

COASTAL CONSERVANCY

Staff Recommendation
May 27, 2010

**MATTOLE RIVER ENHANCEMENT
PHASE III**

File No. 05-026-03
Project Manager: Su Corbaley

RECOMMENDED ACTION: Consideration and possible authorization to disburse up to \$600,000 to the Mattole Restoration Council, Inc. to implement Phase III of Mattole River watershed enhancement activities.

LOCATION: Petrolia, Southern Humboldt County

PROGRAM CATEGORY: Integrated Marine and Coastal Resources Protection

EXHIBITS

Exhibit 1: [Project Location and Site Map](#)

Exhibit 2: CEQA Documentation

2a. [June 12, 2008 Mitigated Negative Declaration](#)

2b. [February 25, 2009 Mitigated Negative Declaration](#)

Exhibit 3: [Mattole River TMDL Goals](#)

Exhibit 4: [Project Letters](#)

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Section 31220 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed six hundred thousand dollars (\$600,000) to the Mattole Restoration Council, Inc. (“MRC”), a nonprofit organization, to implement Phase III of Mattole River watershed enhancement, including sediment reduction (road decommissioning or rehabilitation), riparian reforestation, and invasive plant removal, in the Mattole River watershed to improve anadromous salmonid habitat and coastal resources. This authorization is subject to the following conditions:

1. Prior to the disbursement of any Conservancy funds, the MRC shall submit for review and approval by the Executive Officer a work program, schedule, budget, and the names of any

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contractors to be used for the activities under this authorization, and provide evidence that all permits and approvals necessary to this project have been issued.

2. Conservancy funding shall be acknowledged in signage or other documentation appropriate to the project, as approved by the Executive Officer of the Conservancy.
3. With respect to work funded by the Conservancy and constituting an improvement or development, an agreement or agreements to protect public interest shall be entered into and recorded in Humboldt County, consistent with Public Resources Code Section 31116(c).
4. With respect to work funded by the Conservancy and requiring access to land not owned by MRC, an agreement or agreements to allow access to MRC to perform the work shall be entered into.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorization is consistent with Chapter 5.5 of Division 21 of the Public Resources Code (Section 31220) regarding protection of integrated coastal and marine resources.
2. The proposed authorization is consistent with the Project Selection Criteria and Guidelines adopted by the Conservancy on June 4, 2009.
3. The Conservancy has reviewed the two proposed Mitigated Negative Declarations (attached to the accompanying staff recommendation as Exhibits 2a and 2b adopted by the California Department of Fish and Game on June 12, 2008 and February 25, 2009, respectively, pursuant to the California Environmental Quality Act, and the Mitigation Monitoring Programs developed to mitigate potentially significant environmental effects, and finds that the projects avoid, reduce or mitigate the possible significant environmental effects to a level of insignificance, and that there is no substantial evidence that the enhancement activities and habitat improvements in the lower Mattole River watershed may have a significant effect on the environment, as defined in 14 Cal. Code Regulations Section 15382.
4. The Mattole Restoration Council is a private nonprofit organization existing under Section 501(c)(3) of the U.S. Internal Revenue Code, and whose purposes are consistent with Division 21 of the California Public Resources Code.”

PROJECT SUMMARY: The proposed authorization will enable the Mattole Restoration Council (“MRC”) to implement Phase III of Mattole River enhancement activities in the lower Mattole watershed, in and around the town of Petrolia (Exhibit 1). Work specifically includes two DFG approved projects: the “Lower Mattole Sediment Reduction Project” and the “Valley View Ranch Upslope Sediment Reduction Project,” riparian planting, and invasive plant removal. The project aims to address historic degradation of Coho and Chinook salmon, and Steelhead trout habitat. Phase III continues the efforts that were begun in Phase I, authorized by the Conservancy on January 23, 2003, October 23, 2003 and January 29, 2004, and continued in Phase II, authorized by the Conservancy on June 16, 2005.

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Phase III enhancement activities focus on implementing projects in the lower Mattole watershed designated as a high priority in the 2005 Conservancy-funded Mattole Watershed Plan, and in the expanded 2009 Mattole Integrated Coastal Watershed Management Plan funded by the Department of Water Resources. Work will include sediment reduction projects, riparian ecosystem restoration, and invasive plant removal on public and private lands, including the Valley View Ranch in Petrolia, which is protected by a 2006 Conservancy-funded conservation easement purchased by the California Department of Forestry and Fire Protection in 2008. The project area was chosen as a priority because of the many streams that provide critical cold-water habitat to salmonids, and for the need to prevent permanent establishment of invasive species in areas with otherwise good-functioning terrestrial habitats.

