



United States Coast Guard
U.S. Department of Homeland Security

Environmental Assessment

Jewel Beach Stormwater Outfall Replacement, U.S. Coast Guard Station Kodiak, Alaska



June 2016

United States Coast Guard (USCG)
FINDING OF NO SIGNIFICANT IMPACT (FONSI)
FOR

Jewel Beach Stormwater Outfall Replacement: Decades of ground subsidence and exposure to wave and storm action have greatly reduced the outfall's capacity to function properly under normal storm conditions.

The attached environmental assessment supports the finding that there will be no significant impacts to ecological, cultural, or subsistence resources as a result of the replacement of the stormwater outfall structure at Jewel Beach. Ultimately, this proposed project aids in ensuring USCG Station Kodiak's operational reliability, which is particularly important due to the number of people and communities that rely upon the USCG for emergency response and other support activities.

On behalf of the USCG, the United States Army Corps of Engineers engaged in Section 7 interagency coordination with the National Marine Fisheries Service (NMFS) and the United States Fish and Wildlife Service (USFWS) to determine the potential of this project to affect endangered species, marine mammals, and essential fish habitat. Both NMFS and USFWS required that all in-water construction efforts effecting the replacement of the stormwater outfall structure at Jewel Beach be conducted in the presence of a qualified marine mammal monitor. The marine mammal monitor shall have the authority to cease construction activities should any marine mammal or northern sea otter enter within 100 yards of the in-water construction activity. Construction activity would be allowed to resume once the marine mammal or northern sea otter exited the 100 yard radius monitoring area. No other compensatory or mitigation action activities are required by this project, as proposed.

This finding of no significant impact is based on the attached United States Army Corps of Engineers prepared environmental assessment, which has been determined to adequately and accurately discuss the environmental issues and impacts of the proposed action and provides sufficient evidence and analysis for determining that an environmental impact statement is not required.

Date	RAVEN SMITH Environmental Reviewer	Environmental Protection Specialist Civil Engineering Unit Juneau
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In reaching my decision/recommendation on the USCG's proposed action, I have considered the written comments submitted to me from the environmental reviewer and the information contained in the EA and FONSI on the potential for environmental impacts. Based on the information in the EA and this FONSI document, I agree that the proposed action as described above, and in the EA, will have no significant impact on the environment.

Date	ANDREW JOCA, CDR Responsible Official	Commanding Officer Civil Engineering Unit Juneau
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USCG
Final Environmental Assessment
Jewel Beach Stormwater Outfall Replacement
United States Coast Guard Station, Kodiak

This Coast Guard environmental assessment was prepared in accordance with Commandant's Manual Instruction M16475.1D, and is compliance with the National Environmental Policy Act of 1969 (P.L. 91-190) and the Council on Environmental Quality Regulations dated 28 November 1978 (40 CFR Parts 1500-1508).

This environmental assessment serves as a concise public document to briefly provide sufficient evidence and analysis for determining the need to prepare an environmental impact statement or a finding of no significant impact.

This environmental assessment describes the proposed action, the need for the proposal, the alternatives, the environmental impacts of the proposal and alternatives, comparative analysis of the action and alternatives, a statement of environmental significance, and lists the agencies and persons consulted during its preparation.

Date	MICHAEL ROUSE Preparer	NEPA Coordinator Alaska District USACE
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Date	RAVEN SMITH Environmental Reviewer	Environmental Protection Specialist Civil Engineering Unit Juneau
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In reaching my decision/recommendation on the USCG's proposed action, I have considered the written comments submitted to me from the environmental reviewer and the information contained in this EA on the potential for environmental impacts.

09 June 2016

Date	ANDREW JOCA, CDR Responsible Official	Commanding Officer Civil Engineering Unit Juneau
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Environmental Assessment
Jewel Beach Stormwater Outfall Replacement, U.S. Coast Guard Station Kodiak

1. Proposed Action

The Jewel Beach stormwater terminal conveyance structure and associated outfall, IA-3, is located immediately adjacent to the south approach of runway 1 on the U.S. Coast Guard Station Kodiak/Civil Airfield on Kodiak Island, Alaska. Outfall IA-3 discharges stormwater runoff from an approximately 94-acre microwatershed (Figure 1) and is currently dilapidated beyond its reliable capacity to function properly under adverse weather and sea conditions. Outfall IA-3 has been proposed for replacement with an updated conveyance and outfall structure that will be positioned at a lower elevation and incorporate one-way valves that would better resist fouling by sand and ocean debris during storm and tidal episodes.

