

**Initial Study &  
Draft Mitigated Negative Declaration**

**For the**

South I Street Boat Launch

Prepared by the:



**June 2018**

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**INITIAL STUDY and DRAFT MITIGATED NEGATIVE DECLARATION**

**PROJECT:** South I Street Boat Launch

**LEAD AGENCY:** City of Arcata  
736 F Street  
Arcata, CA 95521

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**THIS INITIAL STUDY and CHECKLIST PREPARED BY:**

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**PROJECT LOCATION:** Arcata, Humboldt County, CA

**PROPERTY OWNERS:** City of Arcata

**GENERAL PLAN DESIGNATION:** Natural Resource (NR)

**ZONING DESIGNATION:** Natural Resource – Public Trust (NR-PT)

**ASSESSOR PARCEL NUMBER:** 503-241-010

**ENVIRONMENTAL SETTING AND SURROUNDING LAND USES**

The project is located on City-owned property that is part of the Arcata March Wildlife Sanctuary. The project area includes areas that are adjacent to and within Humboldt Bay. Surrounding land uses include parklands, the Arcata Marsh wastewater treatment facility, and part of Humboldt Bay. Much of the land portion of the site is developed with a parking lot, hiking trails, and small areas of low vegetation. The current conditions for non-motorized boating use is limited at the project site and surrounding area. The existing boat ramp is located at the northwest corner of the parking lot and usable at only the highest tides; at low tide the channel is approximately 150 feet from

the ramp. Adjacent to the boat ramp is a small floating dock, however the dock is currently closed to public use for safety reasons.

## **PROJECT DESCRIPTION**

The purpose of the project is to provide access for non-motorized personal watercraft, including landside features such as parking lot improvements, loading/unloading areas, a dock, and vault toilet restroom.

The existing boat launch facility is in the far northeast portion of Arcata Bay, and includes a concrete launch ramp and a floating dock. Due to shallow depths in the vicinity of the launch ramp, it is functional only at higher tides; during low tides the mudflat is exposed and launching watercraft is not possible. The mudflat in this area is 1.67 feet (NAVD88), on average. An existing channel through the mudflats runs parallel to the shoreline along the southern limit of the project area and the channel thalweg has an elevation of approximately 0.98 feet (NAVD88) . The proposed dock will be located at the southern side of the parking area and will consist of a concrete abutment, an aluminum gangway landing float, and a launching float. The floats will be restrained by a total of four guide piles. The piles that are installed to hold the dock in place will be either fiberglass composite of steel with a high density polyethylene casing. The piles will not exceed 12 inches in diameter and will be driven with a vibratory hammer. The installation of the guide piles will be done using land-based equipment working at low tides. The dock and gangway will be designed to meet ADA and Department of Boating and Waterways (DBW) accessibility requirements. Low pressure construction equipment and temporary ground support pads may also be used to create construction access to the dock. After installation of the guide piles, the remainder of work will be done using standard land-based equipment to install the gangway and floats. Impacts to the bay include construction impacts to the bay bottom surface during piles driving, and creating approximately 300 square feet of shadow fill due to the gangway and floats.

In addition to the floating dock, minor improvements will be made to the parking area, including restriping and re-surfacing paved areas. A vault toilet will be installed at the northern end of the parking lot.

**PUBLIC AGENCIES WITH JURISDICTIONAL AUTHORITY**

The City of Arcata is the CEQA lead agency for the proposed project. The project is funded by the California Department of Boating and Waterways.

The following agencies have permit jurisdiction:

- California Coastal Commission
- US Army Corps of Engineers (ACOE)
- North Coast Regional Water Quality Control Board (NCRWQB)
- City of Arcata
- Humboldt Bay Harbor, Conservation, and Recreation District (HBHRCD)

The following agencies are CEQA responsible or trustee agencies and/or endangered species consultation agencies:

- California Department of Fish and Wildlife (CDFW)
- NCRWQCB
- NOAA National Marine Fisheries Service (NMFS)
- United States Fish and Wildlife Service (USFWS)
- North Coast Unified Air Quality Management District

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The environmental factors checked below would be potentially affected by this project. Please see the checklist beginning on page 3 for additional information.

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

**DETERMINATION:** On the basis of this initial evaluation:

<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and is exempt from environmental review pursuant to statutory and categorical exemptions.
<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

<input type="checkbox"/>	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.		
<input type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required		
<b>Signature:</b>		<b>Date:</b>	
<b>Printed Name:</b> Julie Neander		<b>For:</b> City of Arcata	

**EVALUATION OF ENVIRONMENTAL IMPACTS:**

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each questions. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, “Earlier Analyses,” may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review.

- b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) Mitigation Measures. For effects that are “Less Than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
  - 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
  - 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
  - 9) The analysis of each issue should identify:
    - a) the significance criteria or threshold used to evaluate each question; and
    - b) the mitigation measure identified, if any, to reduce the impact to less than significant.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>AESTHETICS:</b> Would the project:				
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

**Discussion:** The Project site is within an existing public park adjacent to Humboldt Bay. The view is of the Bay, the existing parking facility, existing floating dock, and adjacent wetlands and open space. The Project will include minor changes in the visual environment. Visual elements include construction of a new dock in a location where similar facilities exist. Modifications to the existing parking facility will also be made, which includes installation of a vault toilet. Construction will require the temporary presence of equipment and building materials, which will be removed upon completion of construction.

- a) **Less than Significant Impact.** The project site offers some foreground and distant views that may be considered informal scenic vistas. These views may be temporarily altered by equipment, construction materials, and workers during active construction. These changes to the views would be relatively minor and would generally be visible only to site visitors in the immediate vicinity. Upon completion of the Project, there would be minor discernible alterations to the visual nature of the area including a new dock area and changes to parking lot configuration. The new dock will be consistent with the visual character of the area and will be a relatively small-scale dock. Because of the relatively minor, isolated, and temporary nature of the impacts to scenic vistas, the impact of the Project would be less than significant.
- b) **No Impact.** Based on the California Scenic Highway Mapping System, no designated or eligible state scenic highways, or locally designated scenic roadways, are found adjacent to or within view of the Project area (California Department of Transportation 2012). There are no officially designated State Scenic Highways within Humboldt County, although Highway 101, Highway 36 and Highway 299, have been identified by the State Scenic Highway Mapping System as eligible for state listing. These eligible routes are not visible from the Project areas. No impact would occur.

- c) **Less than Significant Impact.** As discussed above, construction activities associated with the proposed project would result in minor temporary aesthetic impacts that would not substantially alter the visual character of the Project area. Construction activities are anticipated to last approximately one to four weeks and the ground surface would, where disturbed, be restored to pre-project conditions following construction except where pavement is removed or minor access changes made. The visual character in and around the Project area would not be substantially degraded and alterations would be consistent with existing conditions at each location following completion of the Project. Therefore, this would be a less than significant impact.
- d) **No Impact.** There are no existing or proposed permanent lighting fixtures associated with the Project. The new dock structures would be no more likely to create a source of visible glare than the surface of the Bay or existing adjacent dock structures. Access and parking modifications would be small and would not be constructed of materials that create glare. No impact would occur.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>AGRICULTURE AND FOREST RESOURCES:</b> Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g), timberland (as defined by PRC section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forestland to non-forest use?				X

a) **No Impact.** Maps prepared pursuant to the State’s Farmland Mapping and Monitoring Program include Humboldt County as an “Area Not Mapped” and therefore do not categorize the Project

site as any type of Farmland (California Department of Conservation 2018). The Project area is not suitable for farming or agricultural production because it is a mix of open water, fill material, and parking lots within areas used for public recreation. The Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. No impact would occur.

b) & c) **No Impact.** The Project sites have base zoning of NR-PT. No Williamson Act contracts are in place on or near the Project sites. The Project would not conflict with agricultural or forest land zoning or Williamson Act contracts. No impact would occur.

d) & e) **No Impact.** No forest land or timberland exists at the Project sites. The Project would not result in the loss or conversion of forest land, or involve other changes in the existing environment which would result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. No impact would occur.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>AIR QUALITY:</b> Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct Implementation of the applicable air quality plan?				X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?			X	

### Discussion

The Project site is located within the North Coast Air Basin (NCAB) which is under the jurisdiction of the North Coast Unified Air Quality Management District (NCUAQMD) (Air Resources Board 2014). The NCAB is comprised of three air districts, the NCUAQMD, the Mendocino County AQMD, and the Northern Sonoma County APCD. The NCUAQMD includes Del Norte, Humboldt, and Trinity Counties; the Mendocino County AQMD consists of Mendocino County;

and the Northern Sonoma County APCD comprises the northern portion of Sonoma County. The NCAB currently meets all federal air quality standards; however, the entire air basin is currently designated as non-attainment for the state 24-hour and annual average particulate matter smaller than 10 microns in size (PM10) standards. The air basin is designated as unclassified for the state annual PM2.5 standard – available data are insufficient to support designation as attainment or non-attainment. Both natural and anthropogenic sources of particulate matter (including vehicle emissions, wind generated dust, construction dust, wildfire and human caused wood smoke, and sea salts) in the NCAB have led to the PM10 non-attainment designation.

To address non-attainment for PM10, the NCUAQMD adopted a Particulate Matter Attainment Plan in 1995. This plan presents available information about the nature and causes of PM10 standard exceedance and identifies cost-effective control measures to reduce PM10 emissions to levels necessary to meet California Ambient Air Quality Standards. The Humboldt County General Plan calls for the County to coordinate with the NCUAQMD, which has the primary role in achieving air quality goals.

a) **No Impact.** The Project would generate a minor amount of particulate emissions over the duration of construction in the form of dust and vehicle emissions as a result of minor earthwork, paving, and other construction activities. The Project would not cause any long term increase in the emission of particulate matter or other air pollutants. To reduce potential impacts to air quality, standard construction BMPs, including several measures that would substantially reduce dust and other air pollutants during the construction period will be employed. While the NCAB is in non-attainment for PM10, the temporary nature of construction activities combined with Project implementation of standard dust and CO2 emission reduction measures during construction would avoid significant impacts. In the long term, the Project would not substantially add to the level of PM10 or other emissions such that it would cause a cumulatively considerable net increase of pollutant emissions in the area. With BMPs incorporated into the Project, it would not obstruct implementation of the NCUAQMD particulate matter attainment plan. The Project would also be consistent with applicable General Plan policies related to air resources and no impact would occur.

b) **Less Than Significant Impact.** Under the federal Clean Air Act of 1977, the United States Environmental Protection Agency (USEPA) is required to identify National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. The USEPA has established NAAQS for six criteria air pollutants, but the NCAB does not meet or exceed these federal pollutant thresholds. Under the California Clean Air Act, the California Air Resources Board, however, has adopted more stringent standards for the criteria air pollutants. Though it has adopted a particulate matter attainment plan, the NCUAQMD has not established specific thresholds of significance for criteria pollutants. As discussed above, the NCAB is currently designated as a state non-attainment area PM10, but does not violate other federal, state, or local air quality standards. In the NCAB, most particulate matter is caused by vehicle emissions, wind generated dust, construction dust, wildfire and human caused wood smoke, and sea salts. Project construction activities would cause the release of a small amount of PM10 emissions related to fugitive dust, exhaust emissions from trucks and gas-powered construction equipment, worker commute vehicles. However, because of the small footprint and duration of the proposed construction, and with Environmental Protection Actions incorporated into the Project, construction would not cause a violation of air quality standards or contribute substantially to existing or projected air quality violations. The project is intended to encourage use of non-motorized watercraft, such as kayaks, although typically personal vehicles would be used to transport watercraft short distances to the Project site. Project operation could increase the number of such trips by encouraging more frequent use by existing users or attracting new users. Long-term operation of the Project would cause only negligible release of

emissions and the Project would not substantially contribute to any air quality standard violation. This impact is less than significant.

c) **Less than Significant Impact.** As described above, the NCAB is in non-attainment for the criteria air pollutant PM<sub>10</sub>. Project construction would cause minor and short term production of PM<sub>10</sub> and would not significantly increase the background levels. Project operation would result in negligible additional PM<sub>10</sub> emissions. With implementation of standard construction BMPs, the project would result in a less-than-significant cumulative impact to air quality from criteria air pollutants and precursor emissions.

d) **Less than Significant Impact.** Construction of the Project would create temporary emissions of toxic air contaminants, primarily as a component of diesel emissions. Due to the variable nature of construction activity, the generation of toxic air contaminant emissions in most cases would be temporary, particularly considering the short amount of time such equipment is typically within an influential distance of sensitive receptors. Concentrations of mobile-source diesel PM emissions are typically reduced by 70 percent at a distance of approximately 500 feet (BAAQMD 2017). In addition, current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities.

