



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: AKG572004

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 **November 1, 2012**

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

SECTION 1 – RESPONSIBLE PARTY INFORMATION

Issued to: Tom Trego, Wastewater Utilities Superintendent
City and Borough of Juneau

SECTION 2 – FACILITY INFORMATION

Facility Name: Auke Bay Wastewater Treatment Facility (WWTF)
11825 Glacier Highway
Facility Location: Juneau, Alaska
Latitude: 58° 23' 06" N Longitude: 134° 38' 55" W
Type of Facility: Activated Sludge Secondary Treatment Package Plant
Waterbody Discharged to: Auke Bay
Type of Disinfection: Chlorination

SECTION 3 –EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Effluent Compliance Point: at the end of the treatment process prior to discharge to Auke Bay

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Effluent Parameter	Units	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Minimum Daily Limit	Average Monthly Percent Removal	Sample Location	Sample Frequency	Sample Type
Flow	mgd	Report	N/A	0.16	N/A	N/A	effluent	daily (5/week)	measured
pH	standard pH units (s.u.)	N/A	N/A	9.0	6.0	N/A	effluent	3/week	grab
Total Residual Chlorine ^a	mg/L	0.5	N/A	1.0	N/A	N/A	effluent	3/week	grab
Dissolved Oxygen	mg/L	N/A	N/A	N/A	2.0	N/A	effluent	1/month	grab
Biochemical Oxygen Demand, 5-day (BOD ₅)	mg/L	30	45	60	N/A	N/A	effluent ^c	1/month	grab or composite ^d
	lbs/day ^b	40	60	80					
	mg/L	report	N/A	N/A	N/A	N/A	inluent ^c	1/month	grab or composite ^d
	% removal ^e	N/A	N/A	N/A	N/A	85 (minimum)	effluent and influent	1/month	calculation
Total Suspended Solids (TSS)	mg/L	30	45	60	N/A	N/A	effluent ^c	1/month	grab or composite
	lbs/day ^b	40	60	80					
	mg/L	report	N/A	N/A	N/A	N/A	inluent ^c	1/month	grab or composite ^d
	% removal ^e	N/A	N/A	N/A	N/A	85 (minimum)	effluent and influent	1/month	calculation
Fecal Coliform Bacteria (FC) ^f	FC/ 100 mL	200	N/A	800	N/A	N/A	effluent	1/month	grab
Enterococci Bacteria ^f	count/100 mL	N/A	N/A	report	N/A	N/A	effluent	1/month (May-Sept) ^g	grab

Footnotes:

- a. Monitoring for total residual chlorine is not required if chlorine is not used as a disinfectant or introduced elsewhere in the treatment process.
- b. $\text{lbs/day} = [(\text{BOD or TSS concentration in mg/L}) \times (\text{facility design flow in gpd}) \times (\text{conversion factor of } 8.34/1,000,000)]$
- c. Influent and effluent samples must be taken over approximately the same time period.
- d. See Appendix C of AKG572000 permit for a definition.
- e. $\text{Minimum \% Removal} = [(\text{monthly average influent concentration in mg/L} - \text{monthly average effluent concentration in mg/L}) / (\text{monthly average influent concentration in mg/L})] \times 100$. 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.
- f. 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 $(100 \times 200 \times 300)^{1/3} = 181.7$.
- g. 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, total residual chlorine, dissolved oxygen, and pH.

Mixing Zone Description: The mixing zone for this discharge is defined as the area of 30 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. Shoreline samples must be collected from within the mixing zone at the shoreline area of human use closest to the point of discharge.

The Permittee shall provide the Department of Environmental Conservation (DEC) prior written notice if water from inside of the mixing zone is used, or is intended to be used as a water supply for 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 Average	Minimum Value	Maximum Value	Frequency of Analysis	Sample Type
Fecal Coliform Bacteria ^a (outside boundary of MZ)	FC/100 mL	14	N/A	43 ^b	2/year ^c	grab
Total Residual Chlorine ^d (outside boundary of MZ)	mg/L	0.0075	N/A	0.013	2/year ^c	grab
pH (outside boundary of MZ)	s.u.	N/A	6.5	8.5	upon request ^e	grab
Dissolved Oxygen (outside boundary of MZ)	mg/L	N/A	6	17	upon request ^e	grab
Fecal Coliform Bacteria ^a (shoreline in MZ)	FC/100 mL	200	N/A	400	2/year ^c	grab
Enterococci Bacteria ^a (shoreline in MZ)	count/100 mL	N/A	N/A	report	2/year ^f	grab

Footnotes:

- All fecal coliform bacteria and enterococci bacteria average results must be reported as the geometric mean.
- Not more than 10% of the samples taken during the reporting period may exceed this value.
- Twice per year shall consist of two time periods during the calendar year, (Oct. through April and May through Sept.). When sampling is not possible during the stated time period, twice per year shall be one sample in the summer and the other just before freeze up.
- The total residual chlorine limits are not quantifiable using EPA-approved analytical methods. DEC will use the minimum level of 0.1 mg/L as the compliance evaluation level for this parameter. Monitoring for chlorine is not required if chlorine is not used as a disinfectant or introduced elsewhere in the treatment process.
- Since exceedance of the pH and dissolved oxygen limits is not expected when the treatment system is operated according to design, monitoring is not required unless requested by DEC.
- Monitoring of enterococci bacteria is required twice during the time period of May through September. Each sampling event should take place in a different month.

