



August 24, 2018

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**RE: LOCI 18-001, Hilcorp Alaska, LLC., Seaview Exploration, Lease
Plan of Operations Decision, Exploration Phase**

Dear Mr. Fleming:

I. INTRODUCTION

On May 30, 2018, Hilcorp Alaska, LLC, (Hilcorp) submitted a request to the Division of Oil and Gas (Division) for approval of a Lease Plan of Operations (Plan) to carry out the drilling of the Seaview Pad 8 and 9 wells within ADL 392667. The Seaview Pad is approximately 1.5 miles south of the Anchor Point post office off the Old Sterling Highway. Approval of this Plan, along with approvals from other state and federal agencies (Agencies), is necessary for Hilcorp to carry out the proposed activities. Any further exploration is subject to additional review and approval by the Department of Natural Resources (DNR).

After state land is leased for oil and gas development, projects follow a phased progression. These phases may include exploration, development, production, and transportation. The Division continually examines effects of oil and gas activities as projects transition throughout each phase. Before the next phase of a project may proceed, public notice and the opportunity to comment, as well as Division approval, is required. Hilcorp's proposed operations would begin the exploration phase for ADL 392667.

II. SCOPE OF DECISION

The DNR Commissioner has delegated authority for approval of Lease Plan of Operations activities to the Division under Department Order 003 in accordance with Alaska Statute (AS) 38.05 and 11 Alaska Administrative Code (AAC) 83.158. As set forth below, the Division has evaluated the proposed Plan to determine if it provides sufficient information as required by 11 AAC 83.158. In approving a Plan, the Division may require amendments that it determines are necessary to protect the State's interests (11 AAC 83.158(e)).

The Seaview 8 and 9 wellbore locations were derived from stratigraphic wells drilled on private lands near ADL 392667 and other prior wells drilled in the surrounding area. The Seaview 8 wellbore will extend beyond ADL 392667 to explore for oil on fee simple land. By regulation

and under the terms of the lease, DNR must approve a Plan before Hilcorp may conduct operations on or in ADL 392667. Seaview Pad is privately owned and Hilcorp must secure an access and use agreement with the private land owners prior to commencing operations.

The Seaview drilling program consists of three separate project stages for each well:

Stage I: Directionally drill and insert surface casing for an exploration well through subsurface horizons of potential hydrocarbon-bearing zones within the Lower Sterling and Beluga formations. Well evaluation will be conducted using downhole instrumentation including Wireline Operations and/or rotary sidewall coring. Well control equipment and casing will be installed to isolate all gas bearing zones within the wellbore.

Stage II: Includes deepening the well beyond state lease by drilling a lateral horizontal leg to evaluate the Lower Tyonek, Hemlock, and deeper formations in private fee simple lands. Such additional drilling and testing would most likely be conducted to search for oil extending approximately 10,000 feet measure depth (MD) to the West of the Pad for Seaview #8 and the Northwest of the Pad for Seaview #9.

Stage III: Evaluate potential hydrocarbon reservoirs (both gas and liquid) by perforations and flow-back testing. At the conclusion of Stage III, the well may be temporarily secured or formally suspended while data is evaluated.

The following Plan elements require authorization from other Agencies:

Agency	Permit Type
AOGCC	Permit to Drill
AOGCC	Blowout Contingency Plan
AOGCC	Sundry Approval
AOGCC	Annular Disposal
ADEC	MG1 Authorization for POGO
ADEC	Oil Discharge Prevention and Contingency Plan
ADEC	Temporary Storage of Drilling Waste
ADEC	Temporary Storage of Non-Drilling Waste
ADEC	Spill Prevention, Control, and Countermeasure
SHPO	Archeological Clearance (if needed)

III. LAND STATUS

The exploration project area comprises state and non-state lands.

A. Division's Leased Lands:

Oil and Gas Lease ADL: 392667

Oil and Gas Mineral Estate Lessee(s): Hilcorp Alaska, LLC.

Surface Ownership and Access: N/A

Special Use Lands: N/A

Jointly Managed Lands: N/A

Other considerations: Hilcorp is proposing to drill from privately-owned surface land for the Seaview 8 and 9 wellbores. The Seaview 8 wellbore will extend beyond ADL 392667 to explore for oil.

Project Components	Meridian, Township, Range, & Section(s)	GPS Coordinates
Seaview #8 and 9 Wells – Wellbores/Completion	SM T05S R15W S09	TBD
Drill Rig	Same as well site	Same as well site
Camp Facilities and Staging	Same as well site	Same as well site

B. Non-State Lands: This section refers to areas where the State does not own the surface land and no Division managed oil and gas leases exist.

Oil and Gas Mineral Estate Owner and Relationship with Applicant: Multiple private oil and gas mineral estate owners within the drilling and testing program area.

Surface Ownership and Access Agreement: Hilcorp’s application did not include use of privately-owned surface land outside of landowner identified in Section A for the proposed delineation well.

IV. PROPOSED OPERATIONS

The Plan describes the proposed operations in full detail. The key details are summarized below.

A. Sequence and Schedule of Events

The table below displays Hilcorp’s proposed schedule for the 2018 Seaview drilling program. All dates are approximate and may be altered by weather or logistic requirements. The dates will also change because some of them precede this decision. The schedule nonetheless provides the Division with an overall idea of the sequence and schedule of events. The Division reviewed this schedule with the expectation that dates early in the sequence would move back, but that later dates for finishing drilling, demobilization, and clean up would remain the same.

Seaview project milestones	Description	Proposed start of milestone	Proposed end of milestone
1	Prepare Gravel Pad and Construct Berms	7/15/2018	7/31/2018
2	Drill first well, Expected Development Zones, and Exploration Zones	8/1/2018	9/5/2018
3	Well testing	9/5/2018	9/20/2018
4	Shut-in Well	9/20/2018	9/23/2018

5	Drill Second well, Expected Development Zones, and Exploration Zones	9/23/2018	10/24/2018
6	Well testing	10/24/2018	11/8/2018
7	Shut-In Well	11/8/2018	6/11/2018
	Note: Project is expected to begin as soon as all applicable permits and authorizations are received. Project schedule may change and dates may move forward or back. Project milestone 1 start date depends on weather, permitting, and company schedule.		

B. Well Site

The proposed Seaview Pad will include placement of geotextile liner and gravel fill within an existing gravel mine site on private lands. The gravel will be compacted, and a containment berm will be built around the edge of the pad. Two gas exploration wells, Seaview 8 and 9, will be drilled from the pad. The Seaview 8 well will be drilled approximately 10,000 feet measure-depth to the west-southwest of Seaview Pad. The first 5,500 feet of wellbore will be perforated to evaluate gas zones (partially within ADL 392667), and the bottom-hole location, which is on fee simple land, will be evaluated for oil resources. The Seaview 9 well will be drilled approximately 10,000 feet measure-depth northwest of Seaview Pad, and is a gas exploration well only.

