Alaska Pollutant Discharge Elimination System Program

Continuing Planning Process

Alaska Department of Environmental Conservation

Division of Water

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ACRONYM LIST

AAC	Alaska Administrative Code
ACMP	Alaska Coastal Management Program
ACWA	Alaska Clean Water Actions
ACWF	Alaska Clean Water Fund
APDES	Alaska Pollutant Discharge Elimination System
CFR	Code of Federal Regulations
CWA	Clean Water Act
DEC	Department of Environmental Conservation
DFG	Department of Fish and Game
DNR	Department of Natural Resources
EPA	Environmental Protection Agency
IUP	Intended Use Plan
MMG	Municipal Matching Grants
NPDES	National Pollutant Discharge Elimination System
LPP	Large Project Permitting
OHMP	Office of Habitat Management and Permitting
OPMP	Office of Project Management & Permitting
PPA	Performance Partnership Agreement
TMDL	Total Maximum Daily Load
TRE	Toxicity Reduction Evaluation
WPQMP	Water Programs Quality Management Plan
WQM	Water Quality Management
WQS	Water Quality Standards

CONTINUING PLANNING PROCESS

The Alaska Department of Environmental Conservation (hereafter, the Department) continuing planning process, in conjunction with implementation of the Alaska Pollutant Discharge Elimination System (APDES) program, fulfills the legal requirements of §303(e) of the Clean Water Act (CWA) and 40 CFR §130.5. The Performance Partnership Agreement negotiated annually with the Environmental Protection Agency (EPA) will continue to be the primary tool to plan clean water programs and priorities.

This Continuing Planning Process will be updated, when necessary, to reflect significant changes to the process or new or amended federal regulations or guidance.

1.0 Developing Effluent Limitations and Schedules of Compliance

> The process for developing effluent limitations and schedules of compliance at least as stringent as those required by sections 301(b)(1) and (2), 306, and 307, and at least as stringent as any requirements contained in applicable water quality standards in effect under authority of §303 of the Act. [40 CFR §130.5(b)(1)]

Alaska's process to develop effluent limitations is essentially the same and at least as stringent as EPA's. State law [AS 46.03.020(12)] provides authority to take all actions necessary to receive authorization of the federal National Pollutant Discharge Elimination System (NPDES) program from EPA, including the adoption of the required regulations to implement the program [40 CFR §123.25(a)]. The Department may not issue a permit that would violate provisions of federal law relating to water pollution control, anchorage or navigation, or any other provision relating to the regulation of a discharge of pollutants under the NPDES program.

The Department will issue permits that protect receiving water quality using effluent standards that are consistent with the Clean Water Act (CWA) and the corresponding Code of Federal Regulations. Alaska has adopted applicable regulations that parallel the federal regulations to establish effluent limitations. The regulations at 18 AAC 83 incorporate the provisions of 40 CFR §§122, 124, 125, 129, 133, 401, 403, and 405 through 471. Alaska uses EPA effluent guidelines, best professional judgment, and EPA approved state Water Quality Standards, as appropriate, to develop effluent limitations.

In no case will a permit contain an effluent limitation that is less stringent than required by the applicable effluent guidelines in effect at the time a new permit is issued or in effect at the time the permit is reissued or modified. In no case will a permit contain an effluent limit that violates the water quality standards.

Technology-based effluent limitations will be based on effluent limitation guidelines and standards promulgated under §301 of the CWA, new source performance standards promulgated under §306 of the CWA, on a case-by-case basis determined under §402(a)(1) of the CWA, or a combination of the three in accordance with 40 CFR §125.3 (technology-based effluent limit requirements).

The discharge of toxic pollutants is regulated by 18 AAC 83.335 [(40 CFR §122.21(j)(5)] in conformance with §307(a) of the CWA. Development of effluent limitations for toxics is based on *Technical Support Document for Water Quality-Based Toxics Control* (EPA, 1991). Permittees will send discharge monitoring reports and results of whole effluent toxicity testing to the Department. The Department will conduct a reasonable potential analysis to determine if the discharge has the potential to violate the water quality standards. Permits will include a requirement to prepare a toxicity reduction evaluation (TRE) plan if actions are necessary to achieve water-quality based effluent limitations to comply with water quality standards. The TRE plan will be based on *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA, 1989). Upon approval of the Alaska Pollutant Discharge Elimination System (APDES) program, the Department will include a re-opener clause in permits to modify permits to include water quality-based effluent limits to control toxicity if

there is reasonable potential that an instream water quality standard will be exceeded or is exceeded.

