

Appendix I Correspondence

This appendix includes the following correspondence regarding the proposed project.

- Species list: A list of species of concern obtained from the online database of the U.S. Fish and Wildlife Service (USFWS) Sacramento field office in August 2010 to assist in the identification of sensitive plant and wildlife species that might occur in the project region.
- Finding of *de minimis* impacts on Section 4(f) facilities: A letter to the City of Burlingame, submitted on October 20, 2010, by the San Mateo County Transportation Authority (SMCTA) on behalf of the Department, requesting concurrence on the proposed finding; and the November 3, 2010, concurrence letter from the City of Burlingame.
- National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) consultation: The August 23, 2010, informal consultation request from the Department; the December 7, 2010, response from NOAA Fisheries; and the December 29, 2010, follow-up letter from the Department regarding proposed conservation recommendations.
- The USFWS Biological Opinion, dated March 9, 2011.
- The Federal Highway Administration project-level conformity determination, dated March 9, 2011.

U.S. Fish and Wildlife Service Species List



United States Department of the Interior
FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825



August 19, 2010

Document Number: 100819111014

Lynn McIntyre
URS Corporation
1333 Broadway
Suite 800
Oakland, CA 94612

Subject: Species List for US 101/Broadway Interchange Reconstruction Project

Dear: Ms. McIntyre

We are sending this official species list in response to your August 19, 2010 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be November 17, 2010.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found at www.fws.gov/sacramento/es/branches.htm.

Endangered Species Division



U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office

**Federal Endangered and Threatened Species that Occur in
or may be Affected by Projects in the Counties and/or
U.S.G.S. 7 1/2 Minute Quads you requested**

Document Number: 100819111014

Database Last Updated: April 29, 2010

Quad Lists

Listed Species

Invertebrates

- Euphydryas editha bayensis*
bay checkerspot butterfly (T)
Critical habitat, bay checkerspot butterfly (X)
- Haliotes cracherodii*
black abalone (E) (NMFS)
- Haliotes sorenseni*
white abalone (E) (NMFS)
- Icaricia icarioides missionensis*
mission blue butterfly (E)
- Speyeria zerene myrtleae*
Myrtle's silverspot butterfly (E)

Fish

- Acipenser medirostris*
green sturgeon (T) (NMFS)
- Eucyclogobius newberryi*
tidewater goby (E)
- Hypomesus transpacificus*
delta smelt (T)
- Oncorhynchus kisutch*
coho salmon - central CA coast (E) (NMFS)
- Oncorhynchus mykiss*
Central California Coastal steelhead (T) (NMFS)
Central Valley steelhead (T) (NMFS)
Critical habitat, Central California coastal steelhead (X) (NMFS)
- Oncorhynchus tshawytscha*
Central Valley spring-run chinook salmon (T) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

- Rana draytonii*
California red-legged frog (T)
Critical habitat, California red-legged frog (X)

Reptiles

- Caretta caretta*
loggerhead turtle (T) (NMFS)
- Chelonia mydas (incl. agassizi)*
green turtle (T) (NMFS)
- Dermochelys coriacea*
leatherback turtle (E) (NMFS)
- Lepidochelys olivacea*
olive (=Pacific) ridley sea turtle (T) (NMFS)
- Thamnophis sirtalis tetrataenia*
San Francisco garter snake (E)

Birds

- Brachyramphus marmoratus*
Critical habitat, marbled murrelet (X)
marbled murrelet (T)
- Charadrius alexandrinus nivosus*
western snowy plover (T)
- Diomedea albatrus*
short-tailed albatross (E)
- Pelecanus occidentalis californicus*
California brown pelican (E)
- Rallus longirostris obsoletus*
California clapper rail (E)
- Sternula antillarum* (=Sterna, =albifrons) browni
California least tern (E)

Mammals

- Arctocephalus townsendi*
Guadalupe fur seal (T) (NMFS)
- Balaenoptera borealis*
sei whale (E) (NMFS)
- Balaenoptera musculus*
blue whale (E) (NMFS)
- Balaenoptera physalus*
finback (=fin) whale (E) (NMFS)
- Enhydra lutris nereis*
southern sea otter (T)
- Eubalaena* (=Balaena) glacialis
right whale (E) (NMFS)
- Eumetopias jubatus*
Steller (=northern) sea-lion (T) (NMFS)
- Physeter catodon* (=macrocephalus)
sperm whale (E) (NMFS)
- Reithrodontomys raviventris*
salt marsh harvest mouse (E)

Plants

- Cirsium fontinale* var. fontinale
fountain thistle (E)
- Eriophyllum latilobum*
San Mateo woolly sunflower (E)
- Hesperolinon congestum*
Marin dwarf-flax (=western flax) (T)
- Potentilla hickmanii*
Hickman's potentilla (=cinquefoil) (E)

Proposed Species

Amphibians

- Rana draytonii*
Critical habitat, California red-legged frog (PX)

Quads Containing Listed, Proposed or Candidate Species:

MONTARA MOUNTAIN (448C)

SAN MATEO (448D)

County Lists

No county species lists requested.

Key:(E) *Endangered* - Listed as being in danger of extinction.(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.

- (P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened. (NMFS) Species under the Jurisdiction of the [National Oceanic & Atmospheric Administration Fisheries Service](#). Consult with them directly about these species.
- Critical Habitat* - Area essential to the conservation of a species.
- (PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.
- (C) *Candidate* - Candidate to become a proposed species.
- (V) *Vacated* by a court order. Not currently in effect. Being reviewed by the Service.
- (X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online [Inventory of Rare and Endangered Plants](#).

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our [Protocol](#) and [Recovery Permits](#) pages.

For plant surveys, we recommend using the [Guidelines for Conducting and Reporting Botanical Inventories](#). The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal [consultation](#) with the Service.

During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed

and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our [Map Room](#) page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. [More info](#)

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be November 17, 2010.

Correspondence on Section 4(f) Facilities



The City of Burlingame

PUBLIC WORKS DEPARTMENT
Tel:(650) 558-7230
Fax:(650) 685-9310

CITY HALL - 501 PRIMROSE ROAD
BURLINGAME, CALIFORNIA 94010-3997
Website: www.burlingame.org

CORPORATION YARD
Tel:(650) 558-7670

November 3, 2010

James McKim – Project Manager
San Mateo County Transportation Authority
1250 San Carlos
P.O. Box 3006
San Carlos, CA 94070

Dear Mr. McKim:

Please find enclosed a signed original Concurrence of *De Minimis* Impacts on Section 4(f) Facilities for the US 101/Broadway Interchange Reconstruction Project. Please let us know if additional copies or other actions are necessary.

Thank you for all your efforts on this project and we look forward to working with you further in this and other productive future projects.

Sincerely,

Augustine Chou
Transportation Engineer



SAN MATEO COUNTY
**Transportation
Authority**

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Dept. of Public Works
City of Burlingame

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October 20, 2010

Syed Murtuza
Director of Public Works
City of Burlingame
501 Primrose Road
Burlingame, CA 94010

Subject: US 101/Broadway Interchange Reconstruction Project –
Concurrence of *De Minimis* Impacts on Section 4(f) Facilities

Dear Mr. Murtuza,

The San Mateo County Transportation Authority (TA) and the California Department of Transportation (Caltrans) are requesting the City of Burlingame's concurrence that the proposed US 101/Broadway Interchange Reconstruction Project will have *de minimis* (minimal) impacts on city-owned recreational facilities in and adjacent to the project area. This concurrence is necessary for Caltrans, the National Environmental Policy Act lead agency pursuant to 23 United States Code 327, to document that the project, with avoidance, minimization, or enhancement measures incorporated, would not adversely affect the activities, features, and attributes that qualify the properties for protection under Section 4(f) of the Department of Transportation Act.

The TA is the sponsor of the proposed project, which would construct a new seven-lane Broadway overcrossing approximately 170 feet to the north of the existing four-lane structure. The northern end of Airport Boulevard would also be shifted approximately 100 feet to the north to meet the new eastern landing of the overcrossing and maintain a four-leg intersection with Broadway, Bayshore Highway, and the access road for the Crowne Plaza Hotel. This will require temporarily detouring and permanently realigning a segment of the Bay Trail along Airport Boulevard as well as potential short-term closures of the trail, an adjacent cul-de-sac ("Bay Trail turnaround"), and a trailside seating area ("Bay Trail extension"), which are shown in Attachment A. Two recreational facilities outside of the project limits, Bayside Park and the Burlingame Lagoon, could also be exposed to periodic construction noise. For the reasons detailed below, project-related effects on these properties will not adversely affect the activities, features, and attributes that qualify them for protection under Section 4(f).

Project-Related Changes to Section 4(f) Facilities

Temporary

Temporary closures or detours of a segment of the Bay Trail would be required to preserve public safety while construction takes place along Airport Boulevard, east of Bayshore Highway. Once the realignment of Airport Boulevard is completed, the trail can likely be

SAN MATEO COUNTY TRANSPORTATION AUTHORITY

1250 San Carlos Ave. – P.O. Box 3006
San Carlos, CA 94070-1306 (650)508-6219

reopened. The length of the trail closure(s) would therefore be shorter in duration than the overall project schedule. Any detour routes onto Airport Boulevard would be separated from traffic by a temporary barrier (such as a K-rail) to ensure the safety of trail users. The Bay Trail turnaround and extension would also need to be temporarily closed during construction along Airport Boulevard.

