
3.12 TRANSPORTATION

This section describes roads, public transportation, and pedestrian and bicycle facilities of the project site and project vicinity, and assesses the potential impacts on roads, public transportation, and bicycle and pedestrian facilities of and from Salt River Ecosystem Restoration Project sites. Transportation issues addressed include project-related traffic, potential for accidents or safety concerns on public roads, and potential increase in demand for public transit services and pedestrian and bicycle facilities.

3.12.1 AFFECTED ENVIRONMENT

ROADS

The existing roadway system in the project area includes one highway (State Route 211) that runs from State Route 101 to the City of Ferndale, and a system of County roads comparable to other rural communities. There are no signalized intersections. Primary streets in the Ferndale commercial district are two-lane with gutters, curbs, and sidewalks. Local streets and rural roads have only road shoulders and no sidewalks.

The roads adjacent to the project site are County Roads including Port Kenyon Road, Dillon Road, Fulmor Road, Francis Creek Road, Williams Creek Road, Oeschger Lane, and Meridian Road. All of these roads are two-lane roads classified as rural roads with narrow, variable widths, and no passing areas. These roads serve isolated farms and residences in the Salt River watershed and generally have a low volume of use. Streets in Ferndale terminate at the edges of town, are classified as local streets, and primarily provide low-speed roadway access connecting Ferndale with surrounding rural areas.

At the time this EIR was prepared, the Alton Interchange project was under construction on a segment of SR 101 southeast of the proposed project area. The Alton Interchange project will convert the segment of State Route (SR) 101 from just north of the Van Duzen River Bridge to just north of the intersection of SR 101/Drake Hill Road from four-lane expressway to four-lane freeway. The interchange project includes a grade separated interchange to replace the existing at-grade intersection of SRs 36 and 101, and local road extensions on the west side of SR 101 eliminating seven existing at-grade road approaches to SR 101. The Alton Interchange project will not alter the SR 101 interchange nearest the proposed project site, which connects SR 211 and SR 101.

PUBLIC TRANSPORTATION

There is no public transit in the project area, including the City of Ferndale. The Humboldt Transit Authority's Redwood Transit System (RTS) provides bus service from Scotia to Trinidad along the State Route 101 corridor, with the closest stop to the project area being in Fernbridge, about five

miles east of the project area. The project site is not located directly along the existing RTS bus route.

PEDESTRIAN AND BICYCLE FACILITIES

The City of Ferndale's pedestrian system consists primarily of sidewalks and pedestrian crosswalks on several public streets. The City does not have bike lanes (Class II facilities) or bike routes (Class III facilities). The project site does not currently have any bike or pedestrian facilities. The project site itself has minimal use by pedestrians, although pedestrian use on adjacent County roads occurs at a low level. The project site would not be accessible using bike lanes and bike routes, and there is no bicycle use within the project site.

3.12.2 IMPACTS AND MITIGATION

SIGNIFICANCE CRITERIA

The project would have a significant impact on transportation and circulation if it would:

- Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)
- Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Result in inadequate emergency access
- Result in inadequate parking capacity, or
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)

Alternative 1 (Proposed Project): Modified Channel/Riverside Ranch Restoration/ Upland Restoration

Project Trip Generation

Using the balanced earthwork volumes presented in Section 6 of the EMMP, earthwork production rates were developed for Phases 1 and 2. The production rates provide a general understanding of the number and frequency of truck trips necessary to haul the excavated material to a reuse site. Hauling excavated material from the excavation site to the reuse site and returning to the excavation

site would be defined as two truck trips. Table 3.12-1 contains the tabulated conversions from the total excavated material to the required truck trips for Phases 1 and 2.