Until nutrient criteria are developed, effluent limitations for nutrients will be developed through the Total Maximum Daily Load (TMDL) process.

Statutory deadlines for meeting technology-based water quality requirements of the CWA have passed; therefore, a permit will only contain schedules of compliance for new limits that are needed to implement current water quality standards. The Department will use the shortest reasonable schedule to achieve compliance within three years. EPA and the Department will address the special circumstances with small rural domestic facilities through the annual Performance Partnership Agreement.

2.0 Incorporating Elements of Waste Treatment and Basin Plans

> The process for incorporating elements of any applicable areawide waste treatment plans under §208 and applicable basin plans under §209 of the Act. [40 CFR §130.5(b)(2)]

Congress ended funding for Clean Water Act (CWA) §208 and §209 planning in the 1980's and many states do not specifically develop and maintain such a plan. Although states developed waste treatment and basin plans in the past, the annual negotiation of the Performance Partnership Agreement (PPA) with EPA now serves as the primary planning tool for water quality assessment and protection. The Department uses state funds, grant funds from CWA §104(b)(3), §319, and §106, and the following methods to ensure a holistic approach to water quality management:

1. Annual negotiations with EPA on the PPA.
2. Bi-annual development of the Alaska Integrated Water Quality Monitoring and Assessment Report (Integrated Report) (See Section 3.0).
3. Total Maximum Daily Load development and implementation schedule (included in the Integrated Report).
4. Implementation of the Alaska Clean Water Actions and annual updates to the waterbody ranking (see Section 5.0.).
5. Revising permit limitations and conditions to address documented problems identified through methods 1-4 above.

3.0 Developing Total Maximum Daily Loads (TMDLs) and Water-Quality Based Effluent Limitations

The process for developing TMDLs and individual water-quality based effluent limitations for pollutants in accordance with §303(d) of the Act and 40 CFR §130.7(a). [40 CFR §130.5(b)(3)]

The Department prepares the Alaska Integrated Water Quality Monitoring and Assessment Report, or the Integrated Report, every two years in accordance with Clean Water Act (CWA) §303(d) and §305(b), 40 CFR §130.7(d) reporting requirements, and EPA guidance. The most current approved Integrated Report is attached at Appendix A.

The Department uses the state's Water Quality Standards (18 AAC 70) as the basis to determine the health of a waterbody. Based on monitoring results and all existing water quality information and data, a waterbody is listed as impaired under CWA §303(d) if there are exceedances of water quality standards or adverse effects on designated uses as defined in Alaska's listing and assessment methodology provided in the Integrated Report. While a waterbody could be CWA §303(d) listed as impaired based on exceedance of Alaska's Water Quality Standards, Alaska's listing and assessment methodology specifies a range of variables and factors to consider when making impairment determinations. Such factors include, among other things, magnitude, frequency, duration, affects to uses, and seasonal variability. Such determinations are made on case-by-case basis specific to the waterbody. The listing and assessment methodology is consistent with the state's Water Quality Standards.

The Integrated Report describes impaired waterbodies with information about their current water quality status, pollutants of concern, and includes a schedule for short and long-term TMDL development to bring impaired waterbodies into compliance with water quality standards. The Department prioritizes TMDL development based on several factors including the severity and persistence of pollutant sources, significance of the waterbody for public use or resource value, availability of data, applicability of existing pollution controls (such as APDES and NPDES permits), and degree of public interest to complete a TMDL. A complete list of the priority criteria is found in the most currently approved Integrated Report. All of Alaska's Category 5, CWA §303(d) listed waterbodies in the Integrated Report are scheduled for TMDL development by 2012. The schedule is revised and updated for every Integrated Report. The Department works annually with EPA through the Performance Partnership Agreement (PPA) and routinely agrees to complete a minimum of two TMDLs per year to help EPA meet their court-ordered schedule for TMDL completion.

