

**BEFORE THE ALASKA OFFICE OF ADMINISTRATIVE HEARINGS  
ON REFERRAL BY THE COMMISSIONER OF ENVIRONMENTAL  
CONSERVATION**

In the Matter of:	)	
NAMED KIVALINA RESIDENTS, ALASKA	)	
CENTER FOR THE ENVIRONMENT, ALASKA	)	
COMMUNITY ACTION ON TOXICS and THE	)	
NORTHERN ENVIRONMENTAL CENTER,	)	
Requestors,	)	
v.	)	
	)	
TECK COMINCO ALASKA,	)	
Applicant.	)	OAH No. 07-0284-DEC
	)	NPDES AK-003865-2

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**DECISION ON MOTION FOR SUMMARY ADJUDICATION**

**I. Introduction**

On February 12, 2007, the Division of Water (“Division”) issued a certificate of reasonable assurance for National Pollutant Discharge Elimination System (“NPDES”) Permit AK-003865-2. On March 12, 2007, three non-profit organizations (“Non-Profits”) and several residents of Kivalina as individuals and others as individuals and in their official capacity<sup>1</sup> filed a request for an adjudicatory hearing regarding the Division’s certification. Permit applicant Teck Cominco Alaska (“Teck Cominco”) and the Division opposed the request. On May 28, 2007, Deputy Commissioner Easton granted the request<sup>2</sup> and the matter was referred to the Office of Administrative Hearings.

The Non-Profits filed a motion for summary adjudication. Teck Cominco and the Division opposed the motion; the Division’s opposition included a cross-motion for summary adjudication. On November 12, 2008, residents Enoch Adams, Jr., Leroy

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<sup>1</sup> The individual requestors were Enoch Adams, Jr. (also in his capacity as Vice Mayor, Native Village of Kivalina), Leroy Adams, Andrew Koenig, Jerry Norton (also in his capacity as President, Native Village of Kivalina IRA Council), Austin Swan (also in his capacity as Mayor, Native Village of Kivalina), Colleen Swan (also in her capacity as IRA Administrator), and Joseph Swan, Sr. (Request at 2).

Adams, Andrew Koenig, Jerry Norton and Joseph Swan, Sr., withdrew from the appeal in their individual and official capacities; Austin Swan withdrew in his individual capacity and Andrew Baldwin (Enoch Adams, Jr.'s successor) withdrew in his official capacity.

Because the Division has identified a sufficient methodology for establishing a Natural Condition Based Site Specific Criterion, the Non-Profits' motion is denied. Because the Division has shown that its establishment of a Natural Condition Based Site Specific Criterion was in compliance with the requirements of federal law applicable to that action, the Division's cross-motion is granted. Finally, because the Non-Profits have not shown that existing uses cannot be protected through the NPDES permitting process, they are not entitled to summary judgment invalidating the Natural Condition Based Site Specific Criteria for Main Stem and Ikalukrok Creek.

## **II. Undisputed Facts**

### **A. Procedural History**

NPDES Permit AK-003865 was reissued in 1998 to regulate discharges at the Red Dog Mine in Northwestern Alaska.<sup>3</sup> The permit limited the amount of cadmium that may be discharged to a total concentration of 3.4 µg/l daily and 2.0 µg/L average monthly.<sup>4</sup>

On February 12, 2003, Teck Cominco filed an application to renew the permit.<sup>5</sup> At that time, the statewide Alaska water quality criterion for cadmium, set forth in 18 AAC 70.020(b)(1)(C), was established in the Environmental Protection Agency's ("EPA") *Quality Criteria for Water* (1976).<sup>6</sup> Under that document, the aquatic life criterion for cadmium was (soft water) 0.4 µg/L for salmonids and 4.0 µg/L for other aquatic life or (hard water) 4.0 µg/L for salmonids and 12.0 µg/L for other aquatic life.<sup>7</sup>

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<sup>2</sup> On March 23, 2007, Commissioner Larry Hartig had designated Deputy Commissioner Dan Easton to make a final decision in the matter, pursuant to 18 AAC 15.235.

<sup>3</sup> The original permit expired in 1990; Teck Cominco's application for renewal was subject to a federal environmental review process and reissuance did not occur until completion of that process. R. 2179.

<sup>4</sup> R. 656; R. 139.

<sup>5</sup> R. 43-437.

<sup>6</sup> See former 18 AAC 70.020(b)(1)(C) (April 29, 1999, Register 150).

<sup>7</sup> Environmental Protection Agency, *Quality Criteria for Water* (1976) at 50 ([www.epa.gov/waterscience/criteria/library/redbook.pdf](http://www.epa.gov/waterscience/criteria/library/redbook.pdf), accessed November 13, 2008) (hereinafter, "Red Book"). The EPA had, in 2001, issued an updated ambient water quality criterion for cadmium, but that updated criterion had not yet been adopted as the Alaska water quality standard. See *Alaska Water Quality*

Teck Cominco's application for renewal of the NPDES permit noted that it would seek to replace the statewide criterion by the establishment of a Natural Condition Based Site Specific Criterion for Main Stem Red Dog Creek ("Main Stem").<sup>8</sup>

While Teck Cominco's renewal application was pending, 18 AAC 70.020(b)(1)(C) was amended, effective June 22, 2003; as amended, the statewide water quality criterion for cadmium was established in the *Alaska Water Quality Criteria Manual*.<sup>9</sup> That manual provides a formula for determining the cadmium limit.<sup>10</sup> The Alaska criteria were expressed in units of dissolved cadmium, rather than in units of total cadmium, as in the EPA standards (which are also used in the NPDES permit).<sup>11</sup> The statewide water quality criteria for cadmium in effect in July, 2003, were dissolved concentrations of 5.09 µg/L (acute) and 0.48 µg/L (chronic) (as determined by the Division),<sup>12</sup> or 5.63 µg/L (acute) and 0.55 µg/L (chronic) (as determined by EPA).<sup>13</sup>

On February 29, 2004, Teck Cominco formally requested that the Division, "[a]s part of the renewal process," establish a Natural Condition Based Site Specific Criterion for cadmium in Main Stem based on pre-mining water quality data.<sup>14</sup>

EPA provided public notice of its preparation of a draft renewed permit on February 6, 2006.<sup>15</sup> The draft permit continued the existing total cadmium discharge limit of 3.4 µg/L daily and 2.0 µg/L average monthly.<sup>16</sup> The EPA prepared an environmental assessment<sup>17</sup> and issued a Finding of No Significant Impact<sup>18</sup>

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*Criteria Manual* at Table 3 (May 15, 2003); EPA *National Recommended Water Quality Criteria: 2002*, at 7 ([www.epa.gov/waterscience/criteria/nqctable/nrwqc-2002.pdf](http://www.epa.gov/waterscience/criteria/nqctable/nrwqc-2002.pdf), accessed October 10, 2008); EPA, *2001 Update of Ambient Water Quality Criteria for Cadmium*, EPA 822-R-01-001.

<sup>8</sup> R. 53.

<sup>9</sup> See 18 AAC 70.020(b)(23)(C), Note 5 (Register 166, July, 2003).

<sup>10</sup> *Alaska Water Quality Criteria Manual*, Table III (May 15, 2003).

<sup>11</sup> See generally, EPA *National Recommended Water Quality Criteria: 2002*, at 7-9 (November, 2002) ([www.epa.gov/waterscience/criteria/wqctable/nrwqc-2002.pdf](http://www.epa.gov/waterscience/criteria/wqctable/nrwqc-2002.pdf)) (accessed November 13, 2008).

<sup>12</sup> R. 2424 (EPA Response to Comments, March 2007, App. B [Draft State Certification]).

<sup>13</sup> R. 2441 (EPA Response to Comments, March 2007, App. C [Development of Effluent Limitations]).

<sup>14</sup> R. 40. In the meantime, EPA had issued a modified permit, effective August 22, 2003, retaining the same cadmium limits as in the 1998 version. R. 2192, 2466, 2469. The modified permit was the subject of an appeal to the Environmental Appeals Board, which remanded the limits for Total Dissolved Solids to EPA on June 15, 2004. R. 2192. The permit was administratively extended while on remand. See R. 2192, 2399.

