

Alaska's 1998 FINAL Section 303(d) List (June 71999)
SECTION 303(d) LISTED WATER QUALITY-LIMITED WATERBODIES
Tier I -- Waters which require assessments, verification of pollution and controls in-place or needed

| <u>Alaska ID Number</u> | <u>Waterbody</u> | <u>Location</u> | <u>Pollutant Parameters</u> | <u>Pollutant Sources</u> | <u>Narrative Explanation</u> |
|-------------------------|------------------|-------------------------------|-----------------------------|--------------------------|--|
| SOUTHEAST | | | | | |
| 10203-802 [1] | Corner Bay | Tenakee Inlet, Baranof Island | Debris | Log Transfer Facility | This waterbody is placed on the 1998 Section 303(d) list for debris and has not occurred on any previous year's 303(d) list. Dive survey information from May 1996 demonstrates an exceedance of the interim intertidal threshold bark accumulation level (as per the ATTF Log Transfer Facility Siting, Construction, Operation and Monitoring\Reporting Guidelines, October 21, 1985) at 1.18 acres of bottom coverage. |
| 10204-801 [2] | Cube Cove | Admiralty Island | Debris | Log Transfer Facility | This waterbody is placed on the 1998 Section 303(d) list for debris and has not occurred on any previous year's 303(d) list. Dive survey information from November 1997 demonstrates a significant exceedance of the interim intertidal threshold bark accumulation level (as per the ATTF Log Transfer Facility Siting, Construction, Operation and Monitoring\Reporting Guidelines, October 21, 1985) at 9.5 acres of bottom coverage. |
| 10203-005 [3] | Granite Creek | Sitka | Turbidity, Sediment | Gravel Mining | This waterbody was placed on the 1996 Section 303(d) list for turbidity and sediment. A citizen provided an assessment form that describes how industrial gravel extraction activity has caused water quality problems. An ADEC site inspection of the gravel operation indicated that suspended sediment and associated higher levels of turbidity were occurring at the gravel pit holding ponds. Other ADEC information indicates that turbidity and sedimentation problems have occurred on Granite Creek over the past several years. ADEC has been working with the City of Sitka and inspections and recommendations were made, but follow-up/verification is needed. |
| 10202-601 [4] | Hamilton Bay | Kake | Debris | Log Transfer Facility | This waterbody was placed on the 1996 Section 303(d) list for debris. Past dive surveys indicate that excessive bark exists on the bottom of Hamilton Bay as a result of logging operations on Kupreanof Island that use the Hamilton Bay log transfer facility. The LTF area needs a more current dive survey. |

*[Shaded areas represent new waters or change in status]

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| 10201-801 [5] | Hobart Bay | Mainland, SE Stephens Passage | Debris | Log Transfer Facility | This waterbody is placed on the 1998 Section 303(d) list for debris and has not occurred on any previous year's 303(d) list. Dive survey information from May 1996 (LTF known as Hobart Bay 3) demonstrates a significant exceedance of the interim intertidal threshold bark accumulation level (as per the ATTF Log Transfer Facility Siting, Construction, Operation and Monitoring\Reporting Guidelines, October 21, 1985) at 2.3 acres of bottom coverage. |
| 10301-004 [6] | Jordan Creek | Juneau | Sediment, Debris, Dissolved Oxygen | Land Development, Road Runoff | This waterbody is placed on the 1998 Section 303(d) list for sediment, debris, and dissolved oxygen (DO) and has not occurred on any previous year's 303(d) list. Coho salmon have dropped from an average of 250 adult returns to 54 in 1996 and 18 in 1997. It has been one of the most productive small streams in Juneau and Southeast Alaska for coho salmon but has experienced a rapid decline. There are serious sediment problems in the stream with poor survival of salmon eggs and low oxygen readings in the substrate that are in violation of water quality standards. The stream is largely spring fed and cannot transport large volumes of sediment like higher gradient systems. The headwaters of the stream have been manipulated with ditches replacing more productive habitat and with ponds being filled in. There is a problem with iron floc that was not present 10 years ago. The stream corridor is being rapidly developed and the lower section of the creek regularly goes dry. Insect sampling has shown the stream has low diversity and is experiencing declines over the 1994 to 1996 period. |
| 10203-002 [7] | Katlian River | N. of Sitka, Baranof Island | Sediment, Turbidity | Timber Harvest | Katlian River is placed on the 1998 Section 303(d) list for sediment and turbidity. Past land use (i.e., timber harvesting) has created a number of concerns for water quality, and fish habitat. The harvest of riparian timber and location and lack of maintenance of the road system has created the following concerns: decreased channel stability, landslides and small slope failures, increased sediment levels, loss of aquatic habitat, siltation of holding pools for migrating salmon, and alteration of watershed hydrology. Watershed effects are believed to have resulted in use (aquatic life) impairment. |

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| 10203-602 [8] | Klag Bay | Chichagof Is. | Metals | Mining | This waterbody was placed on the 1996 Section 303(d) list for metals-no additional information has been evaluated by ADEC since then -- but the waterbody is proposed to remain listed for metals. Past mining has resulted in the deposition of large amounts of tailings in Klag Bay. A draft 1985 report on Klag Bay titled "Klag Bay Study" prepared by the U.S. Fish and Wildlife Service indicates high levels of metals from tailings are leaching into the bay. These metals have caused abnormalities in numerous blue mussels. These abnormalities are considered an impairment of a designated use. |
| 10203-001 [9] | Nakwasina River | Baranof Island, Sitka | Sediment Turbidity | Timber Harvest | Nakwasina River is placed on the 1998 Section 303(d) list for sediment and turbidity. Past land use (i.e., timber harvesting) has created a number of concerns for water quality, and fish habitat. The harvest of riparian timber and location and lack of maintenance of the road system has created the following concerns: decreased channel stability, landslides and small slope failures, increased sediment levels, loss of aquatic habitat, siltation of holding pools for migrating salmon, and alteration of watershed hydrology. Watershed effects are believed to have resulted in use (aquatic life) impairment. |
| 10301-014 [10] | Pederson Hill Creek | Juneau | Fecal Coliform | Septic Tanks | This waterbody was placed on the 1996 Section 303(d) list for fecal coliform. The area of failing septic systems is due to get hooked up to city sewer. |
| 10202-801 [11] | Point McCartney | Kupreanof Island, Kake | Debris | Log Transfer Facility | This waterbody is placed on the 1998 Section 303(d) list for debris and has not occurred on any previous year's 303(d) list. Dive survey information from May 1997 demonstrates a significant exceedance of the interim intertidal threshold bark accumulation level (as per Log Transfer Facility Siting, Construction, Operation, and Monitoring\Reporting Guidelines, October 21, 1985 at 7.87 acres of bottom coverage. |
| 10202-602 [12] | Rowan Bay | Kuiu Island | Debris | Log Transfer Facility | This waterbody was placed on the 1996 Section 303(d) list for debris (bark debris from deposition at a Log Transfer Facility (LTF)). Past dive surveys have shown an exceedance of the interim intertidal threshold bark accumulation level (as per Log Transfer Facility Siting, Construction, Operation and Monitoring\Reporting Guidelines, October 21, 1985). This waterbody requires another dive survey to determine the current extent of bark deposition. |

