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October 7, 2013

Water Docket
U.S. Environmental Protection Agency
Mailcode: 2822T
Attention Docket ID No. EPA-HQ-OW-2010-0824
1200 Pennsylvania Ave. NW.
Washington, DC 20460

By email: ow-docket@epa.gov

Re: Preliminary 2012 Effluent Guidelines Program Plan and 2011 Annual Effluent Guidelines Review Report

Dear Ms. Stoner:

Trustees for Alaska submits these comments on behalf of our clients, Cook Inletkeeper, Kachemak Bay Conservation Society, United Cook Inlet Drift Association, the Native Village of Nanwalek and the Native Village of Port Graham (hereinafter “Commenters”) regarding the U.S. Environmental Protection Agency’s (“EPA”) Preliminary 2012 Effluent Guidelines Program Plan¹ and the 2011 Annual Effluent Guidelines Review Report.² Our clients represent diverse interests in Cook Inlet including commercial, sport, personal use and subsistence fishing, and we are grateful for the opportunity to provide comments and to assist with EPA’s review of this important matter.

We are writing to urge EPA in the strongest possible terms to end the special exemption that singles out Cook Inlet and allows the oil and gas industry to pollute our fisheries with billions of gallons of waste each year.

The overarching objective of the Clean Water Act (CWA) “is to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”³ To achieve this objective, Congress established several goals, including (1) eliminating the discharge of pollutants into navigable waters by 1985; (2) attaining water quality that provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water by July 1, 1983; and (3) prohibiting the discharge of toxic pollutants in toxic amounts.⁴ Although water quality has improved in many

¹ U.S. ENVTL. PROT. AGENCY, PRELIMINARY 2012 EFFLUENT GUIDELINES PROGRAM PLAN (2013) [hereinafter 2012 ELG PLAN].

² U.S. ENVTL. PROT. AGENCY, 2011 ANNUAL EFFLUENT GUIDELINES REVIEW REPORT (2012).

³ 33 U.S.C. § 1251(a).

⁴ *Id.*

respects since the passage of the CWA, these three goals have not been attained with regards to the oil and gas facilities in Cook Inlet. For example, the general National Pollutant Discharge Elimination System (“NPDES”) permits now in place in Cook Inlet increased the discharge of pollutants from oil and gas production and exploration facilities compared to previous permits. This is particularly troubling given the renewed interest in oil and gas exploration in Cook Inlet.

Commenters have serious concerns about continuing the exemption for Cook Inlet facilities in the Effluent Limitation Guidelines for oil and gas facilities located in coastal waters (“Coastal ELGs”). Since 1996, the Coastal ELGs have allowed oil and gas facilities in Cook Inlet to dump billions of gallons of waste into waters which sustain delicate habitats and wildlife and are vital for subsistence, recreational and commercial fishing. Because of the importance of these waters to Alaskans and because the assumptions underlying EPA’s exemption for Cook Inlet are no longer valid, Commenters asks EPA to revisit the exemption for Cook Inlet in the Coastal ELGs and require Cook Inlet facilities to meet the same standards as other coastal facilities around the country.

I. Clean Water Act Section 304

Under Section 304(b) of the Clean Water Act,⁵ the EPA must produce Effluent Limitation Guidelines (ELGs) on an industry-by-industry basis. The same section requires the Agency to review and, if appropriate, revise the ELGs annually. Section 304(m) requires the biennial publication of a plan setting out the schedule for the review and publication of the ELGs.⁶ EPA publishes an annual review of ELGs alongside either a preliminary or final plan which provides timetables for reviewing the ELGs.⁷ In May 2013, EPA published the Preliminary 2012 Plan⁸ and called for comments on the publication prior to the plan being finalized.⁹

The Preliminary 2012 Plan sets out the factors that EPA takes into consideration when reviewing the existing ELGs. EPA states that it intends to use these factors in future years for the ELG reviews. The factors are:

- 1) The amount and type of pollutants and the relative hazard posed. The hazard posed is measured in toxic-weighted pounds equivalent;
- 2) The performance and cost of available treatment technologies, process changes or pollution prevention alternatives;
- 3) The affordability or economic achievability of any technologies, process changes or alternatives identified; and

⁵ *Id.* § 1314(b).