2. Statement of Need

Following initial installation in 1953, seismic activity, ground subsidence, and ground rebounding have altered elevations in the storm sewer collection system, causing low elevation areas to form near the point of the outfall. As a result of these reduced elevations, a significant backwashing condition has arisen that fouls several thousand feet of the outfall conveyance infrastructure with sand, rocks, and marine debris. The microwatershed serviced by outfall IA-3 is partially built-up and incorporates water impervious surfaces that are consistent with dual-use military and residential facilities. These facilities support activities associated with aviation maintenance and support, as well as Coast Guard maritime operations. Currently, operational readiness and reliable access to residential and critical facilities are reduced by localized flooding as a result of the existing condition of outfall IA-3.

3. Alternatives Considered

3.1. No-Action Alternative: A no-action alternative would effectively defer replacement of outfall IA-3 to some point in the future. However, this alternative would not reduce reasonably perceived impacts to the environment; land subsidence and storm surge would continue to erode the capability of the existing infrastructure to the point of failure. Failure to effectively convey stormwater from the developed upland areas contained within the microwatershed serviced by IA-3 would lead to localized flooding, diverting U.S. Coast Guard (USCG) resources from their primary duties and resulting in the potential loss or damage of USCG assets or other government property.

3.2. Proposed Action-Outfall Replacement Alternative: The project, as proposed, would replace the existing outfall structure and a length of the adjoining conveyance pipeline, tying in at an existing manhole location approximately 100 yards inland. In-line one-way valves would be incorporated into the conveyance line in an effort to alleviate the existing backwash condition. Trenching during the low tide period along the pebble/shell hash beach would be required to correctly position the outfall structure at -4 feet Mean Lower Low Water (MLLW) in order to further alleviate the existing back washing condition. Existing rock armor emplacements would be repurposed to protect the conveyance piping and outfall

terminal structure from wave and tidal forces while the existing structure would be abandoned in place.

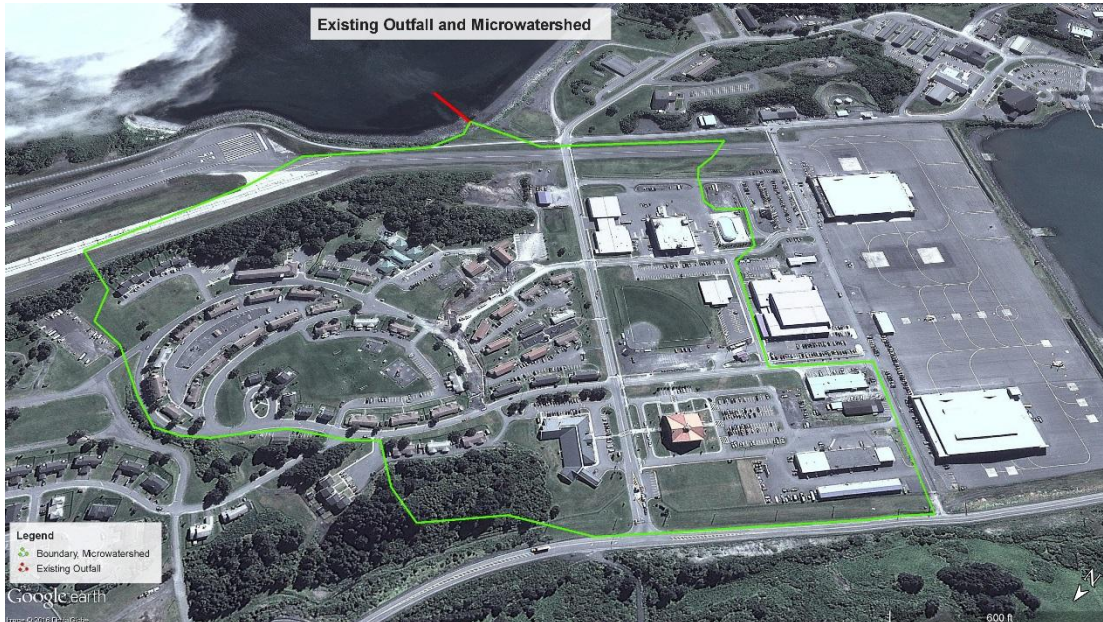


Figure 1. U.S. Coast Guard Station, Kodiak.

