LUKE W. COLE, California Bar No. 145,505
CAROLINE FARRELL, California Bar No. 202,871
BRENT J. NEWELL, California Bar No. 210,312
AVINASH KAR, California Bar No. 240,190
Center on Race, Poverty, & the Environment
450 Geary Street, Suite 500
San Francisco, CA, 94102
415/346-4179 • fax 415/346-8723

Attorneys for Petitioners

BEFORE THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

ENVIRONMENTAL APPEALS BOARD

In the matter of NPDES Permit AK-003865-3 (Red Dog Mine)	Case No. **PETITION FOR REVIEW BY CITY OF KIVALINA, ALASKA; NATIVE VILLAGE OF KIVALINA IRA COUNCIL; IRA COUNCIL PRESIDENT JERRY NORTON; KIVALINA MAYOR AUSTIN SWAN, SR.; KIVALINA IRA ADMINISTRATOR COLLEEN SWAN; KIVALINA VICE MAYOR ENOCH ADAMS, JR.; LEROY ADAMS; ANDREW KOENIG; JOSEPH SWAN, SR.; ALASKA CENTER FOR THE ENVIRONMENT; ALASKA COMMUNITY ACTION ON TOXICS; and NORTHERN ALASKA ENVIRONMENTAL CENTER**

I. INTRODUCTION

This is a petition under 40 CFR 124.19(a), challenging the issuance of a NPDES permit ("2007 permit") by U.S. Environmental Protection Agency for Teck Cominco Alaska Incorporated's Red Dog Mine in northwest Alaska. EPA's Region 10 issued the 2007 permit on March 7, 2007. The Region's issuance of the permit is illegal for a variety of reasons, under at least two federal laws, the Federal Water Pollution Control Act (33 U.S.C. §§ 1251-1376) ("Clean Water Act" or "CWA") and the National Environmental Policy Act (42 U.S.C. §§ 4321-4370) ("NEPA").

First, Region 10's issuing the 2007 permit violates the anti-backsliding provisions of the Clean Water Act, relaxing effluent limitations for cadmium, pH, zinc, lead, ammonia and other parameters, eliminating effluent limitations entirely for TDS and cyanide, relaxing mixing zone requirements for TDS and instituting new mixing zones for ammonia, pH and cyanide. The permit issuance also violations the anti-degradation requirements in federal and Alaska law. Alaska's §401 certification is illegal, and the EPA cannot rely on it.

Second, Region 10's permit process violates NEPA, as the NEPA documentation ignores cumulative impacts, other mandatory NEPA factors, and short-term and long-term effects of the mine permit. A supplemental Environmental Impact Statement ("EIS") is required to update the last EIS, which was performed almost 25 years ago in 1984; since that time there is significant new information and circumstances warranting such NEPA review.

Third, Region 10's permit process also violated the Clean Water Act's notice and comment provisions, as well as notions of due process. Each of these violations is detailed below.

Region 10's granting of the 2007 permit itself – including the individual conditions challenged here – is a result of clearly erroneous findings of fact and conclusions of law. Further, this case presents an abuse of discretion by Region 10 which the EAB should review.

Because this petition challenges both the public participation process for the 2007 permit, Region 10's failure to comply with NEPA, and specific permit provisions which violate the Clean Water Act, the petition contests the entire 2007 permit.

II. THE PARTIES HAVE STANDING AND THE PETITION IS TIMELY.

The Petitioners here are the City of Kivalina; the Native Village of Kivalina IRA Council; Jerry Norton, as an individual and in his capacity of President of the Native Village of Kivalina IRA Council; Austin Swan, as an individual and in his capacity as Mayor of the City of Kivalina; Colleen Swan, as an individual and in her capacity as Administrator of the Native Village of Kivalina IRA Council; Enoch Adams, Jr., as an individual and in his capacity as Vice Mayor of the City of Kivalina; Kivalina residents Leroy Adams, Andrew Koenig, and Joseph Swan, Sr.; the Alaska Center for the Environment; Alaska Community Action on Toxics; and Northern Alaska Environmental Center. Petitioners will be collectively referred to as "Kivalina" in this petition.

Enoch Adams, Jr., Leroy Adams, Andrew Koenig, Jerry Norton, Austin Swan, Colleen Swan and Joseph Swan, Sr., are residents of the Native Village of Kivalina, Alaska. The Alaska Center for the Environment, Alaska Community Action on Toxics and the Northern Alaska Environmental Center are non-profit organizations that have been active for years as watchdogs of activities at the Red Dog Mine. The City, the Tribal Council, the elected public officials, the individual Kivalina residents and the organizations are concerned about the significant changes authorized by the 2007 permit and the resulting impacts to water quality in the Kivalina vicinity and the Wulik River watershed. The continued protection and maintenance of water quality is of vital significance and importance to the health of present and future Alaskans, the quality of fish harvested from State and federal waters, and the maintenance of subsistence hunting and fishing grounds in northwest Alaska. Many Kivalina residents, including the petitioners here, are subsistence hunters and fishers. The Village of Kivalina is downstream of Teck Cominco's Red Dog mine; the 2007 permit challenged here allows Teck Cominco to discharge into the Red Dog Creek, which flows to the Ilalukrok Creek, which flows to the Wulik River, which is the Village's drinking water source.

This petition is timely filed. The 2007 permit was signed on March 7, 2007, and served by mail on that day. The 2007 permit becomes effective April 12, 2007. All petitioners commented on the draft permit or are petitioning for review of permit conditions that have been

changed, added or deleted from the draft to the final permit, and thus all have standing to file this petition. 40 C.F.R. §124.19(a). Petitioners and others raised the issues in this petition, to the extent the issues were before the EPA at that time, during the administrative process. 40 C.F.R. §124.13; 40 C.F.R. §124.19. Kivalina looks forward to fully briefing the EAB upon its acceptance of this petition.

III. THE RENEWAL OF NPDES PERMIT AK-003865-2 IS ILLEGAL.

The overarching objective of the Clean Water Act "is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). To achieve this objective, Congress established several goals, including: (1) eliminating the discharge of pollutants into navigable waters by 1985; (2) attaining water quality that provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water by July 1, 1983; and (3) prohibiting the discharge of toxic pollutants in toxic amounts. *Id.* While water quality has improved in many cases since the passage of the Clean Water Act, these three goals have not been attained. Similarly, the 2007 permit does not attain these three goals for the Red Dog Creek, Ikalukrok Creek and the Wulik River. Moreover, and unlike the trend of overall water quality improvement since the implementation of the CWA, the 2007 permit is significantly less stringent than current requirements. Thus, the 2007 permit does not meet the goals or the letter of the Clean Water Act. It violates the anti-backsliding provisions of the Act, does not protect designated uses of waters of the United States, and violates Alaska's anti-degradation policy.

A. The 2007 Permit Violates the Anti-backsliding Provision of the Clean Water Act.

The 2007 permit provides for relaxed effluent limits for copper, lead, selenium, zinc and pH, and the complete elimination of effluent limits for cyanide and for TDS at Outfall 001. It also sets fewer monitoring requirements, revises the mixing zone for TDS, and adds mixing zones for cyanide, ammonia and pH. Each of these changes violates the anti-backsliding provision of the Clean Water Act, §402..

The Clean Water Act prohibits "backsliding," or weakening of effluent limitations: a permit applicant may not obtain a renewed, reissued, or modified permit that contains less stringent effluent limitations than the comparable effluent limitations from the previous permit, unless the relaxed permit does not violate the state or federal antidegradation policy. See 33 U.S.C. § 1342(o)(1), 33 U.S.C. 1313(d)(4). As the EAB recently explained, "This statutory requirement has been implemented, in part, through long-standing regulations that prohibit the issuance of an NPDES permit 'when imposition of conditions cannot *ensure* compliance with the applicable water quality requirements of all affected states.'" *In re: Teck Cominco Alaska Incorporated, Red Dog Mine*, 2004 EPA App. LEXIS 12, quoting 40 C.F.R. § 122.4(d). The effluent limitations in the modified permit do not ensure compliance with all applicable water quality standards and are illegal.

As explained below in Section III.A.4, backsliding may also be allowed where information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance. 33 U.S.C. § 1342(o)(2)(B)(i). *See also* 40 CFR § 122.44(l)(2)(i)(B)(1).[1]

An anti-backsliding analysis does not require a direct comparison of effluent limits or the outputs of one model versus another. The first step of the analysis is to determine whether the water body is in attainment (i.e., meets water quality standards). *See* Draft Interim Guidance on Implementation of Section 402(o) Anti-Backsliding Rules for Water Quality-Based Permits ("Anti-Backsliding Guidance") at 6. If the waters are in attainment, backsliding may be permitted if it is consistent with the State's antidegradation policy. *Id.* at 6-7.

Here, however, as will be discussed in Section III.A.2 immediately below, the State has not promulgated an implementation plan for its antidegradation policy ("ADP"). As a result, the State cannot make the determination that any of the permit modifications – relaxed effluent

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[1]There are other exceptions to the anti-backsliding provision of the CWA, but none are asserted here.

limits, elimination of effluent limits, relaxed mixing zones and creation of new mixing zones – comply with Alaska's ADP, and the exception that would allow backsliding does not apply.

Section 402(o)(1) of the Clean Water Act states:

> In the case of effluent limitations established on the basis of section 301(b)(1)(C) or section 303(d) or (e), a permit may not be renewed, reissued, or modified to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit except in compliance with section 303(d)(4).

33 U.S.C. 1342(o)(1). The effluent limits in question were established under section 301(b)(1)(C), and consequently, the permit may not contain less stringent effluent limits unless section 303(d)(4) is met. 33 U.S.C. 1313(d)(4). In the Fact Sheet, EPA relies on 303(d)(4)(B) as an "exception" to the anti-backsliding provision with respect to cyanide and zinc. Fact Sheet ("FS") at 55-56. This section does not relieve EPA or the permit from the anti-backsliding requirements, however.

Further, in the case of new information, which the State claims the new modeling and monitoring data are, the rules allow for relaxed permit limitations only where there is "a net reduction in pollutant loadings that are not the result of another discharger's elimination or substantial reduction of its discharge because of compliance with the CWA or for reasons unrelated to water quality (e.g., shut down of operations)." Anti-backsliding Guidance at 7, n.10. Region 10 has not shown the required net reduction in this case; indeed, the renewed permit allows an increase in pollution loading. Thus, the 2007 permit violates 33 U.S.C. § 1342(o)(1) and does not fit within the exceptions of 33 U.S.C. §1342(o)(2).

Congress has set out two requirements for weakening effluent limitations under Section 303(d)(4), both of which must be met in order to satisfy the anti-backsliding provision: (1) the quality of the waters at issue must "equal[] or exceed[] levels necessary to protect the designated use for such waters or otherwise required by applicable water quality standards" and (2) the state's antidegradation policy must be met. 33 U.S.C. 1313(d)(4)(B). The new permit meets neither of these requirements.

1. The Quality of the Water Does Not Protect Designated Uses

There is evidence that the quality of the water bodies at issue is not at the level necessary to protect designated uses. Both the main stem of Red Dog Creek from the confluence of the Middle and North Forks to Ikalukrok Creek and Ikalukrok Creek from its confluence with Red Dog Creek to the Wulik River are designated for freshwater WQS Classes (1)(A)(iv), (1)(B)(i) (contact recreation, wading only), (1)(B)(ii) (for secondary recreation), and (1)(C) (Growth and Propagation of Fish, Shellfish, Other Aquatic Life, and Wildlife). 18 AAC 70.230(e). However, the current water quality is not high enough to protect the "growth and propagation" of aquatic life.

The results of aquatic biomonitoring show that 2004 was the year with the lowest density of invertebrates in the Mainstem Red Dog Creek at Station 10, in Ikalukrok Creek above Dudd Creek, and in Ikalukrok Creek at Station 7. Ott and Morris 2005; Exhibit 29 to Kivalina comments.[2] Further, Ott and Morris report that in 2004, larval arctic grayling disappeared Mainstem Red Dog Creek at Station 10, Ikalukrok Creek above Dudd Creek, and in Ikalukrok Creek at Station 7. Ott and Morris 2005; Kivalina Exhibit 29. While EPA's Response to Comments on the Permit ("RTC") indicates that grayling have been spotted in Red Dog Creek each year, RTC at 65, this does not address the disappearance of *larval* grayling also documented (the RTC also does not address the other water bodies in addition to Red Dog Creek).

In addition, although the permit sets the TDS limit in-stream at 1500 ppm, studies demonstrate reduced fertilization rates in salmon at TDS concentrations as low as 250 ppm. See Final Report for ASTF Grant #98-1-012, Salmon as a Bioassay Model of Effects of Total Dissolved Solids, prepared for the Alaska Science and Technology Foundation by Michael S.

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[2]Petitioners Jerry Norton, Austin Swan, Colleen Swan, Enoch Adams, Jr., Leroy Adams, Andrew Koenig, and Joseph Swan, Sr. submitted exhibits as part of their comments on the draft permit, which will be in the administrative record transmitted to the EAB. In the interests of conservation of paper, Kivalina will not re-submit those same exhibits as attachments here but rely on their inclusion in the administrative record, and refer to them as "Kivalina Exhibit(s)" in this petition. Kivalina was unable to find any guidance on the correct procedure in this situation in the EAB's *Practice Manual.* If this choice is incorrect procedurally, Kivalina is happy to provide the exhibits independently for the EAB's review.

Stekoll, William W. Smoker, Ivan A. Wang, and Barbi J. Failor of the University of Alaska at Fairbanks ("ASTF Report").[3] All of these studies are evidence that the quality of the waters at issue does not "equal[] or exceed[] levels necessary to protect the designated use for such waters," as required by CWA § 303(d)(4)(B).

