

**VIA ELECTRONIC MAIL**

rosborough.evelyn@epa.gov

June 4, 2017

Ms. Evelyn Rosborough  
U.S. Environmental Protection Agency  
NPDES Management Section (6WQ-PO)  
1445 Ross Avenue, Suite 1200  
Dallas, TX 75202-2733

Re: Comments on Proposed NPDES Permit No. NM0029165  
Village of Ruidoso and Ruidoso Doens WWTP

Dear Ms. Rosborough:

Thank you very much for the opportunity to comment on the proposed NPDES permit for the City of Ruidoso and Ruidoso Downs wastewater treatment plant (“WWTP”). I am submitting these comments on behalf of the Rio Hondo Land & Cattle Co. (“Rio Hondo”) which opposes issuance of the proposed permit. As set out below, Rio Hondo asserts that the proposed permit is irrational, arbitrary, capricious, and violates the mandatory requirements of the Clean Water Act.

**A. The proposed permits’ reliance on mass loading limits for nutrients, in lieu of concentration-based discharge limits, is unacceptable since the mass loading limits are based on the arbitrary and capricious 2016 TMDLs for nutrients**

The Fact Sheet for the permit explains that “[a]ll existing limits for nutrients . . . are superceded by newly established loading limits” which were developed in the 2016 revision

of the TMDLs for nutrients in the receiving water. Rio Hondo asserts that the incorporation of the TMDL's mass loading limits for nutrients into the NPDES permit as discharge limits for nutrients is arbitrary and capricious, since the TMDLs themselves are arbitrary and capricious and present a purely fictional account of the receiving stream's assimilative capacity. Rio Hondo participated actively in the nutrient TMDL development process conducted by the New Mexico Environment Department ("NMED"). Rio Hondo submitted extensive comments on the NMED's initial draft of the revised nutrient TMDLs in a letter of August 7, 2014. After that initial set of draft TMDLs was withdrawn, modified, and re-issued by NMED, Rio Hondo submitted extensive comments on the revised draft in a letter of September 29, 2016. When NMED sought approval of the revised draft nutrient TMDLs before the New Mexico Water Quality Control Commission ("NMWQCC") at a public hearing of November 15, 2016, the undersigned appeared on behalf of Rio Hondo and argued that approval of NMED's proposed revision to the nutrient TMDLs would violate state and federal law. Nonetheless, the NMWQCC approved the proposed revision to the nutrient TMDLs at the conclusion of the November 15, 2016 hearing. Subsequently, and as contemplated by New Mexico state law, Rio Hondo appealed the NMWQCC's approval of the 2016 revised nutrient TMDLs to the New Mexico Court of Appeals which has primary jurisdiction over such challenges. The latest filing in that appeal is the Docketing Statement, which was filed on January 11, 2017. The appeal remains pending, and awaits a calendar assignment by the New Mexico Court of Appeals.

Rio Hondo's primary objections to the 2016 nutrient TMDLs are that the TMDLs were calculated using an erroneous critical low flow value, and that for this and other reasons the TMDLs vastly overstate the assimilative capacity of the receiving water for nutrients from point source dischargers and will almost certainly lead to frequent water quality standard exceedances for nutrients if they are incorporated into the NPDES permit for the Village of Ruidoso and Ruidoso Downs WWTP. In support of this particular objection to the proposed NPDES permit, Rio Hondo respectfully directs you to its August 7, 2014 and September 29, 2016 comment letters to NMED which are incorporated herein by reference as if fully set out in this comment letter and which are attached hereto as Exhibits 1 and 2 respectively. Rio Hondo is also attaching a copy of the January 11, 2017 Docketing Statement in its appeal of the NMWQCC's adoption of the 2016 nutrient TMDLs as Exhibit 3 hereto. In summary, the comment letters state the following objections to the 2016 nutrient TMDLs:

- The predecessor TMDLs to the 2016 nutrient TMDLs (the 2006 nutrient TMDLs) were more stringent than the 2016 TMDLs insofar as the loading limits for nutrients were concerned, and nonetheless the Rio Ruidoso downstream of the WWTP remained – and remains – in non-attainment for TP and TN after 2006. Accordingly, basing the nutrient discharge limits in the proposed NPDES permit for the WWTP on the more relaxed 2016 nutrient TMDLs does *not* assure that water quality standards will be met and is entirely irrational.
- The TN and TP TMDLs are based on entirely different critical low flows. The TN TMDL is based on annual median streamflow as the critical low flow and the TP TMDL is based on the 4Q3 streamflow as the critical flow. Using two different critical low flow values is unjustified and irrational, and will lead to anomalies in the TN:TP balance that are not protective of water quality standards and observable physical properties of the river. This is of particular concern because of the NMED’s finding that “nitrogen is the primary limiting nutrient in the Rio Ruidoso and is driving the productivity of algae and macrophytes in the stream.”
- The use of annual median flow as the critical low flow value for the TN TMDL is impermissible, unsupported, and contrary to law, and definitionally assures that the Rio Ruidoso downstream of the WWTP will be in a non-attainment state for TN on 50% of the days in each year if the annual median flow value has been accurately calculated
- In reality, the annual median flow value for the Rio Ruidoso is inaccurately calculated and stated in the TN TMDL as higher than the actual value, meaning that the WWTP will be in a non-attainment state for TN on more than 50% of the days in each year.
- The TN TMDL’s use of annual median flow as the critical low flow value fails to account for the highly erratic hydrograph of the Rio Ruidoso, including marked differences in seasonal flows, extensive periods of very low flow, and occasional periods of flood flow associated with monsoon rain events. Accordingly, the assimilative capacity of the Rio Ruidoso for TN downstream of the WWTP varies markedly over the course of the year, and incorporation of the TN TMDL loading limits as the year-round discharge limit for TN from the WWTP will clearly lead to exceedances in water

quality standards downstream of the WWTP during low flow periods.

- Both the TN and TP TMDLs fail to allocate a Waste Load Allocation (“WLA”) for nutrients to the Downs at Ruidoso CAFO, a known and acknowledged unpermitted point source discharger which discharges into the Rio Ruidoso downstream of the WWTP. If a WLA for nutrients had been assigned to the Ruidoso Downs – as is required by law – then the WLA for nutrients allocated to the WWTP would be lower than the stated values in the 2016 TMDLs, requiring a more stringent mass loading limitation in the NPDES permit for the WWTP.
- The 2016 nutrient TMDLs fail to account for elevated background levels of nonpoint source pollutants associated with recent forest fires in the Rio Ruidoso watershed. If background levels of nutrients had been adequately accounted for during the nutrient TMDLs development process, the WLAs for nutrients assigned to the WWTP would necessarily have been lower than the current levels.
- The 2016 nutrient TMDLs fail to account for pollutants associated with leaks in Ruidoso’s sewer system and the pollution caused by onsite disposal systems, and thereby lead to artificially elevated WLAs for nutrients assigned to the WWTP.
- The 2016 nutrient TMDLs do not contain adequate implementation measures to assure that nonpoint source pollutants introduced into the Rio Ruidoso will not exceed the assigned load allocations and, therefore, the assumptions regarding those hypothetical reductions in nonpoint source pollutants are irrational and lead to arbitrarily high WLAs for nutrients.
- The 2016 nutrient TMDLs are impermissibly silent as to how the relaxed target loads for nutrients will affect algae production in the Rio Ruidoso, a known issue associated with nutrient overloading in this particular stream.
- Throughout the TMDL development and approval process – both before the NMED and the NMWQCC – the Village of Ruidoso and Ruidoso Downs acknowledged that they are unable to meet the effective TN discharge limit that they would be required to meet in order to remain within the WLA for TN at the WWTP. Essentially, the municipalities informed the regulating

agencies that the TN TMDL is doomed for failure. In this light, reliance on the TN TMDL for development of a TN limit in the NPDES permit is irrational, as the regulated municipalities have acknowledged that the WLA for TN set out in the 2016 TMDL is unachievable.

In conclusion, it is simply irrational for the EPA to incorporate TMDL-based mass loading limits for nutrients into the NPDES permit for the WWTP since the TMDLs themselves are arbitrary, capricious, irrational, and in violation of both state and federal law.