C. Buildings

The Seaview 8 and 9 authorization pertains to exploration drilling activities only. No permanent facilities are proposed as part of this authorization. All permanent facilities will be permitted separately as needed.

D. Fuel and Hazardous Substances

A diesel fuel storage tank (~5,000 gallons) for equipment refueling will be onsite temporarily to support drilling efforts. Fuel storage, handling, transfers, and spill reporting will be conducted in accordance with Hilcorp’s Oil Discharge Prevention and Contingency Plan and Spill Prevention Control and Countermeasure Plan. No bulk hazardous materials will be stored on site.

E. Solid Waste Sites

Waste Management and Disposal:

All waste will be properly segregated into containers and labeled to ensure proper disposal. Household waste/paper trash will be sent to the Kenai Peninsula Borough Landfill for disposal.

Drilling Waste:

Waste drilling mud and cuttings will be delivered directly from the rig process tank to an offsite ADEC permitted underground injection disposal facility. Oily waste will be segregated and sent to a specialty waste contractor for offsite disposal. In the event of an issue at the disposal facility, all drilling wastes will be stored onsite as required by 18 AAC 60.

F. Water Supplies

Water requirements for the program are expected to be approximately 100 barrels per day for each well. Freshwater will be purchased from the City of Anchor Point or withdrawn from existing wells at Paxton Pad or other nearby Hilcorp-operated locations.

G. Utilities

No utilities are proposed as part of this authorization. All utilities will be permitted separately as needed.

H. Material Sites

The construction contractor or Hilcorp will identify a material source suitable to support gravel needs associated with gravel road and pad construction. Clean fill material will be purchased by Hilcorp or through the construction contractor for improvement/construction of the road and pad.

I. Roads

The proposed pad is located within an existing gravel mine site with access roads. No new roads will be constructed as part of this authorization. Minor road improvements will be required, but road footprint expansion is not needed.

J. Airstrips

There are no airstrips proposed as part of this authorization.

K. All Other Facilities and Equipment

Equipment, including the drilling rig and pipe, completion rig, mud tanks and mud pumps, boilers, drilling foreman/toolpusher trailer, light plants, generators, cement silo(s), and other miscellaneous equipment will be onsite temporarily to support drilling efforts. Well testing will be conducted for approximately seven days for each well. The temporary testing equipment will include a line heater, liquids/gas separator, flare, and 400-barrel water storage tank.

L. Rehabilitation Plan

Because the project intends to utilize existing access roads, and pad construction will be within an active mine site, no rehabilitation activities are proposed. All equipment and materials will be removed, and the gravel pad will remain within the mine site area for use of the private land owner. All rehabilitation will be done to the satisfaction of the private land owner and any applicable agencies and/or stakeholders. All debris will be hauled to an approved disposal site upon completion of drilling and testing. The well will be plugged and abandoned in accordance with Alaska Oil and Gas Conservation Commission (AOGCC) regulations.

M. Operating Procedures Designed to Minimize Adverse Effects

Fish and Wildlife Habitats: The Seaview project intends to utilize existing access roads to the site and an active mine site for pad development, so no fish or wildlife habitats are anticipated to be impacted. All project activities will occur in accordance with any laws, regulations, and stipulations issued to Hilcorp, as well as all Hilcorp Wildlife Interaction plans, procedures, and Best Management Practices.

Historic and Archeological Sites:

Because the project intends to utilize existing access roads, and construction of the pad is within an active mine site, no historic or archeological sites will be impacted. All project activities will occur on improved or disturbed land, and no new land clearing, preparation, or construction will occur. Additionally, a desktop review was conducted by Charles M. Mobley & Associates on October 27, 2017, noting that there are no known cultural resources within the project area. If cultural resources are encountered, the private land owner and the State Historical Preservation Office will be contacted immediately.

Public Use Areas:

Public use areas will not be impacted by the proposed project, as this project occurs on private lands. While public access to Seaview Pad will be restricted, other areas around the pad will not be restricted.

Training Programs:

Environmental, Health and Safety (EH&S) training conducted for site workers will include training for wildlife interactions.

In approving a Plan, DNR may require amendments necessary to protect the State's interest (11 AAC 83.158). The Division has determined that to protect the State's interest, it is necessary to incorporate into the Plan the 2009 Areawide Cook Inlet mitigation measures. Hilcorp addressed these mitigation measures in the application process, but it is necessary to amend the Plan to make clear that the Plan incorporates the Cook Inlet Mitigation Measures. All Plan applicants must complete a mitigation measure analysis demonstrating that each mitigation measure is satisfied or inapplicable to its proposed Plan, or that the applicant is seeking an exception. The Cook Inlet Mitigation Measures allow for the Division to grant an exception if the applicant shows that compliance with the measure is not practicable or that the applicant will undertake an equal or better alternative to satisfy the intent of the mitigation measure. Hilcorp completed the mitigation measure analysis for the 2009 Areawide Cook Inlet mitigation measures, and seeks exception or confirmation of compliance with the mitigation measure discussed below.

Hilcorp seeks an exception to the following mitigation measure:

Mitigation Measure A.1.c:

The siting of onshore facilities, other than roads, docks, utility or pipeline corridors, or terminal facilities will be prohibited within one-half mile of the mean high water of Cook Inlet, except where land use plans classify an area for development, or established usage and use history show development. The siting of facilities other than docks, roads, utility, and pipeline crossings will also be prohibited within 500 feet of all fish bearing streams and waterbodies and 1,500 feet of all current surface drinking water sources. Additionally, to the extent practicable, the siting of facilities will be prohibited within one-half mile of the banks of the main channel of the Harriet, Alexander, Lake, Deep, and Stariski creeks, and the Drift, Big, Kustatan, McArthur, Chuitna, Lewis, Theodore, Beluga, Susitna, Little Susitna, Kenai, Kasilof, Ninilchik, and Anchor rivers. Facilities may be sited within these buffers if the lessee demonstrates to the satisfaction of the director, in consultation with the Alaska Department of Fish and Game (ADF&G), that site locations outside these buffers are not practicable or that a location inside the buffer is

environmentally preferred. Road, utility, and pipeline crossings must be consolidated and aligned perpendicular or near perpendicular to watercourses.

Hilcorp provided a request and explanation for the exception:

A.1.c. Mitigation measure waiver is requested: The proposed Seaview Pad will be located within one-half mile of the banks of Anchor River. The distance from the Pad center to the nearest bank of the Anchor River is approximately 1,250 feet. The exploration targets that Seaview 8 and Seaview 9 wells look to explore is bounded by the one-half mile Cook Inlet Buffer to the west and the one-half mile Anchor River Buffer to the east. Remaining is a narrow (approximately ¼ mile wide) area, largely consisting of residential properties and wetlands.

