: WGS84

Soil Map Unit Name: Hookton-Tablebluff complex, 2 to 9 percent slopes NWI classification: None (upland)

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Vegetation dominated by invasive species. Hydric soil not present. Wetland hydrology not present however one secondary indicator was observed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 2 sf)			
1. *Trifolium repens*	35	Yes	FAC
2. *Hypochaeris radicata*	15	Yes	FACU
3. *Poa annua*	10	No	FAC
4. *Festuca perennis*	5	No	FAC
5. *Plantago major*	5	No	FAC
6.			
7.			
8.			
9.			
10.			
11.			
	70 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	55	x 3 =	165
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	70 (A)		225 (B)

Prevalence Index = B/A = 3.21

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1](Provide supporting data in Remarks or on a separate sheet)

____ 5 - Wetland Non-Vascular Plants[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:

SOIL

Sampling Point: CP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	2.5Y 3/2	100					Sandy	very gravelly sandy loam; riverrun fill
9-14	10YR 2/1	100					Sandy	No redox observed.

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G)**
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
No redoximorphic conditions observed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
___ Salt Crust (B11)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Stunted or Stressed Plants (D1) (**LRR A**)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-Stained Leaves (B9) (**MLRA 1, 2 4A, and 4B**)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Saturation Visible on Aerial Imagery (C9)
X Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)
___ Raised Ant Mounds (D6) (**LRR A**)
___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Sampling location is between a culvert and storm drain.