Demolition of the gas station at the corner of Airport Boulevard and Bayshore Highway, demolition of the Broadway overcrossing and ramps, pile installation for the new overcrossing and retaining walls, realignment of Airport Boulevard, and pavement removal and installation would cause periodic noise and visual disturbance to recreationists. These effects would be most pronounced when the activities are in progress near the Bay Trail, Bay Trail turnaround, and Bay Trail extension. As stated above, temporary closures of these facilities would be required during the realignment of Airport Boulevard, which would prevent recreationists from being exposed to noise and visual disturbance during some construction periods.

Outside of the project limits, visitors to Bayside Park could also experience periodic construction noise and visual disturbance. Tall trees around the northern and western perimeter of Bayside Park would provide some visual shielding. The Crowne Plaza Hotel building and a berm to the south of the building would shield recreationists on the Bay Trail segment at the Burlingame Lagoon from most noise and visual disturbance. In addition, many project construction activities would take place at night, when the park is closed.

Permanent

The realignment of Airport Boulevard would require an approximately 150-foot section of the Bay Trail to be shifted to the north. An existing grass median between the Bay Trail and roadway of Airport Boulevard, some shrubs and ornamental landscaping, and pavement would have to be removed to accommodate the realignment of Airport Boulevard and the Bay Trail. Approximately 2,400 square feet of Bay Trail pavement and streetside landscaping would be affected.

The realigned trail section would be 10 feet wide. The realigned trail would conform with the existing trail alignment at the Bay Trail turnaround, which would not be permanently affected. The elevation of Airport Boulevard and the Bay Trail would be gradually increased by approximately 8 feet as they approach Bayshore Highway, and an earth embankment would be installed along the northern side of the road. No Bay fill would be required to support the realigned road or trail section. The realignment of the Bay Trail would not affect its long-term use.

The realignment of Airport Boulevard and the Bay Trail to the north would require permanent acquisition of an approximately 800-square-foot section at the southwestern edge of the Bay Trail extension. The section that would be acquired contains pavement and landscaping and is not critical to the recreational use of the Bay Trail extension. The existing seating area would remain in place and would continue to provide views of the Bay. The project would add a paved path from the southeastern corner of Broadway, Bayshore Highway, Airport Boulevard, and the Crowne Plaza Hotel access road within the existing

right-of-way to an existing path into the northwestern corner of Bayside Park. The paved path would improve bicycle and pedestrian access to Bayside Park. The project would have no permanent adverse impacts to Bayside Park or the Burlingame Lagoon.

Avoidance, Minimization, and/or Enhancement Measures

Parts of the Bay Trail and Bay Trail extension in the project limits would need to be temporarily closed or detoured during construction. The Department and SMCTA will develop a trail closure plan during the final design phase and before submitting the Bay Conservation and Development Commission (BCDC) permit application for the proposed project. The trail closure plan will:

- Minimize the number of days that the Bay Trail and Bay Trail extension will be closed to the public;
- Include a mandatory signage plan notifying Bay Trail users of closed segments or full closures. Notices will be posted at Bay Trail access points as appropriate; and
- Provide a detour or alternate route for trail users during construction. If safety concerns prevent use of another route, the trail closure will be kept to the minimum period possible.

A Transportation Management Plan will also be developed as part of the project to address impacts to motor vehicle, bicycle, and pedestrian access during project construction. The plan will maintain bicycle and pedestrian access to the maximum extent feasible as part of construction staging. The plan will include briefing local public officials and developing a public information program to notify the public of project progress and upcoming closures and detours. The public information program will include outreach to ride sharing agencies, transit operators, and neighborhood and special interest groups.

Concurrence Request

We are requesting the City of Burlingame's concurrence with the above findings and signature on this letter to indicate the same. This concurrence is necessary to proceed with the review and approval of the environmental document for the project. If you require any additional information on this matter, please contact Lynn McIntyre at URS, TA's subconsultant, at 510.874.3149. We appreciate your involvement and assistance on this project.

Sincerely,

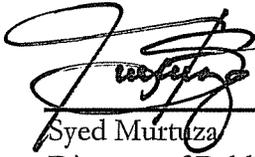


James W. McKim
Project Manager
San Mateo County Transportation Authority

October 20, 2010
Mr. Syed Murtuza
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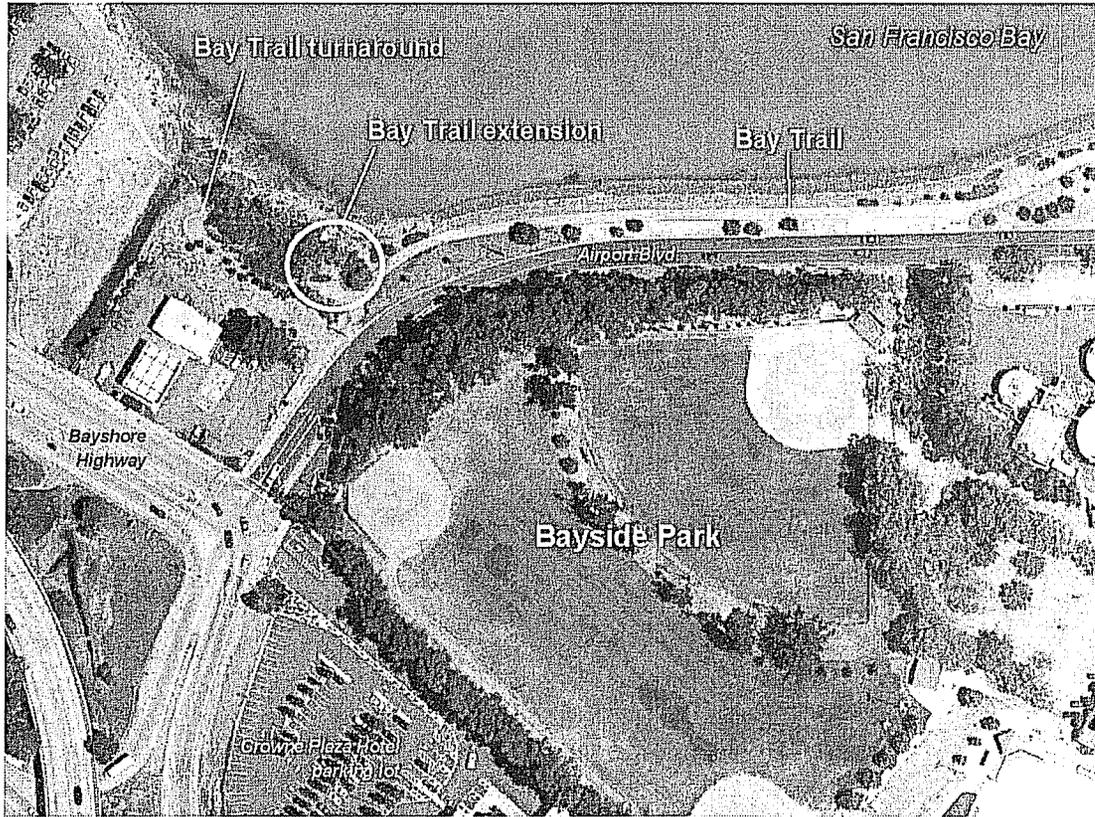
cc: Thomas Rosevear, Caltrans
Ed Pang, Caltrans

This signature constitutes concurrence with the finding of *de minimis* impact described in this letter. As stated above, the City of Burlingame has jurisdiction over the Bay Trail (and associated Bay Trail turnaround and extension), Bayside Park, and the Burlingame Lagoon, all of which are Section 4(f) properties. We agree with the assessment of project impacts on these facilities and with the proposed avoidance, minimization, and/or enhancement measures. The project will not adversely affect the activities, features, and attributes that qualify the facilities for protection under Section 4(f).



Syed Murtuza
Director of Public Works
City of Burlingame

Attachment A
Section 4(f) Resources Near the Project Limits



Source: Base photo from Google Earth

**National Oceanic and Atmospheric Administration's National Marine Fisheries
Service Consultation**

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
111 GRAND AVENUE
P.O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5900
FAX (510) 286-6301
TTY 711



*Flex your power!
Be energy efficient!*

August 23, 2010

Mr. Rod McInnis
Regional Administrator
National Marine Fisheries Service
Southwest Regional Office
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4221

Subject: Informal Consultation for Effects to Southern DPS North American Green Sturgeon, Critical Habitat for Southern DPS North American Green Sturgeon, and Essential Fish Habitat from the Caltrans US 101/Broadway Interchange Reconstruction Project (EA 235840)

Dear Mr. McInnis,

The California Department of Transportation (Caltrans) is requesting informal consultation with the National Marine Fisheries Service (NOAA Fisheries) under Section 7 of the Federal Endangered Species Act (FESA). Based on a background review, Caltrans has determined that southern Distinct Population Segment (DPS) North American green sturgeon (*Acipenser medirostris*; hereafter southern DPS green sturgeon, or green sturgeon) may be present in the action area. A portion of the action area is designated critical habitat for this species, and Essential Fish Habitat (EFH) is present. Caltrans is submitting this letter for your review and concurrence of the proposed action and the corresponding effects determinations.

This letter describes the proposed action, environmental setting, and potential effects of the proposed action on the southern DPS green sturgeon, its designated critical habitat, and designated EFH. The proposed action *may affect, but is not likely to adversely affect* the southern DPS green sturgeon, and *may affect, but is not likely to adversely modify or destroy* designated critical habitat for the southern DPS green sturgeon. The proposed action *may affect, but is not likely to adversely affect* EFH for various species within the Pacific Groundfish and Coastal Pelagic fisheries management plans (FMPs).

1. Project Description

Overview. The proposed action will reconstruct the United States Highway 101 (US 101)/Broadway interchange in the City of Burlingame, San Mateo County, California (Figure 1). The action will replace the Broadway overcrossing with a wider structure, reconfigure all northbound and southbound ramp connections to US 101, and install ramp meters on northbound and southbound on-ramps (Figure 2). The total length of the action area is 0.76 mile (from Post Mile 16.30 to 17.06).

