



State of New Mexico  
Water Quality Control Commission



**2012 – 2014  
State of New Mexico  
Clean Water Act  
§303(d)/§305(b)  
Integrated Report**

**- Appendix C -**

**Response to  
Comments**

**US EPA–Approved  
May 8, 2012**



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**RESPONSE TO COMMENTS**  
**ON THE**  
**2012-2014 STATE OF NEW MEXICO**  
**CLEAN WATER ACT**  
**§303(d)/§305(b)**  
**INTEGRATED LIST OF ASSESSED SURFACE WATERS**

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**PLEASE NOTE:**

Original typed letters that were not received electronically were scanned and converted to MSWord. Letters received electronically were also converted to MSWord. All text was converted to Arial 11 font with standard page margins for ease of collation. Contact information such as phone number, street addresses, and e-mail addresses from private citizens were removed for privacy reasons. All original letters of comment are on file at the SWQB office in Santa Fe, NM.

## COMMON ACRONYMS

ADB	assessment database
AU	Assessment Unit
BLM	U.S. Bureau of Land Management
BMP	best management practice
CWA	Federal Water Pollution Control Act, 33 U.S.C. 1251 <i>et seq.</i> "Clean Water Act"
CWAL	coldwater aquatic life
DO	dissolved oxygen
HUC	Hydrologic Unit Code
IR	Integrated Report
MCWAL	marginal coldwater aquatic life
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Units
PCB	polychlorinated biphenyls
QA/QC	quality assurance/quality control
ROD	Record of Decision (for the 303(d) list)
SOP	standard operating procedure
SSC	suspended sediment concentration
SWQB	Surface Water Quality Bureau
TMDL	Total Maximum Daily Load
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service
USGS	United States Geologic Survey
WQ	Water Quality
WQCC	Water Quality Control Commission
WQS	Water Quality Standards
WRAS	Watershed Restoration Action Strategy
WWTP	Wastewater Treatment Plant

**COMMENT SET 1 – U.S. Forest Service - Carson National Forest, Taos, NM**

January 10, 2012

I have attached a summary of the Carson National Forest E. coli monitoring for 2011. Please let me know if you require additional information. Field and lab data sheets are available at the Carson National Forest Supervisor's Office and I can send you copies, if necessary.

Zigmund M. Napkora, Hydrologist  
Carson National Forest

**SWQB RESPONSE:** *These E. coli data were added to the 2007, 2009, and 2010 monitoring data the USFS provided during the call for data prior to development of the draft 2012-1014 Integrated List. Incorporation of these E. coli data, and associated flow data, did not change any assessment conclusions.*

**COMMENT SET 2 – U.S. Bureau of Land Management – Taos Field Office, Taos, NM**

January 19, 2012

I want to thank the NMED for the opportunity to comment on the draft 303d/305b list of impaired waters. I am attaching a sheet with comments directed at the specific impairments listed, or changes to impairments, for streams that cross BLM managed lands. My comments represent the Fisheries, Soil, Water and Air Programs for the Taos Field Office of the BLM. Generally, I thought that the impairments list was reasonable, but question some determinations.

I would like to point out that the BLM maintains water quality monitoring in many of the perennial streams that are listed and can work with the NMED on targeting certain parameters to monitor on a continuous basis. Our best monitoring data is probably temperature, where we have thermographs year round in the Rio Grande from Rio Hondo to the CO state line, Rio Embudo, Rio Pueblo de Taos and Agua Caliente. We plan to expand this network over the next few years. Given the potential impact to stream temperature indicated by climate change models it may be worthwhile for agencies and the public to develop some basin-wide monitoring and modeling networks to prioritize streams for habitat work. Such networks could be used for other water quality indicators as well.

***SWQB RESPONSE:*** *The SWQB releases a call for data typically in the spring of every odd numbered year in preparation for the development of the next draft Integrated List via a public notice in major newspapers around the state and an associated mass e-mail to our SWQB email list. Potential data providers should submit their data and associated QA/QC information in response to this call, although they may submit at any time that is convenient for them. Your comment has also been noted for potential coordination with the SWQB’s effectiveness monitoring program and watershed planning projects in the waterbodies you mention.*

Please let me know if you need any clarification on my comments.

Sincerely,

Greg Gustina  
Fish Biologist

-----  
ATTACHMENT

2012 NMED Draft Impaired Waters List  
Greg Gustina Comments  
Fish, Soil, Water and Air Programs  
BLM Taos Field Office

**General**

I note that numerous tributary streams in the Upper Rio Grande had exceedences (though not identified as impairments) for Aluminum. Is this the result of geologic formation?

***SWQB RESPONSE:*** *The exceedences listed for the Upper Rio Grande are exceedences of the 87 ug/L dissolved aluminum chronic aquatic life criterion in 20.6.4.900 NMAC. During the last triennial review, the WQCC revised this section of the water quality standards and adopted new total aluminum aquatic life criteria that are hardness dependent. These new criteria, where data were available, were not exceeded and hence there were no new listings for total aluminum. The geology of the contributing*

*watershed is one potential source of aluminum in its surface waters.*

Note: Carrizo Creek was not identified in the Upper Canadian Watershed. Perhaps this could be added in future years.

**SWQB RESPONSE:** *The SWQB has not included this creek because it is remote and inaccessible, and almost exclusively on private land according to available GIS coverage and staff knowledge of this area.*

## **Page ii: C. New approach to Probable Sources**

I am uncertain that I agree with the change to identifying sources of impairment. I agree that a broader effort to include outside input is warranted, but like to have some idea of what the NMED Specialists think since they have look at the watershed, whereas most others focus on a single stream segment.

Given this new approach, think that the NMED needs to develop a framework for studies to help establish the source in cases where it is unclear. Sources should not be “finalized” if they have not been validated.

**SWQB RESPONSE:** *The SWQB agrees that it must strive to balance public and staff input regarding probable sources. As stated in our Probable Source Determination Standard Operating Procedure (available at: <http://www.nmenv.state.nm.us/swqb/SOP/>):*

*“Public input of probable source received either before the TMDL or during the TMDL process will be reviewed and incorporated **as appropriate** [emphasis added]. Public input may be field verified if necessary to confirm. The draft probable source lists will be finalized with public as well as targeted watershed group/stakeholder input during the TMDL public comment period and meeting.”*

*EPA’s 303(d)/305(b) report guidance requires that probable sources be identified, even when there is uncertainty. The SWQB approach presently provides a qualitative assessment of probable sources known to occur within the upstream watershed. Unfortunately, we lack the necessary resources to establish a source identification program to quantify all probable sources. Instead, the watershed-based planning process supported through the nonpoint source management program includes more detailed pollutant source characterization. Examples of current planning projects are those being implemented for the Rio Grande (Red River to Colorado Border) and Amigos Bravos (Rio Pueblo de Taos and Rio Grande del Rancho). BLM participation in these projects may prove crucial to their technical strength and future implementation.*

## **Page 107: Embudo Creek (Ojo Sarco to Picuris Bnd) NM-2111\_40**

Unclear about this designation and Comments. CWAL is an existing use and salmonid populations are in good condition especially toward downstream end of reach.

Did note that upstream end (near Picuris Boundary) had high temperatures during summer months in 2010, not as high in 2011.

Was curious about indicators for nutrients as the reach doesn’t appear to have nutrient issues (i.e., indicators).

**SWQB RESPONSE:** *The current designated aquatic life use for this AU is MCWAL (20.6.4.114 NMAC). The AU Comment notes that CWAL may be an existing use. The only practical difference from*

*an assessment standpoint between MCWAL and CWAL is the applicable temperature criteria; all other applicable criteria are the same.*

*The SWQB's assessment of the narrative nutrient criterion uses a weight-of-evidence approach to determine potential impairment due to excessive nutrients. As stated in the ROD, a Level 2 nutrient survey during the SWQB's 2009 survey documented exceedences of the total nitrogen thresholds, as well as chlorophyll thresholds established in the current nutrient assessment protocol. Therefore nutrients were added as a cause of impairment. Salmonid populations are not taken into consideration in the current nutrient assessment approach.*

#### **Page 140: Red River (Rio Grande to Placer) NM-2119\_10**

I'm curious about this. It is certainly a surprise that the Red River will not be listed for any impairments. It is especially surprising that turbidity is not showing up during monitoring as many recreationists and individuals have reported issues with turbidity in the Red River. Perhaps actions taken within the watershed have resulted in improved water quality.

**SWQB RESPONSE:** *The SWQB's current turbidity assessment protocol requires sonde data in order to make a determination of Non Support. Sonde data (176 hours September 9-16, 2009) were available for station Red River below the Fish Hatchery near USGS gage (28RedRiv005.3). Applicable turbidity thresholds were not exceeded. The mean and median of these sonde data were 11 and 4 NTU, respectively. Grab turbidity from six additional stations in this AU documented values above 7 NTU, indicating this AU should be prioritized for future sonde deployment. Given your observation and grab values in excess of 7 NTU, this prioritization seems appropriate and will be addressed, if resources allow, for the next listing cycle.*

#### **Page 147: Rio Grande (Klauer) Spring**

Fully supporting for these categories is surprising as previous (but old: >5years) tests indicated *e. coli* and fecal coliform in the water. Perhaps that was caused by surface contamination that has since been mitigated or the source (e.g., wildlife) is no longer present.

**SWQB RESPONSE:** *Three of six samples detected E. coli in the water, but at levels below the applicable criterion for primary contact uses (e.g. swimming, immersion) so the Full Support determination for primary contact is correct. Surface water primary contact standards are not the same as drinking water standards, thus the results of this study should not be used to determine the safety of this water source for drinking water.*

#### **Page 148: Rio Grande (Ohkay Owingeh bnd to Embudo Creek) NM-2111\_10**

The probable sources of impairment are unclear. Are these all sources for both PCBs and turbidity? Also, I assume that "Atmospheric Deposition – Toxics" refers to PCB sources. However, this seems like a small potential source that should affect all adjacent water bodies too (I'm assuming that atmospheric indicates global distribution since I don't believe PCBs are produced in the area). It would seem more likely that there must be a local or regional source.

**SWQB RESPONSE:** *The Integrated List report format does not indicate which Probable Source belongs to what Probable Cause. "Atmospheric Deposition – Toxics" is a probable source of PCB contamination in surface waters due to potential local or global distribution. The Probable Sources list is intended to include any and all activities that could be contributing to the identified impairment. It is not intended to single out any particular land owner or single land management activity, and has therefore been labeled "Probable" and generally includes several possible items. Probable sources*

*listed for any particular water body have not been proven to be the only source(s) of the identified impairment, nor does their particular order on any Probable Source list imply levels of contribution.*

**Page 149: Rio Grande (Red River to CO border) NM-2119\_05**

I'm a little confused by the probable source of impairment. It would seem that the sources refer to activities occurring in Colorado – certainly flow alterations are a result of CO diversions. I don't see habitat modification or riparian loss in the NM sections as it's a Wild and Scenic River with limited access.

Also, what "Other Recreational Pollution Sources" would be contributing to pH and temperature impairments in that reach?

**SWQB RESPONSE:** *Activities occurring in upstream states may be included in NM's Probable Sources lists if they are in the contributing watershed. "Other Recreational Pollution Sources" is included on this AU with respect to temperature in order to acknowledge that recreational activities such as fishing and camping have the potential to negatively impact riparian condition, and do occur along this reach and upstream reach in Colorado.*

**Page 154: Rio Hondo (Rio Grande to USFS bnd) NM-2120.A\_600**

This is another case, like the Rio Embudo, where impairments don't quite align with stream condition. At least in the lower mile before the Rio Grande, there is a good trout community. Of course, there are significant alterations upstream that could certainly affect water temperature. Still, I would have assumed that upstream temp impairments would continue downstream in the absence of other inputs and result in loss of the cold water fishery.

I'm also somewhat surprised that there were no nutrient impairments on the section of stream.

**SWQB RESPONSE:** *As stated in the ROD, the maximum thermograph temperature at the station above the confluence with Rio Grande was 23.2 degrees C and the criterion (20 degrees C) was exceeded for >4 hours for >3 consecutive days during the 2009 thermograph deployment. This resulted in a continuation of Non Support for temperature given the current designated use of high quality CWAL. The SWQB notes that the elevation (2000 m) and the topography (deep canyon) of this stream reach may make CWAL a more appropriate aquatic life use. Documentation of a reproducing healthy trout community adds additional weight to this argument. A change to CWAL would result in Full Support for temperature using the 2009 thermograph data because the max temperature criterion would be 24 degrees C with a 6T3 of 20 degrees C, neither of which were exceeded. SWQB will consider the comment during the next triennial review.*

*In accordance with our nutrient assessment protocol, a Level 1 field survey was conducted at station Rio Hondo at Rio Grande confluence (28RHondo000.1). Algae and macrophytes cover were both <50%, periphyton growth on coarse substrate was <0.5 mm, no anoxic layer was present, and neither DO saturation nor pH grab data exceeded applicable thresholds. Therefore, assessment conclusion was Full Support for nutrients.*

**Page 252: Santa Fe River (non-pueblo Cochiti Rsvr to Paseo del Canon) NM-2110\_02**

May want to clarify "non-pueblo Cochiti Rsvr".

**SWQB RESPONSE:** *Upon further map review, the SWQB agrees this phrase is confusing. The SWQB has revised the AU name to "Santa Fe River (Cochiti Pueblo bnd to Paseo del Canon)."*



**Page 370: Pecos River (Tecolote Creekk to Villanueva State Park) NM-2213\_00**

Creekk should be changed to Creek.

**SWQB RESPONSE:** *The typographical error has been corrected.*

**Page 425: Navajo River (Jicarilla Apache Nation to CO border) NM-2407.A\_00**

The coldwater designation may be a stretch, but it seems more likely that poor stream condition may be the limiting factor on meeting the standard. If NM and CO worked together, stream condition in this reach could be much improved.

**SWQB RESPONSE:** *The SWQB agrees that coolwater may be more appropriate. Coolwater use is presently attained using 2010 thermograph data. The comment regarding stream condition will also be considered through the SWQB's watershed protection efforts.*

### COMMENT SET 3 – Taos Soil & Water Conservation District, Ranchos de Taos, NM

January 30, 2012

RE: 2012 – 2014, State of New Mexico, CWA §303(d)/§305(b) Integrated Report

Please find below comments regarding the proposed 2012-2014 CWA §303(d)/§305(b) Integrated Report submitted by the Taos Soil and Water Conservation District (TSWCD).

While District staff finds that they are in general agreement with the proposed listings. However, this agreement is based on other sampling or general knowledge of the proposed listings for Taos County, since the data is not provided for reference. The one exception to this general support is the proposed de-listing on the Rio Pueblo for sediment. District staff is unaware of any change in condition that would support this proposal, and since the data is not provided either in the document or by through a specific link in the electronic document, do not find any support for this proposed change.

District staff did find the provision of a "new listing" table especially helpful in reviewing the document. However, changing this table from new listings to proposed changes, thus including proposed de-listing actions would be even more helpful to the reviewer. Also, as referenced above provision of data, or a link to the data for each proposed change, would greatly facilitate the review process. The review of the data supporting any proposed change, new listing or de-listing, is crucial to the ability of District staff truly support these proposed changes.

**SWQB RESPONSE:** *The SWQB assumes you are referring to the de-listing of “Rio Pueblo de Taos (Arroyo del Alamo to R Grande del Rancho)” for sedimentation. As stated in the ROD under the “2012 ACTION” section for this stream reach, this reach was surveyed during the 2009 Upper Rio Grande study. A Level II sedimentation survey documented 49.0% sand and fines with a LRBS\_NOR value of - 1.15, indicating full support for this Foothills sediment class site according to application of SWQB’s most recent sedimentation assessment protocols. The ROD was posted on SWQB’s web site with the rest of the draft 2012-2014 Integrated List review documents at: <http://www.nmenv.state.nm.us/swqb/303d-305b/2012-2014/>. The associated Assessment Protocols are posted at: <http://www.nmenv.state.nm.us/swqb/protocols/>.*

*The SWQB prepared and posted a de-list spreadsheet during the review period, and plans to generate and post a de-list review spreadsheet at the beginning of subsequent review periods in the future. The data and completed assessment sheets behind any assessment conclusion can be obtained for waterbodies of concern via a public records request following the instructions on NMED’s main website at: [http://www.nmenv.state.nm.us/Common/records\\_request.htm](http://www.nmenv.state.nm.us/Common/records_request.htm). It is not possible at this time to post everything on our web site as the volume of electronic data and assessment files each listing cycle is extremely large (for example, 247 MB this cycle) and the time necessary to prepare all this information for posting exceeds available staff resources.*

Thank you for the opportunity to review the document and provide comments.

Sincerely,

Peter Vigil,  
TSWCD District Manager

## COMMENT SET 4 – Red River Restoration Group, Questa, NM

January 30, 2012

Re: Draft 303(d) List

The Red River Restoration Group (R3G) is a community based public interest organization dedicated to be a conduit of information and resources for the public in order to promote and facilitate the restoration of the Red River Watershed. Founded in 2002, by a dedicated volunteer group of local community members committed to tracking and participating in the CERCLA Superfund process established for the MolyCorp Mine (now Chevron Mining Inc – Questa Mine), R3G has worked tirelessly for many years to influence decisions and communicate to the public on the extent of the clean-up necessary to restore the Red River watershed and the local economy and environment.

On behalf of R3G, I submit the following public comments on the draft 2012-2014 State of New Mexico Integrated Clean Water Act Section 303(d)/305(b) List of Assessed Surface Waters.

R3G has serious concerns about the validity of the delisting of the Red River for aluminum impairment.

- Delisting the Red River for aluminum impairment using water quality standards that have not been approved by the US EPA is not consistent with the Clean Water Act (40 CFR 131.21).
- The river should be continued to be listed as impaired as there were 22 of 30 exceedences of the 2007 NMAC dissolved aluminum chronic criterion (87 ug/L).
- The 2007 NMAC dissolved aluminum criteria is the legally required criteria and it should have been used in making impairment determinations.
- The new 2010 criteria, developed by Chevron and approved by the New Mexico Water Quality Control Commission, is not the legally required criteria because the criteria were not approved by US EPA.
- US EPA has explicitly expressed concerns with this 2010 criteria, which is why they have not approved the criteria (see US EPA comments on the issue from the Record of Decision on the Triennial Review 4/18/11).

**SWQB RESPONSE:** *As detailed in the ROD, the WQCC adopted hardness-dependent total aluminum aquatic life use criteria that replaced the dissolved aluminum aquatic life use criteria during the most recent triennial review. USEPA has yet to take action on this change.*

*It is appropriate to acknowledge and adhere to the decision made by the WQCC in the absence of USEPA action on this issue. The SWQB therefore assessed available total aluminum data against the WQCC-approved total aluminum criteria to determine impairment status for the draft 2012-2014 list. This assessment resulted in a de-listing for aluminum in assessment unit “Red River (Rio Grande to Placer Creek).” Both the draft list and ROD acknowledge there were 22 of 30 exceedences of the 2007 NMAC dissolved aluminum chronic criterion (87 ug/L), which consequently would result in a continuation of the previous impairment listing for aluminum if the dissolved data and criterion were used.*

*SWQB discussed this approach with USEPA Region 6 staff prior to preparing the draft list for public comment. Unless USEPA takes final action to approve the revised aluminum standard first, SWQB understands that EPA, for many of the reasons cited in your comment, will disapprove any assessment conclusions where the assessment of available total aluminum data vs. available dissolved aluminum data results in conflicting impairment determinations. The assessment unit “Red River (Rio Grande to Placer Creek)” is the only example of delisting a previous dissolved aluminum listing based on the total aluminum criteria and available data; however, there are eleven additional assessment units that would*

*be listed based on the dissolved aluminum criteria. USEPA will be required to public notice their intention to disapprove SWQB's proposed Full Support determination for the Red River. EPA's failure to take timely action on the WQCC's revision to the aluminum criterion, combined with NMED's desired to respect and adhere to the standards adopted by the WQCC, results in the need for these extra steps.*

R3G would like to request to be placed on the official mailing list to receive any additional information about this issue.

**SWQB RESPONSE:** *We confirmed that you are on the SWQB email list. Please also refer to SWQB's Water Quality Standards website at <http://www.nmenv.state.nm.us/swqb/Standards/> for the most up-to-date information on New Mexico's water quality standards.*

Patrick Nicholson

Executive Director  
Red River Restoration Group

## COMMENT SET 5 – Amigos Bravos, Taos, NM

January 30, 2012

Amigos Bravos is a statewide river conservation organization guided by social justice principles. Our mission is to protect and restore the rivers of New Mexico, and ensure that those rivers provide a reliable source of clean water to the communities and farmers that depend on them, as well as a safe place to swim, fish, and go boating. Amigos Bravos works locally, statewide, and nationally to ensure that the waters of New Mexico are protected by the best policy and regulations possible. In this capacity Amigos Bravos works to make sure that New Mexico's water quality standards are protective enough to support the diverse human and non-human uses of our state's water resources. The 303(d)/305(b) list is a critical component of our work to protect clean water and the cultures that depend upon clean water here in New Mexico. We would like to communicate the following comments regarding the draft 2012-2014 integrated list.

