

Appendix N Summary of Proposed Restoration Projects

The Trustees identified potential NRDA restoration projects through internal discussion, input from local experts, and received through public input. The Trustees reviewed these projects for consistency with NRDA restoration criteria, as described in Section 4.2 of the Refugio Beach Oil Spill Damage Assessment and Restoration Plan. The following tables summarize the projects received, and the outcome of the Trustee review.

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Table 1(a) Projects Meeting NRDA Criteria—Shoreline Habitats

Project ID	Project Name	Project Description	NRDA Criteria Evaluation
SHORE-1	Ellwood Seawall Removal	Restore sandy beach and mixed shoreline ecosystems and dynamics by removing a wooden seawall at Ellwood Beach that is currently constraining natural functioning condition of the sandy beach ecosystem as well as lateral access along the shoreline at high tide.	PREFERRED. Directly improves sandy beach habitat that was impacted by the spill.
SHORE-2	Ventura County Dunes Restoration	Remove invasive dune species, protect sensitive bird populations, and enhance public access routes.	PREFERRED. Improves sandy beach habitat, including habitats for western snowy plovers in Ventura County.
SHORE-3	Santa Monica Beach Restoration Pilot Project	Restoration of a highly impacted beach system in Santa Monica by stopping beach grooming and restoring a diverse, endemic-rich, coastal plant and wildlife community.	PREFERRED. This project compensates for shoreline injuries that occurred in Los Angeles County.
SHORE-4	Black Abalone Restoration and Relocation	Transplant black abalone into specific locations within rocky intertidal habitat to enhance the overall health of the rocky intertidal ecosystem by returning this important grazer to the community.	PREFERRED. This project benefits the endangered black abalone while also improving the overall health of rocky intertidal habitats as they are a foundational species.
SHORE-5	Surfer's Point Phase II	Realignment of infrastructure near the Ventura River to allow for coastal retreat and restoration of sandy beach and dune habitat.	2nd TIER PROJECT. Relatively high cost project for the amount of sandy beach restoration that would be achieved.
SHORE-6	Matilija Dam Removal	Remove Matilija Dam to restore natural sediment and water flow to the Ventura River and nearshore environment.	2nd TIER PROJECT. Relatively high cost project compared to other preferred projects. Time to achieve benefits unclear.
SHORE-7	Gaviota Creek Watershed Restoration	Activities may include replacing the existing road that bisects the creek's lower floodplain and acts as a levy during high flows, protecting land within the Gaviota Creek watershed, relocating the existing campground that encroaches on the Gaviota Creek estuary.	2nd TIER PROJECT. Benefits to shoreline habitats through increased sediment transport are uncertain. Time to provide benefits is relatively long when compared to other preferred projects.

Project ID	Project Name	Project Description	NRDA Criteria Evaluation
SHORE-8	El Capitan State Park Concrete Removal Project/Bike Path and Rip Rap Removal	Remnants of a road and associated rip rap on the beach immediately west of a failed bike path section would be removed to allow for sandy beach restoration at the site.	2nd TIER PROJECT. May not be feasible, as a portion of the riprap is protecting pipeline infrastructure.
SHORE-9	Santa Barbara County Seawall Removals	Remove seawalls along the Santa Barbara County shoreline that are impacting the sandy beach ecosystem (Does not include the Ellwood Seawall)	2nd TIER PROJECT. Preliminary review of structures indicate that they may be necessary for rail road infrastructure.
SHORE-10	Coastal Hazards Removal, Goleta Beaches from hazards removal, Arroyo Hondo to Coal Oil Point	Focusing on Goleta beaches between Arroyo Hondo and Coal Oil Point (not including Ellwood Seawall), this project includes removal of hazards such as iron material protruding from the shoreline surface.	2nd TIER PROJECT. Ecological benefits to shoreline habitat are uncertain. Primary benefit may be to recreation.
SHORE-11	Coal Oil Point Research and Education	Research and education at Coal Oil Point preserve.	2nd TIER PROJECT. No direct, physical benefits to shoreline habitats.
SHORE-12	Devereux Slough	Ongoing project within the UC Reserve System that is restoring Devereux Slough by removing a golf course and restoring estuarine and upland and vegetation.	2nd TIER PROJECT. Estuaries were not impacted by the spill and are not a top priority for restoration.
SHORE-13	Funding a Quick Reaction Cleanup Crew for Tar found on Beaches	Funding a quick reaction cleanup crew for tar found on beaches	2nd TIER PROJECT. Would only apply to naturally occurring seep oil. Anthropogenic spills are already required to be cleaned up under other legal authorities. Relatively high cost compared to other preferred projects, and benefits to shoreline habitat are unclear.
SHORE-14	Remove unnecessary sediment basins	Remove unnecessary sediment basins along the Gaviota coast to improve sediment transport for beach nourishment.	2nd TIER PROJECT. Feasibility uncertain in fire-affected areas.