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| 10202-802 [13] | Saginaw Bay | Kuiu Island | Debris | Log Transfer Facility | This waterbody is placed on the 1998 Section 303(d) list for debris and has not occurred on any previous year's 303(d) list. Dive survey information from October 1997 demonstrates a significant exceedance of the interim intertidal threshold bark accumulation level (as per Log Transfer Facility Siting, Construction, Operation and Monitoring\Reporting Guidelines, October 21, 1985) at 1.5 acres of bottom coverage. |
| 10203-803 [14] | Salt Lake Bay | Port Frederick, Chichagof Island | Debris | Log Transfer Facility | This waterbody is placed on the 1998 Section 303(d) list for debris and has not occurred on any previous year's 303(d) list. Dive survey information from October 1991 demonstrates an exceedance of the interim intertidal threshold bark accumulation level (as per Log Transfer Facility Siting, Construction, Operation, and Monitoring\Reporting Guidelines, October 21, 1985) at 1.16 acres of bottom coverage. |
| 10203-801 [15] | Schulze Cove | Fish Bay, Baranof Island | Debris | Log Storage Area | This waterbody is placed on the 1998 Section 303(d) list for debris and has not occurred on any previous year's 303(d) list. The Schulze Cove log storage area essentially covers the whole Cove. Review of US Fish and Wildlife Service video documentation and dive report (September 1995 report on dives from July 27 & 29, 1995, several transects) reveals extensive bark deposition (> one acre & > than 10 cm). Log storage activities have severely impacted Schulze Cove. The bottom of the Cove is reported to be completely barren of life. |
| 10303-601 [16] | Skagway Harbor Pullen Creek (Lower Mile) | Skagway | Metals | Industrial | This waterbody was placed on the 1996 Section 303(d) list for metals-no additional information has been evaluated by ADEC since then. An undated draft report from the U.S. Fish and Wildlife Service titled Trace Metals Contamination at an Ore Loading Facility in Skagway, Alaska indicated that trace metals contamination are due to an ore loading facility in Skagway. Elevated levels of lead, zinc, cadmium, copper, and mercury in marine sediments were found to exceed the values of the control area. Additionally, infauna found in the marine sediments were much reduced and diversity was correlated with the concentration of lead and zinc in the sediment; an adverse effect to the aquatic life designated use. |

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| 10103-602 [17] | Thorne Bay | Prince of Wales Island | Debris | Log Transfer Facility | This waterbody was placed on the 1996 Section 303(d) list for debris (bark and other woody material from the log transfer facility and log raft area), and hydrogen sulfide. Excess debris from the log transfer facility has accumulated on the bottom of Thorne Bay. Review of recent data shows that the levels of hydrogen sulfide comply with the water quality standards outside the mixing zone authorized for dredging. Therefore, hydrogen sulfide is removed from the Thorne Bay listing. |
| 10103-802 [18] | Tolstoi Bay | NW Bight of Tolstoi Bay, Prince of Wales Island | Debris | Log Storage Area | This waterbody is placed on the 1998 Section 303(d) list for debris and has not occurred on any previous year's 303(d) list. A dive survey report from June 1994 for this area (known as Tolstoi Bay 2) reported 1.82 acres of bottom coverage from debris. |
| 10103-801 [19] | Twelvemile Arm | Prince of Wales Island | Debris | Log Storage Area | This waterbody is placed on the 1998 Section 303(d) list for debris and has not occurred on any previous year's 303(d) list. Review of US Fish and Wildlife Service video documentation and a dive transect reveals 100% coverage along entire transect, and numerous sections exceeding 10 cm thickness, i.e., extensive bark deposition (> one acre & > than 10 cm). Log storage activities occurred at the head of the Arm in a shallow area lacking sufficient flushing capability. |
| 10203-804 [20] | West Port Frederick | Chichagof Island | Debris | Log Transfer Facility | This waterbody is placed on the 1998 Section 303(d) list for debris and has not occurred on any previous year's 303(d) list. Dive survey information from April 1995 demonstrates an exceedance of the interim intertidal threshold bark accumulation level (as per Log Transfer Facility Siting, Construction, Operation and Monitoring\Reporting Guidelines, October 21, 1985) at 1.35 acres of bottom coverage. |

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| 10203-018 [21] | Wrinkleneck Creek Swan Lake | Sitka | Solid Waste | Urban | This waterbody was placed on the 1996 Section 303(d) list for solid waste. There is insufficient information in the file to show an effect to a designated use from habitat modification. A 1994 water quality assessment indicated the waterbody from Baranof Street to Swan Lake is affected by urban development which has caused several problems in the area by way of urban runoff and solid waste debris including wood, oil tanks, waste metals, and plastics. An on-site inspection and a coordinated stream clean-up may address the water quality issues; if not, a waterbody assessment is required to confirm pollutants and determine if additional controls are necessary. |
| SOUTHCENTRAL | | | | | |
| 20701-601 [22] | Buskin Beach Pond | Kodiak | Petroleum Products | Military | This waterbody is placed on the 1998 Section 303(d) list for petroleum products. The contaminated area is a low-lying estuarine-type area of Buskin Beach. The area was used by the military as a tar disposal area/dumping ground and, according to US Army Corps of Engineers (COE), it is approximately 600 feet long by 100 feet wide tapering to 2 feet at the head of the "estuary." Visible oil sheen and tar covering the majority of the surface water at the disposal area. Depth of tar is estimated to be one foot thick in several locations. (Photos in 1995 and 1996 COE documents). RI (report) states data collected during Phase I of the RI indicates that the tar in the estuary has resulted surface water quality violations, due to petroleum. Hydrocarbon content of the soils exceeds matrix clean-up levels and PAH and lead exceed benchmark criteria. Assessment is partially complete, recovery plan not yet determined. (References: COE Sampling and Analysis Plan -- Buskin Beach Remedial Investigation Kodiak Island, Alaska (10/95) & ESI Technical Memorandum (8/95)) |

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| 30101-801 [23] | Cold Bay | Cold Bay | Petroleum Products | Military, Fuel Storage | This waterbody is placed on the 1998 Section 303(d) list for petroleum products and has not occurred on any previous year's 303(d) list. Enough evidence exists to indicate that water quality violations are occurring on a persistent (though intermittent) basis. Assessments are partially completed but not done yet. This is a high priority project for the US Army Corps of Engineers, so they will complete an assessment and recovery plan. A release investigation of the seep found high a level of diesel range organics (DRO) in beach soils (over 10,000 ppm), petroleum contamination in sediments below the high tide line. Four feet of free product was found in a monitoring well in the bluff. Seep (oil mixed with water) is weeping out intermittently along 100-300 feet of bluff. In the summer of 1998, the Corps plans to put in a recovery system in bluff above beach, but at this point there are no plans to put in an interception trench. It is unclear when the seep may stop. |
| 20401-403 [24] | Cheney Lake | Anchorage | Fecal Coliform | Urban Runoff, Storm Drainage | This waterbody was placed on the 1996 Section 303(d) list for fecal coliform-no additional information has been evaluated by ADEC since then. The Municipality of Anchorage's 1991-1994 data indicates that the fecal coliform criterion is being exceeded in almost every monitoring month. |
| 30401-601 [25] | Dutch Harbor | Unalaska Island | Petroleum Products | Industrial, Urban Runoff | This waterbody was placed on the 1996 Section 303(d) list for petroleum products-no additional information has been evaluated by ADEC since then. The August 25, 1994 Water Quality Assessment for Greater Unalaska Bay identified the waterbody as being impacted by petroleum products. A more specific waterbody assessment for Dutch Harbor is needed to validate the water quality issues and determine whether additional controls are necessary. |
| 20401-006 [26] | Furrow Creek | Anchorage | Fecal Coliform | Urban Runoff | This waterbody was placed on the 1996 Section 303(d) list for fecal coliform-no additional information has been evaluated by ADEC since then. Based on Municipality of Anchorage water quality monitoring data, the levels of fecal coliform exceed the designated use criteria for drinking water, primary contact recreation, and occasionally for secondary contact recreation. The source of the fecal coliform is presumed to be human-caused from urban runoff sources. |