The proposed Seaview location attempts to mitigate environmental and social impact by selecting a pad location that has already been disturbed, is an active mine site with current ongoing activities, will result in no loss of wetlands or wildlife habitat, and has slight natural topography and vegetative cover between itself and neighboring landowners. The intent of this mitigation measure is to protect important fisheries from liquid hydrocarbon releases, which Hilcorp feels it can successfully do within the one-half mile buffer from Anchor River due to the proposed sequence of exploration activities, and by utilizing current well control technology and proven best management practices while drilling.

The primary target of the Seaview 8 well is gas and the only identified target for the Seaview 9 well is gas. The Seaview 8 well will ultimately extend beyond State lease areas to explore for oil. The wellbore section that aims to search for oil resources is more than 500 feet away from any state leases thus not triggering correlative rights for oil production (see Figure 6 in application). While drilling, Hilcorp will maintain multiple barriers of protection against well control events including, but not limited to, hydrostatic overbalance of estimated reservoir pressure, and Blow-Out Prevention Equipment (BOPE). Additionally, an intermediate casing string will be set and cemented in-place between the gas zones and potential oil-bearing zones, providing the ability to shut in the well at depth without any potential for liquid hydrocarbons to return to surface. Well control and well safety-related aspects of the drilling program are permitted with the AOGCC to ensure operations follow all safety controls and regulatory measures that have been developed to mitigate the risks of an uncontrolled well event.

During drilling, temporary fuel tanks and produced water storage tanks will be placed within lined, bermed secondary containment areas to reduce risk of an off-pad release. In addition, the pad will be constructed with an 18-inch berm around the entire pad perimeter to further reduce risk of hydrocarbon-impacted runoff. Only stormwater will be discharged from Seaview Pad and all such discharges will adhere to stormwater pollution prevention regulations under the Clean Water Act. No point source or direct discharges will occur and no hydrocarbon or chemical discharges are authorized or planned. Hilcorp adheres to state and federal regulations governing pollution prevention and has a robust integrity management program dedicated to preventing releases. Should an unplanned release occur, Hilcorp follows internal and local, state and federal agency protocols for spill reporting and response to ensure potential impacts are minimized. Hilcorp also maintains a contract and close working relationship with Cook Inlet Spill Prevention & Response, Inc. to ensure Hilcorp's internal spill response capabilities can be augmented timely and efficiently for the protection of people, the environment, and property.

Proposed activities at Seaview Pad will not affect Anchor River or access to Anchor River recreation areas.

DOG Response:

Mitigation measure A.1.c. generally prohibits the siting of facilities within one-half mile of the banks of the main channel of the Harriet, Alexander, Lake, Deep, and Stariski creeks, and the Drift, Big, Kustatan, McArthur, Chuitna, Lewis, Theodore, Beluga, Susitna, Little Susitna, Kenai, Kasilof, Ninilchik, and Anchor rivers “to the extent practicable.” Following consultation with ADF&G, the Director has determined that a waiver is appropriate, as Hilcorp has demonstrated that no other location was practicable and that the location inside the buffer is environmentally preferable. Hilcorp’s proposal for siting the pad offers the smallest possible extent or degree of environmental impacts for activities within ADL 392667, as it utilizes an existing gravel mine site location to lessen the environmental impacts to wetlands in the adjacent riparian areas. In addition, Hilcorp emphasizes in the Mitigation Measure Analysis response A.1.c. that numerous barriers of protection against well control events are planned, including the construction of an 18-inch berm to surround the pad. The Division finds that Hilcorp has shown rationale that equally satisfies the intent of this mitigation measure.

The Division therefore grants an exception to this mitigation measure to allow Hilcorp to conduct Seaview Pad exploration activities as set forth in the Plan. This exception does not apply to activities that Hilcorp may propose in future or amended plans of operations.

N. Phased Evaluation

This Plan begins Hilcorp’s exploration of ADL 392667. The Plan addresses exploration activities for Seaview 8 and 9 wells. Thus, in considering the exploration phase, the Division evaluated both the specific activities proposed under this Plan as well as typical additional exploration activities that Hilcorp might propose for further exploring in the lease area.

The Division considered the potential impacts of exploration on public and State interests. In the oil and gas context, the public interest includes maximizing economic and physical recovery of oil and gas resources (AS 38.05.180(a)(1)). The State has an interest in protecting the public interest, and in encouraging assessment of oil and gas resources while minimizing the adverse impacts of exploration, development, production, and transportation activities (AS 38.05.180(a)(2)).

In evaluating potential impacts, the Division also considered the operating procedures Hilcorp has designed to minimize adverse effects of the Plan activities. These operating procedures include complying with the mitigation measures attached to the leases. These measures come from the Cook Inlet Areawide Best Interest Finding (BIF) to address potentially negative effects of oil and gas exploration on fish and wildlife species, habitats and their uses, on subsistence uses, and on local communities. Hilcorp has provided a mitigation measure analysis, which is required as part of their Plan of Operations submittal.

i. Facilities Impacts on the Project Area

All proposed facilities are temporary in nature and will take place on an existing gravel mine site. The gravel drill pad will be constructed at the western extent of the parcel to

minimize the distance from the Anchor River and to buffer sound impacts to landowners to the south and west of the pad area. The pad design takes advantage of existing berms and topography to provide a natural elevation buffer between the pad and landowners to the south and west. Trees and brush will be kept in place between neighboring landowners and drilling operations to further mitigate visual and sound impacts. All temporary facilities and waste will be removed and the well will be plugged and abandoned or suspended, per AOGCC regulations.

Fuel and Hazardous Substances Potential Impacts on the Project Area

Exploratory drilling proposed under the Plan will include a temporary diesel fuel storage tank approximately 5,000 gallons in size for equipment refueling to support drilling efforts. During drilling, temporary fuel tanks and produced water storage tanks will be placed within lined and bermed secondary containment. Discharges of drilling muds, cuttings, and produced waters; oil spills; and accidental spills of fuel, lubricants, or chemicals can all have impacts to water, wildlife, and habitats during this exploration program. Impacts from exploration activities, from either disposal activities or a spill, could adversely affect water quality, but a tertiary 18-inch berm will be constructed around the entire pad perimeter to further reduce risk of hydrocarbon-impacted runoff.

