# SB

# 3

<TARGET><BILL>SB  3</BILL><SUBJECT>SB
3</SUBJECT><COMM>SRES30</COMM></TARGET>

# ALASKA STATE LEGISLATURE

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**SENATOR BERT K. STEDMAN**

SPONSOR STATEMENT

**SB 3 - "An Act relating to the regulation of wastewater discharge from small commercial passenger vessels in state waters; relating to art requirements for certain public facilities; and providing for an effective date."**

SB 3 addresses marine vessels operating in Alaska waters. First, this legislation reinstates the statutory exemption from large cruise ship discharge requirements for small commercial passenger vessels. Second, this legislation specifically exempts three new-construction AMHS vessels from the 1% for art requirement.

Small commercial passenger vessels and ferries with capacity to accommodate between 50 and 249 overnight passengers have been covered by a statutory exemption from the treatment system and discharge requirements for large cruise ships in Alaska. Instead they've operated under Best Management Practices (BMP) plans that are submitted to and approved by DEC. Operation under these plans has dramatically improved the quality of wastewater discharged from these vessels since the program was established.

The exemption became law in 2004 and had a sunset date of January 1, 2016 – time to let shipbuilders and technology catch up to the standards. Support for the exemption was provided by a 2004 DEC report on small cruise ships and Alaskan ferries that found meeting the terms for large cruise ships would be financially and feasibly prohibitive.

SB 3 is necessary to reinstate the exemption which was automatically repealed on January 1, 2016. Without the exemption, small cruise ships and ferries would be required to install and operate Advanced Wastewater Treatment Systems which would be cost and space prohibitive. DOT&PF estimates the cost to retrofit ferries is over $5 million.

SB 3 also recognizes Alaska's current fiscal standing and exempts the two Alaska Class ferries currently under construction and the Tustemena replacement vessel from the Percent for Art Program. This law requires one percent of the cost of construction of public buildings to be spent on art. After five consecutive years of deficit spending, along with falling oil production and prices, Alaska needs to prioritize its spending. This specific exemption makes fiscal sense and will retain nearly $3.5 million towards vessel construction.

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## Sectional Analysis

**SB 3 - "An Act relating to the regulation of wastewater discharge from small commercial passenger vessels in state waters; relating to art requirements for certain public facilities; and providing for an effective date."**

**SECTION 1** Amends AS 46.03.462(a) to allow an operator to discharge treated sewage, greywater, or other wastewater into marine waters under a plan approved under AS 46.03.462(k), which is added in Section 4 of the bill.

**SECTION 2** Amends AS 46.03.462(b) to conform with the addition of AS 46.03.462(a)(2), by Section 1 of the bill.

**SECTION 3** Amends AS 46.03.462(e) to conform with the addition of AS 46.03.462(a)(2), by Section 1 of the bill.

**SECTION 4** Adds a new subsection, (k), to AS 46.03.462 that allows an owner or operator of a small commercial passenger vessel to discharge treated sewage, greywater, or other wastewater into marine waters under a plan for alternative terms and conditions for vessel discharges, instead of a traditional permit under AS 46.03.100, if DEC finds that the plan incorporates the best management practices for protecting the environment to the maximum extent feasible. Limits DEC's authority to require a vessel owner to retrofit the vessel. Allows DEC to approve a plan and adopt regulations to implement the subsection.

**SECTION 5** Allows a person to discharge certain sewage into marine waters under a plan approved under AS 46.03.462(k), added by Section 4 of the bill.

**SECTION 6** Allows a person to discharge certain greywater and wastewater into marine waters under a plan approved under AS 46.03.462(k), added by Section 4 of the bill.

**SECTION 7** Adds a new subsection, (i), to AS 46.03.465 that allows DEC to exempt a small commercial passenger vessel owner or operator from certain data gathering requirements if the owner or operator has a plan for alternative terms and conditions for vessel discharges under AS 46.03.462(k), added by Section 4 of the bill.

**SECTION 8** Exempts the two Alaska Class ferries from AS 35.27.020.

**SECTION 9** Exempts Tustemena replacement vessel from AS 35.27.020.

**SECTION 10** Makes Section 8 retroactive to September 1, 2014.

**SECTION 11** Gives bill an immediate effective date.

# Fiscal Note

State of Alaska
2017 Legislative Session

Bill Version: SB 3
Fiscal Note Number:
() Publish Date:

Identifier: SB003-DEC-WQ-01-27-17
Title: SMALL VESSEL WASTEWATER EXEMPTION; 1% ART
Sponsor: STEDMAN
Requester: (S) RES

Department: Department of Environmental Conservation
Appropriation: Water
Allocation: Water Quality
OMB Component Number: 2062

**Expenditures/Revenues**

Note: Amounts do not include inflation unless otherwise noted below. (Thousands of Dollars)

| | FY2018 Appropriation Requested | Included in Governor's FY2018 Request | Out-Year Cost Estimates | | | | |
|---|---|---|---|---|---|---|---|
| **OPERATING EXPENDITURES** | **FY 2018** | **FY 2018** | **FY 2019** | **FY 2020** | **FY 2021** | **FY 2022** | **FY 2023** |
| Personal Services | | | | | | | |
| Travel | | | | | | | |
| Services | | | | | | | |
| Commodities | | | | | | | |
| Capital Outlay | | | | | | | |
| Grants & Benefits | | | | | | | |
| Miscellaneous | | | | | | | |
| **Total Operating** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| **Fund Source (Operating Only)** | | | | | | | |
| None | | | | | | | |
| **Total** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| **Positions** | | | | | | | |
| Full-time | | | | | | | |
| Part-time | | | | | | | |
| Temporary | | | | | | | |
| **Change in Revenues** | | | | | | | |
| None | | | | | | | |
| **Total** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |

**Estimated SUPPLEMENTAL (FY2017) cost:** 0.0 *(separate supplemental appropriation required)*
*(discuss reasons and fund source(s) in analysis section)*

**Estimated CAPITAL (FY2018) cost:** 0.0 *(separate capital appropriation required)*
*(discuss reasons and fund source(s) in analysis section)*

**ASSOCIATED REGULATIONS**

Does the bill direct, or will the bill result in, regulation changes adopted by your agency? Yes
If yes, by what date are the regulations to be adopted, amended or repealed? 12/31/17

**Why this fiscal note differs from previous version:**

Not applicable, initial version.


Prepared By: Misty Frawley for Michelle Hale — Phone: (907)465-5135
Division: Water — Date: 01/27/2017 07:45 AM
Approved By: Alice Edwards, Deputy Commissioner — Date: 01/27/17
Agency: Department of Environmental Conservation

FISCAL NOTE ANALYSIS

STATE OF ALASKA
2017 LEGISLATIVE SESSION

BILL NO. SB 3

## Analysis

This bill reinstates expired statutes that allow small cruise ships and state ferries to continue to discharge treated wastewater under state-approved Best Management Practices Plans. Costs of installing the advanced wastewater treatment systems that would enable these small vessels to comply with existing statutes are cost and space-prohibitive.

This bill has no fiscal impact on the Department of Environmental Conservation. The only action that will be required is the modification of regulations to update citations to reflect the new statutes.

If the bill does not pass, the cost to the Department to develop permits for small cruise ships and ferries is estimated to be $216,000 in FY2018. Out year cost estimates are $25,000 per/year for compliance work, data review, and sampling. This work would be done with existing staff, but other work of the Commercial Passenger Environmental Compliance program would be delayed or curtailed in order to develop the permit.

