

**STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION**



**IN THE MATTER OF THE TRIENNIAL REVIEW
OF STANDARDS FOR INTERSTATE AND
INTRASTATE SURFACE WATERS, 20.6.4 NMAC**

WQCC No. 14-05(R)

**REBUTTAL TESTIMONY OF MICHAEL T. SALADEN
LOS ALAMOS NATIONAL SECURITY, LLC.**

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1 **I. INTRODUCTION**

2 I have prepared the following rebuttal testimony in response to the direct testimony of
3 Rachel Conn and Jon Klingel, submitted on behalf of Amigos Bravos. *See* Amigos Bravos’
4 Notice of Intent to Submit Technical Testimony (“Amigos Bravos NOI”) (filed Dec. 12, 2014);
5 Witness Statement of Rachel Conn Submitted on Behalf of Amigos Bravos (“Conn Direct”);
6 Witness Statement of Jon Klingel Submitted on Behalf of Amigos Bravos (“Klingel Direct”).
7 Amigos Bravos proposes to change the designated aquatic life use for Stream Segment
8 20.6.4.128 (“Segment 128”) from “limited aquatic life” to “marginal warmwater aquatic life.”

9 In support of this change, Amigos Bravos’ witnesses assert three central points: (1)
10 intermittent waters on Los Alamos National Laboratory (“LANL”) property are given weaker
11 protections than other intermittent waters in New Mexico; (2) the uses for Segment 128 have not
12 been reassessed for more than 10 years, and are therefore past due for reassessment under 40
13 C.F.R. § 131.20(a); and (3) the Use Attainability Analysis supporting the current designated
14 aquatic life use for Segment 128 was inadequate. As explained in my Direct Testimony, filed on
15 December 12, 2014, the current designated aquatic life use for Segment 128 was adopted by the
16 New Mexico Water Quality Control Commission (“WQCC”) in the 2004 Triennial Review of
17 Surface Water Quality Standards, and was approved by the United States Environmental
18 Protection Agency (“EPA”) in 2007 based on a Use Attainability Analysis (the “2007 UAA”)
19 prepared by the New Mexico Environment Department (“NMED”) with technical assistance by
20 EPA. The WQCC rejected a challenge by Amigos Bravos to the current designated aquatic life
21 use during the 2009 Triennial Review based on similar arguments raised here, finding that the
22 current designated use for Segment 128 was appropriate, and no change was warranted.

1 In its testimony in the current proceeding, Amigos Bravos has not put forth any new
2 information or data indicating that a change to the existing designated aquatic life use for
3 Segment 128 is appropriate.

4 **II. RESPONSE TO RACHEL CONN**

5 **A. Intermittent Waters on LANL Property are Provided Adequate Protections**

6 In her direct testimony, Ms. Conn asserts that the current designated aquatic life use for
7 Segment 128 is inappropriate because the presence of invertebrates in this segment indicates the
8 presence of Clean Water Act 101(a)(2) uses requiring protections under a “marginal warmwater
9 aquatic life” designation for intermittent waters. Conn Direct at 4. She thus suggests that the
10 presence of invertebrates automatically requires classification of Segment 128 as an intermittent,
11 as opposed to an ephemeral, water, for which a marginal warmwater aquatic life designation is
12 required. On this basis, Ms. Conn also criticizes the lack of a distinction between intermittent
13 and ephemeral waters in the 2007 UAA.

14 Ms. Conn made this same argument in the 2009 Triennial Review. *See* Witness
15 Statement for Rachel Conn, at 4-5 (August 27, 2009), attached hereto as Rebuttal Exhibit A,
16 (arguing it is improper to apply the “limited aquatic life use to both ephemeral and intermittent
17 waters” in Segment 128). However, as was the case in the previous Triennial, the WQCC’s own
18 regulations provide that a limited aquatic life designated use is appropriate for both ephemeral
19 *and* intermittent waters. Specifically, 20.6.4.7(L)(2) NMAC states:

20 Limited aquatic life as a designated use, means the surface water is capable of
21 supporting only a limited community of aquatic life. This subcategory includes
22 surface waters that support aquatic life selectively adapted to take advantage of
23 naturally occurring rapid environmental changes, *ephemeral or intermittent*
24 *water*, high turbidity, fluctuating temperature, low dissolved oxygen content or
25 unique chemical characteristics.

