# APPENDIX A

## STANDARD CONDITIONS

## APDES PERMIT

## NONDOMESTIC DISCHARGES

**September 2011**

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Appendix A of the permit contains standard regulatory language that must be included in all APDES permits. These requirements are based on the regulations and cannot be challenged in the context of an individual APDES permit action. The standard regulatory language covers requirements such as monitoring, recording, reporting requirements, compliance responsibilities, and other general requirements. Appendix A, Standard Conditions is an integral and enforceable part of the permit. Failure to comply with a Standard Condition in this Appendix constitutes a violation of the permit and is subject to enforcement.

# 1.0 Standard Conditions Applicable to All Permits

## 1.1 Contact Information and Addresses

### 1.1.1 Permitting Program

Documents, reports, and plans required under the permit and Appendix A are to be sent to the following address:

State of Alaska
Department of Environmental Conservation
Division of Water
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, Alaska 99501
Telephone (907) 269-6285
Fax (907) 269-3487
Email: DEC.Water.WQPermit@alaska.gov

### 1.1.2 Compliance and Enforcement Program

Documents and reports required under the permit and Appendix A relating to compliance are to be sent to the following address:

State of Alaska
Department of Environmental Conservation
Division of Water
Compliance and Enforcement Program
555 Cordova Street
Anchorage, Alaska 99501
Telephone Nationwide (877) 569-4114
Anchorage Area / International (907) 269-4114
Fax (907) 269-4604
Email: dec-wqreporting@alaska.gov

## 1.2 Duty to Comply

A permittee shall comply with all conditions of the permittee's APDES permit. Any permit noncompliance constitutes a violation of 33 U.S.C 1251-1387 (Clean Water Act) and state law and is grounds for enforcement action including termination, revocation and reissuance, or modification of a permit, or denial of a permit renewal application. A permittee shall comply with effluent standards or prohibitions established under 33 U.S.C. 1317(a) for toxic pollutants within the time provided in the regulations that establish those effluent standards or prohibitions even if the permit has not yet been modified to incorporate the requirement.

## 1.3 Duty to Reapply

If a permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee must apply for and obtain a new permit. In accordance with 18 AAC 83.105(b), a permittee with a currently effective permit shall reapply by submitting a new application at least 180 days before the existing permit expires, unless the Department has granted the permittee permission to submit an application on a later date. However, the Department will not grant permission for an application to be submitted after the expiration date of the existing permit.

## 1.4 Need to Halt or Reduce Activity Not a Defense

In an enforcement action, a permittee may not assert as a defense that compliance with the conditions of the permit would have made it necessary for the permittee to halt or reduce the permitted activity.

## 1.5 Duty to Mitigate

A permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

## 1.6 Proper Operation and Maintenance

1.6.1 A permittee shall at all times properly operate and maintain all facilities and systems of treatment and control and related appurtenances that the permittee installs or uses to achieve compliance with the conditions of the permit. The permittee's duty to operate and maintain properly includes using adequate laboratory controls and appropriate quality assurance procedures. However, a permittee is not required to operate back-up or auxiliary facilities or similar systems that a permittee installs unless operation of those facilities is necessary to achieve compliance with the conditions of the permit.

1.6.2 Operation and maintenance records shall be retained and made available at the site.

## 1.7 Permit Actions

A permit may be modified, revoked and reissued, or terminated for cause as provided in 18 AAC 83.130. If a permittee files a request to modify, revoke and reissue, or terminate a permit, or gives notice of planned changes or anticipated noncompliance, the filing or notice does not stay any permit condition.

## 1.8 Property Rights

A permit does not convey any property rights or exclusive privilege.

## 1.9 Duty to Provide Information

A permittee shall, within a reasonable time, provide to the Department any information that the Department requests to determine whether a permittee is in compliance with the permit, or whether cause exists to modify, revoke and reissue, or terminate the permit. A permittee shall also provide to the Department, upon request, copies of any records the permittee is required to keep under the permit.

## 1.10 Inspection and Entry

A permittee shall allow the Department, or an authorized representative, including a contractor acting as a representative of the Department, at reasonable times and on presentation of credentials establishing authority and any other documents required by law, to:

1.10.1 Enter the premises where a permittee's regulated facility or activity is located or conducted, or where permit conditions require records to be kept;

1.10.2 Have access to and copy any records that permit conditions require the permittee to keep;

1.10.3 Inspect any facilities, equipment, including monitoring and control equipment, practices, or operations regulated or required under a permit; and

1.10.4 Sample or monitor any substances or parameters at any location for the purpose of assuring permit compliance or as otherwise authorized by 33 U.S.C. 1251-1387 (Clean Water Act).

## 1.11 Monitoring and Records

A permittee must comply with the following monitoring and recordkeeping conditions:

1.11.1 Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

1.11.2 The permittee shall retain records in Alaska of all monitoring information for at least three years, or longer at the Department's request at any time, from the date of the sample, measurement, report, or application. Monitoring records required to be kept include:

1.11.2.1 All calibration and maintenance records,

1.11.2.2 All original strip chart recordings or other forms of data approved by the Department for continuous monitoring instrumentation,

1.11.2.3 All reports required by a permit,

1.11.2.4 Records of all data used to complete the application for a permit,

1.11.2.5 Field logbooks or visual monitoring logbooks,

1.11.2.6 Quality assurance chain of custody forms,

1.11.2.7 Copies of discharge monitoring reports, and

1.11.2.8 A copy of this APDES permit.

1.11.3 Records of monitoring information must include:

1.11.3.1 The date, exact place, and time of any sampling or measurement;

1.11.3.2 The name(s) of any individual(s) who performed the sampling or measurement(s);

1.11.3.3 The date(s) and time any analysis was performed;

1.11.3.4 The name(s) of any individual(s) who performed any analysis;

1.11.3.5 Any analytical technique or method used; and

1.11.3.6 The results of the analysis.

1.11.4 Monitoring Procedures

Analyses of pollutants must be conducted using test procedures approved under 40 CFR Part 136, adopted by reference at 18 AAC 83.010, for pollutants with approved test procedures, and using test procedures specified in the permit for pollutants without approved methods.

## 1.12 Signature Requirement and Penalties

1.12.1 Any application, report, or information submitted to the Department in compliance with a permit requirement must be signed and certified in accordance with 18 AAC 83.385. Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document filed or required to be maintained under a permit, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be subject to penalties under 33 U.S.C. 1319(c)(4), AS 12.55.035(c)(1)(B), (c)(2) and (c)(3), and AS 46.03.790(g).

1.12.2 In accordance with 18 AAC 83.385, an APDES permit application must be signed as follows:

1.12.2.1 For a corporation, a responsible corporate officer shall sign the application; in this subsection, a responsible corporate officer means:

1.12.2.1.1 A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or

1.12.2.1.2 The manager of one of more manufacturing, production, or operating facilities, if

1.12.2.1.2.1 The manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental statutes and regulations;

1.12.2.1.2.2 The manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and

1.12.2.1.2.3 Authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

1.12.2.2 For a partnership or sole proprietorship, by the general partner or the proprietor, respectively, shall sign the application

1.12.2.3 For a municipality, state, federal, or other public agency, either a principal executive officer or ranking elected official shall sign the application; in this subsection, a principal executive officer of an agency means:

1.12.2.3.1 The chief executive officer of the agency; or

1.12.2.3.2 A senior executive officer having responsibility for the overall operations of a principal geographic unit or division of the agency.

1.12.3 Any report required by an APDES permit, and a submittal with any other information requested by the Department, must be signed by a person described in Appendix A, Part 1.12.2, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1.12.3.1 The authorization is made in writing by a person described in Appendix A, Part 1.12.2;

1.12.3.2 The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, including the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility; or an individual or position having overall responsibility for environmental matters for the company; and

1.12.3.3 The written authorization is submitted to the Department to the Permitting Program address in Appendix A, Part 1.1.1.

1.12.4 If an authorization under Appendix A, Part 1.12.3 is no longer effective because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Appendix A, Part 1.12.3 must be submitted to the Department before or together with any report, information, or application to be signed by an authorized representative.

1.12.5 Any person signing a document under Appendix A, Part 1.12.2 or Part 1.12.3 shall certify as follows:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

**1.13 Proprietary or Confidential Information**

1.13.1 A permit applicant or permittee may assert a claim of confidentiality for proprietary or confidential business information by stamping the words “confidential business information” on each page of a submission containing proprietary or confidential business information. The Department will treat the stamped submissions as confidential if the information satisfies the test in 40 CFR §2.208, adopted by reference at 18 AAC 83.010, and is not otherwise required to be made public by state law.

1.13.2 A claim of confidentiality under Appendix A, Part 1.13.1 may not be asserted for the name and address of any permit applicant or permittee, a permit application, a permit, effluent data, sewage sludge data, and information required by APDES or NPDES application forms provided by the Department, whether submitted on the forms themselves or in any attachments used to supply information required by the forms.

1.13.3 A permittee’s claim of confidentiality authorized under Appendix A, Part 1.13.1 is not waived if the Department provides the proprietary or confidential business information to the EPA or to other agencies participating in the permitting process. The Department will supply any information obtained or used in the administration of the state APDES program to the EPA upon request under 40 CFR §123.41, as revised as of July 1, 2005. When providing information submitted to the Department with a claim of confidentiality to the EPA, the Department will notify the EPA of the confidentiality claim. If the Department provides the EPA information that is not claimed to be confidential, the EPA may make the information available to the public without further notice.

**1.14 Oil and Hazardous Substance Liability**

Nothing in this permit shall be construed to preclude the institution of any action or relieve a permittee

from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under state laws addressing oil and hazardous substances.

### 1.15 Cultural and Paleontological Resources

If cultural or paleontological resources are discovered because of this disposal activity, work that would disturb such resources is to be stopped, and the Office of History and Archaeology, a Division of Parks and Outdoor Recreation of the Alaska Department of Natural Resources (http://www.dnr.state.ak.us/parks/oha/), is to be notified immediately at (907) 269-8721.

### 1.16 Fee

A permittee must pay the appropriate permit fee described in 18 AAC 72.

### 1.17 Other Legal Obligations

This permit does not relieve the permittee from the duty to obtain any other necessary permits from the Department or from other local, state, or federal agencies and to comply with the requirements contained in any such permits. All activities conducted and all plan approvals implemented by the permittee pursuant to the terms of this permit shall comply with all applicable local, state, and federal laws and regulations.

## 2.0 Special Reporting Obligations

### 2.1 Planned Changes

2.1.1 The permittee shall give notice to the Department as soon as possible of any planned physical alteration or addition to the permitted facility if:

2.1.1.1 The alteration or addition may make the facility a “new source” under one or more of the criteria in 18 AAC 83.990(44); or

2.1.1.2 The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged if those pollutants are not subject to effluent limitations in the permit or to notification requirements under 18 AAC 83.610.

2.1.2 If the proposed changes are subject to plan review, then the plans must be submitted at least 30 days before implementation of changes (see 18 AAC 15.020 and 18 AAC 72 for plan review requirements). Written approval is not required for an emergency repair or routine maintenance.

2.1.3 Written notice must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

### 2.2 Anticipated Noncompliance

2.2.1 A permittee shall give seven days’ notice to the Department before commencing any planned change in the permitted facility or activity that may result in noncompliance with permit requirements.

2.2.2 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

## 2.3 Transfers

2.3.1 A permittee may not transfer a permit for a facility or activity to any person except after notice to the Department in accordance with 18 AAC 83.150. The Department may modify or revoke and reissue the permit to change the name of the permittee and incorporate such other requirements under 33 U.S.C. 1251-1387 (Clean Water Act) or state law.

2.3.2 Written notice must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

## 2.4 Compliance Schedules

2.4.1 A permittee must submit progress or compliance reports on interim and final requirements in any compliance schedule of a permit no later than 14 days following the scheduled date of each requirement.

2.4.2 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

## 2.5 Corrective Information

2.5.1 If a permittee becomes aware that it failed to submit a relevant fact in a permit application or submitted incorrect information in a permit application or in any report to the Department, the permittee shall promptly submit the relevant fact or the correct information.

2.5.2 Information must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

## 2.6 Bypass of Treatment Facilities

2.6.1 Prohibition of Bypass

Bypass is prohibited. The Department may take enforcement action against a permittee for any bypass, unless:

2.6.1.1 The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2.6.1.2 There were no feasible alternatives to the bypass, including use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. However, this condition is not satisfied if the permittee, in the exercise of reasonable engineering judgment, should have installed adequate back-up equipment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

2.6.1.3 The permittee provides notice to the Department of a bypass event in the manner, as appropriate, under Appendix A, Part 2.6.2.

2.6.2 Notice of bypass

2.6.2.1 For an anticipated bypass, the permittee submits notice at least 10 days before the date of the bypass. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the conditions of Appendix A, Parts 2.6.1.1 and 2.6.1.2.

2.6.2.2 For an unanticipated bypass, the permittee submits 24-hour notice, as required in 18 AAC 83.410(f) and Appendix A, Part 3.4, Twenty-four Hour Reporting.

2.6.2.3 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.6.3 Notwithstanding Appendix A, Part 2.6.1, a permittee may allow a bypass that:

2.6.3.1 Does not cause an effluent limitation to be exceeded, and

2.6.3.2 Is for essential maintenance to assure efficient operation.

## 2.7 Upset Conditions

2.7.1 In any enforcement action for noncompliance with technology-based permit effluent limitations, a permittee may claim upset as an affirmative defense. A permittee seeking to establish the occurrence of an upset has the burden of proof to show that the requirements of Appendix A, Part 2.7.2 are met.

2.7.2 To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that:

2.7.2.1 An upset occurred and the permittee can identify the cause or causes of the upset;

2.7.2.2 The permitted facility was at the time being properly operated;

2.7.2.3 The permittee submitted 24-hour notice of the upset, as required in 18 AAC 83.410(f) and Appendix A, Part 3.4, Twenty-four Hour Reporting; and

2.7.2.4 The permittee complied with any mitigation measures required under 18 AAC 83.405(e) and Appendix A, Part 1.5, Duty to Mitigate.

2.7.3 Any determination made in administrative review of a claim that noncompliance was caused by upset, before an action for noncompliance is commenced, is not final administrative action subject to judicial review.