SECTION 5 – SITE SPECIFIC REQUIREMENTS
(In addition to those required in the APDES general permit.)

None

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



Signature

Brian Doyle

Printed Name

October 1, 2012

Date

Environmental Program Manager

Title

STATE OF ALASKA AUTHORIZATION: ATTACHMENT 1

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FOR SMALL PUBLICLY OWNED TREATMENT WORKS (POTW's) AND OTHER SMALL TREATMENT WORKS TREATING DOMESTIC SEWAGE TO SECONDARY STANDARDS AND DISCHARGING TO MARINE WATERS

FACILITY ASSIGNED NUMBER AKG-57-1000-013

NPDES PERMIT NUMBER: AKG-57-1000

See this General Permit for additional permit requirements

THE FOLLOWING FACILITY IS AUTHORIZED TO DISCHARGE IN ACCORDANCE WITH THE TERMS OF NPDES GENERAL PERMIT AKG-57-1000 AND ANY SITE SPECIFIC REQUIREMENTS LISTED IN THIS AUTHORIZATION:

Issued to:	City and Borough of Juneau		
Facility Name:	Auke Bay Wastewater Treatment Facility		
Location of Discharge:	Auke Bay, Alaska		
Latitude:	58° 23' 18" N	Longitude:	134° 38' 52" W
Waterbody or Surface discharged to:	Auke Bay		
Maximum Volume:	0.16 million gallons per day (MGD)		
Type of Disinfection:	Chlorination		
Type of Facility:	Secondary treatment plant		
NPDES Permit Category:	1		
Effluent Compliance Point	End of the treatment process prior to discharge into the receiving water		
Waterbody Compliance Point	Outer edge of the mixing zone		

SITE SPECIFIC PERMIT REQUIREMENTS UNDER THIS AUTHORIZATION (in addition to those required in the NPDES general permit):

1. This authorization is effective on July 21, 2004 and expires on July 20, 2009. The ADEC written authorization shall be effective for five (5) years. If general permit AKG 57-1000 is modified or renewed during the term of the written authorization, the new permit requirements apply.
2. See the attached discharge monitoring report for site specific limitations and monitoring requirements.
3. In response to the City and Borough of Juneau's (CBJ) request for a modified effluent total chlorine residual (TCR) limit, a compliance schedule for the Auke Bay Wastewater Treatment Facility is being implemented. The CBJ is changing the method of disinfection from chlorination to ultra-violet light disinfection. The new disinfection system will be installed and operational by December 31, 2007. In the interim period between issuance of the authorization and December

31, 2007 a modified TCR limit of 1.0 mg/l 30 day average and 2.0 mg/l daily maximum for the effluent will be granted till the new ultra-violet disinfection system is operational and Approval to Operate is granted by ADEC, but no later than December 31, 2007. Beginning January 1, 2008, the TCR will return to the limits in the General permit, 0.5 mg/l 30 day average, 1.0 mg/l daily maximum.

EFFLUENT LIMITATIONS AND MONITORING:

Effluent Characteristic	Minimum Value	30 Day Average	7 Day Average	Maximum Value	Units	Frequency of Analysis	Sample Type
Total Flow (effluent or influent)	N/A	N/A	N/A	0.16	mgd	Daily 5/week	measured / recorded
5-day Biochemical Oxygen Demand (influent)	report	report	report	report	mg/l	1/month	Grab or composite ³
	report	report	report	report	lbs/day		
5-day Biochemical Oxygen Demand (effluent)	N/A	30	45	60	mg/l	1/month	Grab or composite ³
	N/A	40.0	60.0	80.1	lbs/day		
Total Suspended Solids (influent)	report	report	report	report	mg/l	1/month	Grab or composite ³
	report	report	report	report	lbs/day		
Total Suspended Solids (effluent)	N/A	30	45	60	mg/l	1/month	Grab or composite ³
	N/A	40.0	60.0	80.1	lbs/day		
TSS minimum % removal: 85%			BOD minimum % removal: 85%		%	1/month	Calculated ⁴
Fecal Coliform Bacteria (effluent) ¹	N/A	200	N/A	800	FC per 100 ml	1/month	Grab
Dissolved Oxygen (effluent)	2	N/A	N/A	N/A	mg/l	1/month	Grab
pH (effluent)	6	N/A	N/A	9	S.U.	3/week	Grab
Total Residual Chlorine (effluent) ²	N/A	1.0 till 12/31/07	N/A	2.0 till 12/31/07	mg/l	3/week	Grab
		0.5 after 12/31/07		1.0 after 12/31/07			

Footnotes

1. All effluent fecal coliform average results must be reported as the geometric mean
2. Test not required if chlorine is not used as disinfectant.
3. Composite samples must consist of at least four equal volume grab samples, two of which must be taken during periods of peak flow (7-9 a.m. and 6-8 p.m.).
4. Percent removal should be calculated with the influent and effluent concentration (mg/l).

MIXING ZONE AUTHORIZATION:

This discharge is assigned a mixing zone to meet the Alaska Water Quality Standards (18 AAC 70) for fecal coliform bacteria, chlorine, pH and dissolved oxygen. The mixing zone for this discharge is defined as the area of a 30 meter radius circle centered over the diffuser or end of pipe (if no diffuser), from the end of pipe to the surface. It shall be the responsibility of the permittee to inform this department, in writing, if water from inside of the mixing zone is used, or is intended to be used, as a water supply for aquaculture, human consumption or food processing, or if any area inside the mixing zone is used for contact water recreation or the harvesting for human consumption of raw mollusks or other raw aquatic life. These water uses are defined in the Alaska Water Quality Standards (18 AAC 70).

