



# EXECUTIVE SUMMARY

Recommendations from the  
National Tribal Water Council  
Concerning the John M. Asplund Water  
Pollution Control Facility ("Asplund WPCF")  
CWA Section 301(h) Waiver of Secondary  
Treatment for NPDES Permit Renewal



## Who We Are

The National Tribal Water Council ("NTWC" / "Council") is a body comprised of members with technical, scientific and traditional cultural knowledge created to assist the U.S. Environmental Protection Agency ("EPA") with research and information for decision-making on water quality related concerns that impact Indigenous Peoples throughout Indian Country.

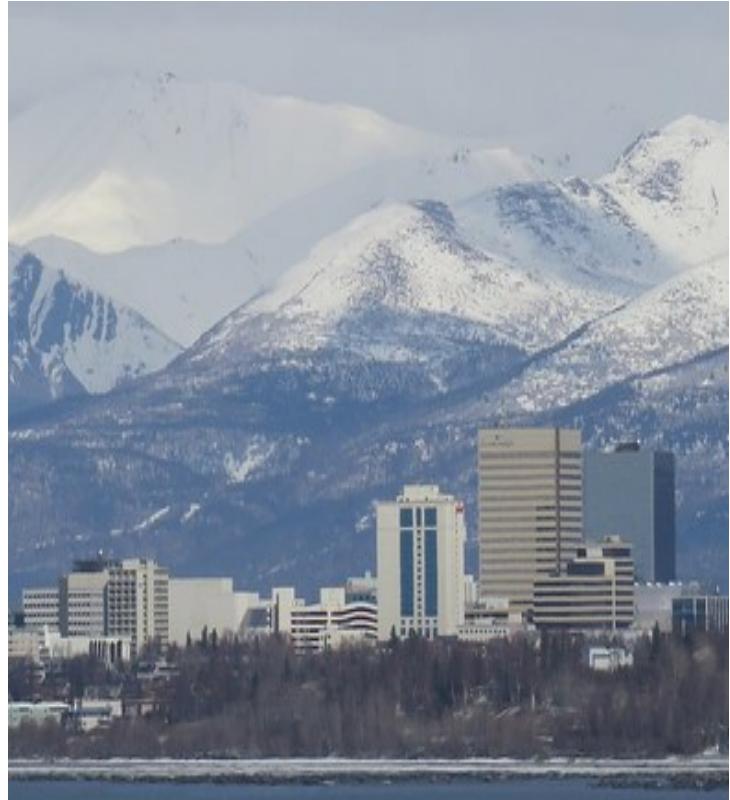
The NTWC works with the EPA to implement the Clean Water Act ("CWA") and the Safe Drinking Water Act ("SDWA") to safeguard and improve public and environmental health, and water quality, for the benefit of Tribes, marine life and aquatic species.



**Photo 1.**  
*Fishing is important part of Tribal subsistence.*



**Photo 2.**  
*Smoked salmon*



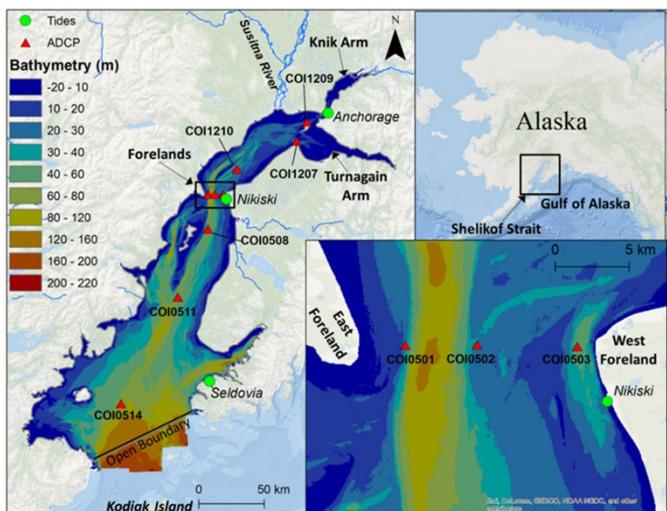
## Asplund WPCF

Subsistence and cultural practices are vital for Tribes and tribal communities (see Photos 1 & 2). In Alaska, these practices are threatened by the contamination of the Cook Inlet and of the plants, animals and marine life there, on which tribal people depend for their livelihoods and existence. Subsistence and cultural practices are critically important and hinge on both environmental quality and water quality.

