

**Alaska Department of Environmental Conservation
Draft Waterbody Determination Paper
Tongass Narrows 1, Ketchikan, Alaska
Residues Attainment**



Recommendation

Waterbody Name: Tongass Narrows 1

APDES Permit: AKG520002

Category recommendation: 4b to 2

Water Quality Standard Affected: Residues for Marine Water Uses

Designated Use Affected: Growth and propagation of fish, shellfish, other aquatic life, and wildlife

Pollutant: Residues

Executive Summary

This document describes the data analysis and conclusions reached in evaluating Tongass Narrows 1¹ for the 2020 Integrated Report (IR). Tongass Narrows 1 is located near Ketchikan, Alaska and was placed in Category 4b in the 2012 Integrated Report due to non-attainment of the residues criteria. In 2012 the permit holder, Trident Seafoods, entered into a Consent Decree (CD) with the Environmental Protection Agency (EPA) for Ketchikan Cannery Plant discharge. Since then, several controls have been instituted to reduce residues. The Zone of Deposit (ZOD) has been reported at less than 0.5 acres since 2017 demonstrating that the controls are effective and the area is attaining the Residues standard for seafood discharge.² DEC recommends moving Tongass Narrows 1 from Category 4b to Category 2 for Residues.

Basic Waterbody Information

Table 1. Basic Waterbody Information

Assessment Unit ID	AK_M_1010204_010
Assessment Unit Name	Carlanna Creek-Frontal Tongass Narrows
Location description	Ketchikan Harbor, SE of Thomas Harbor; HUC10 1901010204
Water Type	Marine

¹ The "1" was added by DEC to denote this impaired area of Tongass Narrows from a separate impaired area also in Tongass Narrows, designated with a "2". This document only reviewed data for Tongass Narrows 1.

² The DEC Listing Methodology for Determining Water Quality Impairments from Residues (2003) applies a 1.5 acre ZOD. Trident Seafoods is authorized a 1.0 acre ZOD under APDES Permit AK520002. A 0.5 acre ZOD was used in this attainment determination as required by the court ordered Consent Decree (2012).

Area attaining	1.89 acres (original impaired area)
Time attaining	year-round

Pollutant Status

Table 2. Alaska's Water Quality Standards 18 AAC 70 (20) residues for marine water uses³

Designated Use	Water Quality Criteria	Status
(A) Water Supply (i) aquaculture	May not, alone or in combination with other substances or wastes, make the water unfit or unsafe for the use. May not cause detrimental effects on established water supply treatment levels.	Supporting
(A) Water Supply (ii) seafood processing	May not, alone or in combination with other substances or wastes, make the water unfit or unsafe for the use; cause a film, sheen, or discoloration on the surface of the water or adjoining shorelines; cause leaching of toxic or deleterious substances; or cause a sludge, solid, or emulsion to be deposited beneath or upon the surface of the water, within the water column, on the bottom, or upon adjoining shorelines.	Supporting
(A) Water Supply (iii) industrial	May not, alone or in combination with other substances or wastes, make the water unfit or unsafe for the use.	Supporting
(B) Water Recreation (i) contact recreation	Same as (20)(A)(ii)	Supporting
(B) Water Recreation (ii) secondary recreation	Same as (20)(A)(ii)	Supporting
(C) Growth and Propagation of Fish, Shellfish, Other Aquatic Life, and Wildlife	May not, alone or in combination with other substances or wastes, make the water unfit or unsafe for the use, or cause acute or chronic problem levels as determined by bioassay or other appropriate methods. May not, alone or in combination with other substances, cause a film, sheen, or discoloration on the surface of the water or adjoining shorelines; cause leaching of toxic or deleterious substances; or cause a sludge, solid, or emulsion to be deposited beneath or upon the surface of the water, within the water	Supporting

³ Alaska Department of Environmental Conservation (ADEC). 2003. *18 AAC 70 Water Quality Standards*. As amended through June 26, 2003. DEC adopted revised criteria for residues in 2011. DEC is awaiting final action from EPA prior to application of the revised criteria per CFR 131.5

	column, on the bottom, or upon adjoining shorelines.	
(D) Harvesting for Consumption of Raw Mollusks or Other Raw Aquatic Life	May not make the water unfit or unsafe for the use; cause a film, sheen, or discoloration on the surface of the water or adjoining shorelines; cause leaching of toxic or deleterious substances; or cause a sludge, solid, or emulsion to be deposited beneath or upon the surface of the water, within the water column, on the bottom, or upon adjoining shorelines.	Supporting

Attainment Evaluation

Background

Tongass Narrows 1 is a waterbody segment within the Tongass Narrows, a marine water separating Gravina Island and Revillagigedo Island in Southeast Alaska near the City of Ketchikan. Trident Seafoods Ketchikan Cannery Plant (Trident Seafoods) has an Alaska Pollutant Discharge Elimination System (APDES) permit (AKG520002) to discharge seafood waste to Tongass Narrows (Figure 1).

