Alaska
Department of Environmental Conservation
Division of Water

2004 Integrated Report

Responsiveness Summary
April 12, 2006

Summary of Project

The 2004 Integrated Water Quality Monitoring and Assessment Report (Integrated Report, also Report) describes the nature, status and health of Alaska's waters and identifies impaired waters in need of action to recover water quality. The Integrated Report is submitted to the Environmental Protection Agency (EPA) to comply with the Federal Clean Water Act (CWA) Sections 305(b) (State Report on Water Quality) and 303(d) (Identification of Impaired Waters).

The CWA impaired waters list ("Section 303(d) list") and the statewide water quality assessment report ("305(b) report") are integrated into one report. In this report all waterbodies are grouped into one of five categories based on available information and the degree to which a waterbody attains water quality goals.

Public Participation

The Department is required under Section 303(d) of the federal Clean Water Act to prepare a list of waters that are not expected to meet state water quality standards. The listed waterbodies are those with documentation of persistent water quality violations or adverse impacts, such as debris, sedimentation, low dissolved oxygen levels, or toxins as defined in Alaska's water quality standards. All or part of the waterbody may be affected. States are also required under Section 305(b) of the CWA to submit a statewide water quality assessment. With the integrated approach, waterbodies are now listed into 1 of 5 categories in a comprehensive report (i.e., Integrated Report) based on available information on the waterbody. The categories are used to determine whether a Total Maximum Daily Load (TMDL) plan or other recovery type action is needed. Waters that are Section 303(d) listed and categorized may be required to develop a TMDL plan for recovery.

EPA's federal guidance expects the State to provide opportunities for public participation in the development of the Integrated Report and demonstrate how it considered public comments in its final decisions. This document summarizes the opportunity for public participation in the development of Alaska's 2004 Integrated Report and public comments were considered in making final decisions.

<u>Potential Stakeholders</u>

- Permit Holders, Organizations, General Public, and Governments
- Industry-Mining, forestry, seafood processors, oil resource development agents, power (electric, steam) general utilities, lumber millers

- Governments: Borough/municipalities development offices (engineers), state sanitation officers, military services (Statement of Cooperation), state hydrologists, local sanitation services (landfills), tribal/village councils and leaders
- Organizations: Citizen Waterways, Alaska Boreal Forest Council, Stream Team, Cook Inlet Keepers, Noyes Slough Action Committee, Chena Riverfront Commission, Northern Environmental Center, Alaska Center for the Environment, Alaska Clean Water Alliance, Alaska Community Action on Toxins, Alaska Conservation Alliance, Alaska Conservation Foundation, Alaska Marine Conservation Council, Anchorage Waterways Council, Southeast Alaska Conservation Council, Peg Tileston's 'What's Up?'
- Agencies: ADF&G, DNR, DGC, DEC (ACWA group to include legislators and their assistants)
- Coastal Districts

The Alaska Department of Environmental Conservation (the Department) public noticed (faxed notice to every Alaska community, email notices, newspaper legal ads in the large papers, and public notice posted on the web with the draft report available on the web) a draft Integrated Report for public review and comment from January 25, 2006 to March 10, 2006 for 45 days. During this entire period the Department also ran a concurrent solicitation and request for water quality data and information.

The Department received one public comment.

I. Specific Considerations for Waters Impaired by Residues and Permitted Zones of De-posit (ZOD)

Integrated Report Summary:

For waterbodies with facilities that are permitted to discharge residues**,** such as a seafood processor or log transfer facility, the impairment standard is 1.5 acres of continuous cover. If two or more consecutive dive survey reports adequately documents the presence of 1.5 acres or more of continuous residue cover then the waterbody is Category 5/Section 303(d) listed.

For all Category 5/Section 303(d) waterbodies listed for residues, the operator will have to document through a dive survey that the aerial [sic] extent of continuous cover residues has been reduced to less than 1.5 acres in order to be removed from the Category 5/Section 303(d) list.

The *Integrated Report* contains the Department's explanation of two protocols applied to remove water-bodies previously listed as impaired for residues from the Category 5/Section 303(d) list.

The following protocols will be applied to all waterbodies associated with a permitted facility and Category 5/Section 303(d) listed for residues regardless of an active discharge on-site.