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| 30102-602 [27] | Illuliuk Bay/Harbor | Dutch Harbor | Petroleum Products | Urban Runoff | This waterbody was placed on the 1996 Section 303(d) list for petroleum products-no additional information has been evaluated by ADEC since then. An EPA August 1994 Water Quality Assessment for Greater Unalaska Bay which included Illuliuk Harbor/Bay concluded that Illuliuk Harbor/Bay is impacted by intermittent spills for petroleum products and chronic sewage runoff and that existing controls can resolve the problems. Anchorage ADEC staff indicate the waterbody is regularly affected by petroleum spills and that until the controls resolve the petroleum spills/seeps problem, the waterbody should be 303(d) listed. |
| 20701-801 [28] | Kazakof Bay | Afognak Island | Debris | Log Transfer Facility | This waterbody is placed on the 1998 Section 303(d) list for debris and has not occurred on any previous year's 303(d) list. Dive survey information for this LTF (known as Kazakof Bay 1) from November 1997 demonstrates an exceedance of the interim intertidal threshold bark accumulation level (as per Log Transfer Facility Siting, Construction, Operation and Monitoring/Reporting Guidelines, October 21, 1985) at 1.8 acres of bottom coverage. |
| 20401-024 [29] | Little Rabbit Creek | Anchorage | Fecal Coliform | Urban Runoff | This waterbody has occurred on the Section 303(d) list for fecal coliform since 1994. The source of the fecal coliform exceedances (whether human-caused or caused by non-human sources such as wildlife), has also been an open question with this waterbody. Determining the source of the fecal coliform is best resolved by the more detailed waterbody assessment process required by Tier I designation. A waterbody assessment required by Tier I designation will provide more definitive information on the source of the fecal coliform exceedances that can serve as the basis for a waterbody recovery plan - if needed as determined by the waterbody assessment. |
| 20401-018 [30] | Little Survival Creek | Anchorage | Fecal Coliform | Urban Runoff | This waterbody has occurred on the Section 303(d) list for fecal coliform since 1994. The source of the fecal coliform exceedances (whether human-caused or caused by non-human sources such as wildlife), has also been an open question with this waterbody. Determining the source of the fecal coliform is best resolved by the more detailed waterbody assessment process required by Tier I designation. A waterbody assessment required by Tier I designation will provide more definitive information on the sources of the fecal coliform exceedances that can serve as the basis for a waterbody recovery plan - if needed as determined by the waterbody assessment. |

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| 30101-602 [31] | Popof Strait | East Aleutians Borough | Seafood Residue | Seafood Processor | This waterbody has occurred on the Section 303(d) list since 1996. Information provided by the Aleutians East Borough, and verified by ADEC staff, included citizen complaints, photographs, and other information to indicate that persistent exceedances of "seafood residue" are occurring from a seafood processor operating adjacent to the waterbody. The seafood processing facility located in Sand Point has installed a fish meal plant which eliminates the discharge of solid wastes to Popof Strait. The company is presently under a consent decree covering this facility (as well as the one in Akutan) where there is a requirement for the Sand Point facility to reduce the amount of BOD5 discharged by 30%. An NPDES permit is scheduled to be issued in the summer of 1999. |
| 30102-409 [32] | Red Lake Anton Road Ponds | Kodiak | Metals | Urban Runoff | This waterbody has occurred on the Section 303(d) list for metals, debris, and petroleum products since 1994. Based on a 1992 memorandum released by ADEC-Kodiak Field Office, Red Lake lies less than 200 feet from a Navy Landfill. This landfill was constructed without a liner or leachate collection system. Landfill waste, which may include solvents, paints, used oils, and contaminated fuel, occasionally leaches into Red Lake and two other small ponds near Anton Road. These two ponds are highly colored by bright orange-red iron precipitates caused by the oxidation of the leachate. Lake sediment samples were found to contain 8.6% iron. Chemical pollutants were documented at low levels in the lake and in the bottom sediments. Four recent reports (from 1996 & 1997) were reviewed by ADEC staff for this current listing. The data presented in the reports is the best available to the department and ADEC has concluded that: (1) Red Lake clearly appears to have exceedances of water quality standards for iron and Manganese due to human actions, (2) there are not existing controls in place to ensure that the water quality standards will be met within the next two years, (3) the reports did not present any information showing levels of iron and Manganese in groundwater above the landfill; so there is no information showing that the abandoned landfill is not the source of these metals, and (4) although there have been other parameters of concern observed in previous sampling, the available information indicates that Red Lake should not be listed for those parameters, and should only be listed for manganese and iron. Consequently, the debris and petroleum products pollutant parameters have been removed from this listing. |

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| 20401-020 [33] | Ship Creek Glenn Hwy. Bridge. Down to Mouth | Anchorage | Fecal Coliform, Petroleum Products | Urban Runoff | This waterbody has occurred on the Section 303(d) list for fecal coliform, biological community alteration, and petroleum hydrocarbons since 1994. Based on the fecal coliform monitoring data from 1989-1994 provided by the Municipality of Anchorage the water quality criteria for drinking water and contact recreation were exceeded at various times. EPA has also established a superfund site adjacent to Ship Creek. Petroleum products floating on ground water are moving from the site towards Ship Creek that threatens the waterbody. A report completed for ADEC indicates that the macroinvertebrate community has been altered/degraded. The waterbody assessment is very nearly completed by ADEC and appears to validate finding WQS exceedances of fecal coliform and petroleum products. |
| INTERIOR | | | | | |
| 20502-101 [34] | Caribou Creek | Denali National Park | Turbidity | Mining | This waterbody was included on the 1996 Tier I 303(d) list for turbidity from past mining activity within Denali National Preserve (Kantishna Mining District). ADEC staff conducted a helicopter tour of the watershed in June 1997 with the NPS to ascertain the degree of past mining activity in, and adjacent to, the waterbody. Miles of the waterbody have been extensively placer mined. The waterbody has lost its sinuosity along segments of the upper half of the watershed. The NPS priority for the watershed is to continue the process to obtain title to private mining claims. Since the mining claim acquisition process may take at least 3 to 5 more years, development of a waterbody recovery plan is unlikely to begin until the acquisition process is near completion. Consequently, this waterbody will remain on the 1998 Tier I Section 303(d) list |
| 40506-002 [35] | Chena Slough | Fairbanks | Petroleum Products, Sediment | Urban Runoff, Septic Tanks | This waterbody has occurred on the Section 303(d) list for petroleum products and sediment since 1994-no additional information has been evaluated by ADEC since then. Information presented in the 1994 Statewide Water Quality Assessment survey indicated that a petroleum product problem does exist and is affecting water quality. File assessment information indicates nonpoint source problems result from surface water run-off, road construction, site clearing, and de-watering activities from gravel operations. Based on best professional judgement of ADEC's Fairbanks Office this waterbody should be listed for petroleum products. |
| 40505-401 | Harding Lake | Fairbanks | Fecal Coliform | Urban Runoff | This waterbody was placed on the 1996 Section 303(d) list for fecal coliform. ADEC has collected fecal coliform data (winter 1996 and summer 1997 samples) and collected sample |