The Department develops a TMDL to address the impairment and advance recovery of the waterbody. The Department follows EPA guidance and methods when writing TMDLs and submits them to EPA for review and approval in accordance with §303(d) of the CWA, EPA's implementing regulations (40 CFR §130.7), and the annual PPA. The Department consults the EPA 'Region 10 TMDL checklist' to ensure all required documentation is submitted to EPA with the corresponding rationale for the TMDL decisions.

A completed TMDL is used to control point source pollution through issuance or modification of wastewater discharge permits and implementation of best management practices to manage nonpoint source pollution.

Permits are required to be consistent with the waste load allocation established in the TMDL. The Department uses the state's EPA approved Water Quality Standards to determine the applicable water quality-based effluent limitations for the receiving waterbody and uses this information to establish APDES permit conditions in accordance with 40 CFR §122.44 and 40 CFR §122.45, incorporated at 18 AAC 83, Article 5. In order to establish water quality-based effluent limitations, the Department will continue to consult EPA guidance, including:

- *U.S. EPA NPDES Permit Writers' Manual*, Chapter 6, Water Quality-Based Effluent Limits (December 1996)
- *Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants* (February 3, 1984)
- *Permit Writer's Guide to Water Quality-Based Permitting for Toxic Pollutants* (February 20, 1987)
- *Technical Support Document for Water Quality-Based Toxics Control* (March 1991)

The Department tracks data and other information on Alaska's waters, including impaired waterbodies, via the Alaska Clean Water Actions process (see Section 5). There are opportunities for public participation, review, and comment on the development of the Integrated Report, TMDL schedule, TMDLs, and permits incorporating TMDL limits.

4.0 Making Revisions to Water Quality Management Plans

> The process for updating and maintaining Water Quality Management (WQM) plans, including schedules for revision. [40 CFR §130.5(b)(4)]

The Department will use several tools to ensure a holistic approach to water quality management. The Department will annually negotiate the Performance Partnership Agreement with EPA. This serves as the primary planning tool for water assessment and protection.

Plans and reports will continue to be regularly updated. The Department will continue to review and update the Alaska Integrated Water Quality Monitoring and Assessment Report (Integrated Report) every 2 years. The Integrated Report includes a schedule for short and long term TMDL development and describes the nature, status, and health of Alaska's waters and identifies impaired waters in need of action to restore water quality. Per EPA guidance on developing Integrated Reports, waters are reported in one of five categories as summarized in the following table.

§303(d) List Category	Category Definition
1	Attaining standards for all designated uses. This category requires that all data and information show that the waterbody is available for all uses. The Department expects that most of Alaska's waters fall into this category and meet standards for all uses.
2	Attaining some designated uses, and there is insufficient or no data and information to determine if remaining uses are attained. Includes waters that have been removed from Category 5.
3	Insufficient or no data and information to determine if any designated use is attained.
4	Impaired for one or more designated uses but not needing a TMDL:
4a	TMDL has been completed.
4b	Expected to meet standards in a reasonable time.
4c	Not impaired by pollutant.
5	Impaired by pollutant(s) for one or more designated uses and requiring a TMDL.

The Department will work toward removing waterbodies from the Category 5 §303(d) list by developing TMDLs or an equivalent waterbody recovery plan that will meet the criteria established in *Guidance for 2004 Assessment, Listing, and Reporting Requirements pursuant to §§303(d) and 305(b) of the Clean Water Act* (EPA, 2003) and future EPA guidance. Impaired waterbodies for which a TMDL is developed will be moved into Category 4a. Those waterbodies for which a waterbody recovery plan is developed will be moved into Category 4b. All of Alaska waterbodies on the §303(d) list are scheduled to have a TMDL or waterbody recovery plan by

2012. As additional waterbodies are listed, TMDLs or equivalent waterbody recovery plans will be developed within eight to 13 years from the time the waterbody is first placed on the §303(d) list.

A waterbody is moved to Category 1 or 2 once water quality standards are attained.

5.0 Assuring Authority for Intergovernmental Cooperation

The process for assuring adequate authority for intergovernmental cooperation in the implementation of the state WQM program. [40 CFR §130.5(b)(5)]

Performance Partnership Agreement (PPA)

The Department will continue to negotiate the annual PPA with EPA and use CWA §106 and §319 grant funds to implement the Department's water priorities.