Construction is scheduled to occur over one to four weeks at any given site and between the hours of 7:00 AM and 6:00 PM, Monday through Friday, and 10:00 AM to 5:00 PM on Saturdays (as needed). As discussed above, the Project would result in only minor and short-term construction-related air emissions. Project operation would not expose sensitive receptors to substantial pollutant concentrations as the Project does not include any stationary source emissions. Operational impacts would be less than significant.

e) **Less Than Significant Impact.** During construction the various diesel-powered vehicles and equipment could create localized odors. Additionally, some materials used in construction or substrates encountered in sub-surface construction may create objectionable localized odors. These odors would be temporary and not likely to be noticeable for extended periods of time beyond the construction zone due to atmospheric dissipation. The impact would be less than significant.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>BIOLOGICAL RESOURCES:</b> Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and		X		

regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

## Discussion

The Project site includes portions of Humboldt Bay and immediately adjacent salt marsh and uplands. The site is located in the Arcata South Geological Survey (USGS) quadrangle. A California Natural Diversity Database (CNDDB) record search was conducted for this USGS Quadrangle in April, 2018. Lists of endangered and threatened species on the United States Fish and Wildlife (USFWS) Arcata Field Office web site were also reviewed, and USFWS IPAC Species Mapper list was generated. The California Native Plant Society *Inventory of Rare and Endangered Plants of California, 6th Edition* was reviewed using the City of Arcata as a geographic area. In addition, field visits were conducted by GHD that encompassed the project area in 2012, and site reconnaissance was performed in May 2018. Table BIO-1 lists special-status species and the potential for the special-status species to occur at the Project site.

a) ***Less than Significant with Mitigation Incorporated.*** Based on the review of the above-referenced data sources, the following table lists the plant and animal species potentially present at the project site.

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Table BIO-1

Scientific Name	Common Name	Status	Description/Habitat	Potential Habitat Present	Occurrence at Project Site	Bloom Period
<b>Plants</b>						
<i>Abronia umbellata</i> var. <i>breviflora</i>	pink sand-verbena	CNPS (1B.1)	Sandy soils, coastal scrub, lees of dunes near strand; open sandy beaches, typically at or below the zone of driftwood accumulation	Not likely	<b>Not Present.</b> Suitable habitat not present in project vicinity.	Jun-Oct
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	coastal marsh milk-vetch	CNPS (1B.2)	Coastal Prairie, Coastal Strand, wetland-riparian	Not likely	<b>Not Present.</b> Reported historically near the town of Samoa, but has not been recorded in the region for decades.	April-October
<i>Cardamine angulata</i>	seaside bittercress	CNPS (2.1)	Wet areas, stream banks; lower montane coniferous forest; North Coast coniferous forest	No	<b>Not Present.</b> Suitable habitat not present in project vicinity.	Mar-July
<i>Carex arcta</i>	northern clustered sedge	CNPS (2.2)	Wet places, especially sphagnum bogs	Not likely	<b>Not Present.</b> Suitable habitat not present in project vicinity.	Jun-Aug
<i>Carex lyngbyei</i>	Lyngbye's sedge	CNPS (2.2)	Estuaries, coastal salt marsh, brackish marshes. Flowers May-Aug	Not likely	<b>Not Present.</b> Suitable habitat not present. Possible in nearby saltmarsh/brackish areas; surveys did not identify any present.	May-Aug
<i>Carex praticola</i>	northern meadow sedge	CNPS (2.2)	Meadow and seep / Wetland	Not likely	<b>Not Present.</b> Suitable habitat not present.	May-July
<i>Castilleja affris</i> ssp. <i>Litoralis</i>	Oregon coast paintbrush	CNPS (2.2)	Dry areas along bluffs, chaparral near coast	Not likely	<b>Not Present.</b> Suitable habitat not present.	Jun
<i>Castilleja ambigua</i> ssp. <i>Humboldtensis</i>	Humboldt Bay owl's-clover	CNPS (1B.2)	Salt marsh. Occurs near Mad River Slough, and other salt marsh habitats throughout Humboldt Bay	Yes	<b>Present Near Site.</b> A number of individuals present within 50 feet of project site.	Apr-Aug
<i>Chloropyron maritimum</i> ssp. <i>Palustre</i>	Point Reyes bird's-beak	CNPS (1B.2)	Salt marsh. Widespread in coastal salt marsh habitats in Humboldt Bay. The species is known from nearby Manila.	Yes	<b>Present Near Site.</b> Several individuals scattered along edge of bare mud during 2012 field visits.	Jun-Oct
<i>Erythronium revolutum</i>	coast fawn lily	CNPS (2.2)	Redwood Forest. Mixed Evergreen Forest, wetland-riparian; North Coast, Klamath Ranges, Outer North Coast Ranges. Stream banks, wet places in woodland.	Not likely	<b>Not Present.</b> Suitable habitat not present in project vicinity.	Feb-May
<i>Erysimum menziesi</i> ssp. <i>eurekaense</i>	Humboldt Bay wallflower	E (Fed/State)	Dune mat	Not likely	<b>Not Present.</b> Known from North and South Spit coastal dune habitats.	Feb-May
<i>Fissidens pauperculus</i>	minute pocket moss	CNPS (1B.2)	North Coast coniferous forest (damp coastal soil)	No	<b>Not Present.</b> Suitable habitat not present.	NA
<i>Gilia capitata</i> ssp. <i>Pacifica</i>	Pacific gilia	CNPS (1B.2)	Coastal bluff scrub/Coastal prairie/Valley and foothill grassland	Not likely	<b>Not Present.</b> Suitable habitat not present.	Apr-Aug
<i>Hesperervax sparsiflora</i> var. <i>brevifolia</i>	short-leaved evax	CNPS (1B.2)	Coastal bluff scrub/Coastal dunes	Not likely	<b>Not Present.</b> Suitable habitat in project vicinity and surveys conducted.	Mar-Jun
<i>Lathyrus japonicus</i>	seaside pea	CNPS (2.1)	Coastal dunes from Humboldt to Del Norte counties	Yes	<b>Not Present.</b> Suitable habitat present and surveys conducted and no individuals were observed.	May-Aug
<i>Lathyrus palustris</i>	marsh pea	CNPS (2.2)	Bog, fen, marsh, swamp wetland, Coastal prairies, Coastal scrub, Lower montane and North Coast coniferous forest	No	<b>Not Present.</b> Suitable habitat not present.	Mar-Aug
<i>Layia carnosa</i>	beach layia	CNPS (1B.1)	Coastal dunes, Coastal scrub(sandy)	Not likely	<b>Not Present.</b> Seasonally appropriately survey conducted in June 2012 and May 2018	Mar-Jul

Table BIO-1

Scientific Name	Common Name	Status	Description/Habitat	Potential Habitat Present	Occurrence at Project Site	Bloom Period
<i>Lilium occidentale</i>	western lily	Fed/State (E); CNPS (1B.1)	Bogs with poorly drained, slightly acidic organic soils. Sea level to 320 feet asl	No	<b>Not Present.</b> Suitable habitat not present.	Jun-Jul
<i>Monotropa uniflora</i>	ghost-pipe	CNPS (2.2)	Broadleaved upland forest/North Coast coniferous forest	No	<b>Not Present.</b> Suitable habitat not present	May-Oct
<i>Montia howelli</i>	Howell's montia	CNPS (2.2)	Vernally mesic, sometimes roadsides; meadows and seeps; North Coast coniferous forest; Vernal pools	No	<b>Not Present.</b> Suitable habitat not present.	Feb-May
<i>Oenothera wolffi</i>	Wolf's evening-primrose	CNPS (1B.1)	Grasslands, coastal strand, roadsides, bluffs. Sandy soils, well drained but adequate moisture. Areas protected from NW exposure, south of a headland, promontory, or near river mouth.	Yes	<b>Not Present.</b> Suitable habitat in project vicinity. Seasonally appropriately survey conducted in June 2012 and May 2018.	May-Oct
<i>Sidalcea malviflora ssp. Patula</i>	Siskiyou checkerbloom	CNPS (1B.2)	Broadleaved upland forest/Coastal prairie	Yes	<b>Not Present.</b> Suitable habitat in project vicinity. Seasonally appropriately survey conducted in June 2012 and May 2018.	May-Aug
<i>Sidalcea oregana ssp. Eximia</i>	coast sidalcea	CNPS (1B.2)	Lower montane and North Coast coniferous forest/Meadow and seep, Wetland	No	<b>Not Present.</b> Suitable habitat in project vicinity. Seasonally appropriate survey conducted in June 2012.	Jun-Aug
<i>Spergularia canadensis var. occidentalis</i>	western sand-spurrey	CNPS (2.1)	Coastal, salt-marsh; prefers prime saltmarsh habitat between 0 and 10 feet elevation	Yes	<b>Present Near Site.</b> Sand spurrey has not been reported occurring naturally along the east shore of Humboldt Bay. However, a number of individuals are present adjacent to the project area within a created bench for habitat establishment.	Jun-Aug
<i>Viola palustris</i>	alpine marsh violet	CNPS (2.2)	Bog and fen/Coastal scrub/Wetland	Not likely	<b>Not Present.</b> Suitable habitat not present.	Mar-Aug
<b>Animals</b>						
<i>Acipenser medirostris</i>	Green sturgeon southern DPS	FT	Ocean and estuary; present in Humboldt Bay	Yes	Known from Arcata Bay, no direct impacts, potential impacts limited to noise/vibration	NA
<i>Oncorhynchus clarkii clarkii</i>	Coast cutthroat trout	SSC	Anadromous, breeds in rivers and streams	Yes	Possible in Arcata Bay	NA
<i>Oncorhynchus kisutch</i>	S. OR/N. CA coho salmon	FT	Anadromous, breeds in rivers and streams	Yes	Known from Arcata Bay, no direct impacts, potential impacts limited to noise/vibration	NA
<i>Oncorhynchus mykiss</i>	N. CA steelhead	FT	Anadromous, breeds in rivers and streams	Yes	Known from Arcata Bay, no direct impacts, potential impacts limited to noise/vibration	NA
<i>Oncorhynchus tshawytscha</i>	CA coastal Chinook salmon	FT	Anadromous, breeds in rivers and streams	Yes	Known from Arcata Bay, no direct impacts, potential impacts limited to noise/vibration	NA
<i>Eucyclogobius newberryi</i>	Tidewater goby	FE	Brackish backwaters and lagoons	No	No suitable habitat present in project vicinity	NA
<i>Rhyacotriton variegatus</i>	Southern torrent salamander	SSC	Headwater streams in mature forest	No	No suitable habitat present in project vicinity	NA
<i>Ascaphus truei</i>	Pacific tailed frog	SSC	Headwater streams in mature forest	No	No suitable habitat present in project vicinity	NA
<i>Rana aurora</i>	Northern red-legged frog	SSC	Breeds in marshes and seasonal wetlands, forages in surrounding uplands	No	Potentially present in nearby freshwater marshes, but no habitat within project area	NA

