

## 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-57-1000-017

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:**

<b>Issued to:</b>	City of Thorne Bay		
<b>Facility Name:</b>	Thorne Bay Public Utility		
<b>Location of Discharge:</b>	Thorne Bay, Alaska		
<b>Description of diffuser:</b>	200 feet from shoreline at a depth of -50 feet M.L.L.W, with a 14 foot long, 6 inch diameter diffuser. 4 diffuser ports, diameter 3 inches, spaced 3 to 5 feet apart, 12 inches above the diffuser, 90° from the top of pipe.		
<b>Latitude:</b>	55.67944° N	<b>Longitude:</b>	132.51721° W
<b>Waterbody or Surface discharged to:</b>	Thorne Bay		
<b>Maximum Volume:</b>	0.4 million gallons per day (MGD)		
<b>Type of Disinfection:</b>	None		
<b>Type of Facility:</b>	Secondary treatment plant		
<b>NPDES Permit Category:</b>	1		
<b>Effluent Compliance Point</b>	End of the treatment process prior to discharge into the receiving water		
<b>Waterbody Compliance Point</b>	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.

**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	0.4	mgd	Daily 5/week	measured / recorded
5-day Biochemical Oxygen Demand (influent)	report	report	report	report	mg/l	1/month	Grab or composite <sup>3</sup>
	report	report	report	report	lbs/day		
5-day Biochemical Oxygen Demand (effluent)	N/A	30	45	60	mg/l	2/month	Grab or composite <sup>3</sup>
	N/A	100.1	150.1	200.2	lbs/day		
Total Suspended Solids (influent)	report	report	report	report	mg/l	1/month	Grab or composite <sup>3</sup>
	report	report	report	report	lbs/day		
Total Suspended Solids (effluent)	N/A	30	45	60	mg/l	2/month	Grab or composite <sup>3</sup>
	N/A	100.1	150.1	200.2	lbs/day		
<b>TSS minimum % removal: 85%</b>			<b>BOD minimum % removal: 85%</b>		%	1/month	Calculated <sup>4</sup>
Fecal Coliform Bacteria (effluent) <sup>1</sup>	N/A	100,000	N/A	150,000	FC per 100 ml	2/month	Grab
Dissolved Oxygen (effluent)	2	N/A	N/A	N/A	mg/l	1/week	Grab
pH (effluent)	6	N/A	N/A	9	S.U.	Daily 5/week	Grab
Total Residual Chlorine (effluent) <sup>2</sup>	N/A	0.5	N/A	1.0	mg/l	Daily 5/week	Grab

**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 a rectangle, 30 meters by 100 meters, orientated along the outfall and over the diffuser, extending from the diffuser 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) <sup>1</sup>	N/A	14	43 <sup>2</sup>	FC per 100 ml	Twice per year -- 2/year <sup>5</sup>	Grab
Fecal Coliform Bacteria (Shoreline in MZ) <sup>1</sup>	N/A	200	400 <sup>2</sup>	FC per 100 ml	Twice per year -- 2/year <sup>5</sup>	Grab
Total Chlorine <sup>3</sup> (Outside edge of MZ)	N/A	N/A	0.0075	mg/l	Twice per year -- 2/year <sup>5</sup>	Grab
pH (Outside edge of MZ) <sup>4</sup>	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**

Signature

William D. McGee

Printed Name

**June 23, 2004**

Date

Technical Engineer

Title

# Discharge Monitoring Report

(DMR) – PAGE 1 of 2

<b>Permit number:</b> AKG-57-1000-017	Expires: July 20, 2009	Submit this report to:	ADEC and EPA to the addresses on Part D 11 of the NPDES general permit.
<b>ADEC File number:</b> 1528.45.001			

<b>Applicant Name:</b> City of Thorne Bay	<b>Responsible party:</b> Ralph Groshong
<b>Address:</b> P.O. Box 19110, Thorne Bay, AK 99919	<b>Phone / email:</b> 907-828-3380
<b>Facility:</b> Thorne Bay Public Utility	<b>Onsite Contact:</b> Ralph Groshong
<b>Location:</b> Thorne Bay	<b>Phone:</b> 907-828-3380

<b>Required Reporting Frequency</b> Monthly	<b>Discharge:</b> Secondary treated wastewater discharged into the Thorne Bay	<b>Sample Period</b>	
		<b>From:</b>	
		<b>To:</b>	