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| [36] | | | | | data in 1998 as part of the waterbody assessment process. Future lakeside development is planned and ADEC has decided that additional tracking and another season of monitoring is needed. Data will be analyzed in an assessment report to determine if the waterbody is water quality-limited from fecal coliform and if the lake needs a waterbody recovery plan. |
| 40506-003 [37] | Noyes Slough | Fairbanks | Sediment, Petroleum Products, Debris | Urban Runoff | This waterbody has occurred on the Section 303(d) list since 1994-no additional information has been evaluated by ADEC since then. Numerous water quality violations have been reported. These violations are a result of debris dumped into the slough. Urban run-off is also a problem. Snow dumps from the removal of snow from city streets and parking lots located adjacent to the slough contain oil, grease, litter, anti-freeze, and salts. Melting snow carries these pollutants into the waterbody. |

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Tier II - Waters which have had completed assessments and now require a waterbody recovery plan or a TMDL

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| SOUTHEAST | | | | | |
| 10301-005 [38] | Duck Creek | Juneau | Dissolved Gas, Residues, Metals, Fecal Coliform, and Turbidity | Urban Runoff, Landfill, Road Runoff, Land Development | This waterbody has occurred on the Section 303(d) list for dissolved gas (low DO), residues (debris), metals, fecal coliform, turbidity, petroleum aromatic hydrocarbons, and habitat modification since 1994. A draft water quality assessment was completed (September 1995) for Duck Creek and submitted to EPA for technical review. ADEC identified the waterbody as being water quality limited for all of the water quality criteria parameters except petroleum aromatic hydrocarbons (hydrocarbon data is insufficient to show persistent exceedances of the criteria). Additional concerns identified in the assessment include hydrologic effects to the stream from habitat modification, sedimentation, and cumulative effects to aquatic life. There is a Duck Creek Advisory Group that is looking at waterbody recovery alternatives. A draft watershed management plan was developed in November 1998 with a final plan expected in 1999. The watershed was selected as one of 12 sites nationally by federal agencies as a restoration demonstration site for restoration techniques. |
| 10203-601 [39] | Silver Bay | Sitka | Toxic & Other Deleterious Organic & Inorganic Substances, Residues, Dissolved Gas | Industrial | This waterbody has occurred on the Section 303(d) list for dioxin, sludge, and dissolved gas (low DO) since 1994. Based on information presented in a report titled <u>Final Expanded Site Inspection Report, Alaska Pulp Corporation, Sitka, Alaska, Feb. 1995</u> , water quality violations for dioxins occurred. Discharges from the mill ceased in March 1993 and based on a June 1993 Water Quality Assessment, the pollutant parameters of concern included sludge and dissolved oxygen. Contaminated site issues are currently being addressed through an ADEC remedial investigation (similar to a CERCLA investigation) that is being conducted at the mill facility and adjacent marine waters. A Record of Decision that outlines specific remedial alternatives for the mill site was developed in 1998. Remedial activities identified are: natural recovery, with long-term monitoring. |

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Tier II - Waters which have had completed assessments and now require a waterbody recovery plan or a TMDL

| <u>Alaska ID Number</u> | <u>Waterbody</u> | <u>Location</u> | <u>Pollutant Parameters</u> | <u>Pollutant Sources</u> | <u>Narrative Explanation</u> |
|-------------------------|------------------|-----------------|---|--------------------------|---|
| 10102-601 [40] | Ward Cove | Ketchikan | Residues, Dissolved Gas, Toxic & Other Deleterious Substances | Industrial | This waterbody has been on the Section 303(d) list for sediment, dissolved oxygen (DO), color, and toxic substances since 1994. Since the wastewater discharges have ceased as of 1997, color is removed from the listing since there are no longer discharges to the waterbody. Recent studies have shown that bottom sediments and accumulations of wood debris generate hazardous substances as they decompose which are toxic to benthic organisms, and contribute to seasonal depressions in dissolved oxygen in Ward Cove. Both of the receiving water sampling events in the August 1998 discharge monitoring reports (DMRs) show severe dissolved oxygen depressions (at sampling locations 48, 47, 46, 45, 44, 43, 42, and 41). The layer of water that was below Alaska water quality criteria for dissolved oxygen was up to 30 meters deep at one station. This is further evidence of an ongoing dissolved oxygen deficit in Ward Cove. Based on the May 27, 1994 TMDL for Ward Cove and other additional supporting information, including DMRs, Ward Cove is water quality-limited for dissolved gas (oxygen); toxics and other deleterious organic and inorganic substances; and residues (debris). |
| SOUTHCENTRAL | | | | | |
| 20401-004 [41] | Campbell Creek | Anchorage | Fecal Coliform | Urban Runoff | This waterbody has occurred on the Section 303(d) list for fecal coliform since 1994. The Campbell Creek water quality assessment completed in June 1994 identified several parameters of concern, i.e., temperature, turbidity, zinc, and lead, but concluded that Campbell Creek was water quality limited for fecal coliform only. The waterbody assessment also determined that a TMDL for fecal coliform is not necessary at this time since controls to be specified in the Municipality of Anchorage pending stormwater NPDES permit will address the parameter and sufficiently attain the water quality standard. |
| 20401-402 [42] | Campbell Lake | Anchorage | Fecal Coliform | Urban Runoff | This waterbody has occurred on the Section 303(d) list for fecal coliform since 1994. The Campbell Creek water quality assessment, completed in June 1994, included an assessment of Campbell Lake. The assessment identified several parameters of concern, i.e., fecal coliform, lead and zinc, but concluded that Campbell Lake was water quality limited for fecal coliform only. The waterbody assessment also determined that a TMDL for fecal coliform is not necessary at this time since controls to be specified in the pending Municipality of Anchorage stormwater NPDES permit, will address the parameter, sufficiently to attain the water quality standard. |
| 20401-003 | Chester Creek | Anchorage | Fecal Coliform | Urban Runoff, | This waterbody has occurred on the Section 303(d) list for fecal coliform since 1994. In April 1993, |

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|-------------------------|-------------------|-----------------|--|--------------------------|--|
| [43] | | | | Industrial | a water quality assessment was completed on the Chester Creek drainage which identified several parameters of concern for Chester Creek, but the assessment concluded that the waterbody is water quality limited for fecal coliform only. The waterbody assessment also determined that a TMDL for parameters of concern is not necessary since controls to be specified in the pending Municipality of Anchorage stormwater NPDES permit, will address the parameter, sufficiently to attain the water quality standard. |
| 20302-601 [44] | Eagle River Flats | Fort Richardson | Toxic & Other Deleterious Organic and Inorganic Substances | Military Base Operations | This waterbody was nominated by EPA superfund cleanup staff for 1996 Section 303(d) listing for white phosphorous contamination of the flats area. An EPA consultant, CH2M Hill prepared a report, <u>Eagle River Flats - Comprehensive Evaluation Report, July 1994</u> . This report is a detailed environmental assessment that qualifies as a waterbody assessment. The report presents water quality data and other information on the relationship between white phosphorous (from artillery shell residue) and its lethal effect on waterfowl in the Eagle River Flats area. Several remediation projects have occurred to help determine eventual remediation feasibility. A Record of Decision was signed on September 30, 1998. Remediation activities occurred in 1998. The ROD has a five year and 20 year goal and in 1998 the US Army nearly met the five year goal. |

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Tier II - Waters which have had completed assessments and now require a waterbody recovery plan or a TMDL