### **Data – Rio Fernando, Rio Hondo, Rio Pueblo de Taos**

Amigos Bravos along with Sentinels – Rios de Taos have been collecting water quality data in the Rio Fernando, Rio Pueblo de Taos, and Rio Hondo for several years. Monitoring results have shown E.coli, ammonia, and conductivity exceedances. We are pleased to see that you have incorporated some of this data into your list development and we support the E.coli listings in the Rio Fernando and Rio Pueblo de Taos as we believe these listings accurately reflect the water quality in the stream. We have been anxious for this problem to be acknowledged and addressed, and we are glad that this first step has been taken. In addition, we have had many ongoing concerns about the quality of water in the unnamed perennial arroyo that flows from the Taos wastewater treatment facility into the Rio Pueblo de Taos, and we are pleased that the Department has looked more closely at this water body. We support the proposed ammonia listing for this stream as our data supports this conclusion. The lower segment on the Rio Hondo (NM-2120.A\_600) should be listed for E.coli impairment as well. Our data, all of which we have provided to the Department, show high levels of E.coli in the lower stretch of the Rio Hondo at two sites on 5/21/07<sup>1</sup> and at one site on 6/10/08<sup>2</sup>.

**SWQB RESPONSE:** *As noted in the ROD, there were 3 (as you mention above) of 59 exceedences of the 235 cfu/100 mL criterion. Therefore, E. coli remains full support on the draft 2012-2014 list because the exceedence rate is only 5.1%. Our current Assessment Protocols require an exceedence rate  $\geq$  10% when > 10 samples are available. Data from Amigos Bravos stations H4, H4A, H4B, H4E, H5, H6, HBV, HV6, HVB, and HVG, as well as SWQB station 28RHondo000.1, were included in the assessment.*

The Department did not include the new E.coli listing for the Rio Fernando de Taos (R Pueblo de Taos to USFS bnd at canyon) on the excel spreadsheet of new impairments. Amigos Bravos realizes that this does not impact the official listing status for the river, but if the excel spreadsheets are going to be continued to be posted online, it would be good to correct this omission.

**SWQB RESPONSE:** *“Rio Fernando de Taos (Rio Pueblo de Taos to Tienditas Creek)” was first listed for E. coli on the 2008 list. Because the Cycle First Listed date in the Assessment Database is 2008, this 2012 action does not appear on the new impairment listing spreadsheet for 2012 because it is not a new listing for AU ID NM-2120.A\_512. SWQB apologizes for this confusion.*

### **Red River – Aluminum**

Amigos Bravos has serious concerns about the Department's proposal to delist the Red River for aluminum impairment. The Department knows, as demonstrated by the following statement in the

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1 One site had concentrations of E.coli of >1000/100ml the other site had concentrations of 895/100ml.

2 This site had E.coli concentrations of 440/100ml.

Department's 2010-2012 response to comments, that only EPA approved standards can be used in developing the integrated list: "EPA requires that the most current, EPA-approved water quality standards be used to develop the Integrated List" (emphasis added).<sup>3</sup> Using water quality standards that have not been approved by the EPA to develop the 303d list is clearly not consistent with the Clean Water Act (40 CFR 131.21(c) and (d)).

All Clean Water Act actions such as writing NPDES permits and determining antidegradation review categories must be based on the 2010-2012 list until the state correctly lists the Red River as impaired for Aluminum in the 2012-2014 list. As EPA points out in their 4/12/11 Record of Decision (ROD) on the most recent triennial review of New Mexico's surface water quality standards, the new standard that was adopted by the Commission was based on a technical report developed by a consulting firm (GEI) at the request of Chevron Mining Inc. (CMI). This is the very company that stands most to gain from a delisting of the stream. EPA points out inaccuracies in the GEI report and a concern that pH was not factored into the standard calculation at an appropriate level. Thus EPA concludes in the ROD that:

"Based on our review of the revised GEI technical report, EPA has a number of concerns. EPA believes that pH is important in determining the mechanism of toxicity of aluminum. While increased toxicity at low pH is common for all metals, pH appears to be particularly important with aluminum due to the drastic change in solubility at low pH, increasing the bioavailable fraction of the metal. Although the GEI report acknowledges this, noting that the mechanism responsible for toxicity will probably be dependent on pH and calcium concentration of a given solution, the affect of pH was given limited consideration... Given that the parameters for aluminum were based on toxicity tests conducted within a neutral pH range, EPA has concerns with the appropriateness of the resulting criteria and believes that additional review of the GEI document is warranted."<sup>4</sup>

In their ROD, EPA specifically does not approve this component of the standards and thus the aluminum standard currently found at 20.6.4.900 NMAC is not valid for the purposes of the Clean Water Act such as developing the 303d list. NMED's own data, which is included in the assessment unit comments for the Red River (NM-2119\_10), indicates that this segment should continue to be listed as impaired. This comment says that there were 22 of 30 exceedences of the 2007 NMAC and EPA approved criteria for dissolved aluminum. Clearly, using the correct EPA approved criteria would have resulted in aluminum impairment and 303d listing for the Red River.

**SWQB RESPONSE:** *SWQB RESPONSE: As detailed in the ROD, the WQCC adopted hardness-dependent total aluminum aquatic life use criteria that replaced the dissolved aluminum aquatic life use criteria during the most recent triennial review. USEPA has yet to take action on this change.*

*It is appropriate to acknowledge and adhere to the decision made by the WQCC in the absence of USEPA action on this issue. The SWQB therefore assessed available total aluminum data against the WQCC-approved total aluminum criteria to determine impairment status for the draft 2012-2014 list. This assessment resulted in a de-listing for aluminum in assessment unit "Red River (Rio Grande to Placer Creek)." Both the draft list and ROD acknowledge there were 22 of 30 exceedences of the 2007 NMAC dissolved aluminum chronic criterion (87 ug/L), which consequently would result in a continuation of the previous impairment listing for aluminum if the dissolved data and criterion were used.*

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<sup>3</sup> 2010-2012 State of New Mexico Clean Water Act 303(d)/305(b) Integrated Report-Response to Comments - page 37.

<sup>4</sup> EPA's Record of Decision on New Mexico's Standards For Interstate and Intrastate Surface Waters 20.6.4 NMAC, April 12, 2011 (page 118).



SWQB discussed this approach with USEPA Region 6 staff prior to preparing the draft list for public comment. Unless USEPA takes final action to approve the revised aluminum standard first, SWQB understands that EPA, for many of the reasons cited in your comment, will disapprove any assessment conclusions where the assessment of available total aluminum data vs. available dissolved aluminum data results in conflicting impairment determinations. The assessment unit “Red River (Rio Grande to Placer Creek)” is the only example of delisting a previous dissolved aluminum listing based on the total aluminum criteria and available data; however, there are eleven additional assessment units that would be listed based on the dissolved aluminum criteria. USEPA will be required to public notice their intention to disapprove SWQB’s proposed Full Support determination for the Red River. EPA’s failure to take timely action on the WQCC’s revision to the aluminum criterion, combined with NMED’s desired to respect and adhere to the standards adopted by the WQCC, results in the need for these extra steps.

### **Placer Creek**

Placer Creek, in the upper Red River watershed, is also being delisted for Aluminum. The Department did not include information in the comment portion to indicate if the EPA approved criteria for dissolved aluminum was exceeded. Without further information showing that it was not, Amigos Bravos opposes delisting Placer Creek for the same reasons outlined in the above comment.

**SWQB RESPONSE:** *As stated in the “2012 ACTION” ROD entry for this AU, there were 1 of 4 exceedences of the 2007 NMAC dissolved aluminum chronic aquatic life criterion (87 ug/L), and 1 of 4 exceedences of the applicable hardness-based 2011 NMAC total aluminum chronic aquatic life criterion. No samples exceeded either the dissolved or total acute aluminum criteria. Therefore, aluminum was removed as a cause of impairment. There was no need to include this information in the AU Comment because the impairment conclusions do not conflict.*

### **Aluminum Impairment**

The Department states on page i of the draft list that “[t]he public comment draft also includes an AU Comment where data assessed during this cycle indicates that an AU does not meet the old dissolved aluminum criteria.” Unfortunately we cannot tell, where there is no AU Comment provided, if the segment was even assessed using the old dissolved aluminum criteria. Regardless, no delisting decisions should be made using non- EPA approved standards such as the total Aluminum standard used in the development of this draft list (see comments under “Red River – Aluminum” above). Amigos Bravos questions why the Department is wasting precious public resources going through the motions of delisting waters using the non approved EPA standard when the Department is well aware that EPA will not approve these components of the draft list. This will result in additional EPA and Department resources because either EPA or the Department will most likely have to go through another public comment period using the correct standard. Alternatively, if the list is not approved but the text of the list is not changed, the public will be confused and mislead as to the correct status of the rivers in question until the next listing cycle, assuming that the Department will use the correct EPA approved standards in developing the 2014-2016 list.

**SWQB RESPONSE:** *SWQB did include information in the AU Comment regarding dissolved aluminum in cases where assessment of these data would have led to a conclusion of Non Support. See also Response to “Red River – Aluminum” comment above.*

### **DDT, PCBs and Mercury in Fish Tissue**

Amigos Bravos continues to be concerned that no TMDL schedule has been identified for the 30 waters impaired with at least one fish tissue contaminant (PCBs, DDT, or Mercury). Many of these waters are impaired for more than one fish tissue impairment. While Amigos Bravos understands that Department has limited resources, even more so now than in the past, we question if perhaps these waters should be prioritized for TMDL development since these impairments

are directly related human health impacts. The Department should give these waters an IR category of 5A and develop TMDL schedules for these waters so that these impairments can begin to be addressed. Amigos Bravos doesn't understand how these waters differ from other impaired waters and why additional data is required before TMDL development in these waters when it isn't required for waters that are impaired for other constituents.

Amigos Bravos thinks it would be helpful and informative to the public if a separate section of the list could be prepared that lists all of the waters that are listed for fish consumption advisories. Amigos Bravos often gets questions from the public about what waters are safe for fishing and what waters have suggested limits for consumption. It is confusing and time consuming for the public to have to go and look up every potential water in which they may go fishing. Having this information all in one place would be very beneficial for public health and safety.

**SWQB RESPONSE:** *SWQB lacks the necessary resources to develop TMDLs for constituents in fish tissue. Moreover, these TMDLs differ from TMDLs for constituents directly found to exceed water quality standards in that data-intensive, risk-based bioaccumulation models are required to estimate what concentrations in surface waters and associated sediments are needed to reduce concentrations in fish tissue to safe consumption levels. SWQB does not have the resources to acquire all of the necessary data for these models, nor do we have the in-house technical resources or capacity to secure contracts to complete these modeling efforts.*

*Detailed information regarding Fish Consumption Advisories are located on the SWQB's website (<http://www.nmenv.state.nm.us/swqb/advisories/>) and the New Mexico Department of Game and Fish website (<http://www.wildlife.state.nm.us/recreation/fishing/index.htm>) , and are published in their "New Mexico Fishing Rules and Information" publication updated annually and dispersed with fishing licenses. This is the information used to determine which water bodies are listed. The SWQB refers people to this information in response to questions regarding consumption limits.*

### **TMDLs and Category 5 Waters**

Amigos Bravos does not think that writing a TMDL should automatically take a water off of the category 5 list. TMDLs, especially for non-point source pollution, the most common pollution source in New Mexico, are for the most part a paper exercise. They do not guarantee on-the-ground improvements in water quality. Waters should only be taken off the Category 5 list if monitoring shows that there has been an improvement in water quality and all the uses are being met. Just because EPA allows waters to be taken off the Category 5 list when a TMDL has been written doesn't mean that New Mexico should engage in this practice. The Department has indicated in previous response to comments that the Department agrees that the water is still impaired and the reason for the change in category is mostly related to Assessment Database (ADB), which EPA encourages the Department to use. The main question that Amigos Bravos still has is if category 4 and 5 waters are treated differently under the Clean Water Act. Clarification on this issue would be appreciated.

**SWQB RESPONSE:** *The SWQB agrees that USEPA treats Category 4 waters differently than Category 5 waters, in that USEPA views Category 5 waters as comprising the state's Clean Water Act 303(d) list. Even if the SWQB used a database other than the Assessment database, the SWQB would categorize water body pollutant pairs with completed TMDLs as Category 4A in accordance with EPA's listing guidance. Concerns with this practice should be brought to the attention of EPA. As previously stated in our response to this same concern on the 2008 and 2010 Integrated Lists, SWQB continues to agree with your comment that Category 4 waters are still impaired. This is why SWQB considers both Category 4 and 5 waters as priority waters for restoration efforts during the selection of CWA 319 projects, and why we included both Category 4 and 5 waters on the Impaired Waters review spreadsheet for the 2012-2014 Integrated List.*



### **IR Category 3 Waters**

Amigos Bravos also has concerns about the number of waters that are given an IR category of 3. We are especially concerned about the 8 waters<sup>5</sup> that are potentially impacted by Los Alamos National Laboratory (LANL) activities. The AU comment box for these waters says that the Department does not plan on assessing these water again for the next 10 years. These waters could have substantial water quality problems and they should be sampled as soon as possible. Amigos Bravos understands that other waters already sampled in the Pajarito Study are not going to be sampled again in the next 10 years because extensive monitoring was already done on them. These 8 waters, for which no data was collected, should not suffer because nearby waters were part of a past study. In addition, Amigos Bravos is concerned about the number of these IR 3 waters that do not have any explanation for why the water has not been assessed. 88 of the 197 waters in this IR category do not have an associated AU Comment, and many of the ones that do have an AU Comment, do not communicate why no water quality data has ever been collected for these waters.

**SWQB RESPONSE:** *The AU Comments for these water states that SWQB does not plan to monitor these waters, due in part to lack of resources, access issues, and other monitoring priorities around the state. SWQB will continue to assess available data from these and other Pajarito Plateau waters that are collected as part of ongoing water quality monitoring efforts by Los Alamos National Laboratory, NMED's Department of Energy Oversight Bureau, and others. There are 50 identified stream assessment units on the Pajarito Plateau (including those on Bandelier National Monument), totaling more than 188 miles. The eight category 3 assessment units mentioned encompass 14.7 miles (7.8%); the remaining 173.3 miles (92.2%) have been assessed. These eight AUs were not assessed because no data were available to assess them. Several of these AUs are located in the contributing watershed area of impaired AUs so they will be taken into account during TMDL development.*

*As previously stated in our response to this concern on the 2008 and 2010 lists, available resources do not allow SWQB to sample all surface waters across the state for all associated criteria. The SWQB has a monitoring strategy that describes what can be done with the resources available to it. The SWQB continues to improve its monitoring techniques and efficiency. For example, the overall number of waters assessed for Contact Uses around the state continues to increase each listing cycle since SWQB acquired mobile and office units for E. coli monitoring to accommodate the required 6-hour holding time.*

### **Format**

As mentioned in our comments on the 2006-2008, 2008-2010, and 2010-2012 comments, without some form of track changes function, it was extremely difficult to track the differences in the draft 303(d)/305(b) list from year to year. Thank you for taking the time to provide the excel spreadsheets with the delisting and new impairments listed out during the current comment period for the 2012-2014 list. This was extremely helpful in our review of the current draft list. Thank you for being so responsive to our concern. Thank you for the opportunity to provide comment on the draft list. We look forward to further discussion about the concerns that we have raised in our comments.

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5

NM-97.A\_007 Bayo Canyon (San Ildefonso bnd to headwaters)  
NM-9000.A\_053 Cañada del Buey (San Ildefonso Pueblo to LANL bnd)  
NM-128.A\_02 Cañon de Valle (within LANL above Burning Ground Spr)  
NM-128.A\_04 Fence Canyon (above Potrillo Canyon)  
NM-128.A\_05 Indio Canyon (above Water Canyon)  
NM-9000.A\_000 Los Alamos Canyon (San Ildefonso bnd to NM-4)  
NM-9000.A\_044 Water Canyon (Rio Grande to lower LANL bnd)  
NM-128.A\_12 Water Canyon (within LANL above NM 501)

Please do not hesitate to contact me at 575-758-3874 or [rconn@amigosbravos.org](mailto:rconn@amigosbravos.org) if further clarification or discussion on the above comments is merited or needed.

Sincerely,

Rachel Conn  
Projects Director

## COMMENT SET 6 – Southern Ute Indian Tribe, Ignacio, CO

Good afternoon,

The Southern Ute Indian Tribe respectfully would like to submit the attached comment letter dated January 24, 2012 and data information in regards to Draft 2012-2014 State of New Mexico CWA §303 (d) / §305 (B) Integrated List and Report; a hard copy of the comment letter will be sent in the mail as well.

The Southern Ute Indian Tribe thanks you for the opportunity to submit the attached comments.

If there are any questions, please contact Mr. Sal Valdez, Water Quality Program Manager at (970) 563-1035 ext. 2217

Once again thank you and have a wonderful rest of your day.

Thank you,  
Marlene Scott-Jewett  
Air Quality Administrative Assistant  
Southern Ute Indian Tribe

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ATTACHMENT

January 24, 2012

Re: Comments on Draft 2012 - 2014 State of New Mexico CWA §303(d)/§305(B)  
Integrated List and Report  
Dear Ms. Guevara:

The Southern Ute Indian Tribe would like to thank you for the opportunity to comment on the Draft 2012 - 2014 State of New Mexico CWA §303(d)/§305(B) Integrated List and Report. Of most interest to the Tribe are the listings for the northern segments of the Animas and La Plata Rivers, since those rivers cross the Southern Ute Indian Reservation before entering New Mexico.

**SWQB RESPONSE:** *The SWQB agrees, and has changed the name of these two upper AUs to "Animas River (Estes Arroyo to So. Ute Indian Tribe bnd)" and "La Plata R (McDermott Arroyo to So. Ute Indian Tribe bnd)."*

For the Animas River (Estes Arroyo to CO border) assessment unit, you are proposing the continuation of a listing for temperature and the addition of a listing for total phosphorus, e. coli, turbidity, and sedimentation. Based on temperature data for the Animas River collected on the Reservation near the Colorado/New Mexico boundary by our Water Quality Program staff, we believe that the listing of the Animas River (Estes Arroyo to CO border) assessment unit for temperature probably is appropriate. Based on these data, we also believe that the current "coldwater aquatic life" designated use for that assessment unit probably is unattainable and therefore inappropriate.

**SWQB RESPONSE:** *Your comment regarding the appropriate designated use for the Animas River near the border will be considered by the SWQB in the next triennial review.*

For the La Plata River (McDermott Arroyo to CO border) assessment unit, you are proposing a listing for nutrients and the continuation of a listing for e. coli. Although temperature is not mentioned in the Draft Report for this assessment unit, the Tribe's data for the La Plata River on the Reservation near the Colorado/New Mexico boundary indicate that temperature may be a criteria to consider.

**SWQB RESPONSE:** *For the draft 2012-2014 list, SWQB assessed thermograph data collected June 11 – September 16 at two stations in this AU during our 2010 survey. The maximum recorded temperatures were 31.1 and 26.1 degrees C at the station near the border and station near the town of La Plata, respectively. These values did not exceed the applicable segment-specific temperature criterion of 32.2 degrees C so they were noted as Full Support for temperature according to our Assessment Protocol.*

The data on which we are basing our comments are summarized on the attached graphs. The data collection sites on the Reservation are shown on the attached maps. The Southern Ute Indian Tribe's Water Quality Program collected the data on the Animas and La Plata Rivers from April- October of 2011 using Onset temperature TidBits to record continuous temperature data. As part of the process of revising our water quality standards, the Tribe is considering the reclassification of its waters using its temperature and other data for the reaches of the Animas and La Plata Rivers before they cross into New Mexico.

We are providing our data to assist you in determining appropriate designated uses for the northernmost segments of those rivers in New Mexico. The Tribe's raw data is available upon request.

Please contact our Water Quality Program Manager, Sal Valdez, at 970.563.0135 to request the Tribe's raw temperature data or if you have any questions.

