



Alaska Department of Environmental Conservation

Division of Water

AUTHORIZATION TO DISCHARGE

AUTHORIZATION TO DISCHARGE UNDER THE ALASKA POLLUTANT ELIMINATION SYSTEM (APDES) FOR SMALL PUBLICLY OWNED TREATMENT WORKS AND OTHER SMALL TREATMENT WORKS PROVIDING SECONDARY TREATMENT OF DOMESTIC WASTEWATER AND DISCHARGING TO SURFACE WATER

FACILITY ASSIGNED AUTHORIZATION NUMBER: AKG572100

GENERAL PERMIT NUMBER: AKG572000

See this General Permit for all permit requirements.

The following facility is authorized to discharge in accordance with the terms of the State of Alaska General Permit AKG572000 and any site specific requirements listed in this authorization.

The authorization effective date is **DRAFT**

The authorization to discharge shall expire at midnight, **October 31, 2017**

The permittee shall reapply for a permit reissuance on or before **May 4, 2017**, 180 days before the expiration of this permit.

SECTION 1 – RESPONSIBLE PARTY INFORMATION

Issued to: Alaska Island Adventures LLC.
Shonna Jensen, Owner/Partner

SECTION 2 – FACILITY INFORMATION

Facility Name: Alaska Island Adventures Lodge Wastewater Treatment Facility (WWTF)

Facility Location: Cholmondeley Sound, Prince of Wales Island, Alaska

Latitude: 55° 11' 55" N Longitude: 132° 7' 47" W

Type of Facility: Secondary Treatment Plant

Waterbody Discharged to: Unnamed Cove south of Cholmondeley Sound

Type of Disinfection: Ultraviolet light

SECTION 3 –EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Effluent Compliance Point: at the end of the treatment process prior to discharge to Cholmondeley Sound.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Effluent Parameter	Units ^a	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Minimum Daily Limit	Average Monthly Percent Removal	Sample Location	Sample Frequency	Sample Type
Flow	gpd	Report	N/A	500	N/A	N/A	effluent	1/week	measured or estimated
pH	SU	N/A	N/A	8.5	6.5	N/A	effluent	1/quarter	grab
Dissolved Oxygen	mg/L	N/A	N/A	17	6.0	N/A	effluent	1/quarter	grab
Biochemical Oxygen Demand, 5-day (BOD ₅)	mg/L	30	45	60	N/A	N/A	effluent ^b	1/quarter	grab or composite ^c
	lbs/day	0.13	0.19	0.25					
	mg/L	report	N/A	N/A	N/A	N/A	influent ^b	1/quarter	grab or composite ^c
	% removal	N/A	N/A	N/A	N/A	85 (minimum)	effluent and influent	1/quarter	calculation ^d
Total Suspended Solids (TSS)	mg/L	30	45	60	N/A	N/A	effluent ^b	1/quarter	grab or composite ^c
	lbs/day	0.13	0.19	0.25					
	mg/L	report	N/A	N/A	N/A	N/A	influent ^b	1/quarter	grab or composite ^c
	% removal	N/A	N/A	N/A	N/A	85 (minimum)	effluent and influent	1/quarter	calculation ^d
Fecal Coliform Bacteria (FC)	FC/ 100 mL	200 ^e	N/A	800	N/A	N/A	effluent	1/quarter	grab
Enterococci Bacteria ^e	count/100 mL	N/A	N/A	report	N/A	N/A	effluent	1/quarter (May-Sept) ^f	grab

Footnotes:

- a. gpd = gallons per day; SU = standard pH units; mg/L = milligram perm liter; lbs/day = pounds per day [(BOD or TSS concentration in mg/L) x (facility design flow in gpd) x (conversion factor of 8.34)/1,000,000]; % = percent
- b. Influent and effluent samples must be taken over approximately the same time period.
- c. See Appendix C of AKG572000 general permit for a definition.
- d. Minimum % removal = [(monthly average influent concentration in mg/L - monthly average effluent concentration in mg/L) / (monthly average influent concentration in mg/L)] x 100. The monthly percent removal must be calculated using the arithmetic mean of the influent value and the arithmetic mean of the effluent value for that month.
- e. All fecal coliform bacteria and enterococci bacteria average results must be reported as the geometric mean. When calculating the geometric mean, replace all results of zero, 0, with a one, 1. The geometric mean of “n” quantities is the “nth” root of the quantities. For example the geometric mean of 100, 200, and 300 is $(100 \times 200 \times 300)^{1/3} = 181.7$.
- f. Monitoring is only required May- Sept when discharging to marine water.

SECTION 4 – MIXING ZONE AND RECEIVING WATER INFORMATION

Receiving Area Compliance Point: Boundary of the mixing zone

Mixing Zone Authorization: This discharge is assigned a mixing zone to meet the Alaska Water Quality Standards (18 AAC 70) for fecal coliform bacteria.

Mixing Zone Description: The mixing zone for this discharge is defined as the area of a 10 meter radius circle, centered over the diffuser, from the end of pipe to the surface. Mixing zone samples should be collected, if safely possible, just outside of the mixing zone boundary.

The Department of Environmental Conservation (DEC) has determined that applicable water quality standards shall be met at the boundary of the mixing zone and the mixing zone is in compliance with the general permit and fact sheet.

The permittee shall provide DEC prior written notice if water from inside of the mixing zone is used, or is intended to be used as a water supply of aquaculture, human consumption, food processing, or contact recreation. These water uses are defined in the Alaska Water Quality Standards (18 AAC 70).

RECEIVING AREA LIMITATIONS AND MONITORING REQUIREMENTS

Mixing Zone (MZ) Parameter	Units	Monthly Geometric Mean	Maximum Value	Sample Frequency	Sample Type
Fecal Coliform Bacteria (FC) (outside boundary of MZ)	FC/100 mL	14 ^a	43 ^b	2/year ^c	grab

Footnotes:

- a. All fecal coliform bacteria average results must be reported as the geometric mean.
- b. Not more than 10% of the samples taken during the reporting period may exceed this value.
- c. The two samples per year shall be taken between May 1 and September 30.

If you have any technical questions regarding this authorization or the requirements of the general permit, please contact Sally Wanstall at (907) 465-5216 or sally.wanstall@alaska.gov.

SECTION 6 – CERTIFICATION/SIGNATURE

DRAFT

DRAFT

Signature

Date

DRAFT

DRAFT

Printed Name

Title