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|-------------------------|------------------|-----------------|--|--------------------------|--|
| 0204-023 [45] | Eskimo Creek | King Salmon | Petroleum Hydrocarbons, Toxic & Other Deleterious Substances | Landfill, Fuel Storage | This water previously occurred on the 1996 Section 303(d) Tier I list and is proposed to be placed on Tier II. Based on information provided by the EPA's Comprehensive Environmental Response Compensation Liability Act (CERCLA) group, seeps from a dump adjacent to Eskimo Creek have led to stream water contamination by metals, pesticides, and petroleum hydrocarbons and the waterbody was listed for these parameters in 1996. Current information suggests removing metals as a pollutant parameter. The primary sources of petroleum hydrocarbons and trichlorethylene (TCE) have been removed; however, the secondary source of the A-Aquifer groundwater consists of contaminant plumes of diesel range organics (DRO) and (TCE). There are two seeps daylighting at the edge of the wetlands downgradient of the contaminant plumes and upgradient of the creek. Stressed and damaged vegetation is present within the wetland (at Seep #2); the areal extent appears to be decreasing, and remedial efforts include phytoremediation. French drains were installed at both seeps to collect the floating product. In addition, an oil and water separator, and water treatment system is operational to treat the A-Aquifer and then return it to the wetlands. Monitoring activities to support/address natural attenuation and the associated treatment system are projected to continue until 2027. A revised Feasibility Study is due to be completed in Fall of 1999 with a Proposed Plan and Record of Decision to follow (tentatively end of 1999). A focused fish study is being performed in 1999. This study is a follow-up to the recently completed Human Food Chain, Aquatic Biota, and Wetlands Evaluation (dated November 1998). Field season of FY00 will have a comprehensive study to complete the Human Food Chain, etc., report. |
| 20401-005 [46] | Fish Creek | Anchorage | Fecal Coliform | Urban Runoff | This waterbody has occurred on the Section 303(d) list for fecal coliform and turbidity since 1994. A waterbody assessment concluded the waterbody was water quality-limited only for fecal coliform. The waterbody assessment also concluded a TMDL for the pollutant parameter is not necessary since controls to be specified in the pending Municipality of Anchorage NPDES stormwater permit, will address the parameter issue, sufficiently to attain the water quality standard. |

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Tier II - Waters which have had completed assessments and now require a waterbody recovery plan or a TMDL

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|-------------------------|-------------------|-----------------|--|--------------------------|---|
| 20401-412 [47] | Hood/Spenard Lake | Anchorage | Dissolved Oxygen | Urban Runoff, Industrial | This waterbody previously occurred on the Tier I 1996 Section 303(d) list . A TMDL was developed for fecal coliform and was finalized on September 30, 1997 and the waterbody occurs as a Tier III listing for fecal coliform but remains on Tier II for dissolved gas (i.e., dissolved oxygen). Although the waterbody was placed on the 1996 Section 303(d) list for fecal coliform, lead, nitrates, and phosphates, ADEC's current water quality assessment for this waterbody considered showed that Lake Hood should be listed for DO. The assessment also considered four other pollutants of concern other than fecal and DO -- petroleum, nitrates, lead, & ammonia. However, the data indicated that we have not had persistent violations of these parameters. |
| 30203-001 [48] | King Salmon Creek | King Salmon | Petroleum Hydrocarbons, Toxic & Other Deleterious Substances | Landfill, Military | This waterbody occurred on the 1996 Tier II Section 303(d) list for petroleum hydrocarbons, metals and pesticides. The A-Aquifer has had detections of petroleum hydrocarbons, metals, and pesticides. This aquifer daylights at the toe of the South Barrel Bluff (SBB) which is directly adjacent to King Salmon Creek on the southern end, and is buffered from the creek on the northern portion by a wetland. Due to the amount of drums suspected in the Barrel Bluffs and unfeasibility of a total removal of the drums, the bluffs were recontoured for minimal surface water runoff and erosion control, exposed drums and contaminated soil removed, ground surface capped and revegetated. Revegetative efforts were not completed this field season, and are expected to be complete in the 1998 field season. A treatment system is soon to be operational to treat the daylighting A-Aquifer water. Documents supporting the acceptable water quality data include: Post Closure Monitoring Report for North and South Barrel Bluff Sites (several sampling events/reports over past few years); the 1994/95 Remedial Investigation/Feasibility Study; and a 1997 study titled Human Food Chain, Aquatic Biota, and Wetlands Evaluations which contain wetland transects including the wetlands adjacent to the SBB. This waterbody and the adjacent area (SBB) are presently being addressed through an interim agreement between the ADEC, the EPA and the U.S. Air Force. A Proposed Plan and Record of Decision is planned for 1999, there were delays of approximately one year due to erosion troubles on the Bluffs and contractor reporting insufficiencies. Monitoring activities to support/address natural attenuation and the associated treatment system are projected to continue until 2027. |

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Tier II - Waters which have had completed assessments and now require a waterbody recovery plan or a TMDL

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|-------------------------|-----------------------|-----------------|-----------------------------|--------------------------|--|
| 20401-017 [49] | Little Campbell Creek | Anchorage | Fecal Coliform | Urban Runoff | This waterbody has occurred on the Section 303(d) list for fecal coliform since 1994. The water quality assessment for the Campbell Creek Drainage indicates that Little Campbell Lake is water quality-limited only for fecal coliform. The waterbody assessment also determined that a TMDL is not necessary since controls to be specified in the Municipality of Anchorage pending stormwater NPDES permit, will address the pollutant parameter, sufficiently to attain the water quality standard. |
| 20505-409 [50] | Lake Lucille | Wasilla | Dissolved Gas | Urban Runoff | This waterbody has occurred on the Section 303(d) list for dissolved gas (low DO) and nutrients since 1994. The Lake Lucille water quality assessment reports the lake is eutrophied, because it has nuisance growths of aquatic plants and severe depletion of dissolved oxygen under winter ice. Nitrogen and phosphorous are the nutrients of concern because of the historical input of these nutrients from the approximate 100 residences that occupy the lake shore. However, since the City of Wasilla has responded by constructing a municipal sewer system that serves most if not all of the lake residences, the nutrient source has been essentially eliminated. The waterbody requires a waterbody recovery plan to address the dissolved oxygen issue. |

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Tier II - Waters which have had completed assessments and now require a waterbody recovery plan or a TMDL

| <u>Alaska ID Number</u> | <u>Waterbody</u> | <u>Location</u> | <u>Pollutant Parameters</u> | <u>Pollutant Sources</u> | <u>Narrative Explanation</u> |
|-------------------------|------------------|-----------------|---|--|---|
| 30204-002 [51] | Red Fox Creek | King Salmon | Petroleum Hydrocarbons, Toxic & Other Deleterious Substances | Landfill, Fire Training Areas, Military | This waterbody has occurred previously on the Section 303(d) list for petroleum hydrocarbons and metals since 1994. Data/information provided by EPA=s Comprehensive Environmental Response Compensation Liability Act (CERCLA) group show that the waterbody is water quality-limited for petroleum hydrocarbons and TCE. Consequently, the metals parameter has been dropped from this listing. Water quality assessment studies have been done for the waterbody and a remediation plan has been proposed. This waterbody does not meet the water quality standards. This waterbody formerly consisted of a small stream prior to the airport runway being constructed in the 1940s. It is currently a losing stream with minimal flow that enters the groundwater system as it intersects the runway. Red Fox Creek does not directly impact the Naknek River. There are diesel range organics (DRO) and trichlorethylene (TCE) groundwater contaminant plumes within upgradient areas (Fire Training Area No. 1 and RAPCON) of the creek. These contaminants have impacted the creek sediments, although TCE has not been detected in the surface water. Remedial actions in FY97 included source removal, and treatment of the contaminated soil in on-site biocells. Since a contaminant smear-zone is present, FY98 remedial actions will include bioventing and monitoring for natural attenuation. FY97 contaminated soil removal with treatment in on-facility biocells, FY98 installation of air sparging and bioventing, and FY99 start-up of these systems. |
| 20401-419 [52] | University Lake | Anchorage | Fecal Coliform | Urban Runoff | This waterbody has occurred on the Section 303(d) list for fecal coliform since 1994. The Chester Creek Drainage Water Quality Assessment, completed in April 1993, determined that the waterbody is water quality-limited for only fecal coliform. The waterbody assessment also concluded that a TMDL for the pollutant parameter is not necessary since controls to be specified in the pending Municipality of Anchorage NPDES stormwater permit, will address the pollutant parameter, sufficiently to attain water quality standards. |