The proposed TDS level of 1500 mg/L is demonstrably harmful to aquatic organisms. An Alaska Department of Fish & Game literature review cites harm to aquatic life when TDS levels are in the range of the permit modification. Scannell and Jacobs, Alaska Department of Fish & Game, Effects of Total Dissolved Solids on Aquatic Organisms, Technical Report No. 01-06, June 2001 at 6-16. The information presented in the Fish & Game TDS study demonstrates that some waters containing TDS concentrations less than 1500 mg/L can be toxic to fish and other aquatic organisms (many of which are fish food). *Id.*

A variety of fish use the waters into which Teck Cominco currently discharges its mine waste. According to the 1999 Fish and Game study, "Arctic grayling, slimy sculpin, and juvenile Dolly Varden migrate upstream in Ikalukrok Creek, through the mainstem of Red Dog Creek, and into the North Fork of Red Dog Creek in early summer to rear and return to the Wulik River in fall to winter. Chum salmon spawn in the lower reaches of Ikalukrok Creek in late July and in August. Dolly Varden spawn in Ikalukrok Creek during late August through September." All of the spawning by these fish is threatened by Teck Cominco's ongoing discharges, and will continue to be threatened if the TDS standard is raised. Further, the young fish – including juvenile Dolly Varden and young-of-the-year Arctic grayling – use the Red Dog Creek in the summer months. Fish & Game reports that the presence of 4-day-old fish suggest that Arctic grayling spawned in the Mainstem of Red Dog Creek just below the entrance of the North Fork of Red Dog Creek. In the EPA's Response to Comments on the permit ("RTC"), it does not address the comment on cyanide and ammonia, only TDS. See, e.g., RTC at 5 (comment 8), 37 (comment 91), 50 (comment 113), 65 (comment 142). The RTC cites Fish & Game staffer Ott's testimony, but again this only addresses the TDS and only in one water body. RTC at 65-66.

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[3]The ASTF Report was before the agency during the permitting process and was used in developing the EA (RTC at 72).

This does not mean that the new cyanide, ammonia and pH mixing zones will not have an impact on these fish or cause interference with existing uses of the streams.

2. The Modified Effluent Limits Violate Alaska's Antidegradation Policy

Alaska's antidegradation rule, in accordance with the federal antidegradation rule, focuses on protecting "existing uses" by generally prohibiting degradation of water quality below that necessary to maintain existing uses. Alaska's antidegradation policy ("ADP") must comply with the federal antidegradation policy promulgated at 40 C.F.R. § 131.12, which EPA describes as the "absolute floor of water quality in all waters of the United States." Water Quality Standards Regulation, 48 Fed. Reg. 51,400, 51,403 (Nov. 8, 1983). The antidegradation rule is a separate and independent requirement that is not necessarily satisfied by proper implementation of the applicable state water quality criteria. By characterizing the antidegradation rule's focus on existing uses as the "absolute floor of water quality," the Agency clearly contemplated that circumstances would arise where the antidegradation rule's requirements require more stringent limits than would be required by the otherwise applicable water quality "criteria."

The less stringent effluent limits not only may not protect designated uses, they are also in violation of Alaska's ADP and thus in violation of CWA § 303(d)(4)(B). Federal regulation requires that states include an ADP that is no less stringent than the federal ADP in every water quality standards package submitted to the EPA for review. *See* 40 C.F.R. § 131.6(d); *In re: City of Newburyport Wastewater Treatment Facility*, 2005 EPA App. LEXIS 23, 28. Alaska, like many states, has adopted the federal ADP "3-tier" requirements. Tier 1 states that "It is the state's antidegradation policy that (1) existing water uses and the level of water quality necessary to protect existing uses must be maintained and protected." 18 AAC §70.015(a).

EPA's antidegradation regulation also requires the State to "identify the methods for implementing such policy..." 40 C.F.R. §131.12(a); *see also* Technical Support Document for Water Quality-based Toxics Control ("TSD") (March 1991) p. 29. For enforcement purposes, this is the most important part of the antidegradation requirement. The procedures developed to implement the ADP must be designed to: (1) prohibit any degradation in some waters; (2) minimize the impacts of degrading activities in others; (3) assure that in every case, existing uses

are protected. *See PUD No. 1 of Jefferson County v. Wash. Dep't of Ecology*, 511 U.S. 700, 705 (1994) (policy must be sufficient to maintain existing beneficial uses of navigable waters, preventing further degradation).

At present, Alaska has no ADP implementation plan. As a result, no antidegradation analysis has been performed, and thus, EPA may not make the determination that the weakened effluent limitations for TDS, cyanide, zinc, copper, lead, selenium and pH, and the mixing zones for TDS, ammonia, cyanide and pH, are in compliance with Alaska's antidegradation plan. As one Court recently held in a directly analogous situation, "Puerto Rico never adopted new antidegradation implementation methods consistent with Puerto Rico law and EPA regulations, and therefore any alleged approval by EPA is not valid." *CORALations v. U.S. EPA*, 2007 U.S. Dist. LEXIS 12067, *13 (Dist. P.R., February 14, 2007). Here, since Alaska has no ADP, EPA could not have validly determined that the weakened permit conditions were in compliance and its permit is not valid.

(There is good reason to believe that had Alaska or EPA conducted an antidegradation analysis, the analysis would have demonstrated that the weakened effluent limits are not in compliance with Alaska's policy and the federal requirement that existing uses be "maintained and protected." *See* section III.A.1, immediately above.)

a. The State's ADP

When EPA revises permitting standards, the revision must be consistent with the state's ADP. 33 U.S.C. § 1313(d)(4)(B); Handbook at 4-10. Antidegradation is not defined in statute or regulation, but is a procedure to be followed when evaluating activities that may have an impact on water quality. *PUD No. 1 of Jefferson County v. Wash. Dep't of Ecology*, 511 U.S. at 718. The implementation of that procedure is meant to protect water quality by maintaining or improving water quality, not allowing it to be degraded. *Id.*

Federal regulation requires that states include an ADP that is no less stringent than the federal ADP in every water quality standards package submitted to the EPA for review. *See* 40 C.F.R. §131.6(d). The federal ADP delineates different levels of protection for three different "tiers" of water quality.

Tier 1 protects all existing uses of a waterbody: water quality may be lowered only if "existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." 40 C.F.R. §131.12(a)(1). Tier 2 provides the protection "necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water" to waters whose quality already exceeds the Tier 1 level and allows for reduction in quality only if, after a full public process and intergovernmental coordination, it is "necessary to accommodate important economic and social development." 40 C.F.R. § 131.12(a)(2). "In allowing such degradation or lower water quality, the State shall *assure water quality adequate to protect existing uses fully.*" *Id.* (emphasis added). Tier 3 waters are those waters that have been designated as Outstanding Natural Resource Waters ("ONRW"). These waters include waters in National Parks, National Wildlife Refuges, and waters of "exceptional recreational or ecological significance." 40 C.F.R. § 131.12(a)(3).

Although EPA guidance indicates that some type of review process is required for all three tiers of antidegradation policy, the review process is especially important in the context of waters protected by Tier 2. *See* Handbook at 4-6 – 4-9. Whenever any lowering of water quality occurs under Tier 2, the antidegradation regulation requires a state to: (1) determine whether the degradation is "necessary to accommodate important economic or social development in the area in which the waters are located;" (2) consider less degrading alternatives; (3) ensure that the best available pollution control measures are used to limit degradation; and (4) guarantee that, if water quality is lowered, existing uses will be fully protected. 40 C.F.R. § 131.12(a)(2); Handbook at 4-7.

Alaska, like many states, has adopted the federal ADP "3-tier" requirements. Alaska policy reads:

> It is the state's antidegradation policy that:
>
> a) existing uses and the level of water quality necessary to protect existing uses must be maintained and protected;
>
> b) if the quality of a water exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality must be maintained and protected unless the department, in its discretion, upon application, and after compliance with (b) of this section, allows the reduction of water quality for a short-term

> variance under 18 AAC 70.200, a zone of deposit under 18 AAC 70.210, a mixing zone under 18 AAC 70.240, or another purpose as authorized in a department permit, certification, or approval; . . .
>
> c) if a high quality water constitutes an outstanding national resource, such as a water of national or state park or wildlife refuge or a water of exceptional recreational or ecological significance, the quality of that water must be maintained and protected . . . .

18 AAC 70.015(a). ADEC has not, however, established implementation procedures for its ADP as required by EPA,[4] and as a result, cannot perform an antidegradation analysis for revised permitting standards in the Permit.[5] *See* Handbook at 4-10; *see also Northwest Environmental Advocates v. U.S. EPA*, 268 F. Supp. 2d 1255, 1265 (D.Or. 2003) (finding that an implementation plan is a required element of the ADP); *CORALations v. U.S. EPA*, 2007 U.S. Dist. LEXIS 12067, *13 (overturning EPA decision because Puerto Rico had no implementation plan). Alaska thus cannot legally provide a 401 certification, until it has established such implementation procedures. Without an implementation plan, there is no basis for the 401 certification because no antidegradation implementation analysis could be performed. Thus, the 401 Certification, which authorizes weakened effluent limitations for zinc and selenium, a site-specific criterion for cadmium, removal of the WET permit limits, and significantly larger and additional mixing zones, violates antidegradation requirements. EPA cannot rely on it.

b. The reduced effluent limitations for zinc and selenium violate antidegradation requirements.

The State certifies in the Draft 401 Certification that revised lower effluent limits for zinc is consistent with the State's antidegradation policy. Because there is no antidegradation policy implementation plan, the State cannot legally make this determination, and the certification for the zinc effluent limitations is thus illegal. EPA cannot then rely on it. *CORALations v. U.S. EPA*, 2007 U.S. Dist. LEXIS 12067, *13.

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[4]A public records request was made to ADEC to obtain its implementation plan for the ADP. ADEC claimed the deliberative process privilege because no implementation plan has been officially adopted.

[5]For example, Alaska has numerous waterbodies that meet Tier 3 criteria, but no way to implement their designation and protection. There are also even more Tier 2 waterbodies, and ADEC has not developed the 4-part antidegradation analysis, or a similar implementation plan, for those waterbodies.

Further, the daily maximum effluent limit for selenium is proposed to be relaxed from 5.6 ug/L to 7.0 ug/L. This relaxation of the effluent limit is not discussed in the 401 Certification. It is raised briefly in Appendix B, but quickly dismissed as requiring no antidegredation analysis. Since no antidegradation analysis has been performed, and there is no implementation plan to apply, this relaxation of the selenium effluent limit violates the antidegradation requirements of the CWA as well as the anti-backsliding provision of the CWA.

c. The NCBSSC for cadmium violates antidegradation requirements.

The State proposes to issue an NCBSSC for cadmium of 2 ug/L, which would maintain the current effluent limitation for cadmium in the Permit, but violate the State chronic aquatic life water quality criterion for cadmium, which is 0.48 ug/L. This proposal, which is a proposed water quality standard that is subject to antidegradation, violates antidegradation requirements because the State has no antidegradation policy implementation plan to make a determination whether the proposal violates those requirements. Further, even if one applies an antidegradation analysis under Tier 1, existing instream uses must be protected, which are "those uses actually attained in the water body in or after November 28, 1975, whether or not they are included in the water quality standards." 40 CFR § 131.3(e). As discussed in the State's NBCSSC, the waterbody is actually attaining growth and propagation of fish, and the State must protect that use. *See* TSD at 29. While fish are surviving in the waterbody at cadmium levels higher than chronic aquatic life criterion, allowing discharges at higher limits than the criterion will only add to the load of cadmium, a bioaccumulative toxin, and not allow attainment of, or at least an approach to attainment of, the criterion. Thus, not only can the State not make an antidegradation determination because it lacks an implementation policy, the proposed NCBSSC does not meet antidegradation requirements under a basic analysis. The proposed NCBSSC violates CWA antidegradation requirements.

d. WET effluent limits in the Permit violate antidegradation requirements.

The State proposes to remove WET effluent limits because it finds that there is no reasonable potential for the effluent to exceed the pre-mining natural toxicity of Red Dog Creek.

However, the current and proposed effluent limits for WET violate antidegradation requirements because they grossly exceed the State's chronic WET aquatic life water quality criteria, which is 1.0 chronic toxicity unit (TUc). *See* 18 AAC 70.030. The limits set in the Permit are 12.2 TUc for the daily maximum and 9.7 TUc for the monthly average. As discussed in the previous section, Red Dog Creek is attaining the use of growth and propagation of fish, which must be protected. WET discharges well in excess of the chronic aquatic life criterion will only add to the toxicity load while making no attempt to achieve the water quality standard. That the water quality in the area of Red Dog Mine may have improved in various ways over the years does not mean that water quality can now be degraded to what it was before mining occurred: existing uses include "those uses actually attained in the water body in or after November 28, 1975, whether or not they are included in the water quality standards." 40 CFR § 131.3(e); *see* TSD at 29. The state's relaxation of the WET effluent limits ignores existing uses; that violates the letter and spirit of antidegradation requirements and the Clean Water Act itself. As a result, WET effluent limits should be established based upon the chronic aquatic life criterion for WET.

The permit also violates the anti-backsliding provisions of the Clean Water Act in yet another way.

3. The Permit Modification Includes Illegal Backsliding

Despite the Act's prohibition against the implementation of less stringent standards, the permit modification allows for weaker standards for several pollutants and completely removes effluent limitations for others, resulting in a potential violation of Water Quality Standards, and significant consequences for the surrounding environment and the local Kivalina community. In the last appeal of a Teck Cominco permit at Red Dog Mine, the EAB noted: "We have held that a permit issuer's analysis concluding that the permit's conditions will ensure compliance with state water quality standards must be articulated with sufficient clarity for the Board to review and must be supported by evidence in the administrative record." *In re: Teck Cominco Alaska Incorporated, Red Dog Mine*, 2004 EPA App. LEXIS 12 at *53. In this permit modification, the EPA has failed to "articulate with sufficient clarity" how the weakened effluent limitations for TDS, cyanide, zinc, cadmium, pH, copper, and other pollutants "will ensure compliance" with

Alaska water quality standards. The permit removes current end-of-pipe permit limitations or monitoring requirements for nickel, silver, TDS, total cyanide and hardness.