**SWQB RESPONSE:** *The SWQB will consider the raw data in the next triennial review. If you would like SWQB's raw thermograph data, or any other data, from our border site to assist with your water quality standards reclassification, please contact the SWQB or send a public information request through the instructions on NMED's main webpage ([http://www.nmenv.state.nm.us/Common/records\\_request.htm](http://www.nmenv.state.nm.us/Common/records_request.htm)).*

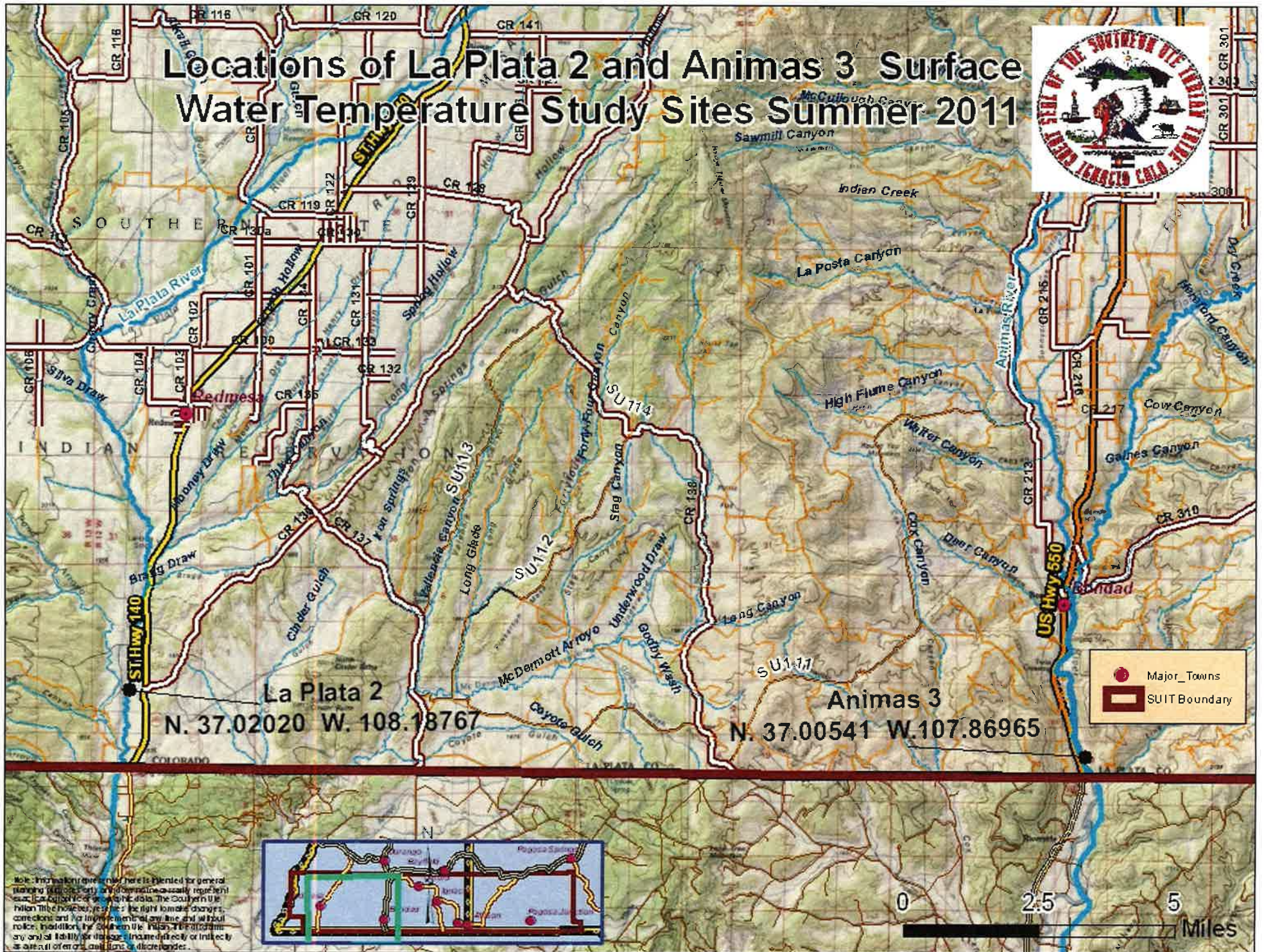
Once again, thank you for the opportunity to submit these comments.

Sincerely,

Jimmy R. Newton, Jr., Chairman  
Southern Ute Indian Tribe  
cc: Sadie Hoskie, EPA-Region 8 Water Program Director (via email:  
hoskie.sadie@epamail1.epa.gov)  
Steve Gunderson, Colorado WQCD Division Director (via email:  
steve.gunderson@state.co . us)

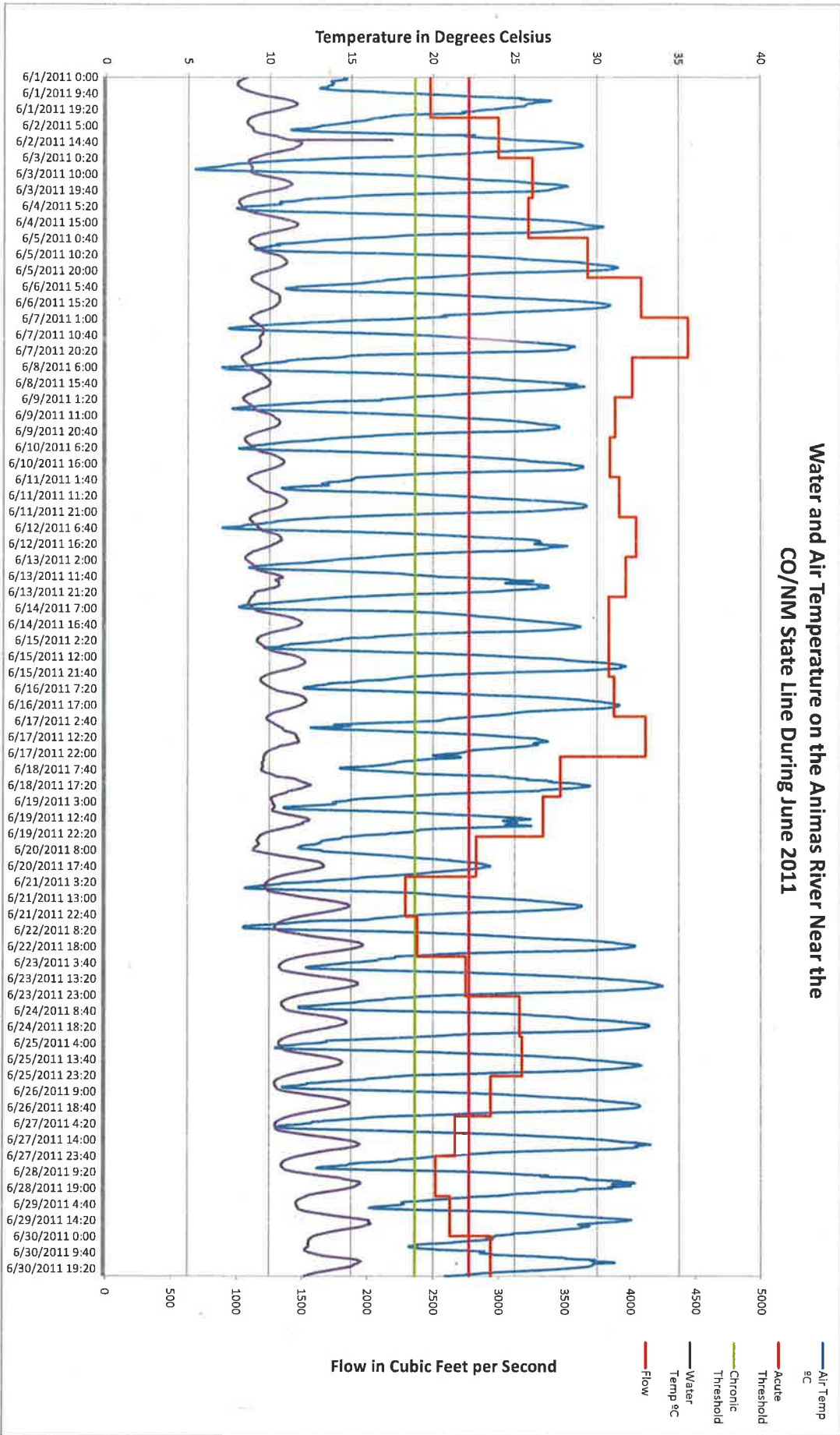


# Locations of La Plata 2 and Animas 3 Surface Water Temperature Study Sites Summer 2011

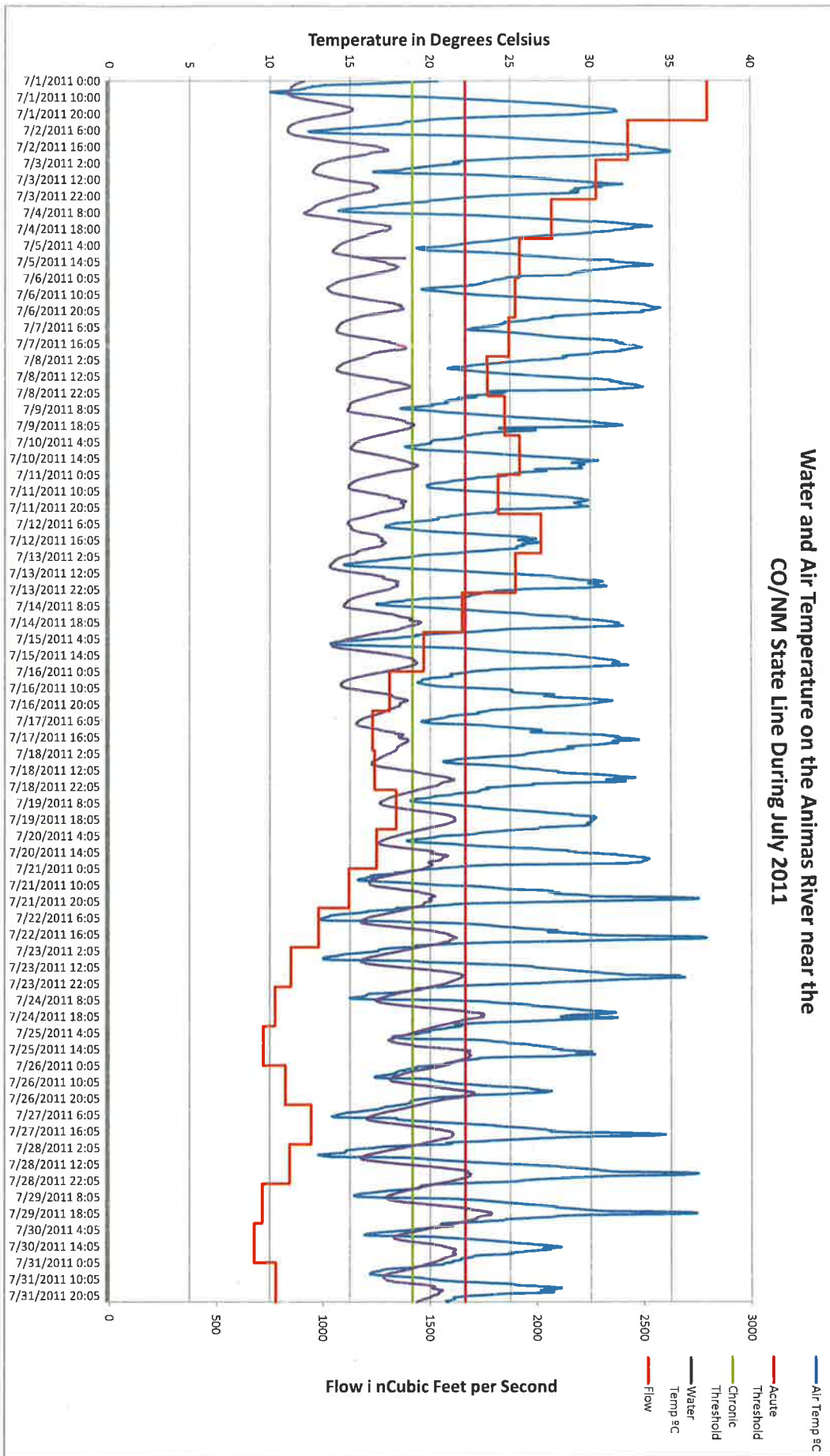




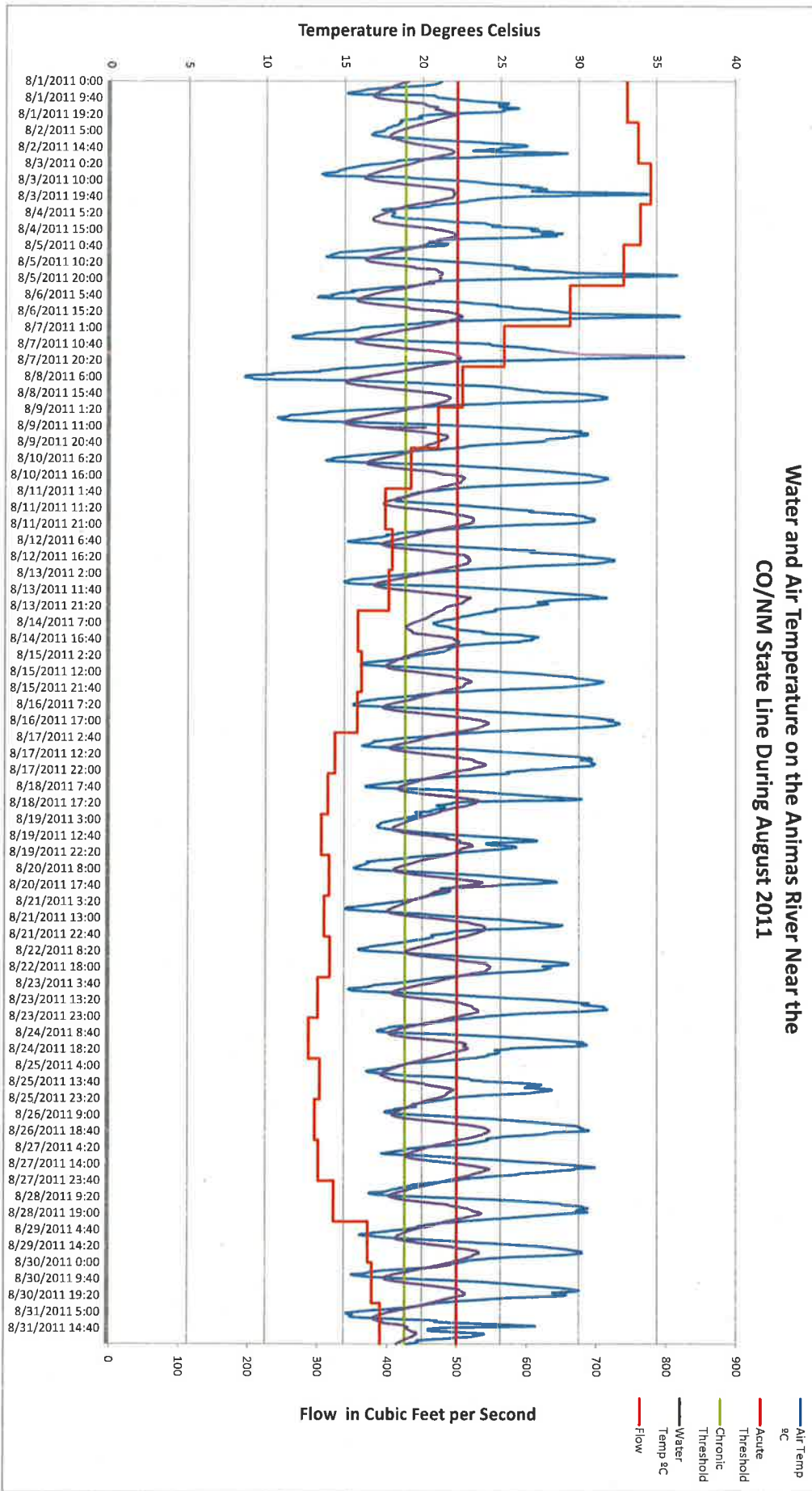
**Water and Air Temperature on the Animas River Near the  
CO/NM State Line During June 2011**