Table BIO-1

Scientific Name	Common Name	Status	Description/Habitat	Potential Habitat Present	Occurrence at Project Site	Bloom Period
<i>Rana boylei</i>	Foothill yellow-legged frog	SSC	Rocky streams and rivers including Eel River above estuary limits	No	No suitable habitat present in project vicinity	NA
<i>Spirinchus thaleichthys</i>	Longfin smelt	ST	Marine	Yes	Known from Arcata Bay, no direct impacts, potential impacts limited to noise/vibration	NA
<i>Thaleichthys pacificus</i>	Eulachon	FT	Marine/estuarine	Yes	Known from Arcata Bay, no direct impacts, potential impacts limited to noise/vibration	NA
<i>Emys marmorata</i>	Western pond turtle	SSC	Rivers, ponds, permanent marshes	No	Potentially present in nearby marshes, but no suitable habitat within project area	NA
<i>Phalacrocorax auritus</i>	Double-crested cormorant	WL	Open water, present in Humboldt Bay and in larger area rivers	Yes	Potentially present	NA
<i>Ardea alba</i>	Great egret	CDF sensitive	Forages in wetlands and pastures	Yes	Potentially present	NA
<i>Ardea herodias</i>	Great blue heron	CDF sensitive	Forages in wetlands	Yes	Potentially present	NA
<i>Nycticorax nycticorax</i>	Black-crowned night heron	IUCN LC	Forages in wetlands	Yes	Potentially present	NA
<i>Pandion haliaetus</i>	osprey	CDFW WL	Coastal areas, including shoreline of Humboldt Bay	Yes	Potentially present	NA
<i>Charadrius alexandrinus nivosus</i>	Western snowy plover	FT	Ocean beaches, gravel bars in Eel River	No	No suitable habitat within project area	NA
<i>Brachyramphus marmoratus</i>	Marbled murrelet	FT	Rocky seastacks, nests in old growth redwoods	No	No suitable habitat within project area	NA
<i>Strix occidentalis caurina</i>	Northern spotted owl	FT	Mature forest	No	No suitable habitat within project area	NA
<i>Arborimus pomo</i>	Sonoma tree vole	SSC	Old-growth Douglas fir forests, resides primarily high in trees	No	No suitable habitat within project area	NA

Sources:

CNDDDB/FWS/CNPS, 2018. Arcata South Quad

CNPS = Special-status plant listing by California Native Plant Society (CNPS)

USFWS Information for Planning and Consultation

**State Key:**

E Endangered

T Threatened

SSC State CDFW Species of Special Concern

**Federal Key:**

(PE) Proposed Endangered Proposed in the Federal Register as being in danger of extinction

(PT) Proposed Threatened Proposed as likely to become endangered within the foreseeable future

(E) Endangered Listed in the Federal Register as being in danger of extinction

(T) Threatened Listed as likely to become endangered within the foreseeable future

Table BIO-1

Scientific Name	Common Name	Status	Description/Habitat	Potential Habitat Present	Occurrence at Project Site	Bloom Period
(C) Candidate		Candidate which may become a proposed species				

Site visits were made on February 23, May 14, and June 19, 2012 and May 1 2018 to search for special status plants. The site consists of non-native grasses within the mowed area adjacent to the parking lot. Scattered saltmarsh species are present. Western sand-spurrey (*Spergularia canadensis* var. *occidentalis*), Humboldt Bay owls clover (*Castilleja ambigua* ssp. *humboldtiensis*), and Point Reyes birds beak (*Chloropyron maritimum* ssp. *palustre*) were identified within a created bench installed for saltmarsh establishment adjacent to the proposed project site. The bench area where salt marsh establishment activities have occurred and where sensitive plant species were mapped begins at the southern end of the parking lot approximately 30 feet downslope of the picnic area, and extends to the north where it ends at the rip rap associated with the existing boat dock. The southern end of this area is approximately 25 feet from the proposed project location.

North Bay is host to both native (*Zostera marina*) and nonnative (*Zostera japonica*) eelgrass. According to the Humboldt Bay Eelgrass Management Plan (HBHRCD 2017), the maximum depth capable of supporting native eelgrass in North Bay is -1.3 m MLLW (-4.6 feet NAVD88) (Gilkerson 2008) and upper limit is 0.4 m MLLW (0.98 feet NAVD88) (Gilkerson 2008), unless there is a perched pool environment. The project area does not contain a perched pool environment, and according to City GIS Lidar data, depths range between 2 and 8 feet (NAVD88), which is outside the range of suitable elevation for native eelgrass habitat.

Eelgrass was not observed at the Project site during the May 2018 site visit. Furthermore, it is not mapped within the project area according to the Humboldt Bay Harbor, Recreation, and Conservation District's "Eelgrass Distribution Map" (HBHRCD, 2016). While eelgrass is not mapped at the Arcata project site, it has been observed near the existing dock and because depths of tidal channels do fluctuate, there may be suitable habitat within the project site.

Trees in the general vicinity of the Project site could provide nesting habitat for resident and migratory birds protected by the Migratory Bird Treaty Act, however none of these trees will be damaged or otherwise impacted by the project. Trees could also provide roosting habitat for bats and egrets. Nesting birds and roosting species could be disturbed by construction noise.

The greatest possibility of negative impacts is to fish and other marine species as a result of pile driving at Arcata Marsh. Pile driving and any other actions performed within channels and/or below the high tide line will be done at low tide when fish are not present and the pile driving area is free of standing water, since transmission of noise and vibration through air prior to entering water is known to greatly reduce impacts on aquatic species. Furthermore, work will be limited to the July-October work window when listed salmonids are least likely to be present in Humboldt Bay. Up to four relatively small piles (12 inches in diameter) are expected to be installed at the Arcata site.

To minimize effects of driving piles, a vibratory pile driver will be used. Sound levels emitted by vibratory drivers can be between 10-20 decibels (dB) lower than impact hammers (Illingworth & Rodkin 2012). Additionally, the effects of continuous sound of vibratory pile driving are thought to affect fish differently than impact hammers, with less potential for acute injury (North State Resources, 2015). The environmental conditions found in the project area, such as soft bay muds, and shallow water, make the use of a vibratory hammer feasible and will greatly reduce hydroacoustic effects on aquatic organisms. Acoustic noise generated by vibratory hammers is generally below thresholds known to cause physical injury to fish but may be of sufficient level (>150dB<sub>rms</sub>) to illicit potential behavioral responses; however, low level exceedances of the 150dB<sub>rms</sub> behavior threshold may not necessarily trigger specific mitigation measures (Caltrans 2009).

Impacts to nesting birds, to fish during pile driving, and to eelgrass beds are considered potentially significant, therefore, the following mitigation measures are included as part of the Project.

***Mitigation Measure BIO-1: Conduct Preconstruction Nesting Surveys for Nesting Birds***

Any construction or vegetation removal between March 1 and August 15 shall require that preconstruction nesting surveys be conducted by a qualified biologist. If possible, project activities would take place between August 16 and February 28, outside of the active nesting season for migratory bird species (i.e. between March 1 and August 15).

If work must be completed during the nesting season, a qualified biologist should conduct preconstruction surveys of all ground disturbance areas to verify absence of nesting native birds in the project area prior to vegetation removal and the start of construction. These surveys would be conducted within two weeks prior to start of vegetation removal or any construction activities. If nesting native birds are found in the construction area during the preconstruction surveys, they would be avoided with an appropriate buffer area until the young birds have fledged. If California Endangered Species Act (CESA) listed species, Endangered Species Act (ESA) listed species, or raptors are found outside of the construction (disturbance) area but near the construction area, appropriate buffers will be implemented upon consultation with CDFW. If non-listed state (CESA), non-listed federal (ESA), including state species of special concern are found near, but outside of the construction area, no buffers will be implemented.

***Mitigation Measure BIO-2: Conduct Eelgrass Pre-construction Surveys at Project Sites***

Prior to construction, a qualified biologist shall conduct eelgrass surveys in consultation with National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NOAA Fisheries) and CDFW.

**Eelgrass Pre-construction Surveys**

Pre-construction eelgrass surveys of the project areas shall be conducted during the Pacific eelgrass (*Zostera marina*) growing season (May-September) at the lowest daylight tide no more than 60 days prior to the start of construction (or at the end of the prior growing season if construction is scheduled to occur between October-April). Pacific eelgrass is native to Humboldt Bay, thus is herein referred to as native eelgrass. The surveys will include density information and analysis as recommended by NOAA Fisheries *Southwest Region Draft California Eelgrass Mitigation Policy* (NOAA Fisheries 2011) and Humboldt Bay Eelgrass Management Plan (HBHRCD, 2017). Native eelgrass (Pacific eelgrass) and non-native dwarf eelgrass (*Zostera japonica*) will be differentiated during the pre-construction survey. If present, the location and distribution of the non-native species of eelgrass will noted during the pre-construction surveys and reported to CDFW.

Based on the native eelgrass findings of the pre-construction surveys, one of the following alternatives will result:

1. If native eelgrass is not determined to be present within the project and/or construction footprint at a given project site, then no further action will be required by Mitigation Measure BIO-2 at that site as there will be no impact to native eelgrass.
2. If native eelgrass is found within the project and/or construction footprint at a given project site, then impacts to the eelgrass will be avoided if practically feasible. If it is reasonable to alter the project and/or construction footprint to avoid impacting native

eelgrass, then such avoidance measures will occur and no further action will be required by Mitigation Measure BIO-2 at that site as there will be no impact to native eelgrass.

3. If it is determined that native eelgrass is present within the areas to be impacted by the project and avoidance of native eelgrass impacts is not possible, then native eelgrass impacts will be mitigated through either 1) smothering nonnative eelgrass in order to help preserve native eelgrass populations and/or 2) remediating substrate of former shellfish bottom culture sites. Both activities would occur at elevations that are also suitable to support native eelgrass and in close proximity to the project site. The appropriate areal extent will be determined in coordination with regulatory agencies to ensure that there is no net loss of functional native eelgrass habitat.