26
27 Emphasis added. Thus, the classification of a stream segment as intermittent or ephemeral is not
28 in itself determinative of whether a limited aquatic life designation is appropriate. Ms. Conn does

1 not, and cannot, contend that the limited aquatic life designation may not be applied to
2 intermittent waters. Nor does she offer any reasons, data, or explanation as to why limited
3 aquatic life is not an appropriate designation for Segment 128, beyond simply restating the long-
4 acknowledged fact that there exists some macroinvertebrate life in that segment, which has
5 already been considered by the WQCC. WQCC Order and Statement of Reasons for
6 Amendment of Standards, October 14, 2010, at 81, ¶ 371 (“Amigos Bravos relies on information
7 [regarding aquatic invertebrates] that the Commission already considered in assigning the limited
8 aquatic life use.”).

9 With regard to Ms. Conn’s suggestion that the presence of invertebrates indicates the
10 presence of Clean Water Act 101(a)(2) uses requiring protections under a “marginal warmwater
11 aquatic life” designation, such protections are not required when, as here, a UAA demonstrates
12 that attaining that designation is not feasible. A UAA is a scientific study conducted to examine
13 the factors affecting the attainment of a use. The CWA and WQCC regulations allow a UAA to
14 be conducted in order to evaluate and assign the appropriate use for any stream segment,
15 including ephemeral and intermittent streams, if appropriately justified. *See* 40 C.F.R. §
16 131.10(g); NMAC 20.6.4.15(A)(1). As discussed below in response to Jon Klingel’s direct
17 testimony, the 2007 UAA was properly prepared and approved, and is sufficient to support the
18 current designated aquatic life use for Segment 128.

19 **B. LANL Waters are Assessed on a Continuous Basis**

20 Ms. Conn points to 40 C.F.R. § 131.20(a), which requires that water body segments that
21 do not meet CWA § 102(a)(2) uses must be reexamined every three years, and then suggests that
22 this regulation has not been followed because “it has been more than 10 years since the waters
23 subject to 20.6.4.128 NMAC have been afforded 101(a)(2) protections.” Conn Direct at 3. As

1 an active participant in all matters relating to LANL waters, Amigos Bravos is well aware that
2 Ms. Conn's suggestion that Segment 128 has not been reexamined in over 10 years is incorrect.

3 All stream segments at LANL are assessed on an essentially continuous basis through a
4 combination of an extensive gage network that is monitored *daily*, and field teams that routinely
5 walk canyons and observe stream conditions. Moreover, Segment 128 and its designated uses
6 have been addressed in every Triennial since that segment was adopted. Indeed, Amigos Bravos
7 has submitted substantively identical petitions regarding Segment 128 in 2004, 2009, and in this
8 Triennial. Additionally, each assessment unit within Segment 128 is addressed every two years
9 in NMED's CWA Section 303/305 Integrated Report, available at
10 <http://www.nmenv.state.nm.us/swqb/303d-305b/>. A map depicting assessment units on LANL
11 property is attached hereto as Rebuttal Exhibit B.

12 In 2014, LANL field teams photographed gaging station sites, evaluated whether there
13 was water in the channel, looked for evidence of base flows, identified if benthic
14 macroinvertebrates were present, and evaluated vegetative cover. Based on information gathered
15 during these field visits, it was determined that, of the 73 miles of Segment 128, approximately
16 71 miles are ephemeral and approximately two miles are intermittent (97% ephemeral and 3%
17 intermittent).

18 Segment 128 has been evaluated in line with, and indeed beyond, the requirements of 40
19 C.F.R. § 131.20(a). All LANL monitoring information, Triennial documents, and reports are
20 publicly available. None of this information reveals any changes or concerns warranting a
21 different designated aquatic life use for Segment 128.