## Water and Air Temperature on the Animas River near the CO/NM State Line During July 2011

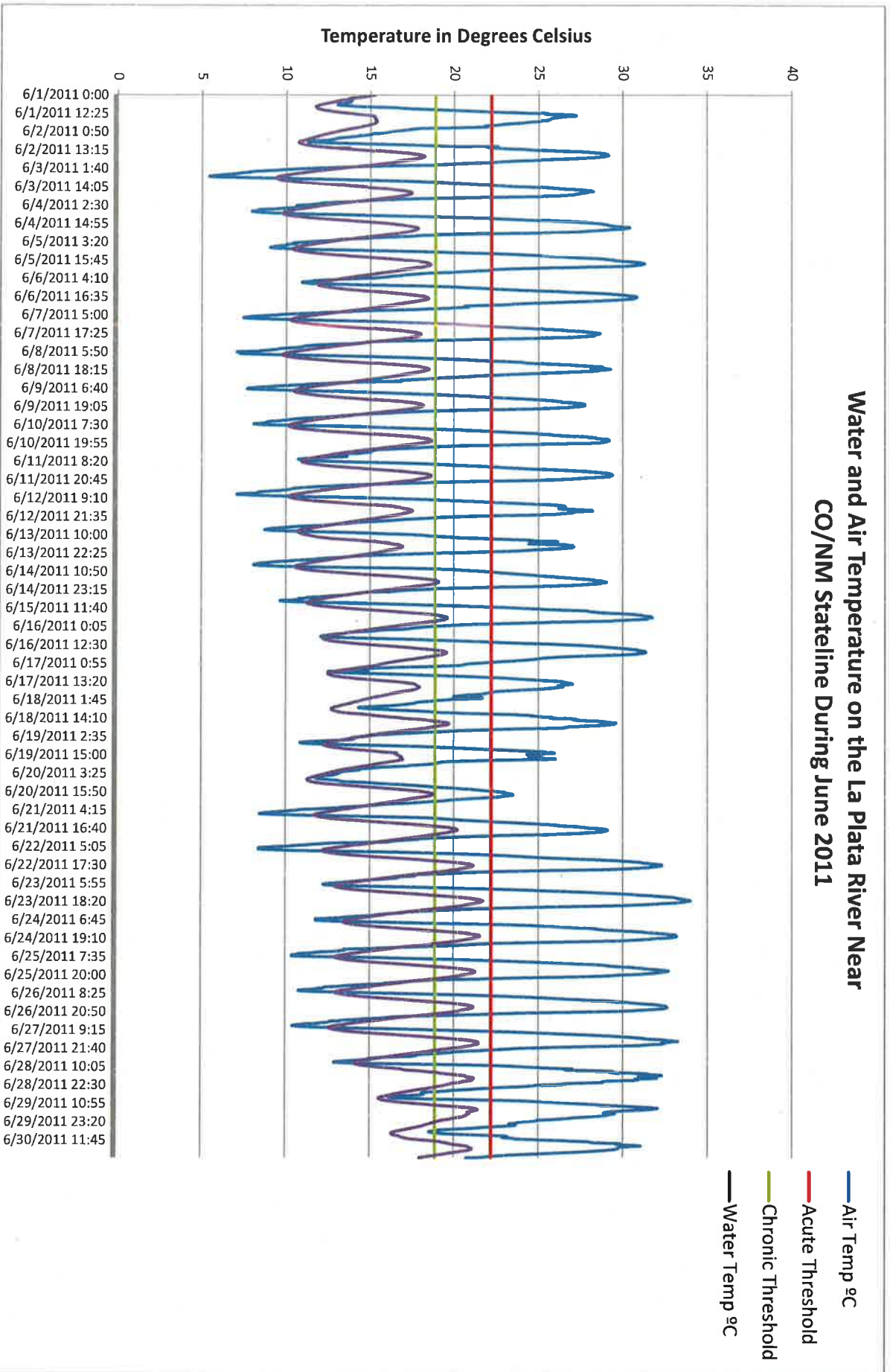


**Water and Air Temperature on the Animas River Near the  
CO/NM State Line During August 2011**

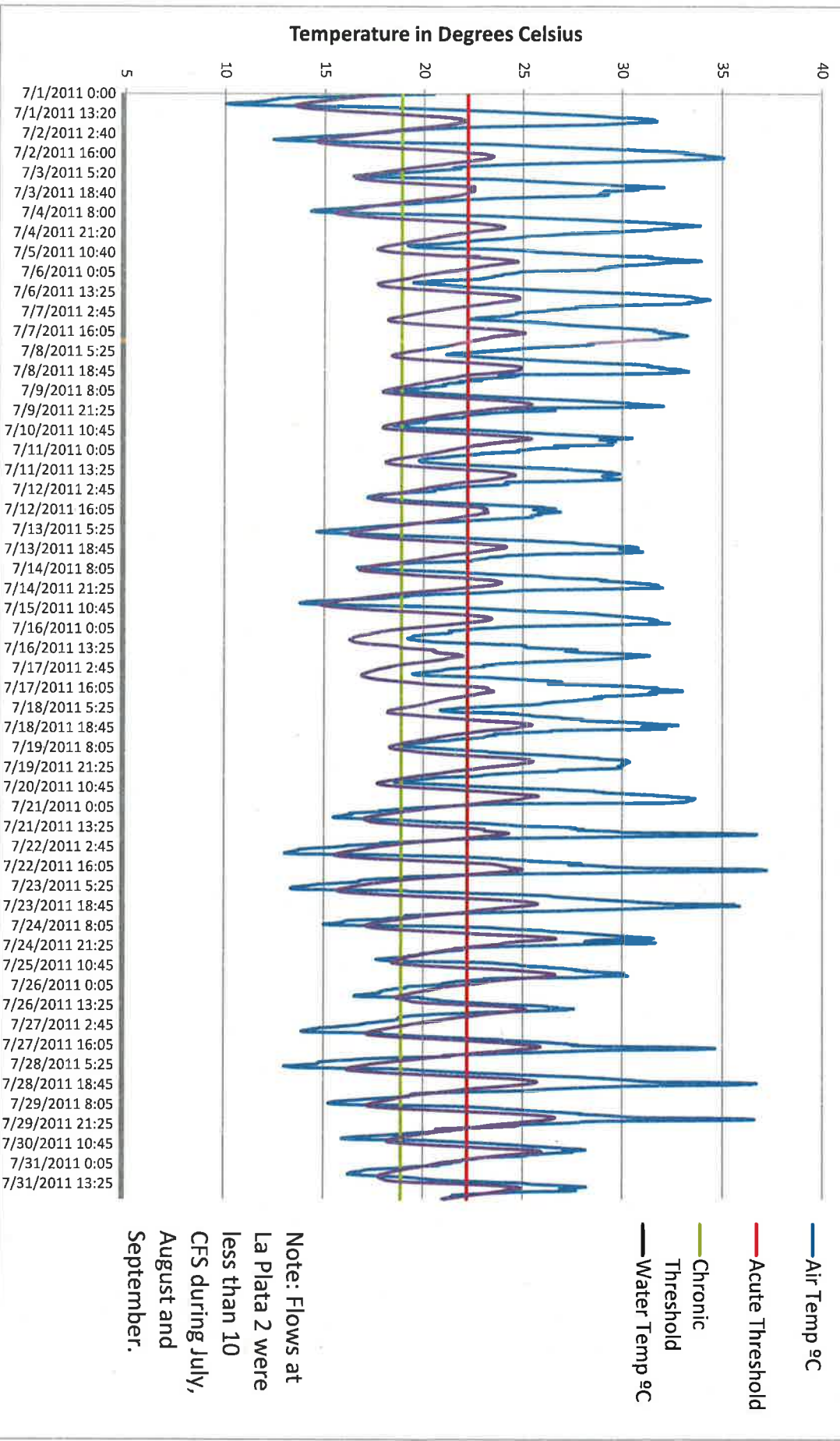




## Water and Air Temperature on the La Plata River Near CO/NM Stateline During June 2011



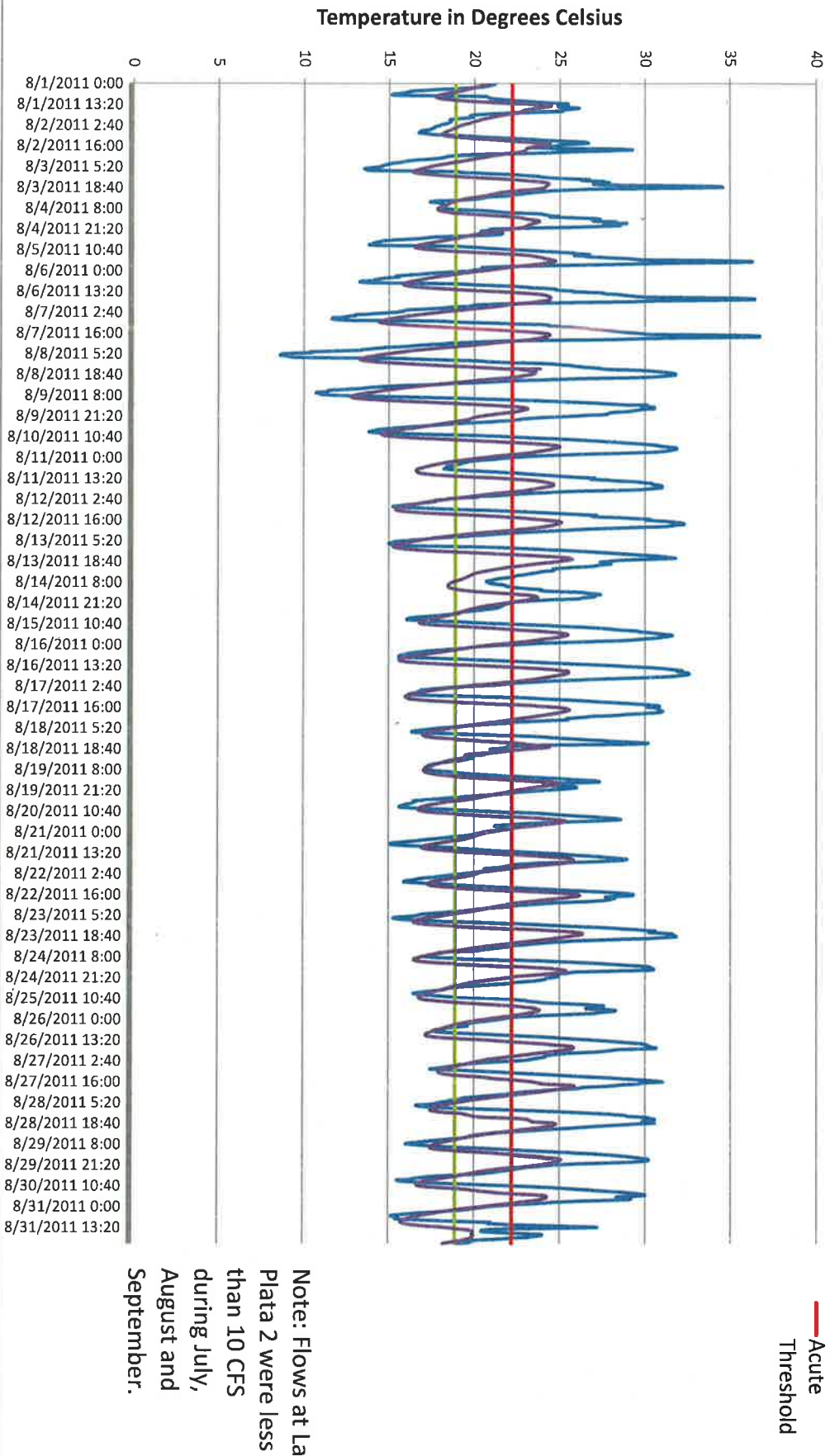
## Water and Air Temperature on the La Plata River Near the CO/NM Stateline During July 2011



Note: Flows at La Plata 2 were less than 10 CFS during July, August and September.

- Air Temp °C
- Acute Threshold
- Chronic Threshold
- Water Temp °C

## Water and Air Temperature on the La Plata River Near the CO/NM Stateline During August 2011



Note: Flows at La Plata 2 were less than 10 CFS during July, August and September.

— Air Temp 9C  
— Acute Threshold

## COMMENT SET 7 – Animas Watershed Partnership, Durango, CO

JANUARY 30, 2012

The Steering Committee of the Animas Watershed Partnership (AWP) wishes to comment on the proposed changes to the Integrated List in response to the 45-day comment period closing January 30, 2012. These comments refer to two specific sections: the Animas River (HUC 14080104) from the San Juan River to Estes Arroyo (Was: 20.6.4.403, AU: NM-2403A\_00) and the Animas River (HUC 14080104) from Estes Arroyo to CO border (Was: 20.6.4.404, AU: NM-2404\_00).

The AWP leads a local collaborative, consensus-based process taking action to improve water quality in the Animas River based on data and scientific information. As such, we respectfully request that the NM Environment Department (NMED) consider AWP as an interested party and key stakeholder on the Animas River in New Mexico. We are interested in sharing, upon request, the water quality data that we have collected and will continue to collect: Please notify AWP at the address above of any upcoming processes addressing the Animas River, including development of TMDLs, sampling events, and triennial reviews.

***SWQB RESPONSE:*** *SWQB will add both your email addresses and the Animas Watershed Partnership physical mail address to our SWQB mailing list.*

The AWP formed in 2002 out of concern for high nutrient levels in the Animas River in New Mexico and Colorado. The partnership works together across state and tribal boundaries to protect and improve the quality of water resources in the Animas River. Partners include private landowners, environmental groups, municipalities, counties and states, as well as the Southern Ute Indian Tribe and Ute Mountain Ute Indian Tribe. The Steering Committee of the AWP consists of nine representatives from municipalities, organizations and private citizens from New Mexico, Colorado and the Southern Ute Tribe.

The following comments are based on a majority opinion of the partnership's Steering Committee. These comments are not necessarily shared by all of the Steering Committee members, nor do they necessarily reflect the views of the partnership's member organizations.

The Steering Committee of the AWP supports the NMED's use of all existing data to assess water quality against standards, and agrees that where analysis of this data shows that a segment does not meet standards, that segment should be listed. We consider the 303(d) process to be one tool in the toolbox for improving water quality in the Animas River.

Since its beginnings, the AWP has based its efforts on data collection and the application of scientific principles. The group will continue to engage in field data collection into the future. With financial support from both the NMED 319 and the Colorado Non-Point Source Programs, as well as other local funders, the AWP has just had finalized the Animas Watershed Based Plan (BUGS Inc. 2011 ) for the whole Animas River from its Colorado headwaters through the Southern Ute Indian Reservation into New Mexico to its confluence with the San Juan River.

In the development of this plan, the following pollution source identification data were collected in accordance with an EPA approved Quality Assurance Project Plan and is available upon request:

- In New Mexico, in 2006, from the NM/CO state line to the confluence with the San Juan River: the concentration of total nitrogen and total phosphorus was measured at 42 sites on the Animas mainstem and in 70 inflows. Periphyton biomass and benthic macroinvertebrate



community data were collected at each of the mainstem sites.

- In Colorado and the Southern Ute Indian Reservation, in 2010, from Bakers Bridge to the NM/CO state line: the concentration of total nitrogen and total phosphorus was measured at 18 sites on the Animas mainstem and in 28 inflows. Periphyton biomass, N15 isotope and benthic macroinvertebrate community data were collected at each of the mainstem sites. A geomorphic assessment was also completed for this reach, including qualitative observations of embeddedness. Animas River (Estes Arroyo to CO border) With respect to NMED's stated need for "Additional % sand and fines data warranted to confirm 2012 sedimentation listing," in this reach, the 2010 report entitled "Source Pollution Identification and Geomorphic Assessment (Bakers Bridge to New Mexico State Line) (Basin Hydrology Inc. 2011) contains embeddedness data in the reach upstream of the NM/CO state line to Bondad, CO. Estimates of embeddedness (the percentage of fines (fine sands to clays) covering a gravel-cobbleboulder dominated channel bed) were 35-40% embedded in the active channel and 75-80% in the non-active channel. Some pebble count data was also collected as part of the periphyton sampling conducted in the Colorado/Southern Ute reach in 2010.

### **SWQB RESPONSE:**

*The SWQB can consider this data for the next Integrated List. SWQB releases a call for data typically in the spring of every odd numbered year in preparation for the development of the next draft Integrated List via a public notice in major newspapers around the state and an associated mass e-mail to our SWQB email list. Potential data providers should submit their data and associated QA/QC information in response to this call, although they may submit at any time that is convenient for them.*

*These data may also provide watershed-based information for upcoming TMDLs. SWQB will contact the Partnership for these data and associated reports when TMDL development begins. In addition, your comment has also been noted for potential coordination with the Bureau's effectiveness monitoring program and watershed planning projects in the waterbodies you mention.*

Thank you for the opportunity to provide comments. Again, please ensure that the AWP receives notice of future actions and opportunities for public comment. Also, let us know how best to make our data available to you.

Sincerely,

Ann Oliver  
AWP Coordinator

Paul A. Montoia  
AWP Steering Committee Chair

## COMMENT SET 8 – San Juan Watershed Group, Bloomfield, NM

January 30, 2012

RE: Comments on Draft 2012 – 2014 Sections 303(d)/305(b) Integrated List of Assessed Surface Waters

The San Juan Watershed Group (SJWG) wishes to comment on the proposed changes to the Integrated List in response to the 45-day comment period for public comments. Our comments address two specific sections: the Animas River (HUC 14080104) from the San Juan River to Estes Arroyo (WQS: 20.6.4.403, AU: NM-2403A\_00) and the Upper San Juan River (HUC 14080101) from the Animas River to Canon Largo (WQS: 20.6.4.408, AU: NM-2401\_00).

The following comments are based on a majority opinion expressed by the group's attendees at the most recent SJWG meeting and are not shared by all of the group's members, nor should they be construed to reflect the opinions of the member's agencies or organizations.

### **Animas River from San Juan River to Estes Arroyo (WQS: 20.6.4.403, AU: NM-2403A\_00)**

The San Juan Watershed Group requests that this segment be listed for exceeding the *E. coli* standard. This would change the proposed listing from threatened to impaired.

We understand that three data sources were used in the assessment. These sources were from two SWQB Stations (66Animas017.4 and 66Animas001.7) and one outside source from the United States Geological Service (USGS 09364010) which is located downstream of Aztec. There are two USGS sample sites located within this stream segment. The data from USGS 09364500 located near Farmington was not included in the assessment process. We believe that inclusion of all of the relevant data would result in a listing for *E. coli*.

**SWQB RESPONSE:** *Despite the SWQB's request for all available data from May 1, 2006, through May 1, 2011, from the USGS, they inadvertently did not include data from USGS gage 09364500 near Farmington. This omission was not identified during development of the draft list. Incorporation of available E. coli data from this station changes the assessment conclusion from Full Support to Non Support for this parameter because there were 2 of 13 exceedences at this location (which is the same as SWQB station SWQB 66Animas001.7). The assessment sheets, list, and ROD have been revised accordingly.*

### **Upper San Juan River from Animas River to Canon Largo**

The San Juan Watershed Group is concerned that the proposed de-listing for *E. coli* bacteria may be for a short period of time. While there has been a significant reduction in the number of cattle and horses in this area due to the economy and extended period of drought, this may be temporary. There has been no other significant change in land use practices that would explain the reduction in bacterial loading. It's possible that this is a temporary improvement and that future studies will require that this be re-listed.

**SWQB RESPONSE:** *Assessment of data collected at three stations during SWQB's 2010 survey indicate Full Support according to application of our Assessment Protocols (0 of 24 exceedences). This assessment unit must therefore be de-listed for E. coli on this listing cycle.*

Thank you for the opportunity to provide comments.

Sincerely,  
David Tomko, Coordinator

## COMMENT SET 9 – San Juan Water Commission, Farmington, NM

January 30, 2012

Re: Comments of San Juan Water Commission on Draft 2012-2014 State of New Mexico Clean Water Act (CWA) Sections 303(d)/305(b) Integrated List of Assessed Surface Waters

Thank you for publishing, and accepting public comment on, the Draft 2012-2014 State of New Mexico Clean Water Act (CWA) Sections 303(d)/305(b) Integrated List of Assessed Surface Waters (the "Draft Integrated List). Through this letter, I hereby submit San Juan Water Commission's ("SJWC, comments on the Draft Integrated List. In addition, this letter responds to draft comments that may be filed by the Animas Watershed Partnership and the San Juan Watershed Group. SJWC appreciates the opportunity provided by NMED to comment on the Draft Integrated List. In addition, SJWC appreciates NMED's quick response in providing the San Juan Basin surface water quality data we requested.

SJWC has three specific comments concerning the Draft Integrated List.

1. **San Juan River (Navajo Boundary at the Hogback to Animas River)**: In past comments, SJWC has objected to NMED's application of inappropriate methodologies, and the resulting listing of certain river segments as impaired, for "sediment/siltation (SC)" and "turbidity." These two causes of impairment were added to this segment of the San Juan River in 2012.

The San Juan River is principally a sand channel river. One of the primary natural functions of this river is to transport sediment downstream. SJWC therefore believes that the listing of this segment for sedimentation/siltation and turbidity is inappropriate given the nature of the river and its surrounding geography.

**SWQB RESPONSE:** *Determination of excessive sedimentation/siltation in large southwest rivers is a challenging task. The SWQB's approach is based on the project with the 2002 National Sedimentation Laboratory combined with more recent data from our 2010 survey, and is a valid approach to assess the available data. The SWQB's approach to determine potential turbidity impairment is an improvement over previous approaches where we only used grab data to assess (see full protocol at <http://www.nmenv.state.nm.us/swqb/protocols/> for details).*

2. **San Juan River (Animas River to Canon Largo)**: For the reasons stated above, SJWC believes that (i) the continued listing for sediment/siltation and (ii) the new listing for "turbidity" for this segment of the San Juan River are inappropriate.

**SWQB RESPONSE:** *See above response.*

3. **San Juan River (Canon Largo to Navajo Dam)**: SJWC supports NMED's finding of no impairment and its determination that this segment fully supports all designated uses.

**SWQB RESPONSE:** *No response required.*

## RESPONSE TO COMMENTS BY OTHERS

### 1. Response to Draft Letter by the Animas Watershed Partnership

SJWC received a draft letter from the Animas Watershed Partnership (the "Partnership") dated January 26, 2012, concerning the Draft Integrated List. The Animas Watershed Partnership is an informal, non-incorporated group of parties interested in watershed issues in the San Juan River Basin. The organization has no structure, bylaws, or articles of incorporation.

The Partnership's draft letter identifies SJWC as a Partnership participant, which it is. The letter also states that the "following comments are based on a majority opinion expressed by the partnership's Steering Committee," but does not name the members of the Steering Committee supporting the Partnership's comments. SJWC would like to make it clear that the Partnership's draft letter does not represent the views of SJWC. Nor has SJWC approved the content of any comments that may be submitted by the Partnership.

In particular, SJWC does not support the comments included in the Partnership's draft letter regarding the Animas River (Estes Arroyo to Colorado Border), as follows.

#### **Partnership Comments on Animas River (Estes Arroyo to Colorado Border):**

The Partnership has questioned NMED's comment that additional data would be needed to confirm the need to proceed with a TMDL. The letter cited a report (Basin Hydrology, Inc., 2011) that contains "embeddedness" data "in the reach upstream of the New Mexico/Colorado state line to Bondad, Colorado." This data is not relevant to the river segment in question (Estes Arroyo to Colorado Border), as it was collected upstream of this segment.

**SWQB RESPONSE:** *SWQB agrees that these data would not be used for assessment.*

### 2. Response to Draft Letter by the San Juan Watershed Group

SJWC also has received a copy of a draft letter to NMED dated January 25, 2012, from a group named "San Juan Watershed Group" (the "Group"). David Tomco, Coordinator of the Group, apparently intended to provide comments on the Draft Integrated List. SJWC also participates in this Group; however, SJWC does not support the letter submitted on behalf of the Group.

The January 25th draft of the Group's letter commented on two segments: (i) Animas River from San Juan River to Estes Arroyo and (ii) Upper San Juan River from Animas to Canon Largo. SJWC responds as follows to the comments in the Group's draft letter.

**Group Comments on Animas River from San Juan River to Estes Arroyo:** In its draft letter, the Group states:

The data from USGS 0934500 located near Farmington is not included in the assessment process. We believe that inclusion of all relevant data would result in the listing for E. coli.

SJWC has reviewed the data from that station. The data supports NMED's conclusion and would not result in the listing of this segment for E. coli.

**SWQB RESPONSE:** *SWQB disagrees. SWQB requested all available data from May 1, 2006, through May 1, 2011, from the USGS so we could incorporate these data into our assessments for the draft 2012-2014 list. The USGS inadvertently did not include data from USGS gage 09364500 near Farmington. This omission was not identified during development of the draft list. Incorporation of*



*available E. coli data from this station changes the assessment conclusion from Full Support to Non Support for this parameter because there were 2 of 13 exceedences (15%) at this location (which is the same as SWQB station SWQB 66Animas001.7) and 5 of 32 exceedences (16%) for all locations. Perhaps even more significant is that with the addition of this data, 5 of 10 samples collected during the summer months exceed the criteria. This assessment unit must therefore include a listing for E. coli on this listing cycle. The assessment sheets, list, and ROD have been revised accordingly.*

**Group Comments on Upper San Juan River from Animas River to Cañon Largo:** The Group speculates that this segment could be relisted in the future. The speculative statement does not provide any data that could be used to modify NMED's assessment. NMED should proceed with the proposed delisting for E. coli.

**SWQB RESPONSE:** *SWQB agrees. Assessment of data collected at three stations during SWQB's 2010 survey indicates Full Support according to application of our Assessment Protocols (0 of 24 exceedences). E. coli must therefore be de-listed in this assessment unit on this listing cycle.*

Thank you for your consideration of these comments. If you have any questions about SJWC's position, or would like to discuss these issues in more detail, please do not hesitate to call me. We look forward to receiving your responses to these comments.

Sincerely,

L. Randy Kirkpatrick  
Executive Director

## COMMENT SET 10 – Wright Water Engineers, Inc., Durango, CO

January 30, 2012

Re: Comments Regarding New Mexico's Draft "2012 – 2014 State of New Mexico Clean Water Act 303(d)/305(b) Integrated Report"

Wright Water Engineers, Inc. (WWE) respectfully requests the New Mexico Environment Department Surface Water Quality Bureau consider the following comments regarding the 303(d) listing of the Estes Arroyo to CO border segment of the Animas River (Assessment ID: NM-2404\_00). The draft "2012 – 2014 State of New Mexico Clean Water Act 303(d)/305(b) Integrated Report" (Integrated Report) identifies this stream segment as impaired for *E. coli*, phosphorus, sedimentation/siltation, turbidity, and temperature. WWE's comments are limited to the turbidity impairment listing.