### **Non-native Eelgrass Dispersal Mitigation**

If an area containing rooted non-native eelgrass must be disturbed during project work, then the eelgrass will be removed by hand prior to the commencement of construction work and/or smothered/suffocated by placing burlap bags filled with bay mud directly over the non-native eelgrass within the construction area. Removing and/or suffocating the non-native eelgrass will mitigate the potential dispersal of the non-native species as a result of project work. Equipment used within the areas of non-native eelgrass beds will be rinsed of mud and debris where rinsate will not drain directly to coastal waters.

### **Native Eelgrass Mitigation Methods**

The following measures are proposed to support the mitigation of native eelgrass habitat and compensate for impacts, if any, to existing native eelgrass beds in association with this project. The intent of this subsection of Mitigation Measure BIO-2 is to mitigate impacts to native eelgrass, thereby reducing such impacts to a less than significant level.

If native eelgrass cannot be avoided by project impacts, mitigation will be provided by eradicating nonnative eelgrass and/or substrate remediation to provide habitat for native eelgrass establishment. A specific mitigation plan will be developed in coordination with relevant permitting agencies. Mitigation will be consistent with the recommendations of the NOAA Fisheries Southwest Region 2014 *Draft California Eelgrass Mitigation Policy* and *Humboldt Bay Eelgrass Comprehensive Management Plan* and as described below:

1. Minimize disturbance to existing eelgrass populations not within the mitigation area footprint to the extent possible in order to retain functioning population structure and localized genetic source material for natural recruitment.
2. Smothering of non-native eelgrass within the project vicinity shall occur such that there is no net loss of functional habitat for native eelgrass. Specific area and extent will be determined in coordination with relevant permitting agencies. In lieu of, or in combination with smothering, substrate remediation of former shellfish bottom culture sites may also occur at elevations suitable for providing native eelgrass habitat.
3. To ensure nonnative eelgrass does not re-establish in the mitigation area, the area will be monitored for a period of three years. During the monitoring period, the mitigation area shall be kept clear of any debris which could inhibit natural recruitment or otherwise degrade the function of native eelgrass. If periodic observations note the presence of debris obstructing the establishment of eelgrass consistent with the above-described mitigation ratio, a feasible method will be identified to remove the debris while minimizing the risk of

damage to eelgrass beds and restored tidal habitats. Seasonal deposits of detached eelgrass and other vegetative debris would not trigger maintenance within the mitigation area.

***Mitigation Measure BIO-3: Conduct Rare Plant Surveys at Arcata Site***

Prior to construction, a qualified biologist shall conduct rare plant surveys. If rare plants are impacted by the project, the affected species will be transplanted or replanted on-site (adjacent to the project area) and monitored following initial planting for survival. If monitoring documents a net loss, additional planting will occur to ensure no net loss.

Implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, and BIO-4 would reduce impacts to special-status aquatic and terrestrial species to a less-than-significant level by requiring pre-construction nesting surveys, establishing no work protection zones for active nests, minimizing the effects of piledriving, if applicable, and conducting pre-construction surveys for eelgrass and sensitive plants.

b) ***Less Than Significant With Mitigation*** No riparian habitat is present at the project site. Environmentally Sensitive Habitat Areas (ESHAs) are present at the Project site. The project could impact these sensitive natural communities, which would be a significant impact. With implementation of mitigation measures BIO-3 and BIO-4 (above) impacts would be reduced to less than significant.

c) ***Less than Significant Impact with Mitigation*** The Project includes placement of permanent or semi-permanent structures within Humboldt Bay. Although the area affected is small, placement of pilings and footings constitutes fill in Waters of the United States. This would be a significant impact, therefore, the following mitigation is included in the Project.

***Mitigation Measure BIO-4: Develop Wetland Mitigation Program for No Net Loss of Wetlands or Waters of the U.S.***

The City shall develop a wetland mitigation program acceptable to the applicable regulatory agencies (USACE, USFWS, NCRWQCB and CDFW). At a minimum the program shall: (1) replace the acreage of jurisdictional wetlands to be permanently impacted by the proposed Projects with the creation or restoration of comparable off-site wetlands on a 1:1 basis; and (2) include maintenance of the wetlands for a minimum of five years, including the replanting of any dead or dying plants within the new wetlands.

d) ***Less than Significant with Mitigation.*** The Project would not interfere with the movement of native resident or migratory fish species or with established native resident or migratory wildlife corridors. No native wildlife nursery sites exist at the Project site, except possibly nesting birds as discussed above. Implementation of Mitigation Measure BIO-1 will reduce potential impacts to nesting and/or migrating birds to a less than significant level. Fish and other aquatic species could move through the project area but no impassable barriers would be created either during or after construction. This impact is less than significant with implementation of Mitigation Measure BIO-1.

e) ***No Impact*** The Project would not conflict with any local policies or ordinances. There would be no impact. Local policies and ordinances protecting biological resources that are applicable to the project are found in The City of Arcata's General Plan Resource and Conservation Element. They are as follows:

- RC-1a Maintain biological and ecological integrity.
- RC-1c Habitat value protection.

- RC-1d Sensitive habitat definition.
- RC-2c & RC-3d Allowable uses and activities in Environmental Buffer Area
- RC-2g Maintenance of streams as natural drainage systems
- RC-3k Wetland functional capacity maintenance requirement

The Resource Conservation & Management Element designates environmentally sensitive habitat areas (ESHAs) that includes portions of the project site and limits activities within and adjacent to these areas.

Policy RC-1a(4) states that, “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). The project is consistent with the existing land use activities and will not significantly alter ecological systems and natural processes.

Policy RC-1c, Habitat Value Protection, mandates that ESHAs be protected against any significant disruption of their habitat values, and that only uses dependent on and compatible with maintaining those resources shall be allowed within ESHAs. The proposed boat dock is located within an ESHA. However, its use inherently relies on being sited within an ESHA in order to provide public access to the Bay. Therefore, it can be considered consistent with this policy.

The project area is considered to be located in an Environmental Buffer Area. As such, policy RC-2c and RC-3d, which specify allowable uses and activities in environmental buffer areas, applies to project activities. Because enumerated uses include “boat launching facilities,” the project can be considered consistent with this policy.

Policy RC-3k requires that diking, filling, or dredging of a wetland shall maintain or enhance the functional capacity. To demonstrate this, 1) presently occurring plant and animal populations in the ecosystem may not be altered in a manner that would impair long-term stability of the ecosystem; 2) a species that is rare or endangered will not be significantly adversely affected; and 3) consumptive or non-consumptive values or wetland or estuary ecosystem will not be significantly reduced. With incorporation of avoidance, minimization, and biological resource mitigation measures, project activities will not significantly alter presently occurring plant and animal populations; adversely affect a species that is rare or endangered; or significantly reduce consumptive or non-consumptive values of the habitat. Therefore, it can be considered consistent with this policy.

f) **No Impact** No adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan applies to the Project site. No impact would occur.

Issues and Supporting Information	Potential y Significan t Impact	Less Than Significant With Mitigation Incorporat ed	Less Than Significan t Impact	No Impact
<b>CULTURAL RESOURCES:</b> Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5		X		

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		

## Dicussion

The lands around Humboldt Bay have a rich cultural past including pre-historical use centered on the food resources of the Bay, and more recently based on manufacturing and industrial opportunities presented by the accessible coastline and available undeveloped land. Although the project will not cause demolition of any structures, there may be cultural artifacts on or below the surface that could be disturbed by the project.

An archaeological investigation was conducted by Roscoe and Associates (RA) Cultural Resources Consultants pursuant to Public Resources Code Sections 21084 and 21084 in June 2012. The objective of the survey was to conduct surface survey and subsurface excavations within the proposed project boundary to establish presence or absence of archaeological materials. The effort included background research, consultation with local Native American Tribes, physical investigation of sample test units, and intensive surface surveys.

a) & b) ***Less than Significant with Mitigation*** As reported in the RA report, a complete background records search for the project locations were conducted by the North Coastal Information Center (NCIC) on June 22, 2012. The records search indicated that previous archaeological surveys or recorded cultural resources are not known to occur within the actual project boundaries.

A pedestrian survey was conducted as part of the investigation. No cultural resources were noted within the specific boundaries of the project. A row of decaying pilings, remnants of the Union Wharf & Plank Walk Company Railroad (later the Arcata and Mad River Railroad) were observed in Humboldt Bay immediately to the northeast of the proposed dock at the Arcata Marsh. All evidence of the railroad grade, rails, ties or other features of this historic landmark has disappeared in the immediate area of the proposed dock since the line was abandoned in the 1940's.

The RA report concludes that:

*“[The] project area exhibited evidence of intense historic disturbance. This report concludes that no archaeological or elements of the historical built environment that; for the purposes of CEQA would be considered an historic resource, exist within the direct limits of the proposed project areas. It is unlikely that buried archaeological materials will be found during project implementation. It is, however, the opinion of Roscoe and Associates that the visual effects of constructing a new dock at the southeast corner of the Arcata Marsh parking area could threaten the integrity of setting and feeling of California Historic Landmark #842. It is recommended that an evaluation be conducted to determine if the proposed project at this location would constitute a substantial adverse change to this resource. If the alternative location of the dock is implemented, no evaluation would be necessary.”*

In following these recommendations, City staff consulted with RA in February 2018 to discuss the need for additional analysis given the currently proposed location, which is approximately 100 feet

southwest of the old railroad line. RA concluded that the distance was far enough that it would not threaten the integrity of the existing setting and not further evaluation would be required. Furthermore, the City took the proposed project to the Historic Landmark Committee meeting on February 15, 2018 to consider potential adverse impacts as a result of this project. The Committee evaluated the project and concluded that maintaining the 100-foot distance from the historic railroad line would not result in a significant impact to the resource.

No other specific archaeological studies are recommended. However, if previously unidentified archaeological or historic resources are discovered during construction of the Project, impacts to such resources could be significant if not treated properly. Implementation of the recommended protocol for inadvertent cultural resource discoveries would reduce the potential impact to previously unidentified artifacts to less than significant. As such, Mitigation Measure CR-1 shall be implemented.

### ***Mitigation Measure CR-1: Inadvertent Discovery of Cultural Resources***

While the likelihood of an archaeological discovery during project implementation is low in this project setting, the following provides means of responding to the circumstance. If cultural materials for example: chipped or ground stone, historic debris, building foundations, or bone are discovered during ground-disturbance activities, work shall be stopped within 20 meters (66 feet) of the discovery, per the requirements of CEQA (January 1999 Revised Guidelines, Title 14 CCR 15064.5 (f)). Work near the archaeological finds shall not resume until a professional archaeologist, who meets the Secretary of the Interior's Standards and Guidelines, has evaluated the materials and offered recommendations for further action.

The City shall ensure that if concentrations of prehistoric or historic-period materials are encountered as a result of ground-disturbing activity attributable to the project, all work in the immediate vicinity shall halt until a qualified archaeologist can evaluate the finds and make recommendations. The recommendations of the archaeologist shall be implemented. Prehistoric materials could include obsidian and chert debitage or formal tools, grinding implements, (e.g., pestles, handstones, bowl mortars, slabs), locally darkened midden, deposits of shell, faunal remains, and human burials. Historic materials could include ceramics/pottery, glass, metal, can and bottle dumps, cut bone, barbed wire fences, building pads, structures, and trails/roads.