Table 3.12-1 Haul Truck Trips for Riverside Ranch (Phase 1) and Salt River Restoration (Phase 2)

Phase	Total Earthwork Volume to be Transported (CY)	Total Earthwork Volume Including 15% Transportation Expansion (CY)	10-CY Truck Trips/Phase	10-CY Truck Trips/Day ¹	10-CY Truck Trips/Hour ²
1	375,100	431,365	86,273	719	90
2	416,300	478,745	95,749	798	100

1 - Project Phase assumes 120 working days

2 - Assumes an 8 hour work day

A small portion of the total earthwork volume associated with Phase 1 and 2 would not require haul truck transportation. For example, on Riverside Ranch (Phase 1) material removed from lowering existing berms would likely be placed in the adjoining ditches precluding the need to load and transport the material. Similarly, a portion of material removed from the Salt River Channel

(Phase 2) would be immediately placed on the channel confinement fill areas, or transported a short distance within the corridor by means of a scraper. Because of these discrete locations throughout Phases 1 and 2 where excavated material would not require transport, the truck trips presented in the above table are considered conservative estimates. Additionally, larger capacity belly- and end-dump trucks could be utilized and would further reduce the number of truck trip estimates presented above. Because of the unknowns associated with the vegetation removal, such as the volume to be removed and transported off site verses to remain on site for mulch or replanting, truck trips were not estimated for vegetation off-haul.

Figure 3.12-1 depicts the existing County roads that could potentially be utilized as haul routes for Phase 2 construction. As previously stated, it is anticipated that the channel corridor would be utilized to transport material in combination with County roads. Providing the contractor this flexibility would allow for circular haul patterns and increased construction efficiency. Allowing flexibility for the contractor to use both the channel corridor and existing County roads to transport material makes it difficult to estimate the predicted haul truck traffic volume on each County road. It is possible that any County road depicted as a potential haul route could receive approximately 800 haul truck trips per day, depending upon the location of the excavation with respect to the reuse site. However it is unlikely any particular County road would experience this level of haul truck trips for the full duration of Phase 2. Furthermore, in order for the contractor to meet the production rates necessary to complete the project within the limited construction period, it is anticipated that multiple crews would be working at multiple excavation and reuse sites concurrently and thereby potentially distributing the truck trips throughout various locations of the project area.

Because of the close proximity to the channel corridor, Port Kenyon Road between its western terminus and Highway 211 as well as Riverside Road between Riverside Ranch and Dillon Road

would likely experience an overall greater duration of truck traffic usage during the 120-day construction period of Phase 2, relative to other local County roads. The County roads also would be used by fueling, equipment maintenance, equipment transport, and construction management/inspection vehicles throughout the construction period. The combined number of daily trips of these vehicles is anticipated to be less than 10 percent of the daily haul truck trips.

The County roads depicted on Figure 3.12-1 as potential haul routes are currently used to support the transportation needs of the local agricultural industry. These roads are frequently used by agricultural equipment including tractors and manure spreaders as well as milk and feed trucks with weights similar to the expected proposed haul trucks. Under existing conditions, the County roads currently shown as potential haul routes are not anticipated to require improvements prior to construction to support the increase frequency of haul truck traffic. Minor repairs or overlays could be preferable after completion of the project due to the temporary increase in construction traffic and the generally poorly maintained roads in the project area. Maintenance activities on County Roads are typically at the discretion and responsibility of the County. The County maintains control of the roadways in general and through their encroachment permit process for temporary uses such as construction projects.

Maximum haul route distances were determined for Phase 1 and Phase 2. These routes connect the most remote excavation location to the most remote reuse location, and thereby provide a maximum haul route distance. The maximum haul route distance for Phase 1 could include transporting excavated material from the Salt River at Station 0+00 to the southern end of the new Riverside Ranch berm. This maximum distance (including the return trip) would be approximately 4 miles and located along the temporary haul route buffer.

The maximum haul route distance for Phase 2 could include transporting excavated material from Salt River STA 104+00 to the agricultural reuse parcels (APN 106-021-02, 03, 07, and 62) located on Fulmor Road. This maximum distance (including the return trip) would be approximately 7 miles and would include travel in the easterly direction along Port Kenyon Road from approximately its western terminus to its intersection with Fulmor Road and then north on Fulmor Road to the reuse parcel.

Only a small percentage of the total excavated material would actually be hauled the maximum distances presented above, however this maximum distance provides an upper limit on haul distances for both Phases 1 and 2. Using a distance that is half of the maximum presented above for each Phase would provide a haul distance that would be a more typical representation of the average truck trip distance.