# Fiscal Note

State of Alaska
2017 Legislative Session

Bill Version: SB 3
Fiscal Note Number:
() Publish Date:

Identifier: SB003-DOT-MVO-1-22-17
Title: SMALL VESSEL WASTEWATER EXEMPTION; 1% ART
Sponsor: STEDMAN
Requester: (S) RES

Department: Department of Transportation and Public Facilities
Appropriation: Marine Highway System
Allocation: Marine Vessel Operations
OMB Component Number: 2604

**Expenditures/Revenues**

Note: Amounts do not include inflation unless otherwise noted below. (Thousands of Dollars)

| | FY2018 Appropriation Requested | Included in Governor's FY2018 Request | Out-Year Cost Estimates | | | | |
|---|---|---|---|---|---|---|---|
| **OPERATING EXPENDITURES** | **FY 2018** | **FY 2018** | **FY 2019** | **FY 2020** | **FY 2021** | **FY 2022** | **FY 2023** |
| Personal Services | | | | | | | |
| Travel | | | | | | | |
| Services | | | | | | | |
| Commodities | | | | | | | |
| Capital Outlay | | | | | | | |
| Grants & Benefits | | | | | | | |
| Miscellaneous | | | | | | | |
| **Total Operating** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| **Fund Source (Operating Only)** | | | | | | | |
| None | | | | | | | |
| **Total** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| **Positions** | | | | | | | |
| Full-time | | | | | | | |
| Part-time | | | | | | | |
| Temporary | | | | | | | |
| **Change in Revenues** | | | | | | | |
| None | | | | | | | |
| **Total** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |

**Estimated SUPPLEMENTAL (FY2017) cost:** 0.0 *(separate supplemental appropriation required)*
*(discuss reasons and fund source(s) in analysis section)*

**Estimated CAPITAL (FY2018) cost:** 0.0 *(separate capital appropriation required)*
*(discuss reasons and fund source(s) in analysis section)*

**ASSOCIATED REGULATIONS**

Does the bill direct, or will the bill result in, regulation changes adopted by your agency? No
If yes, by what date are the regulations to be adopted, amended or repealed?

**Why this fiscal note differs from previous version:**

Not applicable; initial version.

Prepared By: Mike Lesmann Phone: (907)465-4772
Division: Commissioner's Office Date: 01/22/2017 02:05 PM
Approved By: Amanda Holland Date: 01/22/17
Agency: DOT&PF

FISCAL NOTE ANALYSIS

STATE OF ALASKA
2017 LEGISLATIVE SESSION

BILL NO. SB 3

## Analysis

This proposed legislation contains two distinct sections that could each have significant financial impacts if the legislation is not passed. Please note the information below.

First, if this proposed legislation does not become law and the wastewater discharge Best Management Practices alternative compliance method is NOT reinstated for small vessels, the AMHS will incur millions in costs to install Advanced Wastewater Treatment Systems on its large, overnight ferries.

Based upon a Design Study Report conducted by Harbor Marine Group (a Division of Foss Maritime Company) on the M/V Taku in 2008, an Advanced Wastewater Treatment Systems install was estimated at $1.25M. This system would be necessary for the similar vintage, similar sized vessels Malaspina; Matanuska; Kennicott; and Columbia. In 2008 dollars, retrofitting these four ferries (the Taku is no longer in service) equates to an estimated $5M. There is also a timing factor to quantify in that these are long lead-time procurements and require detailed and time-consuming installations, which will need to be completed when vessels are not in revenue service.

Second, if this proposed legislation does not become law, the AMHS would be required under AS 35.27.020 to expend 1% for artwork, which is $1.02M for the two new Alaska Class Ferry (ACF) vessels and approximately $2.37M for the future Tustumena replacement vessel. The Department of Transportation and Public Facilities would prefer to expend the capital funding for the ACF's on necessary navigational and lifesaving equipment, as current construction funding is insufficient to properly equip each vessel. While sufficient funding for the Tustumena replacement vessel can be secured through legislative authority via federal-aid/state matching funds, this proposed legislation exempts the future build of the Tustumena's replacement from the 1% for art requirement.

# Alaska's Small Passenger Ships

## DEC's Commercial Passenger Vessel Environmental Compliance Program

**How does the State of Alaska ensure the environmental compliance of ships in Alaska?**
Since 2001, the Alaska Department of Environmental Conservation's (DEC's) Commercial Passenger Vessel Environmental Compliance Program (CPVEC) has worked with the Coast Guard and Ocean Rangers to sample, test, and report both wastewater and air emissions from ferries and small commercial passenger vessels. Small cruise ships are defined as those with between 50 and 249 lower berths for passengers.

**How do large cruise ships treat their wastewater?**
Large cruise ships must use Marine Sanitation Devices (MSD) that are laboratory certified to meet federal requirements. Alaska has specific state requirements that go beyond the federal requirements. As a result, large cruise ships operating in Alaska use advanced treatment systems for both sewage (blackwater) and all other wastewater (greywater). The 2014 Large Commercial Passenger Vessel Wastewater Discharge Permit was issued based on the standards of these advanced systems.


**How do smaller passenger vessels treat their wastewater?**
Smaller passenger ships and state ferries are not generally engineered for those advanced systems, whose weight and size compromise a smaller ship's efficiency and stability. Instead, they have improved treatment performance by modifying their existing MSDs and engaging in best practices.

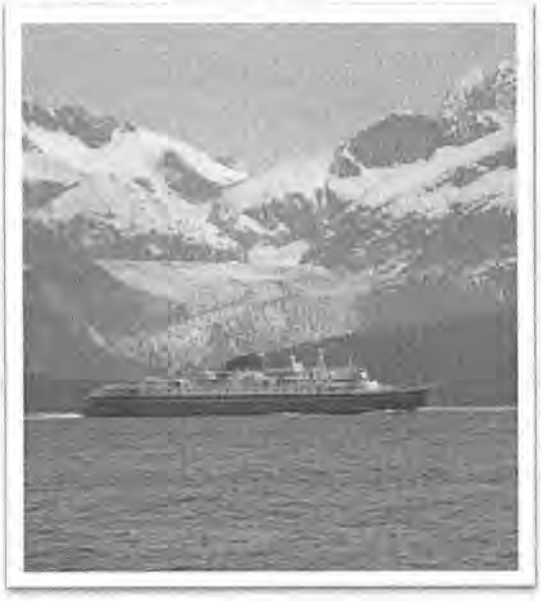
**What are the discharging requirements for small cruise ships and ferries in Alaska?**
Small ships must have either a state permit or a state-approved Best Management Practices (BMP) plan to discharge treated wastewater in Alaska

waters. Untreated sewage may not be discharged at any time. A vessel's BMP plan must address regulatory requirements intended to minimize environmental and human health impacts of treated sewage and greywater. Approved BMP plans contain geographical restrictions on discharging to protect salmon and herring spawning grounds. They also include provisions to monitor the performance of onboard wastewater treatment systems.

| Vessel Operator | Vessel Name |
|---|---|
| Alaska Marine Highway | *Columbia* |
| Alaska Marine Highway | *Kennicott* |
| Alaska Marine Highway | *Malaspina* |
| Alaska Marine Highway | *Matanuska* |
| Alaska Marine Highway | *Taku* |
| Alaska Dream Cruises | *Admiralty Dream* |
| Alaska Dream Cruises | *Chichagof Dream* |
| American Cruise Lines | *American Spirit* |
| Hapag-Lloyd | *Hanseatic* |
| National Geographic | *Sea Bird* |
| National Geographic | *Sea Lion* |
| Silver Expeditions | *Silver Discoverer* |
| Un-Cruise Adventures | *Wilderness Adventurer* |
| Un-Cruise Adventures | *Wilderness Discoverer* |
| Un-Cruise Adventures | *Wilderness Explorer* |
| Un-Cruise Adventures | *Safari Endeavor* |

**Which small ships are discharging here?**
In 2016, five ferries and ten small cruise ships were authorized to discharge treated wastewater in Alaskan waters. One small cruise ship, *The Hanseatic*, did not discharge, but elected to use her holding tanks.