If such materials are encountered during construction, the City shall retain a qualified archaeologist who shall be present during subsequent surface and subsurface activities in the vicinity of the sensitive materials as determined necessary by the archaeologist. With respect to these areas of sensitive materials:

1. If cultural materials are discovered, the archaeologist shall assess the discovery to determine if it constitutes either a unique archaeological resource or a historical resource for purposes of CEQA (CCR Title 14 §15064.5[a]).
2. If the archaeologist determines that the materials do not constitute either a unique archaeological resource or a historical resource, their presence shall be noted but need not be considered further (CCR Title 14 §15064.5[c] [3]).
3. If the archaeologist determines: (a) that the materials do constitute a unique archaeological resource or historical resource; and, (b) they are subject to substantial adverse change as defined in CCR Title 14 §15064.5[b], the archaeologist shall provide recommendations to the City for appropriate treatment which, among other options, may include preservation in place or archaeological data recovery. Preservation in place is preferred, if it is feasible.

Implementation of Mitigation Measures CR-1 would reduce potentially significant impacts to less than significant levels by protecting, preserving, or recovering any significant cultural resources, including historical resources, affected by Project construction.

c) ***Less than Significant with Mitigation*** Paleontological resources are the remains or traces of prehistoric animals and plants. Paleontological resources, which include fossil remains and geologic sites with fossil-bearing strata are non-renewable and scarce and are a sensitive resource afforded protection under environmental legislation in California. Under California Public Resources Code (PRC) Section 5097.5, unauthorized disturbance or removal of a fossil locality or remains on public land is a misdemeanor. State law also requires reasonable mitigation of adverse environmental impacts that result from development of public land and affect paleontological resources (PRC Section 30244).

The Project site is on fill material and/or severely disturbed soils. Furthermore, though not specifically conducted to locate paleontological resources, the RA survey did not identify any fossilized resources during site surface and subsurface sampling. Therefore, the Holocene geologic unit at the Project site has little paleontological potential or sensitivity.

Although it is unlikely that Project construction would impact potentially significant paleontological resources, it cannot be ruled out altogether, therefore, this potential impact is considered significant and the following mitigation measure is proposed to reduce the potential impact to a less than significant level.

***Mitigation Measure CR-2: Evaluation and Treatment of Paleontological Resources***

If paleontological resources (e.g., vertebrate bones, teeth, or abundant and well-preserved invertebrates or plants), are encountered during construction, the City shall ensure work in the immediate vicinity shall be diverted away from the find until a professional paleontologist assesses and salvages the find, as appropriate.

Implementation of Mitigation Measure CR-3 would reduce impacts to a less-than-significant level by requiring evaluation and salvage of any paleontological resources found during Project construction.

d) ***Less than Significant Impact with Mitigation*** Although no known cemeteries or burial sites are located on the Project site, given the long history of human activity in the area, encountering human remains during construction activities is possible. If human remains are discovered during construction of the Project, impacts could be significant if not mitigated. As such, mitigation measure CR-3 is proposed to reduce the potential impact to a less than significant level.

***Mitigation Measure CR-3: Evaluation and Treatment of Paleontological Resources***

If human graves or remains are encountered, the City or construction manager will ensure that work will halt in the vicinity and the County Coroner will be notified. At the same time, a qualified archaeologist will be contacted to evaluate the situation. If human remains are of Native American origin, the Coroner will notify the Native American Heritage Commission (NAHC) within 24 hours of identification, pursuant to Public Resources Code 5097.98

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>GEOLOGY AND SOILS:</b> Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) 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 know fault? Refer to Division of Mines and Geology Special Publication 42.				X
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				

a) i) **No Impact.** The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. This act prohibits the location of

structures designed for human occupancy across active faults and regulates construction within fault zones. The Project sites are not located within an Alquist-Priolo Earthquake Fault Zone and no known active or potentially active faults traverse the Project sites.

a) ii) **Less than Significant Impact** Several known active and potentially active faults are located in the region. All of coastal Northern California is subject to potentially strong seismic ground shaking. There are no permanently habitable or enclosed structures included in the design, only low docks and related access features such as parking lot modifications and installation of a vault toilet. The potential impact from strong seismic ground shaking would be limited to these low structures. The impact from seismic ground shaking would be less than significant.

a) iii) **Less than Significant Impact** GIS mapping indicates that the project site is situated in an area of high liquefaction susceptibility. However, because no inhabited structures are included as part of the project, the impact from liquefaction is less than significant.

a) iv) **Less than Significant Impact** The Project site is relatively flat and evidence of slope instability was not observed during site visits. Based on the absence of slopes, the risk of landsliding at the Project sites is very low; nothing capable of extending into the Project area is present. The impact from landslides is less than significant

b) **Less than Significant Impact** The Project site currently includes an asphalt paved parking lot, adjacent grassy and landscaped areas, an existing boat dock, and portions of the shallow margin of Humboldt Bay. The project site contains very little historic topsoil. Standard BMPs will be employed during construction to prevent potential soil erosion, sedimentation, and loss of topsoil during construction. Therefore, the Project would not result in a substantial loss of topsoil at any of the sites. An evaluation of soil erosion is provided in the Hydrology and Water Quality section of this document.

c) **Less than Significant Impact** The project site includes tidal flats, open bay, and adjacent upland fill material. As summarized in Impacts a) iii) and a) iv) above, the potential for liquefaction and landslides at the Project site is considered less than significant. The potential impact from differential settlement would be less than significant because the project does not include any habitable structures.

d) **Less than Significant Impact.** Portions of the soil at the Project site may be moderately to highly expansive. These soils are subject to expansive soil heave, which can cause slabs and pavement and lightly loaded foundations to swell and crack. However, the project does not include any habitable or enclosed structures, thus the impact from expansive soils would be less than significant.

e) **No Impact** No septic tanks or alternative wastewater disposal systems are proposed as part of the Project. No impact would occur.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>GREENHOUSE GAS EMISSIONS:</b> Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X
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a) **Less than Significant Impact.** The area for assessment of Green House Gas (GHG) impacts is statewide. Under CEQA guidelines developed by the Office of Planning & Research (OPR), lead agencies must determine if a project will emit GHGs, determine the significance of the emission and develop mitigations. CEQA Guidelines define greenhouse gases to include carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

The California Global Warming Solutions Act of 2006 (Assembly Bill 32) definitively established the state’s climate change policy and set GHG reduction targets (Health & Safety Code §38500 et seq.), which is to reduce GHGs to 1990 levels by 2020. According to *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate change in CEQA Documents* (March 5, 2007), an individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may result in a potential impact through its incremental contribution combined with the contributions of all other sources of GHG. In assessing cumulative impacts, it must be determined if a project’s incremental effect is “cumulatively considerable.” (CEQA Guidelines §15064(i)(1) and §15130). Due to the short term nature of potential GHG impacts (during construction only), the City has determined that it is appropriate to assess potential GHG impacts qualitatively, as allowed by CEQA Guidelines §15064.4(a)2.

Construction of the project will involve the use of heavy equipment, and is expected to last between approximately one and four weeks. Due to the short-term duration of equipment use, the GHG emissions associated with the project is relatively minor and therefore will not have a significant impact on the environment.

b) **Less than Significant Impact.** The City is actively participating in the Cities for Climate Protection (CCP) Campaign and is a member of the California Climate Action Registry. The City developed a Greenhouse Gas Reduction Plan (August 2006) to reduce locally generated GHGs. In this plan, the City committed to decrease its GHG emissions by 20% below 2000 levels by the year 2010. Aside from temporary emissions associated with operating construction equipment, the project will not result in an increase of GHGs. Furthermore, the project does not conflict with any of the recommendations and implementation measures in the GHG Reduction Plan. Therefore, it can be found to be consistent with local plans, policies, and regulations adopted for the purpose of reducing GHG emissions and the project will result in a less than significant impact.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>HAZARDS AND HAZARDOUS MATERIALS:</b> Would the project:				
a) Create a significant hazard to the public or the environment through the routine			X	

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
transport, use, or disposal of hazardous materials?				
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) 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?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			X	

a) **Less than Significant Impact** Project construction would require the use of hazardous materials such as fuels, lubricants, paints, and solvents. Following construction, the Project would not cause the storage or transport of hazardous materials. Numerous laws and regulations ensure the safe

transportation, use, storage and disposal of hazardous materials. Worker safety regulations cover hazards related to exposure to hazardous materials. Regulations and criteria for the disposal of hazardous materials mandate disposal at appropriate landfills. Because the City, contractors, and other construction service providers would be required to comply with hazardous materials laws and regulations for the transport, use, and disposal of hazardous materials, the impacts associated with the potential to create a significant hazard to the public or the environment would be considered less than significant.

b) ***Less than Significant Impact*** During construction, routine transport of hazardous materials to and from the Project site could indirectly result in an incremental increase in the potential for accidents. Caltrans and the California Highway Patrol (CHP) regulate the transportation of hazardous materials and wastes, including container types and packaging requirements, as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers. Furthermore, spill kits will be onsite to clean up any small spills that could occur, therefore preventing the release of hazardous materials into the environment. Because the City, contractors, and other construction service providers would be required to comply with existing and future hazardous materials laws and regulations for the transport of hazardous materials, the impacts associated with the potential to create a significant hazard to the public or the environment would be less than significant.

Following construction, use would be limited to non-motorized watercraft and transport of watercraft to and from facilities typically by passenger vehicles. This would not create a significant hazard to the public or the environment. The impact would be less than significant.

c) ***No Impact*** No schools are located within 1/4 mile of the Project sites. The closest school is Arcata Children's Center, which is approximately 1.5 miles north of the project site. No impact would occur.

d) ***Less than Significant Impact*** The Hazardous Waste and Substances Sites List (Cortese List) is a planning document used to comply with CEQA requirements for providing information about the location of hazardous materials release sites. A search of the Cortese List was completed to determine if any known hazardous waste facilities exist on or adjacent to the Project site. No hazardous materials cases were recorded for the Project site.

It should be noted that Geotracker lists Arcata Marsh South I Street site as a Leaking Underground Storage Tank (LUST) site, over 1,000 feet from the Project site.

Although groundwater contamination is recorded beneath the site identified above, the contamination is confined to the site itself or immediately adjacent, which is not adjacent to the Project site. This site is not considered to have impacted the groundwater to the extent of creating a regional groundwater plume that would extend to the area underlying the Project site. The potential to encounter contaminated soil or groundwater at the Project site is considered less than significant.

e) & f) ***No Impact***. The project site is not located within an airport land use plan or within two miles of a public airport or a private airstrip.

g) ***Less than Significant Impact*** The Humboldt County Sheriff's Office of Emergency Services (OES) coordinates county-wide response to disasters. OES is responsible for alerting and notifying appropriate agencies when disaster strikes; coordinating all agencies that respond; ensuring resources are available and mobilized in times of disaster; developing plans and procedures for response to and recovery from disasters; and developing and providing preparedness materials for the public. The OES would

coordinate evacuation planning in the event of seismic events, tsunamis, slope failure, floods, storms, fires, and hazardous materials spills.