4. Summary of the Environmental Impacts of the Proposed Action and Alternatives.

U.S. Coast Guard Station, Kodiak is located within one of the most significant ecological regions of Alaska. Oceanic currents, upwelling processes, and atmospheric and climatic phenomena all contribute to biological productivity on a remarkable scale within the marine waters of the Kodiak Island Archipelago. Such productivity in turn sustains the third most lucrative commercial fishing port in the United States (NMFS 2013). Kodiak's rich marine waters and maritime climate attract and support a vast diversity of marine mammals, and migratory and resident bird species. As many as 247 species of birds have been recorded within the archipelago (USFWS 2009).

Jewel Beach occurs immediately south of the newly extended Coast Guard/Civil airport runway 1 (formerly runway 36) along the northeast coast of Kodiak Island, approximately five miles southwest of the town of Kodiak. The shoreline at Jewel Beach and adjacent runway levee is highly disturbed. Erosion control at Jewel Beach has been an historic undertaking, and in areas, the existing rock armor has been compromised and is being actively exhumed and deposited along the beach by the continual storm and tidal action. The existing stormwater outfall has been subject to decades of these same storm and tidal forces and has been reduced to rubble in its historic footprint (Figure 2).

Replacement of the existing outfall structure and terminal conveyance piping is a highly localized and temporary endeavor that would occur in a previously disturbed habitat area that will not degrade or negatively impact the intertidal environment, nor will it negatively affect biological, cultural, or subsistence resources. The project, as proposed, is not socio-economically disadvantageous to any particular group of people, and air and water quality will not be impacted in anything more than a minimal and temporary manner.

The no-action alternative described in this assessment would not immediately negatively affect ecological, cultural, or subsistence resources. However, because of previous actions that included the installation of impervious surfaces and redirection of the microwatershed's natural watercourses, the continued degradation of the stormwater outfall and conveyance structure could turn into a more serious flood control situation that places more resources at risk. It is unclear at this time what the repair or replacement action would constitute under such a scenario, or what the impact to the natural and human environment might be.

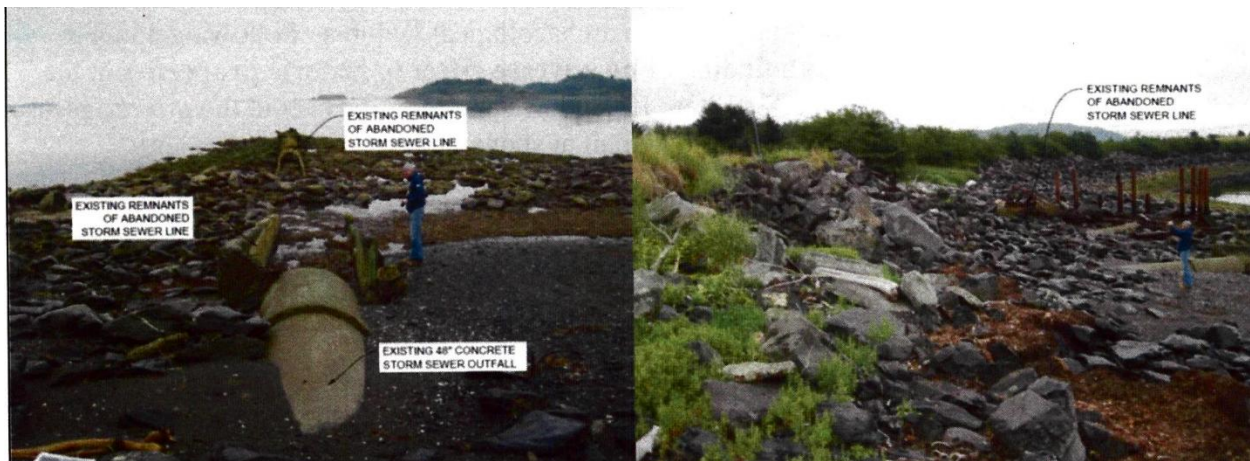


Figure 2. Existing stormwater outfall.

4.1. Threatened and Endangered Species: The proposed project area occurs within or immediately adjacent to areas that are either specifically designated as critical habitat or known to support differing populations of threatened and endangered species (NMFS 2016, USFWS 2016).