Without explanation or the presentation of new data in any of the environmental review documents, the renewed permit increases the daily limit for zinc from 257.3 ug/L to 269 ug/L, and the monthly limitation from 119.6 ug/L to 157.84 ug/L. As the EPA explains elsewhere in the EA, "decreases of metal loads at the source insure reduced loads and concentrations at all points downstream." EA at 13. This explains why the *increased* zinc maximum effluent limitations will ensure *increased* loads of zinc downstream in Ikalukrok Creek.

The permit is proposing to allow discharges with a pH from 6.5 to 10.5, a range that has been expanded by 0.5. The Gold Book recommends national water quality standard has a level for pH of from 6.5 - 9. There is no basis for allowing such a high pH discharge especially given the corresponding high permit levels for ammonia. At a pH of 10.5, the un-ionized ammonia concentration in the discharge will result in a discharge which is likely to be toxic to fish. Further, the State's 401 Certification adds a mixing zone for pH from the terminus of the Red Dog Mine Water Management System to the confluence with the North Fork Red Dog Creek. There is no justification for this mixing zone, which has not previously been disclosed to the public. It is especially problematic because ammonia criteria are dependent on the pH and temperature fo the receiving water. Since the mixing zone for TDS, ammonia and WAD cyanide overlap the pH mixing zone, aberrant pH readings will likely be problematic for these other parameters. None of the mixing zones can be authorized because the State does not have an implementation plan for its ADP, but what makes the pH mixing zone more egregious is that there is absolutely no analysis of how these mixing zones interact and their potential cumulative and synergistic impacts.

The mixing zone for ammonia is also not justified or explained. The permit sets an average monthly level of ammonia as nitrogen of 6.80 mg/L. Fact Sheet, Table C-5, p. 57. The explanatory information that precedes Table C-5 notes that EPA calculated the 95th percentile of the data set to determine the criteria to be applied (2.798 mg/L). EPA multiplied this criterion by the dilution factor (2.5) authorized by ADEC in the 401 Certification to determine the effluent

goal (7.0 mg/L). Fact Sheet, p. 55. However, it is not clear how the water quality based standard of 6.80 mg/L was derived, or if it is somehow related to the 7.0 mg/L calculated by EPA, which is based on the 1.5:1 dilution factor authorized by ADEC. The Response to Comments shed no further light on this issue either. RTC at 40. More clarity is needed about the development of the pre-dilution water quality standard for ammonia, especially the pH and Temperature assumptions that were used.

Nonetheless, since the 95th percentile of the data is 2.798 mg/L, it appears that the water quality based standard could be met with little or no mixing. There is presently no treatment for either ammonia or its primary source, cyanide, in the effluent. Some level of relatively inexpensive treatment could eliminate the need for a mixing zone for cyanide and ammonia. As such, it would also be appropriate to require that ammonia meet effluent limits at Outfall 001.

The monthly effluent limit for lead increased in the new permit from 8.1 ug/L to 8.26 ug/L, and for selenium, the daily limit has increased from 5.6 ug/L to 7.0 ug/L. The environmental review documents do not provide any new information to support this change. There is no mention of selenium in the EA or the FONSI. The only form of explanation for the relaxed lead level is the Figure 5 of the EA at 14, which shows reduced levels of lead in the Mainstem Red Dog Creek subsequent to the commencement of mining in the area. However, higher levels of a pollutant in the past do not create an exemption to the anti-backsliding provision.

4. The Weakened Effluent Limitations Do Not Fall Under the Exceptions to the Anti-Backsliding Provision

The EPA may not grant the permit on the grounds that the modification falls under one of the exceptions listed under section 402(o)(2). Four of the five listed exceptions are indisputably inapposite. Teck Cominco did not undergo "material and substantial alterations or additions" (§402(o)(2)(A)), nor is a less stringent effluent limitation "necessary because of events over which the permittee has no control" (§402(o)(2)(C)). Similarly, Teck Cominco has not "installed the treatment facilities required to meet the effluent limitations in the previous permit" (§402(o)(2)(E)). On the contrary, EPA has noted that complying with the existing permit

conditions "would require additional technology controls or water management controls to lower TDS in the effluent discharge[.]" EA at 26. Section 402(o)(2)(E) does not apply because it applies to either effluent limits for toxic pollutants, publicly owned treatment works, or thermal components of discharges, none of which is involved here.

The only exception through which the permit modifications might arguably be justified is listed under §402(o)(2)(B): (i) "information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance" or (ii) "the Administrator determines that technical mistakes or mistaken interpretations of law were made in issuing the permit under subsection (a)(1)(B)." Subsection (ii) does not apply because the EPA made no such determination.

The environmental review documents suggest that new information was at issue for, at most, two of the six weakened effluent limitations. The new permit completely eliminates the effluent limit for cyanide, which had previously been 9.0 ug/L daily and 4.0 ug/L monthly average, measured as total cyanide. 1998 permit (modified 2003), condition I.A.1. EPA has offered the explanation that "the permit changes are based on new data demonstrating that the mine wastewater does not contain enough cyanide to cause exceedances of the cyanide criterion outside the mixing zone." EA at 25. This "new data" is not found anywhere in the EA; if it is the data found elsewhere in the environmental review documents, it rests on unrealistic assumptions that Teck Cominco would not discharge effluent with total cyanide above certain levels, which its recent DMRs demonstrate is not the case. In the RTC, EPA asserts that the change in cyanide effluent limitations is due to a change in Alaska's water quality standards (RTC at 16, comment 37), but this does not justify removing the limitation. Without further explanation, the environmental review documents do not support an argument that the requirements of § 402(o)(2)(B) have been met.

EPA has stated that the instream TDS limitation is based on new information from the Brix and Grosell (2005) study. EA at 25; RTC at 72 (comment 10). However, even when read most expansively, this study would support only a limitation of 1,357 mg/L. Contrary to the

statement in the EA, Brix and Grosell (2005) did not "determine[] that 1,500 mg/L will be protective of Arctic grayling during all life history phases including the fertilization to egg hardening phase." EA at 24. That study determined that the no observable effects concentration was as low as 132 mg/L, and the lowest observable effect concentration was as low as 254 mg/L. Brix and Grosell (2005). The 1,500 mg/L is not protective of spawning grayling. EPA's permit limit is not supported by the evidence. EPA cannot disregard half the data on TDS toxicity, as it does in the EA at 25 when it says that "half of the toxicity test results with Arctic grayling support 1,500 mg/L." This means that half of the toxicity test results with Arctic grayling *do not* support 1,500 mg/L. The EA states, "Fish surveys indicate that the present level of TDS is not having a negative impact on fish populations." EA at 28. This is similarly without foundation, as the fish levels are below those of baseline (when there was less TDS) and no studies have been done during a discharge year when TDS levels were lower than they are presently. As EPA concedes, "there is no solid basis for the argument that the effluent is less toxic than the natural condition in the creek." RTC at 60.

More recent representations by Teck Cominco to EPA suggest that TDS makes up all of the effluent toxicity. See Kivalina Exhibit 27, June 2005 DMR excerpt, at 3 ("all of the effluent toxicity can be attributed to TDS"). The removal of the TDS effluent limitation, and the significant elevation in the TDS in-stream limitation during grayling spawning season, are not supported by the evidence, are directly contradicted by Teck Cominco's own submissions to EPA, and are in violation of the anti-backsliding provision of the Clean Water Act.

EPA presents no new data to justify the less stringent effluent limits for copper, lead, selenium and pH. Consequently, none of the weakened effluent limits in the modified permit fit within the exceptions under CWA § 402(o)(2), nor are they supported by evidence in the record.

5. The Permit Modification Will Result in a Violation of Water Quality Standards

In addition to the violations outlined above, the permit modification does not comply with CWA § 402(o)(3), which states:

> In no event may a permit... be renewed, reissued, or modified to contain an effluent limitation which is less stringent than required by effluent guidelines in effect at the time

> the permit is renewed, reissued, or modified. In no event may such a permit to discharge into waters be renewed, reissued, or modified to contain a less stringent effluent limitation if the implementation of such limitation would result in a violation of a water quality standard under section 303 applicable to such waters.

As discussed above, the permit modifications are likely to cause a violation of water quality standards in the main stem of Red Dog Creek and the Ikalukrok Creek.

6. The Weakened Monitoring Requirements Violate the Anti-Backsliding Provision of the Clean Water Act.

While anti-backsliding is generally not applied to reduced monitoring requirements, it should be applied in this case.[6] The modified permit removes ambient monitoring and biological monitoring requirements. When Kivalina commenters challenged this, the EPA's only response was that Alaska had stated the information was duplicative. RTC at 12 (comment 28-29). This is not a sufficient reason to remove the biomonitoring, if indeed it is even true. The information obtained in this monitoring is essential to the calculation and requirement of effluent limits in the permit, and should be considered part of the effluent limitations for that reason. It is only through monitoring that EPA and the public can ensure that existing uses and existing water quality can be protected. For example, monitoring at Station 20 – immediately downstream of Outfall 001 and before the confluence of the North Fork Red Dog Creek, has been eliminated, with EPA's justification that it was "unnecessary to determine whether effluent treatment and the size of the mixing zone are adequate to protect all existing uses in the receiving area." RTC at 29 (comment 65). This is not true, as although contact recreation is a designated use for this water quality segment, there is no other monitoring to see if water quality will meet that use. This, put simply, is backsliding.

It is also essential that EPA have enforcement authority for these requirements, and it is a bad precedent to remove them. These monitoring requirements are included in NPDES permits for other Alaska mines, including the Kensington Mine, Greens Creek Mine and Pogo Mine, and Red Dog Mine should be held to the same standards. Thus, anti-backsliding should apply to monitoring requirements in this case, and the removal of ambient and biological monitoring

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[6]EPA Region 10 does not believe it should be applied this way. RTC at 13.

requirements violates 33 U.S.C. 1342(o)(1). It also violates the ADP, which requires that existing water quality must be maintained; by removing monitoring, it will be impossible to ensure that the goals of ADP are met.

B. The Modified Permit Violates 40 CFR § 122.44(d).

Under CWA § 301(b)(1)(C), permits must include conditions necessary to meet any applicable State water quality standards. *In re: Ketchikan Pulp Company*, 6 E.A.D. 675, n.5; 40 C.F.R. § 122.44(d). Several of the conditions in the permit will cause violations of Alaska mixing zone regulations and thereby violate the Clean Water Act.

The modified mixing zones violate Alaska regulations in several ways. First, Alaska did not ensure the smallest possible mixing zones, a violation of 18 AAC §70.240(a)(2). Second, Alaska state regulations forbid authorization of mixing zones that "result in a reduction in fish or shellfish population levels," "form a barrier to migratory species or fish passage," (18 AAC §70.240(b)(4)[7]), or that are in spawning areas for arctic grayling, Dolly Varden, and chinook salmon (18 AAC §70.24(f)). The modified mixing zones for TDS, and the new mixing zones for cyanide, ammonia and pH, directly violate these regulations. These violations are more fully explained in the following section, which details the illegallity in the State's §401 certification.

IV. THE STATE'S §401 CERTIFICATION IS ILLEGAL.

Under CWA § 401, a permit may not be approved unless it is accompanied by a state certification that the proposed activity is in compliance with state water quality standards. This includes the state's antidegradation policy. Here, the state's certification is illegal because it has no antidegradation policy and because the mixing zones violate the state's ADP and regulations..

A. The Certification is Illegal Because it Violates State Anti-degradation Policy

As explained above in Section II.A.2 (which is incorporated in this section as if fully set forth, as it makes the same arguments Kivalina would make here in full), the State "certifies that there is reasonable assurance that the proposed activity, as well as any discharge that may result, is in compliance with the requirements of Section 401 of the Clean Water Act, which includes

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[7]Alaska's mixing zone regulation has been sent to EPA for approval, but has not yet been approved for Clean Water Act purposes.

the Alaska Water Quality Standards (18 AAC 70)." This certification is illegal because it is based on a determination that it is consistent with Alaska's Antidegradation Policy, but the State has no implementation for that Policy. In addition, the Cadmium Natural Condition Based Site Specific Criterion ("NCBSSC") and the State's determination to exclude whole effluent toxicity ("WET") effluent limits from the Permit violate the antidegradation policy. Further, the mixing zones for TDS, ammonia, WAD cyanide and pH are based on legally flawed calculations and violate Alaska's mixing zone regulations (18 AAC 70.240-.270). The EPA cannot rely on the 401 certification.

B. The mixing zone calculations are legally flawed and violate the State's mixing zone regulations.

1. Mixing zone for TDS, ammonia and WAD cyanide.

The mixing zones for TDS, ammonia and WAD cyanide are based on legally flawed calculations and violate Alaska's mixing zone regulations (18 AAC 70.240-.270). The state has authorized:

> A mixing zone in Main Stem Red Dog Creek of 1.5:1 (2.5x) dilution extending from the confluence of the Middle Fork Red Dog Creek with the North Fork Red Dog Creek to Station 151. The Main Stem Red Dog Creek mixing zone is approximately 1,930 feet in length. The mixing zone is granted for the following parameters: total dissolved solids (TDS), ammonia and WAD cyanide.

401 Certification at 2. First, the length of the mixing zone is inaccurate.[8] Outfall 001 is approximately one mile from the confluence of the Middle Fork and North Fork of Red Dog Creek. Thus, the mixing zone extends from Outfall 001 to Station 151, which is significantly longer than 1,930 feet – in fact a mile longer, according to the map scale. At Outfall 001 the treatment plant effluent is physically "mixed" with water flowing down the Middle Fork of Red Dog Creek. Then again at the junction of the Middle Fork with the North Fork, the contaminants TDS, cyanide and ammonia are again diluted with clean water from the North Fork of Red Dog Creek. Whether or not the designated uses are different for different parts of the waterbody, the mixing zone distance must be adequately portrayed. To mislead the public regarding the length

[8]When commenters raised this during the public comment period, Region 10 did not even respond to it. See RTC at 36-37 ("Mixing Zones" section does not ever deal with the misrepresentation of mixing zone length).

of the mixing zone, by a distance of a mile, is particularly egregious.[9] Because the State did not ensure the smallest possible mixing zones for the Permit, the Permit violates 18 AAC 70.240(a)(2).