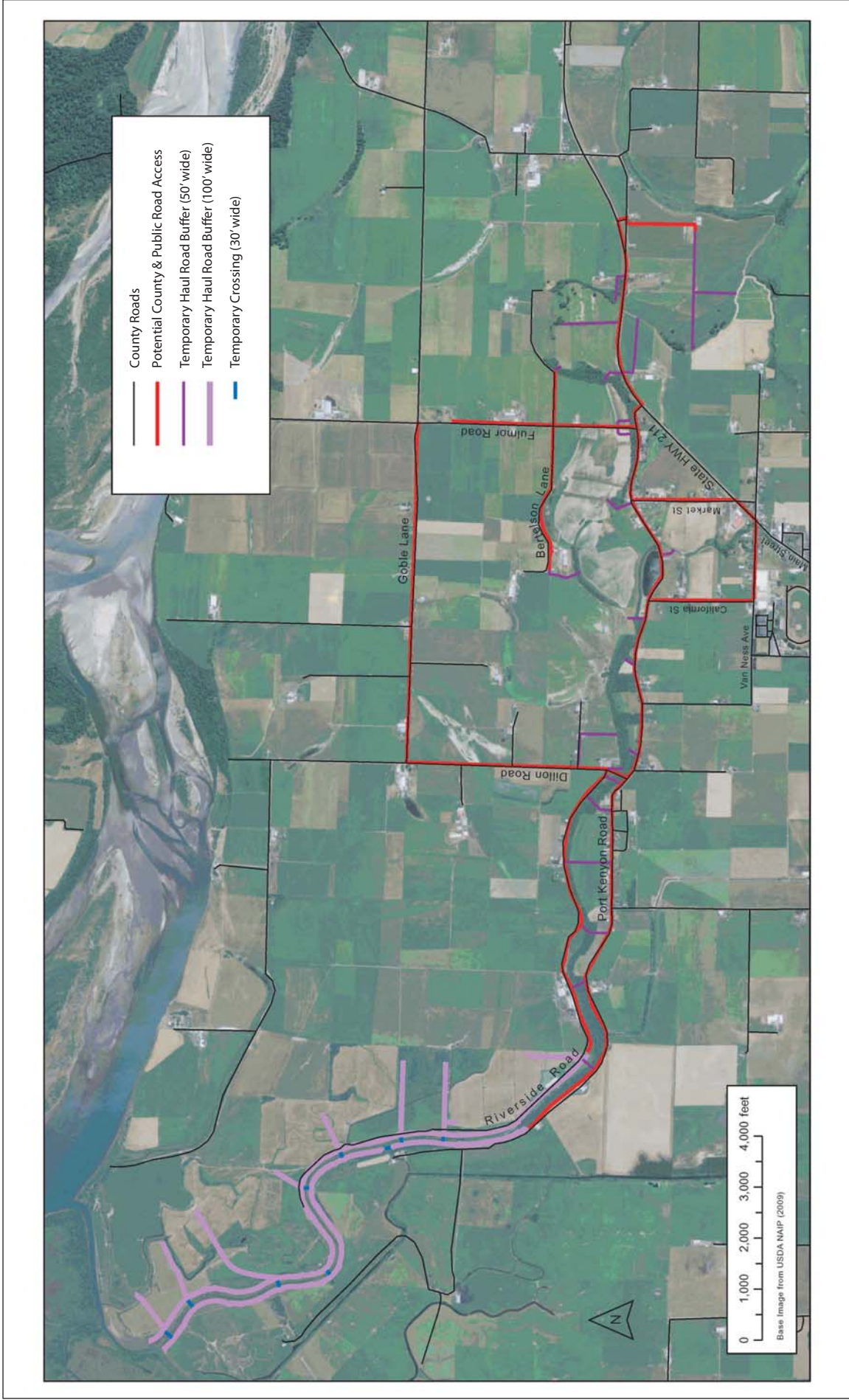


Figure 3.12-1

Regional Roadway Map

Impact 3.12.1.1: Impacts due to project-related traffic

Project-related traffic would include vehicles used by construction crews to access the site during construction, trucks being used to transport materials and heavy equipment to the site, and trucks hauling sediment to various locations. As described above, much of the traffic would be internal to the project site using the channel construction corridor and other private lands. Excavated material would both remain on site and be transported on County Roads and public roadways.