<sup>15</sup> R. 2266.

<sup>16</sup> R. 2351.

<sup>17</sup> R. 2184-2221.

<sup>18</sup> R. 2178-2182.

recommending issuance of the draft permit.<sup>19</sup> In conjunction with the draft permit, the Division issued a draft certificate of reasonable assurance, which stated that the Natural Condition Based Site Specific Criterion for dissolved cadmium is 12.5 µg/L in Main Stem and 3.5 µg/L in Ikalukrok Creek<sup>20</sup> and that the equivalent level of total cadmium was 9.0 µg/L in Main Stem and 2.0 µg/L in Ikalukrok Creek, and which recommended adoption of the more stringent total cadmium level of 2.0 µg/L as the effluent limit for the NPDES permit in both Main Stem and Ikalukrok Creek, even though for Main Stem that level was, in the Division’s view, “overly conservative and is not required by applicable State of Alaska regulations.”<sup>21</sup>

The draft permit and certificate of reasonable assurance were accompanied by an EPA Fact Sheet, which noted that

[The Division] has proposed, in its [draft certificate of reasonable assurance], an SSC for cadmium which is based on the natural condition. The State may implement this type of SSC in a [certificate of reasonable assurance] according to 18 AAC 70.235(a)(1) without a State regulatory change. EPA approval of the SSC is necessary prior to its use in an NPDES permit.<sup>[22]</sup>

Following a public comment period, on February 12, 2007, the Division issued the final certificate of reasonable assurance.<sup>23</sup> The final certificate “finds the prevailing highest quality natural condition cadmium concentration in Ikalukrok Creek to be a total concentration of 2 µg/L.”<sup>24</sup> Appendix A to the certificate states that “all of the data collected in [Main Stem and Ikalukrok Creek] demonstrate that the water is of lower quality than the cadmium chronic aquatic life criterion of 0.48 µg/L.”<sup>25</sup> The Division determined the prevailing highest quality natural condition based on the 5<sup>th</sup> percentile of all data (*i.e.*, 95% of data is at a lower quality), or 2.0/3.5 µg/L (total/dissolved) in Ikalukrok Creek and 9/12.5 µg/L (total/dissolved) in Main Stem.<sup>26</sup> On February 7, 2007, EPA approved the establishment of the Natural Condition Based Site Specific Criterion

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<sup>19</sup> R. 2193-2194, 2206.

<sup>20</sup> R. 2425.

<sup>21</sup> R. 2426, 2429-2430.

<sup>22</sup> R. 2400.

<sup>23</sup> R. 2036-2037.

<sup>24</sup> R. 2038.

<sup>25</sup> R. 2053.

<sup>26</sup> R. 2054 (Certification, App. A at A-5).

for cadmium,<sup>27</sup> and on March 7, 2007, EPA issued the renewed permit, effective April 12, 2007. The renewed permit set a new total cadmium discharge limit of 3.53 µg/L daily and 1.54 µg/L average monthly.<sup>28</sup>

This appeal was filed on March 12, 2007. On September 27, 2007, EPA notified Teck Cominco of its decision to withdraw the March 7, 2007, permit, and to reinstate the prior permit effluent limitation of 3.4 µg/L daily and 2.0 µg/L average monthly. In response to EPA's action, on October 12, 2007, the Division vacated its February 12, 2007, certification of reasonable assurance and filed a motion to dismiss this appeal as moot. At a status conference on October 19, 2007, the parties stipulated that the appeal is not moot with respect to the establishment of the Natural Condition Based Site Specific Criterion for cadmium.

The Non-Profits filed a motion for summary adjudication; the Division and Teck Cominco opposed the motion and expressly (Division) or implicitly (Teck Cominco) requested summary adjudication in their own favor. Briefing on the motion was completed in March, 2008, and it is now ripe for decision.

B. Project Description

Red Dog Mine is in the Northwest Arctic Borough, approximately 90 miles north of Kotzebue.<sup>29</sup> The mine is located on the Middle Fork Red Dog Creek, approximately one mile upstream of the intersection of Middle Fork and North Fork Red Dog Creek (*see* Appendix A, attached). The Main Stem starts at the intersection of Middle Fork and North Fork and flows approximately 1.5 miles to Ikalukrok Creek. Ikalukrok Creek flows about twenty-five miles to its intersection with Wulik River, which flows for about another twenty-five miles until its outflow into the Chukchi Sea.<sup>30</sup>

Red Dog Mine is an open-pit mine,<sup>31</sup> it is the world's largest zinc mine.<sup>32</sup> Red Dog Mine consists of the mine pit, tailings impoundment, overburden storage areas, and mill and associated facilities, which occupy an area approximately a mile and a half wide

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<sup>27</sup> R. 2883-2884.

<sup>28</sup> R. 2228.

<sup>29</sup> R. 118.

<sup>30</sup> R. 2059.

<sup>31</sup> R. 122.

<sup>32</sup> R. 118.

and five miles long.<sup>33</sup> Water used in mine operations is collected in a tailings impoundment,<sup>34</sup> treated, run through a sand filter and, with runoff from surrounding land surfaces, discharged as effluent into Middle Fork Red Dog Creek,<sup>35</sup> about one mile upstream from Main Stem. The effluent contains cadmium that is naturally present in the ore body,<sup>36</sup> in maximum daily concentrations of 2.7 µg/L, with a maximum 30 day concentration of 1.38 µg/L and a long term average concentration of 0.79 µg/L.<sup>37</sup>

C. Waterbody Conditions

1. *Ikalukrok Creek*

(a) Water Quality

In its natural condition, Ikalukrok Creek at Station 8 (which is located about 200 yards below its confluence with Main Stem and before complete mixing is achieved) was not known ever to contain cadmium in concentrations below 2.0 (total and dissolved) µg/L; 95% of the time concentrations exceeded 2.0/3.5 (total/dissolved) µg/L.<sup>38</sup> The median concentration was 7.0/9.0 (total/dissolved) µg/L.<sup>39</sup>

(b) Aquatic Life

Growth and propagation of aquatic life is a designated use in Ikalukrok Creek.<sup>40</sup> In its natural condition, with dissolved and total cadmium concentrations in excess of 2.0 µg/L, growth and propagation of aquatic life was an existing use in Ikalukrok in so far as local populations had adjusted to the naturally-occurring levels of cadmium in excess of the statewide criterion: the creek in its natural condition supported limited numbers of migrant, spawning, and rearing Arctic Grayling, as well as spawning chum salmon and rearing Dolly Varden and rearing slimy sculpin.<sup>41</sup> In its current condition, growth and

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<sup>33</sup> R. 61.

<sup>34</sup> *See generally*, R. 90, R. 125, R. 128.

<sup>35</sup> R. 87, R. 127-128.

<sup>36</sup> R. 64, R. 168-169. Other toxic substances not naturally present in the ore body are used in the mine operations. *See generally*, R. 90-93; R. 164-165.

<sup>37</sup> R. 68. The mine's primary outfall into Middle Fork, 001, contains a wide variety of regulated substances. R. 66-74. The mine's other outfall, 002, does not produce cadmium. *See* R. 76-84.

<sup>38</sup> R. 2061-R. 2063.

<sup>39</sup> *Id.*

<sup>40</sup> 18 AAC 70.230(e)(18).