- For waterbodies Section 303(d) listed after 1998 and determined to be impaired for residues based upon two or more dive surveys:
  DEC will require two consecutive dive surveys documenting that continuous residues coverage is no more than 1.5 acres before the waterbody is eligible for removal from Category 5/Section 303(d) list and for placement in either Category 1 or 2.
- For waterbodies Section 303(d) listed in 1998 or earlier (based on 1.0 acre) and determined to be impaired for residues based upon one dive survey or best professional judgment:
  DEC will require one dive survey documenting that continuous residues coverage is no more than 1.0 acre before the waterbody is eligible for removal from Category 5/Section 303(d) list and placement in Category 1 or 2.

Comment No. 1:

The Department received a comment questioning why are two dive surveys required to show impairment, yet only a single dive survey considered necessary for removal of a waterbody impaired for residue from the 303(d) list.

The Department also received a comment objecting to the adoption and reliance on pre-and post-1998 protocols. The comment was concerned that these protocols fail show that water quality in water quality limited segments has improved or recovered sufficiently to provide "for the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allows recreational activities in and on the water." *See* 40 C.F.R. § 130.8(b)(1)(emphasis added). The comment asserts that the requirement for a "balanced" population precludes the Department from claiming "recovery" when a population of suspension feeders repopulates habitat previously dominated by filter feeders, the populations most directly affected by excessive residue accumulations.

The comment noted that the protocol of the 2002/2003 Integrated Report used 1.0 acres as the criterion for de-listing, not 1.5 acres as provided here. The comment argued that the Department was relaxing its protocols is inconsistent with its responsibility to identify and take steps to assure the recovery of designated uses of waters listed for residue impairment, including the growth and propagation of fish, shellfish, other aquatic life, and wildlife,.

Response:

The rationale for the two standards or approaches is plainly described within the listing and assessment methodology. Alaska's impairment standard in 1998 and earlier was one acre and if only one current dive survey documented a waterbody associated with a facility had over one acre of continuous residue coverage then the water was Section 303(d) listed.

The listing methodology points out potential inconsistency and variability in dive survey reports; having a standard of two consecutive dive surveys assures a greater confidence in impairment determinations.

The listing and assessment methodology also states (on page 21) that "[w]hen considering a determination to remove a waterbody from the Section 303(d) list, the level of data to support a determination and burden of proof shall be no greater than was used in the initial listing determination."

Applying the two dive surveys/1.5 acre standard to waters that were previously listed on one dive survey/one acre conflicts with the protocol in the listing methodology. The Department decided that it would be inappropriate to require two dives to remove a water that was previously Section 303(d) listed based on the one dive survey/one acre standard simply because the standard changed to two dive surveys/1.5 acres in the 2002/2003 Report. Decisions to list or de-list waterbodies are based upon compliance with the Alaska Water Quality Standards, not 40 C.F.R. § 130.8(b)(1).

Comment No. 2:

The Department received a comment that the requirement in the post-1998 protocol for two consecutive dives documenting that residues coverage is no more than 1.5 acres conflicts irreconcilably with the statement on page 18: "For all Category 5/Section 303(d) waterbodies listed for residues, the operator will have to document through a dive survey that the aerial [sic] extent of continuous cover residues has been

reduced to less than 1.5 acres in order to be removed from the Category 5/Section 303(d) list."

Response:

This statement has been revised to read:

"For all Category 5/Section 303(d) waterbodies listed for residues after 1998 based on two dive surveys, the operator will have to document through two consecutive dive surveys that the areal extent of continuous cover residues has been reduced to less than 1.5 acres in order to be removed from the Category 5/Section 303(d) list. For all Category 5/Section 303(d) waterbodies listed for residues in 1998 or earlier, based on one acre and on one dive survey, the operator will have to document through one dive survey that the areal extent of continuous cover residues has been reduced to less than one acre in order to be removed from the Category 5/Section 303(d) list."

Comment No. 3:

The Department received a comment strongly objecting to 'the Department's proposal to de-list Cube Cove from Category 5 to Category 2. The comment argued that the Integrated Report lacks sufficient information demonstrating that even with the reduction in continuous coverage of bark in Cube Cove the water quality has improved sufficiently to provide "for the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allows recreational activities in and on the water." Cube Cove was first placed on the 303(d) list as impaired for residues in 1998, and has remained on all subsequent 303(d) lists. The 1998 listing criteria required only one dive survey documenting an exceedance of continuous coverage bark residues over 1.0 acre. Both of the surveys cited by the Department in 2001 and 2002 document continuous bark coverage of 1.35 acres and 1.2 acres, respectively.