**How are small cruise ships and ferries monitored?**
CPVEC reviews the testing results of all wastewater samples collected aboard small cruise ships and ferries. The program also evaluates annual plans for wastewater and solid waste treatment, inspects ships for compliance, monitors air emissions, and reviews new or renewed BMPs. The net result of implementing those BMPs has been cleaner-running ships. Data is made available to the public on CPVEC's website. Overall, sample data indicates that small commercial passenger vessels and state ferries have made progress in terms of overall effluent quality since the beginning of the CPVEC BMP program. Operators have also made progress in quicker notification and follow up corrective actions after high fecal coliform results are reported.



**Contact Information**
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# 2016 Wastewater Sampling Results For Small Cruise Ships and Ferries

12/22/2016

Alaska Department of Environmental Conservation

Commercial Passenger Vessel Environmental Compliance Program

# TABLE OF CONTENTS

## 1. SUMMARY

This is a summary of the results of onboard sampling and laboratory testing of small cruise ship and ferry wastewater effluent in Alaska during 2016. Tables of sample results are included in Appendix 1. Information on the sampling techniques and requirements can be found in the Methods section of this summary. Table 1 lists small cruise ships and ferries with BMPs in Alaska and their discharge status in 2016. Small cruise ships and state ferries have made progress in terms of overall wastewater effluent quality since the beginning of the Commercial Passenger Vessel Environmental Compliance (CPVEC) BMP program.

## 2. INTRODUCTON

Sampling of wastewater effluent was conducted for all small cruise ships and ferries with over 50 overnight passenger berths discharging in Alaska waters. Sampling is needed to:

- Check if treatment systems are operational
- Obtain information on treatment system performance for future discharge permits or Best Management Practices Plans
- Compile information on potential environmental effects

Sample result data for cruise ships and ferries has been collected by the Department of Environmental Conservation since 2000. Reports and summaries for prior years can be found on the cruise program's report webpage.
http://dec.alaska.gov/water/cruise_ships/reports.htm

## 3. METHODS

Samples are grab wastewater samples taken from a sample port prior to discharge. The grab samples were taken according to requirements in the ship's approved Quality Assurance Project Plan (QAPP). Several vessels used the 2016 Cruise Line International Association North West and Canada Quality Assurance Project Plan for Sampling and Analysis of Treated Sewage and Graywater from Commercial Passenger Vessels, and some ships use their own Department approved QAPP. The QAPP specifies minimum requirements for sampling and analysis of wastewater. It includes a list of approved methods, sample collection requirements, and laboratory analysis requirements. Samplers must follow the QAPP and the Vessel Specific Sampling Plan (VSSP) for each cruise ship when collecting a sample. The cruise ship program reviews results submitted by the cruise ship operators for compliance with the QAPP and VSSPs.

Sampling may occur while underway or while docked. All samples were obtained in Southeast Alaska in 2016, with the majority of samples obtained in or near Juneau.

In the attached tables, there are results which have been highlighted in orange indicating an exceedance of water quality standards or Marine Sanitation Device (MSD) certification standards. Regulations (18 AAC 69.080) allow the department to work with the small cruise ship operators to develop corrective actions to address these exceedances, and develop revisions to the BMPs to improve the working order of the MSD. Dark blue highlights indicate that either no sample data was received or accepted. Results below the method detection limit (MDL) are recorded as zero.

## 4. RESULTS

Wastewater sample results are listed in Appendix 1 with tables for conventional parameters, nutrient parameters, and metals. Full results of volatile organic compounds (VOCs) and base neutral acids (BNAs) are available on request.

Sampling requirements were modified in late 2015 to match similar changes in the 2014 large cruise ship general permit pertaining to nutrients and priority parameters. Ships with separate greywater discharges were allowed to sample greywater for conventional parameters every other year starting in 2016.

Small cruise ships and ferries are required to meet standard terms and conditions, or seek alternative terms and conditions with Best Management Practices plans in order to discharge blackwater and graywater in Alaska marine waters. Under standard terms and conditions blackwater, graywater, and other wastewater must contain no more than 200 fecal coliform per 100 milliliters and no more than 150 milligrams per liter of total suspended solids. These are the US Coast Guard performance requirements for approval of Type II Marine Sanitation Devices (MSD) under test conditions. A MSD is required for discharge of blackwater in US waters. Some small cruise ships and ferries also treat their graywater with their MSD.

Small cruise ships and ferries continue to balance bacterial disinfection and chlorine use. Chlorine is used to disinfect bacteria, but it is toxic to marine organisms and high residuals must be avoided. Several vessels have installed equipment to dechlorinate the treated wastewater.

The fecal coliform standard is 200 colonies per 100 ml for approved Type II Marine Sanitation Devices. The Alaska marine water quality standards (AMWQS) is a daily maximum of 43 colonies per 100 ml. This AMWQS is used due to the collection of shellfish for raw consumption. This stringent AMWQS is used by the Cruise Ship Program as it is assumed that the use of this standard would provide adequate protection to all other uses of all marine waters. Traditionally blackwater has had the highest median fecal coliform results, although very high results have also been found in graywater (especially untreated or partially treated).

**Conclusion**

The CPVEC program continues to work with small cruise ships and the state ferries to make progress in terms of overall wastewater effluent quality. Since the beginning of the CPVEC program and implementation of the small cruise ship BMPs there has been an increased improvement in the results. Unfortunately, some ships continue to struggle with meeting the standards for suspended solids, fecal coliform, BOD, and chlorine. Operators have continued to make progress in corrective actions taken after high fecal coliform and suspended solids results are reported.