<sup>41</sup> R. 1984-1985 (Scannell, 2005); R. 2057, R. 2164.

propagation of aquatic life remains an existing use:<sup>42</sup> the aquatic invertebrate community is healthy, productive with some variability in abundance.<sup>43</sup>

## 2. *Main Stem*

### (a) Water Quality

In its natural condition, Main Stem cadmium concentrations at all times were equal to or greater than 2.0 (total and dissolved)  $\mu\text{g/L}$ , and 95% of the time exceeded 9.0/12.5 (total/dissolved)  $\mu\text{g/L}$ ; the median concentration was 28.0-29.0/26.0 (total/dissolved)  $\mu\text{g/L}$  and the maximum was at least 41 (total and dissolved)  $\mu\text{g/L}$ .<sup>44</sup>

In recent years, aided by the NPDES-permitted discharge of cadmium into Middle Fork at levels substantially lower than the naturally-occurring levels, concentrations of cadmium in Main Stem have been substantially reduced;<sup>45</sup> median concentrations at Station 10 (which is located on Main Stem about one mile downstream from the confluence of Middle Fork and North Fork) are 6.1  $\mu\text{g/L}$  (total),<sup>46</sup> as compared with the pre-mining median of 28.0-29.0 (total)  $\mu\text{g/L}$ , and the effluent discharge median of 0.9 (total)  $\mu\text{g/L}$ .<sup>47</sup>

### (b) Aquatic Life

Growth and propagation of aquatic life is a legally designated use in Main Stem.<sup>48</sup> However, in the waterbody's natural condition, growth and propagation of aquatic life was not an existing use of Main Stem in regards to a fish population: at that time, Main Stem did not support a spawning, rearing, or resident fish population because of its high concentration of various toxic substances, including cadmium.<sup>49</sup> The primary actual use by fish of Main Stem in its natural condition was as a migratory corridor to

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<sup>42</sup> R. 3069, 3070.

<sup>43</sup> R. 3071, 3073.

<sup>44</sup> R. 1985 (Scannell, 2005); R. 2061-2063. For total cadmium concentrations, the Scannell report shows a median of 28  $\mu\text{g/L}$  and a maximum of 98  $\mu\text{g/L}$ , based on 43 samples. The Division reports a median of 29  $\mu\text{g/L}$  and a maximum of 44  $\mu\text{g/L}$ , based on 23 samples.

<sup>45</sup> See, e.g., R. 1852; R. 1991 (Scannell, 2005); R. 2200.

<sup>46</sup> R. 2895 (7/11/2005 Draft Report); see also, R. 1995 (Scannell, 2005); R. 2200.

<sup>47</sup> R. 2896 (7/11/2005 Draft Report). The long term average discharge is 0.79 (total)  $\mu\text{g/L}$ . R. 689.

<sup>48</sup> 18 AAC 70.230(e)(18).

<sup>49</sup> R. 1894-1895 (Scannell, 2005).

North Fork Red Dog Creek.<sup>50</sup> Prior to development of Red Dog Mine, periodic fish kills occurred.<sup>51</sup> Few or no invertebrate or periphytons were present.<sup>52</sup>

In its current condition, growth and propagation of aquatic life is an existing use of Main Stem: Main Stem supports Arctic grayling spawning and rearing, and Dolly Varden rearing;<sup>53</sup> invertebrate and periphyton communities are abundant and include varied species.<sup>54</sup>

### III. Discussion

#### A. Overview of Applicable Law and Legal Issues

The federal Clean Water Act establishes a comprehensive national water quality program.<sup>55</sup> The Department of Environmental Conservation, through the Division of Water, has authority to implement this program in Alaska, in accordance with applicable federal and state law.<sup>56</sup> Central to the program is Alaska’s anti-degradation policy,<sup>57</sup> which, in general,<sup>58</sup> provides for the maintenance and protection of water quality necessary for specified uses of the water,<sup>59</sup> as determined according to applicable water quality criteria.<sup>60</sup> A proposed federal NPDES permit under the Clean Water Act<sup>61</sup> is subject to review by the Division for compliance with the state’s antidegradation policy,<sup>62</sup> and the Division’s decision may be appealed.<sup>63</sup>

In this case, Teck Cominco applied for a federal NPDES permit. The Division issued a certification of reasonable assurance that the activities authorized by the proposed permit would be in compliance with the state’s antidegradation policy. In

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<sup>50</sup> R. 1894 (Scannell, 2005).

<sup>51</sup> *Id.*

<sup>52</sup> R. 2001 (Scannell, 2005).

<sup>53</sup> *Id.*

<sup>54</sup> *Id.*

<sup>55</sup> Federal Water Pollution Control Act, 33 U.S.C. §§1251 *et seq.* (Clean Water Act).

<sup>56</sup> *See* AS 46.03.020(12); AS 46.03.080.

<sup>57</sup> 18 AAC 70.015.

<sup>58</sup> 18 AAC 18 70.015(a)(1), (2). High quality waters that constitute an outstanding natural resource are entitled to special treatment, as are thermal discharges. *See* 18 AAC 70.015(A)(3), (4).

<sup>59</sup> 18 AAC 70.020(a).

<sup>60</sup> 18 AAC 70.020(b). “[C]riterion’ means a set concentration or limit of a water quality parameter that, when not exceeded, will protect an organism, a population of organisms, a community of organisms, or a prescribed water use with a reasonable degree of safety; a criterion might be a narrative statement instead of a numerical concentration or limit.” 18 AAC 70.990(17).

<sup>61</sup> 33 U.S.C. §1342 (Clean Water Act §402).

<sup>62</sup> AS 46.03.080; 18 AAC 70.015(c); 18 AAC 15.010(b).

<sup>63</sup> 18 AAC 15.010(e)(1).



connection with that certification, at the request of Teck Cominco, the Division established Natural Condition Based Site Specific Criteria for Main Stem and Ikalukrok Creek. The Non-Profits' appeal challenged the certification and, in that context, the Natural Condition Based Site Specific Criteria. Because the certification has been revoked, issues unique to the certification are moot. The parties have stipulated that the Division's establishment of the Natural Condition Based Site Specific Criteria remains at issue in this proceeding.<sup>64</sup>

The Non-Profits' motion for summary adjudication asserts that the Division's establishment of Natural Condition Based Site Specific Criteria was in violation federal law, because the Division has not yet identified methods for implementing its anti-degradation policy, as required by 40 C.F.R. §131.12(a). What is more, the Non-Profits contend that the establishment of the criteria will not protect existing uses in the waters they cover. The Division's cross-motion asserts that the establishment of a Natural Condition Based Site Specific Criterion need not be reviewed by the Division for compliance with the Alaska anti-degradation policy, and therefore the Division's alleged failure to identify the methods for implementing that policy is immaterial. If the establishment of a Natural Condition Based Site Specific Criterion must be reviewed for compliance with the Alaska anti-degradation policy, the Division argues that it has sufficiently identified the methods for implementing that policy, and that there are material facts at issue with respect to whether establishing the Natural Condition Based

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<sup>64</sup> 18 AAC 15.010(e)(1) authorizes an adjudicatory hearing after the Division's decision to certify the NPDES permit. 18 AAC 15.010(e)(2) authorizes an adjudicatory hearing from certain other decisions "authorized to be reviewed in an adjudicatory hearing by a provision of this title." Neither provision, it appears, would have authorized an adjudicatory hearing from a decision to establish a Natural Condition Based Site Specific Criterion under former 18 AAC 70.235(b) (which did not itself provide for an adjudicatory hearing).

Under the Division's current regulations, an adjudicatory hearing regarding establishment of a Natural Condition Based Site Specific Criterion is authorized pursuant to 18 AAC 70.010(c), which incorporates by reference the Alaska Department of Environmental Conservation, Division of Water, *Guidance for the Implementation of Natural Condition-Based Water Quality Standards*, dated November 16, 2006 [hereinafter, "*DEC Guidance for NCBSSC*"], which states that the Division's "decisions that the natural condition comprises the water quality standard for a water are subject to...the provisions for adjudicatory hearing under 18 AAC 15.195-18 AAC 15.340."

Allowing the Non-Profits to maintain this appeal regarding the establishment of a Natural Condition Based Site Specific Criterion, notwithstanding the vacation of the certification originally appealed, is consistent with the regulations in effect at the time the appeal was filed, even if they would not have had the right to appeal that issue under a prior version of the regulations.

Site Specific Criteria for Main Stem and Ikalukrok Creek will cause any harm to existing uses in those waters.

Because the Division is correct that legal protection of aquatic life in Main Stem or Ikalukrok Creek depends on permitting decisions outside the scope of the establishment of a Natural Condition Based Site Specific Criterion, the Division is entitled to summary adjudication. The Non-Profits are not entitled to summary adjudication because the Division had a sufficient anti-degradation implementation methodology to establish a Natural Condition Based Site Specific Criterion, and the Non-Profits have not shown by undisputed evidence that existing levels of aquatic life in Main Stem and Ikalukrok Creek cannot be protected by an NPDES permit issued after establishment of Natural Condition Based Site Specific Criteria for those waters.