Mixing zone samples should be collected, if safely possible, from the down current leading edge of the plume, just outside of the mixing zone boundary. Shoreline samples, if required, must be collected from within the mixing zone at the shoreline area of human use closest to the effluent line outlet or center of the diffuser. If flow does not extend to the edge of the mixing zone boundary during the required monitoring period, sample collection is not required and the reason for the absence of flow should be indicated on the discharge monitoring report.

MIXING ZONE LIMITATIONS AND MONITORING:

Mixing Zone Characteristic	Minimum Value	30 Day Average	Maximum Value	Units	Frequency of Analysis	Sample Type
Fecal Coliform Bacteria (Outside edge of MZ) ¹	N/A	14	43 ²	FC per 100 ml	Twice per year -- 2/year ⁵	Grab
Fecal Coliform Bacteria (Shoreline in MZ) ¹	N/A	NA	NA ²	FC per 100 ml	Twice per year -- 2/year ⁵	Grab
Total Chlorine ³ (Outside edge of MZ)	N/A	N/A	0.0075	mg/l	Twice per year -- 2/year ⁵	Grab
pH (Outside edge of MZ) ⁴	6.5	N/A	8.5	S.U.	Upon Request by ADEC	Grab
Dissolved Oxygen	6.0	N/A	17	mg/l	Upon Request by ADEC	Grab

Footnotes

1. All mixing zone fecal coliform results must be reported as the geometric mean;
2. Not more than 10% of the samples taken during the reporting period may exceed this value;
3. The Alaska Water Quality Standards, (18 AAC 70), limit is 0.0075 mg/l for total residual chlorine, but the detection limit for monitoring purposes in this permit is 0.1 mg/L; test not required if chlorine is not used as disinfectant.
4. pH for marine waters must be within 0.2 S.U. of background.
5. Twice per year shall consist of two time periods during the calendar year, (Oct. through April and May through Sept.). When sampling is not possible during the stated time period, twice per year shall be, one sample in the summer and the other just before freeze up.

WARNING SIGNS:

At least one sign must be posted near the discharge area, during discharge. The sign/s must provide the identity and telephone numbers of the discharger, must inform the public that treated wastewater is being discharged, and that users of the area should exercise caution. If a mixing zone is authorized, the sign/s must also inform the public that a mixing zone exists and shall include the size and location of the mixing zone.

SIGNATURE:

SIGNATURE ON FILE

June 23, 2004

Signature

Date

William D. McGee

Technical Engineer

Printed Name

Title

Discharge Monitoring Report

(DMR) – PAGE 1 of 2

Permit number: AKG-57-1000-013	Expires: July 20, 2009	Submit this report to:	ADEC and EPA to the addresses on Part D 11 of the NPDES general permit.
ADEC File number: 1513.45.009			
Applicant Name: City and Borough of Juneau		Responsible party:	Scott Jeffers/WW Utilities Superintendent
Address: 155 South Seward, Juneau, AK 99801		Phone / email:	(907)586-0393
Facility: Auke Bay Wastewater Treatment Facility		Onsite Contact:	Rico Tempel
Location: Auke Bay, Juneau		Phone:	(907)586-0393

Required Reporting Frequency	Discharge: Secondary treated wastewater discharged into Auke Bay	Sample Period							
Monthly		From:		To:					
Parameter	Min. Value	30 day Average	7 day Average	Max. Value	Number of Analyses	Number of Violations	Units	Frequency of Analysis	Sample Method

Discharge 1								Method		
Flow Rate (effluent or influent)	Estmt'd/ Measure							mgd	Daily 5/week	Measured/ recorded
	Permit Limits	N/A	report	N/A	0.16	report	report			
Biochemical Oxygen Demand (influent)	Analytical Results							mg/l	1/month	Grab or Composite
	Permit Limits	N/A	report	report	report	report	report			
Biochemical Oxygen Demand (effluent)	Analytical Results							mg/l	1/month	Grab or Composite
	Permit Limits	N/A	30	45	60	report	report			
Biochemical Oxygen Demand (effluent)	Analytical Results							lbs/day	1/month	Grab or Composite
	Permit Limits	N/A	40.0	60.0	80.1	report	report			
Biochemical Oxygen Demand % removal	Analytical Results							%	1/month	Calculated
	Permit Limits	85%	N/A	N/A	N/A	report	report			
Total Suspended Solids (influent)	Analytical Results							mg/l	1/month	Grab or Composite
	Permit Limits	N/A	report	report	report	report	report			
Total Suspended Solids (effluent)	Analytical Results							mg/l	1/month	Grab or Composite
	Permit Limits	N/A	30	45	60	report	report			
Total Suspended Solids (effluent)	Analytical Results							lbs/day	1/month	Grab or Composite
	Permit Limits	N/A	40.0	60.0	80.1	report	report			
Total Suspended Solids % removal	Analytical Results							%	1/month	Calculated
	Permit Limits	85%	N/A	N/A	N/A	report	report			
Fecal Coliform Bacteria (effluent)	Analytical Results							#/100 ml	1/month	Grab
	Permit Limits	N/A	200	N/A	800	report	report			
Dissolved Oxygen (effluent)	Analytical Results							mg/l	1/month	Grab
	Permit Limits	2	N/A	N/A	N/A	report	report			
pH (effluent)	Analytical Results							Std. Units	3/week	Grab
	Permit Limits	6	N/A	N/A	9	report	report			
Total Residual Chlorine (effluent)	Analytical Results							mg/l	3/week	Grab
	Permit Limits till 12/31/07	N/A	1.0	N/A	2.0	report	report			
	Permit Limits after 12/31/07		0.5		1.0					

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.