Mixing zones are usually authorized based on a streamflow analysis of the 7Q10 low flow hydrologic event. The State's response to comments indicates that the dilution factor is based on "actual data comparing the ratio of the average daily flows at Station 10 in the Main Stem and the outfall from the tailings impoundment, and represents the 5th percentile of the ratios for the period May 2003 through September 2005," and that the dilution factor applies under all flow conditions. Response to Comment Document, Alaska Section 401 Certification NPDES Permit AK-003865-2 ("AK Response to Comments"), p. 2. The response goes on to state that "the department has determined that the mixing zones will be protective of the aquatic life in the Main Stem as well as ensuring fish passage to the North Fork. In large part, this is based on the finding that the mixing zones will not change the composition of the discharge and no adverse effects have been observed from pre-mining conditions in the Main Stem or the North Fork." *Id.* This still provides no justification for the dilution factor. The flow data is not presented, so it is not clear that an adequate number of readings were analyzed. Further, conclusions about the current state of water quality compared to pre-mining conditions is no support for whether an adequate scientific analysis was undertaken to reach the conclusion. Pre-mining conditions are not the relevant context for the analysis; under the Clean Water Act "existing uses" must be preserved. Further, as EPA concedes, "there is no solid basis in the data for the argument that the effluent is less toxic than the natural condition in the creek." RTC at 60.

In addition, the mixing zone violates the State's mixing zone regulations because it could create a barrier to fish passage.[10] ADEC "will not authorize a mixing zone if it finds that

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[9]The same is true for the "3,420-foot" TDS mixing zone—it is really almost two miles in length.

[10]When Kivalina raised this below, the EPA responded with a factually inaccurate response: "The only change in the mixing zone in the final permit from the previous permit is the

available evidence reasonably demonstrates that . . . (2) there could be . . . (B) a barrier formed to migratory species." 18 AAC 70.250(a)(2)(B). And ADEC "will find that something 'could' happen if the department determines that it is reasonably expected to occur." 18 AAC 70.250(c).

In this case, the mixing zone is proposed to run from Outfall 001 to Station 151, which would extend across the mouth of the North Fork of Red Dog Creek, a stream with spawning habitat for Arctic Grayling. Grayling migrate up the Mainstem of Red Dog Creek during early spring to spawn, and must pass through the lower portion of the proposed mixing zone. *See* Fact Sheet, Appendix A. The spawning period lasts for approximately two weeks, and fish were present from June to September in 1997, indicating that spawning and rearing take place in the Mainstem of Red Dog Creek. Webber-Scannel, P., "Comparison of Mainstem Red Dog Creek Pre-Mining and Current Conditions, March 2005, p. 14. Exposure to toxic substances during this time could cause avoidance of the area, thus creating a barrier to migrating Grayling. EPA, in its RTC, addresses only TDS, using testimony from a Fish & Game staffer. RTC 65-66. This does not address ammonia, cyanide or pH.

Teck Cominco's discharges of cyanide and ammonia are highly toxic to fish and it is likely that the proposed mixing zone would constitute a barrier to Grayling migrating up Red Dog Creek into the North Fork to spawn. Since Teck Cominco has provided no evidence, and ADEC has provided no explanation that these highly toxic chemicals do not constitute a barrier to fish migration, the proposed mixing zone violates 18 AAC 70.250(a)(2)(B). As a result, if a mixing zone is granted, the downstream edge of the mixing zone should not be allowed to impinge on the junction of the North Fork of Red Dog Creek, and to effectively manage that mixing zone, the downstream edge of any mixing zone should be Station 20.

Further, for cyanide in particular, it is perplexing that the State is authorizing a mixing zone when EPA has determined that no effluent limit is required and there is no reasonable potential for cyanide to cause or contribute to the exceedance of the water quality standard. First,

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1500 mg.L allowed instream TDS concentration during arctic grayling spawning period (increased from 500 mg/L)." RTC at 5 (comment 8). This response completely ignores the new mixing zones authorized by this permit for cyanide, ammonia and pH.

when Teck Cominco had effluent limits for total cyanide, there were many violations of those limits, which indicates that the Permit should include effluent limits for both WAD and total cyanide.[11]

The most appropriate point to meet the Alaska water quality standard for Weak Acid Dissociable ("WAD") cyanide, the only cyanide testing method included in the Permit, is at Outfall 001. According to Teck Cominco's reporting data, in sampling collected from 1998 through 2004, 1 of 131 monthly-reportable[12] samples for WAD cyanide exceeded the Alaska aquatic life chronic water quality criterion of 5.2 ug/L (CN_{Free}, measured as CN_{WAD}), which occurred in July 2003. In 2004, a macro-distillation method was used for cyanide analysis, which improved analytical performance, and there were no monthly-reportable exceedances of the standard.[13] Based on the cyanide data collected since 1998, no mixing zone for WAD cyanide should have been authorized, and the state water quality standard should be met at Outfall 001. EPA cannot rely on the 401 certification for the cyanide permit changes, including the mixing zone. (Moreover, there is presently no cyanide-kill process employed by Teck Cominco before discharge. The strategic application of a cheap and effective cyanide-kill process like the addition of ferrous sulfate could target the reduction not only of cyanide, but would also inhibit the release of ammonia, a breakdown product of the cyanide which is also a contaminant of concern in the discharge at Outfall 001.)

2. Mixing zone for pH.

The final 401 Certification adds a mixing zone for pH from the terminus of the Red Dog Mine Water Management System to the confluence with the North Fork Red Dog Creek. There is

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[11]Cyanate and thiocyanate are cyanide compounds that are toxic to fish, and water quality standards for those compounds should also be developed and implemented.

[12]There were a total of five weekly measurements of CN_{WAD} that exceeded the standard of 5.2 ug/L, but when averaged over all the samples for the total month, this resulted in only one exceedance of the standard.

[13]There was one weekly measurement of CN_{WAD} that exceeded the standard of 5.2 ug/L, but when averaged over all of the samples for that month, this did not result in an exceedance of the standard.

no justification for this mixing zone, which has not previously been disclosed to the public. It is especially problematic because ammonia criteria are dependent on the pH and temperature of the receiving water. Since the mixing zone for TDS, ammonia and WAD cyanide overlap the pH mixing zone, aberrant pH readings will likely be problematic for these other parameters. None of the mixing zones can be authorized because the State does not have an implementation plan for its ADP, but what makes the pH mixing more egregious is that there is absolutely no analysis of how these mixing zones interact and the potential impacts.

V. THE ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT ARE INADEQUATE AND ILLEGAL UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT.

Under the NEPA, any federal agency proposing major federal action that will significantly affect the quality of the human environment must prepare an Environmental Impact Statement ("EIS"). 42 U.S.C. § 4332(2)(C). For federal actions that are not categorically excluded or included in the EIS process, an Environmental Assessment ("EA") must be prepared to determine whether the action would have a significant potential impact on the human environment which would necessitate the preparation of an EIS. 40 C.F.R. § 1501.4; *Coker v. Skidmore*, 941 F.2d 1306, 1308 (5th Cir. 1991).

Under the Council on Environmental Quality ("CEQ") regulations, "significance," as used in NEPA, requires considerations of both context and intensity:

> (a) Context. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. . . .
>
> (b) Intensity. This refers to the severity of impact. . . . The following should be considered in evaluation of intensity....
>
> (2) The degree to which the proposed action affects public health or safety.
>
> (3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
>
> (4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.
>
> (5) The degree to which the effects on the quality of the human environment are likely to be highly uncertain or involve unique or unknown risks.

> (6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about future consideration
>
> (7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts....
>
> (10) Whether the action threatens a violation of Federal, State, or local law. . . .

40 C.F.R. § 1508.27. In the case at hand, EPA prepared an EA, which resulted in a Finding of No Significant Impact ("FONSI"). Because the EA does not adequately consider the factors listed in § 1508.27, the federal action at issue – EPA's granting of the Red Dog Mine NPDES Permit Renewal – is not legal under NEPA. It fails to consider cumulative impacts, it fails to consider the mandatory factors of significance under 40 C.F.R. §1508.27, it does not comply with the requirements of 40 C.F.R. §6.605, its conclusions are arbitrary and capricious, the alternatives analysis is inadequate, the mixing zone analysis is legally flawed, and it failed to require available mitigation measures.

A. The EA Fails to Consider Cumulative Impact

The "Cumulative Impacts" section of the EA is legally insufficient and factually incorrect. In determining whether a proposed federal action will significantly impact the environment, the agency must consider "[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment." 40 C.F.R. § 1508.27(b)(7). NEPA's implementing regulations define cumulative impact as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions . . . . Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." *Or. Natural Res. Council v. United States BLM*, 470 F.3d 818 (9th Cir. 2006); 40 C.F.R. § 1508.7. "Moreover, in considering cumulative impact, an agency must provide some quantified or detailed information;... general statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definite information could not be provided. This cumulative analysis must be more than perfunctory; it must provide a useful analysis of the

cumulative impacts of past, present, and future projects." *Ocean Advocates v. United States Army Corps of Eng'rs*, 402 F.3d 846, 868 (9th Cir. 2004) (internal quotations omitted) (quoting *Kern v. United States*, 284 F.3d 1062, 1075 (9th Cir. 2002); *Muckleshoot Indian Tribe v. United States Forest Serv.*, 177 F.3d 800, 810 (9th Cir. 1999)).

The cumulative impacts analysis in the EA is legally insufficient and technically misleading. Despite the rigorous requirements set out by the C.F.R., the "Cumulative Impacts" section of the document consists of one sentence: "There are no foreseeable future discharges of metals, ammonia, cyanide, TDS, or high or low pH dischargers [sic] into the Red Dog Creek and/or Ikalukrok Creek watersheds that would cumulatively impact the streams." EA at 29. Not only is this statement an inadequate interpretation of 40 C.F.R. § 1508.7, it is false. The Army Corps of Engineers has issued a notice that Teck Cominco has requested a modification of its permit to construct temporary mine access roads and drill pads for the exploration and development drilling of the Aqqaluk Deposit, right in the vicinity of the Red Dog Mine. Kivalina Exhibit 19. This construction project is likely to involve discharges of metals, TDS and other pollutants into the Red Dog and Ikalukrok creeks or watersheds and is sure to have an impact on water quality and aquatic life in the region.

Further, EPA provides no explanation of how it came to its determination that there would be "no foreseeable future discharges." The Ninth Circuit has explicitly rejected unsubstantiated general statements, and has instead required "quantified or detailed information" to support the cumulative impacts analysis. *Ocean Advocates*, 402 F.3d at 868; *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 994 (9th Cir. 2004) (striking down an Environmental Assessments for failing to provide "objective quantified assessments of the combined environmental impacts"). Without further explanation, EPA's failure to assess the incremental impact of the NPDES renewal with respect to the explorations in the Aqquluk project area is arbitrary and capricious.

The EA's cumulative impacts analysis is also inappropriately narrow. It provides no analysis of past or present incremental impacts, as required by § 1508.7, nor does it adequately consider the potential future cumulative impacts. For example, Teck Cominco is a repeated

violator of NPDES permits. We attach only three of the dozens of DMRs filed under the 1998 permit from 1998 to the present, those for September 2004 (Kivalina Exhibit 18), June 2005 (Kivalina Exhibit 27) and September 2005 (Kivalina Exhibit 28). These Exhibits demonstrate that Teck Cominco continued to violate the cyanide, WET and TDS permit limitations after its 2003 permit modification – not coincidentally, the very same permit limitations it now seeks to have eliminated. The cumulative impact of these past violations, as well as the impact of potential future violations, should have been discussed in the EA.

The EPA also fails to comply with §§ 1508.7 and 1508.27(b)(7) by limiting its analysis to just two streams, Red Dog Creek and Ikalukrok Creek. There is nothing in the regulations or in NEPA to suggest that cumulative impact analysis should only encompass the waters into which the mine directly discharges its waste under the new permit. On the contrary, "[s]ignificance exists if it is reasonable to anticipate a cumulatively significant impact on *the environment*." 40 C.F.R. § 1508.27(b)(7) (emphasis added). Therefore, in order to comply with the full mandate of §§ 1508.7 and 1508.27(b)(7), EPA needed to assess the cumulative impacts of a host of mining activities in the region either currently taking place or predicted to take place in the future.

One of these activities is the DeLong Mountain Regional Transportation System Road and Port Facility, which is a crucial Teck Cominco development in the region that was slated to receive a new NPDES permit at the time that the EA for the new Red Dog Mine permit was issued by EPA. *See* Red Dog Port Site Fact Sheet, NPDES No. AK-004064-9 ("Port Site FS") (Final Permit issued May 16, 2006). The activity is described in the Fact Sheet as follows:

> The Port Site supporting the Red Dog Mine... is located on the shore of the Chukchi Sea, approximately 17 miles southeast of Kivalina, Alaska... The shipping of zinc and lead concentrate from the Red Dog Mine onto the Foss Maritime self-unloading shallow draft barges occurs at the Port Site, and the barges transfer the concentrate to oceangoing ships. The Red Dog Mine (Mine) and Port Site are connected by 52 miles of DeLong Mountain Regional Transportation System Road. The draft permit only covers the Port Site and the Delong Mountain Regional transportation System Road... Upon issuance of the previous permit, Teck Cominco predicted that at the Mine and Port Site would be operational for an additional 50 years.