<u>Parameter</u>	Min. Value	30 day Average	7 day Average	Max. Value	Number of Analyses	Number of Violations	Units	Frequency of Analysis	Sample Method
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**Discharge 1**

Flow Rate (effluent or influent)	Estmt'd/ Measure	/	/	/					
	Permit Limits	N/A	report	N/A	0.4	report	report	mgd	Daily 5/week
Biochemical Oxygen Demand (influent)	Analytical Results	/							
	Permit Limits	N/A	report	report	report	report	report	mg/l	1/month
Biochemical Oxygen Demand (effluent)	Analytical Results	/							
	Permit Limits	N/A	30	45	60	report	report	mg/l	2/month
Biochemical Oxygen Demand (effluent)	Analytical Results	/							
	Permit Limits	N/A	100.1	150.1	200.2	report	report	lbs/day	2/month
Biochemical Oxygen Demand % removal	Analytical Results	/							
	Permit Limits	85%	N/A	N/A	N/A	report	report	%	1/month
Total Suspended Solids (influent)	Analytical Results	/							
	Permit Limits	N/A	report	report	report	report	report	mg/l	1/month
Total Suspended Solids (effluent)	Analytical Results	/							
	Permit Limits	N/A	30	45	60	report	report	mg/l	2/month
Total Suspended Solids (effluent)	Analytical Results	/							
	Permit Limits	N/A	100.1	150.1	200.2	report	report	lbs/day	2/month
Total Suspended Solids % removal	Analytical Results	/							
	Permit Limits	85%	N/A	N/A	N/A	report	report	%	1/month
Fecal Coliform Bacteria (effluent)	Analytical Results	/							
	Permit Limits	N/A	100,000	N/A	150,000	report	report	#/100 ml	2/month
Dissolved Oxygen (effluent)	Analytical Results	/							
	Permit Limits	2	N/A	N/A	N/A	report	report	mg/l	1/week
pH (effluent)	Analytical Results	/							
	Permit Limits	6	N/A	N/A	9	report	report	Std. Units	Daily 5/week
Total Residual Chlorine (effluent)	Analytical Results	/							
	Permit Limits	N/A	0.5	N/A	1.0	report	report	mg/l	Daily 5/week

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.

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

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

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

# Discharge Monitoring Report

(DMR) – PAGE 2 of 2

<b>Permit number:</b> 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.
<b>ADEC File number:</b> 1528.45.001			

<b>Applicant Name:</b> City of Thorne Bay	<b>Responsible party:</b> Ralph Groshong
<b>Address:</b> P.O. Box 19110, Thorne Bay, AK 99919	<b>Phone / email:</b> 907-828-3380
<b>Facility:</b> Thorne Bay Public Utility	<b>Onsite Contact:</b> Ralph Groshong
<b>Location:</b> Thorne Bay	<b>Phone:</b> 907-828-3380

<b>Required Reporting Frequency</b> Monthly	<b>Discharge:</b> Secondary treated wastewater discharged into the Thorne Bay	<b>Sample Period</b>
		<b>From:</b>
		<b>To:</b>

**Mixing Zone**

<b>Parameter</b>		<u>Min. Value</u>	<u>30 day Average</u>	<u>7 day Average</u>	<u>Max. Value</u>	<u>Number analyses</u>	<u>Number violations</u>	<u>Units</u>	<u>Frequency of Analysis</u>	<u>Sample Method</u>
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	200	N/A	400	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.

<b>NAME, TITLE OF PRINCIPAL EXECUTIVE OFFICER</b>	<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>		
			( ) _____
	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 NOTIFICATION<sup>1</sup>

<b>GENERAL INFORMATION</b>		PERMIT/AUTHORIZATION #: AKG-57-1000-013	
APPLICANT/COMPANY: City of Thorne Bay	FACILITY NAME: Thorne Bay Public Utility	FACILITY LOCATION: Thorne Bay, 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			
<b>INCIDENT DETAILS (attach additional sheets, lab reports and photos as necessary)</b>			
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
<b>CORRECTIVE ACTIONS</b> 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

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

# ACCIDENTAL DISCHARGE / SPILL NOTIFICATION<sup>1</sup>

GENERAL INFORMATION:		PERMIT/AUTHORIZATION #: AKG-57-1000-013	
APPLICANT/COMPANY: City of Thorne Bay	FACILITY NAME: Thorne Bay Public Utility	FACILITY LOCATION Thorne Bay, 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.