# APPENDIX 1: 2016 SMALL CRUISE SHIP SAMPLE DATA

Table 1: 2016 Small Cruise Ship and Ferry Summary

# 2016 Small[1] Commercial Passenger Vessels Wastewater Treatment

| Vessel Operator | Vessel Name | Passenger Capacity[3] | Crew Capacity | Voyages | Maximum Total Passengers | Blackwater Treatment System Manufacturer | BMP | Discharging in Alaska[2] & Subject to sampling program | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | BW | GW |
| Alaska Marine Highway | *Columbia* | 625 | 66 | May-Sept | N/A | Omnipure 15MX | Yes | Yes | Yes |
| Alaska Marine Highway | *Kennicott* | 748 | 42 | Feb-Oct | N/A | Orca II | Yes | Yes | Yes |
| Alaska Marine Highway | *Malaspina* | 500 | 50 | Jan-May | N/A | Omnipure 15MX | Yes | Yes | Yes |
| Alaska Marine Highway | *Matanuska* | 498 | 50 | Year Rd. | N/A | Omnipure 15MX | Yes | Yes | Yes |
| Alaska Marine Highway | *Taku* | 370 | 42 | NA | N/A | Omnipure 15MXMP | Yes | Yes | Yes |
| Alaska Dream Cruises | *Admiralty Dream* | 66 | 21 | 18 | 1188 | Omnipure 12M | Yes | Yes | Yes |
| Alaska Dream Cruises | *Chichagof Dream* | 84 | Unknown | 14 | 1176 | BMP in progress | | | |
| American Cruise Lines | *American Spirit* | 96 | 27 | 7 | 672 | Orca IIA-165 | Yes | Yes | Yes |
| Hapag-Lloyd | *Hanseatic* | 160 | Unknown | 2 | 320 | Unknown | N/A | No | No |
| National Geographic | *Sea Bird* | 63 | 28 | 18 | 1134 | Omnipure 12MX | Yes | Yes | Yes |
| National Geographic | *Sea Lion* | 63 | 28 | 18 | 1134 | Omnipure 12M | Yes | Yes | Yes |
| Silver Expeditions | *Silver Discoverer* | 120 | 76 | 5 | 600 | Hamman Model HI Type II | Yes | Yes | Yes |
| Un-Cruise Adventures | *Wilderness Adventurer* | 64 | 24 | 23 | 1472 | Omnipure 12MX | Yes | Yes | Yes |
| Un-Cruise Adventures | *Wilderness Discoverer* | 79 | 25 | 19 | 1501 | Omnipure 12MX | Yes | Yes | Yes |
| Un-Cruise Adventures | *Wilderness Explorer* | 76 | 27 | 21 | 1596 | Red Fox RF-2000-FP | Yes | Yes | Yes |
| Un-Cruise Adventures | *Safari Endeavor* | 86 | 35 | 21 | 1806 | Omnipure 12M5508 | Yes | Yes | Yes |
| | | | Totals | 166 | 12,599 | | | | |

[1]A small vessel has overnight accommodations for 50 to 249 passengers.

[2]Alaska water extends 3 miles from the coastline and includes the Alexander Archipelago.

[3] Based on lower berths for small cruise ships and capacity for ferries.

Vessels highlighted in gray in the above table did not discharge wastewater in Alaskan waters this year.

Table 2: Conventional Parameters for Mixed Treated Blackwater and Graywater

| | | Ammonia as N | pH | Temp | BOD | COD | TSS | Total Chlorine | Free Chlorine | Fecal Coliform Bacteria | Specific Conductance | Oil & Grease | Total Organic Carbon | Alkalinity (Total) | Hardness (as CaCO3) | Nitrogen, Nitrate-Nitrite (as N) | Nitrate | Nitrate | Total Phosphorus | Total Kjeldahl Nitrogen | Total Settleable Solids |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Reportable Limit (PQL) | | 0.1 | 0.1 | 0.1 | 2 | 10 | 4 | 0.1 | 0.1 | 2 | 2 | 5 | 1 | 2 | | 1 | 1 | 1 | 0.05 | 1 | 0.1 |
| Units | | mg/L | s.u. | C | mg/L | mg/L | mg/L | mg/L | mg/L | FC/100ml | umhos/cm | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | ml/L |
| Alaska Marine WQS, Secondary Treatment standards (AS 46.03.463) | | 1 | 6.5-8.5 | n/a | 60 | n/a | 150 | 0.0075 | n/a | 200 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Vessel Name | Sample Date | | | | | | | | | | | | | | | | | | | | |
| Columbia | 7/18/16 | 4.86 | 6.70 | 16.7 | 47 | 798 | 26 | 0.15 | 0.5 | 64 | 32,600 | 3.4 | 32.1 | 83.6 | | | 0 | 0 | 1.6 | 11.7 | 0.1 |
| Columbia | 8/22/16 | 0 | 7.70 | 22.0 | 10 | 234 | 11.9 | 6 | 6 | 0 | 33,900 | 0 | 5.37 | 68.6 | | | 0.0724 | 0 | 0.13 | 0.594 | 0.4 |
| Kennicott | 7/20/16 | 0 | 6.00 | 16.7 | 0 | 699 | 3.65 | 0.2 | 0.4 | 6 | 29,900 | 0 | 1.56 | 69.9 | | | 0 | 0 | 0.0348 | 0 | 0 |
| Kennicott | 8/23/16 | 0 | 8.30 | 15.0 | 0 | 918 | 4.08 | 1.7 | 2.5 | 10 | 35,900 | 0 | | 74 | | | 0 | 4.55 | 0 | 0 | 0 |
| Malaspina | | | | | | | | | | | | | | | | | | | | | |
| Matanuska | 7/20/16 | 19.2 | 6.70 | 21.9 | 156 | 826 | 97.5 | 0 | 0 | 170,000 | 22,900 | 27.2 | 113 | 133 | | | 0.0594 | 0.0480 | 4.75 | 52.5 | 0.7 |
| Matanuska | 8/15/16 | 14 | 7.10 | 20.0 | 144 | 864 | 39.5 | 0.78 | 0.56 | 8,900 | 30,800 | 15.0 | 79.6 | 130 | | | 0.154 | 0.0488 | 4.51 | 37.2 | 0 |
| Chichagof Dream | 7/31/16 | 11 | 6.80 | 20.0 | 1,100 | 1,900 | 660 | 0.5 | | 2,100,000 | 15,100 | 129 | | 110 | 1,800 | | | | | | |
| Chichagof Dream | 8/28/16 | 1.9 | 6.80 | 18.0 | 710 | 1,200 | 632 | 60 | | 0 | 20,500 | 43.9 | | 100 | 2,700 | | | | | | 1.0 |
| American Spirit | 6/23/16 | | 7.30 | 17.5 | 15.0 | | 0 | 0.12 | 0 | 110 | | | | | | | | | | | |
| Wilderness Adventurer | 6/4/16 | | 7.75 | 16.8 | 200 | | 292 | 3.3 | 0.0 | 33,000 | | | | | | | | | | | |
| Wilderness Discoverer | 6/25/16 | | 7.88 | 18.3 | 340 | | 308 | 12.0 | 0 | 20,000 | | | | | | | | | | | |
| | **Minimum** | **0** | **6** | **15** | **0** | **234** | **0** | **0** | **0** | **0** | **15,100** | **0** | **2** | **69** | **1,800** | **0** | **0** | **0** | **0** | **0** | **0** |
| | **Maximum** | **19.2** | **8.3** | **22.0** | **1,100** | **1,900** | **660** | **60.0** | **6.0** | **2,100,000** | **35,900** | **129.0** | **113.0** | **133.0** | **2,700** | **0** | **0.2** | **4.6** | **4.8** | **52.5** | **1.0** |
| | **Median** | **3.38** | **7.10** | **18.0** | **144.0** | **845** | **39.50** | **0.78** | **0.40** | **110** | **30,350** | **9.20** | **32.10** | **91.80** | **2,250** | **NA** | **0.03** | **0.02** | **1** | **6.15** | **0.11** |
| | **Average** | **6.37** | **NA** | **18.45** | **247.5** | **929.9** | **188.6** | **7.71** | **1.11** | **212,008** | **27,700** | **27.31** | **46.33** | **96.14** | **2,250** | **NA** | **0.05** | **0.77** | **2** | **17.00** | **0.34** |

Non-detects = 0

* Too numerous to count

Exceeds WQS, Alaska, or federal secondary treatment standards. Not a violation under BMP regulations.