Port Site FS at 1. It has since received that permit. The permit allows for discharge directly into the Chukchi Sea, which is the end point for the pollutants that Teck Cominco discharges into the Red Dog and Ikalukrok creeks under the permit at issue in this case. Port Site FS at 1. EPA

brought an enforcement action against Teck Cominco for violations of the previous Port Site permit in 2005, further suggesting the need to assess past, present and future impact. Given the interrelated nature of the two permits, it was arbitrary and capricious of EPA not to include an analysis of the latest Port Site permit in the cumulative impacts section of this permit. Put another way, without the Port Site permit, the mine site permit would not have been issued, and vice versa.

Four other critical projects that are projected to be implemented in the region include an expansion of the DeLong Mountain Regional project, a pipeline from Barrow to Kivalina, exploration at the Kivalina River watershed by other mining companies, and an Alaska state waste permit for the Red Dog Mine. The combined incremental effect of each of these actions, as well as the new Port Site permit and the Aqquluk project, is reasonably certain to have a significant impact on the environment. Without a more thorough cumulative impact analysis, the EA is in violation of 40 C.F.R. §§ 1508.7 and 1508.27(b)(7) and NEPA § 102(2)(C).

B. The EA Fails to Consider Other Mandatory Factors Under 40 C.F.R. § 1508.27

In addition to cumulative impact, six other mandatory factors set out in 40 C.F.R. § 1508.27 (listed above) are inadequately discussed in the EA, resulting in a violation of NEPA. First, EPA's action affects public health or safety, as it directly affects the drinking water and subsistence resources of Kivalina residents. § 1508.27(b)(2). The sworn testimony of Kivalina residents who have repeatedly said that their drinking water changed its taste after the mine began discharging warrants a full discussion in the EA. Second, there are unique characteristics of this geographic area, including its historical use for subsistence hunting and fishing. § 1508.27(b)(3).

Third, the effects of the mine that EPA is allowing to continue by renewing the permit are highly controversial, having led to EAB appeals by Kivalina Residents and lawsuits by the United States and by Kivalina residents against Teck Cominco. § 1508.27(b)(4); *see United States v. Cominco,* A-97-0267-CV(JKS) (D.Ak., filed July 14, 1997) ($4.7 million in penalties and supplemental environmental projects)*; In re: Teck Cominco Alaska Incorporated*, Red Dog

Mine 2004 EPA App. LEXIS 12; *Adams v. Teck Cominco Alaska, Inc.*, 2006 U.S. Dist. LEXIS 52792 (establishing Teck Cominco's liability as to 621 permit violations, including 618 violations of the daily maximum limit for TDS).

Fourth, the possible effects on the human environment are highly uncertain and involve risks that are not fully understood or studied. § 1508.27(b)(5). Given the documented history of Teck Cominco's past permit violations, it is reasonably certain that the mine with violate the new permit. If the permit parameters are not met, it will be impossible to predict the full effect on the human environment. The weakening and outright removal of monitoring requirements also presents uncertainty. For example, monitoring using the total cyanide method is discontinued entirely, and at the same time, the effluent limits for cyanide in any form are deleted. This creates the situation where there is no effluent limitation for cyanide being discharged, and no testing for it downstream (at Stations 2, 10, 151 and 160 where it is currently monitored). Thus, as Teck Cominco discharges millions of pounds of cyanide each year, the concerned public – particularly residents of Kivalina, who drink the water into which Teck Cominco is discharging the cyanide – will have no way of knowing the concentrations of cyanide in the water as it moves downstream. Moreover, federal and state governments will have no way of knowing whether Water Quality Standards are being met or if designated uses are being protected, as required under the Clean Water Act.

Fifth, the permit renewal is setting the precedent for future exploration and mining in the region, despite Teck Cominco's repeated violations of past permits. § 1508.27(b)(6). This rewards past illegal behavior rather than punishing it, a significant, negative precedent. Finally, EPA's action would be a violation of NEPA, the Clean Water Act's anti-backsliding provisions, Alaska law on mixing zones and anti-degradation, and EPA's own regulations. §1508.27(b)(10). EPA's decision to submit a FONSI without an adequate consideration of the factors listed under §1508.27(b)(2)-(7), (10) is clearly erroneous and illegal under NEPA and its implementing regulations.

C. The EA Does Not Comply With the Requirements of 40 C.F.R. § 6.605

40 C.F.R. § 6.605 outlines the criteria for whether to prepare an EIS for new source

NPDES permits: "When determining the significance of a proposed new source's impact, the responsible official shall consider both its short term and long term effects as well as its direct and indirect effects and beneficial and adverse environmental impacts as defined in 40 C.F.R. § 1508.8." 40 C.F.R. § 6.605(a)(1).

The analysis of short term and long term effects section is inadequate because it does not detail that mining will continue in the region after 20 years.

The EA fails to address the direct and indirect effects of the permit modifications or the adverse environmental impacts, as required by § 6.606(a)(1). According to § 1508.8, "effects" include:

> (a) Direct effects, which are caused by the action and occur at the same time and place.
>
> (b) Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.
>
> Effects and impacts as used in these regulations are synonymous. Effects includes ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial.

40 C.F.R. § 1508.

Here, the EA fails to examine most of the potential effects of the granting of the permit, a failure which the permit makes worse by deleting many of the ambient monitoring requirements which might generate the data the EA has failed to provide the public. For example, the EA fails analyze the effects and adverse impacts for many of changed conditions in the permit, including the deletion of the requirement to monitor for cyanide at Outfall 001 using the total cyanide test method, and the deletion of the effluent limitations for TDS. The EA does not discuss the impacts of the permit on soils or the riparian area along the creeks. The EA does not assess the socioeconomic impact of Teck Cominco's discharges on the Native Village of Kivalina. The EA does not analyze the environmental consequences of non-compliance with the permit, although Teck Cominco violated the last permit thousands of times.

The EA does not examine the significant adverse effect upon fish, wildlife and their natural habitats as required by 40 C.F.R. §6.605(b)(2): it fails to address the full potential impact on aquatic communities; it fails to examine the impact to benthic communities; it fails to address the impacts of additional loading from a significant increase in TDS on the receiving stream environment; it concludes that the mine's discharge will have no impact on the periphyton community without adequate explanation; and it does not adequately support its conclusion of no significant impact on the macroinvertibrate communities. In short, this is not a legally adequate EA or FONSI under NEPA.

D. The EPA's Conclusions are Arbitrary and Capricious

"Through the NEPA process, a federal agency must take[] a 'hard look' at the potential environmental consequences of the proposed action. The agency's actions, findings, and conclusions will be set aside if they are arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." *Or. Natural Res. Council v. United States BLM*, 470 F.3d 818, Lex 4 (9th Cir. 2006) (internal quotations and citations omitted).

Region 10's failure to comply with NEPA, as detailed above in Sections V.A through V.C and below in Section VI, is arbitrary and capricious. It is arbitrary and capricious in a further manner, as well: the EA, FONSI, Fact Sheet and Response to Comments are factually misleading and internally contradictory.

For example, the description of the permit requirements in the FONSI directly contradicts the Draft Permit's actual requirements. In Table 1 of the Draft Permit completely eliminates total cyanide limitations. Draft Permit at 4. The FONSI, however, states: "Compliance with the cyanide limits would be determined by the total cyanide analytical method." FONSI at 4. Based on the explicit language in the FONSI, any reader would anticipate that the Draft Permit would retain the total cyanide permit parameter. The Draft Permit, however, does not include the total cyanide permit parameter and thus the FONSI fatally misleads its readers. The cyanide issue is central to Kivalina residents concerned about the mine and has been the subject of two CWA enforcement suits. For the FONSI to mislead the public on such a critical issue makes the entire notice inadequate under §§ 553(b), (c) and 124.10. EPA's reponse? "EPA apologizes for any

inconsistency between the EA and the draft permit." RTC at 74 (comment 16). This fails as NEPA analysis, and as adequate NEPA response to comment.

The mixing zones are inaccurately described in all of the environmental review documents. The actual mixing zone for cyanide and ammonia is much longer than revealed to the public in the environmental review documents and the permit. The description of permit does not include proposed mixing zone for ammonia or the NCBSSC for cadmium, and therefore there is no analysis of impact on the environment of these mixing zones; the EPA states it does not need to do so because they are covered by the state's certification. RTC at 70 (comment 3). Again, this fails as NEPA analysis, and as adequate NEPA response to comment. There is no discussion at all of the mixing zone for pH, which was not even in the draft permit; this change is made without any environmental review, any EPA analysis and any public input.

The EA alternative analysis states that there is no known treatment of TDS, which is contradicted by the EA which later discusses the water treatment plant that is being brought online in part to deal with TDS; an adequate analysis would have examined the potential impact from requiring the treatment plant to be online now.

The EA illustrates another example of information that misleads the public. The EA states: "Elevated metal sulfates in the mine water, which ultimately result in increased levels of TDS [Total Dissolved Solids] downstream of the mine discharge point, originate from oxidation of the naturally occurring metal sulfide mineralization abundant in the district." EA at 12. This deceives the reader into believing that TDS is a result of natural conditions. This is not true. The concentrations of TDS discharged by Teck Cominco average more than 20 times the background levels. The EA is further misleading in stating, "all of these ions are typically found in natural waters," implying that Teck Cominco TDS is benign, when it can contain cyanide and other chemicals added during the milling process. EA at 12. The effect of such gross ambiguity is that average citizens will not be able to truly understand, much less meaningfully comment on issues affecting their environment.

Finally, the RTC is replete with misrepresentations to the public, several of which have been pointed out above. Examples include:

- "EPA has acknowledged that the receiving waters exhibit background toxicity related to naturally high concentrations of TDS and other toxins[.]" RTC 58 (comment 131). This statement is flatly false, as there were not naturally high concentrations of TDS at the site pre-mining.

- "The only change in the mixing zone in the final permit from the previous permit is the 1500 mg.L allowed instream TDS concentration during arctic grayling spawning period (increased from 500 mg/L)." RTC at 5 (comment 8). This response completely ignores the new mixing zones authorized by this permit for cyanide, ammonia and pH.

The combination of these manifest errors of fact is a set of NEPA documents that fails NEPA's fundamental purpose of informing the public about the environmental consequences of the EPA's actions. The EPA's reliance on the documents is thus arbitrary and capricious.

VI. REGION 10 HAS A LEGAL DUTY TO PREPARE A SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT FOR THE RED DOG PERMIT RENEWAL.

Region 10's decision to issue a new NPDES permit to Teck Cominco without preparing a Supplemental Environmental Impact Statement (SEIS) is a violation of NEPA. Preparation of a supplemental EIS is at time necessary to satisfy NEPA's "action-forcing" purpose. EPA's reliance on an Environmental Assessment, rather than requiring and basing its decision on a full EIS, as well as its granting of the new permit are illegal because they are (1) not in accordance with the requirements of the law; (2) lacking a substantial evidentiary basis; and (3) arbitrary and capricious. For these reasons, the EAB must overturn the permit and the environmental review documents until Region 10 prepares the full SEIS for the permit renewal project.

A. NEPA Requires Region 10 to Prepare a Supplemental EIS.

NEPA promotes its sweeping commitment to "prevent or eliminate damage to the environment and biosphere" by focusing Government and public attention on the environmental effects of proposed agency action. 42 U.S.C. § 4321. To accomplish this, NEPA articulates a related goal requiring that the acting agency, in exercising its discretion, fully inform itself regarding the environmental consequences of its actions. *Forest Guardians*, 170 IBLA 80, 95 (2006), citing 40 C.F.R. §§ 1500.1(b) and (c); *see Natural Resources Defense Council, Inc. v.*

Hodel, 819 F.2d 927, 929 (9th Cir. 1987). Procedurally, this requires agencies to prepare an EIS detailing environmental consequences for "every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C).

The last time Region 10 prepared an EIS for the Red Dog Mine was nearly 25 years ago in 1984. Because the new permit authorizes continuing operations of the mine for the next five to ten years under significantly weaker protections than the existing permit, the EAB cannot consider the original EIS final and must demand a long overdue supplementation. The Supreme Court acknowledges that it is practical to finalize an EIS only when "the agency would no longer have a meaningful opportunity to weigh the benefits of the project versus the detrimental effects on the environment." *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 188 n.34 (1978) (emphasis omitted). Where the "remaining government action would be environmentally 'significant,'" however, agencies must file an EIS or supplement the original one. *Id.* "An original EIS may become inadequate when during the life cycle of a project its scope changes in any substantial way or if new circumstances arise or new information becomes available about previously unsuspected environmental impacts." *State of Wisconsin v. Weinberger*, 745 F.2d 412, 416 (7th Cir. 1984).

Here, both situations are present. First, since the original 1984 EIS and project approval in 1985, there have been a number of developments that constitute significant new circumstances warranting a SEIS. Second, the new permit's weakening of the existing permit's already inadequate protections constitutes a substantial change in scope that merits a SEIS, not a Finding of No Significant Impact (FONSI).

B. Significant New Circumstances and Information Triggered Region 10's Duty to Prepare a Supplemental EIS.

Since the original 1984 EIS, significant new circumstances and information compel Region 10 to prepare a SEIS. The Council of Environmental Quality has set standards mandating a supplemental EIS when: "[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 40 C.F.R. §

1502.9(c)(1)(ii). The purpose behind preparing a SEIS is identical to that of preparing an EIS: By focusing agency action on its environmental repercussions, NEPA insures that the agency will not act on incomplete information, only to regret is decision after it is too late to correct.[14] In determining whether the new information triggers a supplemental EIS, NEPA requires

> that agencies take a "hard look" at the environmental effects of their planned action, even after a proposal has received initial approval. . . . [Applying] the 'rule of reason' [standard, agencies evaluate] the value of the new information to the still pending decisionmaking process. In this respect the decision whether to prepare a supplemental EIS is similar to the decision whether to prepare an EIS in the first instance: If there remains "*major Federal actio[n]*" to occur, and if the new information is sufficient to show that *the remaining action will "affec[t] the quality of the human environment" in a significant manner or to a significant extent not already considered*, a supplemental EIS must be prepared. Cf. 42 U.S.C. § 4332(2)(c).