Alaska Clean Water Actions (ACWA)

ACWA was created through Administrative Order 200 on October 2, 2002 (Appendix B) to address all waters in Alaska requiring monitoring, assessment, and restoration. This directive orders the three state resource agencies [Department of Environmental Conservation (DEC), Department of Fish and Game (DFG), and Department of Natural Resources (DNR)] to work together to focus state and federal resources on the waters of greatest need. The ACWA initiative prioritizes waters with water quality, water quantity, or aquatic habitat problems. ACWA uses a targeted design approach to address state watersheds, waterbodies, or waterbody segments requiring monitoring, assessment, or possible stewardship action(s). ACWA currently encompasses rivers, streams, lakes, reservoirs, estuaries, coastal areas, and wetlands and may address groundwater in the future. By implementing ACWA, the state provides a consolidated approach for a complete assessment of the health and status of any particular waterbody and assures a coordinated and cooperative approach to assure state resources are focused on the state's highest priorities.

ACWA Funding

The Department will continue to work with state and federal resource agencies, local governments, and non-profit groups throughout Alaska to provide financial and technical assistance for the monitoring, assessment, and restoration of CWA §303(d) listed and other high priority waters. When they address ACWA priorities, local monitoring programs provide the state with cost-effective monitoring and restoration. Therefore, these programs help to implement the *Water Quality Assessment and Monitoring Strategy* (ADEC, 2005).

Alaska Coastal Management Program (ACMP)

The ACMP provides for a multi-agency coordinated system to review proposed projects in the state's coastal zone through a process called "project consistency review." The ACMP is designed to improve management of Alaska's coastal land and water and is administered through the DNR Division of Coastal and Ocean Management (DCOM) Projects are reviewed for consistency with the standards of the ACMP and enforceable policies of approved district coastal management plans. Participants in the state's review process include the applicant; state resource agencies (DEC, DFG, and DNR); the affected local coastal district; and other interested members of the public.

DNR-DCOM conducts coordinated consistency reviews for proposed projects located within the coastal zone that include activities subject to an APDES authorization and an authorization from DNR or DFG or involve a federal activity or federal authorization. For proposed projects located within coastal district boundaries that are subject only to an APDES authorization, the Department will conduct a limited single agency consistency review according to DEC *Single Agency Coastal Management Consistency Review Procedures, Policy Guidance No. 2003-001* (ADEC, January 2004). This guidance document identifies uniform procedures for conducting a coastal management consistency review for projects that only require a Department permit or oil spill contingency plan approval to operate.

Large Project Permitting

The DNR-OPMP was created by Executive Order 106 in 2003 (Appendix C). The order creates the lead agency for Large Project Permitting (LPP) in the Commissioner's office of DNR. Interagency coordination provided by LPP ensures that all aspects of large projects in Alaska are considered during a single review and approval process. Numerous state, federal, and local government permits and approvals, including the APDES authorization and state certification of CWA §404 permits, are required before construction and operation of large projects can begin. The LPP process, which integrates with federal and local government permitting, has significantly streamlined large project permitting for the benefit of both the applicant and the public. The Department's Division of Water will prosecute its permitting authorities within the LPP process when permitting a large project.

Mixing Zone Authorizations

The Department adopted revised mixing zone regulations on January 12, 2006; the regulations will be implemented by DEC after they have been approved by EPA. The revised regulations codified a long standing practice of the Department to seek the professional expertise and advice of the DNR Office of Habitat Management and Permitting (OHMP) and the DFG habitat biologists when evaluating the impact of wastewater discharges on fish habitat. On July 1, 2008, OHMP's authority and responsibilities will be transferred to the DFG Division of Habitat (DOH) by the Governor's Executive Order No. 114. Specifically, the Department will defer to DFG-DOH to determine spawning areas both spatially and temporally. In addition, the Department is required to consult with DOH prior to authorizing a mixing zone in a spawning area of a lake, stream, river, or other flowing fresh water for species listed in 18 AAC 70.240(f).