- Humpback whale (*Megaptera novaeangliae*), (endangered)
- Gray whale (*Eschrichtius robustus*), (endangered)
- Steller sea lion (*Eumetopias jubatus*), (endangered, Western DPS)
- Northern sea otter (*Enhydra lutris*), (threatened, Southwestern DPS)
- Short-tailed albatross (*Phoebastria albatrus*), (endangered)
- Steller's Eider (*Polysticta stelleri*), (threatened)

The U.S. Army Corps of Engineers (USACE), on behalf of the USCG, evaluated the proposed project's potential to impact these species and/or their respective designated critical habitats, and coordinated Section 7 concurrence with National Marine Fisheries Service (NMFS) and the United States Fish and Wildlife Service (USFWS) for humpback whale, Steller sea lion, northern sea otter, and Steller's eider, respectively. In both cases, USFWS

and NMFS concurred with USACE's determination that this proposed activity may affect, but is not likely to adversely affect threatened or endangered species due to the specific characteristics of the proposed project and physical environment at Jewel Beach, and because specific noise thresholds would not be exceeded. However, a critical component of this concurrence, in both instances, is the requirement for a marine mammal monitor with the authority to cease construction activities should ANY marine mammal (to include northern sea otter) enter a 100-yard monitoring area surrounding the active construction. Sections 4.1.1. through 4.1.3. of this analysis present conservation measures proposed by NMFS and USFWS, respectively.

4.1.1. To avoid harm to and harassment of listed and protected marine mammals, the USACE, as the design agent for the USCG, will establish a marine mammal monitoring area of 100 yards radius (centered on the construction activity) during construction activities. A marine mammal monitor will record observations of marine mammals within the area.

- The marine mammal monitor must be able to identify the designated wildlife and be equipped with binoculars, two-way radio communication with the equipment operators, and log book.
- If a marine mammal approaches the monitoring area, all construction work would be halted immediately; work may resume when the animal moves outside the monitoring area on its own accord.
- The monitor will have the authority to stop construction work if a marine mammal is observed approaching the monitoring area.
- The monitor will have no other primary duty than to watch for and report on events related to marine mammals.
- Within 60 days of completion of the project, the USACE will report all marine mammal monitor observations to NMFS for this project. The report will include all marine mammal sightings (or confirmation on absence of sightings), estimated distance from project operations, and any shutdown during construction activities due to marine mammals approaching the shutdown zone.

4.1.2. To avoid harm to Steller's eiders, all in-water work will occur prior to the bird's arrival in the fall (November 1st).

4.1.3. To avoid harmful disturbance to sea otters, marine wildlife observation areas with radii varying by activity and equipment will be implemented during in-water work. Marine wildlife monitoring will follow this protocol:

- The wildlife observer must be able to identify the sea otters and be equipped with binoculars, range finder, two-way radio communication with construction foreman or superintendent, and log book.
- If an individual sea otter comes within the designated marine wildlife observation area, all in-water work will be halted immediately; work may resume when the animal moves outside the observation area on its own accord.
- The observer will have the authority to stop construction if a sea otter is observed within the observation area.
- The observer's sole duty will be to watch for and report on events related to sea otters.

- The wildlife observer will work in shifts lasting no longer than four hours with at least a one-hour break between shifts to reduce observer fatigue; work will either cease during the break or two observers will be employed to maintain continuous work; the contractor may decide which method to use.

4.1.4. A single marine mammal monitor/wildlife observer that meets the personnel criteria of both sections 4.1.1. and 4.1.3. shall be required for monitoring activities at any one time while in-water construction activity is occurring.

4.2. Marine Mammals: The waters encompassing the Kodiak Island Archipelago are replete with marine mammals, many species of which are year-round residents (NMFS 2016). Marine mammals that are not threatened or endangered derive specific federal protections under the Marine Mammal Protection Act.

- Northern fur seal (*Callorhinus ursinus*)
- Harbor seal (*Phoca vitulina*)
- Pacific white-sided dolphin (*Lagenorhynchus acutus*)
- Minke whale (*Balaenoptera acutorostrata*)
- Killer Whale (*Orcinus orca*)
- Harbor porpoise (*Phocoena phocoena*)
- Dall's porpoise (*Phocoenoides dalli*)

Through the implementation of conservation measures generated through Section 7 consultation with USFWS and NMFS, and included in Section 4.1.3 of this assessment, USACE is confident that the Coast Guard's project, as proposed, would not negatively affect marine mammals, their natural behaviors, or their respective habitats.

4.3. Migratory Birds, and Bald and Golden Eagles: The greater Kodiak Island Archipelago is an important region for many populations of migratory and resident birds that are protected under the Migratory Bird Treaty Act (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755, and as amended) and other Federal statutes, such as the Bald and Golden Eagle Protection Act. Colonial sea birds, ducks, sea ducks, geese, raptors, and many species of passerine birds either nest within the archipelago or use it as a waypoint en route to breeding grounds in the Aleutian and Pribilof Islands, coastal cliffs, inland boreal forests, and the Arctic Slope.