"Caltrans improves mobility across California"

The proposed action will construct a new seven-lane Broadway overcrossing approximately 170 feet (ft) to the north of the existing four-lane structure. Broadway will be realigned to extend straight across US 101 from the Broadway/Rollins Road intersection on the west to the Bayshore Highway/Airport Boulevard intersection on the east, eliminating the existing curvilinear alignment. The northern terminus of Airport Boulevard will be moved approximately 100 ft to the north to meet the new eastern landing of the overcrossing and maintain a four-leg intersection with Broadway, Bayshore Highway, and the access road for the Crowne Plaza Hotel. The proposed action is anticipated to take 2 to 2.5 years to construct.

Surface Waters. Surface water in the action area consists of Easton Creek, Sanchez Creek, and an unnamed channel between Bayshore Highway and San Francisco Bay (the bay) near Airport Boulevard (Figure 2).

The 6 ft x 6-ft double box culvert at Easton Creek on the east side of US 101 will be extended by approximately 42 ft to accommodate the construction of the new northbound US 101 on-ramp. The culvert extension has not yet been designed, but construction typically involves temporary use of one or more cofferdams in the creek channel to allow dewatering of a portion of the creek during culvert installation. A temporary creek diversion system will be installed before any other work in the creek commences. The creek bottom will be dewatered at low tide in the portion of the creek isolated by the cofferdam(s). A temporary creek diversion bypass will be installed to allow creek flow over or around the dewatered portion of the creek, either by gravity flow or pumping. The construction contract will require the contractor to prevent any leakage in the temporary diversion system and to cover the inlet of the diversion pipe with 1/4-inch to 5/8-inch mesh screen material during all dewatering. On completion of the culvert extension, the cofferdam(s) and creek diversion bypass will be removed, and the creek will be returned to preconstruction conditions. Neither the existing culvert nor the proposed extension will interfere with fish passage. No other changes will be made to Easton Creek or the culvert on the west side of US 101.

Sanchez Creek crosses US 101 in a triple box culvert south of the proposed interchange and flows into the Burlingame Lagoon. The proposed action will not modify the Sanchez Creek culvert and no work will take place in Sanchez Creek or the lagoon. Construction activities near Sanchez Creek and the Burlingame Lagoon will be limited to pavement restriping within the existing paved roadway. A third waterway, Mills Creek, is to the north and outside of the project limits and will not be affected by construction (Figure 2). The Burlingame Lagoon and Mills Creek will be designated as environmentally sensitive area (ESAs), and contractor access will be prohibited.

An unnamed drainage channel lies just east of the project footprint between Bayshore Highway and the bay near Airport Boulevard (Figure 2). The channel occupies a drainage easement between a vacant lot and a gas station. Roadway and roadside runoff from around the eastern landing of the Broadway overcrossing and Bayshore Highway flows into the drainage channel by way of 18- and 24-inch culvert pipes under Bayshore Highway. The

culvert outfall is flush with the bottom of the channel and routinely becomes clogged with sediment, restricting flows from draining into the channel. A low berm across the channel approximately 200 feet to the east of the outfall restricts the channel from draining into the bay. Together, the clogged culvert and the berm cause localized flooding around the eastern landing of the Broadway overcrossing.

The proposed action will implement one or more drainage modifications to eliminate the flooding around the eastern landing. One option is to restore the conveyance capacity of the unnamed drainage channel by cleaning the culvert pipe draining to the channel to determine if it has sufficient capacity to convey runoff. This option could also involve removing sediments from the channel to increase its capacity and removing the berm across the channel to allow flows to drain to the bay. Another option is to install a new storm drainage system to collect runoff from the eastern landing area of the Broadway overcrossing and Bayshore Highway and to convey the runoff by gravity flow to an existing outfall at Easton Creek. The drainage modifications required to address the flooding will be developed during final design.

If the proposed action restores the conveyance capacity of the unnamed drainage channel, sediment removal will take place after upstream culvert work is complete. If the berm separating the unnamed drainage channel from San Francisco Bay is removed, it will be removed after completion of the culvert work (including sediment removal, if necessary) and during low tide. All temporarily affected areas will be restored to approximately the original site conditions upon completion of work. Native salt marsh vegetation along the unnamed drainage channel will be removed and restored. Options for restoration may include preserving the native plants in a nursery and replanting them after construction is complete, or replanting using plugs from the surrounding remaining vegetation. The specific method and design of channel improvements and replanting options will be further defined during final design and will include coordination with appropriate agency staff.

Other Proposed Activities. Details of the other project components are as follows.

Overcrossing Construction. Construction of the new overcrossing will require the installation of abutments on both ends of the structure and a support column in the US 101 median. Approximately 250 piles will be driven to permanently support the abutments and column. As groundwater has been encountered at a depth of approximately 4 ft in the project vicinity, dewatering at the abutment footings is anticipated. Tanker trucks will collect all extracted liquid and dispose of it at an appropriate off-site facility. The pile driving activities will be conducted at least 400 ft from any waterway.

The new overcrossing's profile will be more than 2 ft higher than the existing structure to meet the current standard for vertical clearance. The southbound off- and on-ramps west of US 101 and Airport Boulevard, Bayshore Highway, and the Crowne Plaza Hotel access road east of US 101 will also be raised as they approach the Broadway overcrossing. Imported fill will be used for all project-related grade changes.

Freeway On-Ramp and Off-Ramp Changes. On the west side of US 101, the existing partial cloverleaf interchange with collector-distributor roads will be removed and replaced with a partial diamond interchange. The intersection of the southbound off- and on-ramps with Broadway will be elevated by up to 25 ft above the existing grade. Approximately 60 to 120 piles will be driven to permanently support the southbound off- and on-ramps.

On the east side of the interchange, the existing trumpet-configuration ramps will be replaced with a partial buttonhook interchange. The two-lane northbound US 101 off-ramp will pass under the new overcrossing and curve west to form a T-intersection at Bayshore Highway. Bayshore Highway will be widened from four to eight lanes between the new overcrossing and the northbound US 101 ramps.

Pedestrian and Bicycle Facilities. Both ends of the pedestrian overcrossing located approximately 100 ft south of the existing Broadway overcrossing will be reconfigured to meet the increased profile grades of Rollins Road to the west and Bayshore Highway and the Crowne Plaza Hotel access road to the east. The new Broadway overcrossing will have a 10-ft sidewalk on the north side and striped bike lanes on both sides. The proposed action will also provide new striped bike lanes on Airport Boulevard and Bayshore Highway and unstriped bikeways on Broadway west of the overcrossing and Rollins Road.

Ramp Metering Systems. Ramp meter signals and equipment will be installed at both the northbound and southbound US 101 on-ramps.

Utilities. To meet Caltrans freeway design standards, utilities within the proposed action's state right-of-way will be relocated unless longitudinal encroachment variances are approved. A number of utilities are anticipated to be affected, including Pacific Gas and Electric Company (PG&E) electric cables and gas lines; Comcast and Sprint communication lines; and City of Burlingame sanitary sewer, storm sewer, and water lines. All potentially relocated utilities are within the action area.

Retaining Walls and Concrete Barriers. Retaining walls will be constructed in several locations in the action area to minimize right-of-way impacts to existing businesses and to support the ramp approaches and roadway embankments. Approximately 375 piles will be driven to permanently support retaining walls adjacent to the Broadway overcrossing and southbound off- and on-ramps. Dewatering at retaining wall footings is anticipated, and tanker trucks will collect all extracted liquid and dispose of it at an appropriate off-site facility.

Retaining walls will also be constructed along the Crowne Plaza Hotel access road, Bayshore Highway, and Rollins Road. These retaining walls will be supported on spread footings and will not require pile driving.

Concrete safety barriers will be constructed on the east side of US 101 along the proposed northbound off-ramp and also along the east side of the proposed northbound on-ramp.

Best Management Practices. The Caltrans Standard Specifications require the Contractor to submit a storm water pollution prevention plan (SWPPP). This plan must meet the standards and objectives to minimize storm water pollution impacts set forth in Section 7-1.01G of the Caltrans Standard Specifications. The SWPPP must also comply with the goals and restrictions identified in the Regional Water Quality Control Board's (RWQCB's) Basin Plan. Any additional measures included in the Clean Water Act (CWA) Section 401 certification, California Department of Fish and Game (CDFG) Section 1602 Agreement, or CWA Section 404 permit will be implemented. The contractor will also comply with the following standards/objectives, at times referred to as best management practices (BMPs), including but not limited to the following:

- Where work areas encroach on live or dry streams, lakes, or wetlands, RWQCB-approved physical barriers adequate to prevent the flow or discharge of sediment into these systems will be constructed and maintained between working areas and streams, lakes, and wetlands. Discharge of sediment into streams will be held to a minimum during construction of the barriers. Discharge will be contained through the use of RWQCB-approved measures that will keep sediment from entering jurisdictional waters and waters of the State.
- All off-road construction equipment will be cleaned of potential noxious weed sources (mud and vegetation) before entering the action area and after entering a potentially infested area before moving on to another area. The contractor will employ whatever cleaning methods (typically spraying with a high-pressure water hose) are necessary to ensure that equipment is free of noxious weeds.
- Equipment will be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment components or specialized inspection tools is not required. Equipment washing stations will be placed in areas that afford easy containment and monitoring (preferably outside of the action area) and that do not drain into sensitive (riparian, wetland, etc.) areas.