22 **III. RESPONSE TO JOHN KLINGEL**

23 **A. LANL Agrees that Intermittent and Ephemeral Streams are Important and** 24 **Need to be Protected**

25

1 Mr. Klingel's testimony contains a lengthy discussion of the importance of ephemeral
2 and intermittent stream drainages in providing increased primary productivity (food and cover);
3 increased plant diversity (increased wildlife diversity); increased plant density (food and cover);
4 recharge of ground water (wells and springs); and periodic surface water for wildlife drinking
5 and reproduction. Klingel Direct at 2-6. LANL agrees that ephemeral and intermittent streams
6 are important and need to be protected. LANL maintains that the current designated aquatic life
7 use for Segment 128, as supported by the 2007 UAA, as well as LANL's and NMED's continued
8 monitoring and evaluation activities, is appropriate and protective of aquatic life in that segment.

9 **B. The Current Classification of Segment 128 is Appropriate**

10 Mr. Klingel points to what he views as five "serious problems" with the designation of
11 Segment 128: (1) Segment 128 does not define the location of perennial waters; (2) there is little
12 documentation of biotic communities found in intermittent streams; (3) the limited aquatic life
13 designated use does not contain chronic criteria; (4) shell fish have been reported as existing in
14 Pajarito, Water, Los Alamos and Valle Canyons; and (5) the presence of people bathing and
15 drinking downstream suggests that "secondary contact" is not appropriate. Klingel Direct at 6-7.

16 Mr. Klingel is correct in that Segment 128 does not provide locations of perennial waters
17 on LANL property; however, those locations are expressly defined in Segment 126, which
18 identifies specific geographic landmarks of all perennial LANL segments. *See* 20.6.4.126
19 NMAC

20 As to documentation of biotic communities in intermittent streams, numerous benthic
21 studies were conducted by NMED, the United States Fish and Wildlife Service and LANL.
22 These studies are referenced in the 2002 Use Study prepared by the U.S. Fish and Wildlife
23 Service ("2002 Use Study"), *see* Saladen Direct at 3, and testimony from previous Triennial
24 Reviews.

1 Mr. Klingel correctly notes that the limited aquatic life use does not contain chronic
2 criteria. This is, presumably, because the WQCC recognizes that chronic criteria are not
3 appropriate for the type of waters with the limited aquatic use. Indeed, during the last Triennial
4 Review, the WQCC considered the question whether the water quality criteria associated with
5 the limited aquatic life use were sufficiently protective, given that EPA does not consider that
6 designation a CWA Section 101(a)(2) use. The Commission confirmed the appropriateness of
7 the criteria when it adopted the definition in the 2004 Triennial Review and affirmed that
8 conclusion when it rejected Amigos Bravos' attempt to strike the limited aquatic life use in 2009.
9 WQCC Statement of Reasons for Amendment of Standards, May 13, 2005; WQCC Order and
10 Statement of Reasons for Amendment of Standards, October 14, 2010, at 81, ¶ 370. (“[t]he
11 Commission does not adopt Amigos Bravos' proposal to replace limited aquatic life with aquatic
12 life use because this [Segment 128] was created and designated uses were assigned in the last
13 triennial review; Amigos Bravos presented no evidence regarding current water quality
14 conditions that would support a change in the standards.”).

15 The shellfish discussed by Mr. Klingel are located in Segment 126 waters, and are
16 afforded appropriate protections. Mr. Klingel provides no support for his speculation that these
17 shellfish “possibly” occur in some ephemeral streams on DOE lands. *See supra* at 4 (97% of
18 Segment 128 is ephemeral). Nor, in my opinion, does Mr. Klingel's speculation satisfy the
19 requirement in § 74-6-4.D that water quality standards be “based on credible scientific data and
20 other evidence appropriate under the Water Quality Act.”

21 Finally, both the 2002 Use Study and the 2007 UAA concluded that recreational
22 use/primary contact is highly unlikely and, because of the flash-flood nature of any flow, would
23 be unreasonably hazardous. Moreover, the particular sections where Mr. Klingel speculates that

1 people bathe and otherwise have primary contact (i.e. Pajarito springs drainage) are located in
2 Segment 20.6.4.98. *See* Klingel Direct at 6.

3 **C. The 2007 UAA Was Properly Prepared and Approved**

4 As set forth in LANL's direct testimony, the 2007 UAA was prepared by NMED and
5 approved by EPA. Amigos Bravos does not contend otherwise. Instead, Mr. Klingel argues that
6 2007 UAA is flawed in a number of respects. Mr. Klingel's arguments regarding the problems
7 with the 2007 UAA either were, or should have been, made when the UAA was prepared by
8 NMED and adopted by EPA in 2007. Regardless, Amigos Bravos does not point to any
9 significant changes with respect to Segment 128 that would warrant any further action or change
10 in designated uses.