Marsh v. Oregon Natural Resources Council, 490 U.S. at 374 (footnotes omitted; emphasis added); *see Wyoming Outdoor Council,* 159 IBLA 388, 410 (2003).

1. The Permit Renewal is a Major Federal Action

The CEQ defines "major Federal action" as actions with effects that may be major and which are potentially subject to Federal control and responsibility. 40 C.F.R. § 1508.18. "Major" has no meaning independent of "significantly." *Id.* "Actions" include "new and continuing activities." 40 C.F.R. § 1508.18(a). Federal actions include projects "approved by permit or other regulatory decision". 40 C.F.R. § 1508.18(b)(4). Moreover, section 511 of NEPA specifically classifies the issuance of a permit to discharge pollutants as a "major federal action." 33 U.S.C. § 1371(c)(1). Thus, Region 10's issuance of Red Dog Mine's NPDES permit on March 7, 2007 constitutes a major federal action.

2. There are Significant New Circumstances and Information

Region 10 must evaluate the many significant new circumstances and consider the significant new information that it did not previously consider in its 1984 EIS. The "rule of reason" compels an agency to consider and evaluate any new information and make a reasoned

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[14]Andreen, In Pursuit of NEPA's Promise: The Role of Executive Oversight in the Implementation of Environmental Policy, 64 Ind. L. J. 205, 247 – 248 (1989) (Supplementation is at times necessary because "[t]he entire efficacy of the EIS process is called into question when changes are made to a project after the publication of a final impact statement").

determination whether such information is of such significance as to require supplementation.[15] *Warm Springs Dam Task Force v. Gribble*, 621 F.2d 1017, 1024 (9th Cir. 1980). *Warm Springs* involved an information gap about the effect of a newly discovered fault system on a proposed dam. *Id.* at 1020-21. Although the agency ultimately cured the defect by commissioning an extensive study that supplied the missing information, the Ninth Circuit noted that the original failure to discuss this danger violated NEPA. *Id.* at 1025-26. In the instant case, there have been a number of developments in the region and at the mine that call into question the assumptions and conclusions described in the 1984 document. Region 10 did not take the required procedural and substantial "hard look" at any of these developments and thus violated NEPA.

Region 10 has failed to discuss the following new developments: climate change; the filling of the tailings pond at a rate considerably faster than anticipated which necessitates greater volumes of discharge; the effect of Teck Cominco's repeated permit violations; the cumulative impact of Teck Cominco's development of other mining in the surround area; and the impact of TDS on salmonids and other fish species demonstrated in the Steckoll and Brix studies relied on by the EA.

a. Climate change

Climate change is a significant new circumstance since 1984. Since the EIS 23 years ago, there has been a significant warming of the planet with demonstrable and dramatic effects in the arctic environment around the Red Dog mine. This climate change means there is more snowmelt and that it is earlier than any environmental review in the 1980s could have anticipated. It also means that the discharge season may be longer than anticipated by earlier review and that the facility may begin discharging during months such as April or November, leading to even greater pollution loads. It also means that certain metals may be more bio-available (through methylation which occurs at higher temperatures) than they were previously. Region 10 brushed off public comment on this important topic, stating that climate change is beyond scope of a

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[15]The Supreme Court noted that while there are two standards of reviewing an agency's decision not to prepare and EIS or SEIS, for all practical purposes, the "reasonableness" and "arbitrary and capricious" standards are the same. *Marsh,* 490 U.S. at 377.

NEPA analysis. RTC Comment 8 at 72. The EPA even refused to acknowledge that climate change is occurring at all. *Id.* ("Trying to determine *whether* climate change is occurring....") (emphasis added). The Supreme Court, however, recognizes that "[t]he harms associated with climate change are serious and well recognized." *Massachusetts v. E.P.A.*, 2007 WL 957332, at *15 (U.S.) (Apr. 2, 2007) It accepts qualified experts' consensus that:

> Global warming threatens (among other things) precipitate rise in sea levels, . . . severe and irreversible changes to natural ecosystems, . . . a significant reduction in [] winter snowpack with direct and important economic consequences, . . . and increase[s] in the spread of disease, . . . and the ferocity of hurricanes [and other weather phenomena]."

Id. (quotations ommitted). These impacts are felt more in the Arctic than elsewhere on the globe.

Furthermore, EPA has agreed with the President to address the issue of global climate change. *Id.* at *17. The U.S. Supreme Court finds this commitment particularly significant. *Id.* An important way of living up to its commitment to address global climate change is by continuously taking a "hard look" at the effects of its actions on an environment widely recognized to be most affected by global warming.[16] Region 10's refusal to recognize ongoing climate change as significant new information meriting a "hard look" is contradictory to EPA's commitment and the scientific consensus on climate change, as well as being arbitrary and capricious. In other cases, Courts have ordered agencies to examine the contributions of their actions on climate change.

It is not enough for the EPA to have the ability to modify the permit in the future, as it asserts in the RTC: "the permit is reviewed when renewed on a 5-year cycle." RTC at 72 (comment 8). First, reviews of the permit do not occur every five years – the "5 year" permit being renewed by the 2007 permit was issued in 1998, nine years ago. Second, Region 10 has failed to even consider the effects of its actions on an environment affected by climate change. It is only the result of public comment that this issue was even mentioned.

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[16]The Supreme Court in *Mass. v. EPA*, recognized "the global retreat of mountain glaciers, reduction in snow-cover extent, the earlier spring melting of rivers and lakes, [and] the accelerated rate of rise of sea levels" as significant harms that have already resulted from environmental changes. 2007 WL 957332, at *15 (quoting the respected National Research Council Report on climate change). These harms are clearly associated with the Arctic and Antarctic regions and the Red Dog Mine is in northern Alaska, an Arctic region.

b. Rapid filling of the tailings pond necessitating more discharge

Perhaps as a result of climate change, the tailings pond at the mine site has filled significantly faster than originally anticipated, necessitating greater volumes of discharge. The original environmental review documents calculated that the filling of the ponds would span the 30-year life of the mine. The ponds, however, had already filled up by the late 1990s. Region 10 must consider this new information because the rapidly filling tailings ponds have the potential to have a dramatically significant environmental impact, one which the EPA has never reviewed in any of its evaluations over the years.

c. Impact of Teck Cominco's repeated permit violations

Teck Cominco's inability or unwillingness to abide by the permit limitations imposed in the 1985 and 1998 permits constitutes significant new information not available in or reviewed by the 1984 EIS. The EIS did not anticipate wholesale and widespread violation of permit conditions, nor did any subsequent environmental review including the present EA and FONSI. Because Teck Cominco is a habitual permit violator, it is critical that any environmental review examine the impact, including cumulative impact, of those permit violations and of projected future violations. Teck Cominco's abysmal compliance record is examined in more detail in Kivalina's comments on the permit and in Exhibits 3-13 to those comments. Region 10 again brushed off comment on this important topic, asserting only that "NEPA analyses are based on the assumption that a discharger will comply with the terms of the permit. Discharges outside permit limits are a compliance issue rather than a NEPA issue." RTC at 72 (comment 9). EPA cannot ignore the fact that Teck Cominco willfully violated its permits for more than nine years with respect to TDS, and cannot claim it is merely a compliance issue as EPA never took any enforcement action against the company. There is evidence of repeated and continuous violations of its permits, which must be factored into a NEPA analysis.

d. Cumulative impact of Teck Cominco's and others' development of surrounding area.

The impacts from already-announced mining activity that Region 10 knows about in the Red Dog mine vicinity constitute new circumstances triggering the need for a supplementary

EIS.[17] EPA considered this "speculative" and thus did not examine any cumulative impacts of the 2007 permit. RTC at 72-73 (comment 11). EPA cannot piecemeal the examination of the cumulative impact by separating the impact of this permit from the other currently proposed mining projects in the area.

The regulations implementing NEPA require that a federal agency consider cumulative actions, which when viewed with other proposed actions, have cumulatively significant impacts warranting discussion in the same impact statement. 40 C.F.R. § 1508.25(a)(2). In the *City of Carmel-by-the-Sea v. U.S. Dep't of Transp.*, 123 F.3d 1142 (9th Cir. 1997), the Court noted that an EIS must include a "useful analysis of the cumulative impacts of past, present and future projects." *Id.* at 1160. This requires "discussion of how [future] projects together with the proposed . . . project will affect [the environment]." *Id.* The EIS must analyze the combined effects of the actions in sufficient detail to be "useful to the decisionmaker in deciding whether, or how, to alter the program to lessen cumulative impacts." *Id.* (internal citations omitted). NEPA requires EPA to describe in detail the cumulative effects of the renewed mining permit with other proposed actions. *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 809 (1999); *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1214-15 (9th Cir.

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[17] *See, e.g.*, the U.S. Army Corps of Engineers, Alaska District, Public Notices, http://www.poa.usace.army.mil/reg/PNNew.htm (last accessed Apr. 3, 2007); Public Notice No. POA-2005-1959-4, Hotham Inlet, http://www.poa.usace.army.mil/reg/PN_Scanned/2006%20February/POA-2005-1959-4%20Hotham%20Inlet.pdf (last accessed Apr. 3, 2007); Public Notice No. POA-2005-1616-4, Kotzebue Sound, http://www.poa.usace.army.mil/reg/PN_Scanned/2006%20February/POA-2005-1616-4%20Kotzebue%20Sound.pdf (last accessed Apr. 3, 2007); Public Notice No. POA-2006-203-2, Kotzebue Sound, http://www.poa.usace.army.mil/reg/PN_Scanned/2006%20February/POA-2006-203-2%20Kotzebue%20Sound.pdf (last accessed Apr. 3, 2007); Public Notice No. POA-2006-280-2, Hotham Inlet, http://www.poa.usace.army.mil/reg/PN_Scanned/2006%20February/POA-2006-280-2%20Hotham%20Inlet.pdf (last accessed Apr. 3, 2007); Public Notice No. POA-2006-154-2, Hotham Inlet, http://www.poa.usace.army.mil/reg/PN_Scanned/2006%20February/POA-2006-154-2%20Hotham%20Inlet.pdf (last accessed Apr. 3, 2007); Public Notice No. POA-1984-0012-YY, Chukchi Sea 11, http://www.poa.usace.army.mil/reg/PN_Scanned/2006%20March/POA-1984-0012-YY%20Chukchi%20Sea%2011%20(2).pdf (last accessed Apr. 3, 2007); *See also* Kivalina Exhibit 19. Again, in the interest of conserving natural resources (paper), Kivalina has not attached printouts of each of these websites to this petition, but if the EAB would like paper copies rather than web addresses Kivalina will provide them.

1998). "General statements about [the other projects'] possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided." *Great Basin Mine Watch v. Hankins*, 456 F.3d 955, 971 (9th Cir. 2006).

Here, none of the environmental review documents even mention the other proposed mining projects. It does not matter if each project is a separate entity. The proposed mining activity is a reasonably foreseeable action and a new circumstance that requires analysis. "An agency's NEPA analysis must consider cumulative impacts even if two projects are not considered cumulative actions." *Baykeeper v. U.S. Army Corps of Engineers*, 2006 WL 2711547, at *11 (E.D.Cal. Sep. 20, 2006). Thus, it does not matter if the proposed mining in the area is independent of the Red Dog mine operation. Region 10 must analyze the cumulative impact of all proposed activity in the area. Because it failed to consider this new circumstance in a supplementary EIS, Region 10 violated NEPA.

e. Steckoll and Brix studies' findings of impact of TDS on salmonids and other fish species.

There is significant new information about the impact of TDS on salmonids and other fish species from the Steckoll and Brix studies. Ironically, EPA concedes that the Steckoll and Brix studies are "new information," but it has used them to *weaken* the permit limits. RTC 72 (comment 10). In fact, Region 10 actively misleads the public in the environmental review documents and the RTC by stating that "these studies have shown that the higher levels of TDS will not impact arctic grayling spawning." RTC at 50 (comment 113). This statement is not supported by either the Steckoll or the Brix studies, the only two studies to examine TDS and salmonid reproduction. EPA's decision is not supported by the evidence to which it cites. The studies' conclusions must spur further environmental assessment, not relaxation of permit conditions.

3. This New Information Meets the Standards of Significance under NEPA.

The new information mentioned above indicates that continued Red Dog Mine operations under the newly-renewed NPDES permit will have a "significant" impact on the environment and thus require a SEIS. "If, as a result of new circumstances, the project may have a

'significant' impact upon the environment that was not considered in the original EIS, then a supplemental EIS is *required*." *Louisiana Wildlife Federation, Inc. v. York*, 761 F.2d 1044, 1051 (5th Cir. 1985) (emphasis added). In other words, if the new information "'presents a seriously different picture of the environmental impact of the proposed project from what was previously envisioned,' it is significant new information and is sufficient to require an agency to supplement an original EIS." *Id.* (footnote omitted).[18]

As noted above, the standard for "significance" is the same in the context of an EIS and SEIS. *Id.* CEQ's NEPA regulations require evaluations of "significance" to include considerations of both context and intensity. Region 10's actions meet seven of the ten factors listed by the CEQ to judge the intensity or severity of the impact, while satisfying even one is enough to trigger the requirement of an EIS. EPA's action affects public health or safety, as it directly affects the drinking water and subsistence resources of Kivalina residents; there are unique characteristics of this geographic area including its historical use for subistence huniting and fishing; the effects ocf of the mine that EPA is allowing to continue by ren3ewing the permit are not only likely to be highly controversial, they are so, having led to lawsuits by the united States and by Kivaline residents against Teck Cominco; the possible effects on the human enrionrmnet are highly uncertain and involve risks that are not fully understoodor studied; the permit renewal is setting the precedent for future exploration and mining in the region, even though Teck Cominco has repeatedly violated its past permits – effectively rewarding past illegal behavior rather than punishing it, a significant, negative precedent; the EPA's action represents a decision inprinciple abut future activity at the mine as rather than strengthen the permit in the face of massive permit violations, EPA has instead weakened it; EPA's action is directly related

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[18] The Fifth Circuit uses a method whereby if the reviewing court determines that, contrary to the FONSI, the project may have significant impact on the human environment, it will require the agency to prepare an EIS. Where the environmental assessment is flawed to the extent that precludes the determination of whether the project may have a significant impact, it will remand to correct the deficiencies. O'Reilly v. U.S. Army Corps of Eng'rs, 477 F.3d 225 (5th Cir. 2007). Other circuits follow a similar approach. *See, e.g.*, Jones v. Gordon, 792 F.2d 821, 829 (9th Cir. 1986); Found. on Economic Trends, 756 F.2d at 154 (D.C. Cir. 1985); Middle Rio Grande Conservancy Dist. v. Norton, 294 F.3d 1220, 1226 (10th Cir. 2002).

to oither actions with cumulatively significant impacts; and EPA's action would be a violation of NEPA, the Clean Water Act'a anti-backsliding provisions and EPA's own regulations. NEPA clearly requires a supplementary EIS.