Currently, New Mexico's Integrated Report lists turbidity as IR Category 5/5B along the Estes Arroyo to CO border segment.<sup>6</sup> WWE's findings, after reviewing the turbidity data associated with this listing, are as follows:

- Turbidity data for the monitoring location on this segment were evaluated based on 388 hours of sonde data from September 22, 2010 through October 7, 2010.
- Based on New Mexico's turbidity assessment protocol, monitoring data indicates this station was in violation of water quality standards for turbidity during the first 149 hours of the monitoring period.
- After the initial 149 hours of elevated turbidity measurements, the turbidity drops to a level that would indicate the stream is in full support of its designated uses.
- Examination of nearby precipitation records indicates that a 0.5-inch rainfall event occurred on September 22, 2010, in the general vicinity of the sonde data sampling location.
- If the initial elevated turbidity levels (likely a result of the rain storm) are not included, the data indicate that this stream is meeting its designated use and would not be impaired for turbidity.

With regard to the influence of storm events on water quality assessments, New Mexico's listing criteria state that grab samples are only valid for non-flood flow events. If the sample is collected after a recent storm event, it is removed from the dataset prior to performing the stream assessment. In the case of turbidity, sonde data are not grab samples; however, we believe that a similar principle should apply to turbidity sonde data affected by storm events, since short-term elevated turbidity in response to storm events is a naturally occurring stream process. Given that the turbidity results during baseflow conditions attain the standard, it is WWE's recommendation that the turbidity listing for this stream segment should be moved to IR Category 5/5C to allow further evaluation of turbidity under dry-weather conditions. Additionally, given that New Mexico is already recommending a Category 5/5C listing for the closely related parameter of sedimentation/siltation, we believe that Category 5/5C is also the most appropriate listing category for turbidity.

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<sup>6</sup> In the Draft Record of Decision, p. 364, and Public Comment Draft Appendix A, p.428, it is unclear whether New Mexico intends for total phosphorus, *E. coli*, and turbidity to be listed as Category 5/5B or 5/5C. If the intended listing category is actually 5/5C, then we request that the listing category be clarified in the final document.

**SWQB RESPONSE:** *The Assessment Database only allows for one IR category per assessment unit. The AU Comment was clarified to indicate the temperature listing is 5B and the sedimentation/siltation listing is 5C.*

**SWQB RESPONSE:** Appendix G (Turbidity Assessment Protocol) documents the SWQB's approach to assessing New Mexico's narrative turbidity standards. All of SWQB's assessment protocols were released for 30-day comment March 22, 2011, through April 20, 2011, and will be released for public comment again prior to the 2014-2016 listing cycle. USEPA requests that comments received during the public comment period for SWQB's draft Assessment Protocols be provided to them for their consideration. The SWQB considers all public comment as well as any comments or responses received from USEPA before finalizing the Assessment Protocols. The SWQB's approach to assessing turbidity based primarily on the severity of ill effects equation in Newcombe (2003) is balanced in that it incorporates both magnitude and duration through the use of sonde data. As stated in the protocol, a minimum of 72-hours of sonde data are needed to determine impairment status. If less than 72 hours of sonde data are available, grab data may only be evaluated to determine either Fully Supporting or the priority of future sonde deployments because grab data provide no indication of duration. The SWQB limits the analysis of grab data to baseflow conditions which can be considered representative of an extended period of time. We further require that at least 4 samples collected at least 21 days apart are all below 7 NTU in order to determine Full Support to ensure that severity of ill effects equation in Newcombe (2003) will not be exceeded. There is no reason to censor storm data from sonde data sets because the severity of ill effects equation takes into account the fact that clear water fish are expected to tolerate episodic increases in turbidity as long as they do not exceed the calculated duration of associated turbidity thresholds. As stated in the assessment sheet that was provided to you, the turbidity threshold of 23 NTU (maximum of 1492 NTU) was exceeded for 174 hours, which is far greater than the allowable duration of 72 hours at which ill effects are expected to occur in clear water fish. Therefore, this turbidity listing is warranted.

Please feel free to contact us if you have any questions.

Very truly yours,

WRIGHT WATER ENGINEERS, INC.

By Peter Foster, P.E.  
Senior Project Engineer

cc: Jane Clary, WWE

## COMMENT SET 11 – City of Albuquerque, Bernalillo County, NMDOT and AMAFCA

January 27, 2012

### Re: City of Albuquerque Comments Draft 2012 - 2014 State of New Mexico Clean Water Act (CWA) Sections 303(d)/305(b) Integrated List of Assessed Surface Waters

The City of Albuquerque Storm Water Management Section and the below signatories appreciate the opportunity to provide comments on the Draft 2012 - 2014 State of New Mexico Clean Water Act (CWA) Sections 303(d)/305(b) Integrated List of Assessed Surface Waters (Integrated List). The Integrated List identifies whether or not a particular surface water of the state is currently meeting its designated uses as detailed in the State of New Mexico Standards for Interstate and Intrastate Surface Waters (20.6.4 NMAC), through application of the State of New Mexico Procedures for Assessing Standards Attainment for the Integrated Sections 303(d)/305(b) Water Quality Monitoring and Assessment Report.

Our comments focus on the Rio Grande (non-Pueblo Alameda Bridge to HWY 550 Bridge) Assessment Unit ID NM-2105.1\_00. This assessment unit has "gross alpha - adjusted" as a "Probable Cause of Impairment" that is new in the Integrated List. The data that form the basis of this addition were provided by you on January 18, 2012 in response to a Public Records Request. Our concern regarding this addition to the list of causes of impairments are the impacts that the listing has on the City of Albuquerque, cities, towns, counties and other institutions in the middle Rio Grande valley. The addition of "gross alpha - adjusted" to the list of causes not only requires the completion of the Total Daily Maximum Load (TMDL), it also becomes a permit monitoring requirement for wastewater and storm water discharges, before the TMDL is even initiated. Thus the municipal and storm water dischargers in the middle Rio Grande valley will bear the burden of monitoring and reporting on this constituent, which likely represents natural background. We have two comments relative to the gross alpha- adjusted: 1) representativeness of the data and 2) impairment based on natural background.

#### Representativeness of the Data

The inclusion of "gross alpha - adjusted" for the referenced section is based on four sampling events during a one month period in 2010. Use of this data is inconsistent with the New Mexico Environment Department assessment protocols and we question the validity making impairment decisions on sampling that is both temporally and spatially limited.

The use of the data is inconsistent with the assessment protocols in that it includes samples collected during periods of hydrologic instability. Section 3.1.2.1 of the "Procedures for Assessing Water Quality Standards for the State of New Mexico CWA §303(d)/§305(b) Integrated Report: Assessment Protocol" (May 6, 2011) states:

*If two or more samples represent an exceedence of a given criterion, these data are evaluated to determine if the samples were collected during hydrologically stable conditions considered to be representative of the 4-day averaging period; this process is detailed below. **If conditions were unstable during the time of sampling, the data are not assessed.** (emphasis added). If sample collection methodology was specifically designed to capture data from storm flow events (e.g., through the use of single stage or automated samplers deployed to capture storm events only), these data should not be used to assess chronic aquatic life criteria. Note that the above statements and data process only apply to chronic criteria and that all grab samples will be used to assess acute criteria regardless of hydrologic conditions."*

One definition of "stable hydrologic conditions" is found in Section 3.1.2.1 of the "Procedures for Assessing Water Quality Standards for the State of New Mexico CWA §303(d)/§305(b) Integrated Report: Assessment Protocol" (May 6, 2011):

*One way to determine stable conditions is to examine the coefficient of variation (CV). When exceedences occur at or near a continuous flow gaging station and mean daily flow data are available, a stream may be considered hydrologically stable if the CV of the mean daily flow for a 4-day period surrounding the sampling collection is at or below 0.2.*

The CV for the 4 days before and 4 days after (including the sample date) are shown in Table 1. This demonstrates that 3 of the 4 samples were collected during hydrologically unstable conditions. The conclusion of hydrologic instability is supported by the erratic nature of Rio Grande discharge for the month of sampling measured at USGS station "Rio Grande near Alameda" (Figure 1). While it is recognized that this assessment is for chronic aquatic life designated use, the determination for data usable for assessment appears to be the same for any chronic standard, which applies to the "gross alpha - adjusted" standard.

Table 1: "Gross Alpha-Adjusted", Stream Flow and Precipitation for "gross alpha-adjusted" Sampling Dates

Date of Sampling	"Gross Alpha – Adjusted" Reported Measurement	"Gross Alpha-Adjusted" Uncertainty	Coefficient of Variation in Flow in Rio Grande near Alameda USGS Gaging Station	Precipitation at Placitas 4W on Sampling Date (inches)	Precipitation at Placitas 4W for Previous 48 Hours (total inches)
July 23, 2010	36	±6.7	0.30	0.0	0.73
August 6, 2010	30	±5.9	0.15	0.0	0.23
August 15, 2010	18	±3.5	0.34	0.09	0.0
August 22, 2010	23	±4.3	0.22	0.0	0.0

Data from: Spreadsheet of data provided by NMED in response to Public Records Request; <http://waterdata.usgs.gov/nwis/dv?referred module=sw&site no=08329928>; and <http://www1.ncdc.noaa.gov/pub/orders/8588395427582dat.html>

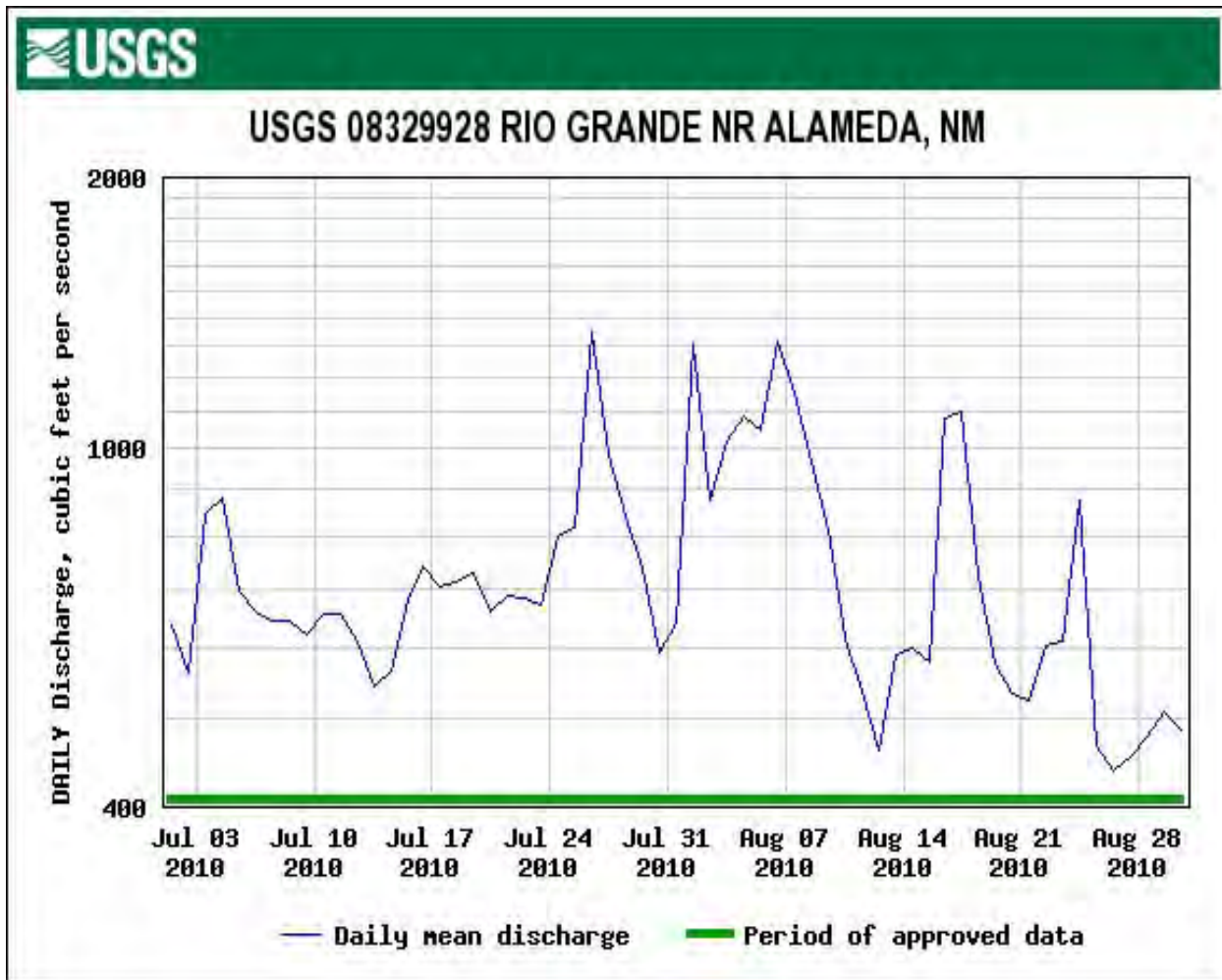


Figure 1 Discharge in Rio Grande near Alameda during July and August 2010

Another indication of hydrologic instability is from Section 1 of the NMED "Hydrology Protocol for the Determination of Uses Supported by Ephemeral, Intermittent, and Perennial Waters" (May, 2011; Appendix C of the Statewide Water Quality Management Plan and Continuing Planning Process) states that:

*Recent (generally considered to be within 48 hours) rainfall can also influence scoring; therefore it is strongly recommended that field evaluations be conducted at least 48 hours after the last known major rainfall.*

The rainfall record for the area, measured at the Las Placitas, from the National Climatic data Center shows that rainfall had occurred in the previous 48 hours for 3 of 4 samples collected (Table 1). Based on the discharge and precipitation data, 3 of the 4 samples collected do not meet the requirements for assessment data.

**SWQB RESPONSE:** *Data Management Rules section 2.1.5 of the main assessment protocol states:*

*"Data collected during all flow conditions (except data collected during unstable conditions when assessing for chronic aquatic life use -- see section 3.1.2.1 below for additional details), including low flow conditions (i.e., flows below the 4Q3), will be used to determine designated*



*use attainment status during the assessment process. ... In terms of assessing designated use attainment in ambient surface waters, WQS apply at all times under all flow conditions unless a flow qualifier is specified in a particular section of the WQS."*

*Section 3.1.2.1 of the main assessment protocol (i.e., listing methodology) only applies to the assessment of chronic aquatic life criteria. Section 3.5 covers the assessment of livestock watering criteria and does not contain any restriction to using storm data.*

The sampling was temporally limited to one month during one year. Within this assessment unit there are no other gross alpha measurements, based on a search of the USGS National Water Information System. There is simply insufficient data to understand the levels of gross alpha in the Rio Grande over a year, or longer, time periods. Over time, seasonally or annually, the flow and water quality of streams change. Sampling one month in August will not provide the data necessary to know or even estimate the water quality in December, March, or June. The "Procedures for Assessing Water Quality Standards for the State of New Mexico CWA §303(d)/§305(b) Integrated Report: Assessment Protocol" (May 6, 2011) states this concept very clearly in Section 3.1.2.1 the importance of sampling over time to fully understand the water quality in a water body:

*Starting with the 2002 SWQB intensive watershed surveys, the sampling regime was adjusted to sample once per month over an eight-month period in order to 1) better characterize the waterbody throughout the annual hydrograph, and 2) acquire data points that are more likely to be statistically independent with respect to time.*

**SWQB RESPONSE:** *This statement in the assessment protocols is intended to provide information regarding SWQB's sampling approach; it should not be construed as a requirement or rule that data must meet to be assessed.*

*Furthermore, the presumption that there are insufficient data to list this water as impaired holds little weight. The SWQB agrees that there are only 4 data points from a relatively short period of time; however all exceed the criteria. It is therefore highly likely that more data collected under similar conditions will also exceed the criteria. There are no biologic, hydrologic or geochemical grounds to assert that collecting data from different months or years will change this result.*

The "gross alpha-adjusted" applies to only one designated use in the subject segment: livestock watering and the criteria is 15 pCi/L. Table 1 shows the data that were provided by NMED in response to the Public Record Request. The data were provided by the NMED Department of Energy Oversight Bureau. For at least one of these samples, collected on August 15, the uncertainty in the analytical measurement of the unadjusted gross alpha could mean that that measurement is actually below the criteria for Livestock Watering.

**SWQB RESPONSE:** *SWQB does not adjust for analytical uncertainty for any parameter because uncertainty is provided as + or – a value, providing no indication as to whether the reported result should be adjusted up or down. For example, increasing the reported value of 18 pCi/L by 3.5 pCi/L (the reported uncertainty) would indicate a clear exceedence of the criterion.*

The 4 samples that form the basis of this new probable cause were not only temporally limited, were all collected at the same sampling station, Rio Grande at Alameda. And yet the probable cause for the impairment is applied to stretch of the Rio Grande that extends 11 miles north of the sampling station. The urban land use around the sampling station is dissimilar to the rural character of the stretch to the north of the Alameda Bridge. Samples collected from this one section are not representative of the assessment unit as a whole. The "gross alpha- adjusted" data used to support this "probable cause of

impairment" are temporally and spatially limited such that they have little scientific basis for assessing water quality and are not consistent with the assessment protocols.

**SWQB RESPONSE:** *The median length for a stream/river AU is ~9 miles, similar that of the AU on the Rio Grande from Alameda Bridge to the HWY 550 Bridge. The southern end of this AU is currently fixed by a water quality standard segment break between WQS segments 20.6.4.106 and 20.6.4.105 NMAC. The northern end of this AU prior to the 2010 listing cycle extended north to the Angostura Diversion works, which is currently the next WQS segment break. Prior to the 2010 listing cycle, this reach was intensively studied for E. coli; based on the results of this analysis, this AU was split at the HWY 550 Bridge in Bernalillo because available data upstream of this bridge indicated no impairment whereas data downstream of this location exceeded the primary contact criteria.*

*While the SWQB agrees that land use becomes increasingly urban along the Rio Grande within the AU, however we do note that there are four existing NPDES permitted outfalls in the reach and nearly all of the contributing watershed is regulated or proposed to be regulated under an EPA-issued storm water permit. As stated in the assessment protocol section 2.1.6, potential AU splits are also a data driven process when there are multiple stations in an assessment unit. Until there are data available to indicate that surface water quality in the Rio Grande above the north diversion channel differs from surface water quality below, there is not adequate information to split this AU. The SWQB agrees that additional data would help determine whether or not an AU split is warranted prior to TMDL development and has changed this listing to Category 5C accordingly. As noted in the draft list, SWQB is planning to survey the Middle Rio Grande in 2014, prior to development of TMDLs scheduled for 2016.*

## **Natural Background**

"Gross alpha" is the measure of the combined activity of alpha emitters in a sample. Most alpha emitters occur naturally in the environment. Alpha particles are given off by members of the uranium decay series. The uranium decay series is one of three such decay series found in nature. The uranium decay series begins uranium-238 and decays through a series of steps to become a stable form of lead. The members of the uranium decay series are present in varying amounts in nearly all rocks, soils and water.

(<http://www.epa.gov/radiation/understand/alpha.html#environment>)

As defined in the New Mexico Standards for Interstate and Intrastate Surface Waters (20.6.4 NMAC), "gross alpha- adjusted" is defined as:

**20.6.4.7A 5"Adjusted gross alpha"** means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample, including radium-226, but excluding radon-222 and uranium. Also excluded are source, special nuclear and by-product material as defined by the Atomic Energy Act of 1954.

As shown in the Table 2, most common alpha emitters are not included in "gross alpha - adjusted". Those alpha emitters that are included are naturally occurring and represent background. This is likely to be the conclusion of a TMDL, if one is conducted. However, until a TMDL is conducted (scheduled for 2016), dischargers of wastewater and storm water may be required to monitor for, and report on, "gross alpha - adjusted".



