

410 Willoughby Avenue, Ste. 303
Juneau, AK 99801-1795
PHONE: (907) 465-5300
FAX: (907) 465-5274
<http://www.state.ak.us/dec/>

DIVISION OF AIR AND WATER QUALITY
Wastewater Discharge Permits Program

November 2, 2001

Ernie Mueller
Public Works Director
City & Borough of Juneau
5433 Shaune Drive
Juneau, AK 99801

RE: State of Alaska, DEC 401 Certification of NPDES Permit No. AK-002321-3

Dear Mr. Ernie Mueller;

In accordance with Section 401 of the Clean Water Act of 1977 and provisions of the Alaska Water Quality Standards, the Department of Environmental Conservation is issuing the enclosed Certificate of Reasonable Assurance for the renewal of the NPDES permit for discharges of secondary, disinfected treated wastewater from the Juneau-Douglas Wastewater Treatment Facility located at Juneau, Alaska. This Department action represents only one element of the overall project level coastal management consistency determination issued by the Office of Management and Budget under AS 44.19 and 6 AAC 50.070.

Department of Environmental Conservation regulations provide that any person, who disagrees with any portion of the final decision, may request an adjudicatory hearing in accordance with 18 AAC 15.200-920. The request should be mailed to the Commissioner of the Alaska Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, Juneau, AK. 99801-1795. Please send a copy of any such requests to the undersigned. You are reminded that, even if an adjudicatory hearing has been requested and granted, all permit conditions will remain in full force and effect. Failure to submit a hearing request within thirty days of receipt of the final determination letter shall constitute a waiver of that person's right to judicial review of this decision.

By copy of this letter we are advising the City of Juneau, the Environmental Protection Agency and the Division of Governmental Coordination of our actions and enclosing a copy of the final certification for their use.

Sincerely,

SIGNATURE ON FILE

Pete McGee, Environmental Engineer
Technical Lead
Wastewater Discharge Program

Enclosure: Final Certificate of Reasonable Assurance

cc:

Clynda Case, ADEC/Juneau

Pete McGee, ADEC/Fairbanks

Tim Wingerter, ADEC/Fairbanks

Madonna Nervez, EPA Reg. X/Seattle, WA

ADF&G/Juneau

ADNR, Juneau

DGC/Juneau

Robert Robechaud, EPA Reg. X/Seattle, WA

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FINAL CERTIFICATE OF REASONABLE ASSURANCE

A Certificate of Reasonable Assurance, as required by Section 401 of the Clean Water Act, has been requested by the City of Juneau for the marine water discharge of secondary treated and disinfected wastewater from the Juneau-Douglas Wastewater Treatment Facility.

The activity is located at Latitude 58° 17' 2" N, Longitude 134° 23' 13" W, near Juneau, Alaska with discharges to Gastineau Channel.

Public notice of the application for this certification was made in accordance with 18 AAC 15.180.

Water quality certification is required for the activity, because the activity will be authorized by an Environmental Protection Agency permit identified as NPDES Permit No. AK-00231-3 and a discharge will result from the activity.

After review of the public comments received in response to the public notice, the Alaska Department of Environmental Conservation certifies that there is reasonable assurance that the activity and the resulting discharge is in compliance with the requirements of Section 401 of the Clean Water Act, which includes the Alaska Water Quality Standards, 18 AAC 70, and the Standards of the Alaska Coastal Management Program, 6 AAC 80, provided that the following stipulations are adhered to. These stipulations were adopted pursuant to 6 AAC 50 (Project Consistency with the Alaska Coastal Management Program) and are necessary to ensure that the project is consistent with the ACMP:

- 1.) The Alaska Department of Environmental Conservation, (ADEC) requires a flow rate limitation of 2.76 million gallons per day (mgd) for a monthly average and 6.0 mgd for a daily maximum.

Rationale: In accordance with State Regulations 18 AAC 70.245, the Department will consider the characteristics of the effluent, including flow rate, when determining the appropriateness and size of a mixing zone. Restricting the amount of flow will assure that the size of the mixing zone is appropriate and that the treatment capacity of the facilities is not exceeded.

- 2.) The ADEC requires a maximum biochemical oxygen demand, (BOD5) limitation of 30 mg/l for a monthly average, 45 mg/l for a weekly average and 60 mg/l for a daily maximum.

Rationale: In accordance with State Regulations 18 AAC 15.090, the Department may attach terms and conditions to a permit, variance, or approval, including operating, monitoring, inspection, sampling, access to records and reporting requirements, and the posting of a performance bond or other surety, that it considers necessary to ensure that all applicable criteria will be met.

- 3.) The ADEC requires a maximum total suspended solids limitation of 30 mg/l for a monthly average, 45 mg/l for a weekly average and 60 mg/l for a daily maximum.