2. General Avoidance and Minimization Measures

The general avoidance and minimization measures listed below will be implemented as part of construction activities to minimize and/or avoid impacts to sensitive species and habitat as well as to common biological resources.

- Construction Work, Access, and Staging Areas. All proposed construction will be limited to the existing and proposed right-of-way. ESAs will be identified on contract plans and discussed in the Special Provisions. The ESAs will include areas designated in the environmental document and biological reports that support wetlands, waters, and/or habitats that potentially support listed species, and have been specifically identified to avoid during construction. ESA provisions may include, but are not limited to, the use of temporary orange fencing to delineate the proposed limit of work in areas adjacent to sensitive resources, or to delineate and exclude sensitive resources from potential construction impacts. Contractor encroachment into ESAs

will be prohibited (including the staging/operation of heavy equipment or casting of excavation materials). ESA provisions will be implemented as a first order of work and remain in place until all construction is completed.

- Work in waterways. One or more temporary cofferdam(s) will be required to install the Easton Creek culvert extension. Only clean gravel or sand fill will be used for construction of the cofferdams. The inlet of the diversion pump will be screened with 1/4-inch to 5/8-inch mesh screen material during all dewatering. If sediment removal in the unnamed drainage channel is required, work will take place after upstream culvert work is complete. If the berm separating the unnamed drainage channel from the bay is removed, it will be removed after completion of the culvert work (including sediment removal, if necessary) and during low tide.
- Construction discharges. No debris, soil, silt, sand, bark, slash, sawdust, cement, concrete, washings, petroleum products or other organic or earthen material shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the United States, waters of the State or other drainages. No discharges of excessively turbid water will be allowed, and all equipment will be well-maintained and free of leaks.
- Onsite Construction Personnel Education Program. Before the onset of construction and within 5 days of any new worker arrival, a qualified biologist will conduct an education program for all construction personnel. The training will include a description of sensitive species and their habitats; the potential occurrence of these species within the action area; an explanation of the status of these species and protection under the FESA, CESA, and all other federal, state, and local regulatory requirements; the measures to be implemented to conserve listed species and their habitats as they relate to the work site; and boundaries within which construction may occur. Construction personnel will also be informed about the importance of maintaining ESAs. A fact sheet conveying this information will be prepared and distributed to all construction crews and project personnel entering the action area. Upon completion of the program, personnel will sign a form stating that they attended the program and understand all of the avoidance and minimization measures and implications of the FESA, CESA and all other federal, state, and local regulatory requirements.
- Erosion control. Temporary erosion control and slope stabilization BMPs will be installed between April 16 and October 14, before the start of the wet season (October 15 through April 15). Erosion control measures may include silt fencing, straw wattles, coir blankets, sediment traps, and other protective measures to minimize the potential for erosion of sediment beyond the work area or degradation of water quality in adjacent aquatic habitats.
- Restoration/revegetation. Upon construction completion, the slopes at the foot of each end of the overcrossing will be regraded and revegetated with regionally appropriate native species or non-persistent hybrids, per recommendation of a Landscape Architect. A post-construction monitoring plan will be developed during final design, and re-establishment of vegetation and control of nonnative invasive species will be periodically monitored consistent with the plan.

The segment of Sanchez Creek from the eastern edge of US 101 (in the action area) to approximately Carolan Avenue (upstream of the action area) is in a 900-ft-long underground culvert. In the action area, Easton Creek is in an underground culvert beneath US 101 and a straightened, open concrete-lined channel east of US 101. West of US 101, outside of the action area, the creek is in a straightened, open channel with hardened banks. The City of Burlingame annually removes sediment and debris and clears vegetation in both Easton and Sanchez Creeks to maintain their drainage capacity.

Both sides of US 101 in the action area contain roadside ditches that are connected through culverts to Easton, Sanchez, and Mills Creeks. (Mills Creek is just north of, and outside of, the action area; see Figure 2.) These culverts and drainages were designed to drain runoff from the roadway and roadsides but also convey fluctuating tidal flows west from the bay. Almost all of the roadside ditches with connectivity to these creeks exhibit estuarine hydrology.

The unnamed drainage channel receives roadway and roadside runoff from around the eastern landing of the Broadway overcrossing through a culvert under Bayshore Highway. The culvert outfall directs flows into the channel (a perennial salt marsh wetland) and then toward the bay; however, a low berm across the channel approximately 200 ft to the east of the outfall prevents the channel from draining into the bay. Bay waters wash over the berm during high tides (primarily during the wet season) and storm events.

5. Potential for Presence of Green Sturgeon

Juvenile and subadult green sturgeon are present throughout the Sacramento River Delta and San Francisco Bay (Calfish 2009). No current or historic spawning locations for green sturgeon are known in the southern San Francisco Bay drainages; however, the southern bay contains migrant green sturgeon throughout the year in both the seawater and mixing zones (Miller and Kaplan 2001). During the spring months, sport fishermen catch sturgeon—most often white—from the Dumbarton Public Fishing Pier on the east side of the bay. The CDFG estimates that one-fifth of the sturgeon landed in the estuary are green sturgeon and that the rest are white sturgeon (Moyle 2002).

Easton and Sanchez Creeks in the action area are directly connected to green sturgeon habitat in greater San Francisco Bay. As described in Section 4, these creek segments are in engineered underground or open concrete culverts that receive urban runoff, undergo annual sediment/debris removal, and contain little or no water during low tides. As a result, potential foraging habitat for green sturgeon within these creek segments is considered marginal.

Because green sturgeon are highly mobile, migratory, found throughout the bay, and capable of foraging in shallow water, it is possible that an occasional juvenile or subadult green sturgeon could venture into Easton and Sanchez Creeks. As Sanchez Creek in and upstream of the action area is in a 900-ft-long underground culvert, any green sturgeon that enter the creek via the Burlingame Lagoon will remain downstream of the action area.

Green sturgeon will not have access to the unnamed drainage channel described in Section 1.

6. Green Sturgeon Critical Habitat

On October 9, 2009, NOAA Fisheries issued a final rule to designate critical habitat for the southern DPS of North American green sturgeon (74 Federal Register 52299–52351). Under this rule, the entire San Francisco Bay below mean higher high water is designated as critical habitat. Designated critical habitat includes spawning and rearing areas in freshwater and rearing habitats in coastal marine waters and bays and estuaries. All tidally influenced waters of San Francisco Bay and the tidally influenced reaches of specified tributaries are included in this designation. This includes the sections of Easton and Sanchez Creeks within the action area, which are below mean higher high water of the bay and are tidally influenced (NOAA Fisheries 2009). The unnamed drainage channel between Bayshore Highway and the bay is not within designated critical habitat.

As described in Sections 4 and 5, Easton and Sanchez Creeks are in engineered underground or open concrete culverts that receive urban runoff, undergo annual sediment/debris removal, and contain little or no water during low tides. Therefore, the value that these drainages contribute to critical habitat is very low and limited to marginal foraging habitat.

Although the unnamed drainage channel does not contain critical habitat, the feature is immediately adjacent to the bay (Figure 2), which is designated as critical habitat. If the proposed action restores the conveyance capacity of the channel (see Section 1), sediment and berm removal and related activities have the potential to introduce sediment or other materials into the bay.

7. Conservation Measures for Green Sturgeon

The project design incorporates cofferdam installation requirements, Caltrans BMPs for storm water pollution prevention, and the general avoidance and minimization measures listed in Section 2, which will reduce potential effects to this species. In addition, the following conservation measures are proposed to further avoid and minimize effects:

- All in-stream work in Easton Creek and the unnamed drainage channel will take place during the dry season (April 15 through October 15) to minimize effects on creek flows and reduce the potential for sedimentation.
- The cofferdams required for work at Easton Creek will be installed during low tide, when green sturgeon will not be present. This will also prevent green sturgeon from being trapped above the cofferdams.
- Only clean gravel or sand fill will be used for construction of the cofferdams.
- A NOAA Fisheries-qualified biological monitor will be present during installation and removal of the cofferdams to ensure that impacts to Easton Creek and downstream waters are minimized.
- If work in the unnamed drainage channel is necessary, all construction activities will

take place during low tide.

8. Discussion of Effects to Green Sturgeon and Its Designated Critical Habitat

The following discusses the potential direct and indirect effects of the proposed action on green sturgeon and its designated critical habitat.

Direct Effects on the Species. The proposed action will extend the US 101 culvert over Easton Creek by 42 ft. This concrete box culvert will be constructed in an existing concrete-lined channel. The resulting habitat modification will have an insignificant effect on the creek's potential habitat value for green sturgeon. When completed, the culvert extension will not affect the species' ability to pass through the action area.

Installation of the cofferdams will temporarily prevent green sturgeon from moving upstream of the construction area. The portion of Easton Creek in the action area, both upstream and downstream of the culvert extension, is a straightened channel with hardened banks that provides little habitat value for this species. As a result, this temporary exclusion will not prevent the species from using foraging or rearing habitat upstream of the temporary cofferdams, and will have a discountable effect on habitat availability.

The proposed action may cause a temporary and localized increase in water turbidity during installation and removal of the cofferdams in Easton Creek. A temporary, localized increase in turbidity could also occur if sediment and berm removal activities are conducted in the unnamed drainage channel. However, green sturgeon commonly encounter increased turbidity during storm runoff events and as a result of wind and wave action. As a result, the effects of increased turbidity on green sturgeon, if the species is present, will be insignificant and discountable.

With implementation of the general avoidance and minimization measures listed in Section 2 and the conservation measures listed in Section 7, the proposed action will not have an adverse effect on green sturgeon.