11 **IV. CONCLUSION**

12 In my opinion, the current designated aquatic life use for Segment 128 is appropriate, and
13 Amigos Bravos has not put forth anything in their direct testimony that would indicate a change
14 is warranted to that use.

STATE OF NEW MEXICO
WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF THE TRIENNIAL REVIEW)
OF STANDARDS FOR INTERSTATE AND) WQCC No.08-13 (R)
INTRASTATE SURFACE WATERS, 20.6.4 NMAC)
_____)

WITNESS STATEMENT FOR RACHEL CONN

*Submitted on Behalf of Amigos Bravos
August 27, 2009*

Estimated Time for Direct Testimony: 35 minutes

Please Note: Proposed materials to be deleted are indicated by bold strikethrough (red in color copies) and proposed new language is indicated by bold underlining (blue in color copies). NMED's proposed changes are included here as non-bolded (and non-colored) underlined and strikethrough text.

Rachel Conn is the Clean Water Circuit Rider for Amigos Bravos, a non-profit river conservation organization dedicated to protecting the ecological and cultural richness of the Rio Grande and other wild rivers in New Mexico. Ms. Conn has a BA in Environmental Biology from Colorado College. She has worked for the past 11 years in the environmental field. She worked for the Massachusetts Department of Environmental Protection as a consultant assessing the data management needs of the various bureaus in the department. Ms. Conn also worked for a non-profit in Colorado assessing and addressing water quality problems associated with gold mining. For the past seven years she has worked for Amigos Bravos on water quality issues. She is a Clean Water Act trainer and in this capacity gives trainings around the state on water quality standards, TMDLs, and other Clean Water Act topics. As Clean Water Circuit Rider for Amigos Bravos Ms. Conn helps New Mexico communities learn about and then use the Clean Water Act to clean up their rivers.¹

1. COMPLIANCE WITH WATER QUALITY STANDARDS

Currently section 20.6.4.12 states, "The following provisions apply to determining compliance for enforcement purposes; they do not apply for purposes of determining attainment of uses." Because this section is entitled "Compliance With Water Quality Standards" it is assumed that

¹ A resume is attached to this testimony.

the enforcement purposes are related to enforcing water quality standards. Compliance with water quality standards is inextricably linked to attainment of uses. In fact, water quality standards are designated uses. As an experienced Clean Water Act trainer, I have given many trainings on the components of water quality standards. These components include designated uses, criteria and antidegradation. These are the basic requirements, as set out by the Clean Water Act, for setting water quality standards. Amigos Bravos urges the Commission to revise this section to accurately reflect the relationship between complying with water quality standards and the attainment of use.

Amigos Bravos' proposal:

20.6.4.12 - Compliance with Water Quality Standards

20.6.4.12 COMPLIANCE WITH WATER QUALITY STANDARDS: The following provisions apply to determining compliance with 20.6.4 NMAC, for enforcement purposes; they do not apply for purposes of determining attainment of uses. The department has developed assessment protocols for the purpose of determining attainment of uses that are available for review from the department's surface water quality bureau.

2. FLOW CRITERIA

In many stretches of river in New Mexico, the applicable criteria are not adequately protecting the designated uses because of lack of flow. To ensure that New Mexico's standards are ensuring that state's criteria protect the state's designated uses (a required component of water quality standards) it is recommended that the state consider including a general criterion for flow in the standards to meet designated uses. Implementation of this general criterion will take some work and guidelines will need to be developed to identify the appropriate adequate flow for each use. For example, to meet the designated use of irrigation, water only needs to be flowing during irrigation season and to meet the wildlife habitat use, flow may not be necessary year round as long as there are pools remaining to provide drinking water to wildlife. EPA regulations require that states set criteria that are "necessary to protect the uses". 40 C.F.R. § 131.2. Seasonal flow is essential to attain the use of irrigation and thus flow is "necessary to protect the uses." Many other states have implemented flow criteria to protect the designated uses of their waters. For example, both the states of Washington and Minnesota have adopted flow criteria.