## 2.8 Existing Manufacturing, Commercial, Mining, and Silvicultural Discharges

2.8.1 In addition to the reporting requirements under 18 AAC 83.410, an existing manufacturing, commercial, mining, and silvicultural discharger shall notify the Department as soon as that discharger knows or has reason to believe that any activity has occurred or will occur that would result in:

2.8.1.1 The discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

2.8.1.1.1 One hundred micrograms per liter (100 µg/L);

2.8.1.1.2 Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile, 500 micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol, and one milligram per liter (1 mg/L) for antimony;

2.8.1.1.3 Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 18 AAC 83.310(c)-(g); or

2.8.1.1.4 The level established by the Department in accordance with 18 AAC 83.445.

2.8.1.2 Any discharge, on a non-routine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

2.8.1.2.1 Five hundred micrograms per liter (500 µg/L);

2.8.1.2.2 One milligram per liter (1 mg/L) for antimony;

2.8.1.2.3 Ten times the maximum concentration value reported for that pollutant in the permit application in accordance with 18 AAC 83.310(c)-(g); or

2.8.1.2.4 The level established by the Department in accordance with 18 AAC 83.445.

# 3.0 Monitoring, Recording, and Reporting Requirements

## 3.1 Representative Sampling

A permittee must collect effluent samples from the effluent stream after the last treatment unit before discharge into the receiving waters. Samples and measurements must be representative of the volume and nature of the monitored activity or discharge.

## 3.2 Reporting of Monitoring Results

At intervals specified in the permit, monitoring results must be reported on the EPA discharge monitoring report (DMR) form, as revised as of March 1999, adopted by reference.

3.2.1 Monitoring results shall be summarized each month on the DMR or an approved equivalent report. The permittee must submit reports monthly postmarked by the 15th day of the following month.

3.2.2 The permittee must sign and certify all DMRs and all other reports in accordance with the requirements of Appendix A, Part 1.12, Signatory Requirements and Penalties. All signed and certified legible original DMRs and all other documents and reports must be submitted to the Department at the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

3.2.3 If, during the period when this permit is effective, the Department makes available electronic reporting, the permittee may, as an alternative to the requirements of Appendix A, Part 3.2.2, submit monthly DMRs electronically by the 15th day of the following month in accordance with guidance provided by the Department. The permittee must certify all DMRs and other reports, in accordance with the requirements of Appendix A, Part 1.12, Signatory Requirements and Penalties. The permittee must retain the legible originals of these documents and make them available to the Department upon request.

## 3.3 Additional Monitoring by Permittee

If the permittee monitors any pollutant more frequently than the permit requires using test procedures approved in 40 CFR Part 136, adopted by reference at 18 AAC 83.010, or as specified in this permit, the results of that additional monitoring must be included in the calculation and reporting of the data submitted in the DMR required by Appendix A, Part 3.2. All limitations that require averaging of measurements must be calculated using an arithmetic means unless the Department specifies another method in the permit. Upon request by the Department, the permittee must submit the results of any other sampling and monitoring regardless of the test method used.

## 3.4 Twenty-four Hour Reporting

A permittee shall report any noncompliance event that may endanger health or the environment as follows:

3.4.1 A report must be made:

3.4.1.1 Orally within 24 hours after the permittee becomes aware of the circumstances, and

3.4.1.2 In writing within five days after the permittee becomes aware of the circumstances.

3.4.2 A report must include the following information:

3.4.2.1 A description of the noncompliance and its causes, including the estimated volume or weight and specific details of the noncompliance;

3.4.2.2 The period of noncompliance, including exact dates and times;

3.4.2.3 If the noncompliance has not been corrected, a statement regarding the anticipated time the noncompliance is expected to continue; and

3.4.2.4 Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

3.4.3 An event that must be reported within 24 hours includes:

3.4.3.1 An unanticipated bypass that exceeds any effluent limitation in the permit (see Appendix A, Part 2.6, Bypass of Treatment Facilities).

3.4.3.2 An upset that exceeds any effluent limitation in the permit (see Appendix A, Part 2.7, Upset Conditions).

3.4.3.3 A violation of a maximum daily discharge limitation for any of the pollutants listed in the permit as requiring 24-hour reporting.

3.4.4 The Department may waive the written report on a case-by-case basis for reports under Appendix A, Part 3.4 if the oral report has been received within 24 hours of the permittee becoming aware of the noncompliance event.

3.4.5 The permittee may satisfy the written reporting submission requirements of Appendix A, Part 3.4 by submitting the written report via e-mail, if the following conditions are met:

3.4.5.1 The Noncompliance Notification Form or equivalent form is used to report the noncompliance;

3.4.5.2 The written report includes all the information required under Appendix A, Part 3.4.2;

3.4.5.3 The written report is properly certified and signed in accordance with Appendix A, Parts 1.12.3 and 1.12.5.;

3.4.5.4 The written report is scanned as a PDF (portable document format) document and transmitted to the Department as an attachment to the e-mail; and

3.4.5.5 The permittee retains in the facility file the original signed and certified written report and a printed copy of the conveying email.

3.4.6 The e-mail and PDF written report will satisfy the written report submission requirements of this permit provided the e-mail is received by the Department within five days after the time the permittee becomes aware of the noncompliance event and the e-mail and written report satisfy the criteria of Part 3.4.5. The e-mail address to report noncompliance is: dec-wqreporting@alaska.gov

## 3.5 Other Noncompliance Reporting

A permittee shall report all instances of noncompliance not required to be reported under Appendix A, Parts 2.4 (Compliance Schedules), 3.3 (Additional Monitoring by Permittee), and 3.4 (Twenty-four Hour Reporting) at the time the permittee submits monitoring reports under Appendix A, Part 3.2 (Reporting of Monitoring Results). A report of noncompliance under this part must contain the information listed in Appendix A, Part 3.4.2 and be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

## 4.0 Penalties for Violations of Permit Conditions

Alaska laws allow the State to pursue both civil and criminal actions concurrently. The following is a summary of Alaska law. Permittees should read the applicable statutes for further substantive and procedural details.

### 4.1 Civil Action

Under AS 46.03.760(e), a person who violates or causes or permits to be violated a regulation, a lawful order of the Department, or a permit, approval, or acceptance, or term or condition of a permit, approval or acceptance issued under the program authorized by AS 46.03.020 (12) is liable, in a civil action, to the State for a sum to be assessed by the court of not less than $500 nor more than $100,000 for the initial violation, nor more than $10,000 for each day after that on which the violation continues, and that shall reflect, when applicable:

4.1.1 Reasonable compensation in the nature of liquated damages for any adverse environmental effects caused by the violation, that shall be determined by the court according to the toxicity, degradability, and dispersal characteristics of the substance discharged, the sensitivity of the receiving environment, and the degree to which the discharge degrades existing environmental quality;

4.1.2 Reasonable costs incurred by the State in detection, investigation, and attempted correction of the violation;

4.1.3 The economic savings realized by the person in not complying with the requirements for which a violation is charged; and

4.1.4 The need for an enhanced civil penalty to deter future noncompliance.

### 4.2 Injunctive Relief

4.2.1 Under AS 46.03.820, the Department can order an activity presenting an imminent or present danger to public health or that would be likely to result in irreversible damage to the environment be discontinued. Upon receipt of such an order, the activity must be immediately discontinued.

4.2.2 Under AS 46.03.765, the Department can bring an action in Alaska Superior Court seeking to enjoin ongoing or threatened violations for Department-issued permits and Department statutes and regulations.

### 4.3 Criminal Action

Under AS 46.03.790(h), a person is guilty of a Class A misdemeanor if the person negligently:

4.3.1 Violates a regulation adopted by the Department under AS 46.03.020(12);

4.3.2 Violates a permit issued under the program authorized by AS 46.03.020(12);

4.3.3 Fails to provide information or provides false information required by a regulation adopted under AS 46.03.020(12);

4.3.4 Makes a false statement, representation, or certification in an application, notice, record, report, permit, or other document filed, maintained, or used for purposes of compliance with a permit issued under or a regulation adopted under AS 46.03.020(12); or

4.3.5 Renders inaccurate a monitoring device or method required to be maintained by a permit issued or under a regulation adopted under AS 46.03.020(12).

### 4.4 Other Fines

Upon conviction of a violation of a regulation adopted under AS 46.03.020(12), a defendant who is not an organization may be sentenced to pay a fine of not more than $10,000 for each separate violation (AS 46.03.790(g)). A defendant that is an organization may be sentenced to pay a fine not exceeding the greater of: (1) $200,00; (2) three times the pecuniary gain realized by the defendant as a result of the offense; or (3) three times the pecuniary damage or loss caused by the defendant to another, or the property of another, as a result of the offense (AS 12.55.035(c)(B), (c)(2), and (c)(3)).

# Appendix B

## Abbreviations and Acronyms

## Abbreviations and Acronyms

| | |
|---|---|
| 18 AAC 70 | Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 70: Water Quality Standards. Available at: http://dec.alaska.gov/media/1046/18-aac-70.pdf |
| 18 AAC 72 | Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 72: Wastewater Disposal. Available at: http://dec.alaska.gov/media/1047/18-aac-72.pdf |
| 18 AAC 83 | Alaska Administrative Code Title 18 Environmental Conservation, Chapter 83: Alaska Pollutant Discharge Elimination System. Available at: http://dec.alaska.gov/media/1052/18-aac-83.pdf |
| 33 CFR Part 159 | Code of Federal Regulations Title 33: Navigation and Navigable Waters. Available at: http://www.ecfr.gov/cgi-bin/ECFR?page=browse |
| 40 CFR | Code of Federal Regulations Title 40: Protection of Environment. Available at: http://www.ecfr.gov/cgi-bin/ECFR?page=browse |
| 401 Certification | State of Alaska's CWA Section 401 Certificate of Reasonable Assurance |
| ADF&G | Alaska Department of Fish and Game |
| APDES | Alaska Pollutant Discharge Elimination System |
| AS 46.03 | Alaska Statutes Title 46, Chapter 03: Environmental Conservation. Available at http://www.legis.state.ak.us/default.htm |
| BAT | Best Available Technology Economically Achievable |
| BMP | Best Management Practices |
| BOD | Biochemical Oxygen Demand |
| $BOD_5$ | Biochemical Oxygen Demand 5-Day Test |
| BPJ | Best Professional Judgment |
| CFR | Code of Federal Regulations. Available at: http://www.ecfr.gov/cgi-bin/ECFR?page=browse |
| CHA | Critical Habitat Area |
| COD | Chemical Oxygen Demand |
| CWA | Clean Water Act |
| DAF | Dissolved Air Flotation |
| DEC | Alaska Department of Environmental Conservation or The Department. Available at http://dec.alaska.gov/ |
| DMR | Discharge Monitoring Report |
| DO | Dissolved Oxygen |
| DPS | Distinct Population Segment |
| ECHO | EPA's Enforcement & Compliance History Online |
| EFH | Essential Fish Habitat |
| e.g. | Latin, "*Exempli gratia*", Latin for 'for the sake of example' |
| ELG | Effluent Limitation Guideline |
| EPA | U.S. Environmental Protection Agency |
| ESA | Endangered Species Act of 1973 |
| FDA | U.S. Food and Drug Administration |

## Abbreviations and Acronyms

| | |
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| GIS | Geographic Information System |
| gpd | Gallons per day |
| GPS | Global Positioning System |
| i.e. | Latin "*id est.*" for 'in other words' or 'that is' |
| MBR | Membrane Bioreactors |
| MDL | Method Detection Limits |
| mgd | Million gallons per day |
| mg/L | Milligram per liter |
| µg/L | Micrograms per liter |
| ML | Minimum Level |
| ml | Milliliter |
| MLLW | Mean Lower Low Water |
| MSGP | Multi-Sector General Permit |
| N/A | Not Applicable |
| $NH_3$ | Ammonia |
| $NH_4^+$ | Ammonium |
| nm | Nautical mile |
| NMFS | National Marine Fisheries Service |
| NOAA | National Oceanic and Atmospheric Administration |
| NPDES | National Pollutant Discharge Elimination System |
| O&G | Oil and Grease |
| QA/QC | Quality Assurance/Quality Control |
| QAPP | Quality Assurance Project Plan |
| ROVs | Remotely Operated Vehicles |
| RTC | Response to Comments |
| SPI | Sediment Profile Imaging |
| SU | Standard Units |
| T/E spp | Threatened or Endangered Species |
| TBEL | Technology-Based Effluent Limitations |
| TMDL | Total Maximum Daily Load |
| TRC | Total Residual Chlorine |
| TSS | Total Suspended Solids |
| USFWS | United States Fish and Wildlife Service |
| U.S. | United States |
| U.S.C. | United States Code |
| VGP | Vessel General Permit |
| WQBEL | Water Quality-Based Effluent Limitations |
| WQC | Water Quality Criteria |
| WQS | Water Quality Standards |

# Appendix C

## Definitions

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| Alaska Pollutant Discharge Elimination System (APDES) | Means the state's program, approved by EPA under 33 U.S.C. 1342(b), for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits and imposing and enforcing pretreatment requirements under 33 U.S.C. 1317, 1328, 1342, and 1345 |
| Annual | Means once per calendar year |
| Average | Means an arithmetic mean obtained by adding quantities and dividing the sum by the number of quantities |
| Average Monthly Discharge Limitation | Means the highest allowable average of "daily discharges" over a calendar month calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month |
| Baseline | Generally speaking, the baseline consists of the mainland low-water line and any offshore island and additional features that are applicable to the U.S. coast, such as straight lines or closing lines of river mouths, bays and enclosed harbors from which the breadth of the territorial sea is measured. See U.S. Maritime Zones and the Determination at http://ushydro.thsoa.org/hy07/11_01.pdf of the National Baseline at for more information on baseline |
| Best Management Practices (BMPs) | Means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage |
| Biochemical Oxygen Demand ($BOD_5$) | Means the amount, in milligrams per liter, of oxygen used in the biochemical oxidation of organic matter in five days at 20º C |
| Bone Meal | Means a by-product made from the bones recovered from seafood processing |
| Boundary | Means a line or landmark that serves to clarify, outline, or mark a limit, border, or interface |
| Bypass | Means the intentional diversion of waste streams from any portion of a treatment facility |
| Catch Transfer Water | Means waste or wastewaters conveyed to an onshore seafood processing facility from a vessel as part of the seafood offloading process. Includes fish hold waste and wastewater, live tank water, refrigerated seawater, and brine |
| Clean Water Act (CWA) | Means the federal law codified at 33 U.S.C. 1251-1387, also referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972 |
| Color | Means the condition that results in the visual sensations of hue and intensity as measured after turbidity is removed |
| Commissioner | Means the commissioner of the Alaska Department of Environmental Conservation or the commissioner's designee |