The principal volumetric discharger of pollutants and contaminants to Cook Inlet (see Figure 1) is the Anchorage Water and Wastewater Utility ("AWWU"), which serves a population more than 400,000. For nearly 50 years, AWWU has discharged wastewater effluent, treated only to primary standards, from its Asplund Water Pollution Control Facility ("WPCF"), at a rate of approximately 25-35 million gallons per day, or MGD, during the past 20 years.

Effluent from the Asplund WPCF is discharged to the waters of Cook Inlet under a CWA National Pollution Discharge Elimination System ("NPDES") permit, which is modified by a CWA Section 301(h) Waiver of Secondary Treatment (known as a modified permit). Thus, AWWU uses only primary processes, which consist of screening / filtration, settling and removal of

## Executive Summary - Asplund WPCF



**Figure 1.** Geographic setting and bathymetry (water depths, in meters) of Cook Inlet, Alaska. The green circular areas show tidal level monitoring stations. Much of Cook Inlet is less than 120 meters deep. The inlet and particularly the Turnagain Arm, is known for tides upwards of 40 ft.

biosolids, supplemented by chlorination with sodium hypochlorite (disinfection), followed by discharge via the Point Woronzof outfall (see Figure 2) and is presently seeking to renew its 301(h) Modified NPDES permit and to maintain this discharge status quo for the foreseeable near future.

The waters of Cook Inlet, its ecosystem, subsistence practices of Alaska Native Tribes and Villages, inlet area marine food harvesting, and inlet water quality are under increasing threat from contaminants originating from a wide array of industrial and municipal activities, of which Asplund's wastewater discharges are the most volumetrically significant. The CWA permitting process for the facility dates from a time when the ocean was viewed as a boundless reservoir into which pollutants could be disposed.

The permitting requirements do not fully consider contemporary scientific and medical understanding of disease and other health impacts to Cook Inlet lifeforms as instigated by infectious agents including, but not limited to bacteria, archaea, fungi, viruses and other microbial life that are present in wastewater and that are not completely or not consistently attenuated by treatment methodology used in facilities such as the Asplund WPCF. The first Asplund CWA Section 301(h) permit waiver was issued in 1985. The permit was last renewed under normal

procedures (5-yr cycle) in 2000, and it has been continued administratively since then. Since the time of permit waiver issuance, apparently there has been no Asplund WPCF-related consultation with Alaskan Tribes or Native Villages, though informal consultation by the EPA has commenced and is anticipated as part of the ongoing permit renewal process, which is expected to be completed in 2025. The permit may again be continued rather than renewed. The routine use of continuation rather than renewal by means of repeated joint actions of the facility management and EPA regulators is a major loophole in the implementation and improvement of CWA 301(h) waiver requirements at the Asplund WPCF.

A paramount ecosystem and species concern, ongoing and for the past several decades, is the Cook Inlet beluga whale. These whales comprise a genetically distinct and geographically isolated population that lives only in the inlet. The population saw dramatic reduction in numbers from nearly 1,300 in the 1970s to about 330 in 2023. The Cook Inlet beluga whale was listed in 2008 as an endangered species and two large areas of Cook Inlet were designated in 2011 as critical habitat for this whale; these are places where it has been determined that water quality is essential for the whales' conservation (see Figure 2). The NRDC in its June 29, 2015, letter to EPA indicated that water quality contaminants / pollutants wastewater discharge from the Asplund plant is a "major threat" to this population. A study of beluga whales found deceased in Cook Inlet in 1997 indicated that the Asplund WPCF was in part at fault for the demise of the beluga whales. The study found that beluga whales suffered kidney and liver failures because of toxicant(s) likely originating from Asplund. This beluga research was narrowly focused and did not consider other Cook Inlet marine life. Thus, the magnitude of ecosystems and species impacts is quite likely greater than only on belugas.