6.0 Assuring Implementation of Water Quality Standards

> The process for establishing and assuring adequate implementation of new or revised water quality standards, including schedules of compliance, under §303(c) of the Act. [40 CFR §130.5(b)(6)]

Every three years, the Department conducts a comprehensive review of the state's Water Quality Standards (WQS) established in 18 AAC 70. This Triennial Review is a federal Clean Water Act (CWA) requirement that integrates the most current science and technology in setting the WQS. As part of the Triennial Review, the Department reviews and adopts EPA nationally recommended water quality criteria for priority and non priority toxic pollutants, as published under §304(a) of the CWA.

At the beginning of a Triennial Review, the Department seeks public comment on possible topics for new or revised WQS that should be reviewed and the priority of these topics. The Department also describes the review process and solicits stakeholders interested in potential advisory groups or other public participation in WQS reviews. There will be many more topics suggested than can be realistically tackled in a three-year period; therefore, the Department will prioritize and schedule topic reviews and WQS revisions based on input from the public, EPA, and Department staff.

For each priority topic, the Department will research available information and science, consider different options, and evaluate how implementation may affect water quality, designated uses, and regulated parties. The Department will review a few topics simultaneously. Each topic will move at its own speed, so that one topic will not hold up other WQS changes that are ready for public notice or adoption. A topic review may include one or more of the following:

- Department staff literature review;
- public workshop;
- independent contractor report;
- technical workgroup of recognized experts;
- stakeholder advisory group for topics with significant impact and public interest; and
- stakeholder feedback (email list, fax, teleconference, or survey).

If necessary, the Department will prepare regulation revisions to address issues from the topic review. Recommendations on a topic review may also include changes to policy or implementation procedures that are supported by scientific literature reviews, fact sheets, and other information. There will be multiple WQS revision proposals during the Triennial Review. A regulation proposal may also include revisions for multiple topics.

Adoption of WQS revisions must follow the requirements of the Administrative Procedures Act under AS 44.62. State and federal law also require the Department to allow at least 45 days for public comment and a public hearing on proposed WQS revisions. Following the public comment period, the Department will respond to comments and prepare the final regulations. The regulations are adopted by the Commissioner, filed with the Lt. Governor, and go into effect at the state level 30 days later. EPA must approve the adopted WQS before they are used in

wastewater discharge permits (establishing water quality-based effluent limits) and waterbody recovery plans for polluted waters.

Implementation of water quality standards is also assured by a variety of other methods, as needed. The Department is in the process of developing policy and guidance documents regarding specific standards issues, such as mixing zones, residues, antidegradation, and natural conditions-based criteria. Training for water quality standards implementation is offered through conferences and professional development courses such as the Water Quality Standards Academy. Staff in the WQS section also provide technical assistance with site-specific standards implementation issues, such as site specific criteria development, CWA §303(d) impaired water body listing decisions, and Total Maximum Daily Load development.

7.0 Assuring Adequate Controls Over Water Treatment Residual Waste

> The process for assuring adequate controls over the disposition of all residual waste from any water treatment processing. [40 CFR §130.5(b)(7)]

The Department currently has only a few state individual permits in place to regulate backwash and reject water from drinking water treatment facilities or other water treatment processing facilities. The discharges from most of these facilities are not currently permitted by EPA.

The Department is drafting a general permit to regulate this category of wastewater discharges and will prepare the document for public review and comment. The permit will require that state Water Quality Standards are met at the end of the outfall pipe or at the outer edge of a mixing zone (if a mixing zone is authorized). End of pipe and mixing zone concentration limits will be established in the permit. However, it will be necessary to gather accurate baseline data (based on representative sample analysis results from the backwash or reject water) to determine adequate dilution factors and mixing zone sizes. To accomplish this task, the permit will require monitoring and reporting (in most cases when a mixing zone is necessary) to collect the necessary data. After the necessary data has been collected and evaluated, the concentration limits in the authorizations will be established and become effective. Monitoring and the submission of discharge monitoring reports will be requirements of the general permit. Any exceedences of the concentration limits will be subject to enforcement action by the Department.

The general permit will also regulate wastewater generated from the cleaning, flushing, disinfection, and hydrotesting of drinking water storage tanks, reservoirs, and distribution lines.

Best management practices will be used to regulate these activities to ensure that any wastewater that enters waters of the U.S. will meet the state Water Quality Standards.