NAME, TITLE OF PRINCIPAL EXECUTIVE OFFICER	SIGNATURE OF PRINCIPAL, EXECUTIVE OFFICER OR AUTHORIZED AGENT	
		() _____
		DATE TELEPHONE
COMMENT AND EXPLANATION OF ANY VIOLATIONS (REFERENCE ALL ATTACHMENT HERE)		
<input type="checkbox"/> CHECK HERE IF THERE WAS NO DISCHARGE DURING THE ENTIRE REPORTING PERIOD		

Discharge Monitoring Report

(DMR) – PAGE 2 of 2

Permit number: AKG-57-1000-013	Expires: July 20, 2009	Submit this report to:	ADEC and EPA to the addresses on Part D 11 of the NPDES general permit.
ADEC File number: 1513.45.009			

Applicant Name: City and Borough of Juneau	Responsible party:	Scott Jeffers/WW Utilities Superintendent
Address: 155 South Seward, Juneau, AK 99801	Phone:	(907)586-0393
Facility: Auke Bay Wastewater Treatment Facility	Onsite Contact:	Rico Tempel
Location: Auke Bay, Juneau	Phone:	(907)586-0393

Required Reporting Frequency Monthly	Discharge: Secondary treated wastewater discharged into Auke Bay.	Sample Period
		From:
		To:

Mixing Zone

Parameter		Min. Value	30 day Average	7 day Average	Max. Value	Number analyses	Number violations	Units	Frequency of Analysis	Sample Method
Fecal Coliform Bacteria (Edge of MZ)	Analytical Results							#/100 ml	Twice per year – 2/year	Grab
	Permit Limits	N/A	14	N/A	43	report	report			
Fecal Coliform Bacteria (Shoreline)	Analytical Results							#/100 ml	Twice per year – 2/year	Grab
	Permit Limits	N/A	NA	N/A	NA	report	report			
Dissolved Oxygen	Analytical Results							mg/l	Upon request by ADEC	Grab
	Permit Limits	6.0	N/A	N/A	17	report	report			
pH	Analytical Results							Std. Units	Upon request by ADEC	Grab
	Permit Limits	6.5	N/A	N/A	8.5	report	report			
Total Chlorine (if chlorine is used as disinfectant)	Analytical Results							mg/l	Twice per year – 2/year	Grab
	Permit Limits	N/A	N/A	N/A	0.0075	report	report			

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.

NAME, TITLE OF PRINCIPAL EXECUTIVE OFFICER	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
	() _____
	DATE TELEPHONE

COMMENT AND EXPLANATION OF ANY VIOLATIONS (REFERENCE ALL ATTACHMENT HERE)

_____ CHECK HERE IF THERE WAS NO DISCHARGE DURING THE ENTIRE REPORTING PERIOD

Alaska Department of Environmental Conservation

Division of Water, Wastewater Discharge Program

Phones: ANCHORAGE (907) 269-3059, Fax: 269-7508

FAIRBANKS (907) 451-2130, Fax: 451-2187

JUNEAU (907) 465-5300, Fax: 465-5274

NONCOMPLIANCE NOTIFICATION¹

GENERAL INFORMATION		PERMIT/AUTHORIZATION #: AKG-57-1000-013	
APPLICANT/COMPANY: City and Borough of Juneau		FACILITY NAME: Auke Bay Wastewater Treatment Facility	FACILITY LOCATION: Auke Bay, Juneau, AK
PERSON REPORTING		PHONE NUMBER OF PERSON REPORTING	REPORTED HOW? (e.g. by phone)
DATE/TIME EVENT WAS NOTICED		DATE/TIME REPORTED	NAME OF ADEC STAFF CONTACTED
VERBAL NOTIFICATION MUST BE MADE TO ADEC & EPA WITHIN 24 HOURS OF DISCOVERY			
INCIDENT DETAILS (attach additional sheets, lab reports and photos as necessary)			
DESCRIBE THE EVENT (include amounts of wastewater involved)			
CAUSE OF EVENT (be specific)			
PERMIT CONDITION DEVIATION (Identify each permit condition exceeded during the event. Attach additional sheets if necessary).			
Parameter (e.g. BOD, pH)	Permit Limit	Exceedance (sample result)	Sample date
CORRECTIVE ACTIONS Attach a description of corrective actions taken to restore the system to normal operation and to minimize or eliminate chances of recurrence.			
ENVIRONMENTAL DAMAGE:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown If yes, provide details below.
ACTUAL/POTENTIAL IMPACT ON ENVIRONMENT/PUBLIC HEALTH (describe in detail. Attach additional sheets as needed.)			
ACTIONS TAKEN TO REDUCE OR ELIMINATE ACTUAL/POTENTIAL IMPACT ON ENVIRONMENT/PUBLIC HEALTH [(describe in detail) (e.g. Supplied drinking water to nearby well owners and informed well owners not to drink from wells until further notice)].			
COMMENTS			
Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.			
NAME:		SIGNATURE:	DATE:
FORMS MUST BE SENT TO DEC WITHIN 5 DAYS OF THE EVENT.			