The sediment reduction work will be carried out by MRC's Good Roads, Clear Creek Program ("GRCC"), established in the late 1990s to eliminate key sediment sources from entering the river and further degrading fish spawning habitat. The project aims to prevent approximately 75,000 cubic yards of sediment from entering tributaries to the Mattole River. Projects range from road upgrades and decommissioning to instream and bank stabilization. The project will treat sediment sources in high priority sub-watersheds around the Petrolia area including East Mill Creek, Conklin Creek, Stansberry Creek as well as the North Fork Mattole River and Mattole main-stem. Road rehabilitation/upgrades would include: road reshaping at 20 sites along approximately seven miles of road to reduce runoff concentration on the road surface; installing armored fords (crossings) at 12 sites to replace crossings that are diverting water out of the creeks or are actively eroding seasonal roads; and constructing armored rolling dips at 12 sites to reduce water diversion at culvert sites. Road decommissioning work would include: removing road crossings at 12 sites and decommissioning approximately 0.5 miles of road. Instream work includes: constructing willow structures at five sites to prevent streambank erosion and improve the hydrology of the stream channel; installing approximately 400 feet of willow baffles at three sites; constructing approximately 100 linear feet of willow/brush fences at two sites; constructing approximately 12 bioengineered wing deflectors, incorporating large wood structures for fish habitat, at six sites; and excavating fill and/or instream sediment deposits from stream channels at six sites to improve hydrology.

The riparian reforestation work will occur at sites deficient in riparian cover and streambank stability identified in previous riparian assessments, funded in part by the Conservancy, and will complement the sediment reduction work conducted under the proposed project. The effort will include planting native trees, shrubs, and grasses in the Blue Slide, Fire, Devils and Oil Creek areas, and road rehabilitation sites, and in creeks identified in past assessments. The proposed project will result in the planting of 7,000 conifer seedlings, 6,000 hardwood seedlings, 3,000 brush plugs, and 5,000 perennial bunchgrass plugs; distribution of native grass, brush and tree seeds and seed balls; installation of 300 feet of willow fence on Fire and Cook Creeks; assessing at least six salmonid bearing streams for riparian restoration sites.

The invasive plant removal work expands on earlier Conservancy-funded projects to address the threat of the spread of alien species that degrade habitat. Specifically, work would include hand removal of Japanese knotweed at seven sites.

The MRC, a 501(c)(3) nonprofit organization, has been involved in restoration efforts in the Mattole watershed for over 20 years, and has successfully completed the first two Phases of the Mattole River Watershed Enhancement Program funded by the Conservancy and other public agencies. The Mattole Restoration Council is a lead member of the Mattole River and Range

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Partnership (MRRP), an alliance of local nonprofit organizations including the MRC, the Mattole Salmon Group, and Sanctuary Forest, Inc., working together to carry out enhancement activities in the watershed. In early 2010, the MRRP entered into a 10-year Model Watershed Project agreement with the Bonneville Environmental Foundation which will serve to provide dedicated long-term funding and technical support to understand how and if restoration activities are moving the watershed as a whole toward a healthy condition.

Site Description: The Mattole Basin encompasses approximately 300 square miles of the northern California Coast Range and crosses the Mendocino and Humboldt County boundary. The vast majority of the basin is within Humboldt County, with less than three percent of the Mattole's southernmost headwaters in Mendocino County. The main stem Mattole River is approximately 62 miles long, and receives water from over 74 tributary streams. There are approximately 545 perennial stream miles in the basin; the watershed drains into the Pacific Ocean just south of Cape Mendocino. Elevation within the basin ranges from sea level at the estuary to 4,088 feet at Kings Peak.

The current vegetation in the Mattole Basin is predominately forestland, with over 80 percent comprised of mixed conifer and hardwood forestland, hardwood forests, and coniferous forests. The timber resources in the watershed were heavily harvested following World War II, leaving reaches of exposed soil extremely vulnerable to erosion resulting in significant degradation to the health of the watershed and reduced water quality affecting the coastal resources of the system.

Fisheries resources of the Mattole Basin include fall-run Chinook salmon, Coho salmon, summer-run steelhead trout, and winter-run steelhead trout. The salmon and steelhead trout have been traditionally important as food and recreation resources to local residents and visitors. Anecdotal evidence suggests that anadromous salmonid runs in the Mattole Basin were large and have experienced a sharp decline since the mid 1950s.

Heavy timber harvesting in an area with high seismic activity, and an area that has experienced two 500-year flood events in 1955 and 1964, has caused significant changes to the watershed that dramatically worsened conditions for Chinook and Coho salmon. From 1960s estimates of annual returns of 10,000 Chinook and 4,000 Coho salmon, populations declined to scarcely 10 per cent of those numbers by 1990. Dive surveys of the estuary in 2007 indicate the populations of Coho continue to be at dire levels. Recent surveys for Chinook salmon and steelhead trout indicate that while still low, their population levels appear to be holding steady.