During project construction, the number of construction-related vehicles in the area would increase substantially. This traffic increase would be noticeable because it would include a high number of large construction vehicles, but it would be temporary (i.e., during the project construction phase). Depending on the timing and distribution of project traffic, the project could potentially significantly affect on street and intersection operations.

Construction crews would use Port Kenyon Road, Dillon Road, and Fulmor Road for main access to the project area. The majority of project traffic would use Port Kenyon Road, which is one of the highest capacity roads in the project vicinity. Secondary access would be through rural ranch roads and temporary roads needed to access the river channel. Traffic on roads adjacent to the project is light and occurs intermittently throughout the day. Traffic on Port Kenyon Road and State Route 211 is greater than on any of the other access roads. Construction crews would generate a few tens of vehicle trips per day, which would not significantly affect operations of these roadways.

The project also would involve work on the Francis Creek crossing of Port Kenyon Road, either in the form of installing new large culverts or a new bridge. The final design of the replaced crossing would dictate the construction duration, which could range from 45 to 90 working days. Closure of Port Kenyon Road at the crossing during construction is recommended over maintaining a temporary crossing with traffic control because of the increase in construction efficiency and reduced construction costs. Providing a temporary road crossing would increase project cost and prolong construction. The road closure would require establishment of an alternative detour route. This proposed crossing replacement location and detour route has been depicted on Figure 3.12-1. The Traffic Control Plan (see Mitigation 3.12-1) would include the necessary provisions including public notification, signage, and location of safety barriers. The replacement of the crossing is anticipated to occur during the Phase 2 construction season and during the channel excavation of Francis Creek.

Because the majority of project traffic would be associated with hauling of excavated materials from excavation areas to disposal sites, all of which would be west of US 101, project traffic on that highway would be limited to construction workers and equipment delivery, and would be minimal in the context of highway and interchange capacity.

Mitigation 3.12.1.1: Traffic Control Plan

As part of the final construction documents, the contractor shall be required to submit a Traffic Control Plan corresponding to a Work Sequencing Schedule for review and approval by the construction manager prior to commencement of work. The Traffic Control Plan shall provide a narrative supported with figures depicting the haul routes anticipated to be utilized throughout the

construction period and shall be developed in accordance to the California Manual on Uniform Traffic Control Devices (MUTCD) and applicable County of Humboldt encroachment permit conditions. The Traffic Control Plan shall detail the desired haul routes, public notification, required signage/flagging, potential lane/road closers, detour routes, provisions for providing temporary pedestrian access (if applicable) and provisions for maintaining access to all parcels. The use of Port Kenyon Road would be important for the transport of material and therefore the crossing replacement shall be scheduled for a time period when haul trucks would be using that portion of the road less frequently. The Traffic Control Plan shall be periodically updated throughout the course of the project.

Significance after Mitigation

Less than significant.

Impact 3.12.1.2: Impacts due to an increase in the potential for accidents or safety concerns on public roads

The proposed project would result in a less than significant impact on transportation safety. The project would generate additional traffic on roads adjacent to the project for transportation of workers and some materials during construction. Some of the sediment excavated and transported will be reused on site, and therefore would not be hauled on public roadways. The project does not include any new public roads or any new intersections. The project would not include the permanent closure or alteration of roads. During construction, traffic control would occur during any portions of work when equipment operation is occurring within or immediately adjacent to a road right-of-way (see Mitigation 3.12-1, above). Traffic control would also occur during loading and unloading of equipment from transport vehicles. As a result, there would be no substantial effect on transportation safety, including bicycle and pedestrian safety, or on emergency access.

Significance after Mitigation

Less than significant with adoption of Mitigation 3.12-1.