Drilling Muds and Produced Water

Byproducts of drilling activities include muds and cuttings, produced water, and associated wastes. Produced water contains naturally-occurring substances such as clay, sand, oil, water, and gas. Most drilling wastes are disposed of under ADEC's Solid Waste Program. ReInjection is the preferred method for disposal of drilling fluid. Disposal of drilling muds and cuttings requires permit approval. Most oil field wastes are considered non-hazardous and waste fluids are recycled, filtered, and treated before reInjection or disposal. Cuttings and waste fluids must be made non-hazardous before injection. Oily waste will be segregated and sent to a specialty waste contractor for offsite disposal. Waste drilling mud and cuttings will be hauled via vacuum truck or Supersucker directly from the rig process tank to an offsite permitted underground injection disposal facility.

Accidental Spills

Impacts resulting from accidental spills would depend on the type of product, the location, volume, season, and duration of the spill or leak, and the effectiveness of the cleanup response. Small incidental releases could result from a wide variety of causes, including hose/line failures, tank overflows, and equipment leaks. Spills of this nature are typically expected to be less than 10 gallons of diesel fuel or lubricants. Minor spills are typically contained on site and removed as soon as detected. Routine inspections of drilling equipment are conducted and leaks or potential leak areas are identified at that point. The drill rig will operate in full containment, and in the event of release during drilling activities, fluids are typically contained by the rig or mobile equipment containments.

Leak Detection

Drilling operations will rely on visual leak detection and routine inspections. Before beginning any operations involving the transfer of fluids that contain oil, visual

inspections will take place to ensure no leaks are present. Transfer operations will be conducted with a visual observer on site.

Fuel Transfers Operations

Transfer operations will include using standard operating procedures and will be observed at all times by operator personnel. Should a release occur, communication on site will provide for immediate shut down of the transfer operation. Before operations begin, fuel transfer procedures will be reviewed and followed to ensure that standard operating procedures are used for drilling and construction activities.

Secondary Containment

No permanent or fixed tanks will be used for drilling or construction operations. All mobile fuel storage and well testing tanks are double walled and will be placed within secondary containment. Secondary containment will be visually inspected daily for the presence of oil leaks or spills. The secondary containment areas will be maintained free of debris and other material that might interfere with the effectiveness of the containment areas, including excessive accumulated snow and snowmelt.

Oil Spill Prevention and Response Training

Hilcorp will provide its employees and contractors with spill prevention and response training prior to Seaview exploration operations. Additionally, Hilcorp will report any spills with all appropriate agencies and stakeholders involved in the project.

Other Governmental Authorizations

In addition to authorizations required by the Division, the Seaview project is subject to various other local, state, and federal laws, regulations, policies, and ordinances with which Hilcorp must comply. Below is a list of some of these other authorizations. This list is not intended to be comprehensive, but illustrates other laws and regulations that may be applicable to this project.

- DEC—Division of Air—MG1 Permit (drilling)
- DEC—Division of Spill Prevention and Response Oil Discharge (C-Plan Approval)
- EPA—Spill Prevention, Control and Countermeasure Plan
- AOGCC— Permit to Drill
- AOGCC— Well Site Survey

Mitigation measures include development of oil spill contingency plans, and providing adequate spill response training.

Cook Inlet mitigation measures require that sites be protected from leaking or dripping fuel and hazardous substances; secondary containment shall be placed under all container or vehicle fuel tank inlet and outlet points, hose connections, and hose ends during fuel or hazardous substance transfers; containers must be marked with the contents and lessee/contractor name; waste from operations be reduced, reused, or recycled to the maximum extent practicable; muds and cuttings should be disposed of by underground injection, where practicable; and that proper disposal of garbage and putrescible waste be utilized.

Hilcorp's mitigation measure analysis states that fuel and hazardous substances will be stored at least 100 feet from any water body and no known surface drinking water sources are in the vicinity of proposed project operations (mitigation measure analysis A.4.b); limited equipment maintenance may occur on pad and will be conducted above impermeable secondary containment (mitigation measure analysis A.4.c); surface liners will be used under all potential spill points and Hilcorp will follow procedures to place duck ponds or bermed liners beneath connections during fuel transfers (mitigation measure analysis A.4.d); and all containers with fuel or hazardous substances will be labeled as required (mitigation measure analysis A.4.f). All wastes generated as part of operations will be hauled off site for disposal at an approved facility (mitigation measure analysis A.4.h).

ii. Habitat, Fish, Wildlife and Subsistence

Any exploration activity can impact habitat, fish, and wildlife. The Cook Inlet mitigation measures are designed to minimize these impacts. The Plan activities will take place over a limited time and involve gravel roads and temporary facilities. The Division anticipates impacts to habitat, fish, and wildlife will also be limited and temporary.

Fish

The Anchor River is home to a wide population of migratory fish and supports several species of fish that have important recreational value. Migration patterns vary by species and within species by life stage. Potential effects of exploration activities include impediments to migrating fish, and fish kills due to oil spills. Hilcorp's project will be located on private land, and no impediments to migrating fish is anticipated. Impacts to fish from oil spills should not occur as described in the Cook Inlet Mitigation Measure Analysis document submitted with the Plan (mitigation measure analysis A.3.a).

Wildlife

The Anchor River is a critical habitat area established under AS 16.20.605 and encompasses 19,000 acres of the Anchor River and Fritz Creek drainages on the southern Kenai Peninsula. This area was established for the purpose of "protecting natural habitat critical to the perpetuation of fish and wildlife, especially moose" (ADF&G 1989; Chapter four of the 2009 Cook Inlet Areawide Final Finding).

Moose are located all over the Kenai Peninsula. In the Anchor River drainage moose find important browse during the winter and calving habitat for spring calves in the riparian habitat areas with moderate snow levels. Hilcorp's proposed drilling program is expected to have little-to-no effect on the Cook Inlet moose population.

Black and brown bears on the Kenai Peninsula eat a wide variety of food. Omnivores are attracted to food and food odors associated with human activity. During exploration, human activity may attract foraging bears (particularly to refuse disposal areas) and may cause the bears to become conditioned to human food sources. Hilcorp has a Wildlife Interaction and Avoidance Plan in place and will use best management practices to minimize attractants to bears and other wildlife. The EH&S training plans will be provided to site workers to limit wildlife interactions (mitigation measure analysis A.2.i).

There are several regulations imposed by state, federal, and local agencies that are implemented to avoid, minimize, and mitigate these potential effects to bears. In addition to complying with the Endangered Species Act and the Marine Mammal Protection Act, Hilcorp must comply with mitigation measures to minimize effects of exploration activities on bears.

Subsistence

Traditional subsistence uses in the area include: land mammals, non-migratory game birds, freshwater and anadromous fish, shellfish and hunting and trapping of furbearers.

Potential exploration activities that could affect subsistence uses in the area include discharges from well drilling and ongoing disturbances from operation activities, such as vehicle traffic. Noise, traffic disturbance, and oil spills generally produce short-term impacts on subsistence species.