1. Includes noncompliance caused by upset. Note that there are other noncompliance reporting that do not require 24 hour reporting. See Part III H of the general permit.

Alaska Department of Environmental Conservation

Division of Water, Wastewater Discharge Program

Phones: ANCHORAGE (907) 269-3059, Fax: 269-7508

FAIRBANKS (907) 451-2130, Fax: 451-2187

JUNEAU (907) 465-5300, Fax: 465-5274

ACCIDENTAL DISCHARGE / SPILL NOTIFICATION¹

GENERAL INFORMATION:		PERMIT/AUTHORIZATION #: AKG-57-1000-013	
APPLICANT/COMPANY: City and Borough of Juneau		FACILITY NAME: Auke Bay Wastewater Treatment Facility	FACILITY LOCATION Auke Bay, Juneau, AK
PERSON REPORTING		PHONE NUMBER OF PERSON REPORTING	REPORTED HOW? (e.g. by phone)
DATE/TIME OF SPILL		DATE/TIME REPORTED	NAME OF DEC STAFF CONTACTED
VERBAL NOTIFICATION MUST BE MADE TO ADEC & EPA WITHIN 24 HOURS OF DISCOVERY OF SPILL.			
INCIDENT DETAILS (attach additional sheets, lab reports and photos as necessary)			
PRODUCT SPILLED (e.g. sewage, secondary treated & disinfected wastewater, glycol, etc)		SOURCE OF SPILL	
QUANTITY SPILLED (volume or weight)	QUANTITY CONTAINED	QUANTITY RECOVERED	QUANTITY DISPOSED
CAUSE OF SPILL AND ACTIONS TAKEN TO CORRECT THE CAUSE (be specific)			
CLEANUP ACTIONS (describe in detail)			
DISPOSAL METHODS AND LOCATION (describe in detail)			
STATUS OF CLEANUP ACTIONS (If clean up has not begun, provide estimated time to begin and complete clean up and reasons for the delay)			
SURFACE AREA AFFECTED (square feet):		SURFACE TYPE (e.g. tundra, land covered with snow, etc):	
ENVIRONMENTAL DAMAGE:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown If yes, provide details below.
ACTUAL/POTENTIAL IMPACT ON ENVIRONMENT/PUBLIC HEALTH (describe in detail)			
COMMENTS			
Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.			
Name	Signature		Date
FORMS MUST BE SENT TO DEC WITHIN 5 DAYS OF THE EVENT.			

1. Includes all overflows and unanticipated bypass that exceeds the effluent limits in the authorization.

STATE OF ALASKA AUTHORIZATION: ATTACHMENT 1

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FOR SMALL PUBLICLY OWNED TREATMENT WORKS (POTW's) AND OTHER SMALL TREATMENT WORKS TREATING DOMESTIC SEWAGE TO SECONDARY STANDARDS AND DISCHARGING TO MARINE WATERS

FACILITY ASSIGNED NUMBER AKG-57-1000-013

NPDES PERMIT NUMBER: AKG-57-1000

See this General Permit for additional permit requirements

THE FOLLOWING FACILITY IS AUTHORIZED TO DISCHARGE IN ACCORDANCE WITH THE TERMS OF NPDES GENERAL PERMIT AKG-57-1000 AND ANY SITE SPECIFIC REQUIREMENTS LISTED IN THIS AUTHORIZATION:

Issued to:	City and Borough of Juneau		
Facility Name:	Auke Bay Wastewater Treatment Facility		
Location of Discharge:	Auke Bay, Alaska		
Latitude:	58° 23' 18" N	Longitude:	134° 38' 52" W
Waterbody or Surface discharged to:	Auke Bay		
Maximum Volume:	0.16 million gallons per day (MGD)		
Type of Disinfection:	Chlorination		
Type of Facility:	Secondary treatment plant		
NPDES Permit Category:	1		
Effluent Compliance Point	End of the treatment process prior to discharge into the receiving water		
Waterbody Compliance Point	Outer edge of the mixing zone		

SITE SPECIFIC PERMIT REQUIREMENTS UNDER THIS AUTHORIZATION (in addition to those required in the NPDES general permit):

1. This authorization is effective on July 21, 2004 and expires on July 20, 2009. The ADEC written authorization shall be effective for five (5) years. If general permit AKG 57-1000 is modified or renewed during the term of the written authorization, the new permit requirements apply.
2. See the attached discharge monitoring report for site specific limitations and monitoring requirements.
3. In response to the City and Borough of Juneau's (CBJ) request for a modified effluent total chlorine residual (TCR) limit, a compliance schedule for the Auke Bay Wastewater Treatment Facility is being implemented. The CBJ is changing the method of disinfection from chlorination to ultra-violet light disinfection. The new disinfection system will be installed and operational by December 31, 2007. In the interim period between issuance of the authorization and December

31, 2007 a modified TCR limit of 1.0 mg/l 30 day average and 2.0 mg/l daily maximum for the effluent will be granted till the new ultra-violet disinfection system is operational and Approval to Operate is granted by ADEC, but no later than December 31, 2007. Beginning January 1, 2008, the TCR will return to the limits in the General permit, 0.5 mg/l 30 day average, 1.0 mg/l daily maximum.