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|-------------------------|--------------------|-----------------|-----------------------------|--------------------------|--|
| 20401-421 [53] | Westchester Lagoon | Anchorage | Fecal Coliform | Urban Runoff | This waterbody has occurred on the Section 303(d) list for fecal coliform since 1994. The Chester Creek Drainage Water Quality Assessment, April 1993, identified Westchester Lagoon as being water quality-limited only for fecal coliform, however, there are water quality concerns related to iron, turbidity and petroleum products. The waterbody assessment also concluded that a TMDL for the pollutant parameters is not necessary since controls to be specified in the pending Municipality of Anchorage NPDES stormwater permit, will address the pollutant parameters, sufficiently to attain water quality standards. |
| INTERIOR | | | | | |
| 40501-001 [54] | Cabin Creek | Nabesna | Manganese | Mining | This waterbody was included on the 1996 Tier II 303(d) list for manganese from the Nabesna Mine site - a patented mining claim area within the Wrangell St. Elias National Preserve. NPS and ADEC staff visited the mine site and waterbody in June 1997 to discuss specifics of a waterbody recovery plan with the owner of the Nabesna Mine property. Acidic tailings below the mine site (located on National Park Service managed lands), may be a contributing factor in compromising the water quality of Cabin Creek. Recovery plan objectives include increasing the low pH of the acidic tailings, revegetating the tailings with indigenous species, and re-construction of the existing drainage ditches around the tailings to divert stormwater run-off away from Cabin Creek. Final implementation and subsequent waterbody recovery analysis may not occur until after April 2000 - therefore the water shall remain on the 1998 Tier II Section 303(d) list. |

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|-------------------------|------------------|-----------------|------------------------------|--------------------------|--|
| 40506-007 [55] | Chena River | Fairbanks | Petroleum Products, Sediment | Urban | This waterbody has occurred on the Section 303(d) list for turbidity, sediment, and habitat modification since 1994 and occurred on the 1996 Tier I list. A State Division of Mining memorandum dated March 5, 1996 provided information indicating that turbidity and sedimentation was the result of a one-time placer mining settling pond failure that was repaired, therefore recommended dropping turbidity and sediment parameters. This was verified by ADEC staff in Fairbanks. Insufficient information in file on effects to any designated use from habitat modification. Some information in file on petroleum products spills that reach waterbody; best professional judgement from ADEC staff in Fairbanks is to list waterbody for petroleum products. This river flows directly through the City of Fairbanks and past several known areas of groundwater contamination. The area has permeable soils and shallow groundwater readily interact with surface water. Although it has not been evaluated, this river could be subject to runoff from bridges and storm sewers and other activities within the City of Fairbanks that impact the quality of the river. Untreated groundwater at depth adjacent to the river is contaminated with benzene at levels below safe drinking water act levels. A portion of the Chena River upriver from the City of Fairbanks has been studied extensively during a CERCLA investigation of contaminated sites on Fort Wainwright. A number of exceedences of surface water and sediment criteria considered protective of aquatic life were found in a section of the river that passes the West Quartermaster=s Fueling System. A Record of Decision was signed March 26, 1999 which included a Chena River Aquatic Assessment Program designed to determine whether actual impacts to the Chena River have occurred, assess their significance, and measure changes over time. Subsequent information has determined that there are measurable impacts, but that those impacts do not indicate substantial ecological risk. Data is being further evaluated to determine the significance of the information, and the Assessment will continue including data collection as part of remediation efforts. |

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|-------------------------|--|----------------------|-----------------------------|--------------------------|---|
| 40402-010 [56] | Crooked Creek Watershed Bonanza Crooked Deadwood Ketchem Mammoth Mastodon Porcupine | North of Fairbanks | Turbidity | Placer Mining | This watershed has occurred on the Section 303(d) list for turbidity since 1994 and previously occurred on Tier I of Alaska's 1996 list. A water quality assessment was completed in August 1995. Having the completed assessment has resulted in the Crooked Creek watershed being a Tier II listed. |
| 40509-001 [57] | Goldstream Creek | Fairbanks | Turbidity | Placer Mining | This waterbody has occurred on the Section 303(d) list for turbidity from placer mining since 1994. A waterbody assessment has been completed that confirmed the pollutant, pollutant source, and determined that existing controls were sufficient to address the turbidity issue and that a formal TMDL was not needed. A waterbody recovery plan has been prepared and submitted to EPA for technical review. No further action has occurred on this waterbody since the 1996 Section 303(d) listing. Continued monitoring is needed to ensure that existing controls are attaining water quality standards. |
| 40510-101 [58] | Slate Creek | Denali National Park | Turbidity | Mining | This waterbody occurred on the 1996 Tier I Section 303(d) list and is placed on the 1998 Tier II list. This waterbody was included on the 1996 Tier I 303(d) list for turbidity from past mining activity within Denali National Preserve (Kantishna Mining District). National Park Service (NPS) and ADEC staff field inspected the antimony mine area (at the creek headwaters) in June 1997 to discuss specifics of the NPS waterbody recovery plan. Recovery plan implementation began in August 1997 and into the second field season (1998). The recovery plan includes restoration objectives for four acres of disturbed upland and stream channel areas in the vicinity of the old antimony mine site. Restoration objectives include placement of fill over the exposed antimony ore body, reconfiguration of the stream channel, increasing the pH of acidic soils, and revegetation of disturbed soils with willow and alder seedlings. Full implementation of the recovery plan will address any water quality issues of the waterbody. Full recovery of the waterbody is expected by April 2000. Review of the recovery plan is needed prior to moving this water to Tier III. |

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Tier III Waters which will be tracked and monitored

| <u>Alaska ID #</u> | <u>Waterbody</u> | <u>Location</u> | <u>Pollutant Parameters</u> | <u>Pollutant Sources</u> | <u>Narrative Explanation</u> |
|--------------------|------------------|------------------------|-----------------------------|-----------------------------|---|
| SOUTHEAST | | | | | |
| 10202-006 | Hammer Slough | Mitkof Island | Sediment | Urban Runoff, Gravel Mining | A March 1996 inter-agency site inspection of the watershed with representatives from ADEC, ADFG, City of Petersburg, and DOT/PF determined pollutant sources, responsible parties, and a remediation schedule. ADEC staff have coordinated best management practices implementation for the waterbody from the responsible parties that have resulted in the waterbody attaining water quality standards. The water quality data in the file supports the waterbody is no longer water quality limited. Additional monitoring is needed before moving to Tier IV. |
| 10103-031 | Fubar Creek | Prince of Wales Island | Sediment | Timber Harvest | Fubar Creek was not placed on the 1996 Section 303(d) list because the U.S. Forest Service (USFS) provided documentation that a decision had been made to defer timber harvest for five to eight years in the watershed and the USFS has been active in stabilizing land disturbances from both past management practices and natural events. The USFS and ADEC will continue to monitor the recovery of this waterbody. |
| 10301-001 | Lemon Creek | Juneau | Turbidity, Sediment | Urban Runoff, Gravel Mining | This waterbody was placed on the 1996 Section 303(d) list for turbidity, sediment, and habitat modification. A waterbody recovery plan that included a TMDL was prepared for this waterbody during Summer 1995. The TMDL was approved by the EPA. Waterbody recovery plan implementation began during Fall 1995. |
| 10301-003 | Sawmill Creek | Haines | Debris | Urban Runoff | This waterbody occurred on the 1996 Tier III list for debris. Some debris removal work, in addition to a culvert replacement and re-seeding, was completed in 1997. Additional debris removal work remains. There are snow removal problems and highway and maintenance debris. Plans call for moving the stream away from the highway/street in two areas and constructing a dike in another. Plans also call for establishing vegetative buffers, swales, and matting to improve filtration of run-off entering the stream. This waterbody remains on Tier III for additional monitoring and tracking pending additional debris removal work. |
| 10301-017 | Vanderbilt | Juneau | Turbidity, | Urban Runoff | This waterbody was placed on the 1996 Section 303(d) list for turbidity, debris, sediment, |