Additionally, emergency response and evacuation planning in the project area is the responsibility of the City of Arcata Police Department (APD) and the Arcata Fire Protection District (AFPD). The APD and AFPD provide critical emergency response services and leadership, and serve as the community’s primary response agencies under the City’s Emergency Response Plan. The Plan outlines response responsibilities during seismic events, tsunamis, slope failure, floods, storms, fires, and hazardous materials spills, and includes evacuation planning.

The project site is located within an area of State of California mapped tsunami inundation projections and may experience a tsunami in the event of a strong earthquake originating over a broad portion of the Pacific Ocean (California Emergency Management Agency 2009). Safe evacuation areas are located on high ground to the north of the Arcata site.

Tsunami Warnings may also be announced via radio, television, telephone, text message, door-to-door contact by emergency responders, NOAA weather radios, or in some cases by outdoor sirens and announcements from airplanes. The Project would not impair implementation of or physically interfere with implementation of tsunami or other evacuation plans because it would not obstruct evacuation routes and would not necessitate any changes to existing evacuation plans. Furthermore, the project does not include development that would significantly increase the number of people exposed to potential emergencies. The Project would not interfere with any emergency response plans or evacuation plans, and the impact is less than significant.

h) **Less than Significant** The Arcata and Woodley Island sites are primarily aquatic with adjacent paved parking areas and low vegetation largely maintained by mowing, thus are considered to be low fire risk. Some taller vegetation is present at a greater distance from the Arcata site but is buffered from the actual work area by the above-mentioned parking lot. The vegetative characteristics of the project site presents only a low fire hazard; therefore, the potential impact of the project on the exposure to people or structures to wildland fires is less than significant.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>HYDROLOGY AND WATER QUALITY:</b> Would the project:				
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through stream or river course alteration, in a manner which would result in substantial erosion or siltation onsite or offsite?			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite?			X	
e) 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?			X	
f) Otherwise substantially degrade water quality?			X	
g) Place housing within a 100-year flood hazard Area 1 as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?			X	

a) & f) **Less than Significant Impact** Construction activities can introduce pollutants to stormwater runoff, including sediment, paints, solvents, pavement, construction debris and trash, as well as hydrocarbons and other fluids from construction vehicles. The most likely pollutant from the proposed project would be sediment created by soil disturbance during or immediately after construction.

To protect water quality, the City applies a number of programs and practices to all new development and redevelopment projects that would directly or indirectly discharge runoff into storm drains, creeks, streams, rivers, the ocean, or other receiving water bodies in the City. These programs and practices provide a framework of appropriate measures and feasible “best management practices” (BMPs) for protecting water quality. The City implements these policies through the Arcata General Plan, Land

Use Code, and the City's BMP Manual which includes provisions to minimize potential pollutants entering the waterways and gives guidance for City facilities and activities with identified pollutant sources. The proposed project will be required to adhere to these requirements.

Because the project site is small, it may not be regulated under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order Number 2009-0009-DWQ, NPDES Number CAS000002; (a.k.a construction general permit). This construction general permit offers NPDES coverage for stormwater discharges with construction activities of more than 1.0 acre. The proposed project includes less than one acre of construction activities and therefore would not be subject to NPDES requirements.

Through adherence to the City's General Plan, Land Use Code, and BMP Manual, the project would not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality. The impact would be less than significant.

b) ***No Impact*** The project area is underlain by the 718,263 acre Mad-Redwood Groundwater Basin. Annual recharge of the Basin exceeds water withdrawals, and thus the basin is not in overdraft. The project will not significantly alter existing topography or result in creation of a significant amount of impervious surfaces. Therefore, it will not deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. There are no known domestic groundwater wells located in the Project area that would be affected by the Project. Furthermore, no water table draw-down is anticipated during Project construction and thus would not affect the ability of any off-site wells to draw water. There would be no interruption of potable water supplies. As such, there would be no impact on groundwater supplies from construction.

c) & d) ***Less than Significant Impact*** Drainage from the Project site generally infiltrates the substrate or flows directly into Humboldt Bay. Drainage from the parking area generally flows to the edge of the parking lot where it infiltrates to the substrate. Construction activities such as minor excavation and grading would temporarily disturb the ground surface of the Project area and could result in erosion if not properly controlled and repaired. However, with incorporation of BMPs during construction, the potential impact from construction activities would be held to a less than significant level by including erosion control measures to reduce soil loss and water pollution. Following construction, the drainage patterns at the Project site would remain the same as current patterns. No stream or river courses would be altered. The impact would be less than significant.

e) ***Less than Significant Impact*** The Project site currently includes paved parking areas and vegetated open space adjacent to Humboldt Bay. Within the vegetated areas, stormwater generally infiltrates or forms ephemeral puddles in low lying areas. Stormwater from streets and parking areas generally flows to the edge of pavement where it infiltrates to the substrate or, in some locations, enters Humboldt Bay. The Project would not be expected to cause on- or off-site flooding given that the project would not substantially increase impervious surface area. Post-construction runoff will continue to infiltrate to the soils and Humboldt Bay in the Project area. There is no storm drain system, which would not result in

flooding or exceed capacity; therefore, the effects on storm drainage system capacity would be less than significant.

g) & h) **No Impact** The Project site is located within the 100-year flood zone according to the City of Arcata GIS. The project, however, will not place housing within the 100-year flood zone or place structures within the 100-year flood zone that would impede or redirect flood flows. There is no impact.

i) **Less than Significant Impact** Based on area characteristics, the Project site is not down-gradient of a debris-flow source and would not be subject to mudflows. The Project site is located within areas of State of California mapped tsunami inundation projections and may experience a tsunami in the event of a strong earthquake originating over a broad portion of the Pacific Ocean (California Emergency Management Agency 2009). The Project site is entirely within the mapped tsunami inundation zone and may be subject to inundation and severe damage in the event of a tsunami or a seismically-generated seiche in Humboldt Bay. The project would not include the development of any occupied structures, but would construct infrastructure components that may be susceptible to damage from a tsunami or seiche. These features would be designed to meet applicable design standards that would minimize or avoid damage. The project area has been subject to past evacuation planning, and established tsunami warning signs and evacuation routes are in place. These tsunami evacuation plans and warning signs would not change as a result of the project. Although the Project is within the potential tsunami inundation zone, because it would not result in occupied structures, because evacuation plans exist, and because the project would not impede any identified evacuation route, the impact would be less than significant.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>LAND USE AND PLANNING:</b> Would the project:				
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

**Discussion**

***Land Use Designations***

The Arcata site has a City of Arcata General Plan land use designation of Natural Resources – Public Trust Zone (NR-PT).

***Land Use Policies***

Because the project site is presently used as public open space and for recreational purposes, the proposed development of additional water-based recreational activities is consistent with the City of Arcata General Plan.

a) **No Impact** The Project would be an improvement to an existing boating facilities within an existing public access areas intended for the proposed use. Due to the nature of the Project, it does not have the capacity to divide any community. Therefore, no impact would occur.

b) **Less than Significant Impact** Because the Project is proposed for areas already used for water-based recreation and is intended to enhance these activities at locations with appropriate land use designations, it would be in compliance with the City of Arcata General Plan. Various mitigation measures are included in other sections of the Initial Study to ensure that there is no conflict with General Plan policies. Because this project will not conflict with the General Plan or zoning, the impact is less than significant.

c) **No Impact** No adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan exists for the Project sites. No impact would occur.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>MINERAL RESOURCES:</b> Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

a & b) **No Impact.** There are no known valuable or locally-important mineral resources on the site. The City of Arcata General Plan has not included this site or any other nearby location as a designated locally important mineral resource or recovery site (General Plan Policy RC-9c). The Division of Mines and Geology has noted that the ‘Classification and Designation of Mineral Lands’ per Surface Mining and

Reclamation Act Section 2790 ‘Minerals of Regional Significance’ and associated mapping has not occurred for Humboldt County and other than in-stream gravel resources and rock quarries, have not identified any mineral resources needing protection from incompatible land uses. Therefore the project will not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. Based on the project description and its location, the proposed project will not result in any mineral resource-related impacts.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>NOISE:</b> Would the project:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Exposure of persons to or generation of excessive groundborne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

**Discussion**

The Project sites and surrounding areas are primarily characterized by undeveloped open space adjacent to commercial or industrial uses, with scattered and generally distant single family residential and commercial uses. Noise levels in the Project area generally consists of a small amount of vehicular traffic, recreational activity, and mowing or other similar maintenance of open space areas. The public road is a small two-lane road that terminates at the project area. Noise sensitive receptors and noise-

sensitive areas in the project area include residences, with the closes being approximately 0.6 miles away.

The Noise Element of the Arcata General Plan (2008) identifies noise standards ranging, depending on time of day or night, from 55 dB to 45 dB hourly Leq (with higher transient maximums) for residential areas.

**a) c) & d) Less than Significant Impact**

**Construction**

The construction phase of the Project would require the use of heavy equipment for pile installation and construction of footings, the dock structure, and associated improvements. Construction would temporarily increase ambient noise levels for the duration of the Project. Construction activities would also involve the use of smaller power tools, generators, and other sources of noise. During construction, noise levels would vary based on the amount of equipment in operation and the location of the activity. Noise levels would be consistent with the reference noise levels in Table 5.12-1, below.

Table 5.12-1 Construction Equipment Reference Noise Levels as Measured at 50 Feet

Equipment	Noise Level (dBA <sup>1</sup> )	Equipment	Noise Level (dBA)
Drill rig truck	84	Jackhammer	85
Pile driver (vibratory)	87	Large Generator	82
Front end loader or Backhoe	80	Paver or Roller	85
Excavator	85	Dump truck	84

Source: FHWA 2006

Sound from a point source is known to attenuate at a rate of -6 dBA for each doubling of distance. For example, a noise level of 84 dBA Leq<sup>2</sup> as measured at 50 feet from the noise source would attenuate to 78 dBA Leq at 100 feet from the source and to 72 dBA Leq at 200 feet from the source to the receptor. Based on the reference noise levels above, the noise levels generated by construction equipment at the Project site may reach a maximum of approximately 87 dBA Leq at 50 feet during pile driving at Arcata.

At the Arcata site, the closest residential receptors are homes approximately 0.62 mile northeast from construction activities. It is unlikely that any of these residences would experience noise levels near the full reference levels listed in Table 5.12-1 above, because of the distance from construction activity. Based on the estimated 87 dBA Leq maximum and the natural noise attenuation over distance described herein, the estimated construction noise level outside the closest homes to would be less than 60 dBA. A typical building can reduce noise levels by 25 dBA with the windows closed, thereby reducing interior noise levels within the closest homes to less than 35 dBA Leq and to even less at more distant homes. These levels would be below the General Plan maximum recommended interior noise levels for residential use and in some cases may be below existing ambient noise levels. Noise and vibration effects on wildlife are addressed in the Biological Resources section above.

Interior and exterior construction noise levels would not be readily noticeable at the nearest residences as construction progresses. However, visitors to the recreational facilities may encounter significant noise levels. To minimize impacts to visitors, hours of construction will be limited to between 7:00 AM and 6:00 PM, Monday through Friday, and 10:00 AM to 5:00 PM on Saturdays. No construction would

<sup>1</sup> "dBA" is a weighted decibel measurement for assessing hearing risk and, therefore, is used by most regulatory compliance.