C. Substantial Changes to Proposed Action Triggered Region 10's Duty to Prepare a Supplemental EIS.

Alternatively, CEQ regulations compel an agency to prepare a SEIS when: "[t]he agency makes substantial changes in the proposed action that are relevant to environmental concerns. 40 CFR § 1502.9(c)(1)(I). Although the CEQ regulations do not address when an EA must be supplemented or a FONSI revisited, they do provide that an agency shall supplement an EIS if "the agency makes substantial changes in the proposed action that are relevant to environmental concerns." 40 C.F.R. § 1502.9(c)(1)(I). As detailed above, there have been significant changes to the project since it was last analyzed in an EIS in 1984.

D. Region 10's Failure to Prepare an SEIS is Arbitrary and Capricious.

As noted above, the significant new information available since the last EIS was prepared in 1984 should have compelled Region 10 to prepare a supplemental EIS. Its failure to do so is arbitrary and capricious, and thus the NEPA documents must be set aside until a full supplemental EIS is prepared.

In *Portland Audubon Society v. Babbitt,* the Ninth Circuit held that the BLM's decision not to supplement an EIS for sales of timber from spotted owl habitat was arbitrary and capricious in light of new information concerning the effects of logging on the owl. 998 F.2d 705 (9th Cir. 1993). The new information included evidence that the owl population was declining in numbers, that the decline was due to forest fragmentation caused by logging, and that the species' survival was uncertain if the logging was to continue as planned. *Portland Audubon Society v. Lujan,* 712 F.Supp. 1456, 1485 (D.Or. 1989), *aff'd by Portland Audubon Society v. Babbitt,* 998 F.2d 705 (9th Cir. 1993). The BLM agreed that threat of extinction is environmentally significant, that their analysis indicated owl population decline, and that forest fragmentation due to logging was a contributing factor. *Id.* However, when the BLM prepared an EA to determine whether supplementation was necessary, it decided that the information was

not significant and that a supplemental EIS was not required. *Id.* The EA, however, did not consider issues of adequate population size or the effects on the long-range survival of the owl, and on that ground, the court concluded that the decision not to supplement was arbitrary and capricious. *Id.*

It is troubling to Kivalina, in light of these manifest failures by EPA to comply with NEPA, that Teck Cominco itself was consulted on how to respond to Kivalina and others' NEPA comments calling for an EIS. *See* Exhibit A (Teck Cominco internal communication noting, "EPA continues to work on their Response to Comments. The Agency requested TCAK's input into their response to a comment that an EIS was required. They have decided to support their decision to do an EA.") Kivalina thus requests that all communications regarding this topic be made part of the record before the EAB.

VII. EPA'S NOTICE AND COMMENT PROCEDURE WAS ILLEGAL.

Region 10 did not notify parties who had requested notification, in writing, of the issuance of the draft permit, and did not adequately notice the extension it granted to try to fix its earlier failure to comply with the law.

A. Region 10 Did Not Fulfill the Public Notice Requirement of Permit Actions.

The Administrative Procedures Act requires the EPA to provide the public with notice and an opportunity to comment before it issues a NPDES permit. 5 U.S.C. §§ 553(b), (c). Specifically, the regulation governing the issuance of a NPDES permit provides in relevant part: "Public notice . . . shall be given by the following methods: (1) By mailing a copy of a notice to the following persons . . .; (ix) Persons on a mailing list developed by: (A) Including those who request in writing to be on the list." 40 C.F.R. § 124.10(c)(1)(ix)(A). The issuance of an NPDES permit is also subject to NEPA, and Region 10's failure to provide an adequate notice and comment period also violates NEPA's public participation requirements under 40 C.F.R. § 1501.4(b). "A decision made without adequate notice and comment is arbitrary and an abuse of discretion." *Natural Res. Def. Council, Inc. v. EPA*, 279 F.3d 1180, 1186 (9th Cir. 2002); *see* 5 U.S.C. § 706(2)(A).

On November 23, 2005, counsel representing several residents of the Village of Kivalina, Luke Cole, wrote to Region 10 requesting inclusion on the mailing list for notification of the Teck Cominco permit renewal and all relevant environmental review documents. (CRPE Exhibit 1). Although Region 10 assured him that it would add him to the mailing list, it ultimately did not notify Cole when it made the draft permit available for public comments on February 2, 2006. *Id.* That Region 10 did not honor Cole's properly made request for inclusion on the mailing list is a direct violation of 40 C.F.R. § 124.10(c)(1)(ix)(A).

Additionally, there may be others like Cole who also requested to be on the mailing list but were similarly not notified when Region 10 issued the draft permit. In this case, Region 10's failure to include Cole on the mailing list is especially grievous because he and his clients have a significant interest in the matter given the pending lawsuit seeking to enforce the permit and an EPA Appeals Board ("EAB") challenge that Region 10's permit renewal, in part, purports to address.

Region 10 violated the public's right to a proper notice and comment period under § 124.10 in another way. On February 22, 2006, when counsel Cole discovered that Region 10 had already issued the draft permit without notifying him, he immediately contacted the EPA. Kivalina Exhibit 1. Region 10 staffer, Cindy Godsey, informed him of the EPA's intent to re-notice an extension until March 27, 2006. Kivalina Exhibit 2. Despite her assurance, Region 10 never formally notified Cole of the comment period extension. *Id.* Moreover, EPA never re-noticed the extension to the general public. EPA failed to update its website and as of March 27, 2006, continued to broadcast the previous March 6, 2006 public comment closing date on all the web pages associated with the permit and pertinent environmental review documents like the notice and fact sheet.[19] Anyone who desired to comment and visited the EPA website for

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[19] *See* Exhibit B, printout of EPA Proposes Reissuance of an NPDES Permit, Environmental Assessment and Finding of No Significant Impact for Teck Cominco Red Dog Mine, near Kotzebue, Alaska; public comment period: 02/02/06 – 03/06/06, http://yosemite.epa.gov/r10/WATER.NSF/NPDES+Public+Notices/EPA+Prop813 (last accessed Apr. 3, 2007) (listing Mar. 6, 2006 as deadline for public comments). *See also* Exhibit C, printout of EPA Fact Sheet, EPA Plans to Re-issue a Wastewater Discharge Permit to: Teck Cominco Alaska, Inc. Red Dog Mine near Kotzebue, Alaska and the State of Alaska proposes to

information on how to do so had no way of knowing that the comment period was actually extended until March 27.

EPA calls its two-time failure to place Cole on the mailing list an "administrative oversight" and reasons that notice mailed to Cole's "clients" – whom it does not identify – sufficiently notified Cole. RTC at 4. This reasoning is erroneous. "Under the standards of the APA, notice necessarily must come from the Agency." *Shell Oil Co. v. E.P.A.*, 950 F.2d 741, 751 (D.C. Cir. 1991) (internal quotations omitted); *cf. Wagner Electric Corp. v. Volpe,* 466 F.2d 1013, 1019 (3d Cir.1972) (that some "knowledgeable manufacturers" responded to an inadequate notice with comments relating to the final rule "is not relevant. Others [were] possibly not so knowledgeable ...."). Similarly, EPA cannot expect Cole to have been noticed by way of others. Nor were any of Cole's clients at the time noticed by EPA.

Region 10 "regrets" not updating its website with the correct extension of comment period date. RTC at 4. It argues that publication of notice in the *Anchorage Daily News* and the *Arctic Sounder* was enough and that the website was a useful tool but not publication on the website was not a regulatory requirement. *Id.* A website, however, is more than just a useful tool in today's society, especially to a village like Kivalina. Once Region 10 chose to use the website as a tool for notice, it had the duty to provide the public with correct information.

Every phrase of regulations serves a legitimate purpose and means something. *Citizens for Better Forestry v. U.S. Dep't of Agric.*, 341 F.3d 961, 970 (9th Cir. 2003). The purpose of mandating a proper notice and comment period is to involve the public in order to identify issues that will lead to better decision-making and build credibility and community support. *See* 33 U.S.C. § 1251(d) (including public participation in development, revision, and enforcement of regulations as one of the primary goals of the Clean Water Act). Properly notifying the public of its right to comment is an essential requirement of 40 C.F.R. § 124.10 and 5 U.S.C. §§ 553(b), (c). Region 10's failure to do so is a facial violation of both statute and regulation and may have

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Certify the Permit, http://yosemite.epa.gov/r10/WATER.NSF/NPDES+Permits/DraftPermitsAK/$FILE/AK-003865-2%20FS.pdf (last accessed Feb. 19, 2007) (listing Mar. 6, 2006 as deadline).

blocked members of the public from exercising their right to participate in the development of a permit that would adversely affect their community, health, and environment. Lack of proper notice prevents interested parties from bringing up issues during the appropriate comment period, a crucial time frame for ensuring the preservation of issues in the case of a later formal appeal. Because the public's ability to comment and participate in the permit process is essential to upholding the purpose of the Clean Water Act, Kivalina respectfully requests a new notice and comment period that allows the public to enjoy its full procedural and participatory rights.

B. Region 10 failed to comply with the comment period requirement.

Because Region 10 failed to give the public a meaningful opportunity to comment on the Draft Permit and pertinent environmental review documents, it did not comply with the comment requirements of 5 U.S.C. §§ 553(c). "This argument flows directly from the improper notice given by the agency." *Louis v. U.S. Dep't of Labor*, 419 F.3d 970, 976 (9th Cir. 2005). Here, Region 10 did not notify the public of the extension of the comment period, did not include people who rightfully asked to be on the list, and offered ambiguous, conflicting, and misleading documents to the public. These all contributed to the public's inability to meaningfully comment and participate in the rulemaking process. Moreover, because of these failures, Region 10 "thus never afforded itself the opportunity 'to educate itself on the full range of interests the [permit] affects.'" *Id.* at 976-77. Without the public's meaningful participation, the EPA cannot impose a final permit that would have ramifications for Kivalina's health, livelihood and environment.

C. Region 10's Notice and Comment Period Did Not Constitute Adequate Procedure and Directly Harmed Petitioner.

Even if Region 10 technically fulfilled the procedural requirements – which it did not – it still harmed the public by failing to provide adequate notification and a proper comment period, and thus denied the public its right to meaningfully comment and participate during the permit process.

1. Region 10 inadequately notified the public.

The notice requirement's purpose is to allow interested parties an opportunity to participate in the rulemaking process. *Louis*, 419 F.3d at 975. The test for whether notice is

adequate is: does the notice "fairly apprise interested persons of the 'subjects and issues' before the Agency." *Natural Res. Def. Council, Inc. v. EPA*, 279 F.3d at 1186 (quoting *Natural Res. Def. Council, Inc. v. EPA,* 863 F.2d 1420, 1429 (9th Cir. 1988)). Persons should not have to "guess [the agency's] 'true intent'." *Louis*, 419 F.3d at 975 (quoting *State of California ex rel. Lockyer v. FERC*, 329 F.3d 700, 706-07 (9th Cir. 2003) (noting connection between Due Process Clause and notice provisions)).

Region 10 failed to provide adequate notice pursuant to 40 C.F.R. § 124.10 by repeatedly refusing to honor counsel's request to be placed on the mailing list and by not re-noticing the extension of the comment period to the public through its website. If the public did not know about the comment period extension, it could not have been "fairly apprised" of the relevant issues concerning the Draft Permit. Region 10's facial failure to adequately uphold even the threshold notice requirements is sufficient to merit a remand.

2. Internally contradicting documents such as those Region 10 offered for review simply cannot provide adequate notice.

Even if the EAB believes that Region 10 fulfilled the technical notice and comment requirements, it must remand this permit because the contradictory nature of the documents could not have possibly allowed the public to meaningfully participate in the rulemaking process. In *Louis*, although the administrative agency met the technical requirements of notice, "the presentation of the information obscure[d] the intent of the agency . . . allow[ing] potentially controversial subject matter . . . to go unnoticed." *Louis*, 419 F.3d at 975-76. The Ninth Circuit held that the misleading presentation of information and confusing organization of relevant documents constituted a violation of the notice and comment provisions pursuant to the Administrative Procedure Act, 5 U.S.C. §§ 553(b), (c). *Louis*, 419 F.3d at 975-76, 79.

In this case, the FONSI's directly contradicting the Draft Permit's actual requirements presents the same problem. For example, Table 1 of the Draft Permit completely eliminates total cyanide limitations. Draft Permit at 4. The FONSI, however, states: "Compliance with the cyanide limits would be determined by the total cyanide analytical method." FONSI at 4. Based on the explicit language in the FONSI, any reader would anticipate that the Draft Permit would

retain the total cyanide permit parameter. The Draft Permit, however, does not include the total cyanide permit parameter and thus the FONSI fatally misleads its readers. The cyanide issue is central to Kivalina residents concerned about the mine and has been the subject of two CWA enforcement suits. For the FONSI to mislead the public on such a critical issue makes the entire notice inadequate under §§ 553(b), (c) and 124.10.