Not analyzed

Holding time or temperature exceeded on fecal result

Table 3: Conventional Parameters for Treated Blackwater

| | | Ammonia as N | pH | Temperature | Biochemical $O_2$ Demand | Chemical Oxygen Demand | Total Suspended Solids | Total Chlorine | Free Chlorine | Fecal Coliform Bacteria | Conductivity | Oil & Grease | Total Organic Carbon | Alkalinity (Total) | Hardness (as CaCO3) | Nitrogen, Nitrate-Nitrite (as N) | Total Phosphorus | Total Kjeldahl Nitrogen | Total Settleable Solids |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Reportable Limit (PQL) | | 0.1 | 0.1 | 0.1 | 2 | 10 | 4 | 0.1 | 0.1 | 2 | 2 | 5 | 1 | 2 | | 1 | 0.05 | 1 | 0.1 |
| Units | | mg/L | s.u. | C | mg/L | mg/L | mg/L | mg/L | mg/L | FC/100ml | umhos/cm | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | ml/L |
| Alaska Marine Water Quality Standards, Secondary Treatment standards, or AS 46.03.463 | | 1 | 6.5-8.5 | n/a | 60 | n/a | 150 | 0.0075 | n/a | 200 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Vessel Name | Sample Date | | | | | | | | | | | | | | | | | | |
| Admiralty Dream | 5/26/16 | | 7.16 | 16.1 | 77 | | 103 | 33 | 4.0 | 0 | | | | | | | | | |
| Safari Endeavour | 7/10/16 | | 7.68 | 14.5 | 6.8 | | 5.2 | 12 | 9 | 0 | | | | | | | | | |
| Sea Bird | 6/18/16 | | 7.25 | 14.7 | >400 | | 69 | 0 | 0 | 56 | | | | | | | | | |
| Sea Lion | 6/19/16 | | 8.2 | 17.4 | 180 | | 189 | 0.44 | 0 | 0 | | | | | | | | | |
| Silver Discoverer | 7/28/16 | | 8.57 | 22.7 | 520 | | 295 | 4.7 | 0.9 | 0 | | | | | | | | | |
| Wilderness Explorer | 5/7/16 | | 7.76 | 14.8 | 130 | | 180 | 82 | 4.3 | 0 | | | | | | | | | |
| **Minimum** | | | **7.16** | **14.5** | **7** | | **5** | **0** | **0** | **0** | | | | | | | | | |
| **Maximum** | | | **8.57** | **22.7** | **520** | | **295** | **82.0** | **9.0** | **56** | | | | | | | | | |
| **Median** | | | **7.72** | **15.5** | **130** | | **141.5** | **8.4** | **2.5** | **0** | | | | | | | | | |
| **Average** | | | **NA** | **16.7** | **182.76** | | **140.20** | **22.0** | **3.03333** | **9.33** | | | | | | | | | |

Nondetects set to 0

* Too numerous to count

Exceeds WQS, Alaska, or federal secondary treatment standards. Not a violation under BMP

Not sampled

Table 4: Conventional Parameters for Treated Graywater

| | | Ammonia as N | pH | Temperature | Biochemical $O_2$ Demand | Chemical Oxygen Demand | Total Suspended Solids | Total Chlorine | Free Chlorine | Fecal Coliform Bacteria | Conductivity | Oil & Grease | Total Organic Carbon | Alkalinity (total) | Hardness (as CaO3) | Nitrogen, Nitrate-Nitrite (as N) | Total Phosphorus | Total Kjeldahl Nitrogen | Total Settleable Solids |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Reportable Limit (PQL) | | 0.1 | 0.1 | 0.1 | 2 | 10 | 4 | 0.1 | 0.1 | 2 | 2 | 5 | 1 | 2 | | 1 | 0.05 | 1 | 0.1 |
| Units | | mg/L | s.u. | C | mg/L | mg/L | mg/L | mg/L | mg/L | FC/100ml | umhos/cm | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | ml/L |
| Alaska Marine Water Quality Standards, Secondary Treatment standards, or AS 46.03.463 | | 1 | 6.5-8.5 | n/a | 60 | n/a | 150 | 0.0075 | n/a | 200 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Vessel Name | Sample Date | | | | | | | | | | | | | | | | | | |
| Admiralty Dream | Not Required | | | | | | | | | | | | | | | | | | |
| Safari Endeavour | Not Required | | | | | | | | | | | | | | | | | | |
| Sea Bird | Not Required | | | | | | | | | | | | | | | | | | |
| Sea Lion | Not Required | | | | | | | | | | | | | | | | | | |
| Silver Discoverer | Not Required | | | | | | | | | | | | | | | | | | |
| Wilderness Discoverer | Not Required | | | | | | | | | | | | | | | | | | |
| Wilderness Explorer | Not Required | | | | | | | | | | | | | | | | | | |
| | **Minimum** | | | | | | | | | | | | | | | | | | |
| | **Maximum** | | | | | | | | | | | | | | | | | | |
| | **Median** | | | | | | | | | | | | | | | | | | |
| | **Average** | | | | | | | | | | | | | | | | | | |

Nondetects set to 0

* Too numerous to count

Exceeds WQS, Alaska, or federal secondary treatment standards. Not a violation under BMP

Not sampled

Table 5: Full Suite Metal Sample Results

| | | | Antimony (TR) | Antimony dissolved | Arsenic (TR) | Arsenic dissolved | Beryllium (TR) | Beryllium dissolved | Cadmium (TR) | Cadmium dissolved | Chromium (TR) | Chromium dissolved | Copper (TR) | Copper diss | Lead (TR) | Lead, diss | Mercury (Total) | Nickel (TR) | Nickel, diss | Selenium (TR) | Selenium, dissolved | Silver (TR) | Silver, diss | Thallium (TR) | Thallium, dissolved | Zinc (TR) | Zinc, diss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Reportable Limit (PQL) | | | 1 | 1 | 1 | 2.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Units | | | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg | µg/mg |
| Alaska Marine Water Quality Standards (chronic for marine life) | | | N/A | N/A | N/A | 36 | N/A | N/A | N/A | 8.8 | N/A | 50 (chromium IV) | N/A | 3.1 | N/A | 8.1 | 0.94 | N/A | 8.2 | N/A | 71 | N/A | 1.9 (acute) | N/A | N/A | N/A | 81 |
| Vessel Name | Sample Date | Sample Type | | | | | | | | | | | | | | | | | | | | | | | | | |
| Columbia | 7/18/16 | Mixed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31.7 | 27.5 | 0 | 0 | 0 | 7.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53 | 0 |
| Kenicott | 7/20/16 | Mixed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 | 14 | 2.83 | 0 | 0 | 16.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 154 | 66 |
| Kenicott | 8/15/16 | Mixed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16.9 | 14 | 0.00 | 0 | 0 | 7.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 | 66 |
| Malaspina | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Matanuska | 7/20/16 | Mixed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 400 | 69.6 | 3.22 | 0 | 0 | 45 | 39.6 | 0 | 0 | 0 | 0 | 0 | 0 | 157 | 0 |
| Admiralty Dream | Not Required | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chicagof Dream | Not Required | | | | | | | | | | | | | | | | | | | | | | | | | | |
| American Spirit | Not Required | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Safari Endeavor | Not Required | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sea Bird | Not Required | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sea Lion | Not Required | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Silver Discoverer | Not Required | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wilderness Adventurer | Not Required | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wilderness Discoverer | Not Required | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wilderness Explorer | Not Required | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Minimum** | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 17 | 14 | 0 | 0 | 0 | 7 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 53 | 0 |
| **Maximum** | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 400 | 70 | 3.22 | 0 | 0.00 | 45 | 39.6 | 0 | 0 | 0 | 0 | 0 | 0 | 157 | 66 |
| **Median** | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 55 | 21 | 1.42 | 0 | 0 | 12 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 106 | 33 |

Nondetects set to 0

Exceeds WQS. Not a violation under BMP regulations.