Project ID	Project Name	Project Description	NRDA Criteria Evaluation
SHORE-15	Refugio and Gaviota Coast Human Impact Mitigation	Installation of restrooms and trash receptacles at informal costal access locations to reduce human waste and impacts on the shoreline.	2nd TIER PROJECT. Benefits to shoreline habitats uncertain. Primary benefit may be to recreation.
SHORE-16	Other Dune Restoration Projects	Dune restoration in locations other than Ventura County (i.e., Vandenberg AFB, etc.)	2nd TIER PROJECT. Benefits are less closely linked to affected habitat areas than other preferred projects.
SHORE-17	Coal Oil Point Pilings and Debris Removal	Remove creosote pilings that have broken from the Ellwood Seawall and deposited in COPR, including around the Devereux Slough and sandy beach at Coal Oil Point. May be conducted as a part of the Ellwood Seawall project.	2nd TIER PROJECT. Potential environmental impacts from disturbance to Devereux Sough during implementation are anticipated to be greater than those for other preferred projects

Table 1(b) Projects Meeting NRDA Criteria—Subtidal and Fish Habitats

Project ID	Project Name	Project Description	NRDA Criteria Evaluation
SubT-1	Abalone Restoration	Transplant abalone from donor sites and cultivated populations to a target population within MPAs, in order to bolster the abalone population within MPAs that serve an important ecological role as benthic grazers.	PREFERRED. Site-specific direct benefits to subtidal habitats that were impacted by the spill.
SubT-2	Coastal Eelgrass Restoration	Eelgrass restoration in Refugio Bay	PREFERRED. Site-specific, In-kind, subtidal restoration.
SubT-3	Sand-Dwelling Kelp Restoration Project	Funding for this project would extend monitoring of the existing pilot project to assess long-term benefits of the project, and viability of the restoration design.	PREFERRED. Benefit to benthic resources impacted by the spill are less certain than for other preferred projects. However, the cost of the project is extremely low and would help quantify benefits that have the potential to be substantial.

Project ID	Project Name	Project Description	NRDA Criteria Evaluation
SubT-4	Ellwood Seawall Removal	Removing the Ellwood seawall primarily benefits sandy beach ecosystems, but subtidal habitats adjacent to the seawall are also projected to improve. For that reason, the subtidal monitoring portion of this project is categorized as a subtidal activity and funded proportionally.	PREFERRED. This is a sandy-beach project that will be primarily funded as a shoreline activity; however, it has collateral benefits to subtidal habitats and additional cost of subtidal monitoring is extremely low cost compared to other subtidal projects.
SubT-5	Net and Trap Removal (marine debris)	Removal of derelict fishing gear, with an emphasis on nets. The biggest accumulation of this gear is around the Channel Islands and in Southern California.	2nd TIER PROJECT. This project has limited tangible benefits to subtidal habitats in areas where injury was documented. To be effective, the project would likely focus on habitats outside of the injured area.
SubT-6	Artificial Reef	Construction of an artificial reef adjacent to Bird Island.	2nd TIER PROJECT. This project has relatively high cost project compared to other preferred projects. There is also uncertainty in project efficacy.
SubT-7	<i>Undaria</i> Removal at Anacapa Island	Remove <i>Undaria</i> infestation around Anacapa Island.	2nd TIER PROJECT. This project has relatively high costs compared to other preferred projects and may not achieve lasting benefits to subtidal habitats. Benefits occur outside of the area affected by the spill.
SubT-8	Marine Protected Area Management and Stewardship Program	Monitoring to support adaptive management and agency enforcement of MPA regulations; support for MPA biological monitoring; clean-up of marine debris; and education and outreach to promote awareness, compliance, and stewardship of MPAs.	2nd TIER PROJECT. Does not meet threshold criteria, on its own, because it represents monitoring only. Aspects of this project may be incorporated into the red abalone restoration project.