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| Composite Samples | Composite samples shall consist of at least one equal volume grab sample aliquot per every full three hours in the compositing period. The sample aliquots shall be collected, stored and analyzed within applicable hold times in accordance with procedures prescribed in the most recent edition of *Standard Methods for the Examination of Water and Wastewater* |
| Construction | Means any placement, assembly, or installation of facilities or equipment (including contractual obligations to purchase such facilities or equipment) at the premises where such equipment will be used, including preparation work at such premises" (see Section 306(a) of the CWA), a number of activities may give rise to new source status |
| Contact Recreation | Means activities in which there is direct and intimate contact with water. Contact recreation includes swimming, diving, and water skiing. Contact recreation does not include wading |
| Continuous Coverage | Seafood waste deposits that are found to be 95% or greater areal coverage within a 3-foot by 3-foot sample plot as measured along a transect of the seafloor. Within the project area ZOD, the surveyor shall use a seafood waste deposition threshold which is one-half inch or thicker on the seafloor as the minimum detection level. Outside the project area ZOD, no minimum detection level applies to the seafood waste deposit thickness. At DEC's discretion, the area will include boulders, rock outcrops, ridges, and other protrusions within an area of continuous coverage that are not covered by seafood waste. |
| Cooling Water | Means once-through, non-contact cooling water |
| Criterion | Means a set concentration or limit of a water quality parameter that, when not exceeded, will protect an organism, a population of organisms, a community of organisms, or a prescribed water use with a reasonable degree of safety. A criterion might be a narrative statement instead of a numerical concentration or limit |
| Daily Discharge | Means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with a limitation expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day |
| Datum | A datum defines the position of the spheroid, a mathematical representation of the earth, relative to the center of the earth. It provides a frame of reference for measuring locations on the surface of the earth by defining the origin and orientation of latitude and longitude lines |
| Department | Means the Alaska Department of Environmental Conservation |
| Design Flow | Means the wastewater flow rate that the plant was designed to handle |

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| Detectable | Means any amount of observable seafood waste deposits. In general, seafloor surveyors have reported that seafood deposits must be greater than 2% coverage in the 3-foot by 3-foot sample plot to be evident. |
| Director | Means the commissioner or the commissioner's designee assigned to administer the APDES program or a portion of it, unless the context identifies an EPA director |
| Discharge | Means, when used without qualification, the discharge of a pollutant |
| Discharge of a Pollutant | Means any addition of any pollutant or combination of pollutants to waters of the United States from any point source or to waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft that is being used as a means of transportation. Discharge includes any addition of pollutants into waters of the United States from surface runoff that is collected or channeled by humans, discharges through pipes, sewers, or other conveyances owned by a state, municipality, or other person that do not lead to a treatment works, discharges through pipes, sewers, or other conveyances leading into privately owned treatment works, and does not include an addition of pollutants by any indirect discharger |
| Discontinuous coverage | Means areas of seafood waste deposits that are estimated to cover 10% or more of the seafloor, but less than 95%, within the 3-foot by 3-foot sample plot. Within the project area ZOD, the surveyor shall use a seafood waste deposition threshold which is one-half inch or thicker on the seafloor as the minimum detection level. Outside the project area ZOD, no minimum detection level applies to the seafood waste deposit thickness. |
| Dissolved Oxygen (DO) | Means the concentration of oxygen in water as determined either by the Winkler (iodometric) method and its modifications or by the membrane electrode method<br>The oxygen dissolved in water or wastewater and usually expressed in milligrams per liter or percent saturation |
| Domestic Wastewater | Means waterborne human wastes or graywater derived from dwellings, commercial buildings, institutions, or similar structures. "Domestic wastewater" includes the contents of individual removable containers used to collect and temporarily store human wastes or sewage |
| Ecosystem | Means a system made up of a community of animals, plants, and bacteria and the system's interrelated physical and chemical environment |
| Effluent | Means the segment of a wastewater stream that follows the final step in a treatment process and precedes discharge of the wastewater stream to the receiving environment |
| Estimated | Means a way to determine the discharge volume and flow rates. Approvable estimations include, but are not limited to, the lift station run time combined with pump speeds, averaging the direct volume measurements over several time-periods correlated to commodity line production amounts, etc. |

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| Existing Use of the Waterbody | The protected use classes and subclasses of state waters. For marine waters these uses include water supply, water recreation, growth and propagation of fish, shellfish, other aquatic life, and wildlife, and harvesting for consumption of raw mollusks or other aquatic life. An existing use includes all of these protected uses. See 18 AAC 70.020 for the protected subclasses |
| Fish Hydrolysate | Means a seafood by-product where solid fish is transformed into a liquid or dry product obtained through various biological processes, sometimes including the addition of enzyme and acid reducers to speed up the hydrolysis process and possible dehydration |
| Fish Meal/Powder | Means a solid product obtained by removing most of the water and some or all of the oil from fish or fish waste |
| Fish Oil | Means the oil recovered from the tissue of oily fish such as salmon through a by-product recovery process to be sold as a usable product |
| Fish Protein | Means a minced, paste or ground seafood product that may be made up of multi-species. In example, 'fish protein' (contains one or more of the following: pollock, cod, and/or Pacific whiting, salmon, etc) |
| Fishery Resource | Means finfish, mollusks, crustaceans, and any other form of marine animal or plant life, other than marine mammals and birds. Referred to as 'seafood' |
| Fishing vessel / barge | Means a vessel/barge that commercially engages in the catching, taking, or harvesting of a fishery resource or an activity that can reasonably be expected to results in the catching, taking, or harvesting of a fishery resource. Or a vessel/barge that operates on behalf of the operator to dispose of seafood waste in Inland waters |
| Food Ingredients, Additives & Colors | As defined by the FDA 21 CFR |
| Garbage | Means all kinds of victual, domestic and operational waste, excluding fresh fish and part thereof, generated during normal operation and liable to be disposed of continuously or periodically except dishwater, graywater and those substances that are defined in other Annexes to MARPOL 73/78 |
| Geometric Mean | The geometric mean is the $N^{th}$ root of the product of N. All sample results of zero will use a value of 1 for calculation of the geometric mean |
| Grab Sample | Means a single instantaneous sample collected at a particular place and time that represents the composition of wastewater only at that time and place |
| Graywater | Means wastewater from a laundry, kitchen, sink, shower, bath, or other domestic source that does not contain excrement, urine, or combined storm water |

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| Hydrodynamically energetic waters | Means waters that will disperse the seafood processing waste before settling, re-suspend and disperse wastes during high current events, or facilitate the decay and decomposition of the seafood waste |
| Influent | Means untreated wastewater before it enters the first treatment process of a wastewater treatment works |
| Living substrate | Means intertidal and seafloor communities of benthic plants (e.g., macroalgae and kelp) and animals (e.g., mussels, tube-building polychaete worms, and erect bryozoans) in dense aggregations. The Habitat Conservation Division of NMFS may be contacted at 907-271-5006 (Anchorage) or 907-586-7235 (Juneau) for further guidance on and the known locations of living substrates and other Habitat Areas of Particular Concern listed under the Essential Fish Habitat section of the Magnuson Fishery Conservation and Management Act |
| Maximum Daily Discharge Limitation | Means the highest allowable "daily discharge" |
| Mean | Means the average of values obtained over a specified period and, for fecal coliform analysis, is computed as a geometric mean |
| Mean Lower Low Water (MLLW) | Means the tidal datum plane of the average of the lower of the two low waters of each day, as would be established by the National Geodetic Survey, at any place subject to tidal influence |
| Measured | Means the actual volume of wastewater discharged using appropriate mechanical or electronic equipment to provide a totalized reading. Measure does not provide a recorded measurement of instantaneous rates |
| Method Detection Limit (MDL) | Means the minimum concentration of a substance (analyte) that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte |
| Micrograms per Liter (µg/L) | Means the concentration at which one millionth of a gram ($10^{-6}$ g) is found in a volume of one liter |
| Mid-Depth | Means the depth of the sample location proportional to the water depth at the time of monitoring. Mid-depth is approximately half of the distance from the water surface to the seafloor at the monitoring location |
| Milligrams per Liter (mg/L) | Means the concentration at which one thousandth of a gram ($10^{-3}$ g) is found in a volume of one liter. It is approximately equal to the unit "parts per million (ppm)," formerly of common use |
| Mince | Means finely chopped seafood, particularly fish |
| Minimum Level (ML) | Means the concentration at which the entire analytical system shall give a recognizable signal and an acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes, and |

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| | processing steps have been followed. This level is used as the compliance level if the effluent limit is below it |
| Mixing Zone | An area in a waterbody surrounding or downstream of, a discharge where the effluent plume is diluted by the receiving water within which specified water quality criteria may be exceeded |
| Month | Means the time period from the 1st of a calendar month to the last day in the month |
| Monthly Average | Means the average of daily discharges over a monitoring month calculated as the sum of all daily discharges measured during a monitoring month divided by the number of daily discharges measured during that month |
| Non-Process wastewaters | Means any water which, during manufacturing or processing, does not come into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. Including, but not limited to: non-contact cooling water, boiler water, freshwater pressure relief water, refrigeration/freezer condensate, continuous exchange live tank water, scrubber water, etc. |
| Nuisance discharge | Means, a substantial and unreasonable interference with the use or enjoyment of real property, including water. Including seafood processing effluent discharges that are discharged or stored where animals are attracted to the waste in a manner that creates a threat to animal or human health and safety |
| Oil and Grease | Mean those components of a waste water amenable to measurement by the method described in Methods for Chemical Analysis of Water and Wastes, 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 217, and utilizing approved methods, per Title 40 Code of Federal Regulations (CFR) Part 136 (Guidelines Establishing Test Procedures for the Analysis of Pollutants), adopted by reference at 18 AAC 83.010(f) |
| Operator / Permittee | Means a company, organization, association, entity, or person who is issued a wastewater permit and is responsible for ensuring compliance, monitoring, and reporting as required by this permit |
| Ordinary High Water Mark | Means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas |
| pH | Means a measure of the hydrogen ion concentration of water or wastewater, expressed as the negative logarithm of the hydrogen ion concentration, expressed as moles/L (pH = -log10 (H+)). A pH of 7 is neutral. A pH less than 7 is acidic, and a pH greater than 7 is basic |
| Point Source | Means any discernible, confined, and discrete conveyance, including but not limited to: any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, |

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| | landfill leachate collection system, vessel or other floating craft form which pollutants are or may be discharged |
| Pollutant | Means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under 42 U.S.C. 2011), heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, or agricultural waste discharged into water |
| Process wastewater | Means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. Including, but not limited to: contact wastewater (e.g. contact cooking or cooling waters, such as retort water, or water used to boil or cool seafood directly), wastewater from floor drains, drains where water or process water has come in contact with seafood loading and unloading areas, water from seafood processing areas and by-product lines; or those waters that has been in contact seafood, seafood waste and wastewaters and offal |
| Processor | Operator of a facility who prepares raw fish or shellfish into a marketable form |
| Project Area Zone of Deposit (ZOD) | Means the total area of the seafloor bottom and the overlying water column in marine or estuarine waters in which DEC has authorized and limited the deposit of substances in exceedance of the WQC in 18 AAC 70.020(b) and the antidegradation requirement in 18 AAC 70.015.<br>The project area ZOD includes the entire operating area of an onshore seafood processing facility, including the following: seafood transfer devices; vessel and barge loading and unloading areas; offshore processing areas for supporting vessels and barges; bulkheads, ramps, floating walkways, docks, pilings, dolphins, anchors, buoys and other marine appurtenances; outfall terminus locations and the length of the outfall line(s) connecting the facility to the point(s) of discharge; previous outfall discharge locations that have no record of historical seafloor survey; and the bedland areas underlying and connecting these features. |
| Quality Assurance Project Plan (QAPP) | Means a system of procedures, checks, audits, and corrective actions to ensure that all research design and performance, environmental monitoring and sampling, and other technical and reporting activities are of the highest achievable quality |
| Quarter or Quarterly | Means the time period of three months based on the calendar year beginning with January |
| Readily Visible | Means the receiving water and shoreline area(s) that a shore-based observer can see when standing at a location (on or off the permittee's parcel) where the field of view is unobstructed by buildings or ships. Visible areas may vary with weather (e.g., fog) and sea conditions (waves). As a result, the extent of the readily visible area should be noted as part of each daily monitoring event. |

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| Receiving Water Body | Means waters of the U.S. including: lakes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, straits, passages, canals, the Pacific Ocean, Gulf of Alaska, Bering Sea, and Arctic Ocean, in the territorial limits of the state, and all other bodies of surface water, natural or artificial, public or private, inland or coastal, fresh or salt, which are wholly or partially in or bordering the state or under the jurisdiction of the state. (See "Waters of the U.S." at 18 AAC 83.990(66) & AS 46.03.900(37)) |
| Recorded | Means a permanent record using mechanical or electronic equipment to provide a totalized reading, as well as a record of instantaneous readings |
| Report | Report results of analysis |
| Residual Chlorine | Means chlorine remaining in water or wastewater at the end of a specified contact period as combined or free chlorine |
| Sample Plot | Means a sampling area, 3-foot by 3-foot square, used in the Seafloor Survey Protocol (Appendix E), used in measuring percentages of seafood waste coverage |
| Sampling Day | Means any consecutive 24-hour sampling period |
| Scupper | Means an opening for draining off water, as from a floor or the roof of a building |
| Seafood | Means the raw material, including freshwater and saltwater fish and shellfish, to be processed from the form in which it is received as a seafood processing plant |
| Seafood by-product | Means the process wastewater effluent and seafood waste fluids, organs, flesh, bones, and chitinous shells produced in the conversion of seafood from a raw form to a marketable form that is utilized as source of material in a by-product recovery process line or facility. See also fish meal, bone meal, fish oils, hydrolysate |
| Seafood Processing | The conversion of aquatic animals from a raw to marketable form which involves more than evisceration of fish or other seafood at-sea |
| Seafood Processing Waste | Means the waste fluids, organs, flesh, bones, woody fiber and chitinous shells produced in the conversion of aquatic animals and plants from a raw form to a marketable form |
| Seafood Processing Waste and Wastewaters | Means based on definition of 'process wastewater' found in 18 AAC 83.990(54), any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. Including, but not limited to: contact wastewater (e.g. contact cooking or cooling waters, such as retort water, or water used to boil or cool seafood directly), wastewater from floor drains, drains where water or process water has come in contact with water from seafood processing areas and by-product lines; or those waters that has been in contact seafood, seafood waste and wastewaters and offal; ice and water used to transfer seafood (i.e., catch transfer water) into the facility and live tank water transferred into the facility |