EFFLUENT LIMITATIONS AND MONITORING:

Effluent Characteristic	Minimum Value	30 Day Average	7 Day Average	Maximum Value	Units	Frequency of Analysis	Sample Type
Total Flow (effluent or influent)	N/A	N/A	N/A	0.16	mgd	Daily 5/week	measured / recorded
5-day Biochemical Oxygen Demand (influent)	report	report	report	report	mg/l	1/month	Grab or composite ³
	report	report	report	report	lbs/day		
5-day Biochemical Oxygen Demand (effluent)	N/A	30	45	60	mg/l	1/month	Grab or composite ³
	N/A	40.0	60.0	80.1	lbs/day		
Total Suspended Solids (influent)	report	report	report	report	mg/l	1/month	Grab or composite ³
	report	report	report	report	lbs/day		
Total Suspended Solids (effluent)	N/A	30	45	60	mg/l	1/month	Grab or composite ³
	N/A	40.0	60.0	80.1	lbs/day		
TSS minimum % removal: 85%			BOD minimum % removal: 85%		%	1/month	Calculated ⁴
Fecal Coliform Bacteria (effluent) ¹	N/A	200	N/A	800	FC per 100 ml	1/month	Grab
Dissolved Oxygen (effluent)	2	N/A	N/A	N/A	mg/l	1/month	Grab
pH (effluent)	6	N/A	N/A	9	S.U.	3/week	Grab
Total Residual Chlorine (effluent) ²	N/A	1.0 till 12/31/07	N/A	2.0 till 12/31/07	mg/l	3/week	Grab
		0.5 after 12/31/07		1.0 after 12/31/07			

Footnotes

1. All effluent fecal coliform average results must be reported as the geometric mean
2. Test not required if chlorine is not used as disinfectant.
3. Composite samples must consist of at least four equal volume grab samples, two of which must be taken during periods of peak flow (7-9 a.m. and 6-8 p.m.).
4. Percent removal should be calculated with the influent and effluent concentration (mg/l).

MIXING ZONE AUTHORIZATION:

This discharge is assigned a mixing zone to meet the Alaska Water Quality Standards (18 AAC 70) for fecal coliform bacteria, chlorine, pH and dissolved oxygen. The mixing zone for this discharge is defined as the area of a 30 meter radius circle centered over the diffuser or end of pipe (if no diffuser), from the end of pipe to the surface. It shall be the responsibility of the permittee to inform this department, in writing, if water from inside of the mixing zone is used, or is intended to be used, as a water supply for aquaculture, human consumption or food processing, or if any area inside the mixing zone is used for contact water recreation or the harvesting for human consumption of raw mollusks or other raw aquatic life. These water uses are defined in the Alaska Water Quality Standards (18 AAC 70).

Mixing zone samples should be collected, if safely possible, from the down current leading edge of the plume, just outside of the mixing zone boundary. Shoreline samples, if required, must be collected from within the mixing zone at the shoreline area of human use closest to the effluent line outlet or center of the diffuser. If flow does not extend to the edge of the mixing zone boundary during the required monitoring period, sample collection is not required and the reason for the absence of flow should be indicated on the discharge monitoring report.

MIXING ZONE LIMITATIONS AND MONITORING:

Mixing Zone Characteristic	Minimum Value	30 Day Average	Maximum Value	Units	Frequency of Analysis	Sample Type
Fecal Coliform Bacteria (Outside edge of MZ) ¹	N/A	14	43 ²	FC per 100 ml	Twice per year -- 2/year ⁵	Grab
Fecal Coliform Bacteria (Shoreline in MZ) ¹	N/A	NA	NA ²	FC per 100 ml	Twice per year -- 2/year ⁵	Grab
Total Chlorine ³ (Outside edge of MZ)	N/A	N/A	0.0075	mg/l	Twice per year -- 2/year ⁵	Grab
pH (Outside edge of MZ) ⁴	6.5	N/A	8.5	S.U.	Upon Request by ADEC	Grab
Dissolved Oxygen	6.0	N/A	17	mg/l	Upon Request by ADEC	Grab

Footnotes

1. All mixing zone fecal coliform results must be reported as the geometric mean;
2. Not more than 10% of the samples taken during the reporting period may exceed this value;
3. The Alaska Water Quality Standards, (18 AAC 70), limit is 0.0075 mg/l for total residual chlorine, but the detection limit for monitoring purposes in this permit is 0.1 mg/L; test not required if chlorine is not used as disinfectant.
4. pH for marine waters must be within 0.2 S.U. of background.
5. Twice per year shall consist of two time periods during the calendar year, (Oct. through April and May through Sept.). When sampling is not possible during the stated time period, twice per year shall be, one sample in the summer and the other just before freeze up.

WARNING SIGNS:

At least one sign must be posted near the discharge area, during discharge. The sign/s must provide the identity and telephone numbers of the discharger, must inform the public that treated wastewater is being discharged, and that users of the area should exercise caution. If a mixing zone is authorized, the sign/s must also inform the public that a mixing zone exists and shall include the size and location of the mixing zone.