⁶ *Id.* § 1314(m).

⁷ 2012 ELG PLAN, *supra*, at 2-2.

⁸ 2012 ELG PLAN, *supra*.

⁹ PRELIMINARY 2012 EFFLUENT GUIDELINES PROGRAM PLAN AND 2011 ANNUAL EFFLUENT GUIDELINES REVIEW REPORT, 78 Fed. Reg. 48159, 48159 (Aug. 7, 2013).

- 4) The removal of any impediments to pollution prevention or promotion of technological innovation in the sector.¹⁰

II. The Coastal ELG Exemption for Cook Inlet

Within the Coastal Subcategory (Subpart D) of the Oil and Gas Extraction Point Source Category guidelines, there is currently an exemption from the zero discharge requirement for Cook Inlet, Alaska.¹¹ Specifically, all facilities regulated by the coastal subcategory ELGs except for facilities in Cook Inlet are prohibited from discharging drill cuttings, produced water, and other drilling wastes.¹² This is the only such exemption in the country for oil and gas facilities in coastal waters. At all other sites, the discharge of drill cuttings, produced water and all other drilling waste is prohibited.¹³ The exemption for Cook Inlet was included when the current guidelines were first promulgated in 1996.¹⁴

In 1996, the EPA set out its reasons for implementing different standards in Cook Inlet to those in the rest of the country.¹⁵ The main reasons concerned the physical and economic infeasibility of applying the same zero discharge requirement in Cook Inlet as EPA applied to other coastal facilities around the country. The reasons included:¹⁶

- 1) Certain sites in Cook Inlet may not have been able to inject sufficient volumes of drilling waste to enable compliance with a zero discharge requirement. The geology necessary for grinding and injection did not appear to occur throughout Cook Inlet.¹⁷
- 2) Only one privately owned waste disposal site was available for onshore disposal and this may not always have been available for use by other contractors. The next most suitable disposal sites for drilling waste were in Oregon.¹⁸
- 3) There were various logistical problems faced by operators in Cook Inlet including available space, tidal fluctuations, strong currents and ice formation. Storage and transportation of drilling waste during the winter months imposed a significant financial burden.¹⁹

¹⁰ 2012 ELG PLAN, *supra*, at 3-1-3-5.

¹¹ U.S. ENVTL. PROT. AGENCY, TECHNICAL SUPPORT DOCUMENT FOR THE 2004 EFFLUENT GUIDELINES PROGRAM PLAN 5-226(2004) [hereinafter 2004 ELG SUPPORT DOCUMENT].

¹² FINAL EFFLUENT LIMITATIONS GUIDELINES AND STANDARDS FOR THE COASTAL SUBCATEGORY OF THE OIL AND GAS EXTRACTION POINT SOURCE CATEGORY, 61 Fed. Reg. 66086, 66127, (Dec. 16, 1996).

¹³ 2004 ELG SUPPORT DOCUMENT, at 5-226.

¹⁴ 61 Fed. Reg. 66086, 66125, (Dec 16, 1996).

¹⁵ *Id.* at 66086.

¹⁶ As noted *infra*, the rationales to exempt Cook Inlet from the zero discharge standard are no longer valid. See LOIS EPSTEIN, DISHONORABLE DISCHARGES: HOW TO SHIFT COOK INLET'S OFFSHORE OIL & GAS OPERATIONS TO ZERO DISCHARGE (May 2006)(available at: <http://inletkeeper.org/resources/contents/dishonorable-discharges/view>).

¹⁷ *Id.* at 66094.

¹⁸ *Id.* at 66090.

¹⁹ *Id.* at 66096.