Direct Effects on Critical Habitat. The extension of the Easton Creek culvert by 42 ft will take place in designated critical habitat for the green sturgeon. The culvert extension will have a permanent effect on approximately 0.02 ac of critical habitat. This effect is anticipated to be minor because the culvert extension will take place in an existing concrete-lined channel segment that lacks the primary constituent elements for green sturgeon. Impacts to critical habitat from extending the Easton Creek culvert are not expected to affect the survival or recovery of the southern DPS green sturgeon. No adverse modification or beneficial effects to this species or its designated critical habitat are anticipated as a result of the proposed action.

Indirect Effects. The temporary and localized increases in turbidity discussed above may also affect designated critical habitat in Easton Creek and in San Francisco Bay downstream of the unnamed drainage channel. The estuarine component of the designated critical habitat often

experiences increased turbidity. Additionally, implementation of the proposed avoidance, minimization, and conservation measures, in concert with the SWPPP, CWA Section 401 certification, CDFG Section 1602 Agreement, and/or CWA Section 404 permit, will also minimize temporary and localized increases in turbidity. As a result, increased turbidity will have an insignificant effect on the suitability of this critical habitat.

9. Magnuson-Stevens Fisheries Conservation Management Act Determination

The tidally influenced portions of the San Francisco Bay have been identified as EFH for various species within the Pacific Groundfish and Coastal Pelagic FMPs pursuant to the Magnuson-Stevens Fisheries Conservation and Management Act (MSFCMA, also known as the Sustainable Fisheries Act [Public Law 104-297]; NOAA Fisheries 2006). The action area is also within a designated Habitat Area of Particular Concern (HAPC) for various federally managed fish species under the two FMPs.

The MSFCMA requires all federal agencies to consult with the Secretary of Commerce for activities or proposed activities authorized, funded, or undertaken by that agency that may adversely affect EFH of commercially managed marine and anadromous fish species. The EFH provisions of the MSFCMA are designed to protect fisheries habitat from being lost due to disturbance and degradation.

The MSFCMA requires implementation of measures to conserve and enhance EFH. Guidelines from the MSFCMA direct NOAA Fisheries to use a coordinated process to evaluate projects that may affect EFH under Section 305(b) of the MSFCMA with required Section 7 consultation process under the FESA. If NOAA Fisheries determines that a proposed action is not likely to adversely affect species listed under the FESA that are also managed under the MSFCMA, and an informal consultation process is pursued, no EFH conservation recommendations are necessary in most cases (NOAA Fisheries 2001).

Although green sturgeon is not included in the Pacific Groundfish and Coastal Pelagic FMPs, the species has similar habitat requirements to many benthic species managed under the Pacific Groundfish FMP. As a result, the avoidance and minimization measures for green sturgeon would also minimize effects to EFH.

10. Summary of Determination

Green sturgeon has a low potential to occur in the action area. The segments of Easton and Sanchez Creeks in the action area are in engineered underground or open concrete culverts that receive urban runoff, undergo annual sediment/debris removal, and contain little or no water during low tides. As a result, potential foraging habitat for green sturgeon in these creek segments is considered marginal. As Sanchez Creek in and upstream of the action area is in a 900-ft-long underground culvert, any green sturgeon that enter the creek via the Burlingame Lagoon would remain downstream of the action area.

Green sturgeon has no potential to occur in the unnamed drainage channel due to the absence of connectivity to the bay. If the berm that separates the channel from the bay is removed as



URS Corp - Oakland, CA - B. Jacobson - US212-ans2-MapAreaProjectUS101 - Broadway, SMTA - 2646058/MapAreaProjectUS101 - Project - 10/1/2010 @ 2:35:12 PM

USGS 30x60-minute topographic quadrangle,
 San Francisco and Palo Alto, CA

US 101/BROADWAY INTERCHANGE
 RECONSTRUCTION PROJECT
 BURLINGAME, CA
 EA 235840

Figure 1
PROJECT VICINITY



Figure 2
 PROJECT FOOTPRINT AND
 BIOLOGICAL STUDY AREA

US 101/BROADWAY INTERCHANGE
 RECONSTRUCTION PROJECT
 BURLINGAME, CA
 EA 235840

Legend:
 Route stationing
 Proposed project structures
 Edge of paved roadway
 Biological Study Area
 Existing Broadway overcrossing, ramps,
 and areas of proposed pavement removal
 Proposed embankments supported by fill,
 over existing paved area
 Proposed embankments supported by fill,
 over existing unpaved area
 Creeks
 Surfaced
 Culverted

Scale: 0 200 400 FEET
 Source: San Mateo County, 2005



Figure 3
 IMPACTS TO THE PROPOSED
 ACTION AREA

US 101/BROADWAY INTERCHANGE
 RECONSTRUCTION PROJECT
 BURLINGAME, CA
 BR-03894

San Francisco Bay
 Bayram Creek
 Callrain Tracks
 Ravon Creek
 Carolan Ave
 Sanchoet Creek
 Broadway
 Rollins Rd
 Merston Rd
 Bayshore Hwy
 Burway Rd
 Mills Creek
 Highway 101
 Existing utility access to remain
 Existing Pedestrian Overcrossing
 Brodway Overcrossing
 Seasonal cattail vegetation
 Northern Project Limit: PM 17.06
 Southern Project Limit: PM 16.30

- Route stationing
- Permanent impacts
- Temporary impacts
- Biological Study Area
- Vegetation
 - Estuarine
 - Intermittent Ditch
 - Landscaped/riparian
 - Saltmarsh vegetation
 - Seasonal cattail wetland
- Creeks
 - Surfroad
 - Culverted



Imagery source: San Mateo County, 2005

Mr. David Walsh
August 23, 2010
Page 15 of 15

Appendix A:
Email correspondence between David Woodbury and consulting biologist Galen Peracca

Appendix A: Email correspondence between David Woodbury and consulting biologist Galen Peracca - Page 1 of 3



David Woodbury
<David.P.Woodbury@noaa.gov>
11/25/2009 11:41 AM

To Galen_Peracca@URSCorp.com
cc
bcc
Subject Re: green sturgeon coordinates

Galen,

Thanks for the info. I was looking at it as a potential partial barrier. From the image I was looking at, it appeared as if people were able to cross at the mouth, but it sounds like that is not the case.

David

Galen_Peracca@URSCorp.com wrote:

>
> Hmm. the mouth of Easton Creek is totally open to the bay currently,
> and although it is a rather shallow opening (muds and silts wash in
> and out as tidally influenced Bay Water moved west up the creek and
> freshwater precip and runoff run east into the Bay) it definitely
> conveys a substantial amount of water. for instance the creek
> inundates the culverts under Bayshore Ave (closest road over the
> creek, west of the bay) which puts the water level at about 4-6 feet
> deep, at times. the water level is highly variable, and the creek
> banks have been manipulated (bermed) to prevent flooding. Also,
> although it is concrete lined upstream, the segment between Bayshore
> Ave and the mouth of the Bay has an earthen bottom. Out of curiosity,
> what effect could a shallow water crossing have on your analysis of
> the creek as habitat?

> Galen

>
> Galen Peracca
> Biologist
> URS Corporation
> 1333 Broadway, Ste. 800
> Oakland Ca, 94612
> Direct: 510.874.3174
> Fax: 510.874.3268

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> Inactive hide details for David Woodbury
> <David.P.Woodbury@noaa.gov>David Woodbury <David.P.Woodbury@noaa.gov>

>
>
> *David Woodbury <David.P.Woodbury@noaa.gov>*

Appendix A: Email correspondence between David Woodbury and consulting biologist Galen Peracca - Page 2 of 3

> 11/25/2009 11:12 AM
>
>
>
> To
>
> Galen_Peracca@URSCorp.com
>
> cc
>
> Lynn_McIntyre@URSCorp.com, david_pecora@urscorp.com
>
> Subject
>
> Re: green sturgeon coordinates
>
>
>
> Galen,
>
> I agree with your summary of our conversation.
>
> As for Easton Creek, I looked at the site using TerraServer and it
> appears that this would be considered critical habitat, by definition of
> being tidally influenced. However, there appears to be some sort of
> structure located at the mouth. Based on the bare soil on the adjacent
> banks, it appears that this may be a shallow water crossing?
>
> David
>
>
> Galen_Peracca@URSCorp.com wrote:
> >
> > Hi David,
> > Thanks for the call back. It was really helpful to talk to you today
> > about the green sturgeon and green sturgeon critical habitat in South
> > SF Bay tributaries.
> > The coordinates for the creek I am interested in (re: green sturgeon
> > critical habitat) are:
> >
> > lat: 37.593078 degrees
> > long: -122.363452
> >
> >
> > To confirm, although there is no evidence of green sturgeon using
> > these tidally influenced tributaries to the SF bay, no studies have
> > been conducted to investigate species presence in these areas.
> > Therefore, because the drainages are tidally influenced, green
> > sturgeon can not be assumed to be absent on the basis of inconclusive
> > evidence and marginal habitat. Additionally, in the event that a
> > coffer dam is placed in a creek with some potential for listed fish
> > and/or listed fish habitat, that coffer dam constitutes "exposure" to
> > potential impacts and knocks a determination out of the No Effect
> > category.
> >
> > I look forward to hearing back from you all when your GIS tech. gets
> > back from the holiday. Thanks again for your assistance!
> >
> > Best,

Appendix A: Email correspondence between David Woodbury and consulting biologist Galen Peracca - Page 3 of 3

> > Galen
> >
> >
> >
> >
> > Galen Peracca
> > Biologist
> > URS Corporation
> > 1333 Broadway, Ste. 800
> > Oakland Ca, 94612
> > Direct: 510.874.3174
> > Fax: 510.874.3268
> >
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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE

Southwest Region

501 West Ocean Boulevard, Suite 4200

Long Beach, California 90802-4213

December 7, 2010

In response, refer to:
2010/05370

James Richards
Caltrans District 4
Office of Environmental Analysis
111 Grand Avenue
Oakland, California 94610

Dear Mr. Richards:

Thank you for your letter of August 31, 2010, requesting initiation of consultation with NOAA's National Marine Fisheries Service (NMFS) pursuant to section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Effective July 1, 2007, the Federal Highway Administration assigned, and the California Department of Transportation (Caltrans) has assumed all responsibilities for consultation and approval on most highway projects in California. Therefore, Caltrans is now considered the Federal action agency for ESA consultations with NMFS for Federally funded projects. This letter also serves as consultation under the authority of, and in accordance with, the Essential Fish Habitat (EFH) provisions of the Magnuson Stevens Fishery Conservation and Management Act (MSA), and the provisions of the Fish and Wildlife Coordination Act of 1934 (FWCA), as amended. These consultations pertain to Caltrans' proposed U.S. 101/Broadway Interchange Reconstruction Project in San Mateo County, California.