Cook Inlet water quality is vital for ecosystem and species health. Water quality indicators and measures encompass parameters both measured and not measured of chemical constituents and contaminants both regulated and unregulated, e.g., the thousands of PFAS compounds, microplastics, or endocrine disruptors. The parameters routinely measured include, but are not limited to salinity, suspended and dissolved solids inclusive of sediment,

## Executive Summary - Asplund WPCF

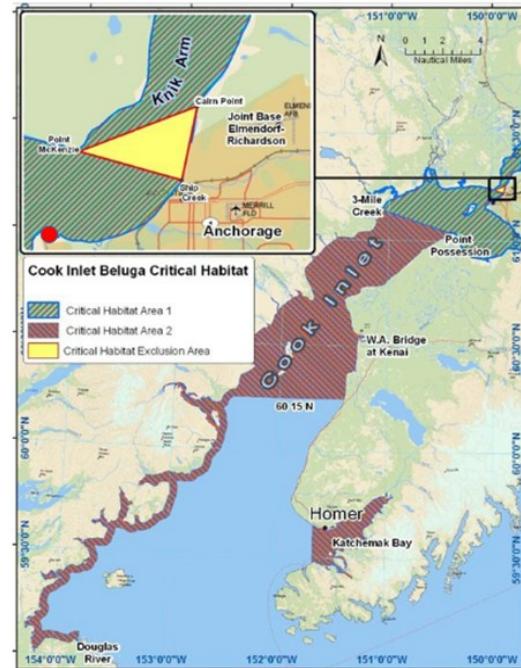
oxygen demand, pH, and temperature, along with estimated counts of certain bacteria present in and conveyed by effluent and inlet waters. Bacteria and other pathogenic organisms have been found to reside on microplastic particles in municipal wastewater effluent streams. The Council asserts that these treatment plant effluent contaminants overall are likely impacting the beluga whales and likely impacting other threatened and endangered species of plants and animals, as well as species that are not yet threatened or endangered. Thus, the contaminants are collectively negatively impacting the subsistence practices of Alaska Native Tribes.

A 2024 EPA ECHO Detailed Facility Report for the Asplund WPCF states that the facility is not in Indian Country. However, the impacts of the plant's discharges extend beyond the facility fence line, far into Indian Country. The report indicates that regarding all environmental permits for the Asplund WPCF that the EPA administers, in the past twelve quarters, there were no findings of noncompliance under the CWA, Clean Air Act ("CAA") and Resource Conservation and Recovery Act ("RCRA") facility permits, and in the past five (5) years one (1) informal enforcement action was taken by the EPA. Not all Asplund WPCF environmental and public health impacts are necessarily addressed by regulatory compliance.

By means of the repeated continuation rather than renewal of the Asplund WPCF CWA 301(h) modified NPDES discharge permit of 2000, which stipulates sediment and bioaccumulation monitoring in the fourth year after the effective date of the permit, there has been no new sediment or bioaccumulation monitoring since 2004. This illustrates how permit compliance requirements can be circumvented without triggering a violation, otherwise known as *using a permit as a shield*.

### Cook Inlet Water Quality Issues

The issues concerning Cook Inlet water quality in relation to Asplund WPCF effluent discharges to the Inlet and the regulation thereof are too numerous and complex to list in this summary, but several are presented below. Of overarching concern is that there is no end in sight for these discharges, their water quality characteristics and the implications of the associated Cook Inlet water quality degradation. The use of a permit as a shield for decades on



**Figure 2.** Cook Inlet beluga whale critical habitat. The approximate location of the Asplund WPCF Point Woronzof effluent discharge outfall is indicated by a red circular dot.

end circumvents numerous aspects of original permit requirements and intent.