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Tier III Waters which will be tracked and monitored

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|---------------------|--------------------------|---|------------------------------------|------------------------------|---|
| | Creek | | Debris, Sediment | | and habitat modification. There is insufficient information in the file to correlate habitat modification with effects to designated uses. A waterbody recovery plan that included a TMDL was prepared during Summer 1995. The TMDL was approved by EPA. Implementation of the waterbody recovery plan began during the Fall 1995. |
| SOUTHCENTRAL | | | | | |
| 30102-604 | Akutan Harbor | Akutan Island | Settleable Solids Dissolved Gas | Seafood Processing/ Waste | <p>This waterbody occurred on the 1996 Tier II Section 303(d) list and is placed on Tier III. The associated NPDES permit for this area was finalized in the spring of 1996. The seafood processing facility located in Akutan Harbor is currently under a consent decree that requires a 12% BOD5 reduction in addition to the limitations in the NPDES permit.</p> <p>This waterbody was placed on the 1996 Section 303(d) list for settleable solids and dissolved oxygen. Additional water quality data since the 1994 listing decision was made available and evaluated by ADEC. An evaluation of this data indicated that dissolved gas (low DO) and settleable solids exceedances were occurring. A waterbody assessment and TMDL have been prepared to address the water quality issues within this waterbody. The associated revised NPDES permit has discharge limits consistent with the TMDL.</p> |
| N/A | Exxon Valdez Waterbodies | Prince William Sound/ Alaska Peninsula | Petroleum Products | Exxon Valdez Crude Oil Spill | The Exxon Valdez affected beaches and adjacent marine waters were not placed on the Section 303(d) list because a TMDL process would have unnecessarily duplicated efforts of the Exxon Valdez Trustee Council and restoration projects specified in the Exxon Valdez Restoration Plan. The restoration plan, which includes the phases of injury assessment, restoration, replacement, enhancement of natural resources, and acquisition of equivalent resources, provides long-term guidance for restoring the natural resources and shorelines injured by the oil spill. Scientists and agency representatives funded through approved restoration funds will continue to track and monitor recovery of the natural resources impacted by the oil spill. |

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Tier III Waters which will be tracked and monitored

| <u>Alaska ID #</u> | <u>Waterbody</u> | <u>Location</u> | <u>Pollutant Parameters</u> | <u>Pollutant Sources</u> | <u>Narrative Explanation</u> |
|--------------------|-------------------|-----------------|-----------------------------|--------------------------------|---|
| 20401-412 | Hood/Spenard Lake | Anchorage | Fecal Coliform | Urban Runoff, Industrial | This waterbody previously occurred on the Tier I 1996 Section 303(d) list and is Tier III listed for fecal coliform only because a TMDL for fecal coliform was developed and finalized on September 30, 1997. The waterbody will remain on the Tier II list for dissolved oxygen. ADEC's current water quality assessment for this waterbody considered four other pollutants of concern -- petroleum, nitrates, lead, & ammonia -- however, the data indicated that we have not had persistent violations of these parameters. |
| 20402-409 | Jewel Lake | Anchorage | Fecal Coliform | Urban Runoff, Land Development | This waterbody previously occurred on the 1996 Section 303(d) Tier I list for fecal coliform. A TMDL was developed and finalized on September 30, 1997. Consequently the waterbody is Tier III listed. |
| 30101-601 | King Cove | King Cove | Residues-Settleable Solids | Seafood Processing/Waste | On October 10, 1998 EPA completed a total maximum daily load (TMDL) for King Cove and a NPDES permit is under development. Information provided by the Aleutians East Borough and verified by ADEC staff included citizen complaints, photographs, and other information to indicate that persistent exceedances of Aseafood residue \cong had occurred from seafood processing activity operating adjacent to the waterbody. This waterbody occurred on the 1996 Tier I Section 303(d) list. The water is moved to Tier III for monitoring and tracking. |

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Tier III Waters which will be tracked and monitored

| <u>Alaska ID #</u> | <u>Waterbody</u> | <u>Location</u> | <u>Pollutant Parameters</u> | <u>Pollutant Sources</u> | <u>Narrative Explanation</u> |
|--------------------|------------------|-----------------|--|--|--|
| 30204-001 | Naknek River | King Salmon | Petroleum Hydrocarbons, Toxic & Other Deleterious Substances | Inactive/closed Landfill, Fuel Storage | <p>This waterbody occurred on the 1996 Tier I Section 303(d) list and is 1998 Tier III listed. This waterbody was placed on the 1996 Section 303(d) list as a waterbody which was not expected to meet water quality standards because of pollutant sources coming from tributary waterbodies (Eskimo Creek, King Salmon Creek, and Red Fox Creek). This waterbody meets the water quality standards but will remain on Tier III for additional monitoring and tracking. Samples have been collected from the Naknek River for laboratory analysis; no results were detected above state and federal regulatory levels. No sheen has been observed on the Naknek River. Based on the concentrations within and downgradient of the secondary source areas and the groundwater modeling conducted, no dilution studies were deemed necessary for the Naknek River. However, potential pollutant sources (petroleum hydrocarbons and two small isolated areas of TCE) may be released from upgradient and adjacent properties (Naknek River Storage Area, also known as Groundwater Zone 4) and by tributary waterbodies (Eskimo Creek and King Salmon Creek). There is a Record of Decision (ROD) in final draft form for this adjacent area. The preferred alternative to remediate site soil and groundwater presented in the draft final ROD includes: floating fuel recovery using French drains, intrinsic remediation of soils and groundwater, <i>in situ</i> bioventing, landfill cap maintenance and monitoring, and managed wetlands. Documents supporting the acceptable water quality data include the 1994/95 Remedial Investigation/Feasibility Study, and a 1997 study titled Human Food Chain, Aquatic Biota, and Wetlands Evaluations which contain wetland transects including the wetlands adjacent to the Naknek River. The landfill has been accepted as a closed site, monitoring indicates that groundwater has not been impacted by contaminants or activities related to the landfill.</p> |

[Shaded areas represent change in Tier status]