The Mattole River is listed under Section 303(d) of the federal Clean Water Act by the U.S. Environmental Protection Agency as an impaired water system due to excessive sediment and high temperatures. As a result of that listing, the California State Water Resources Control Board ("SWRQCB") established Total Maximum Daily Load ("TMDL") limits to reduce sediment and temperature in the Mattole River. TMDLs will also improve the quality of the water that discharges to the sea. This area of the Pacific Ocean (Cape Mendocino) is recognized for its important coastal resources; the state has designated the area both an Area of Special Biological Significance and a Critical Coastal Area, while the federal government has designated the area a Marine Protected Area. These designations require that special attention and care must be taken to protect the coastal resources. The California Department of Fish and Game (DFG) has listed the Mattole River as a habitat recovery unit in its Coho Salmon Recover Strategy (CA DFG, 2004) and an area necessary for maintaining critical habitat for Coho salmon.

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Project History: The Mattole River watershed has long been a place where residents have taken a hands-on approach to conservation. In the late 1970s local citizens began a long-term project to revive the Mattole River's declining salmon runs—initially working to directly address the decline through the use of small-scale fish propagation facilities called “hatch boxes.” This early work led residents to efforts to reduce stream sedimentation, protect old-growth forest, and educate neighbors about land management practices, and plant trees to improve riparian habitats.

Many successful restoration and conservation projects have been completed in the Mattole for the benefit of the native salmonids: acquisition of old-growth forests has protected nearly 75 percent of those identified in a 1988 mapping project; over 30 aquatic habitat improvement projects have been completed; more than 125 miles of road bed restoration in the headwaters; and local landowners in several areas of the watershed actively managing their lands to improve watershed health.

Many Conservancy activities have been instrumental in Mattole conservation including MRC's study of the Mattole estuary, *The Dynamics of Recovery* (MRC, 1995), which determined the estuary, where all Chinook must over-summer, had been significantly modified by sediment input. It stated that restoration of historical estuary function would require controlling sediment inputs to the lower river. This led to the Mattole Restoration Council's Good Roads, Clear Creeks Program, which is a long-term comprehensive program to reduce erosion and sedimentation through the removal or improvement of existing road systems, and treatment of other erosion sources such as landslides, throughout the watershed. Since the SWRQCB published the TMDL limits for the Mattole River, the Good Roads, Clear Creeks program has shown steady progress toward achieving compliance with the TMDLs to reduce sediment and temperature in the river system. (Exhibit 3)

The Conservancy has contributed to several acquisitions in the watershed: the 1997 acquisition by the federal Bureau of Land Management of the old-growth Mill Creek Forest, protecting Mill Creek, the only Coho stream in the lower river; the 2003 acquisition by the North Coast Regional Land Trust of 319 acres of recovering commercial timberland in the Mattole headwaters, connecting with adjacent California Department of Parks and Recreation lands; and the 2008 acquisition of a conservation easement on the 1200-acre Valley View Ranch in Petrolia.

Even with many successes toward recovery of the salmon, a larger and more comprehensive enhancement effort was deemed essential if the salmon are to recover. In 2000, the California Department of Resources funded the North Coast Watershed Assessment Program (NCWAP) for the Mattole River basin which resulted in the Mattole NCWAP Synthesis Report, prepared by DFG, which presented probable causes for, and recommended correction to, the declining fish population.

The NCWAP was the impetus for the Mattole River Enhancement Activities that have been funded by the Conservancy in recent years. In 2003 and 2004, the Conservancy authorized a total of \$750,000 for Phase I of the Mattole River Enhancement Activities project. The bulk of the work during Phase I, completed in 2003, involved development of the watershed management plan, (incorporating NCWAP recommendations); erosion and sediment monitoring following road and habitat improvements; expanded community outreach and education for water conservation; coordination of technical committees to advise the planning efforts; fish population and trend monitoring; conservation easement planning; and local capacity building.

The outreach and education efforts resulted in willing private participants for restoration

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projects; water conservation education lead to the installation of water conservation equipment in homes and water storage tanks on properties; and restoration training for invasive plant removal, post road removal monitoring and slope stabilization. During Phase I, three conservation easements were identified and executed (donated to a land trust). Habitat improvement projects included road decommissioning-related activities such as winter monitoring and related repairs, and the construction of scour and shade pools in the Mattole River estuary to create protective summer habitat for salmonids.

In 2005, the Conservancy authorized \$433,000 to implement Phase II of the project. The bulk of the Phase II funding was used to complete the Upper Mattole River Watershed Rehabilitation Project, a road restoration project in the Mattole headwaters. Over 300 sites on public, industrial and private lands were treated resulting in stabilization of approximately 69,000 cubic yards of sediment, stream bank stabilization at 48 sites, 90,000 trees planted to enhance riparian conditions, 12 in-stream salmon enhancement structures, creek clean-up at 2 sites, and post-project maintenance. Other Phase II efforts included conducting preliminary environmental review for the Mattole River Watershed Management Plan (funded under Phase I), water conservation outreach to identify conservation opportunities, road sediment-load inventories, invasive plant removal and management, and fisheries monitoring for spawning and juvenile populations. Phase II work was completed in 2007.