The Asplund WPCF discharges are of great concern for inlet area Tribes and Villages. Subsistence and cultural practices on tributaries of Cook Inlet are at risk, for example, as numerous species of anadromous fish must traverse Cook Inlet with exposure to Asplund WPCF-sourced pathogens and contaminants occurring not once but twice during their life cycles. There appears to be little to no consideration by EPA and the AWWU for water quality impacts due to its wastewater discharges on subsistence and cultural uses, such as harvesting plants, marine life, animals or use of the Cook Inlet area marine and freshwater environments by Tribes and Villages.

There appears to be little to no consideration for cumulative wastewater and pollutant discharges into the inlet under Asplund WPCF 301(h) waiver. Cook Inlet water quality is not understood or monitored in a comprehensive way or in a manner intended to provide answers to the overarching environmental issues presented here, as monitoring is conducted in a very limited way by the AWWU only to satisfy the Asplund WPCF NPDES permit requirements.

## Executive Summary - Asplund WPCF

For the past 40 years or so, the AWWU has only once or twice conducted mandated monitoring of sediment and bioaccumulation of chemicals, due to circumvention through continuation rather than permit renewal.

A major issue with the 301(h) waiver for Asplund WPCF is the exceptionally prolonged period between permit renewals. These renewals were originally intended to occur on a 5-year cycle. However, the present cycle is more like 20 years or more. EPA staff would like to get back to the 5-year cycle, but whether this will happen or not is in question.

Emerging contaminants beyond PFAS do not appear to be assessed in any consistent way by EPA and AWWU.

Testing for microbial agents in Asplund WPCF discharges appears to rely almost exclusively on fecal coliform and enterococci testing, which are proxies for the multitude of wastewater infectious agents; the adequacy of this approach has not been demonstrated for the Asplund discharges.

The current regulatory approach to Asplund WPCF effluent discharges is based on mid-20th-century attitudes toward waste disposal by means of ocean dumping. Environmental and marine species impacts are considered only with limited depth and breadth both spatially and temporally. The waters of Cook Inlet are shallow; the inlet is being used as a shallow open drain to the deep ocean. Further, water in the system is contaminated and polluted by the treatment plant discharge that circulates both downstream and upstream in response to tidal action.

While the “solution to pollution is dilution” approach may perhaps be suited to pollutants consisting of familiar WWTP effluent constituents or contaminants, such as chlorine, TDS, BOD, pH, nitrates, etc., the efficacy of this approach for infectious agents observed to be present in wastewater influent and effluent streams has not been

adequately considered or demonstrated. Further, the impacts, including harmful algal blooms (HABs) stimulated by nutrients in both wastewater and runoff, which have known impacts on marine species important for subsistence practices by Tribes, occur in Cook Inlet and have not been adequately considered.

It appears that there is no pretreatment of medical facility wastewater streams prior to their discharge into the AWWU wastewater collection system nor has AWWU demonstrated that disinfection pretreatment of medical waste to its wastewater collection system is unnecessary.

## Recommendations

To address and resolve the numerous issues associated with Asplund WPCF wastewater discharges to Cook Inlet, the NTWC has developed and articulated numerous recommendations to EPA and AWWU. Please see the full [white paper](#) on this same topic for the Council's recommendations, references, illustrations and a full development of the issues, permitting process and regulatory background.

The NTWC works with the EPA to implement the CWA and SDWA. The comments and recommendations provided are intended by the NTWC to fulfill its mission by promoting a wastewater treatment plant permitting and regulatory process for the AWWU Asplund WPCF that is truly protective of Cook Inlet public and environmental health, and water quality for the benefit of Tribes, marine life and aquatic species.

Cook Inlet subsistence and cultural practices are vital for numerous Tribes, Villages and their communities and the viability of these practices critically depends on environmental, ecosystem, biota, and water quality. The NTWC believes that its recommendations, if acted upon by the AWWU and EPA, will help to promote and sustain subsistence practices on the Cook Inlet that have been part of tribal and village cultures since time immemorial.



The Council is administered by the Institute for Tribal Environmental Professionals with grant funding from the U.S. Environmental Protection Agency, Office of Water.

For more information, please visit our website where the full White Paper is posted: [itep.nau.edu/ntwc/](http://itep.nau.edu/ntwc/)