The Cook Inlet Areawide BIF contains several mitigation measures intended to reduce conflicts with subsistence, commercial, and sport harvest activities. The lessee must make reasonable efforts to ensure that the proposed exploration activities are compatible with subsistence hunting and fishing, and will not result in unreasonable interference with subsistence harvests. The Division may implement restrictions, as appropriate, to reduce potential conflicts. Hilcorp's project is located on private land and will have no impact to subsistence and other fish and wildlife uses. The potential for restrictions is noted (mitigation measure analysis A.3.a).

iii. Historic or Archeological sites

See Section M. Operating Procedures Designed to Minimize Adverse Effects.

V. CONSIDERATION OF LEASE PLAN OF OPERATIONS REQUIREMENTS UNDER 11 AAC 83.158(c-d) and 11 AAC 83.160

- A. Full Payment of Damages to the Surface Owner 11 AAC 83.158(c)
Hilcorp has secured an access agreement that satisfactorily protects the surface owner. Thus Hilcorp has provided for full payment of damages prior to starting operations (11 AAC 83.158(c)).
- B. Plan Sufficiency 11 AAC 83.158(d)
A proposed plan must include statements, maps, or drawings setting forth
- (1) the sequence and schedule of operations;
 - (2) the projected use requirements directly associated with the proposed operations;
 - (3) plans for rehabilitation; and
 - (4) a description of operating procedures to prevent or minimize adverse effects on natural resources and concurrent uses of the area (11 AAC 83.158(d)).

The information in Section IV. Proposed Operations, and additional information contained in Hilcorp's proposed Plan satisfy the requirements for a plan under 11 AAC 83.158(d) and thus

provide the Division with sufficient information available at this time to determine the surface use requirements and impacts directly associated with the proposed operations.

C. Oil and Gas Lease Bond 11 AAC 83.160

Operations will be conducted on state owned land. The proposed well will be drilled into state owned mineral estate. A lessee provides for payment of damages by posting a bond before operations commence, and remains liable for full damages under the lease. Hilcorp has an Oil and Gas Statewide Bond in the amount of \$500,000 for operations on ADL 392667 and continuing liability under the lease.

VII. CONSULTATION WITH OTHER GOVERNMENT ENTITIES

In reviewing the proposed Plan, the Division considered the fact that Hilcorp may require approvals from Agencies for other elements of its project. Although mentioned in the Plan and above, these aspects of the project are not operations being approved by this decision and the Division offers no opinion on whether an agency should or should not approve these activities.

In addition to reviewing the approvals required by Agencies, as they relate to this decision, the Division provided an Agency review and comment opportunity for the activities considered for authorization under this decision. The following government entities were notified on June 1, 2018, for comment on the Plan: U.S. Army Corps of Engineers; Kenai Peninsula Borough; ADF&G; ADEC; and DNR: DMLW, Office of History and Archaeology (OHA), and the Division of Oil and Gas. The comment deadline was 4:30pm Alaska time on June 15, 2018. ADF&G requested an extension to the agency comment period, and the comment period was extended for five days to end at 4:30pm on June 20, 2018. Comments were received and the Division, applicant, and commenting agency reconciled the comments without modifying the Plan. Agency comments and Applicant's responses are summarized in Appendix B. The Plan was then publicly noticed.

VIII. PUBLIC NOTICE

Public notice of the Plan and opportunity to comment, per AS 38.05.035(e)(1)(c)(ii), was published in the Alaska Dispatch News and Peninsula Clarion on June 26, 2018, with a deadline for comments of July 25, 2018, at 4:30 pm Alaska time. Additionally, a copy of the notice was posted on DNR's web site, the State of Alaska online public notice website, and faxes of the public notice were sent to the Anchor Point, Kenai and Homer post offices. Comments were received and considered by the Division. The Division and the applicant modified the Plan to appropriately address public comments; public comments and the Division's and the applicant's response(s) are summarized in Appendix B.

IX. CONDITIONS OF APPROVAL

Having considered the proposed project, the Division approves the Plan as amended and modified by this decision and subject to the following Conditions of Approval.

To protect the State's interest, the Division finds that it is necessary to amend the Plan to incorporate the following Conditions of Approval:

1. The applicant shall defend, indemnify and hold the State of Alaska harmless from and against any and all claims, damages, suits, losses, liabilities, and expenses for injury to or death of

persons and damage to or loss of property arising out of or in connection with the entry on and use of State lands authorized under this approval by the applicant, its contractors, subcontractors, and their employees.

2. The applicant shall inform and ensure compliance with any and all conditions of this approval by its employees, agents, and contractors, including subcontractors at any level.
3. Unless pre-authorized by a general permit, amendments and modifications to this approval require advance notice and must be approved in writing by the DNR.
4. The Commissioner of the DNR may require that an authorized representative be on-site during any operations conducted under this approval. This stipulation is required to ensure that the Divisions of Oil and Gas and Mining, Land and Water meet their statutory responsibilities for monitoring activities taking place on state-owned lands.
5. A status report for the activities conducted under this approval must be filed with this office on May 1 and November 1 each year, from the date this approval is issued and until a final completion report is filed with the Division. If a lessee requests an assignment, a status report must also be submitted during the assignment process. Failure to file in a timely manner may result in revocation of this approval.
 - a. Each status report shall include a statement describing and map(s) depicting all operations actually conducted on the leased area as of the date the report is prepared, which includes the location, design and completion status of well sites, material sites, water supplies, solid waste lines, buildings, roads, utilities, airstrips, and all other facilities and equipment installed.
 - b. Upon completion of operations, the applicant will submit a completion report which will include all information required of a status report described in (a) above as well as a statement indicating the date of operations completion, any noncompliance with the terms of this plan approval of which a reasonable lessee would have knowledge of, clean-up activities conducted, the method of debris disposal, and a narrative description of known incidents of surface damage.
6. Notification. The applicant shall notify the DNR of all spills that must be reported under 18 AAC 75.300 under timelines of 18 AAC 75.300. All fires and explosions must be reported to DNR immediately. The DNR 24-hour spill report number is (907) 451-2678; the fax number is (907) 451-2751. The ADEC oil spill report number is (800) 478-9300. DNR and ADEC shall be supplied with all follow-up incident reports.
7. A certified As-Built survey of all improvements shall be provided within one year of placement of the improvement(s). This As-Built must be submitted in both electronic and physical format.

To protect the State's interest, the Division finds that it is necessary to amend the Plan to incorporate the following Project Specific Stipulations:

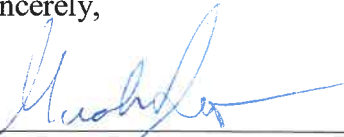
1. When all planned operations are completed, the wells will be plugged and abandoned according to AOGCC regulations.

