



## FACT SHEET

**NPDES Permit Number: AK-002254-3**

**Date: September 6, 2005**

**Public Notice Expiration Date: October 6, 2005**

**Contact: Lisa Olson (206) 553-0176 or  
1-800-424-4372 (within Region 10 only)  
[olson.lisa@epa.gov](mailto:olson.lisa@epa.gov)**

The U.S. Environmental Protection Agency (EPA)  
Plans to Reissue the Wastewater Discharge Permit for:

**Municipality of Anchorage  
Eagle River Wastewater Treatment Facility  
Eagle River, Alaska**

The State of Alaska Intends to Certify that the Permit Complies with:

- (1) Alaska Water Quality Standards; and
- (2) Alaska Coastal Management Requirements

### **EPA Proposes NPDES Permit Reissuance.**

EPA proposes to reissue the existing National Pollutant Discharge Elimination System (NPDES) permit for Municipality of Anchorage Eagle River Treatment Facility (15524 Artillery Road). The draft permit sets conditions on the discharge--or release--of pollutants from the facility to the Eagle River.

This Fact Sheet includes:

- information on public comment, public hearing, and appeal procedures
- information that forms the basis of the current permit conditions
- proposed revisions to current permit conditions

### **The State of Alaska intends certification.**

The Alaska Department of Environmental Conservation (ADEC) intends to certify the NPDES permit for the Municipality of Anchorage Eagle River Treatment Facility under section 401 of the Clean Water Act. The permit may change after review and draft certification by ADEC.

### **EPA Invites Comments on the Draft Permit.**

EPA will consider all substantive comments before issuing a final permit. Those wishing to comment on the draft permit may do so in writing by the close of the comment period. Comments should be mailed to this address:

U.S. Environmental Protection Agency  
Region 10  
1200 Sixth Avenue, OWW-130  
Seattle, Washington 98101  
Attn: Lisa Olson

After the comment period closes and all comments have been considered, EPA's regional Office of Water and Watersheds Director will make a final decision regarding permit issuance.

If no substantive comments are received on the proposed permit, the tentative conditions in the draft permit will become final, and the permit will become effective upon issuance. If comments are received, EPA will address the comments and issue the permit along with a response to comments. The permit will become effective 30 days after the issuance date, unless a request for an evidentiary hearing is submitted within 30 days. EPA will hold a public hearing on the draft permit in the Anchorage area if there is sufficient public interest. Persons interested in requesting a public hearing on the draft permit should submit written requests to EPA by the close of the comment period. If there is sufficient public interest in a hearing, the comment period will be extended to allow time for a hearing. Details about the time and location of the hearing would be provided in a separate notice.

Persons wishing to comment on State Certification should submit written comments before the public notice expiration date to the Alaska Department of Environmental Conservation at this address:

Alaska Department of Environmental Conservation  
Division of Water  
555 Cordova Street  
Anchorage, Alaska 99501  
Attn: Renee Evans

**Documents Are Available for Review.**

The draft NPDES permit and related documents can be reviewed at EPA's Regional Office in Seattle between 8:30 a.m. and 4:00 p.m., Monday through Friday. To request copies and other information, contact Lisa Olson at (206) 553-0176 or 1 (800) 424-4372 (within Region 10 only). Those with impaired hearing or speech may contact a TDD operator at 1-800-833-6384. Additional services can be made available to persons with disabilities by contacting EPA.

The fact sheet and draft permit are also available at the Alaska Department of Environmental Conservation offices in Fairbanks (see address above) and at EPA's Alaska Operations Office in Anchorage, 222 W. 7th Ave #19. The draft permit and fact sheet can also be found by visiting the Region 10 web site at [www.epa.gov/r10earth/offices/water/npdes.htm](http://www.epa.gov/r10earth/offices/water/npdes.htm).

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Appendix A : Facility Location Maps

I. Facility Information

Municipality of Anchorage

Mailing Address:  
3000 Arctic Blvd.  
Anchorage, AK 99503

Facility Location:  
15524 Artillery Rd.  
Eagle River, AK 99577

NPDES Permit No.: AK-002254-3  
Contact: Mark Premo, General Manager

The Municipality of Anchorage operates the Eagle River Wastewater Treatment Facility, a publicly owned treatment works in Eagle River, Alaska (see Figures 1 and 2). The facility provides secondary treatment prior to discharging the effluent into the Eagle River approximately 1.5 river miles west of the Glenn Highway crossing at 61° 19' 10" N and 149° 35' 30" W. The plant receives primarily domestic waste water from local residents and commercial establishments. There are no significant industrial dischargers to the facility. The collection system has no combined sewers. The design capacity of the plant is 2.5 million gallons per day average dry weather flow.