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| Seasons A, B, C, D | Generally means the area Pollock fishing openings: Generally, the seasons run as follows - Season A: January – April/May; Season B June-October, Season C and D begin in August and October, respectively |
| Secondary Recreation | Means activities in which incidental water use can occur. Secondary recreation includes boating, camping, hunting, hiking, wading, and recreational fishing. Secondary contact recreation does not include fish consumption |
| Settleable Solids | Means solid material of organic or mineral origin that is transported by and deposited from water, as measured by the volumetric Imhoff cone method and at the method detection limits specified in method 2540(F), *Standard Methods for the Examination of Water and Wastewater*, 18th edition (1992), adopted by reference in 18 AAC 70.020(c)(1) |
| Shall | Used in laws, regulations, or directives (including the use in this permit) to express what is mandatory <it *shall* be unlawful to carry firearms> |
| Sheen | Means an iridescent appearance on the water surface |
| Shellfish | Means a species of crustacean, mollusk, or other aquatic invertebrate with a shell or shell-like exoskeleton in any stage of its life cycle |
| Source | Mean any building, structure, facility or installation from which there is or may be a discharge of pollutants |
| Spoiled Seafood | Means putrid, raw (non-processed) seafood, or contaminated or unsold interim or finished seafood by-products (e.g., hydrolysate, fish meal, fish oil) |
| Stickwater | Means the wastewater collected produced from a fish meal, fish oil or fish hydrolysate processes production. Occurs when where fish processing byproducts are cooked, pressed and non-soluble protein solids and oils are usually removed by centrifuges, decanters, tricanters, etc. The leftover solids and solubles after by-product recovery and oil recovery |
| Suspended Solids | Means insoluble solids that either float on the surface of, or are in suspension in, water, wastewater, or other liquids. The quantity of material removed from wastewater in a laboratory test, as prescribed in *Standard Methods for the Examination of Water and Wastewater* and referred to as non-filterable |
| Totalizer | Means a piece of equipment used with flow meters that displays the total flow on a real time basis, measuring the total flow of a media over a given time period. Also referred to as a flow totalizer. |
| Total Maximum Daily Load (TMDL) | The sum of the individual wasteload allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and natural background. If receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure |

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| Total Residual Chlorine | Means chlorine remaining in water or wastewater at the end of a specified contact period as combined or free chlorine |
| Total Suspended Solids (TSS) | Means a measure of the filterable solids present in a sample, as determined by the method specified in 40 CFR Part 136 (most current version) |
| Trace coverage | Means areas of seafood waste that are estimated to cover detectable to less than 10% areal coverage within a 3-foot by 3-foot sample plot. Within the project area ZOD, the surveyor shall use a seafood waste deposition threshold which is one-half inch or thicker on the seafloor as the minimum detection level. Outside the project area ZOD, no minimum detection level applies to the seafood waste deposit thickness. |
| Twice per year (2 per year) | Means the two time periods: October through April and May through September |
| Unwashed Mince / Unwashed Paste | Means minced seafood or seafood flesh that is paste consistency that is neither washed, nor dewatered and is processed fresh or frozen into blocks |
| Upset | Means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the operator. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation |
| Washed Mince / Washed Paste | Means a washed mince or washed paste seafood or seafood flesh that is washed, dewatered, and is processed fresh or frozen into blocks. In example, key ingredients in surimi, kamaboko, fish sausage, washed seafood carcasses as by-product, and cured surimi products are included in this classification |
| Water Depth | Means the depth of the water between the surface and the seafloor as measured at MLLW, or from the water surface to the bed lands |
| Wastewater Treatment | Means any process to which wastewater is subjected in order to remove or alter its objectionable constituents and make it suitable for subsequent use or acceptable for discharge to the environment |
| Waters of the United States or Waters of the U.S. | Has the meaning given in 18 AAC 83.990(77) |
| Water Recreation | See contact recreation or secondary recreation |
| Water Supply | Means any of the waters of the state that are designated in 18 AAC 70 to be protected for fresh water or marine water uses; water supply includes waters used for drinking, culinary, food processing, agricultural, aquacultural, seafood processing, and industrial purposes; "water supply" does not necessarily mean that water in a waterbody that is protected as a supply for the uses listed in this paragraph is safe to drink in its natural state |
| Week | Means the time period of Sunday through Saturday |

# Appendix D

## Pre-Installation Biological Survey

# Pre-Installation Biological Survey

## Survey Purpose

The pre-installation survey shall provide adequate site-specific information to indicate whether the proposed outfall location will meet the requirements of the permit, to document the biological resources (including habitat) which may be affected by the outfall installation and discharge, and to document any existing residues (such as seafood processing waste) at the proposed outfall location.

## Submittal of Information

The results of the pre-installation survey shall be submitted before repair or replacement of a broken outfall line or installation of a new outfall line. The survey shall have been performed within the six months prior to outfall placement. The report shall provide transect sample site data, a summary of the survey, and whether the discharge area is appropriate for the proposed discharge, with careful consideration of excluded areas. The survey may be performed using a photographic survey method, but if any existing deposits are found within the survey area, a dive survey will be required. The dive survey performed shall follow this permit's Part II Seafloor Survey Protocol. The pre-installation survey shall be submitted to the Department in writing and may include a narrated underwater video.

## Quality Assurance Project Plan Information

The operator shall, prior to commencing survey operations, prepare a written, facility-specific Quality Assurance Project Plan- Monitoring Plan (QAPP-Monitoring Plan) addressing the following:

1. Objectives for measurement data
2. Sampling procedures
3. Analytical procedures
4. Data reduction, validation, and reporting
5. Internal quality control checks
6. Specific routine procedures used to assess data precision, accuracy, completeness, representativeness, and comparability.

## Survey Requirements

The pre-installation survey shall include a representative description of the numbers and species of marine organisms, types of aquatic vegetation/benthic fauna, and depths and substrate types where organisms/vegetation/benthic fauna are found within a 300-foot radius of the center of the proposed discharge site.

If seafood waste discharge has not occurred at the proposed site, a photographic survey (performed by Remotely Operated Vehicle (ROV)) may suffice and the Department may not require a dive survey, establishment of hard transect lines, or a central permanent marker. However, a rigorous, repeatable method shall be set out in a Pre-Installation Biological Survey Quality Assurance Project Plan (QAPP) developed to meet the monitoring requirements set out below. For example, the center of the proposed discharge area shall be located by Wide Area Augmentation System (WAAS)-augmented Global Positioning System (GPS), and the depth of the (proposed) outfall location, reported at Mean Lower Low Water (MLLW), shall be noted. If there are any significant benthic features that would help with re-locating the exact position of the (proposed) outfall, (e.g., a unique rock feature), then this information shall be marked on the location map. The survey may be performed at the surface at low tide stage without performing a dive survey if the representative habitat and water clarity is such that data objectives can be met.

**Establish Markers.** A surveyor's Quality Assurance Project Plan (QAPP)-Monitoring Plan is required to include the establishment of at least five permanent shore-based or facility-based markers (monuments) at suitable locations, provided there is sufficient land/facility property to place five monuments. Some facilities are located over water, or the operator does not own the land the seafood processing facility is located on. In these cases, the survey is required to document useable permanent underwater markers (large rock outcrops, boulders, etc.) or identify why markers/monuments were not established. If permanent markers are not established, the operator shall work with the surveyor to establish repeatable methods for future surveyors to make observations and establish consistent transects. The operator's QAPP-Monitoring Plan is required to be updated to include the surveyor's established underwater markers for use in the next required seafloor survey. GPS coordinates derived using WAAS technologies, or other equivalent technology, are required to be recorded for each permanent shore or underwater marker.

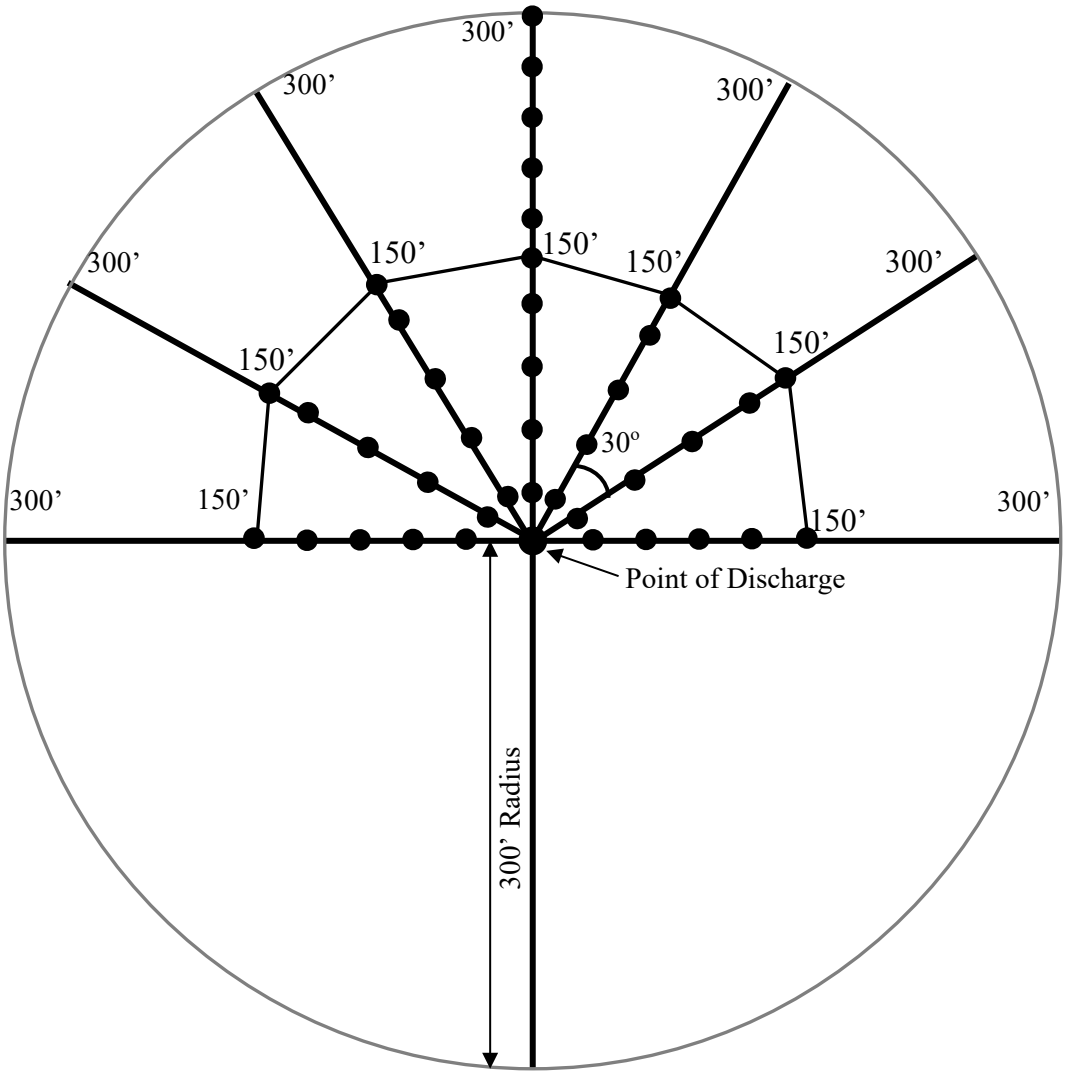
**Establish Transect Lines**. The surveyor must establish transect lines for the entire survey area. The operator's QAPP-Monitoring Plan must specify the methods used to establish the transect lines. Parallel transects (if used) are required to be established no more than 30 feet apart and extend in a perpendicular direction from the permanent markers.

The survey shall use radial or parallel transects located surrounding the outfall terminus, with a 300 foot radius, at the proposed outfall terminus depth. Determine the number of transects (shall meet a minimum of at least three) which will most accurately delineate the area surrounding the center of the discharge site and the area of any seafood waste accumulation, if present.

Surveys using **Radial Transects**: Use the discharge point as the central marker of the survey. GPS coordinates derived using WAAS technologies shall be recorded at the location of the center of the survey (reported in decimal degrees, to the fifth decimal place if available). Establish a minimum of at least three transects radially from the location of the discharge point. If historic seafood waste accumulations are found, the operator is required to have the surveyor complete a seafloor dive survey for a minimum of 300 feet from the proposed outfall terminus (or as determined by DEC).

The following diagram (Figure 1) shows "typical" radial transects set 30 degrees apart. Points of measurement are at 30-foot intervals spaced on the survey transects, which extend along a 300 foot radius from the point of discharge.