<sup>2</sup> Equivalent sound level (Leq) is a steady-state sound that has the same energy and A-weighted level as the community noise over a given time interval

be allowed on Sundays, except in an emergency. Equipment and on-site trucks used for Project construction will use standard noise control techniques (such as improved mufflers and minimizing idling time).

**Operation**

Noise at the Project site during operation and maintenance will not measurably exceed the existing background noise levels because only infrequent vehicular access, minor repairs, and maintenance would be required. No impact would occur.

**b) Less Than Significant Impact** Based upon the types of anticipated construction equipment, and because no blasting is needed, ground-borne vibration levels produced during Project construction are not expected to have an impact at off-site sensitive receptor locations. The Project would require piledriving, with a vibratory hammer, but because of the distance (0.62 mile) to the nearest sensitive receptors this is not anticipated to result in substantial ground borne vibration or noise. Therefore, a less than significant impact would occur related to ground borne vibration or ground borne noise levels.

**e, f) No Impact** The nearest public airport is approximately 6.6 miles north of the project site, and the project site is not within an Airport Land Use Plan. Therefore, there will be no impact.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>POPULATION AND HOUSING:</b> Would the project:				
a) Induce substantial population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

a-c) **No Impact.** No existing housing occurs within the footprint of the project, and the project will not directly or indirectly induce substantial population growth, would not displace existing housing or people, and would not necessitate the construction of replacement housing. Therefore, there will be no impacts associated with population and housing.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>PUBLIC SERVICES:</b> Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?				X
b) Police protection?				X
c) Schools?				X
d) Parks?				X
e) Other public facilities?				X

a-e) **No Impact.** The project will have no impact on governmental facilities. The purpose of the project is to expand existing recreational opportunities adjacent to and within Humboldt Bay. It will not direction or indirectly induce substantial population growth nor create substantial new demand for services. Therefore, the Project would have no impact on the service ratios, response times, or other performance objectives of schools, parks, and other public facilities that are based on population growth. The Project would not require a new or physically altered government facility to serve the Project sites. No impact would occur.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>TRIBAL CULTURAL RESOURCES:</b> Would the project result in substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural values to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resource Code section 5020.1(k), or			X	
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to the criteria set for in subdivision (c) of the Public Resources Code Section 5024.1, the lead agency shall			X	

consider the significance of the resource to a California Native American Tribe				
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**Discussion** Pursuant to AB52, the City consulted with local Tribal Heritage Preservation Officers (THPOs) on April 20 2018 regarding potentially significant impacts to historic, paleontological, and tribal cultural resources. All three THPOs concurred that there were no known resources and that inadvertent discovery protocol would ensure no significant impacts occur.

a) & b) *Less than Significant.* As discussed in the Cultural Resources section of this document, an archaeological survey report was prepared by Roscoe and Associates to identify and evaluate potential impacts to historical, archaeological, and paleontological resources. No cultural resources as defined in subdivision (c) of Public Resources Code Section 5021.4 were noted within the specific boundaries of the project. A row of decaying pilings, remnants of the Union Wharf & Plank Walk Company Railroad (later the Arcata and Mad River Railroad) were observed in Humboldt Bay immediately to the northeast of the proposed dock at the Arcata Marsh. All evidence of the railroad grade, rails, ties or other features of this historic landmark has disappeared in the immediate area of the proposed dock since the line was abandoned in the 1940's.

The RA report concludes that:

*“[The] project area exhibited evidence of intense historic disturbance. This report concludes that no archaeological or elements of the historical built environment that; for the purposes of CEQA would be considered an historic resource, exist within the direct limits of the proposed project areas. It is unlikely that buried archaeological materials will be found during project implementation. It is, however, the opinion of Roscoe and Associates that the visual effects of constructing a new dock at the southeast corner of the Arcata Marsh parking area could threaten the integrity of setting and feeling of California Historic Landmark #842. It is recommended that an evaluation be conducted to determine if the proposed project at this location would constitute a substantial adverse change to this resource. If the alternative location of the dock is implemented, no evaluation would be necessary.”*

In following these recommendations, City staff consulted with RA in February 2018 to discuss the need for additional analysis given the currently proposed location, which is approximately 100 feet southwest of the old railroad line. RA concluded that the distance was far enough that it would not threaten the integrity of the existing setting and not further evaluation would be required. Furthermore, the City took the proposed project to the Historic Landmark Committee meeting on February 15, 2018 to consider potential adverse impacts as a result of this project. The Committee evaluated the project and concluded that maintaining the 100-foot distance from the historic railroad line would not result in a significant impact to the resource.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>RECREATION:</b>				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

a) **No Impact** The Project would not directly or indirectly induce substantial population growth. Therefore, the Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. No impact would occur.

b) **Less Than Significant Impact** The Project includes enhancements to existing recreational facilities and would benefit the public by providing new and upgraded infrastructure facilitating improved access to recreational activities on Humboldt Bay. Although this might increase usage, at present the facilities are underutilized by recreational human-powered watercraft. The Project would not directly or indirectly induce substantial population growth. Therefore, the Project would not require the construction or expansion of additional recreational facilities, which might have an adverse physical effect on the environment. A less than significant impact would occur.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>TRANSPORTATION/TRAFFIC:</b> Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation systems, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.			X	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and				X

travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				
c) 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?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?			X	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X

a) *Less than Significant* I Street is a public local street within Arcata, running south from SR 255 and terminating at the Arcata Marsh site. This road also provides access to some commercial and industrial facilities. The street receives a low level of traffic. Under existing conditions, the road operates acceptably with little or no traffic delays even at peak hours. While the construction of the boat launch will provide additional recreational opportunities that could result in more visitors to the AMWS, no new traffic facilities will be constructed or are anticipated to be required, therefore maintaining the existing capacity.

***Construction Project Trip Generation***

Minor temporary changes in traffic volumes or patterns would result from construction of the Project. The estimated trip generation for the construction is 20 new daily trips. Project construction would require deliveries of equipment and materials to the site, as well as daily commute trips by construction employees. Travel to the site via I street does not impact residential neighborhoods.

Project construction activities may result in some temporary parking closures within the existing parking lots at. The lot usually carries low traffic volumes, and there are other parking alternatives within AMWS. The combination of these temporary closures and addition of construction-related traffic on nearby streets would create minor changes in traffic. The project would not encroach on any municipal, County or Caltrans right of ways. Except for infrequent and short parking closures within the lots and minor traffic delays nearby, intersection level of service (LOS) in the Project area is anticipated to remain within acceptable levels during construction.

Given the small amount of construction traffic, the lack of street closures, and availability of adequate parking in existing lots, the potential impacts to motor vehicles, pedestrians, and bicyclists would be less than significant. The project will not conflict with any plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system.

b) **No Impact** The Project area is not subject to a Congestion Management Program (CMP) and does not have a traffic congestion problem, with all area streets and roads below capacity. There would be no impact.

c) **No Impact** The nearest public airport is approximately 6.6 miles north of the project site. . The Project would have no resulting change in or impact to air traffic patterns, resulting in no impact.

d) **Less than Significant** The Project would not change the geometry of any street or roadway network; the only changes to paved areas would be a minor reconfiguration of the County Park parking lot at the Samoa site. Therefore, no potentially hazardous roadway design features would be introduced by the Project.

As discussed above, the presence of construction vehicles and equipment on nearby roadways could increase the normal traffic hazard in the Project area. The Project would require traffic safety control procedures to accommodate traffic during construction. Construction vehicles would generally not be parked to block public rights-of-way, although portions of existing parking lots could be used as staging areas. As the Project will not block or encroach on roadways, impacts to emergency access and/or potential conflict with traffic operations are less-than-significant.

e) **Less than Significant** The Project is located within existing public access areas along the Humboldt Bay shoreline and at the terminus of I street. There would be no lane closures on or through major highways or streets. The Project will not substantially alter the existing emergency access. Even in the event of a need for emergency access within one of the Project sites, emergency vehicles would be able to reach the parking lots. Construction staging shall be coordinated such that emergency access is maintained at all times, thus this potential impact would be considered less than significant.

f) **No Impact** There are no plans or policies regarding public transit or alternative transportation that apply specifically to the Project area. I street has a designated bike lane, which will remain open throughout the duration of construction. There is no public transportation service to any part of the Project area. The Project would not conflict with policies nor adversely affect facilities for public transit, bicycles, or pedestrians. There would be no impact.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>UTILITIES AND SERVICE SYSTEMS:</b> Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
c) Require or result in the construction of new stormwater drainage facilities or				X

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
expansion of existing facilities, the construction of which could cause significant environmental effects?				
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e) 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?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			X	

a) **No Impact** The Project would enhance existing watercraft facilities and recreational access. The vault toilet would not be connected to City sewer system. The Project would not cause any increase or change in wastewater and would, therefore not have an impact on wastewater treatment requirements or capacity. No impact would occur.

b) c) & e) **No Impact** The Project would enhance existing watercraft facilities and recreational access. No new infrastructure beyond that described in the project description would be needed, including water, wastewater, and stormwater facilities. No impact would occur.

d) **No Impact** The Project is for a new watercraft facility and improved recreational access. No additional water supply is necessary to serve the upgraded facilities. Therefore, no impact would occur.

f) & g) **Less than Significant Impact** The Project would generate a small volume of construction waste that would be hauled by the construction contractor to an approved disposal site. Waste would include construction materials remnants, replaced materials, and worker-generated trash. A small amount of additional waste may be generated during operation of the project by new users. This would be a less-than-significant impact on the implementation of federal, State, and local statutes and regulations related to solid waste.

Issues and Supporting Information	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>MANDATORY FINDINGS OF SIGNIFICANCE:</b>				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Certain mandatory findings of significance must be made to comply with CEQA Guidelines §15065. The proposed project has been analyzed, and it has been determined that with implementation of the mitigation measures recommended in this Initial Study, it would not:

- Substantially degrade environmental quality;
- Substantially reduce fish or wildlife habitat;
- Cause a fish or wildlife population to fall below self-sustaining levels;
- Threaten to eliminate a plant or animal community;
- Reduce the numbers or range of a rare, threatened, or endangered species;
- Eliminate important examples of the major periods of California history or pre-history;
- Achieve short term goals to the disadvantage of long term goals; or

- Have environmental effects that will directly or indirectly cause substantial adverse effects on human beings.
- Have possible environmental effects that are individually limited but cumulatively considerable when viewed in connection with past, current, and reasonably anticipated future projects;

a) & c) **Less than Significant with Mitigation** With implementation of the BMPs, avoidance measures, and Mitigation Measures presented herein, the Project as a whole does not have the potential to degrade the quality of the environment, including air quality, fish or wildlife species or their habitat, plant or animal communities, important examples of the major periods of California history or prehistory, geologic resources, hazards, water resources, land use compatibility, noise, traffic movement, or other adverse effects on human beings.

**b) Less than Significant Impact**

The Project’s impacts would not add appreciably to any existing or foreseeable future significant cumulative impact, such as visual quality, historic resources, traffic impacts, or air quality degradation. Incremental impacts, if any, would be negligible and undetectable. As reported throughout the document, any applicable cumulative impacts to which this Project would contribute would be mitigated to the less-than-significant level.