B. Anti-Degradation Review by the Division Was Not Required Prior to Establishing a Natural Condition Based Site Specific Criterion

The Division argues that “anti-degradation requirements under state and federal law do not even apply to the [Division’s] decision recognizing the natural condition of [Main Stem] and Ikalukrok Creeks,” because those requirements focus “on degradation caused by humans, rather than on the natural condition of a waterbody.”<sup>65</sup> The Division points to 18 AAC 70.010(b), which states that “[t]he water quality standards...specify the degree of degradation that may not be exceeded in a waterbody as a result of human actions.” There is no requirement to “clean up the natural conditions that may occur in certain waterbodies,” the Division asserts.<sup>66</sup> More particularly, the Division adds, “the regulation under which the Division established the cadmium Natural Condition Based Site Specific Criteria makes no reference to anti-degradation”:<sup>67</sup> under the regulation, if the Division makes a finding that a waterbody’s natural condition is of lower quality than the otherwise applicable water quality standard, then “the natural condition constitutes the applicable water quality standard.”<sup>68</sup> Consistent with that interpretation of the applicable regulations, EPA did not conduct an anti-degradation review in the course of

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<sup>65</sup> Div. Resp. at 2-3.

<sup>66</sup> Div. Resp. at 3.

<sup>67</sup> *Id.* See former 18 AAC 70.235(b).

<sup>68</sup> Former 18 AAC 70.235(b).

approving the Natural Condition Based Site Specific Criteria, the Division says.<sup>69</sup> Teck Cominco argues that to limit adoption of a such a criterion to the outcome of an anti-degradation review would be contrary to the terms of 18 AAC 70.235(b), under which a finding of that the natural condition of the water is of lower quality than the statewide criterion means that “the natural condition constitutes the applicable water quality criterion.”<sup>70</sup>

The Non-Profits respond that the Division ignores the fact that the natural condition of Main Stem no longer exists: the anti-degradation statutes and regulations are intended to ensure that the existing uses of waters are protected, and as the Non-Profits point out, the natural condition of the water no longer exists.<sup>71</sup> They argue that Teck Cominco asked for a Natural Condition Based Site Specific Criterion “for the purpose of justifying the [Red Dog] Mine’s cadmium effluent limitation in the permit.”<sup>72</sup> Anti-degradation review must be conducted because “the weakening of the current water quality standards...is indisputably ‘as a result of human actions’”, the Non-Profits argue.<sup>73</sup> Allowing a change in the applicable water quality criterion will enable Teck Cominco to discharge a higher level of cadmium than would otherwise be allowed, they assert.<sup>74</sup> Revocation of the renewed NPDES permit and the Division’s certificate of reasonable assurance as to that permit “does not change the reason for the [Natural Condition Based Site Specific Criteria] [*i.e.*, to enable Teck Cominco to discharge higher levels of cadmium than the statewide standard] or the fact that [the criteria] will be applied when the NPDES permit is reissued.”<sup>75</sup>

On the surface, the Division’s assertion that anti-degradation review is not required appears to be inconsistent with the fact that the Division actually conducted an

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<sup>69</sup> Division’s Response at 4, *citing* R. 2949-2951; 2883-2884.

<sup>70</sup> Teck Cominco Response at 10-11. *See also* 18 AAC 70.010(c) (“Where the department determines that the natural condition of a water of the state is of lower quality than the water quality criteria set out in 18 AAC 70.020(b), the natural condition supersedes the criteria and becomes the standard for that water.” 18 AAC 70.010(c), am. 12/28/2006, Register 180.

<sup>71</sup> Non-Profits’ Reply at 5, *citing* 41 C.F.R. §131.12; 18 AAC 70.015.

<sup>72</sup> Non-Profits’ Reply at 4, *citing* R. 2050.

<sup>73</sup> Non-Profits’ Reply at 5.

<sup>74</sup> Non-Profits’ Reply at 5. *See* R. 2887 (“The NCBSSC also prevent[s] the necessity of having to lower the cadmium limit [in a renewed NPDES permit] based on the state’s newly adopted state standards.”) (Draft Report, 7/11/2005).

<sup>75</sup> Non-Profits’ Reply at 4.

anti-degradation review when it established the Natural Condition Based Site Specific Criteria.<sup>76</sup> But that inconsistency is explained by the procedural posture of the case. Under the Division's procedures, water quality criteria (including site-specific criteria) are generally established by regulation.<sup>77</sup> However, under former 18 AAC 70.235(b), the regulation applied by the Division in this particular case, a Natural Condition Based Site Specific Criterion did not need to be established by regulation, but rather could be established "in a permit, certification, or approval."<sup>78</sup> The Division established the criteria, consistent with former 18 AAC 70.235(b), in connection with Teck Cominco's permit application and the associated certification of reasonable assurance.<sup>79</sup> In fact, it is only if the Division's establishment of the Natural Condition Based Site Specific Criteria

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<sup>76</sup> R. 2055-2057.

<sup>77</sup> 18 AAC 70.235(a).

<sup>78</sup> At the time of Teck Cominco filed its application, 18 AAC 70.235(a) and (b) stated:

(a) The department may, in its discretion, establish a site-specific water quality criterion that modifies a water quality criterion set out in 18 AAC 70.020(b)

(1) in a permit, certification, or approval as described in (b) of this section;

or

(2) in regulation....

(b) If the department finds that the natural condition of a waterbody is demonstrated to be of lower quality than a water quality criterion set out in 18 AAC 70.020(b), the natural condition constitutes the applicable water quality criterion. Upon application or its own initiative, the department will determine whether a natural condition should be approved as a site-specific water quality criterion. Before making the determination, department will issue public notice of a proposed approval under this subsection and provide opportunity for public comment. If a natural condition varies with time, the natural condition will be determined to be the prevailing highest quality natural condition measured during an annual, seasonal, or shorter time period before discharge or operation, or as the actual natural condition measured concurrent with discharge or operation. The department will, if necessary to adequately protect water quality,

(1) determine a natural condition for one or more seasonal or shorter periods to reflect variable ambient conditions; and

(2) require additional or continuing monitoring of natural conditions as a condition of a permit, certification, or approval.

18 AAC 70.235, eff. 11/1/97, Register 143,; am. 4/29/99, Register 150.

Applicable law governing the establishment of natural condition based site specific criteria has been substantially revised. 18 AAC 70.235(a)(1) and (b) have been repealed. Current 18 AAC 70.010(c) states:

(c) Where the department determines that the natural condition of a water of the state is of lower quality than the water quality criteria set out in 18 AAC 70.020(b), the natural condition supersedes the criteria and becomes the standard for that water. In implementing water quality standards based on the natural conditions in a permit, certification, or other written decision, the department will follow the procedures set out in the *Guidance for the Implementation of Natural Condition-Based Water Quality Standards*, dated November 16, 2006 adopted by reference.

18 AAC 70.010, eff. 11/1/97, Register 143, am. 12/28/06, Register 180.

<sup>79</sup> R. 2038 ("This action is taken under 18 AAC 70.235(b)."); *see supra*, notes 67, 68, 78.

has legal significance independent of the certification that this appeal should not have been dismissed in its entirety as moot.<sup>80</sup>

It is undisputed that anti-degradation review by the Division was required for the issuance of a certification of reasonable assurance; therefore the Division had no need, prior to the revocation of the NPDES permit, to consider whether it was also required for the establishment of a Natural Condition Based Site Specific Criterion. For this reason, the fact that the Division conducted an anti-degradation review when it established such criteria for Main Stem and Ikalukrok Creek<sup>81</sup> is not inconsistent with the Division's assertion that anti-degradation review was not required. Moreover, contrary to the Non-Profits' argument, this is not a newly-adopted position by the Division: the anti-degradation review for the certification was specifically limited to cyanide, zinc and ammonia, because, the Division stated, "cadmium criteria...based on the natural condition of the waterbody...do not result in degradation of water quality."<sup>82</sup> The Division's guidance document, in effect at the time the certification was issued, makes the same point:

Since the natural condition provision in the state water quality standards regulation [18 AAC 70.070] and this implementation guidance do not allow degradation of natural water quality, decisions made in accordance with the regulation and guidance satisfy the antidegradation policy. DEC staff need not make a separate antidegradation finding.<sup>[83]</sup>

Nor does it appear that the EPA disagrees with that view. EPA's 1997 policy guidance for the establishment of Natural Condition Based Site Specific Criteria does not suggest that a state that chooses to establish such a criterion in a particular water must conduct an anti-degradation review to determine whether the new criterion would be consistent with the state's anti-degradation policy.<sup>84</sup> Furthermore, the Division's position is consistent with the plain language of 18 AAC 70.010(b), which links the state's anti-degradation policy to degradation that occurs "as a result of human action."