- 4) The cost of implementing a zero discharge requirement was projected to have been sufficiently high that one of the thirteen platforms would have closed with the resulting loss of 108 jobs in an area of above average unemployment. The Agency considered this to be disproportionately high in comparison to the costs faced by operators in the rest of the country.²⁰

In 2004, the Agency reviewed the exemption for Cook Inlet to ascertain whether or not there were grounds for the exemption to remain in place.²¹ The review highlighted that, although the geology of the region had not changed, technical advances had enabled the installation of grind-and-inject facilities by operators in the surrounding region.²² No new coastal oil and gas disposal facilities had opened in the area, but one new platform had been established. This new platform had both the technical and economic capability to adhere to a zero discharge requirement.²³ However, the Agency decided not to revise the ELGs citing the following reasons:

- 1) The 16-year lag between new projects being established;
- 2) The ability of the permit scheme to require new facilities to demonstrate that they were technically or economically unable to conform to a zero discharge requirement; and
- 3) The relatively low toxicity of the discharges.²⁴

The 2004 review stated that the Agency would “examine the progress of newer zero discharge technologies for drill cuttings and produced waters in future annual reviews.”²⁵

On August 14, 2007, the Regional Administrator for EPA Region 10 (which covers Alaska) requested that the ELGs for Cook Inlet be reviewed: “*Region 10 strongly believes that the factors identified in the 1996 ELG development and reconsidered in the 2004 Technical Support Document (TSD) have changed significantly, and reevaluation is warranted.*”²⁶ (Emphasis added). Although the ELGs for the oil and gas industry underwent an initial review in 2010, the ELGs for the coastal subsector have yet to be reviewed,²⁷ despite the assurances made in 2004 and the request made by Region 10 in 2007. There have been sufficient technological and economic changes in Cook Inlet since 1996 to warrant a full review of the guidelines and in particular the zero discharge exemption.

²⁰ *Id.* at 66101.

²¹ 2004 ELG SUPPORT DOCUMENT, *supra*, at 5-225.

²² 2004 ELG SUPPORT DOCUMENT, *supra*, at 5-228.

²³ *Id.* at 5-228.

²⁴ *Id.* at 5-230.

²⁵ *Id.* at 5-231.

²⁶ Letter from Elin D Miller, Region 10 Regional Administrator, U.S. Env'tl. Prot. Agency, to Benjamin H Grumbles, Assistant Admin. for Water, U.S. Env'tl. Prot. Agency, at 2 (Aug 14, 2007).

²⁷ U.S. ENVTL. PROT. AGENCY, TECHNICAL SUPPORT DOCUMENT FOR THE 2010 EFFLUENT GUIDELINES PROGRAM PLAN (2011).

III. Amount and Type of Pollution & Related Impacts

Cook Inlet is a vibrant but stressed marine habitat facing many threats. Alaska is experiencing the effects of rapid climate change unlike anywhere else in the United States. The marine resources in Cook Inlet face growing risks from these effects which include ocean acidification, receding glaciers, warming salmon streams and increased coastal erosion. Additionally, as Alaska's most populated and fastest growing region, Cook Inlet suffers from a host of point and nonpoint pollution sources which collectively dump untreated or partially treated wastes into rich fisheries habitats around the watershed each year. At the same time, the fisheries in Cook Inlet play an invaluable role creating sustainable jobs, food sources and revenue for the local communities. It is estimated that the annual value of Cook Inlet fisheries exceeds \$1 billion.²⁸ While some of the pollution sources in Cook Inlet are difficult to regulate with current technology, others – including oil and gas industry wastes – are not. As a result, there are compelling reasons for EPA to review the ELGs in relation to Cook Inlet.