1998 FINAL (June 7, 1999)
ALASKA'S WATER QUALITY LIMITED WATERBODIES NOT SECTION 303(d) LISTED
Tier III Waters which will be tracked and monitored

| <u>Alaska ID #</u> | <u>Waterbody</u> | <u>Location</u> | <u>Pollutant Parameters</u> | <u>Pollutant Sources</u> | <u>Narrative Explanation</u> |
|--------------------|--|--------------------|-----------------------------|------------------------------|--|
| 30102-607 | Udagak Bay | Unalaska Island | Residues-Settleable solids | Seafood Processing/ Waste | This waterbody has occurred on the Section 303(d) list for seafood waste (settleable solids) since 1994. A near shore floating pollock processor has discharged seafood waste into Udagak Bay. Due to the poor flushing action in Udagak Bay, two piles of fish waste have accumulated at the bottom of the bay. This resulted in a violation of the water quality standards since the seafood general NPDES permit issued in 1989 did not provide for a zone of deposit. An earlier enforcement action was taken against the same seafood processors for waste that had accumulated on the shoreline, and for floating solids on the receiving water. Because of the discharge of fish meal effluent the dissolved oxygen content of the waterbody may also be affected. There is one floating seafood processor discharging to this water body. The seafood waste residues (waste pile) are decreasing due to better utilization of the fish product. This waterbody occurred on the 1996 Tier I Section 303(d) list, however, on October 10, 1998 EPA completed a total maximum daily load (TMDL) for Udagak Bay and the water is moved to Tier III for monitoring and tracking. A NPDES permit is under development. |
| INTERIOR | | | | | |
| 40402-001 | Birch Creek Drainage - Upper Birch Creek - Eagle Creek - Golddust Creek | North of Fairbanks | Turbidity | Placer Mining | This waterbody occurred on the 1996 Tier II Section 303(d) list for turbidity as a result of placer mining activity within the drainage. A TMDL was developed and finalized on October 10, 1996 and consequently the waterbody has been placed on the 1998 Tier III list for monitoring and tracking. |

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1998 FINAL (June 7, 1999)
ALASKA'S WATER QUALITY LIMITED WATERBODIES NOT SECTION 303(d) LISTED
Tier III Waters which will be tracked and monitored

| <u>Alaska ID #</u> | <u>Waterbody</u> | <u>Location</u> | <u>Pollutant Parameters</u> | <u>Pollutant Sources</u> | <u>Narrative Explanation</u> |
|--------------------|----------------------------|-----------------------------|--------------------------------------|---------------------------|--|
| 40506-009 | Garrison Slough | Eielson Air Force Base | Toxic & Other Deleterious Substances | Military Base/ Operations | This waterbody was placed on the 1996 Section 303(d) list for polychlorinated biphenyls (PCBs). Information indicating sediment and fish samples from the slough contained elevated levels of PCBs. Eielson AFB has dredged, removed, and capped contaminated soils and slough sediments. This waterbody occurred on the 1996 Tier II Section 303(d) list but has been moved to the 1998 Tier III list. The TMDL was finalized on September 27, 1996. The TMDL analysis showed that the remedial actions would result in attaining water quality standards. This waterbody now has been moved to the 1998 Tier III list. |
| 60402-601 | Nearshore Beaufort Lagoons | Sag River to Simpson Lagoon | Temperature, Salinity | Causeway | This waterbody was placed on the 1996 Section 303(d) list for temperature and salinity. Various study reports and information from the EPA Alaska Operations Office indicated that the hydrology and water quality (temperature and salinity) of the Nearshore Beaufort Sea was affected by the causeways and may also have had adverse effects to anadromous fish. Mitigation to correct problems with water quality and fish passage were agreed upon in the <u>ANegotiated Settlement Agreement for Endicott and West Dock Causeways</u> between the U.S. Army Corps of Engineers and the permit holders (Public Notice 91-1). This mitigation, described more specifically in permit modification FF 820562 consists of additional breaching at both West Dock and Endicott causeways. Breaching construction was finished in Fall 1995. The North Slope Borough requires water quality monitoring of the waterbody as a condition to conduct oil and gas operations adjacent and within the waterbody. This monitoring is being done on a continuous basis by a BP Exploration (Alaska) Inc. consulting firm. Nearshore Beaufort Lagoon monitoring for temperature and salinity is performed on an annual basis during the ice-free periods as required by the North Slope Borough. A draft report titled "Hydrographic Monitoring of New Beaches in West Dock and Endicott Causeways" (Fechhelm, Robert, 1998) provides encouraging post-monitoring results covering two years. The findings suggest stability or improvement to salinity and temperature conditions surrounding the causeways as a result of the expanded breaching. Continued monitoring over the next two years is expected to yield strength to these observations and widespread review and concurrence on experimental design among the scientific community, including ADFG and the North Slope Borough will be sought. ADEC will continue to review available information. |

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1998 FINAL (June 7, 1999)
ALASKA'S WATER QUALITY LIMITED WATERBODIES NOT SECTION 303(d) LISTED
Tier III Waters which will be tracked and monitored

| <u>Alaska ID #</u> | <u>Waterbody</u> | <u>Location</u> | <u>Pollutant Parameters</u> | <u>Pollutant Sources</u> | <u>Narrative Explanation</u> |
|--------------------|--|------------------------|-----------------------------|--------------------------|--|
| 50404-001 | Red Dog Creek - Ikalukrok Creek | Near Red Dog Operation | Total Dissolved Solids | Mining | EPA approved ADEC's reclassification of the uses of Red Dog and Ikalukrok Creeks for industrial water supply in February 1998. EPA approved a site specific criterion for zinc in July 1998. The recently-issued water quality-based permit is an existing control that will bring the waterbody into compliance with applicable water quality standards (fresh water industrial water supply) for TDS, cadmium, lead, selenium, and the site specific standard for zinc. Accordingly, Red Dog/Ikalukrok Creeks does not require listing, is moved from the Tier II list and is moved to the 1998 Tier III list. |

[Shaded areas represent change in Tier status]

1998 FINAL (June 7, 1999)
WATERBODIES THAT REQUIRE NO FURTHER ACTION AT THIS TIME
Tier IV Waters that are not water quality limited that require no further action

| SOUTHEAST | | | | | |
|---------------------|--------------------|-----------------|--|---------------------------------|---|
| 10102-603 | Shoemaker Bay | Wrangell | Debris | Industrial | This waterbody previously occurred on the 1996 Tier I Section 303(d) list and has been moved to the 1998 Tier IV list. In March of 1997 ADEC conducted a biological assessment of the area in question (a log storage intertidal beach area immediately north of the Mile 7 Zimovia Highway sawmill site). DEC concluded that the intertidal beach area is recovering and the sources are gone. The initial decision to list the Bay was likely flawed since the intertidal habitat area is a state permitted log storage area and has been approved by the Army Corps of Engineers as a designated fill area. The waterbody is a Tier IV water for 1998 listing purposes (no further action required), because Shoemaker Bay itself is not water quality limited and the intertidal beach area adjacent to Shoemaker Bay is a permitted fill area (effects to designated uses are authorized under state and federal authorities). |
| SOUTHCENTRAL | | | | | |
| 30102-605 | Captain's Bay | Unalaska Island | Residues - Settleable Solids | Seafood Processing | This waterbody occurred on the Tier III 1996 Section 303(d) list and has been placed on the 1998 Tier IV list. A TMDL was developed and finalized October 1, 1996 and a NPDES permit is under development. Ambient monitoring conducted by the seafood processing facility located in the Bay continues to show compliance with water quality standards. Previously, this waterbody was placed on the 1996 Section 303(d) list for settleable solids because the data used for the 1994 list indicated that the established zone of deposit for the discharger was being exceeded. Monitoring data evaluated by the ADEC has resulted in the conclusion that the discharger is currently meeting zone of deposit requirements and the waterbody is recovering. |
| 30102-603 | South Unalaska Bay | Unalaska Island | Residues -- Settleable Solids, Dissolved Gas | Seafood Processing/ Waste | This waterbody occurred on the 1996 Tier III list and has been placed on the 1998 Tier IV list. This waterbody was on the 1996 Section 303(d) list for both residues (settleable solids) and dissolved gas (low DO). EPA developed and approved a TMDL in 1994. NPDES permits were issued in 1996 consistent with the TMDL and require ambient monitoring. |

[Shaded areas represent change in Tier status]