**B. The proposed permit constitutes impermissible backsliding in violation of the Clean Water Act**

Rio Hondo also asserts that the proposed NPDES permit for the WWTP cannot be approved because it would constitute impermissible and illegal backsliding in violation of express prohibitions of the Clean Water Act. The NMED appears to be aware of this fact, and has offered various and inconsistent justifications for the backsliding since it first proposed revisions to the Rio Ruidoso nutrient TMDLs in 2014. In the 2014 iteration of the nutrient TMDLs, the NMED asserted that an NPDES permit based on the mass loading limitations of the proposed TMDLs would not constitute illegal backsliding because one of the statutory exceptions to the anti-backsliding requirement applies in this case – the exception applicable to treatment facilities that have been designed and constructed to achieve pertinent effluent limitations but have “nevertheless been unable to achieve the effluent limitations.” 33 U.S.C. § 1342(o)(2)(E). However, it is absolutely clear that the subject WWTP was *not* designed or intended to meet the current effluent limitation for TN of 1.0 mg/L. The Village of Ruidoso admits this fact in the “Ruidoso Settlement Agreement Final Report” of March 1, 2013, wherein the Village plainly and admits that “the New Plant was not designed to meet an effluent limitation of 1.0 mg/L . . . for TN.” Since the facility was clearly not designed or constructed to achieve compliance with the controlling TN limit in the currently applicable NPDES permit for the WWTP, this statutory exception is simply not applicable.

Furthermore, there are clear indications that the Village of Ruidoso and Ruidoso Downs could make further improvements in TN treatment at the WWTP which would improve the discharge quality, but chooses not to do so for impermissible reasons. In a July 22, 2014 article in the Ruidoso News, the WWTP operator is quoted as stating that relaxation of the TN effluent limitation at the WWTP would avoid “the need to use costly chemicals in achieving the [TN standard]” and would, thereby, avoid increases to monthly

user fees. However, there are no exceptions to the CWA's antibacksliding requirements that accommodate a municipality's desire to avoid user fee increases. As the Village of Ruidoso and Ruidoso Downs acknowledge, operations at the WWTP could be modified to improve TN concentrations in the WWTP's discharge. Simply put, the Village's desire to hold the line on user fees associated with a WWTP facility that was admittedly *not* designed to achieve the applicable TN standard is not permissible under the claimed exception, and does not justify the illegal backsliding that would occur if the proposed NPDES permit for the WWTP were approved under the statutory provision cited by the NMED in the 2014 draft iteration of nutrient TMDLs for the Rio Ruidoso.

When the NMED issued a modified proposal for nutrient TMDLs in 2016, it had abandoned its prior justification for backsliding – presumably in response to Rio Hondo's 2014 comments on the irrational justification provided by the NMED in 2014. However, the 2016 rationale for backsliding is likewise contrary to law and violates the Clean Water Act. In the 2016 nutrient TMDLs, NMED asserts that backsliding in the WWTP's NPDES permit is permissible pursuant to Section 303(d)(4) of the Clean Water Act, 33 U.S.C. § 1313(d)(4), which allows for the revision of NPDES permits affecting impaired streams when the existing permit contains “an effluent limitation based on a total maximum daily load or other wasteload allocation.” While it is true that the 2006 TMDL for nutrients in the Rio Ruidoso contains nutrient WLAs for the WWTP, it is *decidedly not the case* that the current NPDES permit for the WWTP contains discharge limitations that are based on a TMDL or other WLA. To the contrary, the nutrient limitations in the WWTP's current NPDES permit are concentration-based and were adopted to assure attainment of water quality standards for nutrients in the Rio Ruidoso below the WWTP. Any argument that the current permit contains TMDL- or WLA-based effluent limitations for nutrients is plainly and clearly erroneous. For this reason, Section 303(d)(4) of the Clean Water Act is inapplicable in this case and the backsliding that is contemplated by the draft NPDES permit for the WWTP is unauthorized and is illegal.

Nonetheless, in the proposed NPDES permit for the WWTP, the EPA justifies the proposed illegal backsliding on the basis of the same rationale asserted by the NMED in the 2016 nutrient TMDLs. The EPA states as follows in the proposed permit:

For non-attainment waters, 303(d)(4) allows backsliding only where the existing permit assures attainment of the water quality standard at issue. The revised 2016 nutrient TMDL is calculated using the same protective, in-stream targets from the original TMDL, and the revised WLAs assigned to this facility are consistent with the TMDL. Therefore, if the conditions in

the TMDL (i.e., WLAs) are met, attainment of the water quality standard is assured.

This justification for the backsliding which would be effected by the proposed NPDES permit is infirm for a number of reasons. First, and as noted immediately above, the nutrient discharge limits in the existing NPDES permit for the WWTP are not TMDL- or WLA-based. This fact, in and of itself, is a disqualifying factor for application of the Section 303(d)(4) exception to the anti-backsliding requirement.