Response:

The Department's proposal to remove Cube Cove from the Section 303(d) list of impaired waters is based upon a February 2004 dive report whose findings were inadvertently omitted from the draft Integrated Report. The February 2004 dive found that the extent of continuous cover bark had been reduced to 0.9 acres. This is consistent with the downward trend found in previous dive reports.

The Department's original listing decision was not based upon a failure to provide "for the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allows recreational activities in and on the water," it was based upon a dive survey that reported more than one acre of continuous cover bark. Furthermore the aquatic life language in the comment is not reflected in the Alaska Water Quality Standards.

II. Permitted Exceedance of the Residue Standard is Not a Water Quality Standard

Comment No. 4:

The Department received a comment that dive surveys documenting bark accumulation within a 1.0 acre ZOD cannot show that the waterbody has met water quality standards. When the Department issues a ZOD, it is *not maintaining a designated use* or more protective existing use.

The comment asserts that it is inappropriate for the Department to shift any waters from Category 5 to Category 2 simply because the extent of the surveyed bark and woody debris pile has fallen below the arbitrary one-acre threshold. The draft report implies that a one-acre, or project-area, ZOD is the residue standard. A permitted ZOD is nothing more than a license to pollute that fails to protect existing uses and therefore violates the federal antidegradation requirement.

Response:

Contrary to the assertion in the comment, the Department does not imply that "a one-acre, or project-area, ZOD is the residue standard." As the comment states, the water quality standards for residues in marine waters are established in 18 AAC 70.020(b). Under the Zones of Deposit provision (18 AAC 70.210), the Department will, in its discretion, allow "deposit of substances on the bottom of marine waters within limits set by the department" in a permit or certification. The provision further states, "The water quality criteria of 18 AAC 70.020(b) and the antidegradation requirement of 18 AAC 70.015 may be exceeded in a zone of deposit." For a currently authorized ZOD, the standards must be met at every point outside the zone of deposit. However, residues remaining in the waterbody as a result of a current or previously authorized ZOD do not constitute an impairment if continuous cover is less than 1.5 acres since the uses in the waterbody as a whole are maintained.

LTFs authorized to discharge bark under the EPA and DEC LTF general permits since 2000 are granted a "project area" zone of deposit without

limit on bark accumulation. However, if continuous bark cover exceeds one acre, the general permits require a remediation plan to be prepared, approved, and implemented, with the objective of reducing continuous bark cover to less than one acre. Prior to 2000, LTFs were issued EPA individual NPDES discharge permits, certified by the Department, which granted a one-acre zone of deposit for continuous cover by bark. These are the "limits established in permits" for LTF zones of deposit.

As explained in the listing and assessment methodology, for reasons of potential inconsistency and variability in dive survey reports, the actual listing and delisting threshold established by the Department is 1.5 acres. It simply is not the case that the residues standard must be met at every point within a current or former zone of deposit in order to delist an LTF waterbody.

The Hearing Officer's Final Decision in the adjudication of the 401 certifications of the EPA LTF General permits addresses several of the comments. He ruled that all of Alaska's water quality standards must be read together, to produce a harmonious whole (the water quality standards are more than just the numeric or narrative criteria). Both the state's anti-degradation policy and its ZOD regulation envision that water quality could be lowered within a ZOD or mixing zone as long as existing uses of the water were protected. In this ruling he furthered stated that "water" (AS 46.03.900(36)) is defined in terms of waterbodies, and that use impairments must focus on uses of the "waterbody as a whole" and not simply within the ZOD itself. This is consistent with the longstanding EPA policy, which stresses that compliance with a state's anti-degradation policy is measured outside the ZOD or mixing zone.

All these waterbodies have permitted LTFs with a state authorized ZOD and meet the impairment standard for residues as described in the listing methodology. 18 AAC 70.210 (a) specifically provides for an exceedance of the water quality criteria of 18 AAC 70,210(b) and the anti-degradation requirements of 18 AAC 70.015 so we disagree that these decisions were improper.

Comment No. 5:

The Department received a comment asserting that nine waterbodies were improperly removed from the 303(d) list in 2002/2003 as a result of the Department's substitution of the residue standard for a water quality standard: Corner Bay, Hamilton Bay, Rowan Bay, Saginaw Bay, St. John Baptist Bay, Salt Lake Bay, West Port Frederick, Tolstoi Bay, and Point McCartney.