SIGNATURE:

SIGNATURE ON FILE

June 23, 2004

Signature

Date

William D. McGee

Technical Engineer

Printed Name

Title

Discharge Monitoring Report

(DMR) – PAGE 1 of 2

Permit number: AKG-57-1000-013	Expires: July 20, 2009	Submit this report to:
ADEC File number: 1513.45.009		ADEC and EPA to the addresses on Part D 11 of the NPDES general permit.
Applicant Name: City and Borough of Juneau	Responsible party:	Scott Jeffers/WW Utilities Superintendent
Address: 155 South Seward, Juneau, AK 99801	Phone / email:	(907)586-0393
Facility: Auke Bay Wastewater Treatment Facility	Onsite Contact:	Rico Tempel
Location: Auke Bay, Juneau	Phone:	(907)586-0393

Required Reporting Frequency	Discharge: Secondary treated wastewater discharged into Auke Bay	Sample Period							
Monthly		From: To:							
Parameter	Min. Value	30 day Average	7 day Average	Max. Value	Number of Analyses	Number of Violations	Units	Frequency of Analysis	Sample Method

Discharge 1

Flow Rate (effluent or influent)	Estmt'd/ Measure							mgd	Daily 5/week	Measured/ recorded
	Permit Limits	N/A	report	N/A	0.16	report	report			
Biochemical Oxygen Demand (influent)	Analytical Results							mg/l	1/month	Grab or Composite
	Permit Limits	N/A	report	report	report	report	report			
Biochemical Oxygen Demand (effluent)	Analytical Results							mg/l	1/month	Grab or Composite
	Permit Limits	N/A	30	45	60	report	report			
Biochemical Oxygen Demand (effluent)	Analytical Results							lbs/day	1/month	Grab or Composite
	Permit Limits	N/A	40.0	60.0	80.1	report	report			
Biochemical Oxygen Demand % removal	Analytical Results							%	1/month	Calculated
	Permit Limits	85%	N/A	N/A	N/A	report	report			
Total Suspended Solids (influent)	Analytical Results							mg/l	1/month	Grab or Composite
	Permit Limits	N/A	report	report	report	report	report			
Total Suspended Solids (effluent)	Analytical Results							mg/l	1/month	Grab or Composite
	Permit Limits	N/A	30	45	60	report	report			
Total Suspended Solids (effluent)	Analytical Results							lbs/day	1/month	Grab or Composite
	Permit Limits	N/A	40.0	60.0	80.1	report	report			
Total Suspended Solids % removal	Analytical Results							%	1/month	Calculated
	Permit Limits	85%	N/A	N/A	N/A	report	report			
Fecal Coliform Bacteria (effluent)	Analytical Results							#/100 ml	1/month	Grab
	Permit Limits	N/A	200	N/A	800	report	report			
Dissolved Oxygen (effluent)	Analytical Results							mg/l	1/month	Grab
	Permit Limits	2	N/A	N/A	N/A	report	report			
pH (effluent)	Analytical Results							Std. Units	3/week	Grab
	Permit Limits	6	N/A	N/A	9	report	report			
Total Residual Chlorine (effluent)	Analytical Results									
	Permit Limits till 12/31/07		1.0		2.0			mg/l	3/week	Grab
	Permit Limits after 12/31/07	N/A	0.5	N/A	1.0	report	report			

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.

NAME, TITLE OF PRINCIPAL EXECUTIVE OFFICER	SIGNATURE OF PRINCIPAL, EXECUTIVE OFFICER OR AUTHORIZED AGENT
	() _____
	DATE TELEPHONE
COMMENT AND EXPLANATION OF ANY VIOLATIONS (REFERENCE ALL ATTACHMENT HERE)	
<input type="checkbox"/> CHECK HERE IF THERE WAS NO DISCHARGE DURING THE ENTIRE REPORTING PERIOD	

Discharge Monitoring Report

(DMR) – PAGE 2 of 2

Permit number: AKG-57-1000-013	Expires: July 20, 2009	Submit this report to:	ADEC and EPA to the addresses on Part D 11 of the NPDES general permit.
ADEC File number: 1513.45.009			

Applicant Name: City and Borough of Juneau	Responsible party: Scott Jeffers/WW Utilities Superintendent
Address: 155 South Seward, Juneau, AK 99801	Phone: (907)586-0393
Facility: Auke Bay Wastewater Treatment Facility	Onsite Contact: Rico Tempel
Location: Auke Bay, Juneau	Phone: (907)586-0393

Required Reporting Frequency Monthly	Discharge: Secondary treated wastewater discharged into Auke Bay.	Sample Period
		From:
		To:

Mixing Zone

Parameter		Min. Value	30 day Average	7 day Average	Max. Value	Number analyses	Number violations	Units	Frequency of Analysis	Sample Method
Fecal Coliform Bacteria (Edge of MZ)	Analytical Results							#/100 ml	Twice per year – 2/year	Grab
	Permit Limits	N/A	14	N/A	43	report	report			
Fecal Coliform Bacteria (Shoreline)	Analytical Results							#/100 ml	Twice per year – 2/year	Grab
	Permit Limits	N/A	NA	N/A	NA	report	report			
Dissolved Oxygen	Analytical Results							mg/l	Upon request by ADEC	Grab
	Permit Limits	6.0	N/A	N/A	17	report	report			
pH	Analytical Results							Std. Units	Upon request by ADEC	Grab
	Permit Limits	6.5	N/A	N/A	8.5	report	report			
Total Chlorine (if chlorine is used as disinfectant)	Analytical Results							mg/l	Twice per year – 2/year	Grab
	Permit Limits	N/A	N/A	N/A	0.0075	report	report			

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.