The U.S. 101/Broadway Interchange Reconstruction Project site is located from Post Mile 16.30 to 17.06 along U.S. 101 in the City of Burlingame, San Mateo County, California, and adjacent to the western shore of the San Francisco Bay (the bay). Surface water in the action area consists of Easton Creek, Sanchez Creek, and an unnamed drainage channel between Bayshore Highway and the bay. The purpose of the project is to replace the existing four-lane Broadway overcrossing with a seven-lane overcrossing, reconfigure all northbound and southbound ramp connections to U.S. 101, and install ramp meters on northbound and southbound on-ramps. The following activities are proposed to occur in and around surface waters as part of the reconstruction: (1) extension of the 6 feet (ft) x 6 ft double box culvert at Easton Creek on the east side of U.S. 101 by approximately 42 ft; (2) potential drainage modifications to the unnamed channel; and (3) potential restoration and re-vegetation along the unnamed drainage channel. All proposed in-stream work will occur during the dry season (April 15 through October 15).



Sanchez Creek crosses U.S. 101 in a triple box culvert south of the proposed interchange and flows into the Burlingame Lagoon. The proposed action will not modify the Sanchez Creek culvert and no work will take place in Sanchez Creek or the lagoon.

The proposed action will implement one or more drainage modifications to eliminate flooding of culvert pipes under Bayshore Highway. One option is to restore the conveyance capacity of the unnamed drainage channel by cleaning the culverts that drain into the channel. This could also involve removing sediments from the channel, and removing the berm at the connection of the channel to the bay. If the proposed action restores the conveyance capacity of the unnamed drainage, sediment and/or berm removal will take place after upstream culvert work is complete. Proposed berm removal will also occur during a low tide. Another option is to install a new storm drainage system to collect runoff from the eastern landing of the Broadway overcrossing and Bayshore Highway and convey the drainage by gravity flow to an existing outfall at Easton Creek.

A double box culvert at Easton Creek on the east side of U.S. 101 will be extended by approximately 42 ft to accommodate the construction of the new northbound U.S. 101 on-ramp. Dewatering for construction of the culvert extension will occur during a low tide and may involve the use of one or more cofferdams in the creek channel. A creek diversion bypass will be installed to allow creek flow over or around the dewatered portion of the creek. The inlet of the diversion pipe will be covered with 1/4-inch to 5/8-inch mesh screen material during all dewatering. On completion of the culvert extension, the cofferdam(s) and creek diversion bypass will be removed and the creek will be returned to preconstruction conditions. No other changes will be made to Easton Creek or the culvert on the west side of U.S. 101, other than a potential increase in stormwater runoff depending on the drainage modification selected (see above).

Standard best management practices (BMPs) for the construction site including sediment control and equipment washing will be utilized on this project. All temporarily affected areas in and around the unnamed channel will be restored to approximately the original site conditions upon completion of work. Treatment of stormwater runoff for the proposed project would be implemented to the maximum extent practicable. Treatment BMPs for storm water runoff that are considered feasible include: vegetated swales and buffer strips; and tree well filters. Additionally, work during the rainy season would be limited to the extent practicable to avoid impacts to storm water runoff. Compensatory mitigation at a minimum of 1:1 ratio is required for all permanent wetland impacts. A Compensatory Mitigation Proposal will be submitted to the U.S. Army Corps of Engineers (Corps) prior to construction.

Caltrans has determined that the potential impacts related to the U.S. 101/Broadway Interchange Reconstruction Project are not likely to adversely affect listed species or designated critical habitat, and has asked NMFS for concurrence with this determination.

Endangered Species Act

In its August 23, 2010, letter, Caltrans asked for concurrence with a finding that the project is not likely to adversely affect North American green sturgeon (*Acipenser medirostris*) southern

Distinct Population Segment [DPS] and designated critical habitat. Available information indicates the following DPS and designated critical habitat may occur in the project area.

North American green sturgeon (*Acipenser medirostris*) southern DPS
Threatened (71 FR 17757; April 7, 2006)
Critical Habitat (74 FR 52300; October 9, 2009)

The life history of green sturgeon in California is summarized in Adams *et al.* (2002) and NMFS (2005). The southern DPS of North American green sturgeon spawns in deep turbulent sections of the upper reaches of the Sacramento River. As juvenile green sturgeon age, they migrate downstream and live in the lower delta and bays, spending from three to four years there before entering the ocean. Adult green sturgeon return from the ocean every few years to spawn, and generally show fidelity to their upper Sacramento River spawning sites. Designated critical habitat for North American green sturgeon southern DPS exists in bays and estuaries of the San Francisco Bay, extending to mean higher high water line (MHHW). Easton Creek and Sanchez Creek are connected to the bay during high tide. The unnamed channel has a passage barrier at its outlet to the bay. Juvenile green sturgeon can be present in the bay year round and may forage in accessible tidal reaches of Easton Creek and Sanchez Creek.

Sanchez Creek connects to the bay via the Burlingame Lagoon at the eastern edge of the action area. Upstream of this connection, Sanchez Creek is in a 900-ft-long underground culvert; construction activities will not modify this culvert, Sanchez Creek, or the Burlingame Lagoon. Therefore, it is unlikely that any green sturgeon or designated critical habitat present in Sanchez Creek will be affected by construction activities.

The unnamed channel receives roadside and roadway runoff from a culvert under Bayshore Highway prior to reaching a low berm at the bay's edge. A small perennial salt marsh wetland exists outside of the unnamed channel along the shore of the bay. Bay waters can wash over the berm during high tides (primarily during the wet season) and storm events. Refuse is commonly placed on the crest of the berm for pedestrian crossing. In its current state, the unnamed channel exhibits passage barriers for green sturgeon and, therefore, does not contain designated critical habitat. Proposed modifications of the unnamed channel could allow green sturgeon access during high tides and storm events. Removal of passage barriers are not proposed to occur until upstream work is completed, and, therefore, green sturgeon will not be present in the unnamed channel during construction activities.

Construction activities on Easton Creek will occur between U.S. 101 and the Bayshore Highway in a reach that is confined in a linear concrete channel. This reach of Easton Creek is below MHHW and is, therefore, designated critical habitat for green sturgeon. The proposed culvert extension will occur in a reach of the Easton Creek that is dry during low tides and construction activities will not interfere with fish passage. Therefore, green sturgeon or designated critical habitat are not likely to be affected by the proposed actions in Easton Creek.

Sanchez Creek and Easton Creek are connected by culverts to roadside and roadway drainage ditches within the action area. Lower elevation portions of these ditches can exhibit estuarine hydrology but are dry during low tides when storm runoff is not present. Given the heavily

disturbed urban setting and routine loss of fish passage due to debris and sediment, these ditches are not designated critical habitat for green sturgeon; and the presence of juvenile green sturgeon within these ditches is unlikely during proposed construction activities.

Based on the best available information, NMFS concurs with Caltran's determination that threatened green sturgeon are not likely to be adversely affected by the U.S. 101/Broadway Interchange Reconstruction Project. Regarding designated critical habitat, NMFS has determined the proposed project is not likely to adversely affect designated green sturgeon critical habitat. This concludes informal consultation in accordance with 50 CFR 402.13(a) for the proposed reconstruction of the U.S. 101/Broadway Interchange in San Mateo County, California. However, further consultation may be required if: (1) new information becomes available indicating that listed species or critical habitat may be affected by the project in a manner or to an extent not previously considered; (2) current project plans change in a manner that causes an effect to listed species or critical habitat in a manner not previously considered; or (3) a new species is listed or critical habitat designation that may be affected by the action.

Magnuson-Stevens Fishery Conservation and Management Act

The project area is located within an area identified as EFH for various life stages of fish species managed with the following Fishery Management Plans (FMP) under the MSA:

Pacific Groundfish FMP – starry flounder, English sole and brown rockfish
Coastal Pelagic FMP - northern anchovy, Pacific sardine

The project area is also within an area designated as Habitat Areas of Particular Concern (HAPC) for various federally-managed fish species within the Pacific Groundfish FMP. HAPC are described in the regulations as subsets of EFH that are rare, particularly susceptible to human-induced degradation, especially ecologically important, or located in an environmentally stressed area. Designated HAPC are not afforded any additional regulatory protection under MSA; however, federal projects with potential adverse impacts to HAPC are more carefully scrutinized during the consultation process. As defined in the Pacific Groundfish FMP, San Francisco Bay, including the project area, is within estuary HAPC. Submerged aquatic vegetation (SAV), such as eelgrass, which has been identified near the project site (Merkel 2004), is also designated as HAPC.