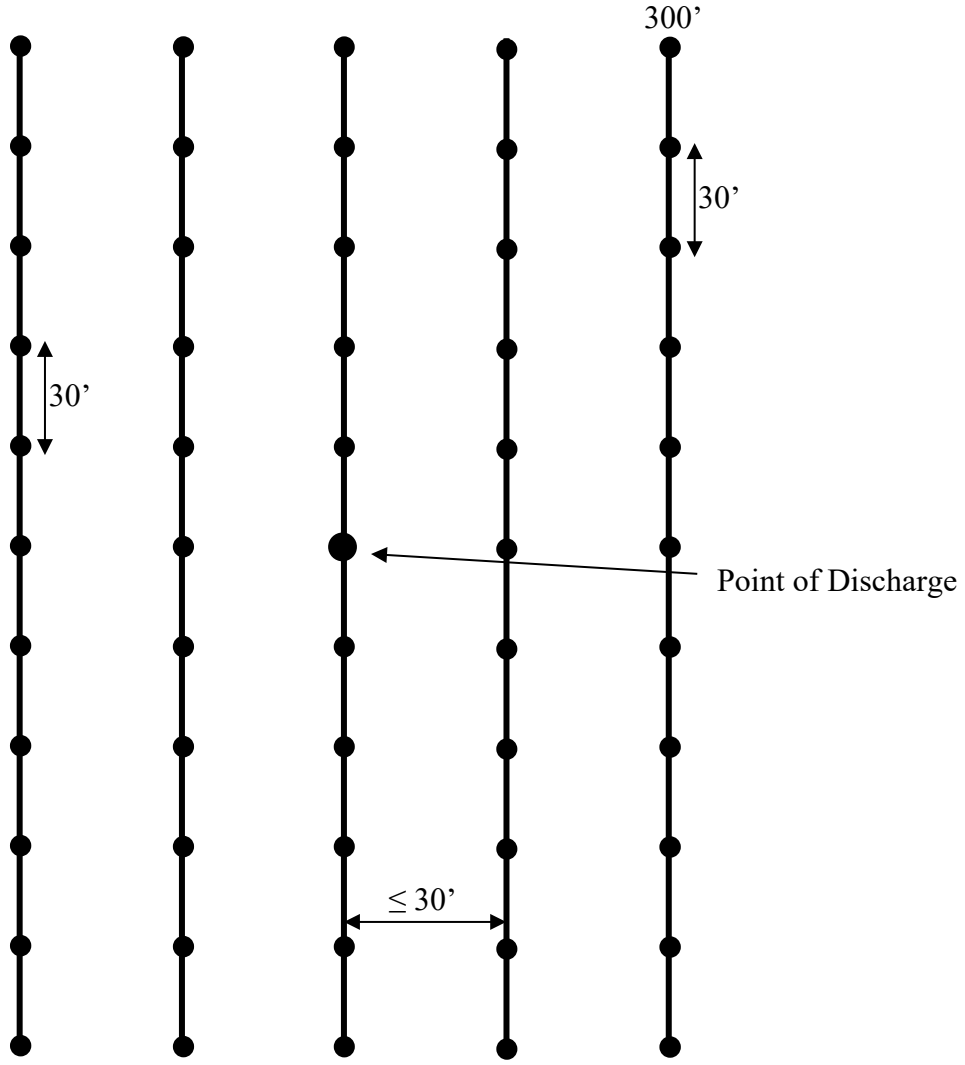
**Figure 1 – Example of Radial Transects**



Surveys using **Parallel Transects**: Use the discharge point as the central marker of the survey. GPS coordinates derived using WAAS technologies shall be recorded at the location of the discharge point (reported in decimal degrees, to the fifth decimal place if available). A minimum of three parallel transects shall be established, with the center transect passing through or near the discharge point. Transects shall be no more than 30 feet apart, and the number and length of transects shall be adequate to cover the entire estimated area of discharge (at least a 300 foot radius around the point of discharge) and any historic seafood waste accumulations. The sample plots shall be located at 30-foot increments along the transect lines. The sample plots shall be 3-ft by 3-ft squares.

The following diagram (Figure 2) shows "typical" parallel transects set no more than 30 feet apart. Points of measurement (sample plots) are at 30-foot intervals along the transect lines.

**Figure 2 – Example of Parallel Transects**



## Reporting

**Pre-Installation Survey Report.** Within 30 days of completing the pre-installation survey, a facility operator shall submit a report to DEC that contains the following information:

I. **Facility Information**
   A. Name, address, responsible party (e.g., the permitted entity) and contact information.
   B. Alaska Pollutant Discharge Elimination System (APDES) permit number.
   C. Type of waste treatment process(es).
   D. The proposed discharge and/or current cumulative total annual pounds discharge based on historical BOD, SS, and TSS pollutant loading calculations or known total pounds seafood waste annually.

II. **Surveyor and Survey Information**
   A. Name and contact information of the surveyor.
   B. Brief background of surveyor's previous work history performing seafloor surveys and mapping.
   C. Date and time the survey was completed.
   D. Name of the receiving water where the survey was completed.
   E. Whether there are other seafood waste discharges within 0.25-mile of the discharge.
   F. Information on whether a seafood processing discharge was occurring during the time(s) of the survey.
   G. Method used to:
      1. Establish markers (if placed)
      2. Establish transects
      3. Locate sample plot locations along the transects
      4. Record the required sample plot data
   H. Table or narrative with a summary of findings from video of transects and sample plots.
   I. A photographic log with photo number, transect and sample plot number, and photograph description, including GPS data collected at the sample plots. Photographs shall be in color and minimally 3 inch x 5 inch.
   J. Recommendations for the location of the discharge at the proposed location or at an alternative location that would have less adverse impact to the seafloor community.

III. **Sample Plot Information. The following must be provided for the sample plots:**
   A. **Digital photographs.** Digital photographs must:
      a. Depict the nature and coverage of seafood waste deposit(s), if any, on the seafloor.
      b. Capture images of natural sediment, natural sediment covering seafood processing waste (if observable), and/or seafood waste covering natural sediment.
      c. Be of sufficient definition, clarity, and detail to clearly document the conditions present on the seafloor.
      d. Include a digital date and time stamp.
      e. Be compiled into a photographic log to include the sample plot location identifier.

Photographs are required to be submitted electronically. If feasible, an electronic copy of the report, GIS/GPS map layers, and video recordings shall be submitted at the same time.

B. **Sea Flora and Fauna.** Type and number of macro sea fauna (sea life) and type of aquatic vegetation observed on the seafloor during the survey. The survey shall note observed differences, if any, in numbers and types of marine biota present on or within the waste deposit area and those marine biota found 100' outside the deposit area (on the natural sediments). Types and quantities of sea life observed adjacent to, on, in, or feeding on any seafood processing waste deposits during the survey, along with representative photos that include time and date stamps. Mention shall be made of any indication of change in sea life behavior from any previous observations or seafloor survey reports, and any other observations relevant to the condition of the benthic community or seafloor.

C. **Hydrology.** Report ambient tidal current velocity and direction and the water chemistry (both seasonal and in-situ on the day of the survey), including salinity, water temperature, density, turbidity, DO, and pH. These parameters shall be taken as a grab sample or using a probe at the proposed outfall terminus location and proposed depth of the outfall.

D. **Substrate.** Composition of substrate (soft sediments, cobble, gravels, solid rock, glacial silts, ground seafood, etc.).

E. **Water Depth.** (adjusted to MLLW, reported in feet) The water depth shall be reported with the bottom reading measured at the seafloor or at the top of any waste pile, whichever feature results in a shallower reading, at each sample plot location.

F. **Plume Size.** If actively discharging at the time of survey, the estimated height (rise) and length of any observed discharge plume during the survey. The surveyor shall note any changes in benthic habitat or sea flora/fauna use near the outfall terminus and at 100' from the outfall terminus in or under the influence of the plume.

G. **Water Clarity.** A description of water clarity and changes in water clarity as a result of the discharge, if occurring.

If select information required in the Pre-installation Survey Report is not obtainable using the video/camera methods described above, the report shall include an explanation as to why the information could not be obtained.

# Appendix E

Calculations for Discharge Monitoring Reporting

# Calculations for
# Discharge Monitoring Reporting

**Acronyms:**

lbs/day = Pounds per day

mg/L = Milligrams per liter

mgd = Million gallons per day

TSS: Total suspended solids

O&G: Oil and grease

$BOD_5$: Biochemical oxygen demand

SS: Settleable solids

## Part A: Calculations for TSS, O&G, and $BOD_5$

**Formulas Used:**

**Formula A: Calculate pollutant discharged in lbs/day**

= (pollutant sample result in mg/L) x (volume of wastewater discharged on sample day in mgd) x (8.34 lbs/gal)

**Example**: Seafood is processed for 28 days in September. One time per week, wastewater is analyzed for TSS, O&G, and $BOD_5$. The operator is required to record the amount of wastewater discharged each day. Monitoring logs show the following data:

**Example Data**

| Date | TSS (mg/L) | O&G (mg/L) | $BOD_5$ (mg/L) | Total Daily Flow (mgd) |
|---|---|---|---|---|
| Sept 6 | 244 | 142 | 2,490 | 0.043 |
| Sept 14 | 183 | 95 | 914 | 0.050 |
| Sept 20 | 175 | 88 | 2,630 | 0.041 |
| Sept 28 | 110 | 113 | 2,740 | 0.035 |

## A-I. Calculate the TSS, O&G, and $BOD_5$ discharged in lbs/day for each sampling day in September

| Date | TSS (mg/L) | O&G (mg/L) | $BOD_5$ (mg/L) | Total Daily Flow (mgd) | Conversion Factor (lbs / gal) | TSS (lbs/day) | O&G (lbs/day) | $BOD_5$ (lbs/day) |
|---|---|---|---|---|---|---|---|---|
| September 6 | 244 | 142 | 2,490 | 0.043 | 8.34 | 87.5 | 50.9 | 893 |
| September 14 | 183 | 95 | 914 | 0.050 | 8.34 | 76.3 | 39.6 | 381.1 |
| September 20 | 175 | 88 | 2,630 | 0.041 | 8.34 | 59.8 | 30.1 | 899.3 |
| September 28 | 110 | 113 | 2,740 | 0.035 | 8.34 | 32.1 | 33 | 799.8 |

<u>Using Formula A:</u>

= (pollutant sample result in mg/L) x (volume of wastewater discharged on sample day in mgd) x (8.34 lbs/gal)

TSS Example for **Sept. 6** = 244 mg/L TSS x 0.043 mgd x 8.34 lbs/gal = 87.5 lbs TSS/day

O&G Example for **Sept. 28** = 113 mg/L O&G x 0.035 mgd x 8.34 lbs/gal = 33 lbs O&G/day

$BOD_5$ Example for **Sept. 20** = 2,630 mg/L $BOD_5$ x 0.041 mgd x 8.34 lbs/gal = 899.3 lbs $BOD_5$/day

# Part B: Calculations for SS

**Formulas Used:**

**Formula A: Calculate SS discharged in lbs/day for each sampling day**

= (Imhoff cone SS result (mL/L)) x (SS conversion factor (g/mL)) x (3.785 L/gallon) x (volume of wastewater discharged on sample day in gallons per day) x (1 lb / 454 g)

**Formula B: Calculate the 'daily average by month' SS discharge in lbs/day**

= (sample date 1 lbs/day + sample date 2 lbs/day + sample date 3 lbs/day + … sample date n lbs/day) / (n)

**Formula C: Calculate the monthly total SS discharge in lbs**

= (SS daily average by month in lbs/day) x (number of seafood processing days that month)

**Formula D: Calculate the year-to-date total SS discharge in lbs**

= (month 1 SS monthly total lbs + month 2 SS monthly total lbs + … month m SS monthly total lbs)

Note: n = the total number of samples taken during the month
m = the total number of months (including the current reporting month) elapsed in the year to date

**Example**: Seafood is processed in January and February. One time per week, wastewater is analyzed for SS. The operator is required to record the amount of wastewater discharged each day. Monitoring logs show the following data:

**Example Data**

| Date | SS (mL/L) | Total Daily Flow (gallons/day) |
|---|---|---|
| Jan 3 - 9 | No sample taken | No processing Jan 3 – 9 |
| Jan 11 | 0.1666 | 684,000 |
| Jan 19 | 0.3333 | 416,000 |
| Jan 25 | 0.4333 | 1,459,000 |
| Feb 1 | 0.7333 | 1,929,000 |
| Feb 9 | 0.2333 | 983,000 |
| Feb 15 | 0.4666 | 1,838,000 |
| Feb 22 | 0.3666 | 1,692,000 |

## B-I. Calculate the SS discharged in lbs/day for each sampling day

| Date | SS (mL/L) | Total Daily Flow (gallons/day) | SS (lbs/day) | SS (lbs/month) |
|---|---|---|---|---|
| No processing Jan 3 - 9 | -- | -- | -- | -- |
| Jan 11 | 0.1666 | 684,000 | 1,074 | |
| Jan 19 | 0.3333 | 416,000 | 1,306 | |
| Jan 25 | 0.4333 | 1,459,000 | 5,956 | |
| **Jan. Ave.** | | | **2,778** | |
| | | | | 52,791 |
| Feb 1 | 0.7333 | 1,929,000 | 13,326 | |
| Feb 9 | 0.2333 | 983,000 | 2,161 | |
| Feb 15 | 0.4666 | 1,838,000 | 8,079 | |
| Feb 22 | 0.3666 | 1,692,000 | 5,844 | |
| **Feb. Ave.** | | | **7,352** | |
| | | | | 198,515 |

Using Formula A (Assumed conversion factor for example calculations = 1.13 g/mL):
SS lbs/day = (Imhoff cone SS result (mL/L)) x (SS conversion factor (g/mL)) x (3.785 L/gallon) x (volume of wastewater discharged on sample day in gallons per day) x (1 lb / 454 g)

January 11: (0.1666 mL/L) x (1.13 g/mL) x (3.785 L/gallon) x (684,000 gallons per day) x (1 lb / 454 g) = 1,074 lbs/day

February 1: (0.7333 mL/L) x (1.13 g/mL) x (3.785 L/gallon) x (1,929,000 gallons per day) x (1 lb / 454 g) = 13,326 lbs/day

## B-II. Calculate the 'Daily Average by Month' SS discharge (lbs/day) for each month

Using Formula B (Note: n = the total number of samples taken during the month):
= (sample date 1 lbs/day + sample date 2 lbs/day + sample date 3 lbs/day + … sample date n lbs/day) / (n)

January: (1,074 lbs/day + 1,306 lbs/day + 5,956 lbs/day) / 3 = 2,778 lbs/day

February: (13,326 lbs/day + 2,161 lbs/day + 8,079 lbs/day + 5,844 lbs/day) / 4 = 7,352 lbs/day

## B-III. Calculate the Monthly Total SS Discharge, in lbs

Using Formula C: (assume 19 processing days in January and 27 processing days in February)

= (SS daily average by month in lbs/day) x (number of seafood processing days that month)

January: (2,778 lbs) x (19) = 52,791 lbs

February: (7,352 lbs) x (27) = 198,515 lbs

## B-IV. Calculate the year-to-date total SS discharge in lbs

Using Formula D:

= (month 1 SS monthly total lbs + month 2 SS monthly total lbs + … month m SS monthly total lbs)

(January monthly total lbs + February monthly total lbs) = 52,791 lbs + 198,515 lbs = 251,306 lbs

## SEAFLOOR SURVEY PROTOCOL OVERVIEW

**Seafloor Survey Applicability.** The Seafloor Survey Protocol shall be used by the permittee to demonstrate compliance with the project area Zone of Deposit (ZOD) permit conditions. Seafloor surveying is required to be completed per the schedule established below.