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<sup>80</sup> None of the parties to this appeal has argued that the Natural Condition Based Site Specific Criteria for Main Stem and Ikalukrok Creek established under former 18 AAC 70.235(b) are no longer in effect, or that the substantive validity of those criteria is governed by current 18 AAC 70.010(c) (the regulation in effect at the time the criteria were established).

<sup>81</sup> R. 2055-2057 (Certificate of Reasonable Assurance, Appendix A).

<sup>82</sup> R. 2065 (Certificate of Reasonable Assurance, Appendix B).

<sup>83</sup> *DEC Guidance for NCBSSC* at 8.

<sup>84</sup> R. 2949-2951.

The establishment of a Natural Condition Based Site Specific Criterion is in a sense a human action, but not in the sense that the phrase is used in the regulation. Subsection (b) is directed at physical human actions that have adverse physical or chemical impacts on a water body. Establishment of a Natural Condition Based Site Specific Criterion is not in itself a “human action” within the meaning of 18 AAC 70.010(b).

In contrast to the Division’s focus on the procedural posture of the case, the Non-Profits focus on the substantive effect of a Natural Condition Based Site Specific Criterion under the circumstances of this particular case. The Non-Profits argue that in this case anti-degradation review must be required, because the reason Teck Cominco asked for the criterion was “for the purpose of justifying the...effluent limitations in the permit.”<sup>85</sup> The Non-Profits point out that the statewide water quality standard adopted in 2003 is more restrictive than the effluent limitation in the permit.<sup>86</sup> The Non-Profits’ central thesis is that anti-degradation review is necessary now because the Natural Condition Based Site Specific Criterion established in 2007 would enable Teck Cominco, when the permit is renewed, to obtain a higher limitation on cadmium discharges than if the criterion had not been established.<sup>87</sup>

Both the establishment of a water quality criterion and the certification of an NPDES permit must be conducted in accordance with the requirements of federal and state law. In the context of establishing a water quality criterion, federal law requires that states must submit their criteria for review by the EPA to confirm that they protect designated uses.<sup>88</sup> In the context of certifying a permit, Alaska law mandates an anti-degradation review by the Division that consists of confirming that the permit will protect an existing use.<sup>89</sup>

Regarding the protection of designated uses, which is required for the establishment of water quality criteria, the Non-Profits argue that the Natural Condition Based Site Specific Criteria will not protect aquatic life, which is a designated use in Main Stem. But a Natural Condition Based Site Specific Criterion is not intended to

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<sup>85</sup> Non-Profits’ Reply at 4.

<sup>86</sup> *Id.*

<sup>87</sup> See note 74, *supra*.

<sup>88</sup> 40 C.F.R. §131.5(a)(2) (EPA “review involves a determination of...[w]hether the State has adopted criteria that protect the designated water uses”).

“protect” a designated use in the same way that other water quality criteria are. Rather, a Natural Condition Based Site Specific Criterion reflects the actual condition of a waterbody in its natural state: by definition, a Natural Condition Based Site Specific Criterion “protects” the uses that naturally exist. As EPA acknowledged in adopting its policy governing the establishment of a Natural Condition Based Site Specific Criterion in water designated for aquatic life use:

For aquatic life uses, where the natural background concentration for a specific parameter is documented, by definition that concentration is sufficient to support the level of aquatic life expected to occur naturally at the site absent any interference by humans.<sup>[90]</sup>

For this reason, it would be inconsistent with the regulatory purpose to require that a Natural Condition Based Site Specific Criterion must “protect” aquatic life in a waterbody in the same way that other water quality criteria must. In particular, it would make no sense to say that the Natural Condition Based Site Specific Criterion for Main Stem must “protect” a resident, spawning or rearing fish population, because Main Stem in its natural condition did not support a resident, spawning or rearing fish population, even though aquatic life was a designated use. It is for this reason, presumably, that the EPA approved the establishment of these types of criteria for Main Stem and Ikalukrok Creek even though, as all of the evidence makes clear, the natural condition for Main Stem does not support a resident, spawning or rearing fish population even though aquatic life is a designated use for Main Stem.

Generally, establishing a water quality criterion involves careful study of the impacts of a particular contaminant level on particular uses.<sup>91</sup> But since a Natural Condition Based Site Specific Criterion by definition protects the naturally-occurring levels of aquatic life, there is no need to investigate whether such a criterion will “protect” aquatic life before establishing the criterion. Rather, as the EPA has suggested, if a Natural Condition Based Site Specific Criterion does not fully “protect” aquatic life, the designated use may be refined to reflect the naturally-occurring levels of aquatic

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<sup>89</sup> 18 AAC 70.015(a)(1). See definition of “existing uses” at 18 AAC 70.990(24).

<sup>90</sup> R. 2950.

<sup>91</sup> See, *EPA National Recommended Water Quality Criteria: 2002* ([www.epa.gov/waterscience/criteria/wqctable/nrwqc-2202.pdf](http://www.epa.gov/waterscience/criteria/wqctable/nrwqc-2202.pdf), accessed October 8, 2008), at 2

life.<sup>92</sup> More fundamentally, where the naturally-occurring levels of a pollutant are no longer present, whether an existing use of the water will be protected notwithstanding the establishment of a Natural Condition Based Site Specific Criterion is a permitting issue. As part of its anti-degradation review in the permitting process, a permitting agency may provide for a more stringent effluent limitation at a location with a Natural Condition Based Site Specific Criterion than it would otherwise adopt, either because it must<sup>93</sup> or because in its discretion it elects to do so (as the Division did in this case). Thus, whether a Natural Condition Based Site Specific Criterion will “protect” aquatic life in Main Stem or in Ikalukrok Creek depends on actions taken outside of the context of establishing the water quality criterion. The Non-Profits have not shown that the establishment of a Natural Condition Based Site Specific Criterion means that as a matter of law aquatic life in Main Stem or in Ikalukrok Creek will not be protected.

C. A Guidance Document Implements the Anti-degradation Policy

Assuming that the establishment of a water quality criterion is an action that is subject to review for compliance with the Alaska anti-degradation policy, the Non-Profits argue that the establishment of a Natural Condition Based Site Specific Criterion was not in compliance with federal law, because Alaska has not identified methods for implementing its anti-degradation policy<sup>94</sup> in conformity with 40 C.F.R. §131.12(a), which states:

The State shall develop and adopt a statewide antidegradation policy and identify the methods for implementing such policy....

Teck Cominco and the Division responded with five different arguments. Teck Cominco argues that (1) case-specific implementation (*e.g.*, certification of reasonable assurance) suffices to meet the federal law requirement, and no generic written

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(“States...must adopt water quality criteria that protect designated uses. Protective criteria are based on a sound scientific rationale and contain sufficient parameters or constituents to protect the designated uses.”).

<sup>92</sup> As the EPA noted, in such a situation “[t]he State...should consider refining the designated use for the waterbody to more precisely define the existing aquatic life use.” R. 2950. Of course, where the naturally-occurring aquatic life use and the existing aquatic life use are not identical, as in Main Stem, this approach may be problematic. Indeed, it appears that the real substance of the Non-Profits’ objection is that the Division has violated the Clean Water Act because it did not change the designated use. *See generally*, Non-Profits’ Reply at 12, note 6.