Project ID	Project Name	Project Description	NRDA Criteria Evaluation
SubT-9	Grunion Habitat Restoration and Education	Protections for spawning grunion, including education and outreach to raise public awareness and engagement in Grunion protection.	2nd TIER PROJECT. This project would primarily benefit shoreline habitats, not subtidal habitats. Project would provide less benefit to shoreline habitats compared to other preferred shoreline projects.
SubT-10	West Goleta Slough, Carpinteria, and Devereux Slough Restoration Projects	These projects involve enhancing habitats within estuaries that may provide nursery habitat for subtidal species.	2nd TIER PROJECT. This project does not directly benefit impacted resources, as estuaries were not impacted by the spill.
SubT-11	Kelp Restoration in Santa Barbara Channel Area	Restoration of kelp will lend to protection of shoreline habitats from storms, provide habitat for prey of marine mammals and birds, provide additional habitat for fish, provide wrack for sandy beach, and could also have recreational value as kelp beds are attractive for recreational diving.	2nd TIER PROJECT. Unclear project description (i.e., focal species, location, etc.)
SubT-12	Sargassum Removal	Removal of invasive algae, <i>Sargassum</i> sp.	2nd TIER Project. Feasibility is uncertain.
SubT-13	Lobster Restoration (Multiple Methods)	This project includes: continuing Sea Grant at-sea sampling program; conducting a tag-recapture study; conducting an aging study; purchasing GPS units for permit holders; funding additional CDFW personnel to conduct a mail and/or phone survey of fishermen to assess the impact of trap limit on their practice; funding for a trap puller to pull commercial lobster and crab traps for the CDFW vessel Iris Lord; funding for CDFW trap loss reporting; funding for trap tag program and processing of trap loss reporting; a dockside sampling study to determine size/sex distributions and educate the public; funding of improvements to port Wi-Fi system to facilitate submission of electronic logbooks; and an electronic or other tool that will aid enforcement in keeping track of lobster tags.	2nd TIER PROJECT. Lobster-specific restoration is less preferred than habitat restoration that will benefit lobsters as well as many other subtidal species.

Project ID	Project Name	Project Description	NRDA Criteria Evaluation
SubT-14	Boater Outreach to Reduce Spread of Invasive Algae	Educate boaters about reducing the spread of invasive algae, by sending materials with boater registration, and developing other educational opportunities.	2nd TIER PROJECT. Any physical benefits to subtidal habitats would be indirect and dependent on behavior and attitude changes. These types of benefits are difficult to quantify.

Table 1(c) Projects Meeting NRDA Criteria—Birds

Project ID	Project Name	Project Description	NRDA Criteria Evaluation
BIRD-1	BRPE Colony Enhancement on Anacapa Island	Enhance brown pelican breeding habitat on Anacapa Island by removing invasive plants or taking other actions to improve breeding attempts and success.	PREFERRED. Conducting restoration in nesting habitat provides more benefits to brown pelicans than restoration focused on dispersed non-breeding habitat areas.
BIRD-2	Prevention of injury to seabirds related to recreational fishing	This project would use outreach to raise public awareness and educate anglers about ways to reduce their chances of hooking birds and what to do if one is hooked. The project may include: 1) physical improvements to facilities associated with sport and commercial fisheries to reduce plumage contamination, entanglement and other injuries; 2) outreach to fishermen to provide them resources and information for assisting entangled wildlife; and 3) assistance for vessel operators to minimize wildlife interactions during fishing operations. This program could be implemented through the Seabird Protection Network, or by a separate entity.	PREFERRED. Addresses a major source of injury to a variety of seabirds impacted by the Refugio spill.
BIRD-3	Coal Oil Point Western Snowy Plover Protection	This may include: predator control; upgraded signage and fences; outreach to reduce disturbances at COPR; leashes to lend; and eradicate iceplant over nesting habitat on Ellwood Beach.	PREFERRED. Benefits the population of western snowy plovers that were directly impacted by the spill.

Project ID	Project Name	Project Description	NRDA Criteria Evaluation
BIRD-4	Brown Pelican Restoration at Alcatraz Island	Restore habitat and use social attraction to try to establish breeding at Alcatraz Island.	2nd TIER PROJECT. Alcatraz Island is far outside of spill zone, and would benefit a small number of birds.
BIRD-5	Brown Pelican Restoration on San Clemente Island	BRPE have nested on San Clemente Island in the recent past (a first for that island) and could probably benefit from identifying the area used by BRPE and possibly establishing an exclusion zone from cats, fox, and rats. This action would most likely benefit other seabirds as well.	2nd TIER PROJECT. Would create fewer benefits to BRPE than a similar project where nesting densities are greater.
BIRD-6	Santa Barbara Island Revegetation	Continue re-vegetation to promote suitable brown pelican nesting habitat on Santa Barbara Island.	2nd TIER PROJECT. This project would create fewer benefits than BIRD-1 due to the lower number of pelicans that breed on Santa Barbara Island. This project is also more costly than BIRD-1, and may have feasibility problems due to pier outage at SB Island.
BIRD-7	Western Snowy Plover Predator Control	Provide funding for predator control in recovery unit 5 (inclusive of the spill zone) and/or 4 (north of the spill zone).	2nd TIER PROJECT. Priority for snowy plover restoration is where injury was documented (i.e., at Coal Oil Point Reserve).
BIRD-8	Raven Exclusion Devices For Nesting Ashy-Storm Petrel on Channel Islands	Provide enhanced protection for nesting Ashy-storm petrels being preyed upon by common ravens.	2nd TIER PROJECT. The impact of the spill on this species was low compared to other seabirds.
BIRD-9	Western Snowy Plover Monitoring and Habitat Protection at McGrath, Mandalay, San Buenaventura	This project would include monitoring and protecting western snowy plovers and California least terns on State Parks, through installation of symbolic fencing, signage, docent programs, predator control, and other measures necessary to monitor and protect nesting shorebirds.	2nd TIER PROJECT. Some aspects of this project would be partially addressed by dune restoration projects proposed in the Shoreline section.