Despite the presence of an active taxiway and runway, various species of birds are commonly observed in the aquatic areas immediately adjacent to the proposed project area. Common goldeneye (*Bucephala clangula*), greater scaup (*Anthya marila*), Emperor geese (*Chen canagica*), gulls of the *Larus* genus, and northwestern crows (*Corvus caurinus*) were observed within approximately 500 yards of the project location during a joint agency field visit on 10 March 2016.

Bald eagles are frequently observed in the coastal areas of Kodiak Island and can be observed in high densities at the port of Kodiak where they loiter amongst the fish processing and mooring facilities. Golden eagles are somewhat less commonly observed, but are known to nest within the greater archipelago. Bald eagles in Alaska initiate courtship and nest-building

behaviors in January-February, and generally, September through January is considered the non-nesting period (USFWS 2016b).

The USACE does not anticipate adverse impacts to avifauna as a result of the repair of the Jewel Beach outfall structure. Jewel Beach's location, physical characteristics, and previously disturbed and/or heavily modified habitat contribute to this assertion. The terrain approximating the approach of Runway 1 and the immediately adjacent USCG taxiway is managed so that it is intentionally devoid of vegetation capable of providing birds with perching, roosting, or nesting habitat. All in-water construction activity will be conducted during the lowest portion of the daily tidal cycle to maximize safe working conditions and minimize disturbances to aquatic birds. No vegetation removal or intentional disturbances to immediately adjacent habitat are planned.

4.4. Essential Fish Habitat (EFH) and Anadromous Waters: The project, as proposed, requires the placement of the outfall's terminal structure at -4 feet MLLW, Jewel Beach's intertidal zone, which is designated EFH under the authority of three individual Fishery Management Plans (FMPs): the Gulf of Alaska Groundfish FMP, Bearing Sea/Aleutian Islands Groundfish FMP, and the Alaska Stocks of Pacific Salmon FMP.

Aquatic habitat within the proposed project footprint, the east-facing intertidal zone at the northern portion of Jewel Beach, is dynamic in nature. Its substrate is primarily composed of coarse sands, marginally consolidated pebbles, shell hash, and intermediately sized boulders, some of which are encrusted with sessile invertebrates. Wave action at Jewel Beach appears to be destructive, as evidenced by severe erosion of the beach berm. The tidal prism is approximately 11 feet, and is influenced by storm surge and wind swell. Jewel Beach's northern margin is abruptly punctuated by the newly expanded USCG/Civil Runway levee (Figure 3). At water level, and within the intertidal and wave action area, the levee is constructed of rock armor, ascending to rubble fill and an asphalt and earthen cap layer. The runway levee at Jewel Beach is the dominant feature of the coastline.

Excavation efforts associated with the emplacement of the outfall structure terminus are expected to discharge 3,241 cubic yards of dredged and fill material into 0.4 acres of Womens Bay below the high tide line. However, sedimentation of the water column as a result of these actions is expected to be less than significant due to several contributing factors:

- Substrate at Jewel Beach is best characterized as an unconsolidated mix of coarse sands, shell hash, smooth pebbles, and small boulders, all of which rapidly fall out of suspension.
- Construction activities occurring at Jewel Beach will be relegated to the periods immediately preceding, succeeding, and including the low tide. In-water work is minimized by the tidal prism.
- The intertidal environment is inherently dynamic, and organisms that inhabit this zone are uniquely tolerant of elevated levels of suspended sediment. Localized, limited duration increases in turbidity would not be detrimental to these organisms.
- In summarizing personal communications with Dr. Robert Foy of the Kodiak Fisheries Research Center: the area is already highly disturbed, and the limited effort required for construction would have less than a significant impact on habitat quality

or quantity, or upon the organisms that may be found in the immediate region of influence (Pers Comm 2016).

- In summarizing personal communications with Donn Tracy, ADFG Kodiak Area Manager: replacement of the stormwater outfall at Jewel Beach would not negatively affect aquatic habitat or water quality in such a dynamic habitat (Pers Comm 2016).