<sup>93</sup> Effluent discharges are subject to federal anti-backsliding law. *See* 33 U.S.C §1341(o). As the Division has observed, “[d]ue to federal Anti-Backsliding regulations the effluent limits for cadmium in future NPDES permits may be the same regardless of which NCBSSC is used...” R. 2058.



methodology is required.<sup>95</sup> The Division argues that: (2) the methods for implementing the anti-degradation policy need not be set out in a regulation, and instead “can be adequately addressed in State policy or guidance”;<sup>96</sup> (3) federal precedents have approved implementation methodologies with the level of detail found in Alaska’s anti-degradation policy;<sup>97</sup> (4) if there is any deficiency in the Alaska methodology, the Non-Profits’ remedy is to seek a federal court order directing EPA to promulgate a methodology for Alaska;<sup>98</sup> and (5) in the absence of a state policy or guidance, compliance with EPA’s anti-degradation guidance is sufficient.<sup>99</sup>

*1. Implementation Methods Must Be Identified*

Teck Cominco argues that the federal requirement that states “identify the methods for implementing [the anti-degradation] policy” is satisfied, at least for purposes of the NPDES program, by the requirement for state certification of reasonable assurance on a case-by-case basis.<sup>100</sup>

Teck Cominco’s suggestion that case-by-case certification of NPDES permits constitutes an acceptable methodology for implementing an anti-degradation policy is not persuasive. As the Non-Profits point out,<sup>101</sup> even the Division apparently concedes that the certification of reasonable assurance is not *per se* an acceptable methodology for implementing an anti-degradation policy for purposes of 40 C.F.R. §131.12(a). Furthermore, the EPA expressly observed in 1997, long after the certificate of reasonable assurance process had been enacted, that “Alaska has not yet adopted implementation methods for its revised antidegradation policy.”<sup>102</sup>

The purpose of the requirement that states identify their implementation methods is to “specify how the State will determine on a case-by-case basis whether, and to what

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<sup>94</sup> Non-Profits’ Motion at 3.

<sup>95</sup> Teck Cominco Response at 19.

<sup>96</sup> Division’s Response at 6.

<sup>97</sup> Division’s Response at 8, *citing* Kentucky Waterways Alliance v. Johnson, 426 F.Supp. 2d 612 (W.D. Ky. 2006), *aff’d. in part, rev’d. in part, remanded*, 540 F.3d 466 (6<sup>th</sup> Cir. 2008).

<sup>98</sup> Division’s Response at 8, *citing* Northwest Environmental Associates v. Environmental Protection Agency, 268 F.Supp.2d 1255, 1265 (D. Ore. 2003); CORALations v. United States Environmental Protection Agency, 477 F. Supp. 2d 413, 419 (D. P.R. 2007); Ohio Valley Environmental Coalition v. Horinko, 279 F.Supp. 2d 732, 777 (S.D. W. VA. 2003).

<sup>99</sup> Division’s Response at 6-7.

<sup>100</sup> Teck Cominco Response at 21.

<sup>101</sup> Non-Profits’ Reply at 6.

extent, water quality may be lowered.”<sup>103</sup> Teck Cominco argues that this language, which it quotes from the EPA’s 1994 *Water Quality Standards Handbook*, means that case-by-case decision making is an acceptable implementation methodology,<sup>104</sup> and that “it makes no sense to demand development of an implementation plan before applying antidegradation policy.”<sup>105</sup> To the contrary: the quoted language indicates that the implementation methods are intended to consist of general procedures and guidelines that describe with some specificity how a state’s anti-degradation policy will be applied in particular cases.<sup>106</sup> To rely on case-by-case decision making, in the absence of any procedures or guidelines of general application, would facilitate the circumvention of a state’s anti-degradation policy in particular cases, which is precisely why the EPA insists that states articulate methods of general applicability by which they will implement their anti-degradation policy, and why the EPA will not approve implementation methods “if in the judgment of the Administrator, the State’s process (or certain provisions thereof) can be implemented in such a way as to circumvent the intent and purpose of the antidegradation policy.”<sup>107</sup> EPA has expressly articulated these principles as they apply to the adoption of implementation methods in Alaska.<sup>108</sup> As the Division implicitly concedes, case-by-case decisions are generally a necessary, but not sufficient, method of

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<sup>102</sup> Division’s Exhibit A at 4.

<sup>103</sup> Environmental Protection Agency, *Water Quality Standards Handbook* (2d Ed. 1994) at 4-2 ([www.epa.gov/waterscience/standards/handbook](http://www.epa.gov/waterscience/standards/handbook), accessed November 13, 2008) (hereinafter, “*Water Quality Standards Handbook*”).

<sup>104</sup> Teck Cominco Response at 3, note 12.

<sup>105</sup> Teck Cominco Response at 4.

<sup>106</sup> Teck Cominco asserts that in *Ohio Valley Environmental Coalition v. Horinko*, 279 F.Supp. 2d 732, 760-762 (S.D. W. VA. 2003), the court “opined that it is not appropriate to implement an antidegradation policy any other way.” Response at 20. The cited passage does not stand for that proposition. The case concerned a challenge to Ohio’s extensive implementation procedures, which established general procedures for implementing the state’s anti-degradation policies and did not rely on case-by-case decision making as the sole methodology. The court concluded “that the EPA’s approval of [a portion of Ohio’s implementation procedures] which does not require Tier 2 antidegradation review for discharges under a general...permit, except (arguably) at the time the general permit is issued, was arbitrary and capricious.” *Id.* at 762. The cited passage stands for the proposition that in the context of implementation rules of general applicability, for a general permit site-specific anti-degradation review is required; it neither holds nor suggests that in the absence of general implementation procedures, site specific review is sufficient to satisfy the requirement of 40 C.F.R. §132.12(a) for adoption of an implementation methodology.

<sup>107</sup> *Water Quality Standards Handbook* at 4-2.

<sup>108</sup> Division’s Exhibit A.

implementing an anti-degradation policy. Policies or guidelines of general application must be part of the methodology adopted.

## 2. *Implementation Methods Have Been Identified*

The Non-Profits argue that Alaska lacks an “implementation plan” that satisfies the requirement of 40 C.F.R. §131.12(a) that states must identify the methods for implementing their anti-degradation policy.<sup>109</sup> The Division asserts that there is no requirement for an “implementation plan”, but rather only for an implementation methodology, which need not be expressed in a regulation but rather may be set out in policy or guidance.<sup>110</sup> Having said that, however, the Division has not identified where its implementation methodology has been set out in a written regulation, policy or guidance.

Certainly, there is no indication, and the Division has not argued, that the State has adopted an overall “implementation plan” that governs all aspects of implementation of its anti-degradation policy. But that does not mean the Division has failed to identify methods and procedures for establishing a Natural Condition Based Site Specific Criterion. In this case, the Division established such a criterion under the provisions of former 18 AAC 70.235(b), which, in addition to requiring public notice and comment, provides that if the Division finds that the natural condition exceeds the otherwise applicable criterion, then the natural condition is the water quality criterion, specifies procedures for determining the natural condition when water quality varies over time (as in Main Stem and Ikalukrok Creek) and includes provisions for monitoring water quality if necessary.<sup>111</sup>

While it is true that former 18 AAC 70.235(b) provided only limited guidance for the establishment of a Natural Condition Based Site Specific Criterion, and it does not expressly address establishment of a such a criterion after the natural condition of a water has changed, that regulation is more than sufficient to withstand the Non-Profits’ argument that there is no implementation methodology at all. In effect, the Non-Profits’

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<sup>109</sup> Non-Profits’ Motion at 1-5.

<sup>110</sup> Division’s Response at 5-7.

<sup>111</sup> As previously noted, former 18 AAC 70.235(b) has been repealed. The Division currently establishes Natural Condition Based Site Specific Criteria under 18 AAC 70.010(c), which incorporates by reference the *DEC Guidance for NCBSSC*.

argument comes down to this: whether a Natural Condition Based Site Specific Criterion may be established for a stream whose natural water quality has been improved as a result of permitted discharges is a determination that may only be made in a particular case in accordance with a guidance document that expressly allows such an action to be taken. That argument, however, is not the same as an argument that Alaska lacks any implementation methodology at all. Whether the implementation methodology set out in 18 AAC 70.235(b) was sufficient, notwithstanding the lack of any express reference to establishing a Natural Condition Based Site Specific Criterion when the natural condition no longer exists, is a different question.