Project ID	Project Name	Project Description	NRDA Criteria Evaluation
BIRD-10	Dune Restoration	Restoration of sand dune habitat that supports western snowy plover and California least tern breeding.	2nd TIER PROJECT. Dune restoration is a preferred project that is proposed for implementation for "shoreline" restoration.
BIRD-11	Seabird Protection Network at Channel Islands	Implement actions identified by the Channel Islands chapter of the Seabird Protection Network. These actions focus on reducing human disturbances to seabirds at the Channel Islands.	2nd TIER PROJECT. Anthropogenic threats to seabirds are greater along the mainland shore. This project will not provide as great a benefit to seabirds as BIRD-2.
BIRD-12	Andre Clark Bird Refuge Proposal	The restoration project is designed to improve water quality and habitat for both bird and aquatic species, and to allow the bird refuge to function as nursing habitat for ocean going fish species.	2nd TIER Project. Unclear benefits for the bird species impacted by the spill, as the existing refuge habitat functions for seabird roosting.
BIRD-13	Protection of Nesting Grebes	Western and Clark's grebes have historically nested at Cachuma Lake in Santa Barbara County and Lake Casitas in Ventura County. This project would improve nesting success of grebes at these lakes.	2nd TIER Project. No specific project has been proposed for lakes in Santa Barbara or Ventura Counties, and would require further development. If developed further, this project could potentially be combined with BIRD-2.

Table 1(d) Projects Meeting NRDA Criteria—Marine Mammals

Project ID	Description	Project Description	NRDA Criteria Evaluation
MAMM-1	Pinniped Rehabilitation Survival Improvement	Increase survival rates for live stranded pinnipeds recovered in Santa Barbara and Ventura Counties by increasing capacity at rehabilitation facilities.	PREFERRED. Increased rehabilitation capacity directly benefits survival of pinnipeds that strand live due to disease, fishing interactions, vessel strikes, and other conditions.
MAMM-2	Cetacean Entanglement Response	Expand capacity for entanglement response to increase survival rates of cetaceans entangled in fishing gear. Stage gear in additional locations for quick response to reports of entangled cetaceans in the Santa Barbara Channel.	PREFERRED. Increased response capacity directly benefits survival in cetaceans that become entangled in fishing gear.

Project ID	Description	Project Description	NRDA Criteria Evaluation
MAMM-3	Reduce Sea Lion Entanglement Mortality on San Miguel Island	Remove fishing gear from entangled pinnipeds on San Miguel Island, thus directly benefitting pinnipeds by reducing direct mortality. Evaluates the effects of different fisheries on the population for future management (3 year project).	2nd TIER PROJECT. Benefits pinnipeds by reducing mortality due to fishing gear entanglement. Additional benefits to pinnipeds and small cetaceans (dolphins) in future years through fisheries management.
MAMM-4	Mitigating Entanglement Risk for pinnipeds	Improves response capabilities on the mainland to respond to entangled pinnipeds from Santa Barbara county to Orange County.	2nd TIER PROJECT. Benefits pinnipeds from southern California and reduces mortality due to entanglement in fishing gear. The project was not preferred because it is not clear how success would be measured, and it would be implementing new, unproven technology.
MAMM-5	Mammal Haul-Out and Rookery Restoration	Purchase conservation easements at Carpinteria Beach to provide further buffers for harbor seal rookery, or identify additional areas that that could be protected and serve as rookery habitat. Includes public information campaign to reduce human disturbance to marine mammals at rookeries.	2nd TIER PROJECT. Carpinteria rookery is already protected under the MMPA. Additional benefits from this project are possible, but not quantifiable. Additional potential rookery locations are not identified.
MAMM-6	Mitigation of Cetacean Ship Strikes	This project would monitor the ship strike rate of large cetaceans as part of a voluntary speed reduction program in the Santa Barbara ship channel.	2nd TIER PROJECT. Not clear how ship speed reduction is monitored and implemented; feasibility and quantification uncertain at this time. This may be considered as a pilot project.
MAMM-7	Remove Derelict Fishing Gear	Remove sub-surface fishing gear and other marine debris.	2nd TIER PROJECT. While derelict nets may occasionally trap marine mammals, they have not been identified as a significant problem along the Gaviota coast. The benefits to marine mammals along the Gaviota coast is not readily quantifiable.