X. FINDINGS AND DECISION

Having considered the specific activities proposed, the 2009 Areawide Cook Inlet Final Finding and associated supplements for the lease sale area within which the project is located, and the foregoing discussion of issues and conditions of approval, the Division makes the following findings:

1. The Plan provides sufficient information, based on reasonably available data, for the Division to determine the surface use requirements and impacts directly associated with the proposed operations.
2. The Plan includes statements, maps, or drawings setting forth the sequence and schedule of operations, projected use requirements, a rehabilitation plan, and a description of operating procedures designed to prevent or minimize adverse effects.
3. To protect the State's interest and mitigate potential adverse social and environmental effects associated with the Plan, the Division finds that it is necessary to amend the Plan to incorporate the mitigation measures set forth in the Cook Inlet Areawide Oil and Gas Lease Sale Final Finding.
4. All oil and gas activities conducted under oil and gas leases are subject to numerous local, state and federal laws and regulations with which Hilcorp is expected to comply.
5. The people of Alaska have an interest in developing the state's oil and gas resources and maximizing the economic and physical recovery of those resources. AS 38.05.180(a).
6. Alaska's economy depends heavily on revenues related to oil and gas production and government spending resulting from those revenues. The related revenue sources include bonus payments, rentals, royalties, production taxes, income taxes, and oil and gas property taxes.
7. The potential benefits of the advancement of the exploration phase outweigh the possible adverse effects, which have been minimized through imposition of mitigation measures, conditions of approval, and project specific stipulations, and thus approval of this Plan is in the State's best interest.
8. Based upon the Plan, supporting information provided by the applicant and the Division's review, determination of applicable statutes and regulations, consultation with other agencies, relevant entities and individuals, public comment, and the above findings related to that Plan, the Division hereby approves the Plan and entry into the exploration phase.

Sincerely,



Graham Smith
Permitting Manager
Division of Oil and Gas

8/27/2018

Date

Appeal

An eligible person affected by this decision may appeal it, in accordance with 11 AAC 02. Any appeal must be received within 20 calendar days after the date of issuance of this decision, as defined in 11 AAC 02.040(c) and (d), and may be mailed or delivered to the Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918; or sent by electronic mail to dnr.appeals@alaska.gov. This decision takes effect immediately. An eligible person must first appeal this decision in accordance with 11 AAC 02 before appealing this decision to Superior Court. A copy of 11 AAC 02 may be obtained from any regional information office of the Department of Natural Resources.

Attachments:

- Appendix A: Maps and Figures 1-2
- Appendix B: Agency and Public Comments

ecc: DOG: Marta Mueller, Kevin Pike, Allen Eddy, John Easton, Corrie Manaois, Tiana Heyano and SPCO Records
DMLW: Henry Brooks, James Sowerwine and Clifford Larson
ADFG: Brian Blossom, Megan Marie and Jeanette Alas
ADEC: Oil and Gas DEC, Graham Wood
OPMP: Don Perrin
Kenai Peninsula Borough: Marcus Mueller and Julie Denison
Other: DNR Parks OHA, Cook Inlet Regional Citizens Advisory Council

Appendix A: Maps and Figures

Figure 1:

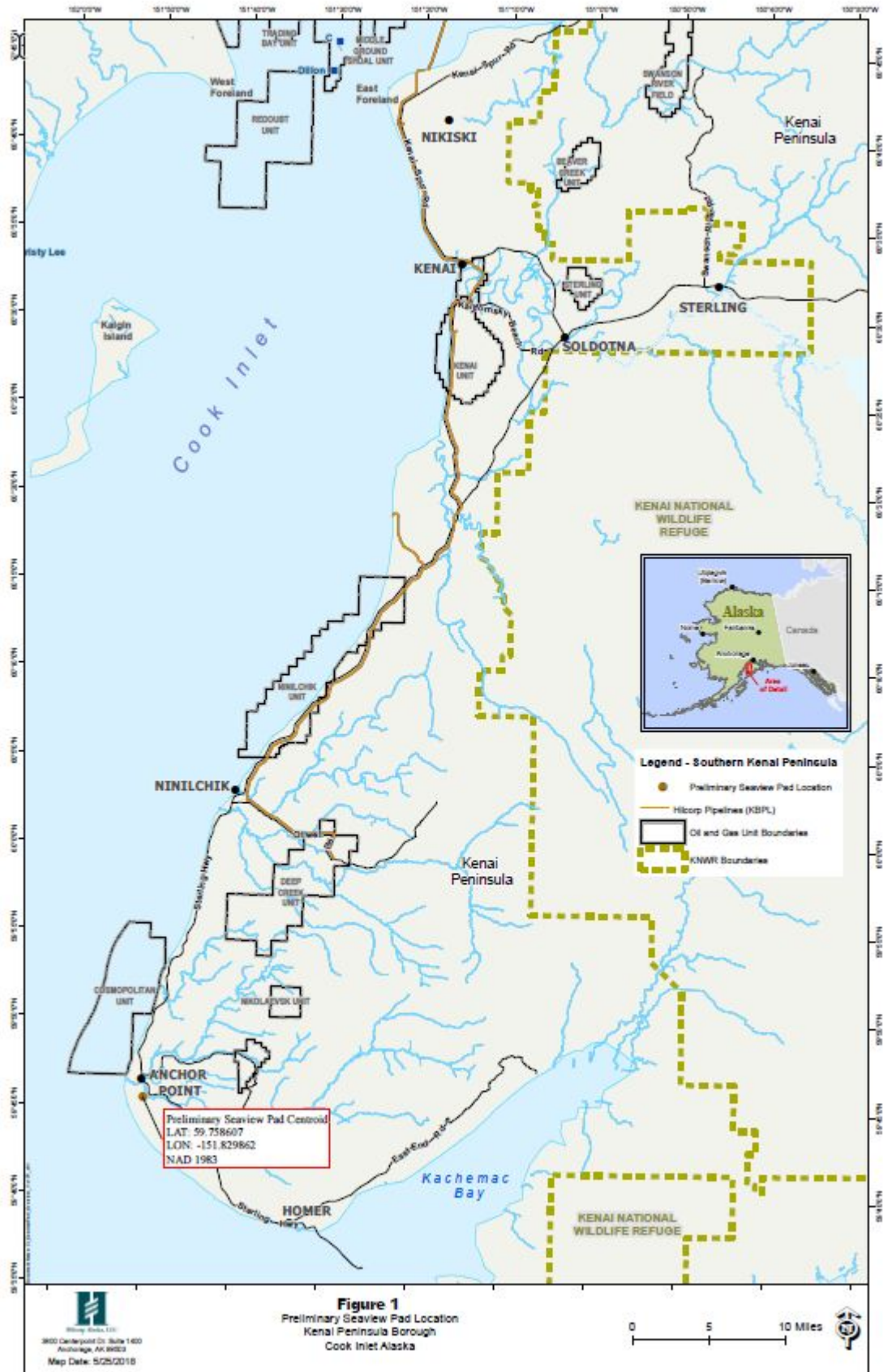
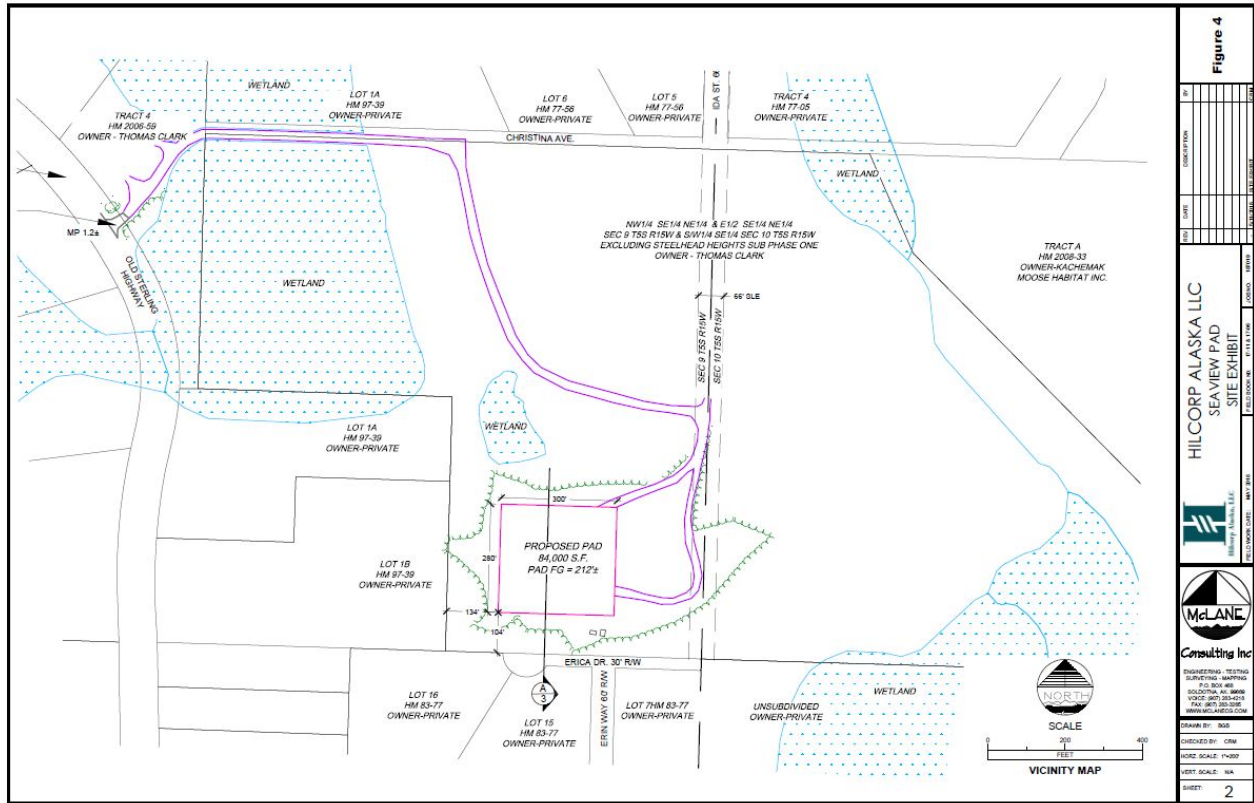


Figure 2:



Appendix B: Agency and Public Comments

Agency Comments:

Alaska Department of Fish and Game (ADF&G): June 22, 2018

1. ADF&G recommends more detailed information be provided to the extent other site locations outside the buffer were explored and if there are any viable options outside the Anchor River buffer.
2. Will groundwater monitoring be associated with exploration drilling? If the wells move to the production phase?
3. Is any water from the Anchor River needed for pad construction or operations?
4. Is fracking expected to be used as a method to recover oil and/or gas?

Applicant Response:

1. To ensure that exploration activities are conducted from a suitable surface location, Hilcorp has conducted an exhaustive evaluation of all potential parcels based on the following phased criteria:
 - i. **Reasonable Drilling Range:** Anticipated targets and tops of geological structures were determined by Hilcorp reservoir geologists. Based on the depth and geometry of the drilling targets, a maximum range of 3,500 feet was developed by the project drilling engineer, representing suitable surface locations from which the bottom-hole target could be reached. The 3,500-foot bottom-hole offsets for the Seaview 8 and Seaview 9 wells were plotted on a map, and overlapping segments, representing surface locations that are suitable for drilling to both targets from a single pad location were identified.
 - ii. **Parcel Size and Use:** Within the above suitable geographic range, parcels were then evaluated for size and presence of structures/residences. Parcels not large enough to construct a pad on, or that had structures on the parcel that prohibited pad construction were eliminated from the list of parcels, due to the inability to construct a pad and thus functionally execute the project.
 - iii. **Wetlands Analysis:** All areas within the geographical drilling range were overlain with the Kenai Peninsula Borough Wetlands Mapping tool in an effort to identify parcels that contained uplands areas. The U.S. Army Corps of Engineers (USACE) federal permit program requires all applicants for a Department of the Army permit to avoid and minimize impacts to waters of the U.S. Under the National Environmental Policy Act (NEPA) and the Clean Water Act Section 404 (b)(1) Guidelines, the Corps is required to evaluate alternatives to a proposed project. If a suitable alternative location exists that does not have an impact to waters of the U.S., then applicants are required to utilize it if possible.

As a result of the above evaluation, it was determined that only one single parcel of land

(proposed in this application) exists within the reasonable drilling range that has an area large enough to construct an adequate drill site and provides that construction would be confined to uplands areas. No parcels exist that meet the above-required criteria and also fall outside of the Anchor River one-half mile buffer. Further, Hilcorp has evaluated drill pad locations within the proposed parcel and selected a location that provides for maximum possible separation from Anchor River and no removal of habitat (constructed in an existing mine site).

Hilcorp feels that no suitable alternative location exists within or outside of the Anchor River Buffer. Additionally, Hilcorp feels that measures described in the Cook Inlet Mitigation Measure Analysis document; the Hilcorp Alaska Spill Prevention, Control and Countermeasure Plan (SPCC) for Kenai Onshore Mobile Drilling and Support Facilities (as required by 40 CFR Part 112); the Hilcorp Alaska, Cook Inlet Exploration Oil Discharge Prevention and Contingency Plan (as required by 18 AAC 75); and internal company policies and procedures implemented to prevent, control, and respond to releases will ensure safe and environmentally responsible operations while operating at the proposed Seaview location.