Not required to sample

## APPENDIX 2: REFRENCES


Alaska Department of Environmental Conservation (ADEC) Cruise Ship Program
http://www.dec.state.ak.us/water/cruise_ships/index.htm

CLIA Northwest and Canada Quality Assurance Project Plan
http://dec.alaska.gov/water/cruise_ships/pdfs/2016_CLIA-NWC_QAPP.pdf

Small Cruise Ship Discharge Options
http://dec.alaska.gov/water/cruise_ships/small_vessel_dischargeoptions.htm

Alaska Cruise Ship Laws and Regulations
http://www.dec.state.ak.us/water/cruise_ships/Law_and_Regs/index.htm

Sample reports and summaries from other years
http://www.dec.state.ak.us/water/cruise_ships/reports.htm

**Small Vessel Wastewater Discharge Bill – Frequently Asked Questions**

**What will the bill do?**
Alaska statutes require Commercial Passenger Vessels (CPV) to have a permit from the Alaska Department of Environmental Conservation (DEC) to discharge wastewater into waters of the state. The effluent limits in the permit are to be based on levels of treatment that can be achieved using an advanced wastewater treatment system (AWTS). An exemption in the statute was made for smaller CPVs in recognition of the problems they would have installing AWTS on board the smaller vessels. Alternative measures designed to protect Alaska waters and fish, primarily through the employment of Best Management Practices (BMP) and designation of no-discharge areas, were imposed on these vessels. The exemption language in the statute expired on January 1, 2016 leaving the small CPVs without a viable means to comply with the statutory permitting provisions. This bill would restore the statutory exemption along with DEC's authority to require the alternative requirements such as BMP for the smaller vessels. .

**What is considered a small commercial passenger vessel, and how many operate in Alaska?**
Small CPVs have the capacity (lower berths) to carry 50 to 249 overnight passengers. There are currently 15 such vessels operating under DEC-approved BMP plans or that are scheduled to operate under a BMP plan (5 state ferries and 10 small commercial passenger vessels).

**What does this mean for industry/ferries?**
Without the changes in the proposed bill, small CPVs and state ferries would have to apply for permit coverage to discharge wastewater within Alaska. They would be required to meet the Advanced Wastewater Treatment System (AWTS) requirements that large cruise ships currently meet. The Department would need to develop a new general permit for their discharges to state waters. The 2014 Large Cruise Ship Wastewater General Permit does not address small CPV discharges. A number of significant issues would likely arise, because most small cruise ships and the state ferries:

- Do not have the necessary equipment to meet AWTS-based permit requirements in statute
- Would incur high costs installing the equipment and retrofitting 40+ year old ships
- Lack available space and weight capacity to install the equipment, creating potential stability issues
- Do not have the option of foregoing permit coverage by travelling outside of the boundary of state waters to discharge – they don't have the space or means to hold wastewater or sewage sludge for disposal until they can sail three miles from shore.

**What is the estimated cost to small CPVs to install the wastewater system to meet the discharge standards required under the large passenger vessel general permit?**
Installation Costs – The largest cost would likely be for the replacement or modification of the treatment systems (marine sanitation devices) currently on the CPVs to meet the advanced

wastewater treatment system performance-based requirement. This equipment upgrade would cost between $250,000 and $2.5 million depending on the vessel (many factors influence the cost – age of vessel, space available, volume of wastewater produced, etc.). Most vessels would have a hard time finding the space on board to install this equipment without removing revenue generating spaces.

Operational Costs – The cost to operate these systems is harder to predict. Depending on the volume processed and the type of equipment this could vary from as low as $12,000/year for a small cruise ship up to $100,000/year for each of the state ferries. The additional cost to the state ferries is due to year round operation and the larger number of passengers they carry.

Sampling Costs – There would also be additional costs associated with sampling of wastewater that they haven't been required to do in the past. The estimated cost of the additional sampling is between $10,000 and $15,000 per year for each vessel.

**Has the Department considered creating a Small Commercial Passenger Vessel Discharge General Permit? What is the estimated cost to DEC for staff time involved in developing a Small CPV General Permit?**

The Department has considered creating a general permit for small CPVs and the state ferries. It would likely take a year or two to develop and finalize a general permit. DEC costs associated with the development of a general permit for small CPVs have been estimated between $190,000 and $275,000. There could be additional time and costs associated with developing compliance schedules for vessels that could not meet the terms of the new permit without some additional transition time.

**What are the requirements for small commercial passenger vessels and state ferries under Best Management Plans?**

To discharge wastewater under the alternative terms and conditions provision of AS 46.03.462(c) and state regulation, a small commercial passenger vessel owner or operator must first secure DEC approval of a BMP plan.

An owner or operator who intends to operate a vessel under the alternative terms and conditions provision of AS 46.03.462(c) must submit a BMP plan on or before March 1 of each calendar year, except in a calendar year for which an approved plan is valid. DEC can approve a plan for up to five years.

The BMP plan must include:

a) Documentation that the vessel cannot practicably comply with the standard terms and conditions, which includes one of the following:
    1) Satisfactory evidence (letter from a Naval architect, registered engineer or classification society) that demonstrates that installing advanced wastewater treatment systems would negatively affect the vessel's safety; or

2) The owner or operator's statement that provides estimated costs of installing new or modified wastewater treatment system and describes why it is not economically practicable for the owner or operator to install treatment systems that would otherwise bring the vessel into compliance with the standard terms and conditions in Alaska Statute 46.03.462(b) which spells out requirements of operators for all discharge permits. A written quote or letter from a system vendor must be attached to support the owner's or operator's statement.

b) A description of operating practices (BMP) intended to
   1) Reduce volume of wastewater discharged,
   2) Improve the quality of the wastewater discharged,
   3) Minimize the risk to human health caused by exposure to the vessel's wastewater discharges, and
   4) Maximize the dispersion of wastewater into the receiving water.

c) A prohibition on the discharge of sewage, graywater and other wastewater within
   1) 100 meters horizontally of mean lower low water tidal datum of the tidally affected portion of a catalogued anadromous fish stream;
   2) between March 1 and June 15 of each calendar year, within waters that are of a depth of 20 meters vertically of mean lower low water tidal datum, and that are identified in the Department's set of maps entitled, Herring Spawning Areas of Alaska, dated November 2005 and adopted by reference; and
   3) areas designated under AS 16.20 as refuges, sanctuaries, and critical habitat areas under Alaska Statute 16.20.

d) A description of the crew or passenger training programs including training curricula, materials and schedules. Also, vessel scheduling, and other means that will be used to implement the best management practices; and

e) The recordkeeping documents, including logbooks, that will be used to demonstrate compliance with the BMP plan.

**Are the conditions that small commercial passenger vessels and state ferries operate under protective of human and environmental health?**

Yes. Small commercial passenger vessels and state ferries are required to treat sewage prior to discharge. To discharge treated sewage and other wastewater under the alternative terms and conditions provision of AS 46.03.462(c), a small commercial passenger ship owner or operator or state ferry must first secure DEC approval of a BMP. The intent behind the BMP is to require the owner or operator to look for ways to continually improve wastewater treatment performance. All small cruise ships and ferries with over 50 overnight passenger berths that discharge in Alaska waters are required to conduct sampling of wastewater effluent. DEC reviews the sample data and works with the small cruise ships and ferries as needed to develop corrective actions. Sampling and compliance assistance along with BMP review and approval has generated increased maintenance and improved operation of the marine sanitation devices. Restrictions on where the treated

wastewater may be discharged further assures protection of more sensitive environments and areas where people fish.