Second, and there is absolutely no dispute whatsoever as to this fact, the existing NPDES permit for the WWTP does *not* “assure[] attainment of the water quality standard at issue” as required by the Clean Water Act. To the contrary, the Rio Ruidoso below the WWTP is in non-attainment for both TP and TN. Accordingly, another of the essential pre-conditions for permissible backsliding under Section 303(d)(4) is not met in this case.

Third, in its effort to justify the backsliding contemplated in the proposed NPDES permit for the WWTP, the EPA fails to note that the nutrient WLAs in the 2016 nutrient TMDLs are far less stringent than the nutrient WLAs in the 2006 TMDLs – and permit far more mass loading of both TP and TN from the WWTP than is the case under the current concentration-based discharge limits. Even the NMED’s nutrient TMDLs acknowledge this core fact, and admit that “[t]his revised nutrient TMDL allocates a larger waste load allocation and assigns less stringent permit limits for plant nutrients than the original 2006 TMDL.” Since the Rio Ruidoso remained in a continuous state of non-attainment for nutrients *even with the stricter WLAs of the 2006 TMDLs*, it is simply irrational for the EPA to conclude that an NPDES permit premised on the relaxed 2016 TMDLs will “assure[] attainment of the water quality standard at issue.”

Fourth, and finally, the Village of Ruidoso and Ruidoso Downs have acknowledged that they will *not* meet “the conditions in the [2016] TMDL.” In proceedings before the NMED, the regulated entities insisted that the 2016 TMDLs be relaxed even further than proposed during the 2016 TMDL development process because the WWTP – as currently engineered and operated – *cannot* comply with the mass loading limits for nutrients set out by the TMDL WLAs. Likewise, at the public hearing on the 2016 nutrient TMDLs before the NMWQCC, the regulated entities acknowledged that they would *not* be able to comply

with the WLAs for nutrients set out in the TMDLs.<sup>1</sup> For no apparent reason – and Rio Hondo asserts that there could be no rational reason for this oversight – the EPA simply fails to acknowledge the fact that the Village of Ruidoso and Ruidoso Downs admit that they will not comply with the mass load limits of the 2016 nutrient TMDLs and, by implication, any NPDES permit which incorporates those mass load limits. For this reason, incorporation of the relaxed mass load limits calculated in the 2016 nutrient TMDLs into the WWTP’s new NPDES permit does not “assure[] attainment of the water quality standard at issue.”

### C. Conclusion

There is no rational basis for approval of the proposed NPDES permit for the Village of Ruidoso and Ruidoso Downs WWTP, and approval would violate the requirements of the Clean Water Act and be arbitrary and capricious. Currently, the Rio Ruidoso downstream of the WWTP is in non-attainment for both TP and TN. The proposed NPDES permit incorporates TMDL mass loading limits for nutrients that were calculated in the 2016 iteration of the nutrient TMDLs, which TMDLs are more relaxed than the 2006 nutrient TMDLs. Since water quality standards for nutrients were not attained in the Rio Ruidoso downstream of the WWTP when WLAs for TP and TN were stricter than the more relaxed WLAs for TP and TN under the 2016 nutrient TMDLs, it is arbitrary and capricious for the EPA to conclude that incorporating the more relaxed mass loading limits of the 2016 nutrient TMDLs into the NPDES permit will assure the attainment of water quality standards. In fact, the opposite result will obtain if the proposed NPDES permit is issued: the proposed permit virtually assures that TP and TN non-attainment in the Rio Ruidoso downstream of the WWTP will continue unabated or will worsen. Accordingly, the proposed NPDES permit – if issued – will violate the Clean Water Act. 33 U.S.C. § 1342(a), 40 C.F.R. § 122.44. Furthermore, even if (1) the 2016 nutrient TMDLs were rational (which, as Rio Hondo explains above, they are not) *and* (2) the WWTP is able to comply with the TN mass loading limit of the 2016 TMDL (which the regulated entities have admitted is *not* the case), the use of median annual flow as the critical low flow value for the TN TMDL virtually assures that the Rio Ruidoso downstream of the WWTP will be in non-attainment for TN on at least 50% of the days in each year.

---

<sup>1</sup> A transcript of the November 15, 2016 NMWQCC hearing – at which the regulations entities made this concession – has been prepared but has not been provided to Rio Hondo. Rio Hondo encourages the EPA to obtain a copy of the official transcript in order to confirm the regulated entities’ critical concession in this regard.