**Purpose.** The purpose of a seafloor survey is to 1) determine compliance with marine water quality criteria for residues (seafood processing waste deposits) on the seafloor; 2) evaluate the potential impacts on aquatic life, including the potential for bioaccumulation and persistence; 3) evaluate the expected duration of the deposit and any adverse effects; and 4) evaluate the potential transport of pollutants by biological, physical, and chemical processes. The permittee's historic and currently permitted APDES discharge location(s) may have accumulated or be currently accumulating seafood waste deposits. Therefore, the seafloor surrounding the current and all previous outfall terminus locations must be evaluated. The permit limits the allowed deposit of substances (seafood waste residues) to one (1.0) acre, as allowed by 18 AAC 70.210(a). Thus, the seafloor survey of the project area ZOD is required to fulfill 18 AAC 70.210(c).

> **Project Area Zone of Deposit (ZOD)**
>
> Means the total area of the seafloor bottom and the overlying water column in marine or estuarine waters in which DEC has authorized and limited the deposit of substances in exceedance of the WQC in 18 AAC 70.020(b) and the antidegradation requirement in 18 AAC 70.015.
>
> The project area ZOD includes the entire operating area of an onshore seafood processing facility, including the following: seafood transfer devices; vessel and barge loading and unloading areas; offshore processing areas for supporting vessels and barges; bulkheads, ramps, floating walkways, docks, pilings, dolphins, anchors, buoys and other marine appurtenances; outfall terminus locations and the length of the outfall line(s) connecting the facility to the point(s) of discharge; previous outfall discharge locations that have no record of historical seafloor survey; and the bedland areas underlying and connecting these features.

**Objective.** Determine the thickness, total area(s), location, and outer boundary of continuous and discontinuous coverage area(s) of seafood waste within the project area ZOD.

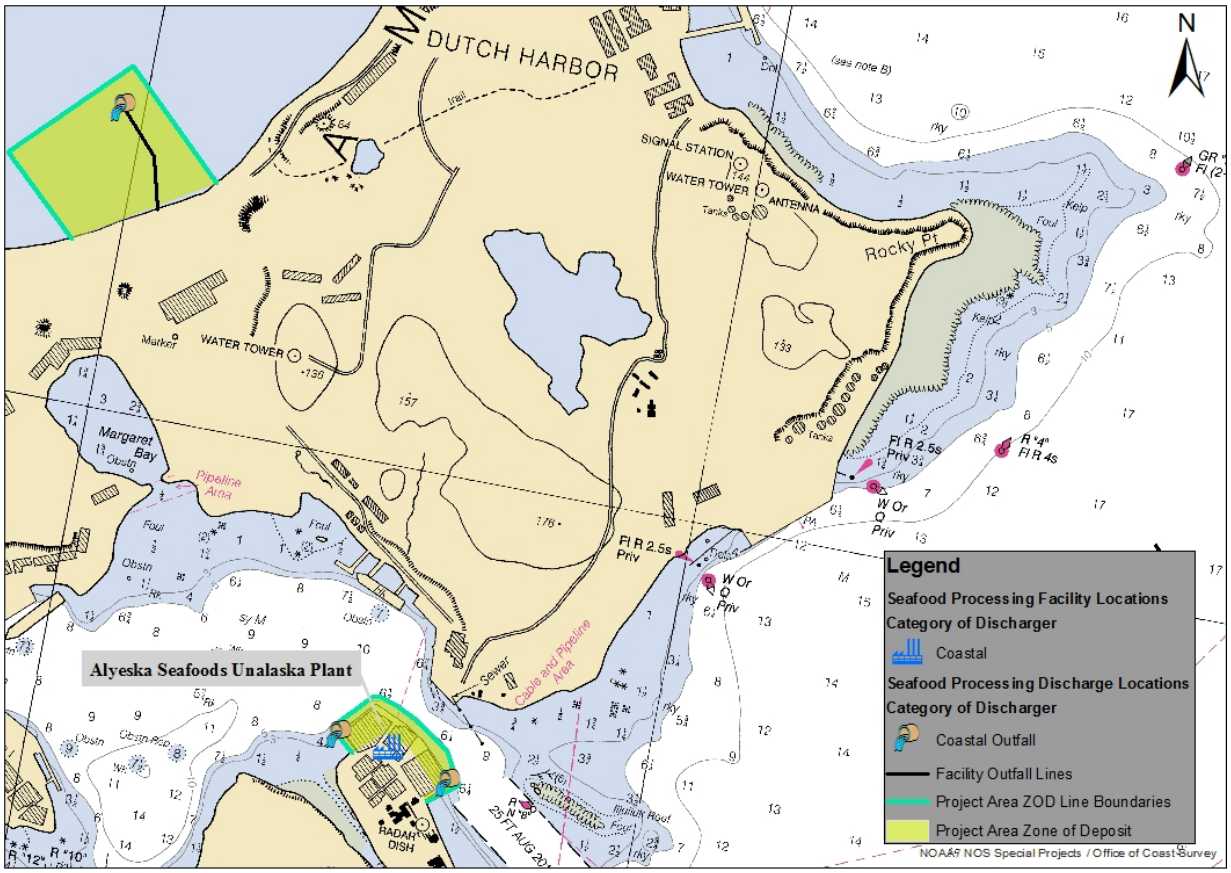
**Seafloor Survey Protocol.** The Seafloor Survey Protocol must be reviewed by the permittee and the permittee's surveyor. An equivalent method may be acceptable if it meets the survey purpose as well as the data gathering and reporting objectives contained herein. The Protocol method is set up as a two-part process. Alternate survey methods selected must be approved by DEC prior to implementation.

**Part I: The Part I Seafloor Survey** will determine the general location(s) and initial areal extent of seafood waste seafloor deposits. The Part I Seafloor Survey results, information gathered, and observed seafood waste deposit location(s) shall be used to inform the Part II Seafloor Survey. The permittee may choose to perform a more detailed seafloor survey (e.g.,

closer grid spacing, varied methods, etc.) in order to provide greater precision in defining the size and type of seafood waste deposits.

> **Adjusting the size of the Project Area ZOD**: The Part I Seafloor Survey results may be used by the permittee to propose a modification to the authorized Project Area ZOD if the survey demonstrates that the authorized Project Area ZOD should be resized and/or relocated to more accurately capture the facility's seafood waste deposits. The areas of normal operational activity adjacent to the facility must be included in the authorized Project Area ZOD boundaries and are not subject to removal, as defined in the Project Area Zone of Deposit definition.

**Figure 1: Initial Alyeska Seafoods Project Area ZOD**




**For general information purposes only**
4/8/2021
**Unalaska, Alaska**

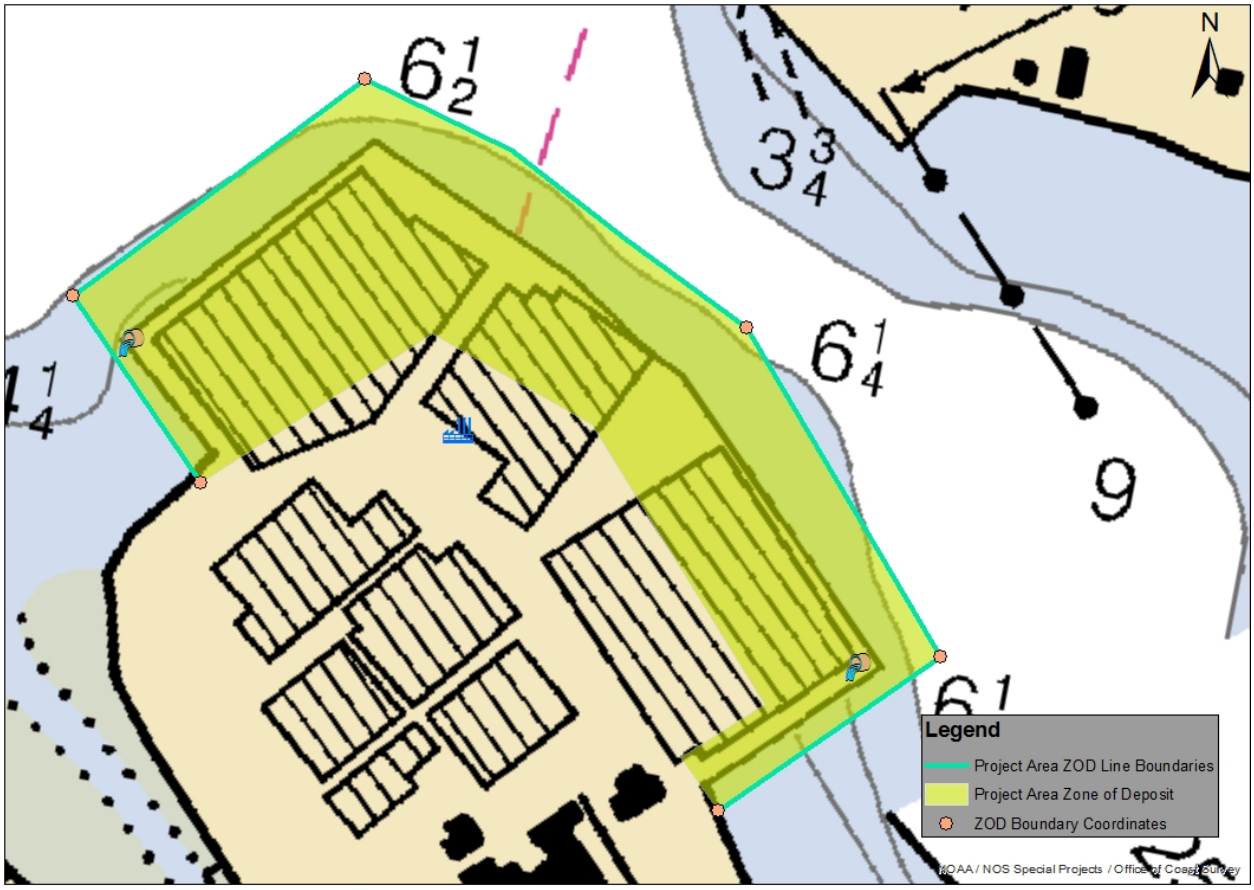
0 295 590 1,180 1,770 2,360 Feet

**Figure 2: Outfall 001A Initial ZOD**

**For general information purposes only**
4/8/2021
**Unalaska, Alaska**

0 70 140 280 420 560 Feet

**Figure 3: Outfall 002A and 003A Initial ZOD**




**For general information purposes only**
4/8/2021
**Unalaska, Alaska**

0 40 80 160 240 320 Feet

Initial Project Area ZOD Coordinates - Outfall 001A

Southwest Corner: -166.551278, 53.885941
Northwest Corner: -166.553393, 53.887090
Northeast Corner: -166.550459, 53.888823
Southeast Corner: -166.547624, 53.887192

Initial Project Area ZOD Coordinates - Outfall 002A & 003A

Southwest Corner: -166.541190, 53.878627
Northwest Corner: -166.541850, 53.879005
North Point: -166.540869, 53.879652
Northeast Point: -166.539139, 53.879234
Southeast Corner: -166.538137, 53.878544
South Point: -166.538887, 53.878090

**Part II: The initial Part II Seafloor Survey** shall be informed by the Part I Seafloor Survey results and shall refine the location(s), type, thickness, and mapping of seafood waste deposits. Subsequent required surveying shall document existing and ongoing seafood waste deposition as well as natural ambient dispersion and biological decay processes.

**Appendix F – Table 1 Seafloor Monitoring Schedule**

| Survey Type | Sample Location | Survey Result Triggers | Frequency |
|---|---|---|---|
| **Part I** Seafloor Survey | Project Area ZOD | Report as required in Appendix F | The first year of permit coverage |
| **Part II** Seafloor Survey | Project Area ZOD | Report as required in Appendix F | The second year of permit coverage |
| **Additional Part II** Seafloor Surveys | Project Area ZOD | Previous Part II Seafloor Survey reporting ≥ **0.75 acres** of deposits | Required every year, See Part 1.8.3.5.2.1 |
| | Project Area ZOD | Previous Part II Seafloor Survey reporting < **0.75 acres** of deposits | Required every two years, See Part 1.8.3.5.2.2. |

## Part I Seafloor Survey Protocol

**Survey Method:** The permittee shall complete a seafloor survey (primarily an observation and photographic survey) of the project area Zone of Deposit (ZOD) as soon as practicable after discharge cessation, but no later than 60 days after cessation of processing during the last quarter of the year, by December 31st the first year of permit coverage. December 31st is given as a deadline if processing is year-round and there is not cessation in processing at the end of a specific fishing season.

The permittee shall provide a copy of the permit, any identified location(s) of seafood waste deposits as documented through previously conducted seafloor survey(s), and this Seafloor Survey Protocol to the surveyor that will complete the survey. The permittee may use either a diver as a surveyor, a remotely operated vehicle (ROV) with high definition photographic capability (with still-image capture capability), or a high definition underwater video camera (with still-image capture capability) towed behind a vessel to obtain the required photographs. The Part I Seafloor Survey shall be completed on a 30 foot by 30 foot grid pattern (30 feet between transect lines and 30 feet between sample plots on each transect). The permittee may choose to perform a more detailed seafloor survey (e.g., closer grid spacing, varied methods, etc.) to provide greater precision in defining the size and type of seafood waste deposits.

The permittee is required to collect continuous Wide Area Augmentation System (WAAS) enhanced Global Positioning System (GPS) location information (reported in decimal degrees, to the fifth decimal place, if available) while conducting the survey so that any vessel drift can be mapped and used comparatively in the Part II Seafloor Survey. The permittee is also required to collect depth information for each sample plot location, corrected to Mean Lower Low Water (MLLW).

Photographs are required on the designated grid spacing, and they will establish the general locations of the seafood deposits and may be used for future adjustments to the initial project area ZOD. If seafood processing waste is visible farther than the initially mapped project area ZOD, the Part I seafloor survey shall continue beyond the initially mapped project area ZOD until seafood processing waste is no longer visible. Current technologies exist that allow the Part I Seafloor Survey to extend into water depths greater than -120 feet MLLW.