NAME, TITLE OF PRINCIPAL EXECUTIVE OFFICER	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	
		() _____ DATE TELEPHONE
COMMENT AND EXPLANATION OF ANY VIOLATIONS (REFERENCE ALL ATTACHMENT HERE)		
CHECK HERE IF THERE WAS NO DISCHARGE DURING THE ENTIRE REPORTING PERIOD		

Alaska Department of Environmental Conservation

Division of Water, Wastewater Discharge Program

Phones: ANCHORAGE (907) 269-3059, Fax: 269-7508

FAIRBANKS (907) 451-2130, Fax: 451-2187

JUNEAU (907) 465-5300, Fax: 465-5274

NONCOMPLIANCE NOTIFICATION¹

GENERAL INFORMATION		PERMIT/AUTHORIZATION #: AKG-57-1000-013	
APPLICANT/COMPANY: City and Borough of Juneau		FACILITY NAME: Auke Bay Wastewater Treatment Facility	FACILITY LOCATION: Auke Bay, Juneau, AK
PERSON REPORTING		PHONE NUMBER OF PERSON REPORTING	REPORTED HOW? (e.g. by phone)
DATE/TIME EVENT WAS NOTICED		DATE/TIME REPORTED	NAME OF ADEC STAFF CONTACTED
VERBAL NOTIFICATION MUST BE MADE TO ADEC & EPA WITHIN 24 HOURS OF DISCOVERY			
INCIDENT DETAILS (attach additional sheets, lab reports and photos as necessary)			
DESCRIBE THE EVENT (include amounts of wastewater involved)			
CAUSE OF EVENT (be specific)			
PERMIT CONDITION DEVIATION (Identify each permit condition exceeded during the event. Attach additional sheets if necessary).			
Parameter (e.g. BOD, pH)	Permit Limit	Exceedance (sample result)	Sample date
CORRECTIVE ACTIONS Attach a description of corrective actions taken to restore the system to normal operation and to minimize or eliminate chances of recurrence.			
ENVIRONMENTAL DAMAGE:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown If yes, provide details below.
ACTUAL/POTENTIAL IMPACT ON ENVIRONMENT/PUBLIC HEALTH (describe in detail. Attach additional sheets as needed.)			
ACTIONS TAKEN TO REDUCE OR ELIMINATE ACTUAL/POTENTIAL IMPACT ON ENVIRONMENT/PUBLIC HEALTH [(describe in detail) (e.g. Supplied drinking water to nearby well owners and informed well owners not to drink from wells until further notice)].			
COMMENTS			
Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.			
NAME:		SIGNATURE:	DATE:
FORMS MUST BE SENT TO DEC WITHIN 5 DAYS OF THE EVENT.			

1. Includes noncompliance caused by upset. Note that there are other noncompliance reporting that do not require 24 hour reporting. See Part III H of the general permit.

Alaska Department of Environmental Conservation

Division of Water, Wastewater Discharge Program

Phones: ANCHORAGE (907) 269-3059, Fax: 269-7508

FAIRBANKS (907) 451-2130, Fax: 451-2187

JUNEAU (907) 465-5300, Fax: 465-5274

ACCIDENTAL DISCHARGE / SPILL NOTIFICATION¹

GENERAL INFORMATION:		PERMIT/AUTHORIZATION #: AKG-57-1000-013	
APPLICANT/COMPANY: City and Borough of Juneau		FACILITY NAME: Auke Bay Wastewater Treatment Facility	FACILITY LOCATION Auke Bay, Juneau, AK
PERSON REPORTING		PHONE NUMBER OF PERSON REPORTING	REPORTED HOW? (e.g. by phone)
DATE/TIME OF SPILL		DATE/TIME REPORTED	NAME OF DEC STAFF CONTACTED
VERBAL NOTIFICATION MUST BE MADE TO ADEC & EPA WITHIN 24 HOURS OF DISCOVERY OF SPILL.			
INCIDENT DETAILS (attach additional sheets, lab reports and photos as necessary)			
PRODUCT SPILLED (e.g. sewage, secondary treated & disinfected wastewater, glycol, etc)		SOURCE OF SPILL	
QUANTITY SPILLED (volume or weight)	QUANTITY CONTAINED	QUANTITY RECOVERED	QUANTITY DISPOSED
CAUSE OF SPILL AND ACTIONS TAKEN TO CORRECT THE CAUSE (be specific)			
CLEANUP ACTIONS (describe in detail)			
DISPOSAL METHODS AND LOCATION (describe in detail)			
STATUS OF CLEANUP ACTIONS (If clean up has not begun, provide estimated time to begin and complete clean up and reasons for the delay)			
SURFACE AREA AFFECTED (square feet):		SURFACE TYPE (e.g. tundra, land covered with snow, etc):	
ENVIRONMENTAL DAMAGE:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
If yes, provide details below.			
ACTUAL/POTENTIAL IMPACT ON ENVIRONMENT/PUBLIC HEALTH (describe in detail)			
COMMENTS			
Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.			
Name	Signature		Date
FORMS MUST BE SENT TO DEC WITHIN 5 DAYS OF THE EVENT.			

1. Includes all overflows and unanticipated bypass that exceeds the effluent limits in the authorization.