Rationale: In accordance with State Regulations 18 AAC 15.090, the Department may attach terms and conditions to a permit, variance, or approval, including operating, monitoring, inspection, sampling, access to records and reporting requirements, and the posting of a

performance bond or other surety, that it considers necessary to ensure that all applicable criteria will be met.

- 4.) The ADEC requires a minimum for dissolved oxygen (DO) of 2.0 mg/L and a maximum of 17mg/L.

Rationale: In accordance with State Regulations 18 AAC 15.090, the Department may attach terms and conditions to a permit, variance, or approval, including operating, monitoring, inspection, sampling, access to records and reporting requirements, and the posting of a performance bond or other surety, that it considers necessary to ensure that all applicable criteria will be met.

- 5.) The ADEC requires effluent limitations for fecal coliform bacteria of 400 fecal coliform bacteria (FC) per 100 ml of sample for a monthly average, 800 FC per 100 ml of sample for a weekly average and 1200 FC per 100 ml of sample for a daily maximum. The effluent must be sampled at least one time per week.

Rationale: In accordance with State Regulations 18 AAC 70.245, the Department will consider the characteristics of the effluent when determining the appropriateness and size of a mixing zone.

- 6.) The ADEC requires effluent limitation for pH of 6.0 to 8.5 standard units, (S.U.)

Rationale: In accordance with State Regulations 18 AAC 70.045, the Department will consider the characteristics of the effluent when determining the appropriateness and size of a mixing zone.

- 7.) The ADEC designates a mixing zone (MZ) for fecal coliform bacteria and pH contained in the discharge from the Juneau-Douglas Wastewater Treatment Facility. The mixing zone is defined as a circle, with a radius of 90 meters, centered on the outfall line and over the diffuser.

Rationale: In accordance with State Regulations 18 AAC 70.240, the Department has authority to designate mixing zones in permits or certifications. This mixing zone will ensure that the most stringent water quality standard limitations for fecal coliform bacteria; 14 FC/100 ml, 30 day average, (not more than 10% of the samples may exceed 43 FC/100 ml.), is met at all points outside of the mixing zone.

- 8.) The ADEC requires monitoring at the outside edge of the mixing zone for fecal coliform bacteria. Fecal coliform sampling shall be conducted in the months of May, June, July, August, September and October and once during November through April of each year of the permit. The monitoring may be decreased after two years if the results indicate that discharge has not caused the State of Alaska Water Quality Standards to be exceeded outside of the mixing zone. The sampling sites are identified in Appendix A of the NPDES permit and in the permit's Table I.C1. – Receiving Water Quality Monitoring Requirements.

Rationale: In accordance with State Regulations 18 AAC 70.245, the Department has authority to ensure that existing uses of the waterbody outside the mixing zone are maintained and fully protected. The specified monitoring will provide evidence to the

Department that the treatment and mixing zone size is adequate and also provide assurance to receiving water users that they may conduct their activities outside of the mixing zone without fear of damaging effects caused by the discharge.

- 9.) The ADEC designates a zone of initial dilution (ZID) for the discharge from the Juneau-Douglas Wastewater Treatment Plant. The ZID is defined in the fact sheet as an oval of 27.4 m (90.0 ft) long (perpendicular to shore) and 20.0 m (65.6 ft) (see Appendix A), centered on the diffuser and located perpendicular to the shoreline, with a dilution ratio of 26:1. The most stringent limits for the parameters listed in the State of Alaska Water Quality Standards must be met outside of the ZID, (except for fecal coliform bacteria and pH which must be met outside of the mixing zone)

Rationale: In accordance with State Regulations 18 AAC 70.240, the Department has authority to designate mixing zones in permits or certifications. This mixing zone will ensure that the most stringent water quality standard limitations for all parameters, (except fecal coliform bacteria) are met at all points outside of the ZID.

- 10.) The ADEC requires fecal coliform bacteria limitations of 14 FC per 100 ml of sample for a monthly average and 43 FC per 100 ml of sample for a daily maximum. These limitations must be met at the outside edge of the mixing zone.

Rationale: In accordance with State Regulations 18 AAC 70.020, the Department has authority to protect classes of use of the state's water. The limitations are protective of the most stringent State of Alaska Water Quality Standards for fecal coliform bacteria.

- 11.) The ADEC requires that a sign be placed on the shoreline near the outfall line. The sign should state that treated domestic wastewater is being discharged, the name and owner of the facility and the approximate location and size of the mixing zone. The signs should inform the public that certain activities, such as the harvesting of shellfish for raw consumption and bathing should not take place in the mixing zone and give a contact number for additional information.

Rationale: In accordance with AS 46.03.110, (d), the department may specify in a permit the terms and conditions under which waste material may be disposed of. The notification requirement is intended to inform and provide assurances to the public that the wastewater is being treated in accordance with Alaska Water Quality Standards, 18 AAC 70.

November 2, 2001

Date

SIGNATURE ON FILE

William D. McGee

Program Manager

State Discharge Permit and Certification Plan