II. Permit Chronology

The Eagle River facility has been operating under the National Pollutant Discharge Elimination System permit program since 1974. The current 5-year permit was issued May 2, 2000, and it expired on June 5, 2005.

III. Current Discharge Quality

The Eagle River facility has reported compliance for the past three years with effluent limitations in its Discharge Monitoring Reports (DMRs). A summary of the facility's performance during one year (2004) is shown below:

Parameter	Maximum
Flow, mgd	1.998
Biochemical Oxygen Demand (BOD <sub>5</sub> ), Weekly Average, mg/L	16
Monthly Average, mg/L	11
Total Suspended Solids (TSS), Weekly Average, mg/L	16
Monthly Average, mg/L	8
BOD <sub>5</sub> Percent Removal (minimum)	95
TSS Percent Removal (minimum)	96
Fecal Coliform, #/100 mL	196
Total Residual Chlorine, ug/L	Non detect
pH, min/max, s.u.	6.5/7.1
Temperature, °C	17
Ammonia, mg/L	8.75
Lead, ug/L	2
Copper, ug/L	19

In addition to monitoring the above parameters, the facility conducted regular toxicity testing. No toxicity was detected. EPA proposes to retain a chronic toxicity monitoring requirement in the permit with annual testing (see below).

#### IV. Basis of Permit Conditions

There have been no changes in the technology or water quality-based requirements that apply to the Eagle River municipal treatment facility since the development of the 1995 and 2000 permits. Therefore, EPA proposes to reissue the permit with no changes to the permit limitations and a limited number of revisions to monitoring, reporting, and standard conditions. These proposed revisions are described below.

Since the fact sheet, response to comments, and TMDL for the 1995 and 2000 permits continue to form the basis for the permit conditions, EPA has included these documents in the administrative record for this permit reissuance. EPA will provide copies of these documents to interested parties upon request (see contact information in the first part of this fact sheet).

#### V. Proposed Changes to the Permit

##### A. Monitoring

###### Toxicity

The previous permit required quarterly testing for one year to be reduced to annual testing if no toxicity was demonstrated in the first four tests. No toxicity was demonstrated, so testing was reduced. Since no toxicity was found for the duration of the previous permit term, EPA proposes annual monitoring for chronic toxicity in the draft permit.

###### Ambient Monitoring

**Fecal Coliform** - The previous permit required a two-year ambient fecal coliform monitoring program beginning in October 2000. The monitoring was discontinued after two years as allowed by the permit because the results indicated that the discharge did not cause the State of Alaska water quality standards to be exceeded. During the study, the maximum effluent fecal coliform result from 143 sampling events was 5 organisms/100 mL, with a geometric mean of 1 organism/100 mL. Monitoring upstream of the facility's outfall indicated a slightly higher concentration of fecal coliform than downstream of the outfall.

EPA proposes to eliminate the ambient fecal coliform monitoring based on the above study and the permit application, which states that the Permittee does not intend to change the disinfection method within the foreseeable future. If the method of disinfection is changed, then the monitoring program will be reinitiated.

**Metals** - The permit issued in 1995 required the Eagle River facility to conduct ambient monitoring to assess metals levels in Eagle River upstream from the facility. The facility sampled 5 locations quarterly for one year (1996). An additional sampling was conducted in the summer of 1997. While the monitoring generally found low concentrations of metals (consistent with water quality evaluations by EPA and ADEC for the previous

permit), copper and lead levels exceeded Alaska water quality standards in each of the locations in July 1996. This included an upstream station (ER-1) which provides information about natural background concentrations. The elevated metals levels on the July 1996 sampling day appeared to corresponded to higher flows and suspended solids levels in the river. The permit issued in 2000 continued ambient metals monitoring to further characterize the range of natural conditions.