**Table 2: Common Alpha Emitters**

Alpha Emitter	Included in New Mexico “gross alpha – adjusted”?	Alpha Emitter	Included in New Mexico “gross alpha – adjusted”?
Americium-241	No	Radon-222	No
Californium-252	No	Thorium-220	No
Plutonium-236	No	Thorium-229	No
Plutonium-239	No	Thorium-232	No
Polonium-210	Yes	Uranium-238	No
Radium-226	Yes		

(Sources: [http://www.cna.ca/curriculum/cna radiation/alpha emitters-eng.asp?bc=Common%20Alpha%20Emitters&pid=Common%20Alpha%20Emitters](http://www.cna.ca/curriculum/cna_radiation/alpha_emitters-eng.asp?bc=Common%20Alpha%20Emitters&pid=Common%20Alpha%20Emitters); <http://www.epa.gov/radiation/understand/alpha.html#emitters>)

**SWQB RESPONSE:** *There are both natural and anthropogenic contributors to many parameters with surface water quality standards. As such, adjusted gross alpha values are expected to include naturally occurring components. In the case of gross alpha, 20.6.4.7 Subsection A(5) NMAC allows for “adjusting” the reported gross alpha value to avoid potential double regulation because source, special nuclear and by-product material as defined by the Atomic Energy Act of 1954 are regulated by the Department of Energy.*

*For gross alpha, anthropogenic activities within a watershed may increase the contribution of these “natural” sources in an unnatural way. There is a strong correlation between the SSC and gross alpha levels. The more sediment in the stream, the more likely there will be an exceedence of the adjusted gross alpha criteria. The application of BMPs to limit SSC in stormwater discharges (e.g. watershed improvements through better grazing management, wetlands, detention basins) can reduce the suspended sediment and gross alpha proportionally. The way to control elevated adjusted gross alpha in stormwater is through aggressive suspended sediment control, preferably on a watershed scale, but also locally when possible.*

While the measurement of gross alpha using EPA's method 900. 1 is relatively inexpensive (generally less than \$100.00), the alpha spectrum analysis that is required to calculate "gross alpha - adjusted" is 4 to 5 times the cost. The additional expense is necessary to quantify the activity of the uranium, radon-222, and the source, special nuclear, and by product isotopes that may be present in the sample. The additional sampling and analysis, particularly for storm water dischargers, will impose a significant economic burden throughout the middle Rio Grande valley, while only resulting in quantification of natural background. The suggestion that a TMDL is required for natural background is in conflict with NMED testimony before the Water Quality Control Commission. During the 2003 Triennial Review Hearing, a panel of NMED witnesses made this statement:

*If we could show that that -- that it's a hundred percent -- a hundred percent of the contribution is natural background, and there is no other sources that contribute to that, then, no, we would*

*not move forward with the TMDL" (from the 2003 Triennial Review Transcript, page 638 line 25 and page 639, lines 1 - 3).*

**SWQB RESPONSE:** *The definition of "natural background" found at 20.6.4.N.(1) NMAC defines this term as "...that portion of a pollutant load in surface waters resulting only from non-anthropogenic sources. Natural background does not include impacts resulting from historic or existing human activities." If human activities in the watershed increase SSC levels, which results in elevated adjusted gross alpha levels, this is not "natural background" under the regulations. The larger context of NMED's testimony is consistent with this interpretation.*

*USEPA is the NPDES permitting authority for New Mexico permits, and therefore establishes the sampling requirements that maybe required under stormwater permits.*

It seems more appropriate that the impairment due to "gross alpha adjusted" be moved category SA to Category 5C on the 303( d) Integrated List. The definitions of Category 5A and 5C are:

**"A. TMDL is underway or scheduled.** AUs are listed in this category if the AU is impaired for one or more designated uses by a pollutant. Where more than one pollutant is associated with the impairment of a single AU, the AU remains in Category SA until TMDLs for all pollutants have been completed and approved by USEPA,"

**"C. Additional data will be collected before a TMDL is scheduled.** AUs are listed in this category if there is not enough data to determine the pollutant of concern or there is not adequate data to develop a TMDL. For example, AUs with biological impairment will be listed in this category until further research can determine the particular pollutant(s) of concern. When the pollutant(s) are determined, the AU will be moved to Category 5A and a TMDL will be scheduled. If it is determined that the current designated uses are inappropriate, it will be moved to Category 5B and a UAA will be developed. If it is determined that "pollution" is causing the impairment (vs. a "pollutant"), the AU will be moved to Category 4C. AUs that are suspected of being impaired due solely to natural causes, but which lack sufficient data to make this determination, will be placed in Category 5C with a note that additional information is needed."

**SWQB RESPONSE:** *The SWQB agrees that additional data would be helpful prior to TMDL development and to determine if an AU split is warranted; therefore, we changed the IR category to 5C (leaving the estimated TMDL date as 2016) and look forward to working together to collect additional data during our survey in 2014.*

## **SUMMARY AND RECOMMENDATIONS:**

Based on the information presented above, we urge that "gross alpha-adjusted" be removed as a "probable cause of impairment" from the Rio Grande (non Pueblo Alameda Bridge to HWY 550 Bridge) Assessment Unit 10 NM-2105.1\_00 based on the unsuitability of the data for assessment purposes and that the "gross alpha-adjusted" represents purely natural background, for which that NMED has testified that a TMDL would not be done. Alternatively, the impairment due to "gross alpha-adjusted" should be listed as Category 5C, rather than 5A.

Respectfully submitted,

Roland Penttila, P.E.  
Manager  
Stormwater Management Section  
City of Albuquerque

Mary K. Murnane  
Program Manager  
Water Resources Program  
County of Bernalillo

Jerry Lovato, P.E.  
Executive Engineer,  
AMAFCA

Tony Abbo, P.E.; P.T.O.E.  
Assistant District 3 Engineer  
NMDOT

## COMMENT SET 12 – Albuquerque Metropolitan Arroyo Flood Control Authority, NM

January 30, 2012

Lynette Guevara  
New Mexico Environment Department  
1190 S. St. Francis Drive  
P.O. Box 5469  
Santa Fe, NM 87502

Re: AMAFCA Comments to Draft 2012 – 2014 State of New Mexico Clean Water Act (CWA)  
Sections 303(d)/305(b) Integrated List of Assessed Surface Waters

Dear Ms. Guevara:

The Albuquerque Metropolitan Arroyo Flood Control Authority is concerned about the proposed impairment listings in the draft 303(d)/305(b) Impaired Waters List for 2012-2014. Our comments focus on the Rio Grande (non-Pueblo Alameda Bridge to HWY 550 Bridge Assessment Unit ID NM-2105.1\_00. We have concerns about the listing of PCBs and Gross Alpha as causes of impairment. AMAFCA's concerns and comments regarding the listing of Gross-Alpha are outlined in a joint letter from the City of Albuquerque, Bernalillo County, New Mexico Department of Transportation that was submitted to NMED last week. Our concerns about the PCB list are as follows:

1) PCBs are disseminated as airborne particles and have been determined to be ubiquitous in the environment. For instance, they have been found in the snow pack of pristine high mountain areas.

**SWQB RESPONSE:** *The SWQB agrees that PCBs are potentially distributed via atmospheric sources and acknowledges this through the inclusion of "Atmospheric Deposition – Toxics" as a probable source for all PCB-related listings.*

2) PCBs are hydrophobic, and as such they typically are not found in the water. They are typically found in sediments and at such low concentrations that it is very doubtful they have a detrimental effect on the environment.

**SWQB RESPONSE:** *PCBs are found in measurable quantities in both water and sediments in concentrations known to have detrimental effects to biota and humans via processes such as bioaccumulation.*

The listings will result in TMDLs being assigned to the reach and add costly monitoring requirements to agencies which may have difficulty complying with such requirements, especially in the current economic downturn. Trying to correct river problems for which we may have no contribution or ability to control is wasteful of taxpayer money.

The general goals of the Clean Water Act are to make all natural waters swimmable and fishable. In New Mexico, naturally occurring contamination sources are likely the main contributors to the impairments listed except for PCBs in fish tissues. As stated above, PCBs are ubiquitous world-wide with macro-biota being contaminated even in the remote reaches of the arctic. PCBs are transported into pristine environments by wind, bioaccumulation, and wildlife migration with no local anthropogenic contributions.

**SWQB RESPONSE:** *There are both natural and anthropogenic contributors to many parameters with surface water quality standards. See responses to Comment Set 11 above for full discussion. While*

*PCBs can be transported into pristine environments by the processes you mention, urban/developed areas are not pristine and as such local anthropogenic contributions from past PCB use and disposal before they were banned is possible. Furthermore, this reach is currently listed for PCBs Fish Tissue*

In addition to our concerns above, we remain adamantly opposed to the 2010 Action of listing dissolved oxygen and E.Coli as causes of impairment for AU NM-2105.1\_00. Although there may be anthropogenic sources for these impairments, there are also natural sources, and there is no evidence that either has caused any harm to the environment.

**SWQB RESPONSE:** *The SWQB, the WQCC, and USEPA disagrees. See Responses to Comments to the EPA-approved 2010-2012 Integrated List, available at: <http://www.nmenv.state.nm.us/swqb/303d-305b/2010-2012/>. It is SWQB's understanding that AMAFCA and others in the Middle Rio Grande have been collecting both E. coli and dissolved oxygen data (in addition to undertaking a QA analysis of the dissolved oxygen data on which the 2010-2012 dissolved oxygen listing was based). We encouraged AMAFCA to submit this data for evaluation but have yet to receive it. Please also note that SWQB plans to survey the Middle Rio Grande watershed in 2014.*

Please contact Kevin Daggett at (505) 884-2215 or at [Kdaggett@amafca.org](mailto:Kdaggett@amafca.org) to discuss our comments.

Sincerely,

Kevin Daggett, P.E., P.S.  
Stormwater Quality Engineer, AMAFCA

c: Albuquerque MS4 Co-permittees

**COMMENT SET 13 – Southern Sandoval County Arroyo Flood Control Authority, Rio Rancho, NM**

January 30, 2012

RE: 2012-2014 State of New Mexico Clean Water Act §303(d)/§305(b) Integrated Report Public Comment Draft

Dear Ms. Guevara:

SSCAFCA and the undersigned appreciate the opportunity to provide the following comments on the subject document and associated draft Record of Decision.

It is our understanding that EPA test method 1668 was used to determine that PCBs were found to exceed the water quality standard for the applicable designated uses for WQS reference section 20.6.4.106/ Assessment Unit (AU) 10 NM-2105.1\_00. We object to the use of test methods currently unapproved by EPA for water quality assessment of ambient waters even though allowed by NMAC 20.6.4.14. The most recent version of this test method (revision C) has been withdrawn by the EPA, for which we infer is due to comments submitted in response to the proposed rule change published in the Federal Register (Vol. 75, No. 184, September 23, 2010) that dispute the validity of the method.

**SWQB RESPONSE:** *The congener method has been published by USEPA's office of research and development, and is therefore an acceptable method pursuant to 20.6.4.14 Subsection A (3) NMAC. Method 1668C has not been withdrawn by the USEPA. According to USEPA's Office of Science and Technology Engineering and Analysis Division, USEPA is deferring action on Method 1668C and will not promulgate this method with the upcoming Methods Update Rule (MUR) in order to have adequate time to evaluate public comment received without slowing down the approval of other methods in the MUR that they hope to promulgate. The decision to postpone a determination on the approval of this method for nationwide use does not negate the merits of Method 1668C for the determination of PCB congeners when a laboratory is experienced with this type of analyses.*

*The congener method is the only method available that has the sensitivity to determine whether or not New Mexico's PCB criteria have been exceeded. These criteria were adopted in accordance with USEPA guidance and recommendations and have been approved by both the WQCC and USEPA Region 6. We understand that the congener method is still being refined, as are other USEPA methods. We will continue to stay apprised of improvements to the method.*

It is also our understanding that data used for proposing Gross Alpha and PCBs as probable causes of impairment for AU NM-2105.1\_00 are associated with samples collected at or below the outfall of the North Diversion Channel (NDC). According to Section 3.0 of the NMED Assessment Protocol document dated May 6, 2011, assessment unit delineations are "designed to represent waters with assumed homogeneous water quality." As such, it is our assertion that assessment data associated with the NDC is not representative of AU NM-21 05. 1\_00, as this outfall impacts approximately the lower 2 miles of the overall approximately 11 mile long segment (see attached map).

Should these listings become official and TMDLs developed, permitted MS4s discharging to this AU will be unfairly burdened with obligations to control and monitor for Gross Alpha and PCBs in discharges when the identified impairment is associated with discharges introduced at the very bottom of the reach, from an entirely different contributing watershed, and for which the upstream MS4 discharges have no control over (see attached map).

For these reasons we request that these listings be removed and the delineation of AU NM-

2105.1\_00 be reconfigured to better represent water quality impairments per the process indicated in Section 2.1.6 of the above-referenced NMED assessment protocol.

**SWQB RESPONSE:** *The median length for a stream/river AU is ~9 miles, similar that of the AU on the Rio Grande from Alameda Bridge to the HWY 550 Bridge. The southern end of this AU is currently fixed by a water quality standard segment break between WQS segments 20.6.4.106 and 20.6.4.105 NMAC. The northern end of this AU prior to the 2010 listing cycle extended north to the Angostura Diversion works, which is currently the next WQS segment break. Prior to the 2010 listing cycle, this reach was intensively studied for E. coli; based on the results of this analysis, this AU was split at the HWY 550 Bridge in Bernalillo because available data upstream of this bridge indicated no impairment whereas data downstream of this location exceeded the primary contact criteria.*

*We also note that there are four existing NPDES permitted outfalls in the reach and nearly all of the contributing watershed is regulated or proposed to be regulated under an EPA-issued storm water permit. As stated in the assessment protocol section 2.1.6, potential AU splits are also a data driven process when there are multiple stations in an assessment unit. Until there are data available to indicate that surface water quality in the Rio Grande above the north diversion channel differs from surface water quality below, there is not adequate information to split this AU. The SWQB agrees that additional data would help determine whether or not an AU split is warranted prior to TMDL development and has changed this listing to Category 5C accordingly. As noted in the draft list, SWQB is planning to survey the Middle Rio Grande in 2014, prior to development of TMDLs scheduled for 2016.*

We also agree with comments submitted by the City of Albuquerque.

**SWQB RESPONSE:** *Please see Comment Set 11 above for responses to the City of Albuquerque submittal.*

Respectfully submitted,

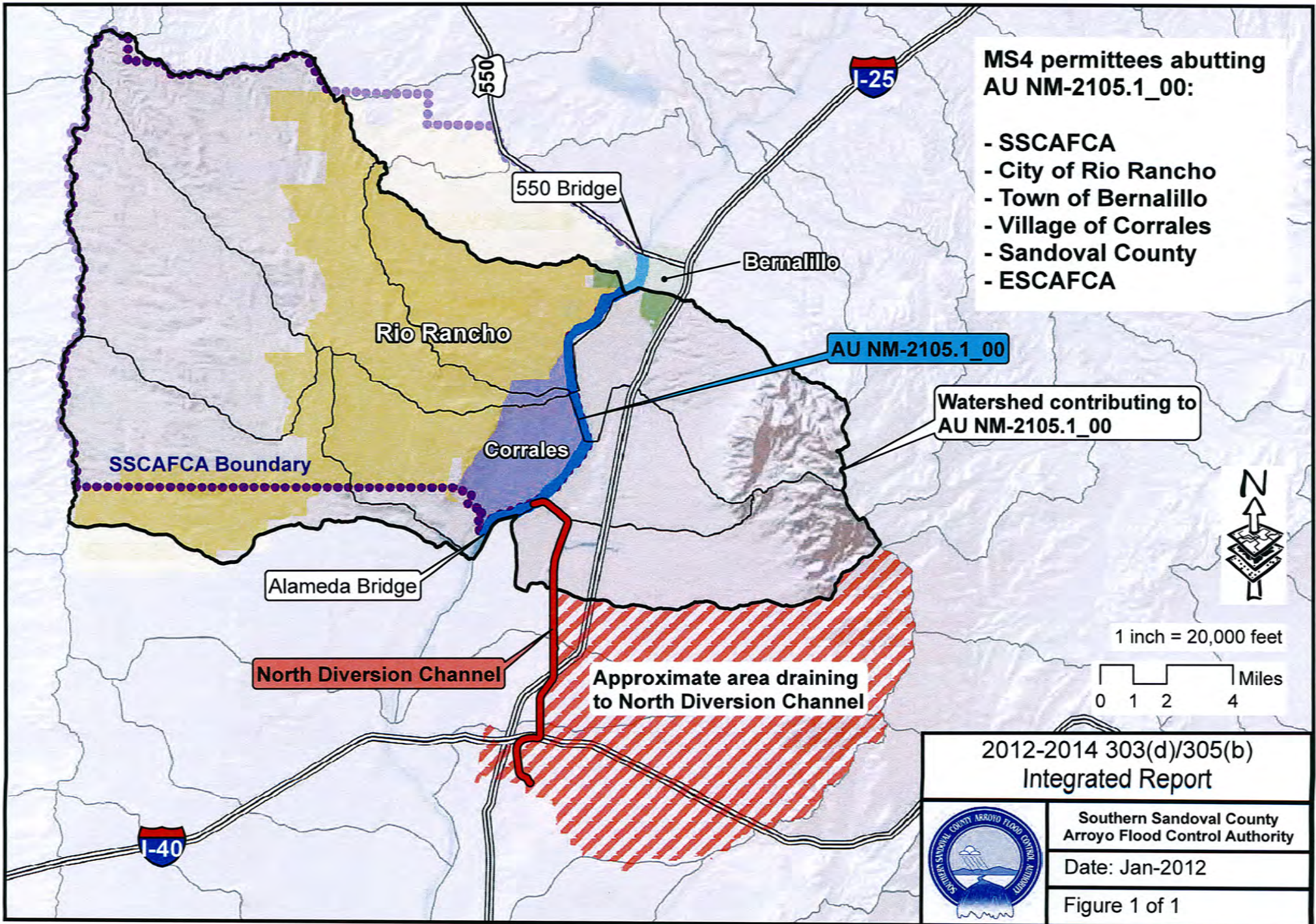
Charles Thomas, PE  
Executive Engineer  
SSCAFCA

Wayne Wormhood  
Building Official/Floodplain Administrator  
Town of Bernalillo

Philip Gasteyer  
Mayor  
Village of Corrales

Scott Sensanbaugher, PE  
Acting Director of Public Works  
City of Rio Rancho





**MS4 permittees abutting  
AU NM-2105.1\_00:**

- SSCAFCA
- City of Rio Rancho
- Town of Bernalillo
- Village of Corrales
- Sandoval County
- ESCAFCA

**AU NM-2105.1\_00**

Watershed contributing to  
AU NM-2105.1\_00

SSCAFCA Boundary

Rio Rancho

Corrales

Bernalillo

550 Bridge

Alameda Bridge

**North Diversion Channel**

Approximate area draining  
to North Diversion Channel

1 inch = 20,000 feet

0 1 2 4 Miles

2012-2014 303(d)/305(b)  
Integrated Report



Southern Sandoval County  
Arroyo Flood Control Authority

Date: Jan-2012

Figure 1 of 1



## COMMENT SET 14 – Truchas Chapter of Trout Unlimited, Santa Fe, NM

January 30, 2012

RE: 2012 – 2014 State of New Mexico Clean Water Act, Integrated Report

The Truchas Chapter of Trout Unlimited appreciates the opportunity to provide comments on the 2012 Draft Record of Decision and Draft Integrated List.

There are several specific concerns we have with the Draft Record of Decision, and these apply to the Pecos River drainage in particular. For several sections of the main Pecos River as well as tributaries the Department is proposing to remove turbidity as a cause of impairment based upon data collected in 2010. The data were collected using sonde instrumentation using the Procedures for Assessing Water Quality Standards Attainment for the State of New Mexico CWA §303(d)/ §305(b) Integrated Report: Assessment Protocol (dated May 6, 2011), Appendix G – Turbidity Protocol.

While we support the use of collection and monitoring instrumentation that provides improved technique, we believe it is premature to use one sampling season of data to justify removing turbidity as a cause for impairment in this drainage.

The Pecos drainage has a number of areas that are well documented as having severe erosion potential. The severe impact of indiscriminate camping recreational use along many sections of the river is documented by the Upper Pecos Watershed Association (1). Campsites located along the river riparian areas have totally denuded the banks and the result is severe vegetation and soil loss. These documented lines of evidence should also be used, in conjunction with stream monitoring, to arrive at a decision on stream impairment.

Of particular concern with the approach that NMED is that some sonde data is censored (removed from consideration). The Turbidity Protocol states, “Only grab data collected during nonflood flows (i.e., generally under snowmelt or baseflow conditions) will be used. All flood flow samples (i.e., high flow in response to recent precipitation) will be removed from the dataset prior to assessment.” We believe this potentially biases the data sets. Turbidity is clearly correlated with high water flows, particularly after high rain events. Yet the department chooses not to include these data in the turbidity assessment. We believe this can impose a low bias on how the stream is characterized. Using data that has only been collected during stable conditions, as well as relying upon single season (2010) severely limits the range of conditions that might be sampled. Data from a single sampling season again is potentially biased, as the results are clearly a function of the climatic conditions ( e.g. La Nina) that might exist during that season. 2010 in the Pecos drainage was a low rain year event, in comparison with historical data. Yet, the department is basing its Listing decisions on this somewhat anomalous season.