Impact 3.12.1.3: Impacts on public transit

The proposed project would not increase use of the public transit system because the project site is not served by public transit. The project would also not induce a substantial demand for additional public transit services because it would not significantly increase use of the area.

The proposed project would have a less than significant impact on demand for public transit services. The project would result in no impacts due to conflicts with adopted policies supporting public transportation, or on adopted policies promoting or supporting alternative transportation.

Significance

Less than significant, no mitigation required.

Impact 3.12.1.4: Impacts on pedestrians and bicycles

The project would not involve construction of new bike lanes or routes, and would not require the addition of new facilities. No part of the project construction would be within or adjacent to an existing bike lane or route. The project would not construct new pedestrian trails or generate conflicts between motor vehicles and pedestrians or bicycles, and therefore would not increase the potential for accidents. The project would result in no impact to bicycle or pedestrian facilities, accidents, or safety concerns.

Significance

Less than Significant impact; no mitigation required.

Impact 3.12.1.5: Impacts on parking

The project would not significantly increase use of the area, and therefore would not substantially affect parking conditions.

Significance

Less than Significant impact; no mitigation required.

Alternative 2: Modified Channel/Upland Restoration Only***Impact 3.12.2.1: Impacts due to project-related traffic***

Impacts would be the same as Alternative 1 for the Salt River Channel area and the Uplands Areas. There would be no impacts due to restoration at Riverside Ranch. Since the bulk of Riverside Ranch excavated materials would be disposed of on site, this alternative would not significantly change traffic impacts from those described for Alternative 1.

Impact 3.12.2.2: Impacts due to an increase in the potential for accidents or safety concerns on public roads

Impacts on transportation safety would similar to those described above for Alternative 1, and less than significant.

Impact 3.12.2.3: Impacts on public transit

Impacts on public transit would the similar to Alternative 1, and less than significant.

Impact 3.12.2.4: Impacts on pedestrians and bicycles

Impacts on pedestrians and bicycles would similar to Alternative 1, and less than significant.

Impact 3.12.2.5: Impacts on parking

Impacts on parking would the same as Alternative 1, and less than significant.

Alternative 3: Riverside Ranch Restoration/Upland Restoration Only

Impact 3.12.3.1: Impacts due to project-related traffic

Impacts would be the same as Alternative 1 for the Riverside Ranch area and the Uplands Areas, and, similar to Alternative 1, but overall traffic would be substantially reduced compared with Alternatives 1 and 2 because excavated material hauling would be substantially lower. This impact could still be potentially significant, and would be reduced to a less than significant level by implementation of Mitigation Measure 3.12-1.

Significance after Mitigation

Less than Significant impact with adoption of Mitigation 3.12-1, no additional mitigation required.

Impact 3.12.3.2: Impacts due to an increase in the potential for accidents or safety concerns on public roads

Impacts on transportation safety would be less than with Alternative 1, and less than significant.

Impact 3.12.3.3: Impacts on public transit

Impacts on public transit would be similar to Alternative 1, and less than significant.

Impact 3.12.3.4: Impacts on pedestrians and bicycles

Impacts on pedestrians and bicycles would be the same as Alternative 1, and less than significant.

Impact 3.12.3.5: Impacts on parking

Impacts on parking would be similar to Alternative 1, and less than significant, except there would be no effects due to modification of the Salt River channel area.

Alternative 4: No Project

Impact 3.12.4.1: Impacts due to project-related traffic

No traffic impacts would occur because there would be no changes to traffic under this alternative. No mitigation would be required.

Impact 3.12.4.2: Impacts due to an increase in the potential for accidents or safety concerns on public roads

No transportation safety impacts would occur because there would be no changes to traffic or the existing transportation network under this alternative.

Impact 3.12.4.3: Impacts on public transit

There would be no effect on public transit under this alternative.

Impact 3.12.4.4: Impacts on pedestrians and bicycles

There would be no effect on pedestrians and bicycles under this alternative.

Impact 3.12.4.5: Impacts on parking

There would be no effect on parking under this alternative.