Ms. Evelyn Rosborough  
Page 9 of 9  
June 4, 2017

Finally, the proposed NPDES permit – if issued – will clearly violate the anti-backsliding provision of the Clean Water Act as a matter of law and will not assure attainment of pertinent water quality standards for nutrients as required by the Act. There is simply no genuine dispute as to this critical issue, and the EPA’s efforts to justify the contemplated backsliding are woefully inadequate and, ultimately, erroneous. If ever there were a case where backsliding should *not* be permitted, this is it. The Rio Ruidoso downstream of the WWTP is in non-attainment for nutrient water quality standards – largely because of the discharge of nutrients from the WWTP – and relaxing the permit limitations for nutrients from the WWTP under these circumstances is simply inconsistent with common sense – and with the requirements of applicable law. For the foregoing reasons, Rio Hondo respectfully submits that the proposed NPDES permit cannot be issued in its current form.

Sincerely,

          /s/ Steven Sugarman            
Steven Sugarman  
Attorney for Rio Hondo Land & Cattle Co.

August 7, 2014

**VIA ELECTRONIC MAIL**

heidi.henderson@state.nm.us

Ms. Heidi Henderson  
Surface Water Quality Bureau  
New Mexico Environment Department  
P.O. Box 5469  
Santa Fe, New Mexico 87502

Re: Comments to Draft TMDL for the Sacramento Mountains

Dear Ms. Henderson:

I submit the following comments to the draft TMDL for the quality-impaired Sacramento Mountain stream segments on behalf of Rio Hondo Land & Cattle Co, LP and WildEarth Guardians. Both entities are concerned that approval of the draft TMDL will result in the deterioration of water quality in the Rio Ruidoso, and submit that the TMDL as currently drafted must be disapproved as it violates pertinent provisions of the Clean Water Act and impermissibly contemplates prohibited backsliding in the effluent limitations currently governing the quality of discharges from the Village of Ruidoso wastewater treatment plant.

## **1. Introduction**

On July 7, 2014, the New Mexico Environment Department (“NMED”) issued a draft Total Maximum Daily Load (“TMDL”) for the Sacramento Mountains. The Rio Hondo stream system is within the geographic scope of the TMDL and, accordingly, the draft document includes proposed TMDLs for water-quality impaired segments of the Rio Ruidoso and its tributaries.

The proposed TMDL violates the Clean Water Act (“CWA”) in various respects, some of which are set out below, and cannot be approved. Most fundamentally, TMDLs for impaired stream segments must be “established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety.” 33 U.S.C. § 1313(d)(1)(C). The TMDL drafted for the Eagle Creek to U.S. Highway 70 Bridge Assessment Unit of the Rio Ruidoso (hereafter referred to as the “Below WWTP Reach,” as the Assessment Unit includes the outfall of the Ruidoso wastewater treatment plant) *will not* bring this quality-impaired segment into compliance with applicable water quality standards.<sup>1</sup> For this reason, the TMDL must be disapproved.

Even on its face, the proposed TMDL for the Below WWTP Reach fails to comply with the CWA requirement that a TMDL for a quality-impaired segment ensures compliance with applicable water quality standards. The 2006 TMDL for the subject stream segment *did not* bring the segment into compliance with applicable water quality standards.<sup>2</sup> Notwithstanding the failure of the 2006

---

<sup>1</sup> This comment letter focuses on the various inadequacies of the TMDL drafted for the Eagle Creek to U.S. Highway 70 Bridge Assessment Unit of the Rio Ruidoso, however many of the comments incorporated into this letter are also applicable to other quality-impaired segments addressed in the Sacramento Mountains TMDL.

<sup>2</sup> The Assessment Unit that includes the outfall of the Ruidoso WWTP in the 2006 TMDL does not exactly conform in length to the Assessment Unit including the outfall of the Ruidoso WWTP in the draft 2014 TMDL. The 2014

Ms. Heidi Henderson  
August 7, 2014  
Page 3 of 17

TMDL to bring the Below WWTP Reach into compliance with applicable water quality standards, NMED now proposes to increase target pollutant loads for the reach above and beyond the target pollutant loads established in the 2006 TMDL for the segment. In fact, NMED proposes to increase the target load for Total Nitrogen by almost 225% from 27.2 lbs/day to 60.8 lbs/day. At the same time, NMED acknowledges that stream flow in the segment is decreasing – presumably as a result of increased depletions associated with additional surface diversions and groundwater pumping for domestic water supply combined with global climate change. It states that the median flow value for the period of record has decreased from 11.9 cfs to 6.75 cfs. Clearly, a TMDL which elevates pollutant loading into a stream segment which is increasingly unable to assimilate pollutants through dilution is not a recipe for the attainment of applicable water quality standards.