***SWQB RESPONSE:*** *Appendix G (Turbidity Assessment Protocol) documents the SWQB's approach to assessing New Mexico's narrative turbidity standards. All of SWQB's assessment protocols were released for 30-day comment March 22, 2011, through April 20, 2011, and will be released for public comment again prior to the 2014-2016 listing cycle. USEPA requests that comments received during the public comment period for SWQB's draft Assessment Protocols be provided to them for their consideration. The SWQB considers all public comment as well as any comments or responses received from USEPA before finalizing the Assessment Protocols. The SWQB's approach to assessing turbidity based primarily on the severity of ill effects equation in Newcombe (2003) is balanced in that it incorporates both magnitude and duration through the use of sonde data. As stated in the protocol, a minimum of 72-hours of sonde data are needed to determine impairment status. If less than 72 hours of sonde data are available, grab data may only be evaluated to determine either Fully Supporting or*

*the priority of future sonde deployments because grab data provide no indication of duration. The SWQB limits the analysis of grab data to baseflow conditions which can be considered representative of an extended period of time. We further require that at least 4 samples collected at least 21 days apart are all below 7 NTU in order to determine Full Support to ensure that severity of ill effects equation in Newcombe (2003) will not be exceeded. There is no reason to censor storm data from sonde data sets because the severity of ill effects equation takes into account the fact that clear water fish are expected to tolerate episodic increases in turbidity as long as they do not exceed the calculated duration of associated turbidity thresholds.*

*SWQB samples surface waters around the state in accordance with our 10-year monitoring strategy (available at: <ftp://ftp.nmenv.state.nm.us/www/swqb/MAS/Monitoring/10-YearStrategy.pdf>). Similar to several other states, SWQB uses a rotational watershed approach that considers staff and financial resources, as well as NMED and USEPA priorities. In accordance with the strategy, the Upper Pecos River watershed was surveyed in 2010, generating the dataset available for assessment. In terms of assessing designated use attainment in ambient surface waters, WQS apply at all times under all flow conditions. It is the intent of the Clean Water Act to consider all available data from any flow conditions when determining designated use attainment status; the SWQB's assessment protocols explicitly contemplate this.*

We believe the best approach is for the NMED to collect more data over varying climatic conditions and events prior to making the conclusion that turbidity is no longer impairment to these stream assessment units. We also believe the additional lines of evidence vis a vis documented riparian erosion needs to be included in any assessment of impairment. We understand that the cost of data collection is an important consideration but do not believe there are sufficient data to make the proposed changes to impairment determination. In particular we do not support changing the designation for the following assessment units: Cow Creek, Pecos River (Alamitos Canyon to Jack's Creek), Glorieta Creek (Pecos River to headwaters), and Pecos River (Villanueva State Park to Cow Creek). In all cases we do not believe there is sufficient reason to remove turbidity impairment without additional seasons of data collection or lines of evidence supporting this action.

**SWQB RESPONSE:** *The SWQB believes de-listing of turbidity in these reaches is appropriate. These turbidity assessments were reviewed again in response to your comment. As stated in the ROD:*

- Based on sonde data (n = 171 hours) from Cow Creek at North San Ysidro, the turbidity threshold of 23 NTU was not exceeded for greater than the allowable duration of 72 hours in sonde data (in the AU "Cow Creek (Bull Creek to headwaters)"; no other turbidity-allowable duration thresholds were exceeded.*
- Based on sonde data (n = 1300 hours) from Brush Ranch, the turbidity threshold of 23 NTU was not exceeded for greater than the allowable duration of 72 hours (57.5 hours) in the AU "Pecos River (Alamitos Canyon to Jack's Creek)"; no other turbidity-allowable duration thresholds were exceeded.*
- Based on sonde data (n = 143 hours) from Glorieta Creek at Cur Trail, the turbidity threshold of 23 NTU was not exceeded for greater than the allowable duration of 72 hours in the AU "Glorieta Ck (Perennial prt of Pecos R to Glorieta CC WWTP)"; no other turbidity-allowable duration thresholds were exceeded. The upper AU "Glorieta Ck (Perennial prt Glorieta CC WWTP to headwaters)" was not assessed for turbidity as only 2 grab data points were available (the sampling location above the Glorieta Conference Center WWTP dried up).*

*SWQB did not change any previous turbidity determinations in the AU "Pecos River (Villanueva State Park to Cow Creek)" during this listing cycle. This AU was not previously listed for turbidity. Sonde data were not available to assess this listing cycle (we have a sonde deployment scheduled for 2012); available grab data indicate Full Support.*

The Agency has also designated the Glorieta Creek (Pecos River to headwaters) as Not Supporting the “High Quality Coldwater Aquatic Life” designation. We believe this tributary has historically achieved this designation and in fact is likely the location of the first recorded observation of the Rio Grande cutthroat trout in North American. As described here <http://www.westerntrout.org/trout/profiles/rgct.html> “In 1541 Pedro de Castañeda de Najera, a member of Coronado's expedition, first saw it, writing of "a little stream which abounds in excellent trout and otter" (the otter is now extinct in the Southwest) **This stream was in all likelihood Glorieta Creek**, southeast of present day Santa Fe, which is now a barren, ephemeral wash for most of its length probably because of a combination of livestock grazing and other impacts.” As such, we advocate the Agency Fully Supporting this designated use.

**SWQB RESPONSE:** *As stated in the ROD, “Glorieta Ck (Perennial prt of Pecos R to Glorieta CC WWTP)” is noted as impaired for specific conductance and excessive nutrients. The upper AU “Glorieta Ck (Perennial prt Glorieta CC WWTP to headwaters)” has no noted impairments, limited data available because the sampling location went dry, and several Not Assessed designated uses. Both these AUs currently fall under 20.6.4.217 NMAC. TMDLs will be prepared for the lower AU which may have watershed restoration funding opportunities CWA §319 grants managed by the SWQB. Your comments will be considered for the next triennial review.*

Sincerely,

David Gratson  
Conservation Chair

#### References

1. Impact of Recreational Use on Water Quality in the Pecos River. Nelson Consulting, Inc for the Upper Pecos Watershed Association. Nelson Consulting, Farmington, NM. 2008. Available at <http://www.truchas-tu.org/docs/2008pecosreport.pdf>.

## **COMMENT SET 15 – City of Santa Fe Public Utilities Department, Santa Fe, NM**

Subject: City of Santa Fe Comments on the “Draft 2012 - 2014 State of New Mexico Clean Water Act (CWA) Sections 303(d)/305(b) Integrated List of Assessed Surface Waters”

The City of Santa Fe’s Public Utilities Department (PUD) provides the following comments on the Draft 2012 - 2014 State of New Mexico Clean Water Act (CWA) Sections 303(d)/305(b) Integrated List of Assessed Surface Waters (Integrated List). The Integrated List identifies whether or not a particular surface water of the state is currently meeting its designated uses as detailed in the State of New Mexico Standards for Interstate and Intrastate Surface Waters (20.6.4 NMAC), through application of the State of New Mexico Procedures for Assessing Standards Attainment for the Integrated Sections 303(d)/305(b) Water Quality Monitoring and Assessment Report.

Our comments involve the Rio Grande-Santa Fe (Cochiti Reservoir to San Ildefonso Boundary) at Assessment Unit ID NM-2111\_00. This assessment unit has “gross alpha – adjusted” as a “Probable Cause of Impairment” that is new in the Integrated List. Our concern regarding this addition to the list of probable causes of impairment for Assessment Unit NM-211\_0 (Rio Grande, Cochiti Pueblo to San Ildefonso) are the impacts that the listing could have on the City of Santa Fe and other Rio Grande valley communities. The addition of “gross alpha – adjusted” and PCBs to the list of causes not only requires the completion of the Total Daily Maximum Load (TMDL), it could also become a permit monitoring requirement for wastewater and storm water discharges, before the TMDL is even initiated. Thus the municipal and storm water dischargers in the middle Rio Grande valley will bear the burden of monitoring and reporting on this constituent, which likely represents natural background. Our comments relative to the gross alpha- adjusted and PCB listing involve whether the data used for this listing is representative, and determinations of impairment based on natural background.

### **Data**

The “gross alpha- adjusted” data used to support this “probable cause of impairment” are temporally and spatially limited such that they provide a limited scientific basis for assessing water quality which does not appear to be totally consistent with NMED’s assessment protocols. The inclusion of “gross alpha – adjusted” as a cause of impairment for the referenced section is based on sampling events which are reflective of storm water flows to the Rio Grande. Use of this data seems to be contrary to the New Mexico Environment Department own assessment protocols, as stated in Section 3.1.2.1 of the “Procedures for Assessing Water Quality Standards for the State of New Mexico CWA §303(d)/§305(b) Integrated Report: Assessment Protocol”. The City of Santa Fe disagrees with NMED’s reliance on the use of data from samples collected during periods of hydrologic instability and does not believe that impairment decisions should be based solely on sampling data that is both temporally and spatially limited. Section 1 of the NMED’s own “Hydrology Protocol for the Determination of Uses Supported by Ephemeral, Intermittent, and Perennial Waters” (May, 2011; Appendix C of the Statewide Water Quality Management Plan and Continuing Planning Process) states that recent (generally considered to be within 48 hours) rainfall can influence scoring; therefore it is strongly recommended that field evaluations be conducted at least 48 hours after the last known major rainfall.”

The sampling which served as the basis for the determination of this cause of impairment was predominantly, if not entirely, associated with storm water flow events. However, there are gross alpha measurements for this assessment unit dating back to the year 2008 taken by the City of Santa Fe and Los Alamos National Laboratory (LANL) during base flow conditions that consistently contained

adjusted gross alpha concentrations below the water quality standard of 15pCi/l. There is one sampling event by LANL on 09/24/2007 which is listed as being taken during a base flow event that shows Gross Alpha concentrations slightly above the standard. However, this event seem to be more of an outlier, rather than a norm, and the City questions LANL's determination of a "base flow" in the Rio Grande on the date that the samples were taken. Storm water events further upstream than LANL have been known by the City to cause significant increases in the flow stage of the main stem of the Rio Grande. The City is unclear as to whether LANL took these upstream storm events into consideration when determining the stage of flow in the Rio Grande during the 2007 sampling event since a flow measurement is not listed concurrently with the sample results.

There is insufficient data to understand the levels of gross alpha in the Rio Grande at different flow stages and sampling over the period of one year, or several years, to make a determination that gross alpha levels are a cause of impairment in this Assessment Unit. The flow and water quality of the Rio Grande changes seasonally and in direct response to precipitation events or releases from upstream reservoirs. Sampling results indicative of storm water flows in the summer or monsoonal months does not provide sufficient data necessary to know or even estimate the water quality of the river at various locations in December, March, or June. The "Procedures for Assessing Water Quality Standards for the State of New Mexico CWA §303(d)/§305(b) Integrated Report: Assessment Protocol" (May 6, 2011), Section 3.1.2.1, clearly refers to the importance of sampling over time to fully understand the water quality in a water body.

**SWQB RESPONSE:** *Data Management Rules section 2.1.5 of the main assessment protocol states:*

*"Data collected during all flow conditions (except data collected during unstable conditions when assessing for chronic aquatic life use -- see section 3.1.2.1 below for additional details), including low flow conditions (i.e., flows below the 4Q3), will be used to determine designated use attainment status during the assessment process. ... In terms of assessing designated use attainment in ambient surface waters, WQS apply at all times under all flow conditions unless a flow qualifier is specified in a particular section of the WQS."*

*Section 3.1.2.1 of the main assessment protocol (i.e., listing methodology) only applies to the assessment of chronic aquatic life criteria. Section 3.5 covers the assessment of livestock watering criteria and does not contain any restriction to using storm data.*

*Regarding data taken by the City of Santa Fe, we ask that potential data providers submit data (along with sampling and QA/QC information) that they would like to be considered for impairment determinations during SWQB's call for data. For this listing cycle, the call for data was announced on March 22, 2011, concurrent with the 30-day comment period on the revised assessment protocols. This call for data happens every March in odd-numbered years. In addition, you are welcome to submit data at any time, which will be held for consideration in the next listing cycle.*

The "gross alpha-adjusted" standard of 15pCi/l applies only to designated use of livestock watering in this reach of the Rio Grande. Whether this use occurs consistently throughout this long reach of the river is questionable and is most likely to be contingent upon land ownership and topography. The samples that form the basis of this new probable cause of impairment are not just limited in the dates of sample collection but were also limited in the place of sample collection. The sampling location identified for these samples was the Rio Grande at Buckman Diversion. However, this probable cause for the impairment is applied to this stretch of the Rio Grande extending 18 miles from Cochiti Reservoir to the boundary with San Ildefonso Pueblo, all of which is designated for livestock watering. While it



may be appropriate to protect for this use throughout the designated segment, the sampling of a few locations clustered at the northern boundary of the assessment unit (NM-2111\_00) does not adequately characterize the water quality throughout that reach, especially with the input of ephemeral tributaries and springs known to exist throughout the reach.

#### **SWQB RESPONSE:**

*This AU falls under 20.6.4.114 NMAC, which include livestock watering as a designated use. Therefore, SWQB correctly assessed available data against this use according to 20.6.4 NMAC as amended through January 14, 2011. Your concerns will be considered for the next triennial review. The WQCC has adopted both Livestock Watering and Wildlife Habitat designated uses for all waters of New Mexico in order to protect for these uses should they occur – it is not meant to imply they do occur. In order to change this use, the WQCC would need to adopt, and USEPA approve, the appropriate changes to 20.6.4 NMAC.*

*Data available in the RACER database ([www.racernm.com](http://www.racernm.com)) as well as 2010 DOE/OB data were used to determine the new PCB and adjusted gross alpha impairments. SWQB acknowledges that available data were limited to the upper portion of this AU, due in large part to access issues in this river reach. Access to the Rio Grande is difficult in the bottom portions of this AU, requiring either long hikes or access by boat. Additional data would be necessary to determine whether the AU should be split and the most appropriate location for any split. As noted on the list, SWQB plans to survey this watershed in 2014, prior to TMDL development estimated for 2016.*

#### **Natural Background**

“Gross alpha” is the measure of the combined activity of alpha emitters in a sample. Most alpha emitters occur naturally in the environment. Alpha particles are given off by members of the uranium decay series. The uranium decay series is one of three such decay series found in nature. The uranium decay series begins with uranium-238 and decays through a series of steps to become a stable form of lead. The members of the uranium decay series are present in varying amounts in nearly all rocks, soils, and water.

As defined in the New Mexico Standards for Interstate and Intrastate Surface Waters (20.6.4 NMAC), “gross alpha- adjusted” is defined as:

**20.6.4.7A 5 “Adjusted gross alpha”** means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample, including radium-226, but excluding radon-222 and uranium. Also excluded are source, special nuclear and by-product material as defined by the Atomic Energy Act of 1954.

Most common alpha emitters are not included in “gross alpha – adjusted”. Those alpha emitters that are included are naturally occurring and represent background. This is likely to be the conclusion of a TMDL, if one is conducted. However, until a TMDL is conducted (2014?), dischargers of wastewater and storm water may be required to monitor or control for and report on “gross alpha adjusted”.

**SWQB RESPONSE:** *There are both natural and anthropogenic contributors to many parameters with surface water quality standards. As such, adjusted gross alpha values are expected to include naturally occurring components. In the case of gross alpha, 20.6.4.7 Subsection A(5) NMAC allows for “adjusting” the reported gross alpha value to avoid potential double regulation because source, special*

*nuclear and by-product material as defined by the Atomic Energy Act of 1954 are regulated by the Department of Energy.*

*For gross alpha, anthropogenic activities within a watershed may increase the contribution of these “natural” sources in an unnatural way. There is a strong correlation between the SSC and gross alpha levels. The more sediment in the stream, the more likely there will be an exceedence of the adjusted gross alpha criteria. The application of BMPs to limit SSC in stormwater discharges (e.g. watershed improvements through better grazing management, wetlands, detention basins) can reduce the suspended sediment and gross alpha proportionally. The way to control elevated adjusted gross alpha in stormwater is through aggressive suspended sediment control, preferably on a watershed scale, but also locally when possible.*

The measurement of gross alpha, in conjunction with the additional alpha spectrum analysis that is required to quantify the activity of the uranium, radon-222, and the source, special nuclear, and by product isotopes that may be present in the sample, will impose a significant economic burden on point-source and storm water discharges in this segment of the Rio Grande. However such monitoring will only result in the quantification of natural background and will have no bearing on inputs of this contaminant into the river itself. It is unclear how the TMDL will also be reflected in the NPDES permits for those discharges. It is conceivable that National Pollutant Discharge Elimination System (NPDES) storm water permit-holders may have to implement BMPs to further reduce the transport of sediment from areas of concern, as a condition of their future permits. However, it is unclear if other NPDES point source dischargers will be required to implement treatment technologies to remove background gross alpha above the water quality standard in water taken from the Rio Grande, as a source, before discharge of that same source water back to the Rio Grande. This could be a very costly and prohibitive process.

The requirement for a TMDL with regards to natural background concentrations of a “contaminant” is in conflict with previous NMED testimony submitted before the Water Quality Control Commission during the 2003 Triennial Review.

***SWQB RESPONSE:*** *The definition of “natural background” found at 20.6.4.N.(1) NMAC defines this term as “...that portion of a pollutant load in surface waters resulting only from non-anthropogenic sources. Natural background does not include impacts resulting from historic or existing human activities.” If human activities in the watershed increase SSC levels, which results in elevated adjusted gross alpha levels, this is not “natural background” under the regulations. The larger context of NMED’s testimony is consistent with this interpretation.*

*USEPA is the NPDES permitting authority for New Mexico permits, and therefore establishes the sampling requirements that maybe required under stormwater permits.*

Therefore, it appears more appropriate that the impairment due to “gross alpha-adjusted” be moved from Category 5A to Category 5C on the 303(d) Integrated List.

The definitions of Category 5A and 5C are:

**“A. TMDL is underway or scheduled.** AUs are listed in this category if the AU is impaired for one or more designated uses by a pollutant. Where more than one pollutant is associated with the impairment of a single AU, the AU remains in Category 5A until TMDLs for all pollutants have been completed and approved by USEPA.”

**“C. Additional data will be collected before a TMDL is scheduled.** AUs are listed in this category if there is not enough data to determine the pollutant of concern or there is not adequate data to develop a TMDL. For example, AUs with biological impairment will be listed in this category until further research can determine the particular pollutant(s) of concern. When the pollutant(s) are determined, the AU will be moved to Category 5A and a TMDL will be scheduled. If it is determined that the current designated uses are inappropriate, it will be moved to Category 5B and a UAA will be developed. If it is determined that “pollution” is causing the impairment (vs. a “pollutant”), the AU will be moved to Category 4C. AUs that are suspected of being impaired due solely to natural causes, but which lack sufficient data to make this determination, will be placed in Category 5C with a note that additional information is needed.”

**SWQB RESPONSE:** *The SWQB agrees that additional data would be helpful prior to TMDL development; therefore, we changed the IR category to 5C (leaving the estimated TMDL date as 2016) and look forward to working together to collect additional data during our survey in 2014.*

Based on the information presented above, the City of Santa Fe requests that “gross alpha-adjusted” be removed as a “probable cause of impairment” from the Rio Grande (Cochiti Reservoir to San Ildefonso, Assessment Unit ID NM-2111\_00) based on the lack of sufficient data for assessment purposes. Additionally, the “gross alpha-adjusted” measurement seems solely representative of natural background radioactivity, for which that NMED has testified that a TMDL would not be done. If the NMED and the New Mexico Water Quality Control Commission still moves forward with this determination that Adjusted Gross Alpha is a cause of impairment for the Rio Grande (Cochiti Reservoir to San Ildefonso, NM -2111\_00), the City of Santa Fe would request that the impairment due to “gross alpha-adjusted” be listed as IR Category 5C, rather than 5A.

Thank you for this opportunity to comment. If you have any questions, please feel free to contact me at (505) 955-4232.

Sincerely,

Alex Puglisi  
Environmental Compliance Officer  
City of Santa Fe, Public Utilities Department

## COMMENT SET 16 – Dairy Producers of New Mexico (via Glorieta Geoscience, Inc.)

GLORIETA GEOSCIENCE, INC.  
P.O. Box 5727  
Santa Fe, NM 87502

January 30, 2012

Dairy Producers of New Mexico (DPNM) represents our member dairies in New Mexico, West Texas, and Kansas. DPNM is presenting comments on the New Mexico Environment Department's (NMED) Surface Water Quality Bureau's proposed **2012-2014 STATE OF NEW MEXICO INTEGRATED CLEAN WATER ACT §303(d)/§305(b) INTEGRATED LIST**. DPNM recognizes that New Mexico, under the Federal Clean Water Act (CWA) §303(d)(1), is required to develop a list of waters within the state that are not supporting their designated uses. A Total Maximum Daily Load (TMDL) will be proposed for each pollutant for those "impaired waters." A TMDL planning document is a written plan and analysis established to restore a waterbody and to ensure that Water Quality Standards (WQS) are maintained for that waterbody. Our comments are organized by sections and HUCs as presents in the Public Comment Draft.

### WATER SUPPLY

DPNM agrees that the Clean Water Act and New Mexico Water Quality Act contain significant limitations regarding the impact of water quality decisions on our members' water rights. Many of our members have water rights under and receive allotments from the Middle Rio Grande Conservancy District, Elephant Butte Irrigation District, the Hagerman Canal Company, and Carlsbad Irrigation District. These surface water supplies are managed for the benefit of the member irrigators. It is important to our members that NMED continues to acknowledge that we own valid water rights and that drought conditions may reduce surface water supplies and contribute to degradation of surface water quality. Since surface water rights and water supply issues are outside NMED's regulatory authority, DPNM is curious why NMED would include language and discussion regarding "flow alterations from water diversions" in this public comment draft.