Amigos Bravos' proposal:

20.6.4.13.N – Flow

N. Flow: If waters of the state are not attaining designated uses due to lack of adequate flow they shall be considered impaired and appropriate planning documents and steps shall be taken.

3. PRIMARY CONTACT

The policy of having secondary contact listed as a designated use and then have site-specific primary contact standards should be stopped. Waters that have primary contact as an existing use should also have it as a listed designated use. The former policy causes undue confusion to the public, and I would assume to the regulators and policy makers as well. This practice makes it especially difficult to review the 303(d) list because there is no indication what is meant when a segment says that secondary contact is "fully supported". There is no way for the public to know if the primary contact criterion is being supported. This has come up time and time again in the trainings and work I have done across the state. Numerous people have come to me saying that they are concerned because their river is not protected for swimming and their family, kids, or neighbors are immersing themselves in the water. Upon closer inspection many of these rivers are indeed protected for primary contact but people are confused because it states secondary contact under the designated uses. In implementing the policy of having waters that are protected by primary contact criteria have a designated use of primary contact, care must be taken to ensure that if there is segment specific criteria that applied previously that was more protective than the criteria that are associated with primary contact, those more protective criteria continue to apply. For example, 20.6.4.115 currently has a designated use of secondary contact but has segment specific criteria for E.coli (monthly geometric mean of 126cfu/100mL or less; single sample 235cfu/100mL or less) that is more protective than the criteria associated with the primary contact use (monthly geometric mean of 120cfu/100mL or less; single sample 410 cfu/100mL). Downgrading of criteria can only occur if a UAA is performed. Care must be taken to ensure that section 20.6.4.115 and any other segment that has more protective criteria than those associated with primary contact maintain the more protective segment specific criteria.

Amigos Bravos' proposal:

20.6.4.115 RIO GRANDE BASIN - The perennial reaches of Rio Vallecitos and its tributaries, and perennial reaches of Rio del Oso and perennial reaches of El Rito creek above the town of El Rito.

A. Designated Uses: domestic water supply, irrigation, high quality coldwater aquatic life, livestock watering, wildlife habitat and ~~[secondary]~~ primary contact; public water supply on the Rio Vallecitos and El Rito creek.

B. Criteria:

[~~(1) In any single sample: specific conductance 300 μ mhos/cm or less, pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses ~~[listed above in Subsection A of this section]~~, except that the following segments specific criterion criteria applies apply: specific conductance 300 μ S/cm or less; the monthly geometric mean of E.coli 126 cfu/100mL or less; single sample of 235 cfu/100mL or less

[~~(2) The monthly geometric mean of E. coli 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (See Subsection B of 20.6.4.14NMAC.)~~]

4. CONTACT STANDARDS FOR PERENNIAL / INTERMITTENT WATERS

One of the key aspects of the Clean Water Act (CWA) that I always include in my trainings is the Clean Water Act requirement to provide fishable and swimmable waters. This requirement has been clearly expressed by EPA in their comments on New Mexico's water quality standards. As stated by EPA, a use attainability analysis is required before a downgrading of uses from these baseline standards is permitted.

5. KLAUER SPRING

As Clean Water Circuit Rider for Amigos Bravos I have been approached by concerned citizens about the lack of appropriate standards for Klauer Spring, a small spring located about 20 yards from the banks of the Rio Grande near the Taos Junction Bridge. This spring is used by many Taos County residents as their drinking and domestic water supply (see photos attached as Exhibit 1). Clean Water Act regulations require that existing uses be protected (40 CFR131.10(h) and 40 CFR131.12(a)(1)). Because domestic water supply is an existing use as demonstrated by the photos, it should be included as a designated use.

Amigos Bravos' proposal:

20.6.4.114- Klauer Spring

20.6.4.114 RIO GRANDE BASIN - The main stem of the Rio Grande from the ~~headwaters of~~ Cochiti ~~reservoir~~ pueblo boundary upstream to Rio Pueblo de Taos, Embudo creek from its mouth on the Rio Grande upstream to the ~~junction of the Rio Pueblo and the Rio Santa Barbara~~ Picuris Pueblo boundary, the Santa Cruz river ~~below~~ from the Santa Clara pueblo boundary upstream to the Santa Cruz dam, the Rio Tesuque ~~below the Santa Fe national forest~~ except waters on the Tesuque and Pojoaque pueblos, and the Pojoaque river ~~below Nambu dam~~ from the San Ildefonso pueblo boundary upstream to the Pojoaque pueblo boundary, and Klauer Spring.