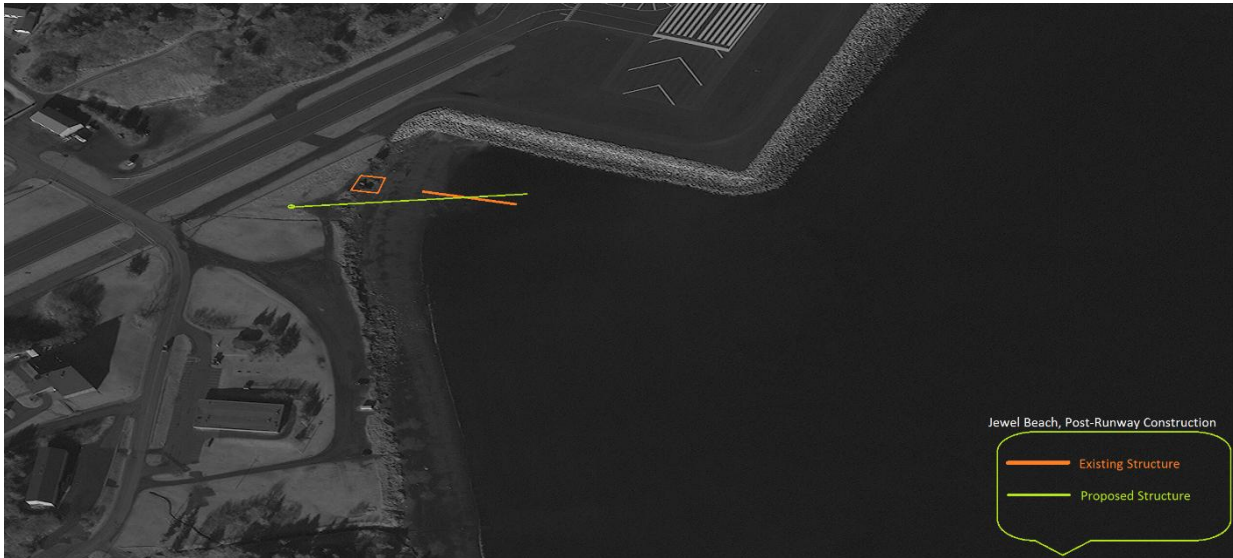


Figure 3. Jewel Beach runway levee.

USACE has considered the potential of this project to impact Essential Fish Habitat (EFH) as portrayed within the context of the Magnuson-Stevens Fishery Conservation and Management Act [Section 305 (b), 16 USC 1855]. Repair and replacement of Jewel Beach’s outfall structure IA-3 and its terminal conveyance structure will not adversely affect EFH.

Similarly, and for the same reasoning provided in the preceding discussion, anadromous waters managed by Alaska Department of Fish and Game will not be adversely affected by construction activities associated with the replacement of the outfall IA-3 at Jewel Beach. Cliff Point Creek occurs approximately 1.3 miles due south, and across Womens Bay from the proposed project area, while the mouth of Buskin River is approximately 1.8 shore-line miles to the north of Jewel Beach (ADFG 2016).

4.5. Cultural Resources: Storm sewer outfall IA-3 (KOD-1204) is located at the southern terminus of Runway 1 at the USGC/Civil Airfield at Kodiak Naval Operating Base (NOB) and Forts Greely and Abercrombie National Historic Landmark (NHL, KOD-124) near Kodiak. The USCG plans to replace and reroute Outfall IA-3 (KOD-1204) at Jewel Beach. The exposed section of the storm sewer outfall pipe has been heavily impacted by natural forces following the 1964 Good Friday Earthquake. As a result, decades of storm action and weathering have reduced the outfall pipe to rubble. Given the extremely poor condition of the affected section of original outfall line, the USACE determined that the proposed removal

will not adversely affect the potential eligibility of KOD-1204, or the eligibility of KOD-124. Furthermore, given the degree of disturbance within the proposed project footprint, USACE also determined that there is a low probability of inadvertently disturbing unknown archaeological features. Following 36 CFR 800.4(d) (1), USACE had proposed a finding of no adverse effect to historic properties in the removal of the 100-foot section of KOD-1204; however, SHPO stated that the property was not eligible for the national register and therefore recommended a finding of no historic properties affected.

4.6. Air Quality: Kodiak Island's air quality is considered to be good. Its maritime environment and limited anthropogenic influence are the primary factors affecting this determination. Unhindered by continental land masses, alternating atmospheric pressure anomalies originating in the North Pacific Ocean influence wind and weather patterns so that air masses that interact with Kodiak Island are in continuous motion. The entirety of the Kodiak Island Archipelago does not occur in or near a "non-attainment", "maintenance", or Class I area (as defined by the Clean Air Act). Gaseous or particulate degradation to the immediate air quality as a result of the construction equipment utilized for this proposed project will not contribute to or violate any existing standard, and air quality will rapidly return to ambient conditions.