Project ID	Description	Project Description	NRDA Criteria Evaluation
MAMM-8	Bottlenose Dolphin Protection Area	Improve habitat for the coastal population of bottlenose dolphin through reduction of microbial and chemical contamination, and anthropogenic noise.	2nd TIER PROJECT. No known location to implement this project where substantial benefits to dolphins could be achieved. Benefits would be difficult to quantify if a suitable area were identified.

Table 2 Projects Not Meeting NRDA Criteria--Excluded From Further Consideration

Project ID	Project Name	Project Description	NRDA Criteria Evaluation
EX-1	Gaviota Marine Terminal Transfer To California State Parks For Inclusion In Gaviota State Park	Significant increase in available public recreational use and protection of additional coastal habitat. Also a number of known archaeological sites.	EXCLUDED. State Parks is familiar with this project and has concerns about liabilities that come with it. An alternative use would be to use that site to move the CalTrans rest stop.
EX-2	Provide Funding To Stewardship Groups Along Coast	Provide support for stewardship groups for projects, activities, etc.	EXCLUDED. Too vague and does not specifically target affected resource classes.
EX-3	Eel Grass Baseline Monitoring	There is a need to better understand the extent of eelgrass habitat along the open coast of Southern California so that mitigation of project impacts can be more informed. This would involve work to fill in gaps in existing information.	EXCLUDED. No tangible benefits, only studies. Does not meet threshold criteria.
EX-4	Subtidal Biological Surveys	Partnering with scientists from UC Santa Barbara to conduct subtidal biological surveys in and around the MPAs in the Santa Barbara Channel to quantify how fish and other marine species are benefiting from the protected status of these areas;	EXCLUDED. No tangible benefits, only studies. Does not meet threshold criteria. Aspects could potentially be incorporated into the abalone restoration project.
EX-5	Carpinteria Creek Mouth Habitat Restoration Project	The Carpinteria Creek Mouth restoration project is located at Carpinteria State Beach, on State Parks property. The goal of the project is to increase the habitat and ecological value of the Carpinteria Creek estuary by removing non-native flora and the planting of native flora along the banks. The project has also allowed volunteers and visitors of the Carpinteria State Beach to learn about habitat restoration and the importance of the Carpinteria Creek Watershed.	EXCLUDED. Project completed.
EX-6	Goleta Wave Buoy	The California State funding for the CDIP Goleta Wave Buoy will be expiring in 2016. Since knowledge of wave data are critical for any restoration project, continued funding of this buoy would be beneficial towards restoration work.	EXCLUDED. No tangible benefits, only studies. Does not meet threshold criteria

Project ID	Project Name	Project Description	NRDA Criteria Evaluation
EX-7	Kelp Monitoring	Kelp forest monitoring at the Channel Islands.	EXCLUDED. No tangible benefits, only studies. Does not meet threshold criteria
EX-8	Sea star Wasting Citizen Science Monitoring	Monitoring of sea star wasting.	EXCLUDED. No tangible benefits, only studies. Does not meet threshold criteria
EX-9	San Ysidro Creek And Romero Creek Fish Passage Enhancement and Goleta Slough Project	Enhance fish passage in narrow concrete walled or lined channels that would better allow steelhead to migrate upstream.	EXCLUDED. Terrestrial fish habitat was not impacted, and steelhead were not demonstrated to be specifically injured by the spill. Does not meet threshold criteria
EX-10	Arroyo Honda Stream Corridor Restoration	Providing habitat for wildlife, a sanctuary for nature lovers, and invaluable experience for those who are learning while working at the Land Trust owned and operated Arroyo Hondo Preserve, located between Refugio and Gaviota State Beaches. Interns and volunteers are helping with the removal of invasive species and the re-introduction of native plants throughout the stream corridor over the course of three years.	EXCLUDED. Does not target the affected resource classes.
EX-11	Santa Barbara Shores And Sperling Preserve Native Grassland Restoration At Ellwood Mesa	Project can be found at the following web link: http://goleta.granicus.com/MetaViewer.php?view_id=2&clip_id=165&meta_id=13684	EXCLUDED. Does not target the affected resource classes.
EX-12	Refugio Beach Cove Bluff Restoration	Overhanging slopes along the west end of Refugio Beach are a safety hazard, and will lead to loss of large palm trees. Construct tree wells utilizing locally quarried sandstone, and backfill eroded slope with native soil. Although non-native, these trees may provide nesting habitat for orioles and perching habitat for other birds.	EXCLUDED. Parks has evaluated this and preliminarily determined that it is not something they would like to pursue.
EX-13	Transplant Palm Trees On Refugio	Save the iconic palm trees at Refugio State Beach.	EXCLUDED. State Parks has evaluated this and preliminarily determined that it is not feasible at this time.