PROJECT FINANCING (Phase III):

Coastal Conservancy	\$600,000
CA Department of Fish and Game	205,374
CA Department of Water Resources	250,000
Humboldt County Resource Conservation District	217,000
National Fish and Wildlife Foundation	50,000
California Department of Food and Agriculture	4,900
<u>US Bureau of Land Management</u>	<u>3,500</u>
Total Project Cost	\$1,330,774

Conservancy funds for Phase III will be used for a variety of habitat restoration and sediment reduction projects in the lower watershed such as road decommissioning, in-stream habitat restoration, riparian restoration, and invasive plant control. The \$217,000 anticipated from the Humboldt County Resource Conservation District is pending through the DFG Fisheries Restoration Grant Program expected to be approved in 2010.

The expected source for the Conservancy funds for this project is the fiscal year 2007-2008 appropriation from Proposition 84, the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84) for Coastal Conservancy state-wide resource protection projects, which can be used for the protection of land and water resources consistent with Division 21 of the Public Resources Code, the Conservancy's enabling legislation. Consistent with Chapter 5.5 of Division 21, the project involves restoration of coastal watersheds and eradication of non-native species.

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This project is appropriate for prioritization under the criteria in Public Resources Code Section 75071 (a provision of Proposition 84) because the project includes non-state matching funds and will protect and improve habitat in the Mattole River watershed. As discussed below, the project is consistent with Chapter 5.5 of Division 21.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

This project is undertaken under Chapter 5.5 of Division 21 of the Public Resources Code, regarding integrated coastal and marine resource protection. The Conservancy may award grants for coastal watershed restoration project that meet any of the objectives specified in section 31220(b). Consistent with section 31220(b), the proposed project will (1) reduce sedimentation that degrades spawning and rearing habitat, thereby restoring fish habitat within coastal waters and coastal watersheds; (2) reduce threats to coastal and marine fish by enhancing habitat that will foster population successes; and (3) reduce unnatural erosion and sedimentation of coastal watersheds through decommission and removal of abandoned roads that are not maintained.

Consistent with section 31220(a), the Conservancy consulted with the State Water Resources Control Board in the development of this grant to ensure consistency with Chapter 3 (commencing with section 30915) of Division 20.4 of the Public Resources Code pertaining to its Clean Beaches Program. As required by section 31220(c), the project will include a monitoring and evaluation component through post-project erosion monitoring and reporting. Also as required by section 31220(c), the project is consistent with state and regional watershed planning, as discussed in Section 2.3.3 of the *North Coast Regional Watershed Initiative Chapter* (North Coast Regional Water Quality Control Board Feb. 2005) of the *State Water Planning Strategic Plan* and described below under "Consistency with Local Watershed Management Plan/State Water Quality Control Plan."

CONSISTENCY WITH CONSERVANCY'S 2007 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

Consistent with **Goal 5, Objective C**, the proposed project will lead to the protection of core coastal habitat through the preservation and protection of key spawning areas for Coho and Chinook salmon and Steelhead trout through road restoration and riparian corridor habitat improvement activities.

Consistent with **Goal 5, Objective D**, the proposed project will help to eradicate invasive plants to preserve habitat key to native species diversity.

Consistent with **Goal 6, Objective A**, the proposed project will assist in preserving and restoring a coastal watershed and coastal resources critical to anadromous salmonids through the implementation of sediment reduction and habitat improvement projects. Salmonids utilize the Mattole River for spawning; juvenile salmonids utilize the systems as summer and winter habitat before returning to the coastal waters.

**CONSISTENCY WITH CONSERVANCY'S
PROJECT SELECTION CRITERIA & GUIDELINES:**

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines adopted June 4, 2009, in the following respects:

Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
3. **Support of the public:** The communities in the Mattole River watershed strongly support the Mattole River Enhancement Activities project, the restoration activities taking place, and those planned, as evidenced by the high level of volunteerism and coordination of earlier project phases. Further, state and local representatives support the project. See Exhibit 4 for Letters of Support.
4. **Location:** The Mattole River watershed is located in Mendocino and Humboldt Counties, approximately 200 miles north of San Francisco. The project area is located in the lower Mattole River watershed, partly within the coastal zone of Humboldt County. Historic land uses within the watershed have resulted in high rates of sedimentation that have reduced marine and watershed spawning and rearing habitat for salmonids. The project will directly benefit the coastal resources (the river and estuary) because the bulk of the project will focus on road decommissioning, upgrades and in-stream restoration to prevent 75,000 cubic yards of sediment from entering the river and draining to the ocean.
5. **Need:** The Mattole River is rich in anadromous fish resources. However, because of years of incompatible land uses exacerbated by severe seismic and weather occurrences, those resources are in need of restoration. There has been, for nearly 30 years, a remarkable community effort to restore the fish and its habitat and much restoration work has been completed in the upper and middle watershed. The bulk of this project focuses on rehabilitating critical habitat in the lower watershed, where there is a high sediment load threatening the water quality, and a large deficit of critical cool water for summer and spawning habitat for salmonids. MRC has been very successful in securing funds toward completing this project, but additional funds are needed if the work is to be completed in 2011. The Conservancy is in a unique position to continue its involvement in the Mattole watershed and enable these efforts to go forward to realize the long-term goals of restoration.
6. **Greater-than-local interest:** The public-trust value of California's anadromous fish populations is epic and a resource that if lost in the Mattole would irreparably damage the economic base, as well as the way of life, of the Mattole. There is a long history of people coming from far and wide to fish the Mattole, which experienced historic fish runs in the thousands. With the decline in those numbers, there has been a significant economic impact to the commercial and sport fishing industry. Restoring habitat in the Mattole will increase

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salmon populations, preserve the natural resources that draw people to visit this region of the state, and benefit the overall economic condition of the state of California.

7. **Sea level rise vulnerability:** Most of the project sites are located at elevations of 40' to 500' above current sea level and thus are not vulnerable to impacts from anticipated sea level rise for the years 2050 through 2100. One site, located near the Mattole River estuary, could become marginally influenced by tidal fluctuations if a sea level rise of 55 inches is realized. This specific project site is designed to stabilize an existing flood plain through riparian planting and the installation of in-stream habitat structures. The majority of the riparian planting at this site will utilize local willow cuttings that have the capacity to survive in partially saline waters. Through bank stabilization and riparian enhancement, this project will reduce the risk of catastrophic flooding associated with sea level rise in the areas adjacent to the Mattole estuary.

Additional Criteria

8. **Urgency:** Like all salmonid populations statewide, the salmonid populations of the Mattole River are in dire need of protection and the efforts of the MRC (and MRRP) must be continued in order to restore and protect the salmonid habitat found in the Mattole and its coastal resources.
10. **Leverage:** See the "Project Financing" section above.
13. **Readiness:** The MRC and its local co-participants have secured funds for project implementation, and the project is ready to begin upon project authorization. The expected duration of phase III of the Mattole Watershed Enhancement Program is two years.
15. **Realization of prior Conservancy goals:** This project will further the Conservancy's goals established under the watershed enhancement program to improve overall watershed health to increase viable habitat to result in increased sustainable salmonid populations in the Mattole River.
16. **Cooperation:** As discussed in the "Project Financing" section above, there are many organizations and agencies participating in the project to address the restoration needs in the watershed.
17. **Vulnerability from climate change impacts other than sea level rise:** It is widely expected that climate change will bring an increase in storm intensity and flooding. All project completed by the GRCC program are designed to accommodate 100-year flood flows, so many vulnerable roads and river banks will be able to withstand expected storm events. An increase in overall temperature is expected to further stress many of the aquatic ecosystems in the Mattole watershed. Through streambank stabilization and overall sediment reduction, the watercourses will develop denser canopy and deeper pools to help counteract the effects of a warmer climate. Native drought-tolerant plants are used on MRC revegetation projects.
18. **Minimization of Greenhouse Gas Emissions:** The MRC works to minimize fuel usage and emissions generated by restoration activities involving heavy equipment through Best Management Practices including, but not limited to using local contractors with local equipment to minimize transportation; using local materials and plants to reduce transportation costs; limiting idling times to not more than 5 minutes; and encouraging the use of locally produced biodiesel.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The Conservancy-funded activities will occur mostly within, and partly outside the coastal zone of Humboldt County (consistent with Chapter 5.5 of Division 21), but will have a direct benefit to the coastal zone resources where the Mattole River empties into the sea in Humboldt County.

The Humboldt County Local Coastal Plan, South Coast Area Plan (LCP) discusses land use for this region of Humboldt County. Several sections of the LCP relevant to this project are identified below.

Section 3.41.A.1.g identifies as environmentally sensitive areas critical habitats for rare or endangered species on state or federal lists. The listed species Chinook, Coho salmon and steelhead trout inhabit and spawn in the Mattole River.

Section 3.41.E.2 identifies the Mattole River as a significant coastal stream, and incorporates by reference Section 30231 of the Coastal Act, regarding maintaining the biological productivity and the quality of coastal streams. Implementing this project will enable MRC to restore significant habitat for Chinook and Coho and steelhead salmon.

This project is also consistent with Section 3.41.E.6 which discusses natural drainage courses, stating that they “. . . shall be retained and protected from development which would . . . have a significant adverse effect on water quality or wildlife habitat.”