A. *Amount of Pollution*

As noted above, the Cook Inlet watershed — like any large watershed — suffers from large volumes of nonpoint source pollutants and these pollutants create stress in the receiving waters and habitats which is aggravated by the discharge of point source pollution. Despite this, major point source discharges in Cook Inlet are poorly regulated. For example, the Municipality of Anchorage's main sewage treatment plant dumps upwards of 30 million gallons a day of primary treated sewage under a Clean Water Act waiver. The oil and gas industry sector dumps well over 2 billion gallons a year in produced water into Cook Inlet fisheries, and, depending on drilling rates, millions of additional gallons in drilling muds, cuttings and other wastes.²⁹ As reservoirs decline, produced water discharges can be expected to increase. Furthermore, due to a renewed interest in oil and gas exploration in Cook Inlet brought about by significant state subsidies, two new jack-up rigs are now working the region, drilling new wells and disposing additional wastes not anticipated in 1996.

B. *Impacts to Cook Inlet Resources*

i. *Subsistence Use*

Numerous Alaska Native communities rely heavily on the Cook Inlet for their subsistence use and livelihood. Communities including Port Graham, Nanwalek, Chickalook, Eklutna, Seldovia, Ninilchik and Tyonek, all members of the Kenaitze Tribe, pursue a subsistence lifestyle that is centuries old, with subsistence-based foods,

²⁸ See, e.g., GUNNAR KNAPP, INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH, UNIVERSITY OF ALASKA ANCHORAGE, COMPARISON OF RECENT SPORT AND COMMERCIAL FISHERIES ECONOMIC STUDIES (2009)(available at: http://www.iser.uaa.alaska.edu/people/knapp/personal/pubs/Knapp_Sport_Commercial_Economic_Comparison_for_Task_Force_090129_revised.pdf).

²⁹ See EPSTEIN, *supra*, p. 11.

including those from Cook Inlet, supplying a high percentage of their diets. Because a higher percentage of their food supply comes from Cook Inlet-related sources than for most non-native individuals, many of those living in these communities may be disproportionately impacted by toxic chemicals in their foods. Concerns about the level of toxins found in fish have even led to reports of parents ceasing to feed their children traditional foods.³⁰

Pollution can also have an impact on the availability of food for communities. Tribal members have reported a decline in the populations of various species harvested for food. These changes include “salmon with thinner and less firm meat and smaller halibut with chalky and fibrous meat.”³¹ Tribal members have also observed “a disappearance in bull kelp and a decrease in the abundance of clams, cockles, bidarkis, cod, flounder, crab, shrimp, mussels, algae, seals and sea lions. Clams and mussels were observed to have thinner and sometimes transparent shells.”³²

A 2003 EPA study³³ shows that seafood samples collected from Cook Inlet in 1997 contain varying levels of polycyclic aromatic hydrocarbons (chemicals from petroleum production) and metals (including mercury, cadmium, and lead, which are contained in oil industry discharges). Importantly, the EPA study focused solely on the effects of individual pollutants, not the impacts of two or more pollutants simultaneously contained in fish tissues consumed by humans.

Since oil and gas production began in Cook Inlet, the industry has dumped more than 55 billion gallons of toxic produced waters into the region’s fisheries.³⁴ We know from the *Exxon Valdez* oil spill that polycyclic aromatic hydrocarbons and other pollutants in oil industry waste streams are more toxic than previously thought,³⁵ as a result, it makes sense to protect the wild food sources in Cook Inlet by closing the toxic dumping loophole.

ii. Beluga Whales

Since the adoption of the ELGs in 1996, the Cook Inlet beluga whale population has been listed as “depleted” under the federal Marine Mammal Protection Act (MMPA)³⁶ and “endangered” under the federal Endangered Species Act (ESA).³⁷

³⁰ REGION 10, U.S. ENVTL. PROT. AGENCY, FACT SHEET: OIL AND GAS EXPLORATION, DEVELOPMENT AND PRODUCTION FACILITIES LOCATED IN STATE AND FEDERAL WATERS IN COOK INLET, PERMIT NUMBER AKG-31-5000, at 47–49 (Feb. 23, 2006).

³¹ *Id.*

³² *Id.*

³³ *Survey of Chemical Contaminants in Seafoods Collected in the Vicinity of Tyonek, Seldovia, Port Graham and Nanwalek in Cook Inlet, Alaska*, U.S. Environmental Protection Agency, Region 10, EPA 910-R-01-003, December 2003.