Project ID	Project Name	Project Description	NRDA Criteria Evaluation
EX-14	Refugio Beach Campground Lawn Replacement With Native Plants and Xeriscape	Improve aesthetics, water usage, bird and pollinator habitat (and watching), school education purposes, and exemplify pre-historic uses of this cove.	EXCLUDED. There is a septic leach field at the location of the lawn, so it makes sense to keep it there.
EX-15	RBOS Data Room	Create a "data room" to house information about flora and fauna in the area, as well as research conducted as part of or after the spill, to better facilitate restoration and other activities.	EXCLUDED. No tangible benefits to injured resources.
EX-16	Refugio Creek Mouth Restoration	Remove invasive non-native flora and install native flora along the banks at the mouth of Refugio Creek on State Parks property.	EXCLUDED. Project completed.
EX-17	Diesel Storage Tank Replacement	Replace existing single wall underground diesel storage tank, to decrease potential risks of a beach and/or intertidal diesel oil spill.	EXCLUDED. Capital improvement project.
EX-18	Haskell's Beach Emergency Access Improvements	The project includes improvements to a current dirt road to improve emergency responder access to Haskell's Beach. The road improvements include the creation of a turnaround for emergency vehicles just off the beach, which can serve as a staging area for emergency activities, as well as the creation of an access point directly on to the beach for emergency vehicles.	EXCLUDED. Capital improvement project.
EX-19	Quick Reaction Cleanup Crew for Tar on Beaches	For the most part the cleanup on the shore was pretty good in easy-to-access areas, but was not necessarily as good in the more remote pocket beaches. Also, there is a layer of oil that was covered by sand shortly after the spill and is periodically exposed by sand removal due to tidal and seasonal changes. A quick reaction cleanup crew could respond to these stretches of oily rock and sand as they become exposed.	EXCLUDED. Duplicative of responsibilities under oil spill response agencies. Removing seep oil from beaches would have a high cost and uncertain benefits to resources because seep oil has lower toxicity than fresh oil.
EX-20	Online Atlas of Western Snowy Plover Populations for Oil Spill Response	Create an online atlas of Western Snowy Plover population data.	EXCLUDED. No tangible benefits to injured resources.

Table 3 Human Use Projects – No Human Use Projects Considered at This Time

Project ID	Project Name	Project Description
EX-HU-1	Gaviota Creek Watershed Restoration	Restoration of the Gaviota Creek watershed involves removal of steelhead migration barriers, a restoration of the Gaviota Creek estuary, improving the access road to the Gaviota State Park, and other steps to protect the watershed from development and water diversion which could impact the creek. Implementation would improve wildlife habitat for anadromous species of the Southern Steelhead and Tidewater Goby (both Federally endangered), as well as other sensitive and endangered species. It will also reduce flood damage to Gaviota State Park, and protect future watershed health.
EX-HU-2	Gaviota Pier Repair	Improve recreational and sport fishing access, as well as enhance fish habitat around piers.
EX-HU-3	El Capitan Entry Road/Trail Realignment	Includes replacement of large culvert on entry road with free span bridge, modernizing road to better accommodate large RVs, and realignment of the pedestrian trail next to the roadway.
EX-HU-4	Upgrade/Enhances Day Use Beach Access On the Gaviota Coast	Upgrade landscape, infrastructure (including universal accessibility), beach access, day use, amenities, and campgrounds.
EX-HU-5	Land Acquisition for a Campground Near Gaviota	Expand camping recreation opportunities along the Gaviota coast.
EX-HU-6	Relocate and Reopen McGrath State Park	Relocate McGrath Campground to contiguous state-owned property to allow restoration of the estuary resources, which are currently degraded by the presence of the campground.
EX-HU-7	Refugio At-Sea Visitation for Special Needs	Boat trips to educate special needs people and their caregivers about the area, the incident, the impacts, the closure, the NRDA process, and the future of the area.
EX-HU-8	Refugio Recreational Angling Loss Makeup	Fishing trips to give back lost opportunities to the recreational fishing communities. As part of the project, fishing gear may be purchased to help make up for loss of business during the closure.
EX-HU-9	Multilingual Beach Access Signage at Railroad Crossings (Tajiguas, Vista Point)	Add multilingual railroad crossing signage to the vista point train trestle and the curved section of track at Tajiguas next to the parking areas to increase awareness of the tracks and safety of visitors to the area.