**CONSISTENCY WITH LOCAL WATERSHED MANAGEMENT PLAN/
STATE WATER QUALITY CONTROL PLAN:**

Section 2.3.3 of the North Coast Regional Watershed Initiative Chapter (North Coast Regional Water Quality Control Board *Feb. 2005*) of the State Water Planning Strategic Plan, discusses the Mattole River Watershed and contamination from nonpoint sources such as timber activities, and recommends local and regional efforts to reduce the sources of sedimentation that adversely affect coho and chinook habitat.

The proposed project is consistent with the above plan in that it will reduce sediment deposition to the Mattole River, and protect the watershed from further degradation through habitat restoration activities to reverse former land use practices that reduced coastal and marine habitat.

COMPLIANCE WITH CEQA:

The proposed action would authorize improvements to the health and function of the Mattole River watershed to benefit its coastal resources critical to threatened and endangered salmonid species. Specifically, the proposed Conservancy project will include road erosion control, in-stream sediment reduction, riparian reforestation and invasive species removal projects in the lower Mattole watershed.

The California Department of Fish and Game (“DFG”) is the lead state agency for the purposes of California Environmental Quality Act (“CEQA”) review for the sediment-reduction and in-stream work. On June 4, 2008, and February 25, 2009, DFG adopted Mitigated Negative Declarations (“MNDs”; see Exhibits 2a and 2b, respectively), and later filed Notices of Determination, for its “2008 Fishery Restoration Grant Program” and “2009 Fishery Restoration Grant Program.” The 2008 MND includes the “Lower Mattole Sediment Reduction Project,” and the 2009 MND includes the “Valley View Ranch Upslope Sediment Reduction Project”

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among many others throughout the state and not the subject of the current authorization. (Only materials pertaining to projects subject to the current authorization are attached.)

The riparian reforestation planting and invasive plant-control projects are not covered by the DFG MNDs. These activities are discussed separately, below, with respect to CEQA compliance.

DFG's fishery-restoration grant program encompasses projects in 14 counties including Humboldt, and the stated purpose is to restore salmon and steelhead habitat in coastal streams and watersheds. Appendix A to each MND identifies categories of activities, including "Exempt Action Items" (Table A-1), "Minor Action Items" (Table A-2), and "Major Action Items" (Table A-3). Appendix B to each MND prescribes mitigation measures and a Monitoring and Reporting Program for the respective annual DFG Restoration Program. Appendix C to each MND presents guidelines for assessing the effects of proposed projects on rare, threatened, and endangered plants and natural communities. Appendices D and E provide procedures for the programmatic evaluation of paleontological resources and archeology resources, respectively.

In the case of each MND, DFG finds that the overall DFG restoration program, although it could cause minor short-term impacts on soil, vegetation, wildlife, water quality, and aquatic life, will not do so in that measures will be incorporated into the project to lessen the impacts to an insignificant level. Each Major Action Item is required to comply with DFG policies requiring archaeological and rare plant surveys, paleontological surveys, and site inspection before, during and after project completion, a review of DFG's database for rare and endangered animal species in each county, implementation of prescribed mitigation measures, and project monitoring during and after project implementation by DFG project managers. Where the review of DFG's database for rare and endangered animal species indicates that a species' particular habitat is present in the project area, the project will comply with prescribed operating limitations (windows for work activities) as if that species is present.

Two of the projects proposed for this authorization, the "Lower Mattole Sediment Reduction Project" (2008 MND) and the "Valley View Ranch Upslope Sediment Reduction Project" (2009 MND) are categorized by DFG as "major action items." Both projects involve the same approach to the work, in similar locations in the lower Mattole Valley, and therefore, except as noted, no distinction is made in the CEQA discussion here in discussing potential significant impacts or prescribed mitigation measures. However, Exhibit A to the respective MNDs further describes site conditions, and lists the species that are either present or for which there is potentially suitable habitat present, and provides mitigation measures specific to these two projects, respectively.

Each of the projects involves road decommissioning/removal or upgrade, in-stream work and associated riparian planting at the work sites. Road rehabilitation will entail re-contouring the road at twenty sites along approximately 7 miles to reduce sediment runoff; installing twelve armored fords crossings and twelve rolling dip crossings to reduce stream erosion. Road decommissioning will include removing road crossings at twelve sites and decommissioning approximately 0.5 miles of road. In-stream sediment reduction work (bank erosion/stabilization) will include constructing willow structures at 5 sites, installing approximately 400 feet of willow baffles at three sites; constructing approximately 100 linear feet of willow/brush fences at 2 sites; constructing approximately twelve bioengineered wing deflectors, incorporating large wood structures for fish habitat, at 6 sites; excavating fill and/or in-stream sediment deposits from stream channels at 6 sites to improve hydrology, and planting hardwood, Redwood and Douglas

fir on restored stream banks and at rehabilitated roads and at stream crossings. The Conservancy is acting as a responsible agency under CEQA with respect to these activities.