The initial reason for the monitoring requirement in the 1995 permit was to collect sufficient background data to determine whether total maximum daily loads (TMDLs) for metals that had been established should be changed based on the ambient metals concentrations in the receiving water. The initial study completed in 1998 included the analysis of copper, lead, silver, and zinc as required by the permit. Total recoverable concentrations of all four metals were found to be directly correlated to Eagle River's suspended sediment concentrations and flow, with the highest concentrations occurring during the summer glacial melt period and the lowest concentrations occurring during the winter months. Dissolved concentrations of all four metals were found to be very low when compared to EPA water quality criteria. Total recoverable concentrations of copper and lead were found to be elevated with respect to the State of Alaska total recoverable criteria during the summer months as a result of the naturally high suspended sediment loads. Based on these results, it was decided that additional sampling should be performed in the next permit to further characterize total recoverable copper and lead during the summer months to determine whether the total recoverable water quality criteria should be adjusted to account for the naturally high background concentrations. An additional objective was to further characterize dissolved copper and lead concentrations, since it was envisioned that the State of Alaska would eventually adopt the federal dissolved criteria and base future NPDES permits on those criteria. Both of these objectives were achieved during the three-year study that was completed in 2003 as detailed in the final report submitted to EPA on December 29, 2003. The study determined that if the State of Alaska continued to use total recoverable metals for water quality criteria, the criteria would need to be adjusted to account for the naturally high background conditions. In the interim, however, the State of Alaska has adopted the EPA recommended dissolved criteria for these metals. Since the State criteria are now in the dissolved form and background concentrations of dissolved metals were shown to be low in Eagle River, the Municipality of Anchorage requested that EPA eliminate the requirement for ambient metals monitoring. EPA agrees and proposes to eliminate ambient metals monitoring in the draft permit.

## B. Reporting

### Quality Assurance Plan

The previous permit required the Eagle River facility to develop and submit a Quality Assurance Plan for its compliance monitoring program. Since this requirement was met and the plan remains valid, the proposed permit simply requires the facility to review the existing plan and update as necessary.

### Operation and Maintenance (O&M) Plan

The proposed permit requires the facility to review its O&M plan and update as necessary.

### C. Total Residual Chlorine

Total Residual Chlorine requirements have been changed to reflect EPA's current guidance on water quality based effluent limits set below analytical detection/quantitation limits.

A maximum daily limit was calculated using methods in the Technical Support Document for Water Quality-based Toxics Control, U.S. EPA, March 1991 (EPA/505/2-90-001). The resulting numerical value (11  $\mu\text{g/L}$ ) replaced the previous permit limit of "non-detect." The limit is not quantifiable using EPA approved analytical methods, so EPA will use 100  $\mu\text{g/L}$  (the Minimum Level, ML) as the compliance evaluation level.

The permit requires the use of an analytical method that will achieve a method detection limit (MDL) of 0.010 mg/L (10  $\mu\text{g/L}$ ).

For purposes of reporting on the DMR, if a value is less than the MDL (10  $\mu\text{g/L}$ ), the permittee must report "<10  $\mu\text{g/L}$ " on the DMR. If the value is between the MDL and the ML (between 10 and 100  $\mu\text{g/L}$ ), the permittee must report "<100  $\mu\text{g/L}$ " on the DMR. If a value is greater than or equal to the ML (100  $\mu\text{g/L}$ ), the permittee must report and use the actual value.

For purposes of calculating averages, zero may be assigned for values less than the MDL, and 10  $\mu\text{g/L}$  may be assigned for values between the MDL and ML. If the average value is less than the MDL, the permittee must report "<10  $\mu\text{g/L}$ ," and if the average value is between the MDL and ML, the permittee must report "<100  $\mu\text{g/L}$ ."

### D. Sludge Language

The Eagle River facility has updated its biosolids permit application for this facility as required. EPA will issue a sludge-only permit to this facility at a later date. This will likely be in the form of a general permit through which EPA can cover and better serve multiple facilities. Meanwhile, the environment will be protected since the permittees sludge activities will continue to be subject to the national sewage sludge standards at 40 CFR 503. The CWA prohibits any use or disposal of biosolids not in compliance with these standards. EPA has the authority under the CWA to enforce these standards directly, including in the absence of a permit. The CWA does not require the facility to have a permit prior to use or disposal of biosolids. Also, the State of Alaska conducts a program to review and approve biosolids activities.

### E. Standard Conditions

EPA has updated the standard conditions to reflect the most current NPDES permit boilerplate and language.