Project ID	Project Name	Project Description
EX-HU-10	Sportfish Contamination Information and Awareness (Gaviota Coast)	Provide access to lab testing of samples of fish and invertebrates from the spill zone to determine if they are safe to eat. Include samples collected by the public sport fishermen who fish in the area.
EX-HU-11	Sustainable Stewardship Program for Visitors of Santa Barbara and Ventura County Beaches	This project will be a coordinated effort to compile expertise from many resource managers to be delivered by an entity that controls visitor access/use of various areas of the coast. The goal would be to create a stewardship ethic in visitors of coastal resources so that human use has less of an impact on the resources and users may get more enjoyment out of trips by recognizing the unique resources that exist there.
EX-HU-12	Demolition of Restrooms at El Capitan	Remove these facilities that are no longer in use.
EX-HU-13	Goleta Beach Park Restoration	Goleta Beach Park recently was approved for a Coastal Permit for its existing rock revetment on the west end of the Park for twenty years, which will support wildlife, recreational use, and landward asset protections. However, there are approximately 950 linear feet of unprotected park which requires the same protection for marine life and recreational use. Projects may include, geotextile bags (or tubes) buried cobble stones, and landscaped (marine vegetation) sand dunes, with canary palms placed landward for final protection. This project would then provide a more universal protection buffer against future oil spills or the ravages of winter storms for habitat and recreational use.
EX-HU-14	Gaviota Land Conservation	There could be three different options for this project. One option could be outright buying conservation land to be used by the public. A second option could be purchasing the development rights of ranches throughout the Gaviota coast. And the third option could be developing conservation easements throughout the Gaviota coast. All three options would achieve the same goals. The public would gain the preservation of a pristine southern California coastline and continue to benefit from the recreational opportunities along this coastline. It would provide space for endangered and threatened plants and animals to live. Water quality would be maintained throughout the creek watersheds making sure beaches and rocky reef habitats are not degraded and polluted. A wildlife corridor will remain from the Los Padres National Forest to the coast.
EX-HU-15	Franklin Trail Extension	This project is looking to raise additional funds to pay for the environmental studies, review by the U.S. Forest Service, and the reconstruction of the historic Franklin Trail through the Los Padres National Forest, to be extended to the mountain crest overlooking south Santa Barbara county.

Project ID	Project Name	Project Description
EX-HU-16	Ellwood Beach Access Points Project	This project proposes to remove approximately 15 cubic yards of the existing aging asphalt along the Beach Access Point E, and to reduce the steepness of the grade at this location by creating a curvilinear trail. In order to address long-term erosion impacts, the proposed project would establish two bioswales to capture runoff along segments of the trail. Runoff captured in these bioswales would be directing into two drain pipes that would outlet on the beach. At Access Point F, the existing 275-foot beach access trail is narrow and steep. The project proposes to construct approximately 100 steps over the beach access trail. A gravel infiltration trench with buried pipe and filter sleeve would be established on the eastern side of the trail.
EX-HU-17	Ellwood Trails and Restoration Project	The proposed Ellwood Mesa Coastal Trails and Habitat Restoration Project would improve approximately 1.2 miles of existing coastal trails on the Ellwood Mesa. This could include improvements to 1.56 miles of existing trails, as well as drainage improvements to direct surface flows off of trails and improvements in the trail head surface. Improvements to three drainage crossings would also be made. In addition, approximately 0.54 mile of trail would be realigned around sensitive areas in conformance with the City of Goleta General Plan and Coastal Land Use Plan. The proposed project would include approximately 13 acres of total habitat restoration, including the removal of non-native species, and increases in the coverage of native coastal scrub, wetland, and grassland vegetation. There is also interest in building a foot path off Coronado Drive to cross into the Butterfly Grove.
EX-HU-18	Santa Barbara Coast Habitats Documentary	The project is a series of BBC-quality movies about the coastal habitats, including beach, intertidal, subtidal, sand flats, and kelp forest. The movies would describe the habitat, the natural history of important species, and conservation issues. Restoration in this case will be achieved through education, including by improving support and respect to these habitats.
EX-HU-19	Haskell's Beach Public Access Improvements	This project includes improvements to two public beach access points at Haskell's Beach. The first access point would be improved so as to mitigate erosion and safety concerns. A second access point would also be established south of the current access point.