2. No impacts to drinking water or local water tables is anticipated. As a component of the AOGCC Permit to Drill process, Hilcorp has evaluated the depths of surrounding water wells in the vicinity, and has designed the well plan to mitigate any potential impacts to drinking water quality. The deepest drinking water well within a 0.25-mile radius is set at 94 feet. The surface conductor will be driven to a depth of 120 feet and a surface casing will be set to a depth of 1,500 feet, eliminating any communication between the wellbore and local water tables.
3. No water will be withdrawn from Anchor River for any portion of this project. As described in the ADNR Lease Plan of Operations Application, Section III, Part 5: “Freshwater will be purchased from the City of Anchor Point or withdrawn from existing and permitted water wells at Paxton Pad or other nearby Hilcorp operated locations.”
4. At this time, Hilcorp does not have plans to conduct hydraulic fracturing for the proposed Seaview wells. If Hilcorp decides at a later date to employ hydraulic fracturing as a component of well testing operations, then the company will do so in compliance with existing AOGCC statutes and regulations codified in 20 AAC 25.283.

Division Response:

1. Mitigation measure A.1.c allows for facilities to be sited within the buffer areas if the lessee demonstrates that site locations outside the buffer area are not practicable or that a location inside the buffer is environmentally preferred. The one-half mile buffer for A.1.c and siting of the Seaview pad inside the buffer area needs to be considered in the context of the limited number of upland parcels available for pad development, the geology of the area, and surface owners whose property will be entered to perform drilling operations. The pad design takes advantage of existing berms and topography to provide a natural elevation buffer between the pad and landowners to the South and West. The area

proposed for the operation is located on uplands. Wetlands are regulated by the USACE. Exploratory wells and associated facilities are temporary in nature. As to the temporary activities proposed under this Plan, the Division does not believe that they threaten concurrent use of the land. Hilcorp's proposed application and the applicant responses discussed above sufficiently describe operating procedures (i.e. using well control measures and containment around the pad to prevent spills) to mitigate the effect of operations on the environment. In the event Hilcorp finds a subsurface reservoir during exploration, DNR would conduct a separate review for Hilcorp to begin the development phase of the project. This new plan will be subject to the mitigation measures, with respect to the leases, and undergo a separate agency review and public notice process for placement of production facilities.

2. This Plan approves the drilling of an exploratory well. Before drilling a well, the AOGCC reviews a Permit to Drill application subject to 20 AAC.005(c) to ensure that appropriate equipment and appropriate practices are followed. The potential for oil and gas activities to contaminate water supplies and sources is discussed in Chapter Six of the 2009 Cook Inlet Areawide Final Finding.
3. See applicant response.
4. See applicant response.

Public Comments:

Cook Inlet Regional Citizens Advisory Council (CIRCAC), July 10, 2018

1. Concern: "Our understanding of the Department's (DNR), Mitigation Measures for the Cook Inlet Areawide 2017 Competitive Oil & Gas Lease Sale is that siting of onshore facilities, to the extent practicable, will be prohibited within one-half mile of the banks of the main channel of the Anchor River along with several other rivers listed. The mitigation measures go on to say that facilities may be sited within these buffers if the lessee demonstrates to the satisfaction of the director, in consultation with the Alaska Department of Fish and Game (ADF&G), that site locations outside these buffers are not practicable or that a location inside the buffer is environmentally preferred."

Applicant Response:

1. To ensure that exploration activities are conducted from a suitable surface location, Hilcorp has conducted an exhaustive evaluation of all potential parcels based on the following phased criteria:
 - i. Reasonable drilling range: Anticipated targets and tops of geological structures were determined by Hilcorp Reservoir Geologists. Based on the depth and geometry of the drilling targets, a maximum range of 3,500 feet was developed by the project Drilling Engineer, representing suitable surface locations in which the bottom-hole target could be reached from. The 3,500-foot bottom-hole offsets for the Seaview 8 and Seaview 9 wells were plotted on a map, and overlapping

segments, representing surface locations that are suitable for drilling to both targets from a single pad location were identified.

- ii. **Parcel Size and Use:** Within the above suitable geographic range, parcels were then evaluated for size and presence of structures/residences. Parcels not large enough to construct a pad on, or that had structures on the parcel that prohibited pad construction were eliminated from the list of parcels, due to the inability to construct a pad and thus functionally execute the project.
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As a result of the above evaluation, it was determined that only one single parcel of land (proposed in this application) exists within the reasonable drilling range, that has an area large enough to construct an adequate drill site, and provides that construction would be confined to uplands areas. No parcels exist that meet the above required criteria and also fall outside of the Anchor River one-half mile buffer. Further, Hilcorp has evaluated drill pad locations within the proposed parcel and selected a location that provides maximum possible separation from Anchor River and no removal of habitat (constructed in an existing mine site).

Hilcorp feels that no suitable alternative location exists within or outside of the Anchor River Buffer. Additionally Hilcorp feels that measures described in the Cook Inlet Mitigation Measure Analysis document, the Hilcorp Alaska Spill Prevention, Control and Countermeasure Plan (SPCC) for Kenai Onshore Mobile Drilling and Support Facilities, as required by 40 CFR Part 112, the Hilcorp Alaska, Cook Inlet Exploration Oil Discharge Prevention and Contingency Plan, as required by 18 AAC 75, and internal company policies and procedures implemented to prevent, control, and respond to releases will ensure safe and environmentally responsible operations while operating at the proposed Seaview location.

Division Response:

1. The Division evaluated the proposed Plan pursuant to 11 AAC 83.158 and criteria within the 2009 Areawide Cook Inlet Final Finding. The Alaska Department of Environmental Conservation (ADEC) under AS 46.04.030(e) determines the terms and conditions necessary to ensure that the oil discharge prevention and contingency plans meet applicable requirements to mitigate potential oil discharges to the environment. In order to drill a well for oil or gas in Alaska, a person must obtain a Permit to Drill from AOGCC pursuant to 20 AAC 25.005. Hilcorp submitted the required Permit to Drill

application to AOGCC on August 2, 2018. Surface casing and well integrity issues are addressed under the AOGCC regulations at 20 AAC 25.030 and 20 AAC 25.033 to prevent contamination of freshwater. The Division asserts that the decision whether or not to grant an exception to the mitigation measures is based on a review of the plan of operations and is contingent on the comments received from the public and state agencies. The Division finds that Hilcorp has shown rationale that equally satisfies the intent of this mitigation measure.