3. *The Non-Profits' Remedy for Lack of Methodology Lies Elsewhere*

As the Division points out,<sup>112</sup> to the extent that the Non-Profits rely on the Division's alleged failure to identify general and comprehensive methods for implementing the state's anti-degradation policy, their argument at its core is a direct challenge to the legitimacy of the Division's entire regulatory program under the Clean Water Act: if the Division may not establish a Natural Condition Based Site Specific Criterion in the absence of a comprehensive anti-degradation implementation methodology, then it may not take any other actions, either. Such a challenge is unwarranted in this particular case because the EPA has approved Alaska's general regulatory authority under the Clean Water Act, as well as the specific action at issue. If, as the Non-Profits contend, the Division's lack of a comprehensive anti-degradation implementation methodology is contrary to federal law, their remedy is to challenge the EPA's failure to promulgate a methodology in federal court, as occurred in each of the cases cited by the parties. This proceeding concerns only a specific action taken by the Division: establishment of Natural Condition Based Site Specific Criteria for Main Stem and Ikalukrok Creek. All that is at issue in this case is whether the Division has identified an adequate methodology for taking that action.

4. *Federal Precedents Are Not On Point*

Non-Profits' argument that the Division has failed to satisfy the requirement of 40 C.F.R. §131.12(a) relies on three cases in which federal courts have deemed a state's

implementation methods inadequate:<sup>113</sup> Northwest Environmental Associates v. United States Environmental Protection Agency,<sup>114</sup> CORALations v. United States Environmental Protection Agency,<sup>115</sup> and Ohio Valley Environmental Coalition v. Horinko.<sup>116</sup> The Division argues that the cases cited by the Non-Profits are not persuasive, citing a contrary district court decision in Kentucky Waterways Alliance v. Johnson.<sup>117</sup> That decision, however, was subsequently reversed in part on appeal.<sup>118</sup>

Despite the fact that in all four of the cited cases, federal courts have struck down all or a portion of a state's implementation procedures, none of them casts any substantial shadow on the sufficiency of the Division's anti-degradation implementation methodology to allow the Division to establish a Natural Condition Based Site Specific Criterion under 18 AAC 70.235(b)

In CORALations, EPA had found, in 1992, that Puerto Rico had not yet identified methods for implementing its antidegradation policy<sup>119</sup> (just as EPA has found with respect to Alaska, in 1997). The plaintiffs brought a lawsuit to compel EPA to promulgate such methods. By the time the case came to hearing, Puerto Rico had identified methods of implementing its antidegradation policy,<sup>120</sup> but had not yet adopted them in regulation;<sup>121</sup> the court ruled that under the Clean Water Act, given its 1992 finding that Puerto Rico's methods were nonexistent, the EPA was required to

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<sup>112</sup> Division's Response at 8-9.

<sup>113</sup> Non-Profits' Motion at 4-5.

<sup>114</sup> Northwest Environmental Associates v. Environmental Protection Agency, 268 F.Supp.2d 1255 (D. Ore. 2003) (*hereinafter*, "Northwest").

<sup>115</sup> CORALations v. United States Environmental Protection Agency, 477 F. Supp. 2d 413 (D. P.R. 2007) (*hereinafter*, "CORALations").

<sup>116</sup> Ohio Valley Environmental Coalition v. Horinko, 279 F.Supp. 2d 732 (S.D. W. VA. 2003) (*hereinafter*, "Ohio Valley").

<sup>117</sup> Division's Response at 8, *citing* Kentucky Waterways Alliance v. Johnson, 426 F.Supp. 2d 612, 633 (W.D. Ky. 2006).

<sup>118</sup> Kentucky Waterways Alliance v. Johnson, 540 F.3 466, 475 (EPA's approval of implementation procedure excluding impaired waters from Tier II protection was not arbitrary and capricious), 482-482 (Judge Clay), 491-494 (Judges Cook and Siler, concurring) (EPA's approval of implementation procedure providing specific exemptions to Tier II review for new discharges into Tier II waters was arbitrary, capricious, and contrary to law) (6<sup>th</sup> Cir. 2008) (*hereinafter*, "Kentucky Waterways"). Notably, although the Division asserts that "[o]ther courts have declined to follow Northwest", the Division has not cited to any other cases than the district court decision, since reversed, in Kentucky Waterways.

<sup>119</sup> 477 F. Supp.2d at 417.

<sup>120</sup> "EQB identified methods for implementing Puerto Rico's antidegradation policy." 477 F.Supp. 2d at 418.

promulgate implementation procedures in regulation.<sup>122</sup> In this case, 18 AAC 70.235(b) specifies an implementation methodology for establishing a Natural Condition Based Site Specific Criterion. Whether EPA’s failure to adopt a regulation governing such actions by Alaska is in violation of federal law is an issue for the federal courts, not the Department of Environmental Conservation, which must follow Alaska law. CORALations is not on point.

In Northwest, the court ruled that a single sentence was an inadequate statement of the method of implementing “Oregon’s entire body of water quality standards.”<sup>123</sup> In this case, by contrast, all that is at issue is implementation of a single element out of the Division’s anti-degradation implementation methodology: the establishment of a Natural Condition Based Site Specific Criterion. Because 18 AAC 70.235(b) is specific to that act, Northwest is inapposite.

In Ohio Valley, the plaintiffs challenged EPA’s approval of 13 specific implementation procedures; the court found seven specific implementation procedures arbitrary and capricious, and approved six others.<sup>124</sup> The challenged implementation procedures concerned a variety of matters, including classification of specific waters, the exemption of certain permitted uses or discharges and regulated activities from Tier II antidegradation review, and allowing water quality trading and *de minimus* exemptions from Tier II review. The court’s reasoning is fact specific and has no particular applicability to this case, except to highlight that the adequacy of an implementation methodology is fact-specific. Kentucky Waterways is largely similar to Ohio Valley, in that it involves a fact-specific dispute over a particular aspect of the Kentucky implementation methods, namely, the classification of waters eligible for Tier II protection, raising many of the same issues addressed in the Ohio Valley decision.<sup>125</sup>

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<sup>121</sup> “[EPA] alleged that EQB’s intention is to adopt the regulations, and ‘expects to issue the proposed rule for notice and comment at or about the end of this month.’” *Id.*

<sup>122</sup> Generally, the court acknowledged, EPA need not adopt a regulation identifying implementation methods. However, where the EPA has previously found the methods non-existent in a particular state, the court stated, the Clean Water Act requires that it adopt a regulation for that state. 477 F.Supp.2d at 418.

<sup>123</sup> 268 F.Supp 2d at 1265.

<sup>124</sup> 279 F.Supp. 2d at 737-738. The court quite clearly distinguished the implementation procedures from the state’s antidegradation policy. *Id.*, 279 F.Supp. 2d at 739, note 2.

<sup>125</sup> 540 F.3d at 472. In Kentucky Waterways, the EPA had twice rejected that specific aspect of the Kentucky implementation procedures, and the lawsuit was aimed at forcing the EPA to promulgate an

With regard to the issue that the Non-Profits have raised, namely the adequacy of the Division's anti-degradation implementation methodology to permit the establishment of a Natural Condition Based Site Specific Criterion, the EPA has stated:

In setting criteria equal to natural background the State...should, at a minimum, include in their water quality standard:

- (1) a definition of natural background...;
- (2) a provision that site specific criteria may be set equal to natural background; [and]
- (3) a procedure for determining natural background, or alternatively, a reference in their water quality standards to another document describing the binding procedure that will be followed.<sup>[126]</sup>

Former 18 AAC 70.235(b) on its face articulated a methodology for establishing a Natural Condition Based Site Specific Criterion that meets this minimal standard, at least with respect to water bodies with varying natural water quality (as in Main Stem and Ikalukrok Creek). A policy that allows establishment of a Natural Condition Based Site Specific Criterion in a waterbody that is no longer in its natural condition is rational, and the Non-Profits have not articulated any factual basis for concluding that the implementation methodology set out in 18 AAC 70.235(b) was arbitrary and capricious.