Additionally, the TMDL for the Below WWTP Reach is critically flawed by the erroneous assumption that the U.S. Environmental Protection Agency (“EPA”) can (and will) approve a relaxation in the effluent limitations that are incorporated into the WWTP’s NPDES permit. Currently, NPDES effluent limits for the WWTP include a 0.1 mg/L limit for Total Phosphorous (“TP”) and a 1.0 mg/L limit for Total Nitrogen (“TN”). The proposed TMDL for the Below WWTP Reach is premised on the erroneous assumption that the effluent limits will be relaxed to 0.16 mg/L for TP and 2.46 mg/L for TN. The assumed relaxation in effluent limits would constitute a violation of the CWA’s anti-backsliding provision, 33 U.S.C. § 1342(o)(1), and there is no exception to the general prohibition on backsliding that applies in the case of the WWTP.

NMED first claims that a relaxation in the WWTP’s effluent limitations is appropriate under the anti-backsliding exception provided by 33 U.S.C. § 1342(o)(2)(E). This is incorrect, as that exception applies only to facilities where “[t]he permittee has installed the treatment facilities required to meet the effluent limitations in the previous permit.” Here, Ruidoso itself acknowledges that the WWTP was *not* designed to meet the effluent limitation for TN. Under such

---

Assessment Unit is shorter than the 2006 Assessment Unit.

Ms. Heidi Henderson  
August 7, 2014  
Page 4 of 17

circumstances, Exception (2)(E) cannot come into play. NMED also claims that backsliding in connection with the WWTP's NPDES permit, if permissible under Exception (2)(E) (which, as explained immediately above, is not the case), is allowed by 42 U.S.C. § 1313(d)(4)(A). However, this provision of the CWA allows backsliding in non-attainment waters *only* in the event that (1) relaxation of NPDES permit limits is otherwise allowed by one of the exceptions enumerated in 33 U.S.C. § 1342(o)(2) *and* (2) a relaxation of NPDES permit limits in the applicable TMDL will nonetheless "assure attainment of [pertinent] water quality standards." Neither of these two requirements are met in this case: no exception to the CWA's anti-backsliding provision applies *and* the TMDL for the Below WWTP Reach does not assure attainment of applicable water quality standards.

At bottom, it is plainly evident that NMED's guiding principle in drafting the Sacramento Mountains TMDL was *not* compliance with water quality standards in quality-impaired stream segments. Rather, it is clear that NMED's primary concern in drafting the TMDL was to provide a justification for relaxation of the effluent limitations incorporated into the Ruidoso WWTP NPDES permit. The resulting load targets and allocations are nothing less than egregious. As just one example, NMED calculated a target load of 27.2 lbs/day of TN in the stream segment that includes the WWTP outfall in the 2006 TMDL. In the 2014 draft TMDL, NMED proposes a Waste Load Allocation ("WLA") of 38.6 lbs/day of TN for the Ruidoso WWTP alone. This proposed WLA is more than 200% of the WLA calculated for the WWTP in the 2006 TMDL (18.9 lbs/day) and exceeds the *total* calculated permissible TN load for the stream segment from the 2006 TMDL (27.2 lbs/day) by more than 40%. In this connection, it also bears noting that even the more stringent 2006 TMDL did not achieve compliance with pertinent water quality standards and that decreasing flow volumes attributable to increased depletions associated with domestic water supply combined with global climate change indicate a need to draft a more stringent TMDL – *not a relaxed TMDL* – to satisfy the CWA's core TMDL requirement.

For the reasons set forth above, and for the other reasons set out in this comment letter, NMED's Sacramento Mountains TMDL cannot be approved consistent with the requirements of the CWA.