**What's the statutory change that is needed?**
Reinstate language at AS 46.03.462 (a) and new subsection (k), AS 46.03.463(b) and (c), and new subsection AS 46.03.465 (i) exempting small commercial passenger vessels and state ferries from the requirement to obtain permit coverage under the large passenger vessel wastewater general permit.

**Does this proposal set a lower standard for small commercial passenger vessels and state ferries as compared to other marine dischargers in Alaska?**
No. Small commercial passenger vessels and state ferries are required to treat sewage prior to discharge. Small commercial passenger vessel operators and the state ferries are required to conduct wastewater effluent sampling similar to other marine dischargers. To discharge wastewater under the alternative terms and conditions provision of AS 46.03.462(c), a small commercial passenger vessel owner or operator or state ferry must first secure DEC approval of a BMP. The intent behind the BMP is for the owner or operator to look for ways to continually improve upon the wastewater treatment performance. Sampling, monitoring and compliance assistance along with BMP review and approval has generated increased maintenance and improved operation of the marine sanitation devices.

In addition to AS 46.03.462(c), DEC has regulations that apply to small commercial passenger vessels and state ferries. These regulations address compliance with state marine water quality standards. 18 AAC 69.046 addresses the development of Best Management Practices Plans and places restrictions on where vessels can discharge.

Vessels other than passenger vessels are not required to have DEC-approved BMPs. They are required by federal law to have the same type of MSDs on board as the small passenger vessels.

**What amount of wastewater is being discharged by small passenger vessels and ferries?**
The volumes discharged by small commercial passenger vessels and state ferries are much smaller than that of municipal dischargers (city wastewater facilities) or large cruise ships. The Juneau Douglas Plant reported in their May 2016 discharge monitoring report an average flow of 1 million gallons a day with a maximum of 3.23 million gallons a day. Discharge volumes from both large and small vessels are variable as all ships have slightly different configurations, water conservation efforts and capacities. In 2015 the Norwegian Sun averaged a discharge of 102,675 gallons per day for three days. State ferries discharge as much as 21,000 gallons a day. In 2016 the Silver Discoverer provided data from August that indicated when they discharge to marine waters, they averaged between 5,548 gallons and 13,737 gallons of wastewater a day.

**What are the requirements for small commercial passenger vessels operating in the rest of the United States?**

The requirements are similar to those that apply to vessels operating in Alaska. Nationally, the U.S. Coast Guard requires that small commercial passenger vessels operate with sewage treatment equipment or holding tanks. Treatment systems must be approved by the Coast Guard. Alaska's program is unique in that through the use of BMPs operation and maintenance of sewage treatment equipment is monitored.

**How do the Environmental Protection Agency (EPA) Vessel General Permit (VGP) and Alaska's small commercial passenger vessel program work together?**

The EPA VGP regulates discharges of different waste streams (such as greywater, greywater mixed with treated sewage, incidental discharges, etc.) and other activities that might impact the quality of the water receiving the discharge. The permit requires the installation of an approved MSD and applies throughout the United States. The EPA VGP has specific requirements for small cruise ships and ferries carrying more than 100 overnight passengers. In Alaska, small commercial passenger vessels and the state ferries must also comply with the requirements of Alaska's small commercial passenger vessel program. The Alaska small commercial passenger vessel program uses the Best Management Practices Plans in lieu of a permit for regulating discharges of sewage and greywater from a vessel into waters of the State of Alaska.

**Why wasn't the small vessel exemption sunset provision addressed sooner?**

DEC had thought the sunset provisions for automatically repealing the BMP statutes in 2016 had been removed as part of the cruise ship legislation passed in 2013, but learned after the sunset date had passed that this was not the case. Amending the statutes to recreate the exemption requires legislation. In the interim, DEC is assuring Alaska waters are still protected and the smaller vessels may continue to operate by requiring them to continue to follow DEC-approved BMP plans and the earlier limitations on discharge locations.

**Did small passenger vessels comply with the BMP and other DEC requirements during 2016?**

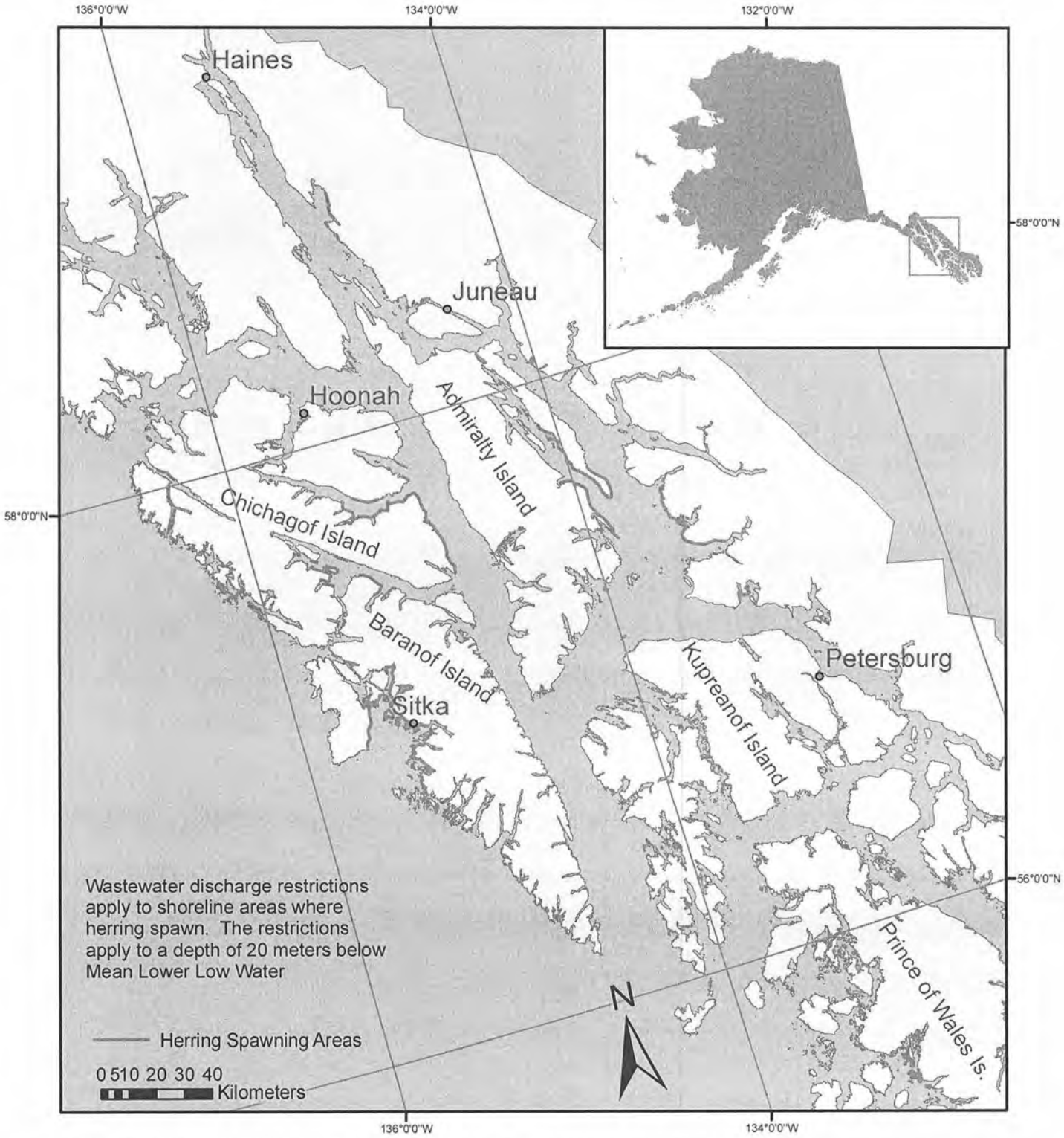
Small commercial passenger vessels and state ferries followed the BMP and other requirements in 2016.