Project ID	Project Name	Project Description
EX-HU-20	Santa Barbara County Gaviota Coast Plan Projects	Possible projects include:- Acquire near shore bluff top easements for the California Coastal Trail from the Bacara Hotel to El Capitan State Beach, and develop and open the California Coastal Trail throughout this reach. The County has acquired Offers to Dedicate (OTDs) for the development of several segments of the California Coastal Trail between the Bacara Hotel and El Capitan State Beach. Funding is needed to develop and complete the trails along the OTDs to open the California Coastal Trail throughout this reach.- Work with California State Parks and the California Coastal Commission to reopen the closed segment of the existing Class I bikeway that links El Capitan and Refugio State Beaches. Funding is needed to develop and implement a feasible longer term solution to repair and then maintain the damaged Refugio State Beach to El Capitan State Beach bike path. - Work with California State Parks to develop and open a three-mile-long bluff top segment of the California Coastal Trail, south of U. S. Highway 101, from Gaviota State Park east to the Gaviota Marine Terminal. Funding is needed to develop this segment.- Other potential options include a variety of acquisitions, easements, habitat restoration, and planning activities in the area.
EX-HU-21	Santa Barbara County Beachfront Improvements	Goleta beachfront improvements will include picnic areas, day use areas, turf, irrigation, and access stairs to the beach. Arroyo Burro beachfront improvements will include day use areas and benches. Goleta Pier improvements will include replacement of 2,000 deck boards, replacement of side rails, to improve lighting, benches, and a fish cleaning station.
EX-HU-22	Marine Protected Area Management and Stewardship Program	Promotion of MPA-centered recreation and eco-tourism in the Santa Barbara Channel; monitoring to support adaptive management and agency enforcement of MPA regulations; support for MPA biological monitoring; clean-up of marine debris; and education and outreach to promote awareness, compliance, and stewardship of MPAs.
EX-HU-23	Refugio and Gaviota Coast Human Impact Mitigation and Protection Program (Tajiguas, Mariposa Reina South, and Vista)	Tajiguas, Mariposa Reina south, and Vista point were closed to fishing and diving during the spill. Installment of bathrooms and trash bins in these areas will help decrease pollution and increase the overall condition of these highly-trafficked areas.

Project ID	Project Name	Project Description
EX-HU-24	Coastal Hazards Removal, Goleta Beaches Extending From Arroyo Hondo To Coal Oil Point (Note Includes Removal Of Ellwood Seawall)	These are permitted oil field related debris removal projects that have been completed periodically as funding is available. A number of sites including the Ellwood sea wall would provide significant habitat improvements including hazards to public uses.
EX-HU-25	Ventura Harbor Wetlands Ecological Reserve Wetland Restoration	Restoration and enhancement of the Ventura Harbor Wetlands Ecological Reserve. The dominant non-native plants will be removed. Once the non-native plants have been removed, live oak, valley oak, sycamore, toyon, willow and other smaller, native shrubs will be planted, which will enhance the habitat value of this site.
EX-HU-26	Coil Oil Point Research and Education	Funds for an endowment for an education coordinator, undergraduate internships for naturalist guides at the COP Nature Center, graduate student research awards to conduct research at COPR, and equipment for laboratory and monitoring.
EX-HU-27	Carpinteria Harbor Seal Rookery Protection Enhancement, and Visitor Education and Facility Enhancement	Enhanced protection could include adjacent bluff top property acquisition/easements, improved public beach exits, and signage east and west of the sanctuary as well as off-site education programs, including Carpinteria State Park and Venoco contractors. Restoration may include increasing habitat through extension of beach closure dates, measures to decrease disturbances, and dedicated measures in the event of Venoco Oil Co. pipeline or materials spills. Protection measures to diminish human disturbances of the seals could include improved bluff top and beach access at the east and west ends of the sanctuary, improved local and State Park education, improved monitoring of disturbances, improved education of Venoco Oil and Venoco lessees/contractor employees regarding measures to reduce disturbances, planning protocols to reduce injury in the event of a spill/explosion, improved educational signage, improvements to screening of the bluff top visitor viewing area, and improved onsite and offsite educational programs and materials. The proposed project will contribute to recreation through enhancing the visitor experience by providing increased seal protection/more seals, a more pleasant and safe viewing area, and increased visitor education on and off site.
EX-HU-28	Fish Reef	This project would include facilitating permitting by the necessary agencies and funding from Plains All American to work with Fish Reef Project to construct a 5-acre reef made up of quarry rock and reef balls, some of which should have smaller holes in order to protect a brood stock of abalone and other species of concern. This 5-acre reef zone, placed where recreational fishing can occur and at a depth where kelp will grow, will compensate the recreational angling community for lost/damaged capacity of affected natural reefs.