The EA illustrates another example of information that misleads the public. The EA states: "Elevated metal sulfates in the mine water, which ultimately result in increased levels of TDS [Total Dissolved Solids] downstream of the mine discharge point, originate from oxidation of the naturally occurring metal sulfide mineralization abundant in the district." (EA at 12). This deceives the reader into believing that TDS is a result of natural conditions. This is not true. The concentrations of TDS discharged by Teck Cominco average more than 20 times the background levels. The EA is further misleading in stating, "all of these ions are typically found in natural waters," implying that Teck Cominco TDS is benign, when it can contain cyanide and other chemicals added during the milling process. EA at 12. The effect of such gross ambiguity is that average citizens will not be able to truly understand, much less meaningfully comment on issues affecting their environment. Thus, the procedure, even if technically fulfilled, is fatally inadequate.

Finally, the RTC is replete with misrepresentations to the public, several of which have been pointed out above. Examples include:

- "EPA has acknowledged that the receiving waters exhibit background toxicity related to naturally high concentrations of TDS and other toxins[.]" RTC 58 (comment 131). This statement is flatly false, as there were not naturally high concentrations of TDS at the site pre-mining.

- "The only change in the mixing zone in the final permit from the previous permit is the 1500 mg.L allowed instream TDS concentration during arctic grayling spawning period (increased from 500 mg/L)." RTC at 5 (comment 8). This response completely ignores the new mixing zones authorized by this permit for cyanide, ammonia and pH.

If interested parties cannot anticipate the final rulemaking from a draft permit and its supporting documents, the reviewing body must deem the notice and comment procedure inadequate. This is precisely what the Ninth Circuit held in *Natural Res. Def. Council, Inc. v. EPA.*, 279 F.3d at 1186. In that case, the final permit adopted a different standard for zones of deposit than what the draft permit proposed. *Id.* at 1188. This prevented the public from commenting on relevant issues pertaining to the standards and thus rendered the notice and comment period insufficient. *Id.*

3. Region 10's improper notice and comment period harmed the Village of Kivalina.

The Ninth Circuit does not require a showing of specific injury to rule on the adequacy of an agency's notice and comment period. *See Citizens for Better Forestry*, 341 F.3d at 971; *Natural Res. Def. Council*, 279 F.3d 1180; *Louis,* 419 F.3d 970. Region 10's failure to provide proper notice and comment period, even if a technical error, has nonetheless harmed Kivalina.

As shown above, Region 10 violated 40 C.F.R. § 124.10(c)(1)(ix)(A) by failing to include Cole on the mailing list and failing to notify him of both the availability of the environmental review documents and the extension of the comment period. *See* Kivalina Exhibits 1, 2. Moreover, Region 10 violated the Administrative Procedure Act, 5 U.S.C. § 553(c) by not notifying the public of the extension of the comment period. (*See* Exhibits B, C, printout of webpages). Although the court has not established a minimum level of public comment of public comment and participation, it does recognize the seriousness of procedural violations. *Citizens for Better Forestry*, 341 F.3d at 970.

> An environmental plaintiff is 'surely . . . harmed [when agency action] precluded the kind of public comment and participation'" the statutes requires and that " this type of 'procedural' injury is tied to a substantive 'harm to the environmnent' - 'the harm consists of added risk to the environment that takes place when governmental decisionmakers make up their minds without having before them an analysis (with public comment) of the likely effects of their decision on the environment.

Id. at 971 (internal quotations omitted).

The EAB also illustrates some examples of how a petitioner could show prejudicial harm and thus have standing. Kivalina can show injury under this doctrine. The persons complaining about the adequacy of notice of a draft permit must "demonstrate how the alleged errors affected

the proceedings during the public comment period or how the person was in any way harmed or prejudiced by the alleged violations." *In re MCN Oil and Gas Company*, (2002 WL 31030985 (E.P.A.)). The petitioner could discuss "how the error relates to any condition of the permit[] or how the permit may have been different had the notice been mailed to such parties." *In the Matter of J&L Specialty Products Corp.*, 5 E.A.D. 31 (EAB 1994).

The harm *is* that the public, because of the inadequate notice, permanently lost its right to comment on proposed conditions and otherwise participate in the permit process. This affected the proceedings because the public was not able to participate Thus, EPA's failure to provide proper public notice relates to all conditions of the permit because the public's lack of notice meant that all conditions of the permit remained unreviewed. The assumption cannot be that no harm resulted from this error. Instead, the EAB must consider that failure to give adequate notice is a de facto irreparable harm precisely because the public has forever lost its opportunity to challenge and participate in the permit process. The Ninth Circuit has determined that an environmental plaintiff was:

> surely harmed [when agency action] precluded the kind of public comment and participation NEPA requires in the EIS process, and that this type of "procedural" injury is tied to a substantive "harm to the environment" - " the harm consists of added risk to the environment that takes place when governmental decisionmakers make up their minds without having before them an analysis (with public comment) of the likely effects of their decision on the environment.

Citizens for Better Forestry, 341 F.3d at 971.

Public participation is an indispensable part of the Clean Water Act's permitting process. *See* 33 U.S.C. §§ 1342(a)(1), (b)(3), (c)(3), (d)(4), (j), (q)(2). Lack of meaningful public participation in the permit process dramatically weakens the agency's ability to make a balanced and informed decision.

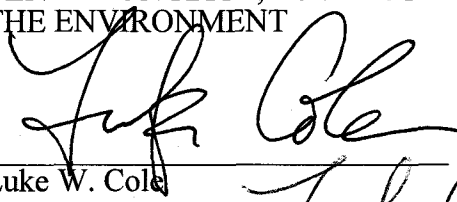
VIII. CONCLUSION

Because EPA's 2007 permit violates a series of statutory and regulatory requirements, it is ultra vires. The permit should be overturned, and remanded to Region 10 for a thorough overhaul to bring it in line with the requirements of the Clean Water Act. It should not be reissued until such time as Region 10 has fully complied with NEPA and prepared a full

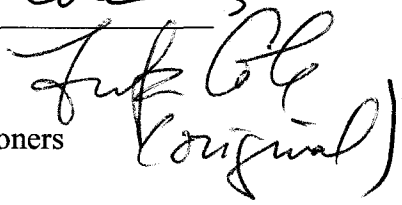
supplemental EIS. Kivalina respectfully requests that the EPA Appeals Board accept this petition, and allow it to fully brief this case.

Submitted this 6th day of April, 2007.

CENTER ON RACE, POVERTY &
THE ENVIRONMENT



Luke W. Cole



Attorneys for Petitioners

Christine Billy
Elena Gil

Environment

	Air	Water	Waste	Other	Total
Permit Non-Compliance					
June 2006	0	1	0	0	1
June 2005	0	0	0	0	0
YTD 2006	0	2	0	3	5
YTD 2005	6	3	0	0	9

	Month			YTD		
	No.	Gal.	Lbs.	No.	Gal.	Lbs.
Spills						
Petroleum/Glycols	9	102	0	43	454	0
Chemicals/Reagents	1	1	0	3	21	25
Concentrate/Slurries	3	16	250	6	401	250
Process Water(s)	1	2	0	8	124,358	0
June 2006	14	121	250	60	125,234	275
June 2005	23	1,238	1	78	17,319	133

- Non-Compliance – An above limit turbidity in the Minesite potable water plant occurred and was reported as required.
- Mine Discharge Permit – EPA continues to work on their Response to Comments. The Agency requested TCAK's input into their response to a comment that an EIS was required. They have decided to support their decision to do an EA.
- Solid Waste Permit – SRK continues to draft the closure plan with information from the closure workshops. A second workshop was conducted on the 29th and 30th.
- Natural Gas Exploration Air Permitting – The natural gas air permit was received. It is a relatively simple permit with a minor amount of monitoring required.
- Coarse Ore Stockpile Air Permit – A draft permit was received. The permit is straight forward but we will provide comments that will address poor and unclear wording.
- EMS – Preparations are underway for this year's surveillance audit.
- EPA Inspection – We are still awaiting EPA's revised schedule.
- Spring Clean Up – Clean up was conducted on the 1st. In addition a crew of summer students has been hired to work on various cleanup and revegetation projects.
- Community Affairs – A Subsistence Committee meeting was conducted on the 13th with the Kivalina whaling captains. The purpose was to address the captain's request that shipping be delayed until all the ice has left the area north of the port.

Exhibit A
1 of 1

EPA Proposes Reissuance of an NPDES Permit, Environmental Assessment and Finding of No Significant Impact for Teck Cominco Red Dog Mine, near Kotzebue, Alaska; public comment period: 02/02/06--03/06/06

United States Environmental Protection Agency (EPA)
Region 10
Park Place Building, 13th Floor
1200 Sixth Avenue, OWW-130
Seattle, Washington 98101
(206) 553-0523

NOTICE OF NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REISSUANCE TO DISCHARGE TO WATERS OF THE UNITED STATES FOR

Teck Cominco Alaska, Inc. (TCAK)
Red Dog Mine

Notice of a
FINDING OF NO SIGNIFICANT IMPACT (FONSI),

and

NOTICE OF STATE CERTIFICATION

Public Notice No.: AK-003865-2

Public Notice Issuance Date: February 2, 2006
Public Notice Expiration Date: March 6, 2006

1. Summary

EPA is proposing to reissue the wastewater discharge permit for the Red Dog Mine. The NPDES permit regulates the discharge of treated mine wastewater to the Middle Fork of Red Dog Creek, treated domestic wastewater to tundra wetlands, and stormwater discharges to locations adjacent to the site.

2. Tentative Determination

The Region 10 Office of EPA has tentatively determined to reissue the NPDES permit as described in the "Summary" section above.

3. Finding of No Significant Impact (FONSI) - AK-003865-2

Exhibit B
1 of 3

This Notice will also serve as Public Notice of EPA's Environmental Assessment (EA) and issuance of a Finding of No Significant Impact (FONSI) for the NPDES permit. In compliance with EPA headquarter policy guidance for reissued NPDES permits, the EPA Region 10 NEPA Compliance Program has evaluated the proposed NPDES permit and prepared an EA to evaluate changes from the previous NPDES permit and the potential environmental impacts. Based on the potential environmental analysis in the EA, EPA prepared a FONSI. Both documents are available for review.

4. State Certification

This Notice will also serve as Public Notice of the draft § 401 Certification (Appendix B of the Fact Sheet) by the State of Alaska, Department of Environmental Conservation that the subject permit will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the Clean Water Act. The NPDES permit will not be issued until the certification requirements of Section 401 have been met.

5. Public Comments

Persons wishing to comment on the tentative determinations contained in the draft permit or FONSI, may do so in writing, within 30 days of the date of this public notice.

EPA will consider all substantive comments before issuing a final permit. Those wishing to comment on the draft permit, FONSI, or request a public hearing may do so in writing by the public notice expiration date. Please submit comments to USEPA-Region 10, 1200 Sixth Avenue, OWW-130, Seattle, Washington 98101. Comments may be submitted by e-mail to godsey.cindi@epa.gov or faxed to (206) 553-0165. All comments should include name, address, phone number, a concise statement of basis for the comment and relevant facts upon which it is based. A request for public hearing must state the nature of the issues to be raised as well as the requester's name, address and telephone number.

Persons wishing to comment on State Certification should submit written comments within this 30 day period to the Alaska Department of Environmental Conservation (ADEC), Division of Water, 610 University Avenue, Fairbanks, Alaska 99709.

6. Document Availability

The draft NPDES permit, Fact Sheet, EA, and FONSI are on file and may be inspected at the above address any time between 8:30 a.m. and 4:00 p.m., Monday through Friday. Copies and other information may be requested by writing to the EPA at the above address to the attention of the NPDES Permits Unit, or by calling (206) 553-0523. This material is also available from the EPA Alaska Operations Office, Room 537, Federal Building, 222 West 7th Avenue, #19, Anchorage, Alaska 99513. Copies of the documents may be downloaded through the internet at the following website:

http://www.epa.gov/r10earth/waterpermits.htm

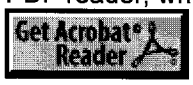
or may be requested by e-mail from:

washington.audrey@epa.gov or godsey.cindi@epa.gov

To ensure effective communication with everyone, additional services can be made available to persons with disabilities by contacting one of the above EPA representatives. For those with impaired hearing or speech, please contact EPA's telecommunication device for the deaf (TDD) at (206) 553-1598.

2 of 3

To view the fact sheet and draft permit, you will need an Adobe (tm) Acrobat (tm) PDF reader, which is available for free by clinking the following icon.



EXIT disclaimer

Red Dog Mine Draft Permit (42pp,257kb,pdf)
Permit Pt. VI: Detailed Location Map (1p,280kb,pdf)

Red Dog Mine Fact Sheet (61pp,710kb,pdf)
Fact Sheet Appx. A-1: Location Map (1p,718kb,pdf)
Fact Sheet Appx. A-2: Detailed Location Map (1p,280kb,pdf)

Red Dog Mine Environmental Assessment (38pp,236kb,pdf)
EA Figure 2: Detailed Map (1p,280kb,pdf)

Red Dog Mine Finding of No Significant Impact (5pp,78kb,pdf)

Unit: NPDES Permits
Point of contact: Cindi Godsey
Email: godsey.cindi@epa.gov
Phone Number: 907-271-6561
Last Updated: 01/31/2006 08:32:36 PM

FACT SHEE

NPDES **Permit** Number: AK-003865-2
Date: Feb. 2, 2006
Public Notice Expiration Date: March 6, 2006
Technical Contact: Cindi Godsey (907) 271-6561 or
1-800-781-0983 (within Alaska)
godsey.cindi@**epa**.gov

The U.S. Environmental Protection Agency (EPA) Plans To Re-issue A Wastewater Discharge Permit To:

Teck Cominco Alaska, Inc.
Red Dog Mine

near
Kotzebue, Alaska

and the State of Alaska proposes to Certify the Permit

EPA Proposes NPDES Permit Issuance.
EPA proposes to **re-issue** a *National Pollutant* ***Discharge*** *Elimination System* (NPDES)

Exhibit C