4.7. Water Quality and the Protection of Wetlands: The project, as proposed, would discharge 3,241 cubic yards of dredged and fill material into 0.4 acres of Womens Bay below the high tide line. Trenching from the existing conveyance line tie-in (approximately 300 feet by 10 feet) will be required to reach the target discharge/diffusion depth of -4 feet MLLW. These particular activities are not expected to impact aquatic resources in a significant manner due to a combination of factors: the previously disturbed condition of the site, the physical characteristics of the substrate being disturbed, and the limited quantity of in-water work required to emplace the terminal conveyance and diffusing infrastructure. Portions of the existing rock armor will be repositioned and repurposed to protect new structures.

The Alaska Department of Environmental Conservation (ADEC) determines project compliance with Alaska's water quality standards under the Clean Water Act and issues permits under that authority. USCG, as the permit applicant for this proposed project, is coordinating with ADEC for the issuance of a project specific permit.

4.8. Socio-Economics: The project, as proposed, represents a miniscule, but overall beneficial impact to the communities of the greater North Pacific. USCG Station, Kodiak's aviation and maritime assets operate as far away as Attu to the west and Barrow to the north, providing search and rescue and medevac capabilities that a great number of people are wholly dependent upon. To a small degree, ensuring proper stormwater conveyance relieves USCG personnel to focus on their primary duties. The current standard of living on Kodiak Island will not be negatively affected by the replacement of the Jewel Beach outfall structure, nor will there be any disproportionately adverse environmental health or safety impacts upon children or other potentially underrepresented groups of people.

4.9. Subsistence Resources: Following the shoreline, the mouth of the Buskin River is approximately 1.8 miles north of the proposed project site. The mouth of the river is the site of a historically and culturally significant subsistence salmon fishery utilized by the Su'naq tribe of Kodiak. The long-term viability of this subsistence resource was brought into

question when potential impacts were being considered and analyzed in the Environmental Impact Statement (EIS) prepared by the Department of Transportation and Federal Aviation Administration (DOT/FAA) for improving runway safety areas at Kodiak airport (DOT/FAA 2013). In-water fill required for the expansion of runways 7/25 and 18/36 encroached upon 17.8 acres of aquatic habitat and totaled approximately 719,000 cubic yards; it was identified as having the capacity to change the geomorphology of the Buskin River mouth and alter its freshwater plume. The effects of that action were expected to not only reduce the quantity and quality of EFH and threatened and endangered species habitat, but increase stormwater runoff and alter aquatic species assemblages in the immediate area. Assessing the impact upon subsistence fisheries resources as a result of replacing the Jewel Beach stormwater outfall is difficult to quantify in the context of the greater environmental degradation posed by the DOT/FAA project because the baseline for such analysis is not yet established. A five-year post-construction monitoring effort, compensatory mitigation that was agreed upon between the Su'naq tribe and the FAA, will document the change in habitat and species utilization in the area influenced by the freshwater plume around the mouth of the Buskin River (DOT/FAA 2013). USCG believes that the temporary and highly localized nature of the impacts associated with the replacement of the outfall structure in Jewel Beach's intertidal habitat, and its relative distance from the Buskin River's freshwater plume, significantly reduces the potential for anything other than negligible impacts to subsistence fisheries resources.

4.10. Cumulative Impacts: Federal law (40 CFR 1508.7) requires that NEPA documents assess cumulative effects, which are the impact on the environment resulting from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. Replacement of the outfall IA-3 and its terminal conveyance infrastructure share no interdependencies with any other Federal or private projects currently being considered or that have been recently conducted. It is conceivable that future refurbishment of Federal facilities adjacent to this project location and associated with airfield operations may be required; however, these instances are unknown at the current time and would be subject to analysis under NEPA.

5. Comparative Analysis of the Proposed Action and Alternatives:

5.1 Proposed Action Effects: The analysis conducted in sections 4.1 through 4.10 of this document evaluated potential impacts resulting from the proposed replacement of the Jewel Beach outfall structure upon ecological, cultural, and subsistence resources. The analysis consisted of contributions from subject matter experts from the State Historical Preservation Office, National Marine Fisheries Service, the United States Fish and Wildlife Service, the U.S. Army Corps of Engineers, the Alaska Department of Fish and Game, United States Coast Guard, and the Alaska Department of Environmental Conservation.