**MITIGATION, MONITORING, AND REPORTING PROGRAM**

***BIO-1: Conduct Preconstruction Nesting Surveys for Nesting Birds***

Any construction or vegetation removal between March 1 and August 15 shall require that preconstruction nesting surveys be conducted by a qualified biologist. If possible, project activities would take place between August 16 and February 28, outside of the active nesting season for migratory bird species (i.e. between March 1 and August 15).

If work must be completed during the nesting season, a qualified biologist should conduct preconstruction surveys of all ground disturbance areas to verify absence of nesting native birds in the project area prior to vegetation removal and the start of construction. These surveys would be conducted within two weeks prior to start of vegetation removal or any construction activities. If nesting native birds are found in the construction area during the preconstruction surveys, they would be avoided with an appropriate buffer area until the young birds have fledged. If California Endangered Species Act (CESA) listed species, Endangered Species Act (ESA) listed species, or raptors are found outside of the construction (disturbance) area but near the construction area, appropriate buffers will be implemented upon consultation with CDFW. If non-listed state (CESA), non-listed federal (ESA), including state species of special concern are found near, but outside of the construction area, no buffers will be implemented.

Timing for Implementation/Compliance: If work between March 1 and August 15, surveys will prior to construction, within two weeks of vegetation clearing

Person/Agency Responsible for Monitoring: City of Arcata Environmental Services, qualified biologist (as necessary)

Monitoring Frequency: Active nests will be monitoring daily until young have fledged

Evidence of Compliance: Visual inspection and inspection field notes

### ***Mitigation Measure BIO-2: Conduct Eelgrass Pre-construction Surveys at Project Sites***

Prior to construction, a qualified biologist shall conduct eelgrass surveys in consultation with National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NOAA Fisheries) and CDFW.

#### **Eelgrass Pre-construction Surveys**

Pre-construction eelgrass surveys of the project areas shall be conducted during the Pacific eelgrass (*Zostera marina*) growing season (May-September) at the lowest daylight tide no more than 60 days prior to the start of construction (or at the end of the prior growing season if construction is scheduled to occur between October-April). Pacific eelgrass is native to Humboldt Bay, thus is herein referred to as native eelgrass. The surveys will include density information and analysis as recommended by NOAA Fisheries *Southwest Region Draft California Eelgrass Mitigation Policy* (NOAA Fisheries 2011) and Humboldt Bay Eelgrass Management Plan (HBHRCD, 2017). Native eelgrass (Pacific eelgrass) and non-native dwarf eelgrass (*Zostera japonica*) will be differentiated during the pre-construction survey. If present, the location and distribution of the non-native species of eelgrass will be noted during the pre-construction surveys and reported to CDFW.

Based on the native eelgrass findings of the pre-construction surveys, one of the following alternatives will result:

4. If native eelgrass is not determined to be present within the project and/or construction footprint at a given project site, then no further action will be required by Mitigation Measure BIO-2 at that site as there will be no impact to native eelgrass.
5. If native eelgrass is found within the project and/or construction footprint at a given project site, then impacts to the eelgrass will be avoided if practically feasible. If it is reasonable to alter the project and/or construction footprint to avoid impacting native eelgrass, then such avoidance measures will occur and no further action will be required by Mitigation Measure BIO-2 at that site as there will be no impact to native eelgrass.
6. If it is determined that native eelgrass is present within the areas to be impacted by the project and avoidance of native eelgrass impacts is not possible, then native eelgrass impacts will be mitigated through either 1) smothering nonnative eelgrass in order to help preserve native eelgrass populations and/or 2) remediating substrate of former shellfish bottom culture sites. Both activities would occur at elevations that are also suitable to support native eelgrass and in close proximity to the project site. The appropriate areal extent will be determined in coordination with regulatory agencies to ensure that there is no net loss of functional native eelgrass habitat.

#### **Non-native Eelgrass Dispersal Mitigation**

If an area containing rooted non-native eelgrass must be disturbed during project work, then the eelgrass will be removed by hand prior to the commencement of construction work and/or smothered/suffocated by placing burlap bags filled with bay mud directly over the non-native eelgrass within the construction area. Removing and/or suffocating the non-native eelgrass will mitigate the potential dispersal of the non-native species as a result of project work. Equipment used within the areas of non-native eelgrass beds will be rinsed of mud and debris where rinsate will not drain directly to coastal waters.

#### **Native Eelgrass Mitigation Methods**

The following measures are proposed to support the mitigation of native eelgrass habitat and compensate for impacts, if any, to existing native eelgrass beds in association with this project. The intent of this subsection of Mitigation Measure BIO-2 is to mitigate impacts to native eelgrass, thereby reducing such impacts to a less than significant level.

If native eelgrass cannot be avoided by project impacts, mitigation will be provided by eradicating nonnative eelgrass and/or substrate remediation to provide habitat for native eelgrass establishment. A specific mitigation plan will be developed in coordination with relevant permitting agencies. Mitigation will be consistent with the recommendations of the NOAA Fisheries Southwest Region 2014 *Draft California Eelgrass Mitigation Policy* and *Humboldt Bay Eelgrass Comprehensive Management Plan* and as described below:

4. Minimize disturbance to existing eelgrass populations not within the mitigation area footprint to the extent possible in order to retain functioning population structure and localized genetic source material for natural recruitment.
5. Smothering of non-native eelgrass within the project vicinity shall occur such that there is no net loss of functional habitat for native eelgrass. Specific area and extent will be determined in coordination with relevant permitting agencies. In lieu of, or in combination with smothering, substrate remediation of former shellfish bottom culture sites may also occur at elevations suitable for providing native eelgrass habitat.
6. To ensure nonnative eelgrass does not re-establish in the mitigation area, the area will be monitored for a period of three years. During the monitoring period, the mitigation area shall be kept clear of any debris which could inhibit natural recruitment or otherwise degrade the function of native eelgrass. If periodic observations note the presence of debris obstructing the establishment of eelgrass consistent with the above-described mitigation ratio, a feasible method will be identified to remove the debris while minimizing the risk of damage to eelgrass beds and restored tidal habitats. Seasonal deposits of detached eelgrass and other vegetative debris would not trigger maintenance within the mitigation area.

***BIO-3: Conduct Rare Plant Surveys at Arcata Site***

Prior to construction, a qualified biologist shall conduct rare plant surveys. If rare plants are impacted by the project, the affected species will be transplanted or replanted on-site and monitored following initial planting for survival. If monitoring documents a net loss, additional planting will occur to ensure no net loss.

Timing for Implementation/Compliance: Prior to construction at phenologically appropriate time for identification

Person/Agency Responsible for Monitoring: City of Arcata Environmental Services, qualified biologist

Monitoring Frequency: Initially following planting and as needed to ensure survival

Evidence of Compliance: Field notes, photo documentation, and reporting

***BIO-4: Develop Wetland Mitigation Program for No Net Loss of Wetlands or Waters of the U.S.***

The City shall develop a wetland mitigation program acceptable to the applicable regulatory agencies (USACE, USFWS, NCRWQCB and CDFW). At a minimum the program shall: (1) replace the acreage of jurisdictional wetlands to be permanently impacted by the proposed Projects with the creation or

restoration of comparable off-site wetlands on a 1:1 basis; and (2) include maintenance of the wetlands for a minimum of five years, including the replanting of any dead or dying plants within the new wetlands.

Timing for Implementation/Compliance: Wetland construction to occur no more than two years after project completion. Monitoring to occur for a period of five years, or until success criteria has been met

Person/Agency Responsible for Monitoring: City of Arcata Environmental Services

Monitoring Frequency: Annual

Evidence of Compliance: Annual Monitoring Report

### ***CR-1: Inadvertent Discovery of Cultural Resources***

If cultural materials for example: chipped or ground stone, historic debris, building foundations, or bone are discovered during ground-disturbance activities, work shall be stopped within 20 meters (66 feet) of the discovery, per the requirements of CEQA (January 1999 Revised Guidelines, Title 14 CCR 15064.5 (f)). Work near the archaeological finds shall not resume until a professional archaeologist, who meets the Secretary of the Interior's Standards and Guidelines, has evaluated the materials and offered recommendations for further action.

The City shall ensure that if concentrations of prehistoric or historic-period materials are encountered as a result of ground-disturbing activity attributable to the project, all work in the immediate vicinity shall halt until a qualified archaeologist can evaluate the finds and make recommendations. The recommendations of the archaeologist shall be implemented. Prehistoric materials could include obsidian and chert debitage or formal tools, grinding implements, (e.g., pestles, handstones, bowl mortars, slabs), locally darkened midden, deposits of shell, faunal remains, and human burials. Historic materials could include ceramics/pottery, glass, metal, can and bottle dumps, cut bone, barbed wire fences, building pads, structures, and trails/roads.

If such materials are encountered during construction, the City shall retain a qualified archaeologist who shall be present during subsequent surface and subsurface activities in the vicinity of the sensitive materials as determined necessary by the archaeologist. With respect to these areas of sensitive materials:

1. If cultural materials are discovered, the archaeologist shall assess the discovery to determine if it constitutes either a unique archaeological resource or a historical resource for purposes of CEQA (CCR Title 14 §15064.5[a]).
2. If the archaeologist determines that the materials do not constitute either a unique archaeological resource or a historical resource, their presence shall be noted but need not be considered further (CCR Title 14 §15064.5[c] [3]).
3. If the archaeologist determines: (a) that the materials do constitute a unique archaeological resource or historical resource; and, (b) they are subject to substantial adverse change as defined in CCR Title 14 §15064.5[b], the archaeologist shall provide recommendations to the City for appropriate treatment which, among other options, may include preservation in place or archaeological data recovery. Preservation in place is preferred, if it is feasible.

Timing for Implementation/Compliance: During construction

Person/Agency Responsible for Monitoring: City of Arcata Environmental Services, contractor

Monitoring Frequency: as determined by qualified archaeologist

Evidence of Compliance: Field notes

***CR-3: Evaluation and Treatment of Paleontological Resources***

If human graves or remains are encountered, the City or construction manager will ensure that work will halt in the vicinity and the County Coroner will be notified. At the same time, a qualified archaeologist will be contacted to evaluate the situation. If human remains are of Native American origin, the Coroner will notify the Native American Heritage Commission (NAHC) within 24 hours of identification, pursuant to Public Resources Code 5097.98

Timing for Implementation/Compliance: During construction

Person/Agency Responsible for Monitoring: City of Arcata Environmental Services, contractor

Monitoring Frequency: N/A

Evidence of Compliance: Field notes

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# **Appendix A**

## **Project Concept Design**

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Arcata Bay

SIGNATURE	CITY APPROVAL	DATE

**moftatt & nichol**  
2185 N. California Blvd., Suite 500  
Walnut Creek, California 94596  
925.944.5411

DSGN	BP	DR	NN	CHK
JOB NO.	7558	SUBMITTED BY	TITLE	

HUMBOLDT BAY HARBOR, RECREATION,  
AND CONSERVATION DISTRICT  
WATER TRAILS IMPLEMENTATION PROGRAM

**ARCATA MARSH PLAN**

DATE 12/02/2011

SHEET OF

**C2**

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