8.0 Inventory and Priority Ranking for Wastewater Treatment Facility Construction

> The process for developing an inventory and ranking, in order or priority of needs for construction of waste treatment works required to meet the applicable requirements of sections 301 and 302 of the Act. [40 CFR §130.5(b)(8)]

Alaska has three programs which offer financial assistance for wastewater infrastructure projects, each of which has a process for developing an inventory and prioritizing projects. The Municipal Matching Grants (MMG) program and the Alaska Clean Water Fund (ACWF) are geared toward larger, more urban communities. The Village Safe Water program is tailored to Alaska rural and Native Villages. The prioritization process of each program is described below.

Municipal Matching Grants: The Division of Water sends out questionnaires annually to eligible communities. Communities fill out a questionnaire for each project for which they are seeking MMG funding. Questionnaires are scored and ranked based upon criteria that consider the following: the problem that will be addressed by the proposed project, project development status, operation, maintenance and management capabilities of the utility, relationship of the project to other project phases, local commitment, and a project cost/population benefit ratio. The priority list is finalized and submitted to the Governor's Office for inclusion in the capital budget for the next legislative session.

Alaska Clean Water Fund: Municipalities seeking financial assistance from the ACWF submit an annual questionnaire for each public wastewater and nonpoint source project that to be considered for loan assistance. A separate set of criteria is used to rank point source and nonpoint source projects. Point source project criteria considers human health, water quality, receiving water usage, local initiative, funding coordination, the community's ability to repay, and a loan cost to population benefiting ratio. Nonpoint source project criteria consider water quality, local initiative, funding coordination, and nonpoint source strategy identification priorities. Once projects are prioritized, an Intended Use Plan (IUP) is developed and public noticed. The IUP is a required document under the EPA capitalization program. The final IUP is submitted to EPA for acceptance. Upon EPA's acceptance, municipalities with projects listed on the "Funding Priority List" of the IUP may submit an application for a loan on the project.

Village Safe Water: The Division of Water sends out questionnaires annually to eligible rural and Native Villages. Communities fill out and submit a questionnaire for each project for which they are seeking grant funding. Questionnaires are scored and ranked by a multi-agency team (which includes EPA) based upon criteria that consider: project need, the community's operation and maintenance capabilities, project development status, relationship of the project to other projects, project cost and outcomes, and planning documentation. The priority list is finalized and submitted to the Governor's Office for inclusion in the capital budget for the next legislative session.

9.0 Determining Permit Issuance Priority

The process for determining the priority of permit issuance. [40 CFR §130.5(b)(9)]

The Department will use this priority as a guide to allocate resources to issue permits based upon potential risk to human health and the environment. Compliance concerns, economic impacts, human health concerns, and construction season concerns may also be taken into consideration. Specific permit issuance priorities will be negotiated with EPA in the Performance Partnership Agreement. In general, permits will be issued as follows:

1. Process applications for new discharges within 75 days (30 day completeness review plus 45 day technical review) and issue a permit within 180 days after receiving a complete application.
2. Reissue a major individual permit or general permit that includes major dischargers prior to its expiration date.
3. Reissue a general permit for minor dischargers prior to its expiration date.
4. Reissue a permit that discharges to an impaired waterbody prior to permit expiration.
5. Modify a permit to include more stringent permit limitations or conditions to incorporate results of a completed Total Maximum Daily Load to aid in the recovery of an impaired waterbody.
6. Issue a new general permit.
7. Issue, reissue, or modify a permit for minor discharges to address toxicity or toxic pollutants.
8. Issue stormwater individual permits or stormwater authorizations under a general permit. Projects involving major capitol improvements will take precedence.
9. Reissue a permit with an approved pretreatment program.
10. Issue or reissue a minor permit with an expiration date that is more than seven years old.
11. Reissue a minor permit for a facility that received a reissued permit within the previous five to seven years.
12. Reissue a permit, or issue a permit for an unpermitted discharge, for a small, low risk facility.

10.0 Referenced Documents

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ADEC. 2005. Alaska Department of Environmental Conservation, Division of Water. Water Quality Monitoring & Assessment. Alaska Department of Environmental Conservation. June 2005.

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