The residues impairment included an area of 1.89 acres, encompassing the Trident outfall and ZOD. The facility discontinued ground waste discharge from the outfall in 2010 and has used screens since that time to capture all but a minimum amount seafood waste for transport and disposal in open water approximately 13 miles southeast of Ketchikan near Bold Island.

In 2012 Trident Seafoods entered into a Consent Decree⁴ (CD) with EPA for the Ketchikan Cannery facility discharge. The CD requires reducing the discharge of seafood processing waste and residues, monitoring benthic recovery, and reducing the ZOD and Zone of Impact (ZOI) associated with seafood waste deposits. The CD specifies that the ZOD and ZOI associated with the Ketchikan Cannery facility will be reduced to 0.5 acres within 3 years of the CD Effective Date (June 18, 2012).

⁴ U.S. DOJ. 2012. United States District Court: Western District of Washington, USA, Plaintiff v. Trident Seafoods Corporation, Defendant. No. civ. No. 11-1616 Amended Consent Decree. June 18, 2012. Environmental Enforcement Section, Environmental & Natural Resources Division, US Department of Justice, Washington, DC.



Figure 1. Location of Trident Seafood's outfall discharge point in Tongass Narrows near Ketchikan, AK.

If sufficient progress was not made by Year 3 of the CD, Trident Seafoods was required to submit a remediation plan⁵ to the EPA outlining how Trident Seafoods will remediate the seafood waste pile(s) to less than 0.5 acres. Trident and EPA agreed to conduct the Ketchikan remediation project using a phased approach featuring a site assessment plan⁶ (Phase I) and an assessment findings and remediation alternatives analysis⁷ (Phase II). Both Phase 1 and Phase II planning documents are completed and being implemented.

⁵ INSPIRE Environmental and Dalton, Olmstead and Fuglevand. 2015. Akutan Harbor Pilot Remediation Report. Prepared for Trident Seafoods Corporation, Seattle, WA. Prepared by INSPIRE Environmental, Newport, RI. October 2015.

⁶ INSPIRE Environmental and Dalton, Olmstead and Fuglevand. 2017. Ketchikan Remediation Phase I: Assessment Plan. Prepared for Trident Seafoods Corporation, Seattle, WA. Submitted by: INSPIRE Environmental, Newport, RI and Dalton, Olmsted & Fuglevand, Kirkland, WA. Revised, January 17, 2017.

⁷ Inspire Environmental; Dalton, Olmsted and Fuglevand, Inc. 2017. *Ketchikan Remediation Site Assessment Findings and Remediation Alternatives Analysis, Phase II Report*. Prepared for Trident Seafoods. Inspire Environmental, Middleton, RI; Dalton, Olmsted and Fuglevand, Inc., Kirkland, WA.

The APDES permit currently requires annual seafloor monitoring (dive surveys) to evaluate the size, depth, and overall status of the seafloor residues pile surrounding the discharge point. Table 3 shows the past 5 years of ZOD measurements from the dive surveys⁸. Trident Seafoods has maintained a ZOD with less than 0.5 acres of continuous coverage since 2016, with a downward trend in pile size. The ZOD has met the CD required 0.5 acres for the past three years.

Table 3. Zone of Deposit (acres) measurements for Tongass Narrows 1 from 2015-2019.

Year	Zone of Deposit Estimate (acres)	Zone of Deposit Exceedance (acres)
2015	1.14	0.64
2016	0.86	0.36
2017	0.45	0.00
2018	0.36	0.00
2019	0.28	0.00

Conclusion

DEC recommends moving Tongass Narrows 1 from Category 4b to Category 2 in the 2020 Integrated Report as consistently meeting the Residues standard. The facility discharge will continue to be regulated by an APDES permit.

⁸ Coho Environmental, Enviro-Tech Diving. 2019. Seafloor Monitoring Report, 2019 Season, Trident Plant Ketchikan, AK. APDES # AKG520002. Prepared for Trident Seafoods. Coho Environmental, Seattle, WA; Enviro-Tech Diving, Seattle, WA.