EPA has updated the language and penalty amounts in the standard conditions of the permit as a result of changes in the federal permitting regulations (40 CFR 122.41 {a}) since the last permit was issued.

## VI. Other Requirements

### A. Endangered Species Act

Pursuant to the Endangered Species Act (ESA), EPA contacted US Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) to determine whether there are any threatened or endangered species in the vicinity of the discharge. EPA received letters from USFWS (dated November 16, 1999) and NMFS (dated November 19, 1999) indicating that there are no ESA species in the area of the discharge. Therefore, EPA determined that the discharge would have no effect on any threatened or endangered species. EPA sent letters to NMFS, now National Oceanic and Atmospheric Administration (NOAA) Fisheries, and USFWS on March 18, 2005 requesting an updated list of species. EPA received a letter from USFWS dated April 4, 2005 reiterating the fact that there are no species listed as threatened or endangered in the area, and no further consultation is required on the project as this time. EPA received a letter from NOAA Fisheries dated April 25, 2005 stating that there are no listed species in the area of the discharge and agreeing with EPA's conclusion that the discharge will have no effect on listed species. Based on previous and recent communications and continuing water quality-based permit limits, EPA has determined that the discharge will have no effect on any threatened or endangered species.

### B. Essential Fish Habitat

The Magnuson-Stevens Act (January 21, 1999) requires federal agencies to consult with NMFS when any activity proposed to be permitted, funded, or undertaken by a federal agency may have an adverse effect on designated Essential Fish Habitat (EFH) as defined by the Act. The EFH regulations define an *adverse effect* as any impact which reduces quality and/or quantity of EFH and may include direct (e.g. contamination or physical disruption), indirect (e.g. loss of prey, reduction in species' fecundity), site-specific, or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. In a November 19, 1999, letter to EPA, NMFS indicated that the EFH species for Eagle River are king, sockeye, coho, pink, and chum salmon.

Since the proposed permit has been developed to protect all aquatic life species in Eagle River in accordance with the Alaska water quality standards, EPA has tentatively determined that issuance of this permit is not likely to adversely affect any EFH in the vicinity of the discharge. EPA received a letter from NOAA Fisheries dated April 25, 2005, which reserved comment on the possible adverse effects on EFH until after review of the draft permit and fact sheet. EPA will provide NOAA Fisheries with copies of the draft permit and fact sheet during the public notice period. Any comments received from NOAA Fisheries regarding EFH will be considered prior to reissuance of this permit.

### C. State Certification

Because this permitting action affects state waters, the provisions of Section 401 of the Act apply. In accordance with 40 CFR §124.10(c)(1), public notice of the draft permit has been provided to the State of Alaska agencies having jurisdiction over fish, shellfish, and wildlife resources.

If the State of Alaska authorizes any changes to its 401 certification, EPA will revise the permit prior to reissuance of the final permit.

#### D. Coastal Zone Management Act (CZMA)

On April 17, 2000 this project was found to be consistent with the Alaska Coastal Management Program (ACMP). According to the current regulations, 11 AAC 110.830, projects found to be consistent do not have to undergo another consistency determination process unless a modification is proposed. Although some of the draft permit conditions are different from the conditions in the previous permit, Alaska regulations at 11 AAC 110.820(k)(3) and (4) state that modifications that decrease the impact of the project without a change in purpose or that are within the scope of the original project that was reviewed are not subject to further consistency review.

The level of activity at the site is the same as it was when the project was last reviewed in 2000. The draft permit authorizes the discharge of only those pollutants resulting from processes, waste streams and operations identified in the most recent application. For all pollutants, effluent limits in the draft permit are as stringent as limits in the previous permit. Those monitoring requirements that have been eliminated in the draft permit have been shown to be unnecessary, since the Eagle River facility discharge has no reasonable potential to cause or contribute to an exceedence of water quality standards for the pollutants in question.

EPA believes that the modifications proposed from the previous permit to the draft permit are within the scope of the previous project review. Therefore, pursuant to 11 AAC 110.820(k)(3) and (4), consistency review is not required for this permit reissuance. EPA will provide the Alaska Coastal Management Program with copies of the draft permit and fact sheet during the public notice period. Any comments received will be considered prior to reissuance of this permit.

#### E. Permit Term

This permit shall expire five years from its effective date.

*Prepared by Lisa Olson, August 26, 2005*

## Appendix A : Facility Location Maps