³⁴ EPSTEIN, p. 9 (2006) (using a highly conservative figure of less than 1 billion gallons a year to arrive at a current estimate of total produced water since the beginning of operations).

³⁵ EPSTEIN, p. 24 (2006).

³⁶ 65 Fed. Reg. 34590 (May 31, 2000).

³⁷ 73 Fed. Reg. 62919 (Oct. 22, 2008).

Significantly, all Cook Inlet oil and gas activities covered by the current ELGs lie within waters defined by NMFS as “critical habitat” for the beluga whale.³⁸ Despite the cessation of subsistence harvests in 1999, the population of beluga whales continues to decline. NMFS and others cannot pinpoint the causes of the decline, but virtually no resources have been dedicated toward understanding whether oil and gas industry discharges may be having an adverse effect on the beluga.

iii. Tourism

The importance of tourism to the area cannot be underestimated. According to the state Chamber of Commerce, approximately 1.8 million visitors traveled to Alaska in 2010 and spent a total of \$3.4 billion.³⁹ One in eight private sector jobs in Alaska is tourism related. Direct expenditure on sport fishing in Cook Inlet amounted to \$730 million in 2007, employing about 8000 people in the area.⁴⁰ Clean water in Cook Inlet is vital to the lucrative tourist and sport fishing industries.

IV. Available Technology

In 1996, EPA found it was not technically feasible to inject drilling waste in Cook Inlet because, according to industry studies, the geological makeup of the area did not lend itself to reinjection/disposal wells. This is no longer the case and the technology to enable the injection of drilling waste is now available.

The exemption for Cook Inlet is based on outdated information about the ability of facilities to achieve zero discharge of wastes such as drilling fluids and drill cuttings. Improvements in “grind and inject” technologies for drilling wastes now can overcome the Cook Inlet injection well plugging problems that were a large part of the previous rationale for allowing drilling waste disposal directly into Cook Inlet. Marathon and Chevron/Unocal opened new grind-and-inject facilities for drilling wastes in the Cook Inlet region in 1999 and 2002, respectively, demonstrating the technological feasibility of injecting drilling waste in Cook Inlet.⁴¹

A. Economic Affordability of Available Technology

In 1996 and again in 2004, EPA held that the forced introduction of a zero discharge requirement would have a severe economic impact on the oil industry in Cook Inlet. There are several indications that zero discharge is economically feasible for the industry. For example, ConocoPhillips converted the Tyonek platform to zero discharge for its produced water in 2004 and Chevron/Unocal converted the Anna platform in 2005.⁴² Since beginning production in Cook Inlet in 2002, Forest Oil injects its

³⁸ See 76 Fed. Reg. 20213 (Apr. 11, 2011).

³⁹ DEP’T OF COMM., COMMUNITY & ECON. DEV., STATE OF ALASKA, 2010 ALASKA ECONOMIC PERFORMANCE REPORT at 23 (2012).

⁴⁰ HELVOIGT ET AL., *supra*, at 14.

⁴¹ 2004 ELG SUPPORT DOCUMENT, *supra*, at 5-228.

⁴² EPSTEIN, *supra*, at vi.

platform's produced water and drilling wastes at the Osprey platform. Thus, for 3 of the 12 operating Cook Inlet platforms, managing produced water in this way has been demonstrated to be economically feasible.⁴³

In 2004, EPA found the oil industry in Cook Inlet to be "marginal."⁴⁴ Renewed exploration and drilling in Cook Inlet, however, has led to an increase in the number of barrels of oil produced to 15,000 per day compared to 9,000 barrels a day in 2008.⁴⁵ An accompanying increase in the number of jobs has resulted in a 15% reduction in unemployment from August 2012 to September 2013.⁴⁶ Without a zero discharge requirement, the profitable oil platforms of Cook Inlet do not incur costs which are incurred by operators in other parts of the country, nor do they pay the full cost of production as they do not pay to dispose of their waste into Cook Inlet. This policy amounts to a federal subsidy for the oil industry in Cook Inlet that distorts markets and creates an uneven playing field.