**SWQB RESPONSE:** *The State Water Quality Standards at NMAC 20.6.4.6(A) state:*

*Pursuant to Subsection A of Section 74-6-12 NMSA 1978, this part does not grant to the water quality control commission or to any other entity the power to take away or modify property rights in water.*

*The connection between water quality and quantity is well documented and understood – whether those changes in flow result from natural climatic variability or from beneficial use. "Flow alterations from water diversions" is a recommended Probable Source provided in EPA's ADB. USEPA defines this probable source in ADB as follows:*

*Impacts related to water diversions from such activities as irrigation farming.*

*Therefore, we include this Probable Source in AUs where water diversions reduce surface water flows. SWQB will continue also to consider the potential impact of drought as well as water rights through continued inclusion of the section entitled "Note to the reviewer regarding water quantity related probable sources" in the preface to the Integrated List.*

**HUC: 13020203**

Rio Grande-Albuquerque; Abo Arroyo.

DPNM supports NMED's analysis that the bottom reach is clearly ephemeral. DPNM reserves judgment whether or not the AU needs to be split.

**SWQB RESPONSE:** *No response required.*

**HUC: 13030102**

El Paso-Las Cruces; Burn Lake (Doña Ana) El Paso-Las Cruces

If NMED continues to investigate sources of E. coli in the lower Rio Grande, DPNM requests that NMED inform DPNM prior to any laboratory and/or field investigations so we can collaborate with the agency.

**SWQB RESPONSE:** *Pre-survey meetings are held in the watershed to solicit input and comment from stakeholders. We have ensured that your organization is on our SWQB e-mail list, and have added Ms. Idsinga as DPNM Executive Director so you may forward details of these meetings to your members as you deem appropriate. It is also likely that many DPNM members are on SWQB's e-mail list as well. SWQB completed a survey of the Lower Rio Grande in 2012. The data from this survey will be assessed for development of the draft 2014-2016 Integrated List. In addition, there is currently an effort to investigate sources of E. coli in the Lower Rio Grande being conducted by the Paso del Norte Watershed Council. This effort is partially funded through a grant made available under CWA §319.*

**HUC: 13060009**

Rio Felix (Pecos River to headwaters) Rio Felix

Although NMED reports that some fish were observed in pools during the spring of 2003, it is our members' observation and opinion that the Rio Felix is ephemeral. If NMED continues to investigate the Rio Felix, DPNM requests that NMED inform DPNM prior to any laboratory and/or field investigations so we can collaborate with the agency.

**SWQB RESPONSE:** *SWQB plans to survey this AU in 2013. We will inform all parties on our e-mail list of our public meeting to discuss the proposed sampling schedule prior to the survey.*

Please contact either me ([lazarus@glorietageo.com](mailto:lazarus@glorietageo.com); 983-5446 x111) or Beverley Idsinga, Executive Director, DPNM (1-800-217-2687; [dpm3@juno.com](mailto:dpm3@juno.com)) with any questions or comments.

Sincerely,

Jay Lazarus  
Pres./Sr. Geohydrologist

Xc: Beverley Idsinga, Executive Director, DPNM

**COMMENT SET 17 – Los Alamos National Laboratory Water Quality and RCRA Group, Los Alamos, NM**

January 30, 2012

Attached are comments from DOE/LANS on NMED's Public Draft 2012-2014 CWA 303d and 305b Integrated List. This email will be followed by a formal letter directly conveying these comments to your attention at NMED.

Thank you for your efforts in this matter.

Robert Gallegos  
Water Quality and RCRA Group  
Los Alamos National Laboratory  
PO Box 1663 - Mail Stop K490  
Los Alamos, NM 87544

LA-UR-12-10191

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ENCLOSURE 1

Los Alamos National Laboratory  
Comments to Draft 2012 - 2014 State of New Mexico Clean Water Act (CWA) Sections 303(d)/305(b)  
Integrated List of Assessed Surface Waters (Integrated List)

The Department of Energy (DOE) and Los Alamos National Security (DOE/LANS) appreciates the opportunity to comment on the Public Comment Draft 2012 - 2014 State of New Mexico Clean Water Act (CWA) Sections 303(d)/305(b) Integrated List of Assessed Surface Waters (Integrated List).

DOE/LANS gratefully acknowledges the New Mexico Environment Department's (NMED) responsiveness and inclusion into this draft, of a number of comments and concerns previously made by DOE/LANS.

- NMED will re-assess impairment listings prior to final Total Maximum Daily Load (TMDL) development in 2012.
- NMED has designated a number of reaches 5C and will determine the availability of concurrent-hardness data to verify cause of impairment.
- NMED intends to evaluate existing pollution control requirements and regulatory mechanisms in place and determine if impairments qualify as Category 4B.

**SWQB RESPONSE:** *No response required.*

Implementation of the DOE/LANS' NPDES storm water permits has resulted in the installation of a number of best management practices (BMPs). DOE/LANS believe that these pollution controls protect water quality now and into the future. To view the effectiveness of the BMPs, the DOE/LANS invites NMED to visit the Laboratory prior to TMDL development.

**SWQB RESPONSE:** *No response required.*

Following are DOE/LANS questions, concerns and comments to the Draft 2012 - 2014 State of New Mexico Clean Water Act (CWA) Sections 303(d)/305(b) Integrated List of Assessed Surface Waters (Integrated List):



1. Natural Sources was deleted as a probable source of impairment for Mortandad (within LANL), Canada del Buey (within LANL), Canon de Valle (below LANL gage E256) and Sandia Canyon (within LANL below Sigma Canyon). NMED should retain, as a probable source of impairment, natural sources. Background concentrations are apparent for gross alpha, aluminum and even polychlorinated biphenyls (PCBs) as evidenced by listings for assessment units (AUs) outside or upstream of LANL and other potential urban sources.

**SWQB RESPONSE:** *SWQB agrees. Natural Sources has been added back to these waters as a Probable Source for the gross alpha and aluminum impairment listings. As a man-made compound, there are no “natural” sources of PCBs.*

2. The Probable Causes of impairment for Sandia Canyon (within LANL below Sigma Canyon) were deleted and Source Unknown is listed as the only probable source of impairment. Please provide the reason why these probable causes of impairment were changed.

**SWQB RESPONSE:** *SWQB agrees. The Probable Sources for this AU on the final 2010-2012 Integrated List were added.*

3. Please assess the impact of the Bayo WWTP effluent on the multiple listings for the Pueblo watershed AU to which this plant discharges (PCBs, aluminum, copper, zinc and gross alpha).

**SWQB RESPONSE:** *Potential impacts from the Bayo WWTP effluent will be explored further during TMDL development using available data.*

4. Please change all listings related to non support of chronic WQC in Segment 98 waters from Category 5A to 5B. Until the standards are updated via a Use Attainability Analysis (UAA) to determine that aquatic life uses are present that justify chronic criteria protection, a TMDL for chronic criteria exceedances would be premature. DOE/LANS acknowledges that since the 2010-2012 review, NMED has applied the hydrology protocol to a number of 20.6.4.98 reaches. Until the process contained in 20.6.4.15 is complete, DOE/LANS requests NMED list Segment 98 waters as 5B until a final designated use is assigned. Please ensure that the UAA is made available to the Water Quality Control Commission, public interest groups and permittees.

**SWQB RESPONSE:** *It would be inappropriate to change all 20.6.4.98 NMAC waters with non support of a chronic WQC to IR Category 5B, in part because there is only one IR Category per AU and additional impairments for an AU may not be related to chronic aquatic life. Instead, SWQB will conduct a Hydrology Protocol in waters under 20.6.4.98 NMAC on the Pajarito Plateau prior to TMDL development for any chronic aquatic life impairments in these waters.*

Please Note: Many Pajarito Plateau waters that have been presumed as intermittent under Segment 98 would be expected to be similar to Segment 128 waters in the vicinity. According to 20.6.4.128 NMAC, Segment 128 waters have only a limited aquatic life use designation and hence require acute, but not chronic aquatic life criteria. The NMED's 2007 UAA for Segment 128 waters presented the evidence necessary to show limited aquatic life use was an appropriate use designation given the absence of fish populations and highly intermittent and ephemeral flows. That UAA was approved by the USEPA and incorporated in the 2007 standards.

**SWQB RESPONSE:** *SWQB staff are aware of this discrepancy. Your comment will be considered for the next triennial review.*

5. Please consider changing Category 5/5A listing for PCBs to 5/5C. In many cases the probable source of impairment includes source unknown as the principal cause. The additional data to be gathered prior to TMDL development would be long term average concentrations in water, concentrations in sediments and biological samples, and assessment of ecological risk.

**SWQB RESPONSE:** *SWQB has an adequate data set to draft PCB TMDLs as needed. Long-term average concentrations in water, concentrations in sediments and biological samples, and assessment of ecological risk are not necessary for TMDL development. "Source Unknown" is included as a probable source per our Probable Source SOPs, available at: <http://www.nmenv.state.nm.us/swqb/SOP/>. We established the practice of noting only "Source Unknown" after these AUs were first listed, so we carried over previously noted probable sources. As described in the SOP, the probable source lists will be updated with information from TMDLs once finalized.*

6. Please discuss background as a potential source for aluminum, copper, zinc, gross alpha, and PCBs. Data analyzed supporting 5A listings should be evaluated against the hydrologic instability at the time of sample collection. How is the data used to assess chronic and acute criteria? Please consider listing these constituents under Category 5/5C while background data is developed to support TMDL analysis.

**SWQB RESPONSE:** *The probable sources of contamination have no bearing on the impairment listing. These details, including natural background as a potential source for these parameters, will be evaluated during TMDL development using available data, reports, and scientific literature. Section 3.1.2.1 of the main assessment protocol applies to the assessment of chronic aquatic life criteria only, and explains how SWQB considers hydrologic stability in order to censor data collected during unstable conditions from the data set prior to assessment of chronic aquatic life criteria. This step was done as appropriate during assessment of Pajarito Plateau data for the 2010-2012 Integrated List. Hydrologic conditions are not a factor in assessment for any other criteria.*

7. NMED should describe how adoption of site-specific (20.6.4.10) criteria will impact the TMDL process. If a TMDL was developed to achieve the national default criteria, would the TMDL be revised (or even withdrawn) if the segment is no longer water quality limited based on new site-specific criteria?

**SWQB RESPONSE:** *If the criteria on which a TMDL were based change from a state-wide standard to a site-specific standard, a revision to the TMDL may be appropriate.*

8. List PCBs under Category 5/5C while additional data gaps are filled to support TMDL development. There is insufficient data to develop TMDLs for PCBs at the present time. The use of Method 1668 (the congener method), which can detect PCBs at extremely low levels, could possibly result in detection of PCBs above the Human Health criterion in rainwater or storm water sample analyzed. This should be considered as an input to the watershed in the TMDL process. In addition, the evaluation of samples with high suspended loads within Laboratory boundaries tends to bias comparison to ambient upstream, background locations. As a result, background sources of PCBs are not well understood and an adequate data set to address this concern is not well developed. Before development of a TMDL can proceed, NMED should continue to evaluate and expand as necessary its source assessment to gain a better understanding of background sources of PCBs.

Also, the practice of ignoring nondetect results generated by Method 608 (the Aroclor method) overlooks an important screening tool used by DOE/LANS to differentiate between significant source areas and background. It is acknowledged that some sites need to be addressed with enhanced BMPs or other corrective actions to reduce PCB discharges; many of those actions are already under way. However, the information needed to develop PCB TMDLs is lacking; data gaps include numeric targets

in fish tissue, the linkage to water and sediment concentrations, and background levels for determining background load allocations.

**SWQB RESPONSE:** *SWQB has an adequate data set to draft PCB TMDLs. Although SWQB recognizes USEPA Method 608 may have value as a screening tool and potentially to help identify source areas, this method is not useful for determining whether or not all applicable criteria are met. As stated in the current Assessment Protocols:*

*“2.1.8 “Non detects” from a method with a detection limit greater than the criterion*

*If the detection limit is above the applicable criterion and the laboratory result is reported as below this limit, the result cannot be used for a listing decision (for example, when the detection limit is 8.0 mg/L, the result is reported as <8.0 mg/L, and the criterion is 5 mg/L). In this situation, this datum contains no information about the magnitude relative to the applicable water quality criterion.”*

*For these reasons, the practice of censoring non-detect results generated by Method 608 is necessary for assessment purposes.*

9. All TMDLs proposed under Category 5/5A listings are scheduled for TMDL development in 2012. It makes more sense to phase TMDL development by focusing on the high priority listings where the evidence for impairment is clear. Please help set priorities for TMDL development by proposing alternative listing categories and specific information needed to resolve uncertainties. Many of the findings that designated uses are not-supported have substantial uncertainties associated with them.

**SWQB RESPONSE:** *As explained during the Response to Comment to the 2010-2012 Integrated List, USEPA expects states to establish appropriate schedules for the establishment of TMDLs for all waters on the most recent CWA § 303(d) list (i.e., category 5 waters on the Integrated List). USEPA also expects development of TMDLs within eight to thirteen years after impairments are first listed on the Integrated List, but recognizes that this could be shorter or longer depending on state-specific factors. For planning purposes, SWQB typically projects TMDL completion to occur 2-4 years after a comprehensive watershed survey is completed, notwithstanding staffing and resource constraints. SWQB will consider a phased development of TMDL for the Pajarito Plateau during the development process.*

10. Request NMED continue to evaluate the presence of constituents such as copper, aluminum and gross alpha that could be attributable to post fire conditions.

**SWQB RESPONSE:** *The SWQB will re-assess impairment listings prior to starting TMDL development . We will collate available data from RACER prior to re-assessment. It is our understand that the RACER database contains all of your available, QA/QC'd surface water quality data for the Pajarito Plateau. We request LANL's submit any additional data not in RACER for consideration in the TMDL development process.*

Thank you for the opportunity to comment. The Laboratory looks forward to working with NMED and other interested stakeholders in the development of TMDLs.

**COMMENT SET 18 – Jerry Yeargin, Taos, NM**

## Comments regarding 2012-2014 Integrated List/ROD

### I. Comments regarding ROD for AU: NM-98.A\_001 and AU: NM-98.A\_002

The italicized historical notes for the original Rio Fernando de Taos AU (Rio Fernando de Taos to headwaters) include a 2000 ACTION notation which states: " [There were 55% fines measured at Cieneguilla and 92% fines measured at HWY 64 bridge. " Nevertheless, " stream bottom deposits will be removed as a cause of Non-Support " because " it is an EG reference site ~~with~~ with ... fish. "

But the fish which were used to justify de-listing of the Rio Fernando for stream bottom deposits impairment are no longer present. In a report from Abe Franklin of the SWQB Watershed Protection Section (received on August 3, 2009) he stated that " In September 2000, fish were present... identified as phenotypically Rio Grande cutthroat trout " near the Highway 64 bridge. But " [In July 2008, no fish were detected in about one hour of searching with a backpack electroshocker. " His report elaborates: " This was a presence/absence survey to determine if Rio Grande cutthroat trout (or any other species) still occupy this reach of stream as they did ... in 2000 ... We encountered no fish... Habitat quite negatively impacted (banks sloughing, large width/depth ratio) by grazing. "

On two other occasions SWQB surveys have produced reports that support the contention of degradations and sedimentation impacts which would result from uncontrolled livestock grazing along the surface waters of the Rio Fernando. The following ~~except~~ excerpts are from those reports:



"[O]bserved moderately severe grazing impacts such as recently collapsed banks, trampled wetland vegetation, and numerous cow patties. Few elk droppings were seen."

"[T]hese results were cause for concern."

— SWQB Memorandum re Visit to Rio Fernando de Taos with Jerry Yeargin on August 11, 2005

"Evidence of recent cattle use (trampling of the spring and nearby manure) was present at Site 1."

"A large number of cattle (perhaps 80 cow/calf pairs) were present within the gathering/riparian pasture just upstream of Site 6, with some very near or in the stream... results from Site 6 reflect this."

"[R]elatively few data... can be securely assumed to be free of influence from cattle."

"... frequent observations of cattle in pastures not scheduled for grazing..."

"The recommended actions [include]... reduce[d] use of specific wetland areas."

"Better control and more accurate reporting of grazing on the Flechado Allotment would be required."

— E. coli Sampling of the Rio Fernando de Taos and Apache Creek, Taos County, NM, 2006

The problem began when, on the slim basis cited in the first paragraph above, in 2006 the entire Rio Fernando was removed from its previous listing of non support for "stream bottom deposits." Whether or not that de-listing was in error, subsequent observations make it clear that stream bottom deposits are once again a significant problem on the Rio Fernando de Taos.

The interruptions in the "character of the channel" which, according to the historical notes cited above, occasioned the split of the Rio Fernando AU at Tienditas Creek are actually due to extensive streambank destabilization caused by livestock trampling and resulting in sedimentation loads which blocked the stream channel. That impairment is still causing sporadic interruptions of surface flows at this location.

The same problem exists higher up on the Rio Fernando, near the Apache Creek confluence. The 2012 ACTION for AU:NM-98.A\_002 (Rio Fernando de Taos to headwaters) states that "during certain times of the year, there is no flow at the mouth of Apache Canyon.

I can affirm, based on personal observations going back over 20 years, that concentrated and uncontrolled yearly riparian grazing sanctioned by USFS employees has resulted in extensive trampling, bank destabilization, and heavy sedimentation deposits near Tienditas Creek on AU:NM-98.A\_002, and also on the upper headwaters on AU:NM-98.A\_001, hampering flows on the upper Rio Fernando. These personal observations are corroborated by the SWQB documents cited above.

It should also be noted that sedimentation has already been listed as a cause of impairment for the downstream mainstem of the Rio Fernando, at AU:NM-2120.A\_512. So sedimentation has been officially implicated at the HWY 64 bridge and on the lowest part of the mainstem, that is, at both ends of this river.

I submit that the ~~2012 ACTION~~ weight-of-evidence

Supports a conclusion that sedimentation/siltation is a cause of non support for both of the two uppermost AUs of the Rio Fernando at this time, even without a Level II Sedimentation survey.

I request that the 2012 ACTION notes for AU:NM98.A\_001 and AU:NM-98.A\_002 be revised to list sedimentation/siltation as a cause of non support, pending Level II sedimentation surveys.

Thank you very much. Sincerely,

Jerry Yeargin 1/27/12  
Jerry Yeargin  
HC 71 Box 101  
Taos, NM 87571

**SWQB RESPONSE:** *Thank you for your observations and concerns regarding the “Rio Fernando de Taos (UFSF bnd at canyon to Tienditas Creek)” and “Rio Fernando de Taos (Tienditas Creek to headwaters)” assessment units. During the 2009 survey, SWQB was unable to collect the necessary data to evaluate these AUs according to our sedimentation assessment protocol. SWQB will track this data need and, as staff resources allow, will conduct a sedimentation survey in accordance with our standard operating procedures.*

## **ADDITIONAL MINOR CHANGES TO THE PUBLIC COMMENT DRAFT 2012-2014 INTEGRATED LIST BASED ON SWQB STAFF REVIEW**

1. The AU Comment for Placer Creek (Hopewell Lake to headwaters) erroneously stated that a TMDL had been developed for aluminum. This AU has never been listed for aluminum and no such TMDL exists. The AU Comment was removed.
2. In the ROD, a few AU entries were not alphabetical within a given HUC. They were re-alphabetized.
3. The AU Middle Ponil Creek (South Ponil to Greenwood Creek) was missing any Probable Sources. They were added based on the 2001 TMDL.
4. Malpais Springs, Mound Springs, Davies Tank, and Lake Stinky playas were only sampled once in 1995. Therefore, any Full Support designated uses were changed to Not Assessed, resulting in a change to IR Category 3 for these water bodies.
5. Lake Alice (Sugarite Canyon) WQS reference was changed from 20.6.4.305 NMAC to 20.6.4.311 NMAC which was established during the last triennial review.
6. Lake Maloya WQS reference was changed from 20.6.4.305 NMAC to 20.6.4.312 NMAC which was established during the last triennial review.
7. Previously missing AUs Eagle Creek (Rio Ruidoso to Alto Lake), Grindstone Canyon (Carrizo Creek to Gindstone Rsvr), and Grindstone Canyon (Grindstone Rsvr to headwaters) were added to the Integrated List as Not Assessed.
8. The designated uses of Industrial Water Supply and Fish Culture were removed from all AUs falling under WQS citation 20.6.4.209 NMAC. The most recent versions of the WQS do not include these two designated uses for this WQS segment.
9. The upper Animas River AU name was changed to Animas River (Estes Arroyo to So. Ute Indian Tribe bnd) and the upper La Plata River AU name was changed to La Plata R (McDermott Arroyo to So. Ute Indian Tribe bnd) to properly acknowledge the upstream jurisdictional authority of the Tribe under the Clean Water Act.