The MNDs discuss the potential less-than-significant environmental effects and less-than-significant-with-mitigation-incorporated environmental effects for these types of projects. Each MND discusses potential impacts of the collective activities, and prescribes mitigation measures for them. Thus, potential impacts and their mitigation measures are discussed only once, without specificity to which project, as they apply similarly to both. Less-than-significant-with-mitigation incorporated impacts for these projects pertain to biological resources, cultural resources, geology and soils, hazards and hazardous materials, and noise. The MNDs also discuss less-than-significant impacts on various resources. With respect to air quality, section III (f) of the 2009 MND addresses the possibility of a cumulative effect on climate change. (The 2008 MND was drafted before the more recent concern with this issue, but there is no reason to believe that DFG's overall 2008 program, or the activities called for in the current authorization, would lead to a different result.) The 2009 MND discussion concludes that the overall activities will not cause a cumulatively considerable effect on climate change since the project will not produce ongoing emissions, and use of equipment will occur during a relatively few days.

Biological Resources

With respect to biological resources, potential impacts either directly or through habitat modification were identified. However, the sediment reduction (road and in-stream) work will not have a significant adverse effect because it has been mitigated both generally through the MND and specifically through requirements in the particular statements of work. For example, the permissible work window for work in and around streams (all road and in-stream sediment work) will be constrained to take advantage of periods of low stream flows and avoid spawning and egg/alevin incubation periods for salmonids and steelhead trout, to avoid nesting or breeding seasons of birds and terrestrial animals. Site-access points will be minimized to reduce soil impacts and erosion, and other precautionary measures will be taken to avoid spreading of invasive species, trash, hazardous materials such as equipment lubricants, etc. Work is required to be performed in accordance with additional documents, including the *California Salmonid Stream Habitat Restoration Manual, Third Edition* (Calif. Dept. of Fish and Game, 2006), and the *Handbook for Forest and Ranch Roads* (Pacific Watershed Associates, 1994). At most sites with potential for raptor and migratory bird nesting, if work is conditioned to start after July 31, potential impacts will be avoided, eliminating the need for surveys. Dates may be advanced if surveys are conducted and the affected animals are absent from the work area. Additional specific controls for potential impacts to biological resources will be implemented, as discussed below.

Rare Plant Species

With respect to rare plant species, the MND provides for potentially affected sites to be surveyed by DFG prior to any ground-disturbing activities, following the DFG "Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities," to protect any identified special status plant species with fencing, on-site monitoring by a qualified biologist, and/or redesign of proposed work. If it is not possible to avoid or prevent impacts, work will be discontinued at a given site.

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Coho salmon, Chinook salmon, Steelhead trout

In order to avoid any potential negative impacts to these species, the MND provides that, for sites with the potential to be impacted, work within a wetted stream shall be limited to between June 15 and October 31 or the first significant rainfall, or shall entirely avoid periods when salmonids are present (as in seasonal streams when work will be confined to the period when the stream is dry); that heavy equipment shall not be operated in a flowing (live) stream except to construct protective coffer dams (to restrict flow); that coffer dams will be constructed to isolate the work from the flowing stream; that fish screens shall be installed when flow diversion around the work site is necessary; that, following construction, disturbed banks shall be fully restored by revegetation with native species; that suitable large woody debris removed during the project and not otherwise used in the project shall be left within the riparian zone to provide a source for future wood recruitment; and that, if, for some reason, the prescribed mitigation measures cannot be implemented, or the project actions cannot be modified to prevent or avoid potential impacts to anadromous salmonids or their habitat, the activity at a particular work site will be discontinued.

Marbled murrelet

Potential nesting habitat for the marbled murrelet is present in the some or all of the project area. Therefore, in order to avoid potential disturbance to this species, the MND provides that heavy equipment activities can only be conducted outside this species' nesting season. Thus, the use of heavy equipment within 0.25 miles of marbled murrelet habitat shall be limited to the period between September 16 and March 23.

Willow Flycatcher

Potentially suitable habitat for the Willow flycatcher is present in the project area. To avoid potential impacts to the Willow flycatcher, heavy equipment work within 0.25 miles of potential Willow flycatcher habitat shall not begin until after August 31 and harvest of willow branches at any site with potential habitat shall not occur between May 1 and August 31, with no more than one-third of any will plant harvested annually.

Cultural and Paleontological Resources

With respect to cultural and paleontological resources, the MND provides for sites with the potential to be impacted to be surveyed, prior to any ground disturbing activities, any appropriate mitigation measures including fencing, on site monitoring during site work, or redesign of project approach to be implemented. If it becomes impossible to implement the project at a work site without disturbing cultural or paleontological resources, the activity at the work site will be discontinued. If cultural resources, such as lithic debitage, ground stone, historic debris, building foundations, or bone are inadvertently discovered during ground-disturbance activities, work will be stopped within 20 meters of the discovery and shall not resume until a professional archaeologist, who meets the Secretary of the Interior's Standards and Guidelines, has evaluated the materials and offered recommendations for further action. If human remains are inadvertently discovered during project construction, work will stop at the discovery location, within 20 meters, and at any nearby area reasonably suspected to overlie adjacent to human remains, and the county coroner will be contacted. If the coroner determines the remains are of Native American origin, state laws, including Public Resources Code § 5097.98, relating to the disposition of Native American remains will be complied with.