A. Designated Uses: irrigation, livestock watering, wildlife habitat, marginal coldwater aquatic life, primary contact and warmwater aquatic life; domestic water supply on Klauer Spring and public water supply on the main stem Rio Grande.

6. LOS ALAMOS INTERMITTENT AND EPHEMERAL WATERS

All intermittent waters on LANL property are given weaker protections (those associated with the limited aquatic life use) than all other intermittent waters in the state (which receive the aquatic life use). If EPA had issues with applying limited aquatic life to ephemeral waters in section 20.6.4.97, than they certainly would have a problem with applying the limited aquatic life use to both ephemeral and intermittent waters as is done in section 20.6.4.128. The standards

should be consistently applied unless a UAA has been conducted for a specific segment. If a UAA analysis is conducted that shows that the aquatic life use is not attainable in some ephemeral waters under this segment then a separate segment should be created for those waters. At this point, without an UAA for segment 20.6.4.128, to ensure that all waters are given "fishable/swimmable" protections, an "aquatic life" (rather than a "limited aquatic life" use) is necessary for all waters in 20.6.4.128. There is data that indicates that both intermittent and ephemeral streams on LANL property deserve protection of both the chronic and acute criteria. The US Fish and Wildlife provided testimony in the 2004 Triennial Review that showed many species of aquatic life thrived in these stretches. (Testimony attached as Exhibit 2). In addition, a 2002 study conducted by USFW and USGS found that "[b]ased on location, measure of air and water temperatures, and the presence of coldwater indicator species of aquatic life, these intermittent streams were considered coldwater in nature." (Study attached at Exhibit 3) The four intermittent streams on LANL property that were studied included Los Alamos Canyon, Sandia Canyon, Pajarito Canyon and Valle Canyon.

Amigos Bravos' proposal:

20.6.4.128 - Los Alamos Intermittent and Ephemeral Waters

20.6.4.128 RIO GRANDE BASIN - Ephemeral and intermittent portions of watercourses within lands managed by U.S. department of energy (DOE) within LANL, including but not limited to: Mortandad canyon, Cañada del Buey, Ancho canyon, Chaquehui canyon, Indio canyon, Fence canyon, Potrillo canyon and portions of Cañon de Valle, Los Alamos canyon, Sandia canyon, Pajarito canyon and Water canyon not specifically identified in 20.6.4.126 NMAC. (Surface waters within lands scheduled for transfer from DOE to tribal, state or local authorities are specifically excluded.)

A. Designated Uses: livestock watering, wildlife habitat, limited aquatic life and secondary contact.

7. COOLWATER CRITERIA

The current water quality standards allow for five categories of temperature criteria: high quality coldwater, coldwater, marginal coldwater, warmwater, and marginal warmwater. Adding more categories brings up that waters will be placed into whatever category it presently fits rather than classifying for the appropriate designated use, i.e. its historical or appropriate use, and then working toward achieving that condition. In particular, as climate change causes New Mexico's waters to become more limited, and thus more susceptible to temperature change, there is a risk that the addition of another category will enable the categorizing what are appropriately coldwater streams as coolwater.