Response:

All these waterbodies have permitted LTFs with a state authorized ZOD and meet the impairment standard for residues as described in the listing methodology. 18 AAC 70.210 (a) specifically provides for an exceedance of the water quality criteria of 18 AAC 70,210(b) and the anti-degradation requirements of 18 AAC 70.015 so we disagree that these decisions were improper.

III. Remediation Plans and Other Pollution Control Requirements (Category 4b)

Integrated Report Summary:
Category 4b waters are impaired but do not require a Total Maximum Daily Load (TMDL) because other pollution control requirements are reasonably expected to result in attainment of the water quality standard in a reasonable period of time. East Port Frederick, for example, was removed from this year's 303(d) list because a remediation plan was developed and approved by the Department and meets Category 4b criteria with the development of other pollution controls.

Comment No. 6:

The Department received a comment requesting a more specific definition of "a reasonable period of time," which is similar to the 2002/2003 Report's language of "in the near future."

Response:

Use of the term "a reasonable period of time" is consistent with EPA guidance and is the term used in the EPA Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act. It would not be appropriate to specifically define the phrase since EPA guidance recognizes that "a reasonable period of time" will vary for each individual waterbody and depends on the nature of the water quality impairment. For instance, the guidance states that:

> *EPA expects that the State will consider … factors unique to the specific water…. Factors that may influence the length of this time frame may depend on the initial severity of the impairment, the cause of the impairment (e.g., point source discharges, in place sediment fluxes, atmospheric deposition, nonpoint source runoff), riparian condition, channel condition, the nature and behavior of the specific pollutant (e.g., conservative, reactive), the size and*

> *complexity of the water body (a simple first-order stream, a large thermally-stratified lake, a density-stratified estuary, and tidally-influenced coastal water), the nature of the control action, cost, public interest, etc.*
>
> The guidance goes on to state that:
>
> *For nonpoint sources, the time frame for achieving the WQS may be difficult to accurately predict; however, States have some flexibility in gauging whether the attainment will occur quickly enough to justify including a water in Category 4B.*

Regarding East Port Frederick, Alaska's listing and assessment methodology specifically cites the remediation plan mechanism under the two LTF General Permits as acceptable "other pollution controls." Additionally, a proposed removal of a Section 303(d) listed water and placing it in Category 4b is also subject EPA approval.

Comment No. 7:

The Department received a comment objecting to the policy that a TMDL is not necessary if the Department has approved a remediation plan for an impaired water. Even if a remediation plan qualifies as "other pollution control requirement," the Department must meet its burden that such controls are stringent enough to achieve designated uses. The comment asserts that the Department can not show that the East Port Frederick remediation plan is sufficient to achieve the designated uses impaired by excessive residue accumulations in this water.

The comment asserts that the Department's reliance on the implementation of remediation plans to successfully clean up impaired waterbodies is unreasonable until the Department actually demonstrates that adopted remediation plans will provide "for the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allows recreational activities in and on the water," as required under the Clean Water Act.. The comment doubts that it is even feasible or practicable to develop an effective remediation plan in coastal Alaska. The comment suggests that the Department should modify its draft list to move such impaired waters allocated to Subcategory 4b to Category 5.

Response:

In the Department's judgment, an approved and implemented remediation plan prepared under the LTF General Permits constitutes an

"other pollution control requirement." An approved remediation plan is accepted by the Department as a reasonable and appropriate control to reduce existing and future continuous bark cover to less than 1.0 acre and 10 cm in thickness at any point. This goal exceeds the delisting threshold of 1.5 acres of continuous bark cover. Part of the consideration in accepting a remediation plan as an "other pollution control requirement" is that the delisting threshold will be met "within a reasonable period of time," as described above. Remediation planning should not be strictly interpreted to only meaning bark removal. The adequacy of remediation planning was argued in the adjudication proceedings. The Hearing Officer, for instance, found that natural remediation is an appropriate method in some circumstances.

It should be noted that East Port Frederick is the only active LTF to appear on the 303(d) list. The most recent dive survey at this site in March 2005 indicates continuous bark cover of 2.8 acres. While this amount of continuous bark cover significantly exceeds the delisting threshold at present, the Department believes it is reasonable to expect that the threshold can be achieved in a reasonable period of time.