With the implementation of conservation measures required by USFWS and NMFS to ensure compliance with the ESA and MMPA, the remaining analysis supports the finding that there will be no significant impacts to ecological, cultural, or subsistence resources as a result of this project. Ultimately, this proposed project aids in ensuring USCG Station Kodiak's operational reliability, which is particularly important in its own right, due to the number of people and communities that rely upon USCG for emergency response and other support activities.

5.2 No-Action Alternative: Impacts of the no-action alternative upon ecological, cultural, and subsistence resources were briefly presented in the summary of impacts in Section 4. The overall impact of the no-action alternative as it pertains to stormwater conveyance at Jewel Beach is less than significant. Detection and characterization of an impact signal as a result of the no-action alternative would be difficult to discern given the context of the current environmental condition and the uncharacterized ecological response of the greater Buskin River shoreline ecological area to impacts associated with the immediately adjacent runway expansion, which was completed October 2015

Conceptually, the potential for environmental impact increases over time with the no-action alternative as the infrastructure of Jewel Beach's outfall structure degrades and progressively exposes other portions of the system to the same forces that have facilitated its current condition. The overall socio-economic benefit of USCG emergency response and/or interdiction activities may be slightly reduced under the no-action alternative; however, this is also difficult to quantify and likely dependent upon stochastic events.

6. Statement of Environmental Significance of the Proposed Action

Through comprehensive analysis, and with the aid and efforts of subject matter experts representing a wide array of disciplines, execution of the proposed alternative, the Outfall Replacement Alternative, presents no significant impact upon the human, biological, or cultural environment.

7. A List of All Agencies and Persons Contacted During the Environmental Assessment

- United States Fish and Wildlife Service: Bill Pyle, Biologist 907-487-0228.
- National Marine Fisheries Service: Charlene Felkley, Resource Specialist, Habitat Conservation Division, 907-271-1301; Bill Foy, Biologist, Alaska Fisheries Science Center, Kodiak, 907-481-1711. Sadie Wright, Biologist, Protected Resources Division, 907-586-7630.
- Alaska Department of Fish and Game: Donn Tracy, Biologist, 907-487-2600.
- Sun'ak Tribe of Kodiak: Tom Lance, Natural Resources Department Director, 907-486-4449.
- United States Coast Guard: Raven James Smith, Archaeologist, 206-220-7402; Sajid Khan, Real Property Specialist, 907-487-5302.
- United States Army Corps of Engineers: Michael Setering, Regulatory Specialist, 907-753-2627. Shona Pierce, Archaeologist, 907-753-5670.

Cited Literature and Other Resources Utilized

ADFG 2016: Alaska Department of Fish and Game Anadromous Waters Resource Fish Monitor.
<http://extra.sf.adfg.state.ak.us/FishResourceMonitor/?mode=awc>

DTO/FAA 2013: Department of Transportation Federal Aviation Administration Alaska Region Anchorage, Alaska. Record of Decision. Runway Safety Area Improvements at Kodiak Airport Kodiak, AK:
<http://kodiakairports.com/documents/Kodiak%20ROD%20FINAL%20SIGNED%209-12-13.pdf>

NMFS 2013: Fisheries of the United States 2013:
<https://www.st.nmfs.noaa.gov/Assets/commercial/fus/fus13/FUS2013.pdf>

NMFS 2016: National Marine Fisheries Service ESA and MMPA Mapper:
<https://alaskafisheries.noaa.gov/mapping/esa/>

Pers Comm 2016: Personal communication with Dr. Bob Foy of the Kodiak Fisheries Research Center, 10 March 2016.

Pers Comm 2016: Personal communication with Donn Tracy, Area Manager, Alaska Department of Fish and Game, Kodiak Area Office. 10 March 2016.

USFWS 2009: Kodiak National Wildlife Refuge and the Kodiak Archipelago – Birds:
http://www.fws.gov/uploadedFiles/Region_7/NWRS/Zone_2/Kodiak/PDF/knwr_bird_broc_2009.pdf

USFWS 2016: United States Fish and Wildlife Service IPaC, Information for Planning and Conservation:
<http://ecos.fws.gov/ipac/>

USFWS 2016b: Alaska Region – Eagle Permit Guidelines:
http://www.fws.gov/alaska/eaglepermit/guidelines/baea_nhstry_snstvtv.htm