8. LIMITED AQUATIC LIFE

The designated use of "limited aquatic life," set forth at 20.6.4.900(H)(7), is ambiguous and confusing. The standards would be clearer and more in line with the goals of the Clean Water Act if there was a return to the pre-2005 policy of setting segment specific uses in the rare case where the other aquatic life uses are not attainable. For instance, in the case of Sulphur Creek, Section 20.6.4.124 it would be simple to say under paragraph B(3) that, "except for subsections I and J of 20.6.4.900, the chronic aquatic life criteria do not apply." The limited aquatic life use adds one more layer of confusion to the standards requiring members of the public to flip back and forth between the segment and the back of the standards. In addition, the limited aquatic life use could be abused to lower water quality standards. It is more appropriate to make segment specific changes in cases where the natural conditions have resulted in an impairment associated with either the chronic or acute aquatic life criteria. This method would allow for more fine tuned standards. For example, in some cases it may be that none of the chronic life criteria are attainable, and therefore all the criteria could be listed as not applying, but, in some other cases, it may be that only a couple of the chronic life criteria do not apply and in those cases these constituents could be listed individually. Returning to the pre-2005 policy also ensures that water quality standards are applied equitably and that standards are modified only when natural conditions necessitate such changes. Getting rid of the limited aquatic life use would not require a large overhaul to the standards as presently only three segments have the limited aquatic life designated use.

EPA's disapproval of the use of the limited aquatic life use for ephemeral waters is consistent with this point. EPA noted that "this limited use does not 'serve the purposes of the [CWA], as defined in CWA sections 101(a)(2) and 303(c)." See Discussion Draft, § 20.6.4.97 NMAC, Basis for Change. Although NMED has addressed this concern in part by requiring that ephemeral waters shall be classified as such by a hydrology protocol, it did not address the concern that such waters automatically include a limited aquatic life use, when they may qualify for a more protective standard. Organisms in ephemeral waters are often especially sensitive to changes, and thus ensuring that chronic life criteria are applied can be crucial to the survival of those species. As such, a separate limited aquatic life designation is inappropriate. At most, the criteria specified in the limited aquatic life designation should be applied on a segment-specific basis.

Amigos Bravos' proposal:

20.6.4.900(H)(7) - Limited Aquatic Life Use

~~[(6)](7) Limited Aquatic Life: [Criteria shall be developed on a segment-specific basis.] The acute aquatic life criteria of Subsections I and J of this section [shall] apply to this subcategory. Chronic aquatic life criteria do not apply unless adopted on a segment-specific basis. Human health organism only criteria apply only for persistent pollutants unless adopted on a segment-specific basis.~~

9. HARDNESS TABLE FOR ACUTE AND CHRONIC CRITERIA FOR METALS

The Department's proposal of a hardness table for acute and chronic criteria for metals (20.6.4.900.I) will greatly increase the public's ability to understand the standards. This addition will also help me, as a Clean Water Act Trainer, to help people understand the standards.

10. DOMESTIC WATER SUPPLY CRITERIA

The Department's proposed changes to the domestic water supply use in most cases weaken the associated criteria because the proposed changes disregard the potential health effects to people who both drink the water and eat fish from the same water source. The EPA recommended criteria for consumption of water plus organism (these were the standards that the WQCC currently applies to the domestic water supply use) should continue to apply to the domestic water supply use. These criteria can be found in the November 2002 EPA Human Health Criteria Calculation Matrix. As a Clean Water Act trainer and through my work on New Mexico water policy issues, to my knowledge, all waters that have a domestic water supply use also has an aquatic life use and thus it is likely that some people both fish and drink from these waters. In fact, it is much more likely that both uses are conducted on the same waters than not. Many of the waters where people fish are also waters where people hike and camp and consume water. To protect these existing uses the more sensitive criteria for consumption of water and organism should apply. In addition, if protections are downgraded from consumption of water and organisms to only protecting for consuming water, a UAA is required. To my knowledge, UAAs for the multiple segments impacted have not been conducted.

11. 6T3 AND 4T3

The Department's 7/6/09 proposal to include these new definitions and temperature criteria under the designated uses is of concern. Unfortunately the on the ground impacts of these additions appears to be a lowering of water quality standards. For example, the previous maximum standard for the marginal coldwater use was 25 degrees C but now the maximum temperature is 29 degrees C and the 6T3 temperature is 25 degrees C. I question whether the Department rarely, if ever, is out sampling the same location for 4 consecutive hours on four or more consecutive days. If these sampling conditions are rarely, if ever, met then the end result is basically increasing the maximum temperature criteria (since this will be the only criteria for which there will be monitoring data) for each designated aquatic use.

**Submitted by:
Rachel Conn
August 27, 2009**

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WQCC No. 14-05(R)

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of *Rebuttal Testimony of Michael T. Saladen*

Los Alamos National Security, LLC was sent via electronic email and/or hand delivered to the

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