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**Skipping the Part I Seafloor Survey**: As described above, the size and location of a project area ZOD may be adjusted (i.e., decreased in size, increased in size, or changed in shape) based on the findings of a seafloor survey. The permittee may request a change to the project area ZOD by submitting a letter to the Department with a copy of the Part I survey. The Department's subsequent approval of a reduction in project area ZOD size may lead to less dive time, and less associated cost, during the Part II Seafloor Survey. Conversely, the permittee may find that performing the Part I (primarily a photographic only) survey and hiring a survey company to return to the site to perform the Part II survey the following year may be an added expense. Therefore, the Protocol allows the permittee to elect to skip the Part I Seafloor Survey if the permittee wishes to perform a complete Part II Seafloor Survey of the entire project area ZOD during the first year of permit coverage. If choosing to skip the Part I Seafloor Survey, the permittee must submit a letter to the Department within 180 days of the permit effective date indicating the permittee's plans for conducting a Part II Seafloor Survey of the entire project area ZOD within 365 days of the permit effective date.

## Part I Seafloor Survey Report

The permittee shall submit a Part I Seafloor Survey report to DEC containing the following information (due with the survey year's Annual Report):

1) **Facility Information**
   a) Permittee name, APDES permit number, facility address, and contact information.
   b) Type of waste treatment processes, product and by-product production process(es).
2) **Surveyor and Survey Information**
   a) Surveyor's name, signature, and contact information.
   b) Brief background of surveyor's previous work history performing seafloor surveys and mapping.
   c) Date and time the survey was completed.
   d) Name and USCG number of the vessel assisting in the survey.
   e) Name of the receiving water where the survey was completed.
   f) Continuous Global Positioning System (GPS) location information (reported in decimal degrees, to the fifth decimal place if available) while the survey is completed.
   g) Whether there are other seafood waste discharges occurring within 0.25-mile of the permittee's discharge locations.
   h) Whether seafood waste discharge was occurring at the time of the survey.
   i) Description of methods used to:
      i) Establish linear transects,
      ii) Locate sample plot grid locations along the transects,
      iii) Estimate percent coverage at each sample plot (photograph location), and
      iv) Calculate the continuous and discontinuous coverage area(s) of seafood waste deposits.
3) **Previous Survey Information**
   a) Name of surveyor(s) who completed the previous survey(s).
   b) Name of receiving water.
   c) Date, time, and place of previous seafloor survey(s).
   d) Date of completion of any previous seafloor survey report(s) and first and last name(s) of individual(s) who performed the analysis and report writing.
   e) A narrative that describes the methods and results of previous survey(s), including:
      i) Total area(s) of seafood waste deposits,
      ii) Any available electronic or hard copy mapping of seafood waste deposits found, and
      iii) Annual discharge load (pounds) at time of previous survey(s).

f) Whether the permittee has performed mechanical raking or other pile reduction mechanisms.

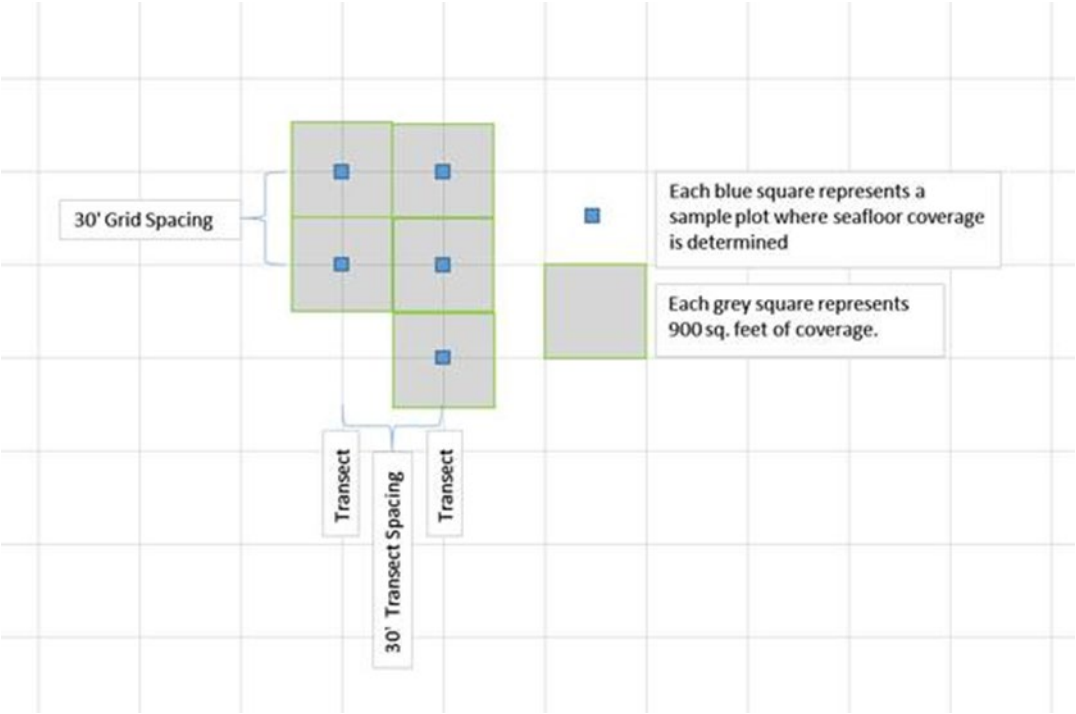
4) **Sample Plot Observations.** The Part I Seafloor Survey shall be completed on a 30 foot by 30 foot grid pattern (30 feet between transect lines and 30 feet between sample plots (photographic image locations) along each transect) covering the entire project area ZOD. If the outfall is found to be broken or floating, the seafloor survey must encompass the permitted outfall location as well as below the discharge location(s) where the break/floating outfall was found. The Part I Seafloor Survey is required to continue until seafood processing waste is no longer visible, even if this means surveying area not included in the initial project area ZOD. This may necessitate extending transect lengths and/or adding additional transect lines. Each photographic sample plot location (unless otherwise specified) must include the following:

a) **Digital photograph.** Digital photographs representative of the sample plots must depict the nature and coverage of seafood processing waste deposit(s), if any, on the seafloor. Surveyors must document whether they are able to differentiate between natural sediments and evidence of seafood waste residues based on their observations and photographs[1]. Photographs shall be of sufficient definition, clarity, and detail to document the seafloor conditions. Photographs shall include a digital date and time stamp. The photograph log shall include the name of the seafood processor, survey date, and sample plot location identifiers.

b) **Deposit Type.** Type of waste deposits observed (e.g., bones, whole heads, fins & tails, ground seafood waste including average size (1.0-inch, 0.5-inch), fine screened seafood waste particles (residues)), natural sediments (e.g., sediment sloughs, tidal sands), and/or sediments burying seafood waste.

c) **Amount and Type of Seafood Waste Coverage.** The surveyor must estimate and record the percentage (Detectable to 100%, rounding as directed in the table below) of seafloor area(s) covered by seafood processing deposits (to include current and historic deposits (e.g., decaying bones, Beggiatoa mats, etc.)) at the sample plot location. A three-foot by three-foot (3’ x 3’) sample plot represents 900 square feet ($ft^2$) of seafloor.

[1] Seafloor surveyors may be unable to visually differentiate between natural sediments and fine particle size seafood processing waste. If this is the case, the surveyor will be required to obtain sediment grab samples and determine organic enrichment.




The seafloor survey shall report each 3' x 3' sample plot's seafood waste coverage as directed in the table below:

i) **Trace Coverage**: All 'Trace' coverage will be calculated and reported as follows:

| Zone of Deposit | Result | Report |
|---|---|---|
| Within the project area ZOD | Detectable[2] – 9% (0.5 inch or greater thickness) | Trace |
| Outside the project area ZOD | Detectable[2] – 9% (no thickness threshold) | Trace |

ii) **Discontinuous Coverage:** Within the project area ZOD, the surveyor shall use a seafood waste deposition threshold which is one-half inch or thicker as the minimum detection level. Outside the project area ZOD, no minimum detection level applies to the seafood waste deposit thickness. All 'Discontinuous' coverage will be calculated and reported as follows:

**Discontinuous Coverage not applicable to 1.0-acre limit**

| Result | Report |
|---|---|
| 10-14% | 10% |

[2] Detectable seafood waste has typically been reported to be 2% coverage.

| | |
|---|---|
| 15-24% | 20% |
| 25-34% | 30% |
| 35-49% | 40% |

**Discontinuous Coverage applicable to 1.0-acre limit**

| | |
|---|---|
| 50-54% | 50% |
| 55-64% | 60% |
| 65-74% | 70% |
| 75-84% | 80% |
| 85-94% | 90% |

Calculate the areal extent of discontinuous seafood processing waste deposits with 10 – 49% coverage and 50 - 94% coverage, as a percentage of each 900 sq. ft sample plot.

***Discontinuous Coverage (not applicable to 1.0-acre limit) Example Calculations:***

- Discontinuous Areas "A" – Six sample plots reported as 40% coverage

$$6 * 900\ ft^2 * 0.4 = 2{,}160\ ft^2$$

- Discontinuous Areas "B" – Twelve sample plots reported as 30% coverage

$$12 * 900\ ft^2 * 0.3 = 3{,}240\ ft^2$$

| | |
|---|---|
| **Total 10-49% discontinuous coverage:** 2,160 + 3,240 = | **5,400 ft$^2$** |
| **Report Acres:** 5,400/43,560 = | **0.12 acres** |

***Greater than 50% Discontinuous Coverage (applicable to 1.0-acre limit) Example Calculations:***

- Discontinuous Areas "C" – Six sample plots reported as 60% coverage

$$6 * 900\ ft^2 * 0.6 = 3{,}240\ ft^2$$

- Discontinuous Areas "D" – Eighteen sample plots reported as 80% coverage

$$18 * 900\ ft^2 * 0.8 = 12{,}960\ ft^2$$

- Discontinuous Areas "E" – Seven sample plots reported as 90% coverage

$$7 * 900\ ft^2 * 0.9 = 5{,}670\ ft^2$$

| | |
|---|---|
| **Total 50-94% discontinuous coverage:** 3,240 + 12,960 + 5,670 | **21,870 $ft^2$** |
| **Report Acres:** 21,870/43,560 = | **0.50 acres** |

iii) **Continuous Coverage (applicable to 1.0-acre limit):** Transect squares with 95% - 100% coverage will be considered Continuous Coverage. Within the project area ZOD, the surveyor shall use a seafood waste deposition threshold which is one-half inch or thicker as the minimum detection level. Outside the project area ZOD, no minimum detection level applies to the seafood waste deposit thickness. All continuous coverage will be calculated and reported as follows:

| Result | Report |
|---|---|
| 95-100% | 100% |

***Continuous Coverage (applicable to 1.0-acre limit) Example Calculations:***

15 sample plots x 900 $ft^2$ each (15 * 900) = 13,500 $ft^2$ of continuous coverage = 0.31 acres

**Coverage Areas Applicable toward 1.0-acre Limit**

| | |
|---|---|
| Total 50-94% discontinuous coverage | 21,870 $ft^2$ |
| Total continuous coverage | 13,500 $ft^2$ |
| Total coverage counting toward 1.0-acre limit (21,870 + 13,500) = | 35,370 $ft^2$ |
| Total Acres: 35,370/43,560 | **0.81 acres** |

d) **Beggiatoa (or other microbial) Mats.** Document the absence or presence, as well as size and location, of Beggiatoa or other microbial mats observed on or near any seafood waste deposits or the seafloor. All Beggiatoa or other microbial mat areas shall be counted as continuous coverage.

e) **Sea Flora and Fauna.** Type and number of macro sea fauna (sea life) and type of aquatic vegetation observed on the seafloor during the photographic survey. Types and quantities of sea life observed adjacent to, on, in, or feeding on any seafood processing waste deposits during videotaping, along with representative photos with time and date stamp. Mention should be made of any indication of change in sea life behavior from any previous observation or seafloor survey report, and of any other observations relevant to the condition of the benthic community or seafloor.

f) **Hydrology.** Report ambient tidal current velocity and direction and the water chemistry (both seasonal and in-situ on the day of the survey, including salinity, water temperature, density, turbidity, DO, and pH). These parameters should be taken as a grab sample or using a probe and may be taken once per seafloor survey (not at every sample plot).

g) **Substrate.** Composition of substrate (e.g., soft sediments, cobble, gravels, solid rock, glacial silts, ground/screened seafood waste, etc.). If previous benthic assessments, dive surveys, or remediation actions have documented the presence of buried seafood waste, this waste must be included in the continuous coverage summation calculations if located in or directly adjacent to other continuous coverage areas surveyed. Alternatively, the surveyor may obtain

new core samples to document that seafood waste is not present at the previously identified locations.

h) **Water Depth.** (adjusted to MLLW, reported in feet) Must be reported with the bottom reading measured at the seafloor or at the top of any waste pile, whichever feature results in a shallower reading.

i) **Plume Size.** An indication of an active or inactive discharge occurring during the time(s) of the survey. This may be recorded once per seafloor survey, not at every sample plot.

   i) Approximate width and length of each outfall's effluent plume when discharge is occurring.

   ii) Observations and photographs of floating residues surrounding or extending outside the visible plume.

   iii) Observations and photographs of waste residue particle size in any deposit within 30 ft of the outfall, and a minimum of one photograph of the particle size with an accompanying measuring device.

j) **Water Clarity.** A description of water clarity and changes in water clarity as a result of the discharge, if occurring. This may be recorded once per seafloor survey, not at every sample plot.

5) **Sample Plot Observations Map** - A map or representative drawing (with an identified scale and including a north arrow) shall be developed that depicts the facility and the seafloor area surveyed, including the transect grid. Each sample plot location must be identified on the map and correlated[3] to the information required above in #4. The total coverage area in each category shall be reported in square feet and in acres to the nearest tenth of an acre. The map must include:

   a) The locations of any seafood processing waste deposits, including the outer boundaries of any continuous and/or discontinuous coverage areas, in relation to the discharge location(s), transect grid, and outfalls, including:

      i) **Percent Coverage:** Map the recorded percentage of area covered by seafood processing waste deposits.

         (1) Map areas of "Continuous Coverage" (95 - 100% coverage).

         (2) Map areas of "Discontinuous Coverage" (10% - 94% coverage).

         (3) Map areas of "Trace Coverage" (less than 10% coverage, or floating seafood residues).

         (4) The location and sizes of any Beggiatoa mats discovered during the seafloor survey.

   b) **Other Seafloor Objects:** GPS coordinates of beginning and ending points for all pipes/outfalls that fall within the discharge location (these may or may not belong to the permittee), a description and condition of any of the permittee's pipes(s), depth of pipe terminus(es) at MLLW, and diffuser description(s), if any.