The cost analysis of the implementation of a zero discharge requirement was carried out in 1996 with data supplied by the oil and gas industry. In the intervening years, the capital costs and the required infrastructure have changed. For instance, three of the platforms have already been converted to enable the injection of produced water and two of the platforms have been shut-in.⁴⁷ An up-to-date cost analysis would show that the costs to implement a zero discharge requirement would now be significantly lower than in 1996.

B. Promotion of Technological Innovation

The implementation of a zero discharge requirement would encourage innovative pollution control methods. In 2003, Marathon stated that it had reduced its exploration and production disposal costs for its Cook Inlet operations by using water-based drilling fluids and beneficial reuse of materials following water-washing, thereby reducing the amount of its drilling wastes requiring Class II disposal wells.⁴⁸ These changes reduced Marathon's disposal costs from \$53.63 per barrel in 1995 to \$5.85 per barrel in the 2000-2003 time period.⁴⁹

EPA's re-evaluation of the 1996 Coastal ELGs and the promotion of technological innovation is particularly important at this time because of the renewed interest in oil and gas development in Cook Inlet. EPA previously assumed that Cook Inlet was a mature oil and gas field near the end of its useful life but the draft permits for exploration facilities recently released by EPA and the State recognize the reinvigoration

⁴³ *Id.*

⁴⁴ 2004 ELG SUPPORT DOCUMENT, *supra*, at 5-229.

⁴⁵ 'Where are the jobs to be found in Alaska's air-tight employment market? (Alaska Dispatch, September 30, 2013).

⁴⁶ *Id.*

⁴⁷ EPSTEIN, *supra*, at 18.

⁴⁸ EPSTEIN, *supra*, at 24.

⁴⁹ *Id.*

of oil and gas exploration and development in Cook Inlet and pave the way for new exploration facilities that will likely lead to new development and production facilities and more pollution in Cook Inlet. In fact, with two new jack-up rigs drilling for the past two years in Cook Inlet, drilling activity has taken a wholly different path than EPA anticipated in 1996.⁵⁰ Therefore, EPA should revise the ELGs to take into account changed economic and technological circumstances since 1996.

V. Conclusion

EPA stands on strong legal, economic and technological grounds to revise its Effluent Guideline Plan to close the Cook Inlet oil and gas industry exemption. Specific factors that support this position include:

- the high price of Cook Inlet oil compared to 1996 prices;
- significant state tax credits and royalty reductions since 1996;
- the lack of adequate technical evaluation by EPA to date of lower-cost, zero discharge scenarios; and
- the number and ownership of usable Class II wells offshore and the fact several Cook Inlet platforms already inject their produced water.

The levels of pollution discharged into Cook Inlet as a result of the exemption under the ELGs have a significant effect on human health, food sources, the environment and local industry. It is now clear the necessary technology is available to enable a zero discharge requirement to be implemented in Cook Inlet. Furthermore, the economic assumptions used in 1996 have completely shifted, with high oil prices and large state subsidies creating higher margins for Cook Inlet crude. The data and analyses found in the *Epstein* report remain highly relevant to the issues herein, and Commenters have attached a copy of the report and request it become part of the record in this matter.

For these reasons, Commenters respectfully request that EPA add the ELGs for oil and gas facilities in the Coastal Subcategory — and specifically the exemption for Cook Inlet — to the Preliminary 2012 Effluent Guidelines Program Plan and remove the exemption of Cook Inlet from the nationwide zero discharge requirement.

Sincerely,

/s Suzanne Bostrom
Staff Attorney
Trustees for Alaska

s/ Sarah Mackie
Legal Extern
Trustees for Alaska

⁵⁰ See, e.g., <http://www.alaskajournal.com/Alaska-Journal-of-Commerce/June-Issue-4-2012/Hilcorp-has-aggressive-goals-for-Inlet-production/>.