NMFS has evaluated the proposed project for potential adverse effects to EFH pursuant to Section 305(b)(2) of the MSA. Under the EFH implementing regulations [50 C.F.R. 600.810(a)], the term "adverse effect" is defined as any impact that reduces quality and/or quantity of EFH and may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce quantity and/or quality of EFH. Potential adverse effects to EFH and HAPC from project activities include: (1) degradation of water quality from increased storm water runoff, (2) reduction of prey organisms from temporary and permanent loss of wetlands, and (3) loss of eelgrass from project related turbidity and degradation of water quality.

Adherence to the proposed BMPs and compensatory mitigation should reduce, though not prevent, impacts from water quality degradation and wetland loss.

Patches of eelgrass have been identified approximately 350 m north east of the project site (Merkel 2004). Eelgrass is important nursery habitat for a number of fishes, and contributes to primary productivity. Eelgrass growth occurs in San Francisco Bay during the summer and fall months, when water clarity is best. Construction activities at Easton Creek or the unnamed drainage channel may overlap with the eelgrass growing season. Water column turbidity associated with construction activities may reduce the amount of light available for photosynthesis and consequently affects the eelgrass growth and overall plant health (Zimmerman *et al.* 1991). Although eelgrass in San Francisco Bay is adapted to growing in low light environments, if the period of irradiance-saturated photosynthesis (H_{sat}) decreases below 5 hours per day, the maintenance of whole plant carbon balance and growth period is negatively affected (Zimmerman *et al.* 1991).

As described in the above effects analysis, NMFS has determined that the proposed project would adversely affect EFH and HAPC for various Federally-managed fish species within the Pacific Groundfish and Coastal Pelagic FMPs. Therefore, pursuant to section 305 (b)(4)(A) of the MSA, NMFS offers the following EFH Conservation Recommendation to avoid, minimize, mitigate, or otherwise offset the adverse effects to EFH:

1. To mitigate for impacts to EFH from the permanent loss of wetlands, NMFS recommends that a copy of the Compensatory Mitigation Plan submitted to the Corps be provided to NMFS prior to construction for review and approval.
2. To avoid the loss of eelgrass from project activities, NMFS recommends that a NMFS approved eelgrass survey be conducted prior to project activities at low tide during peak eelgrass growth (April to October), to determine the presence or absence of eelgrass within 250 m of the outlet of Easton Creek into the bay. If eelgrass is identified within this area:
 - a) The area and density of the eelgrass should be quantified.
 - b) NMFS recommends that two NMFS approved post-project eelgrass surveys be conducted to confirm the continued existence of eelgrass identified during the pre-project survey. The first post-project survey should occur within 30 days of the end of project activities during peak eelgrass growth (April to October). If the project ends outside of peak eelgrass growth, the first post-project survey should occur during April of the next growing season. The second post-project survey should occur at the same time of year, but two years after the first post-project survey.
 - c) If the surveys indicate that a loss of eelgrass has occurred as a result of the project, a NMFS approved eelgrass mitigation plan should be provided within 60 days of completion of the second survey. NMFS Santa Rosa office staff are available to assist in developing this mitigation plan if necessary. The mitigation plan should include success criteria that are approved by NMFS Santa Rosa Office staff.

Please be advised that regulations (50 CFR 600.092) to implement the EFH provisions of the MSA require your office to provide a written response to this letter within 30 days of its receipt and prior to the final action. A preliminary response is acceptable if final response cannot be completed within 30 days. Your final response must include a description of how the EFH Conservation Recommendations will be implemented and any other measures that will be required to avoid, mitigate, or offset the adverse impacts of the activity. If your response is inconsistent with our EFH Conservation Recommendations, you must provide an explanation for not implementing this recommendation at least 10 days prior to final approval of the action.

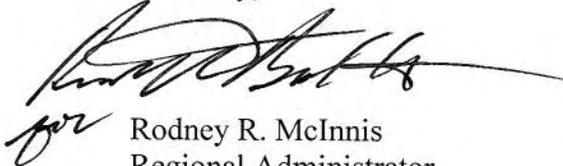
This concludes EFH consultation for Caltrans' proposed U.S. 101/Broadway Interchange Reconstruction Project, San Mateo County, California. Pursuant to 50 CFR 600.920(l) of the EFH regulations, the Corps must reinitiate EFH consultation with NMFS if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH Conservation Recommendations.

Fish and Wildlife Coordination Act

The purpose of the FWCA is to ensure that wildlife conservation receives equal consideration, and is coordinated with other aspects of water resources development [16 U.S.C. 661]. The FWCA establishes a consultation requirement for federal departments and agencies that undertake any action that proposes to modify any stream or other body of water for any purpose, including navigation and drainage [16 U.S.C 662(a)]. Consistent with this consultation requirement, NMFS provides recommendations and comments to federal action agencies for the purpose of conserving fish and wildlife resources. With implementation of the previously-referenced EFH conservation recommendations, NMFS has no further comments to provide.

Please contact Mr. Joseph Heublein at (707) 575-1251, or via e-mail at joe.heublein@noaa.gov should you have any questions.

Sincerely,



Rodney R. McInnis
Regional Administrator

cc: Chris Yates, NMFS, Long Beach
Bob Hoffman, NMFS, Long Beach
Bryant Chesney, NMFS, Long Beach
Laura Ivey, Caltrans District 4
Copy to File ARN: 151422-SWR-2010-SR00470

Literature Cited

- Adams, P.B., C.B. Grimes, J.E. Hightower, S.T. Lindley, and M.L. Moser. 2002. Status Review for North American Green Sturgeon, *Acipenser medirostris*. National Marine Fisheries Service, Southwest Fisheries Science Center. 49 pages.
- NMFS (National Marine Fisheries Service). 2005. Green Sturgeon (*Acipenser medirostris*) Status Review Update. National Marine Fisheries Service, Southwest Fisheries Science Center. 31 pages.
- Merkel and Associates. 2004. Baywide eelgrass (*Zostera marina* L.) inventory of San Francisco Bay. Prepared for Parsons Brinkerhoff Quade & Douglas, California Department of Transportation, and National Marine Fisheries Service.
- Zimmerman, R. C., J. L. Reguzzoni, S. Wyllie-Echeverria, M. Josselyn & R. S. Alberte. 1991. Assessment of environmental suitability for growth of *Zostera marina* L. (eelgrass) in San Francisco Bay. *Aquatic Botany*, 39: 353-366.

DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR

111 GRAND AVENUE

P.O. BOX 23660

OAKLAND, CA 94623-0660

PHONE (510) 622-8729

FAX (510) 286-5600

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*Flex your power!
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December 29, 2010

Mr. Rodney McInnis
Regional Administrator
National Marine Fisheries Service
Southwest Regional Office
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4221

Subject: Consultation for US 101/Broadway Interchange Reconstruction Project, San Mateo County, California— National Marine Fisheries Service File No. 2010/05370

Dear Mr. McInnis,

Thank you for your letter of December 7, 2010, regarding consultation for the above project pursuant to Section 7 of the Endangered Species Act of 1973, as amended; the Magnuson Stevens Fishery Conservation and Management Act, and the Fish and Wildlife Coordination Act of 1934. In the letter, NOAA's National Marine Fisheries Service (NMFS) concurred with the California Department of Transportation's (Caltrans's) determination that the US 101/Broadway Interchange Reconstruction Project (proposed project) is not likely to adversely affect southern Distinct Population Segment (DPS) North American green sturgeon (*Acipenser medirostris*) and is not likely to adversely modify or destroy designated critical habitat for the southern DPS North American green sturgeon.

The December 7, 2010, letter also stated that the proposed project would adversely affect Essential Fish Habitat (EFH) for various species within the Pacific Groundfish and Coastal Pelagic Fisheries Management Plans (FMPs), and that the project area is within a Habitat Area of Particular Concern (HAPC) for the Pacific Groundfish FMP (page 5). Page five in the letter provided an EFH Conservation Recommendation to avoid, minimize, mitigate, or otherwise offset the adverse effects to EFH.

In accordance with 50 Code of Federal Regulations 600.920, the following provides a detailed response to NMFS regarding the action and the EFH Conservation Recommendation presented in the December 7, 2010, letter.

Potential for Adverse Effects from the Proposed Project

According to page 4 of the December 7, 2010, letter: “The potential adverse effects to EFH and HAPC from project activities include: (1) degradation of water quality from increased storm water runoff, (2) reduction of prey organisms from temporary and permanent loss of wetlands, and (3) loss of eelgrass from project related turbidity and degradation of water quality.” As described in detail below, adverse effects to EFH and HAPC would be reduced to minimal levels by the project’s avoidance, minimization, and mitigation measures.

Degradation of water quality from increased storm water runoff. The proposed project would create 1.52 acres of new impervious area (WRECO 2010a). This represents 0.2 percent of the Easton Creek watershed, which is approximately 768 acres (WRECO 2010b). The watershed in the area of the proposed project consists primarily of paved roadways and industrial and commercial parcels.

The proposed project includes measures to avoid and minimize water quality impacts from both construction and operation. Temporary Best Management Practices (BMPs) would be implemented during project construction to comply with the National Pollutant Discharge Elimination System (NPDES) conditions and would meet Caltrans Best Available Technology/Best Conventional Technology for construction projects. Compliance with the NPDES conditions and adherence to City of Burlingame and San Mateo County requirements would reduce or eliminate potentially adverse construction-related effects to water quality. Permanent erosion control BMPs, including vegetated swales/buffer strips and tree well filters, would be incorporated into the project design (URS 2010).