[3] Correlating data - Portions of the information required by #4 may be identified by numbers or letters on the map. The numbers are then used to correspond to the data gathered for each sample plot location and presented in a table format or Excel spreadsheet.

c) **Permanent Markers:** The location of surface or subsurface permanent survey marker monuments, if any.

6) **Additional Electronic Files**. If GIS files are developed, shape files with supporting file layers shall also be submitted to DEC.

7) **Remediation Planning.** A remediation plan is required if the seafloor survey report documents seafood processing waste coverage(s) exceeding 1.0 acre, regardless of when the waste was deposited. The permittee must submit a proposed remediation plan to DEC for review within 120 days of discovering such conditions, unless additional time is granted by DEC.

If select information required in the Part I Seafloor Survey report is not obtainable using the methods described above, the report must include an explanation as to why the information could not be obtained.

If seafloor surveys or other available evidence submitted by the operator are not sufficient to determine whether coverage exceeds the authorized ZOD, DEC will, in its discretion, require the operator to conduct additional surveys or other monitoring for that purpose.

## Part II Seafloor Survey Protocol

**Seafloor Survey Method:** The Part II Seafloor Survey will be based on the initially identified location(s) of seafood processing waste deposit coverage areas reported in the Part I Seafloor Survey report. Results of the Part I - Seafloor Survey will be used to establish the initial transects for the Part II - Seafloor Survey. If observations from the Part I - Seafloor Survey did not reveal any evidence of seafood processing waste deposits, then the Part II - Seafloor Survey will minimally encompass a 200 foot by 200 foot area surrounding the outfall terminus.

The permittee shall provide the surveyor completing the Part II Seafloor Survey a copy of the permit, the discharge locations, the Part I Seafloor Survey report, and all other pertinent data collected (e.g., previous benthic assessments, seafloor surveys, US Army Corps of Engineers-required surveys, etc.). The permittee should provide the surveyor information on any maintenance completed that could have affected seafloor deposits. Additionally, the permittee shall inform the surveyor of any change in discharge locations since the Part I Seafloor Survey, or last Part II Seafloor Survey, was completed.

The Part II Seafloor Survey shall use parallel transects 30 ft apart, with sample plot locations each 30 feet along each transect, and report the information in the Part II Seafloor Survey Report section below. The number and length of transects must be adequate to encompass all seafood processing waste coverage areas found in the Part I Seafloor Survey and extend to all areas of seafood processing waste observed by the surveyor while performing the Part II Seafloor Survey. This may necessitate extending transect lengths and/or adding additional transect lines.

At least five permanent markers (e.g., large rock outcrops, boulders, etc.) must be established at suitable locations, provided there are sufficient land/facility locations available. If markers/monuments are not established, the Part II Seafloor Survey report shall record why they were not established and identify methods to establish repeatable transects. GPS coordinates derived using WAAS technologies, or another technology with equivalent or better position accuracy, must be recorded for each underwater marker.

The surveyor must establish transect lines with a surveyor's tape or other precise methodology extending in a perpendicular direction from the permanent marker(s). If seafood processing waste deposit coverage extends more than 15 feet beyond the Part I Seafloor Survey transect locations, then transects must be added or lengthened to identify the extent of seafood processing waste deposits. Lengthened or added transects should extend 200 feet beyond the outer boundary of discontinuous coverage found in the Part I Seafloor Survey.

The surveyor shall use three-ft by three-ft square sample plots to collect the required information for the Part II Seafloor Survey report.

## Part II Seafloor Survey Report

The permittee must submit the Part II Seafloor Survey report to DEC with the Annual Report for the year the seafloor survey is performed.

The Part II Seafloor Survey report must gather and report the same data parameters as found in the Part I Seafloor Survey report described above, including:

1) Facility Information
2) Surveyor and Survey Information
3) Previous Survey Information
4) Sample Plot Observations
   a) Digital Photographs
   b) Deposit Type
   c) Amount and Type of Seafood Waste Coverage
      i) Areal amount of "Trace Coverage" seafood waste deposits (sq. feet and acres)
      ii) Areal amount of "Discontinuous Coverage" seafood waste deposits (sq. feet and acres)
      iii) Areal amount of "Continuous Coverage" seafood waste deposits (sq. feet and acres)
   d) Beggiatoa (or other microbial) Mats
   e) Sea Flora and Fauna
   f) Hydrology
   g) Substrate
   h) Water Depth
   i) Plume Size
   j) Water Clarity

**Additional Part II Seafloor Survey Sample Plot Observation Requirements.** At each sample plot, the surveyor must also collect the following data:

k) **Seafood Waste Deposit Thickness.** Measure and record seafood processing waste deposit thickness (from the seafloor to the highest point of the pile) using a marked stick or pipe to the nearest 0.5-inch. If seafood waste is visible but less than 0.5-inch thick, coring may be required to determine the actual thickness of seafood processing waste deposits.

l) **Report of Anoxic Conditions.** Anoxic conditions often form in the seafood processing waste deposits as the material decomposes. The surveyor should identify and document whether gas is being released, including any gas released as a result of measuring the seafood waste thickness (item 4.k).

m) **Dissolved Oxygen and Other Gases.** When gas is observed escaping from the seafloor in the vicinity of the outfall or the seafood waste deposit pile, the surveyor is required to collect water samples or measure directly for dissolved oxygen, methane, and hydrogen sulfide. Sampling or measurement shall be conducted six inches or less above the seafood waste deposit, where the greatest amounts of gas release are observed.

5) Sample Plot Observations Map
6) Additional Electronic Files
7) Remediation Planning

If seafloor surveys or other available evidence submitted by the operator are not sufficient to determine whether coverage exceeds the authorized ZOD, DEC will, in its discretion, require the operator to conduct additional surveys or other monitoring for that purpose.

## Approved Sampling Methods

A combination of sampling methods may be used to gather the information required in this Seafloor Survey Protocol as long as all data gathering and reporting objectives are met.

### Sediment Grab Samples

A sediment grab sample is often used to supplement a dive survey, video by ROV, or benthic analysis by sediment profile imaging. Grab sampling surveys may be performed instead of a dive survey in areas where a dive survey is not practical due to limiting ambient conditions, very low visibility, or dangerous diving conditions. Grab sampling should not be used when bottom substrate is composed of large boulder-type material or bedrock. Various types of sample collection devices and techniques are available. Usually, surveyors are able to push a tube core sampler into the waste pile. In other circumstances, core samples are obtained from a bottom grab sampler known as a Van Veen Grab Sampler. Obtaining core samples of the top foot of the seafloor has a number of advantages. The benthic life successional stage may be determined if background samples are also obtained, including infaunal and epifaunal species, species densities, and level of invasive species. Additionally, the true thickness of seafood or other solids deposited on the bottom can be measured, depending on the type of grab sampler used. Beggiatoa bacteria may be positively identified through coring/grab sampling if present. Subsurface grain size and type of substrate can be identified. Grab sampling must be augmented by a photographic method, such as a video seafloor survey, to document the presence or absence of macro flora and fauna and to map the contours of the ZOD. Alternatively, the grab sampler would need attached depth and location instrumentation in order to provide a contour map of the ZOD and seafloor.

### Benthic Analysis by Sediment Profile Imaging

The benthic analysis by sediment profile imaging (SPI) method has been used in large areas of seafood processing waste coverage or areas of fine material (screened seafood waste) coverage to assess the health of the benthic community in the deposit area. The sediment profile camera works by burying a knife-edged probe that houses a digital camera into the seafloor area being examined, including into the seafood waste deposit area(s). The probe is normally fitted with water depth and location instruments to provide seafloor contour information. The probe has a Plexiglas faceplate cover to collect images of the sediment profile. An internal strobe light is mounted inside to provide illumination. The probe housing the camera descends into the sediment at a slow, controlled rate to prevent disturbance of the sediment-water interface. After an appropriate time delay, the strobe and camera are activated to obtain a cross sectional image of the upper 20 cm of the sediment column. Depth of penetration by the probe depends on the substrate consistency (i.e., density and hardness of the sediment, thickness and type of seafood waste deposits) and the probe width. The probe is fitted with lights, a plan view camera, and a laser generated scale to allow determination of the size of objects in the picture that is taken.

This survey method provides information that meets some data objectives, including: benthic life evaluation, estimations of anoxic condition and depth of anoxic conditions, presence or absence of Beggiatoa bacteria, thickness of waste to the limit of the probe, estimation of coverage areas of any seafood waste deposits, water depth, visual appearance of the bottom, and the total area of the seafood waste deposits. However, the method does have its limitations. The method is only suitable for sediments that can be penetrated by the knife probe, requires vessels large enough to handle the probe, and is susceptible to currents moving the vessel. The method is not suitable for characterizing deep waste deposits, and the costs to complete the survey are usually higher than for other survey methods.

# Remediation Plan

A remediation plan is required if a Seafloor Survey report documents seafood waste coverage (residues) exceeding 1.0 acre (43,560 square feet), regardless of when the wastes were deposited.

**Remediation Plan Requirements.** A remediation plan must include the following:

1. A description of historical seafood processing waste discharge practices and volumes, including current and previous dischargers (if known) at the discharge locations, and any apparent relation to the existing deposition of seafood processing waste (to the extent that information is reasonably available).
2. A copy of the Part I Seafloor Survey report and any Part II Seafloor Survey report(s).
3. A description of the expected future discharge volumes at the discharge location.
4. An evaluation of the environmental impacts caused by existing seafood waste deposits and the environmental impacts caused by methods proposed to reduce waste coverage.
5. An evaluation of source control methods that could reduce waste coverage, including:
    a. Alternative methods of waste disposal, with possible dates of implementation.
    b. Operational practices, including source control or other operation elements.
6. A description of feasible methods and costs of removing seafood processing waste from the seafloor. If removal of seafood processing waste deposits is proposed, a proposed remediation plan must specify the following:
    a. The proposed areas, methods, and timing of removal, as well as permits required to perform the removal.
    b. The volume and nature of material to be removed.
    c. The method of disposal of removed material and management practices at the disposal site to assure water quality criteria and other applicable standards are met and to assure prevention of objectionable odors.
    d. The costs of removal by the proposed method(s) and alternatives considered.
7. Identification of feasible, reasonable, and effective measures that the permittee proposes to implement to reduce existing and future seafood processing waste deposits to less than 1.0 acre, including justification for the measures identified.
8. A performance schedule and performance measures for implementation of the plan. A proposed remediation plan can describe measures that will be implemented in phases with continued Part II Seafloor Surveys and with future modification of the remediation plan based on progress in reducing seafood waste deposit coverage areas.

**DEC Approval of the Remediation Plan.** The permittee must submit a proposed remediation plan to DEC for review within 120 days of discovering such conditions, unless additional time is granted by DEC. The permittee must implement the remediation plan within 60 days after DEC's written approval.

Within 90 days of receipt of a proposed remediation plan, DEC will approve, approve with modification, or deny the proposed remediation plan. In acting on a remediation plan, DEC will consider the total exceedance of seafood waste deposits; environmental impacts of seafood processing waste; environmental impacts of methods to reduce seafood waste pile coverage areas; the feasibility, reasonableness, effectiveness, and cost of proposed and alternative measures; the timing of recovery under various alternatives; and other pertinent factors. Acting on a remediation plan in no way removes DEC's ability to require further studies nor affects DEC's ability to pursue future compliance or enforcement actions.

# Appendix G

## Eiders Monitoring Protocol

The United States Fish and Wildlife Service (USFWS) needs to document mortality of threatened species whenever possible. Fish and Wildlife Service programs that use this information include Endangered Species, Environmental Contaminants, Conservation Planning Assistance (to aid in recovery plans and implementation), and Law Enforcement (for enforcing the Endangered Species Act and other wildlife-related laws), in addition to numerous related research programs. Every dead spectacled and Steller's eider can aid in its species recovery by providing information on eiders found dead.

In the past, this protocol covered handling and transport of injured or sick eiders. Because of avian flu concerns, we cannot currently transport injured or ill eiders for rehabilitation, so we can no longer provide instructions or a protocol for handling them. To minimize your risk, we recommend that you do not contact or handle wild birds that appear to be ill or injured.

Due to concerns about contracting avian influenza from handling bird carcasses, please make sure that you have proper personal protective equipment (PPE) and training prior to observing carcasses. Do not collect or handle carcasses. Protect yourself from fluids and feces by using impermeable gloves, safety glasses, and a mask if necessary when going near (not touching) a bird to assist in determining sex and making observations of the bird(s).

**Reporting**

Report all dead spectacled and Steller's eiders as soon as possible. If there is no reason to suspect that the bird(s) died as the result of any illegal activity, you should attempt to contact the following people, in the order listed, until you reach someone.

1. Neesha Stellrecht, USFWS, Fairbanks: (907) 456-0297 work
2. Ted Swem, USFWS, Fairbanks: (907) 456-0441 work
3. Anchorage Fish and Wildlife Field Office, USFWS, Anchorage: (800) 272-4174 toll free, (907) 271-2888 work
4. Robert Suydam, North Slope Borough Department of Wildlife Management, Barrow: (907) 852-0350

<u>If you encounter any dead spectacled or Steller's eiders that you suspect may have died as a result of an illegal act such as shooting, a Service Law Enforcement Officer should be notified immediately. Ensure that one of the individuals in the above list is also contacted in these instances.</u>

You should be prepared to report any observations and/or knowledge you might have regarding the incident, and you may be provided with additional instructions regarding proper custodial handling techniques, which will allow a Special Agent to follow-up with an investigation into the incident.

USFWS, Office of Law Enforcement:

Fairbanks: (877) 535-1795 toll-free, (907) 456-2335, (907) 456-2356 fax

Nome: (907) 443-2479, (907) 443-2938 fax

Anchorage: (800) 858-7621 toll-free, (907) 271-2828, (907) 271-2827 fax

Regional Office, Anchorage: (907) 786-3311, (907) 786-3313 fax

Juneau Office: (907) 586-7545, (907) 586-7574 Fax

Your report should include:

1. Species, age, sex, and number of birds, date, time and location (latitude and longitude and area name).
2. Suspected cause of death.
3. Circumstances under which found.
4. If known, the names of witnesses or suspects, and a description of any vehicles or boats involved (but, non-law enforcement individuals are not expected to conduct investigations or obtain information that is not readily available).

If a camera is available, photograph birds and other evidence such as shotgun shells or casings, and persons and vehicles involved. Note photo date, time, and location. You should put all this information, plus any additional details you think important (such as location of nearest power line), in a short written narrative.