**Where can I find additional information?**

DEC Division of Water Cruise Ship Program website:
http://dec.alaska.gov/water/cruise_ships/index.htm

# Herring Spawning Areas
# Northern Southeast Alaska

Alaska Department of Environmental Conservation, November 2005

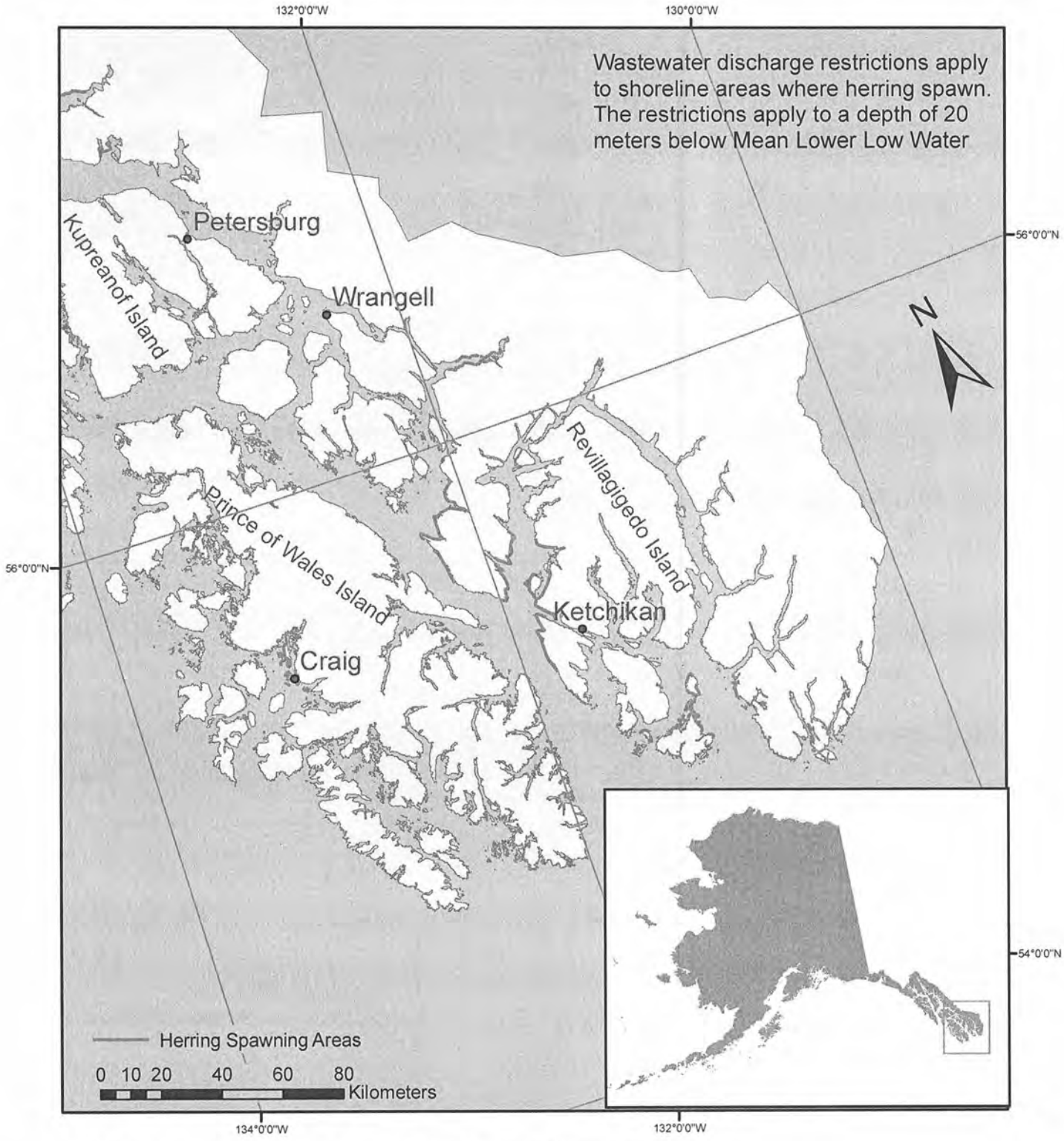



*Not for Navigational purposes, map for identification of the herring spawning areas only*

*Data source: Alaska Department of Fish and Game, Commercial Fisheries Division*

# Herring Spawning Areas
# Southern Southeast Alaska

Alaska Department of Environmental Conservation, November 2005




*Not for Navigational purposes, map for identification of the herring spawning areas only*

*Data source: Alaska Department of Fish and Game, Commercial Fisheries Division*

# Alaskan Dream Cruises

Senator Bert Stedman
State Capitol Room 30
Juneau AK, 99801

Dear Senator Stedman,

I am writing to voice my serious concern regarding the expiration of Best Management Practices statutes for Alaska's small cruise vessels and ferries. House Bill 80 of 2013 was intended to make the Best Management Practices statutes and regulations permanent for these vessels.

With that concern in mind, I am in support of Senate Bill 3 (SB 3), which you have sponsored, to reinstate the language in the statute that provided for an alternative wastewater authorization measure for small cruise ships and state ferries based on having a DEC-approved plan incorporating Best Management Practices. My hope is that SB 3 will make this legislation permanent.

Elliott Bay Design Group has performed stability calculations on our vessels. Those calculations have shown these vessels would have to undergo millions of dollars of renovations just to provide the increased stability needed for additional tankage and treatment equipment. This is to say nothing of the large additional expense of the actual hardware. We would not be able to re-coup such a cost during the life of these ships. As a result, the vessels would potentially be removed from service, a loss that would immediately cost many Alaskan jobs.

The effects of not having this alternative wastewater authorization go far beyond major loss of revenue for our Alaskan-owned and operated company. Our vessels call on the ports of Juneau, Sitka, Glacier Bay, Hoonah, Skagway, Haines, Kake, Petersburg, Wrangell, Thorne Bay, Kasaan, Metlakatla and Ketchikan. If we were forced to remove vessels from service, these communities would no longer recognize the sales tax, docking fees, fuel purchases, tour and other small business revenues and employment we deliver. This is especially true in smaller rural communities that have minimal industry and depend on the revenues we and other small ships provide. Some of our guests opt for the cruise and land packages we offer, which means the negative economic affects will also be felt in Southcentral and Interior Alaska. I am in full support of this legislation that you have sponsored. Without the legislation, it would not only be my company that suffers, but also other small cruise operators plying Alaska waters, our state ferry system, and many local economies in the state. The inevitable hardship has the potential to be devastating.

Sincerely,

David Allen
Owner
Alaskan Dream Cruises

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