#### 5. *EPA's Guidance Suffices*

Assuming that 18 AAC 70.235(b) does not provide an adequate methodology for implementing anti-degradation policy in the context of establishing a Natural Condition Based Site Specific Criterion, the Division argues that compliance with the federal anti-degradation guidance is sufficient.<sup>127</sup> The Non-Profits respond that the Division's invocation of the EPA guidance document is "a post hoc rationalization of its decision."<sup>128</sup> It asserts that the Division did not rely on the EPA guidance document, but rather on the anti-degradation analysis set out in its certification of reasonableness.<sup>129</sup>

The Non-Profits' response conflates anti-degradation requirements generally, and anti-degradation review in particular. An EPA guidance document, the *Water Quality Standards Handbook*, outlines implementation methods and procedures that would

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acceptable procedure. As in *Ohio Valley*, the court clearly distinguished this issue as a component of the implementation procedures, rather than of the antidegradation policy. *Id.*, 540 F.3d at 472, note 6.

<sup>126</sup> R. 2950.

<sup>127</sup> Division's Response at 6-7.

<sup>128</sup> Non-Profits' Reply at 8.

<sup>129</sup> *Id.*, citing R. 2055-2058.

satisfy federal anti-degradation requirements for establishing water quality standards generally.<sup>130</sup> The issue raised here is whether, if the Division lacks adequate implementation procedures, compliance with the methods and procedures outlined by the EPA would suffice. The Non-Profits do not deny that establishment of a Natural Condition Based Site Specific Criterion in a manner that conforms with the EPA's policy guidance would meet the requirements of federal law. Thus, to warrant summary adjudication in their favor, Non-Profits must show the methods and procedures followed by the Division were not in compliance with EPA's policy guidance.

The *Water Quality Standards Handbook*, referenced by the Division, does not address establishment of a Natural Condition Based Site Specific Criterion. That issue was addressed in the EPA's 1997 policy guidance. The Non-Profits have not articulated any ground for concluding that the establishment of the criteria for Main Stem and Ikalukrok Creek was inconsistent with the 1997 guidance. Thus, even if 18 AAC 70.235(b) was insufficient, the Non-Profits would not be entitled to summary adjudication.

D. The Affect of the Criteria On Aquatic Habitat is Disputed

Assuming that the Division was required to show that establishing a Natural Condition Based Site Specific Criterion in Main Stem would protect aquatic life, and that 18 AAC 70.235(b) adequately implements Alaska's anti-degradation policy with respect to establishing such a criterion, the issue for decision on summary adjudication would be this: does undisputed evidence establish that existing uses of Main Stem or Ikalukrok Creek will not be protected if the applicable water quality criterion is changed from the statewide criterion to a Natural Condition Based Site Specific Criterion?

On that issue, all parties agree that aquatic life is an existing use in both Main Stem and Ikalukrok Creek. On the current record, it is also undisputed that in Main Stem, aquatic use was not an existing use prior to mining, and that since mining began concentrations of cadmium have been reduced and aquatic species are present in Main Stem in increased abundance and variety.

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<sup>130</sup> This, presumably, is the document that the Division intended to refer to in its response. See Attachment C at 2, referencing EPA's "1993 WQS Handbook (Second Edition, 1993)".



The Non-Profits argue that if existing levels of aquatic life in either Main Stem or Ikalukrok Creek would suffer any adverse impacts as a result of the establishment of a Natural Condition Based Site Specific Criterion, then establishment of the criterion is in violation of the anti-degradation requirements of federal law.<sup>131</sup> Therefore, the Non-Profits argue that “[a]ny site-specific criterion imposed on [Main Stem] must use as its baseline the highest water quality achieved since [the anti-degradation requirements were established].”<sup>132</sup> Teck Cominco, by contrast, points out that the number and abundance of species present in the waterbodies varies naturally, and suggests that the “effluent dependent” communities should be treated as equivalent to naturally variable species, with the result that anti-degradation requirements would be violated only if the water would be rendered incapable of supporting aquatic life at all.<sup>133</sup> The Division points out that anti-degradation requirements certainly cannot be read to require a discharger that has benefited a water body to continue those discharges indefinitely.<sup>134</sup> Assuming that the discharger, while in operation, may be required to “protect and maintain” the existing use, the Division asserts that there are factual issues to be determined regarding the impact that altering the water quality criterion will have on aquatic life.<sup>135</sup>

Currently, Main Stem is affected by effluent discharges of cadmium into Middle Fork, about one mile upstream of Main Stem, in maximum daily concentrations of 2.7 µg/L, a maximum 30 day concentration of 1.38 µg/L, and a long term average concentration of 0.79 µg/L; median cadmium concentration is about 1.0 µg/L.<sup>136</sup> Main Stem in its natural condition contains cadmium in substantially greater levels than the effluent discharges at the outfall in Middle Fork, with the result that at Station 10, about two miles below the discharge point, median cadmium concentrations in Main Stem have averaged 6.1 µg/L, more than six times greater than the effluent discharge concentrations,

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<sup>131</sup> Non-Profits Brief at 5, quoting EPA, *Questions and Answers on Antidegradation* at 3 (August 1985).

<sup>132</sup> Non-Profits’ Brief at 6.

<sup>133</sup> Teck Cominco Response at 14 (“A rise of effluent dependent communities does not fundamentally alter the use class. So long as aquatic life exists in Ikalukrok and Main Stem, ADEC has met its obligations. It need not offer special protection to the ephemeral.”).

<sup>134</sup> Division’s Response at 11.

<sup>135</sup> Division’s Response at 12.

<sup>136</sup> R. 68.

due to high naturally-occurring cadmium.<sup>137</sup> Aquatic life in both Main Stem and Ikalukrok Creeks has adapted to the current cadmium concentrations in those waterbodies, which in Main Stem are at least twelve times greater than the current statewide criterion. Given the Division's authority to limit effluent discharges through the NPDES permitting process, the Non-Profits have failed to establish by undisputed evidence that a change in the applicable water quality standard from 0.48 µg/L (the current statewide standard) to 2.0/3.5 µg/L (total/dissolved) in Ikalukrok Creek and 9/12.5 µg/L (total/dissolved) in Main Stem (the Natural Condition Based Site Specific Criteria) would not maintain or protect existing levels of aquatic life in Main Stem or Ikalukrok Creek.

#### **IV. Conclusion**

1. The Division is entitled to summary adjudication because, as a matter of law, whether aquatic life in Main Stem or Ikalukrok Creek will be protected depends on permitting decisions not within the scope of this proceeding.

2. Assuming that establishment of Natural Condition Based Site Specific Criteria for Main Stem and for Ikalukrok Creek was an action requiring a demonstration that the criteria will protect aquatic life in those waters, the Non-Profits are not entitled to summary adjudication because:

(a) the Division has identified a sufficient methodology for establishing a Natural Condition Based Site Specific Criterion; and

(b) the Non-Profits have not shown by undisputed evidence that existing levels of aquatic life in Main Stem and Ikalukrok Creek cannot be protected by an NPDES permit issued after establishment of Natural Condition Based Site Specific Criteria for those waters.

DATED December 8, 2008.

Signed  
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Mark T. Handley  
Administrative Law Judge

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<sup>137</sup> R. 2895 (July 11, 2005 Draft Report).

## **Adoption**

The undersigned, on behalf of the Commissioner of Environmental Conservation and in accordance with AS 44.64.060, adopts this Decision as the final administrative determination in this matter.

Judicial review of this decision may be obtained by filing an appeal in the Alaska Superior Court in accordance with Rule 602 of the Alaska Rules of Appellate Procedure within 30 days after the date of this decision.

DATED this 22nd day of January, 2009.

By: Signed  
Signature  
Dan Easton  
Name  
Deputy Commissioner  
Title

[This document has been modified to conform to technical standards for publication.]