Although the new impervious area could slightly increase the volume and velocity of storm water flow, the measures listed above would avoid or minimize adverse effects to storm water runoff quality. Therefore, no reduction in the quantity or quality of EFH or HAPC is expected.

Reduction of prey organisms from loss of wetlands. The proposed project would have temporary effects on a total of 0.25 acre and permanent effects on a total of 0.52 acre of wetlands (URS 2010). However, only two aquatic features in the project area are directly adjacent to EFH in San Francisco Bay: Easton Creek (which is not a wetland but an Other Water of the United States), and the unnamed drainage channel between Bayshore Highway and the bay near Airport Boulevard (a salt marsh wetland).

Extension of the Easton Creek culvert east of US 101 would have temporary effects on approximately 242 square feet and permanent effects on 528 square feet of Other Waters of the United States (URS 2010). The segment of Easton Creek that would be affected by the proposed project is in a concrete-lined channel, and the City of Burlingame annually clears the channel of silt, sediment, and debris to maintain its drainage capacity. As this channel

segment currently provides only marginal potential substrate for benthic organisms, prey species, and their habitat, the project would not substantially reduce potential habitat for prey organisms.

Drainage modifications to eliminate flooding around the eastern landing of the Broadway overcrossing may include work in the unnamed drainage channel, including sediment and berm removal. The work would affect 5,067 square feet (0.12 acre; URS 2010) but would allow for greater tidal exchange between the bay and the channel, which can completely dry out during the summer and fall months. Therefore, the proposed project could improve ecosystem conditions in the channel for benthic organisms, prey species, and their habitat.

All other wetlands in the project area are separated from EFH in San Francisco Bay by enclosed culverts and pipes.

The project's avoidance and minimization measures for wetlands impacts include adherence to Section 7-1.01G of the Caltrans' Standard Specifications; the Regional Water Quality Control Board's Basin Plan; any additional measures included in the Section 401 Certification, Section 1602 Agreement, and Section 404 Permit; and BMPs to prevent sediment discharge. If these measures are not sufficient to ensure that the adverse effects to the aquatic environment are minimized, compensatory mitigation efforts will be determined in consultation with the United States Army Corps of Engineers (USACE). Proposed compensation measures include restoring and revegetating all temporarily affected wetlands (URS 2010).

The December 7, 2010, NMFS letter proposes EFH Conservation Recommendation No. 1 (submit the Compensatory Mitigation Plan to NMFS for review and approval) to mitigate for impacts to EFH from permanent loss of wetlands. As the proposed project already includes avoidance, minimization, and compensation measures, implementation of EFH Conservation Recommendation No. 1 is not proposed.

Loss of eelgrass from project-related turbidity and degradation of water quality. The December 7, 2010, letter states that patches of eelgrass have been identified approximately 1,148 feet (350 meters) northeast of the project site. According to the San Francisco Bay Eelgrass Inventory, October–November 2009 (Merkel & Associates, November 2010, Sheet 42), the maximum documented extent of eelgrass appears to be more than 1,640 feet (500 meters) from the location where any project-related work would take place in either Easton Creek or the unnamed drainage channel. The area of potential eelgrass habitat (shown as "ELVS Predictive Model 2009," Sheet 42) is more than 1,640 feet (500 meters) from the location of the Easton Creek extension and more than 984 feet (300 meters) from the unnamed drainage channel.

The proposed project would overlap with two segments of Easton Creek that NMFS evaluated in 2009 as part of the City of Burlingame Annual Creek and Channel Facility

Maintenance Program (Segments 3d and 3e, Winzler & Kelly 2008; NMFS 2009, File No. 2008/07916:GRS). The City's program includes annually removing a total of 300 cubic yards of silt, sediment, and debris from Easton Creek between the west side of the US 101 culvert and Bayshore Highway to reduce localized flooding. For the City's program, all sediment removal will occur during periods of low tide or during the season of low stream flow, and sand bag barriers will be used to isolate work sites from flowing water and minimize the discharge of turbid water (NMFS 2009). During consultation on the City's program, NMFS stated that the program has the potential to increase turbidity in the adjacent water but did not indicate that the turbidity could affect eelgrass growth or overall plant health (NMFS 2009). NMFS stated: "[T]he anticipated adverse effects are so minimal in nature that no EFH Conservation Recommendations are necessary to avoid, minimize, mitigate, or otherwise offset the adverse effects to EFH" (NMFS 2009).

Like the City's program, the following proposed project activities in Easton Creek and the unnamed drainage channel would take place during the dry season and at low tide, and the work areas would be isolated from flowing water.

- In Easton Creek, periods of turbidity and sedimentation would only be associated with the installation and removal of the two cofferdams that would be installed for the box culvert extension. To divert flow from the upper reaches of Easton Creek around the work area, a sandbag cofferdam would be constructed inside of the existing concrete double box culvert under US 101. To divert tidal flow from the bay around the work area, a gravel cofferdam would be constructed in the concrete-lined Easton Creek channel between US 101 and Bayshore Highway just east of the culvert extension area. Both cofferdams would have one or more plastic pipes to allow tidal and creek waters to pass around the work area by gravity flow. A NMFS-qualified biological monitor would be present during installation and removal of the cofferdams to ensure that impacts to Easton Creek and downstream waters are minimized.
- In the unnamed drainage channel, a short period of turbidity and sedimentation could occur if the berm that separates the channel from San Francisco Bay is removed. However, during the dry season at low tide, water is not expected to be flowing from the channel to the bay, as the channel dries out during the summer. Therefore, no adverse effects are expected.

These activities would take place during the dry season at low tide, be isolated from flowing water, and be limited in duration. Moreover, any minor turbidity that could occur would be more than 1,640 feet (500 meters) west-southwest of the nearest maximum documented extent of eelgrass, where tidal mixing is likely to dissipate the concentration of turbidity in the water column. The proposed project would take place in the same part of Easton Creek

December 29, 2010
Mr. Rodney McInnis
Page 5

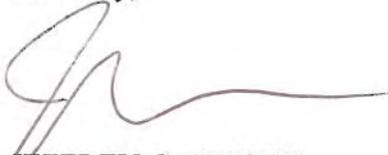
that NMFS evaluated as part of the City of Burlingame Annual Creek and Channel Facility Maintenance Program (NMFS 2009, File No. 2008/07916:GRS), and no adverse effects to eelgrass were identified. Therefore, no loss of eelgrass is expected from the proposed project.

EFH Conservation Recommendation No. 2

The proposed EFH Conservation Recommendation No. 2 proposes conducting surveys for eelgrass before and after project construction. As described above, the proposed activities will not adversely affect eelgrass and further study is not warranted. In addition, surveying has provided inconclusive results that will not provide mitigation for loss of eelgrass. As reported in the San Francisco Bay Eelgrass Inventory, October–November 2009, testing results for the regional monitoring program as well as localized monitoring efforts show considerable variability in eelgrass beds over time (Merkel & Associates 2010). Eelgrass coverage in San Francisco Bay is in a constant state of flux (Merkel & Associates 2010). In recent years, Easton Creek has undergone periodic creek maintenance activities as well as larger-scale projects such as the three-phase Easton Creek-Marsten Pump Station Addition and Outfall Pipeline Project. However, little difference in eelgrass distribution patterns in the southern portion of San Francisco Bay has been noted between the 2003 and 2009 surveys (Merkel & Associates 2010). Therefore surveys suggested in EFH Conservation Recommendation No. 2 are not proposed by Caltrans for this project.

If you should require any additional information regarding the proposed action or Caltrans' determination, please feel free to contact Laura Ivey, Associate Landscape Architect, at 510-286-1357. Thank you in advance for your assistance.

Sincerely,



JEFFREY G. JENSEN
Office Chief
Office of Biological Sciences and Permits

Enclosure: NOAA Consultation Letter, December 7, 2010

References Cited

Merkel & Associates. 2010. San Francisco Bay Eelgrass Inventory, October–November 2009. Prepared for Caltrans and National Marine Fisheries Service. URL: http://biomitigation.org/reports/files/2009_Baywide_Inventory_Report_Final_November_2010_0_1b51.pdf. November.

NMFS. 2009. Consultation letter on the City of Burlingame Annual Creek and Channel Facility Maintenance Program (USACE file 2008-00432S). National Marine Fisheries Service file 2008/07916:GRS. February 5.

URS. 2010. Second Administrative Initial Study with Mitigated Negative Declaration/Environmental Assessment with Finding of No Significant Impact (publication pending). US 101/Broadway Interchange Reconstruction Project, San Mateo County, California. District 04–SM–101 (PM 16.30/17.06). EA 235840. Prepared for Caltrans, San Mateo Transportation Authority, and City of Burlingame by URS Corporation. December.

USACE. 2010. Site Assessment. SM Route 101, Broadway Interchange Reconstruction Project. San Mateo County, US Route 101, PM 16.30 / 17.06. Prepared for California Department of Transportation by U.S. Army Corps of Engineers. USACE File Number 2010-00334S. September.

Winzler & Kelly. 2008. Draft Initial Study/Proposed Mitigated Negative Declaration for the City of Burlingame Annual Creek and Channel Facility Maintenance Program. Prepared for the City of Burlingame by Winzler & Kelly, Santa Rosa, CA. December 5.

WRECO. 2010a. E-mail communication between Catherine Byun, WRECO, and Lynn McIntyre, URS. December 21.

WRECO. 2010b. Water Quality Study. US 101/Broadway Interchange Reconstruction Project. Project Approval/Environmental Document Phase. Prepared under subcontract to URS Corporation for Caltrans, San Mateo Transportation Authority, and City of Burlingame by WRECO, Oakland, CA. January 2010.