Geology and Soils

In order to avoid temporary increases in soil erosion during (particularly) road restoration activities, the MND provides that all stream crossing replacements or in-stream work sites shall be reviewed by engineers prior to commencement of work, that effective erosion control measure (straw bales or silt fences) be in-place at all times during construction, and where necessary maintained following construction until erosion subsides, that sediment be removed from sediment controls at pre-determined capacities, that sediment-laden water be filtered before it enters the stream or aquatic resource area, that turbidity/siltation levels resulting from project activities that pose a threat to aquatic life shall cease until DFG-approved sediment control devices are installed and/or abatement procedures are implemented, and upon project completion, all exposed soil present in and around the project site be stabilized (mulched or re-seeded) within seven days.

Hazards and Hazardous Materials

The risk of potential impacts from hazards and hazardous materials is considered to be very low. However where there exists a possibility that incident resulting in a release of hazardous materials, or a hazard (such as fire), could occur from the use of heavy equipment, the MND provides that there shall be a dependable radio or phone communications to report incidents or fire, that heavy equipment be in good repair and inspected for leaks, that vehicles operating in wetted stream channels, wetlands, or riparian vegetation, or where aquatic organisms may be destroyed, be checked and maintained daily, that passes through the stream channel be minimized and that turbidity be allowed to subside between heavy equipment passes, that heavy equipment work be isolated from active stream flow, except as needed to construct coffer dams, that all operators be trained to respond to incidents and a spill plan be prepared and available, and absorbent materials to collect spills be available, that fueling and maintenance of vehicles and other equipment be located at least 150 feet from any riparian habitat or water body, that staging/storage areas for equipment, materials, fuels, lubricants and solvents be located outside the stream's high water channel and associated riparian areas, that drip pans be used for stationary equipment, that all materials incidental to the project work be kept out of the waters of the state, that all combustion engines be fitted with spark arrestors, fire extinguishers be functional and available, that vehicles shall be parked away from tall grass or other locations vulnerable to heat ignition, and any gravel from offsite shall be from a source known to be free of mercury contamination.

Noise

With respect to noise, potential problems were identified in the areas of temporary or periodic increases in ambient noise at levels in excess of standards established in local plans or ordinances or applicable standards of other agencies, and occasional generation of levels equal to or in excess of 85 decibels. The MND provides for the effects of noise on persons operating or working near noisy equipment to be mitigated by use of adequate hearing protection. The MND provides that the effects of noise on listed species, for which there is potentially suitable nesting or breeding habitat within the project vicinity, be mitigated by operating heavy equipment only outside the breeding or nesting season for those affected species, as detailed under the Biological Resources section, above.

Finally, the mitigated effects of sediment reduction work by road decommissioning or upgrade, or in-stream restoration, in the lower Mattole River watershed will not contribute to adverse

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environmental impacts that are cumulatively significant. In fact, by improving habitat through control of historic sedimentation the project, and any similar future projects, there will be cumulative benefits to the Mattole River and the Mattole River watershed.

With the changes and mitigations, DFG concluded, and staff believes, that the potentially significant effects have been reduced to a level of insignificance. The required mitigations will be monitored through DFG's mitigation, monitoring, and reporting program, consistent with Public Resources Code Section 21081.6. Specifically, the reporting program requires that DFG ensure that all of the mitigation measures outlined in the MND are implemented, and prepare and submit a report on the progress of those measures to the National Marine Fisheries Service annually by December 1 for the duration of the project.

The Conservancy's project also includes riparian reforestation planting and invasive plant removal activities not directly part of DFG's program and therefore not addressed in the two MNDs. Riparian reforestation planting activities involve hand planting a variety of mixed woods, including hardwoods, Redwood and Douglas fir in riparian corridors for the purposes of promoting canopy shade cover to cool stream temperatures for the benefit of salmonids and steelhead trout. Invasive plant removal will involve hand removal of invasive plants within the watershed of tributaries to the lower Mattole River, for the purposes of removing competition with native plants. Promoting growth of native plants in riparian corridors and within the watershed will improve wildlife habitat by restoring a natural setting. These activities are categorically exempt from CEQA under 14 Cal. Code of Regulations Section 15304 (minor alterations to land, water, or vegetation).

Staff therefore recommends that the Conservancy find that the proposed authorization, as mitigated, will not have a significant effect on the environment.

Upon approval, staff will file appropriate CEQA notices.