## **2. NMED's calculations of target loads is arbitrary and capricious**

A critical threshold step in the development of any TMDL is the calculation of target loads for pollutants of concern in quality-impaired stream segments. This calculation combines applicable water quality standards for the relevant pollutants with appropriate critical flows to yield a total volume of regulated pollutant that can be discharged into a stream segment without a resulting water quality standard violation. As applicable water quality standards are exogenous to the TMDL development process, there is generally no problem in the determination of such values in the context of target load calculation. However, the Sacramento Mountains TMDL demonstrates that the development of a TMDL that will ensure compliance with water quality standards, as required by the CWA, can be subverted by an arbitrary selection of critical flow values.

Specifically, the bacteria and nutrient TMDLs for the Below WWTP Reach are flawed at their cores by NMED's overstatement of critical flows. This overstatement yields artificially – and arbitrarily – high target loads for bacteria and nutrients. Since the WLA and the Load Allocation (“LA”) for the Below WWTP Reach are guided and constrained by the inflated target loads, it is impossible that implementation of the TMDL will result in compliance with applicable water quality standards.

As NMED acknowledges in the draft TMDL, calculation of target loads should be based on critical low flow values – or “4Q3” values – as these values determine the pollutant assimilative capacity of receiving waters in low flow conditions. Using a higher value for critical flows results in pollutant concentrations that exceed applicable water quality standards. In stating one component of the critical flow values for the Below WWTP Reach – in-stream flow – NMED correctly uses the 4Q3 value of 1.01 mgd for the stream segment. However, NMED makes two critical mistakes in its statement of total critical flows. First, NMED erroneously uses the design capacity of the Ruidoso WWTP – 2.70 mgd – in its calculation of critical flows, despite the fact that a flow of this

magnitude has never been observed at the WWTP.<sup>3</sup> Second, in stating the critical flow value for TN, NMED arbitrarily – and impermissibly – uses median flow values rather than 4Q3 values.

As for the first error – the use of the WWTP’s 2.70 mgd design capacity to define critical flows – there is simply no basis in law or in fact for the use of this value when there is ample data on *actual* flows discharged from the WWTP. At the request of Rio Hondo, Balleau Groundwater, Inc. (“BGW”) reviewed and analyzed WWTP discharge flow data reported by the Village of Ruidoso. Using the DFLOW 3.1 software, the same software used by NMED in calculating 4Q3 values, BGW calculated the 4Q3 value of WWTP discharge flows at 1.01 mgd.<sup>4</sup> The 4Q3 value for this flow is only 37% of the WWTP design capacity flow (2.70 mgd) that NMED used in the statement of critical flows for bacteria and TP.

If NMED had correctly used the 4Q3 value of WWTP discharge flows to calculate total critical flow values in the Below WWTP Reach for bacteria and TN, then the aggregate critical flow value for the bacteria and TP parameters would be 2.02 mgd (1.01 mgd in-stream + 1.01 mgd WWTP 4Q3 discharge). NMED’s statement of 3.71 mgd (1.01 mgd in-stream + 2.70 mgd WWTP design discharge) as the critical flow for bacteria and TP overstates the actual critical flow value for those parameters in the Below WWTP Reach by more than 83%. In turn, the significant overstatement of critical flow values for bacteria and TP results in a correspondingly significant overstatement of target loads for bacteria and TP.

The second error – the use of median flow to define critical flow values for TN – is also without basis. NMED asserts in the draft TMDL that New Mexico water quality standards do not require the use of 4Q3 values to define critical low flows for narrative criteria. NMED also states that “after careful consideration of

---

<sup>3</sup> In the draft TMDL, NMED reports that the highest observed flow discharged from the WWTP is 1.88 mgd.

<sup>4</sup> The data set that BGW used for this calculation are discharge flows from the WWTP for the period April 2006 through March 2013.

Ms. Heidi Henderson  
August 7, 2014  
Page 7 of 17

a number of low flow stream conditions NMED is proposing to use the annual median flow” to define critical low flow for TN.<sup>5</sup> NMED provides no information as to the issues that it took into account during the course of its “careful consideration,” and it is not apparent that there is any legitimate justification for the use of annual median flow data as critical flow data in this circumstance. Indeed, the 2006 TMDL utilized the expected – and permissible – approach by stating the critical flow for calculation of *all* target nutrient loads (both TP and TN) in the same way. That is, there was no divergence between critical flow for TN and TP in the 2006 TMDL.

As for NMED’s claim that New Mexico water quality standards permit the use of annual median flow in the calculation of critical flow for TN loading, this claim is inconsistent with NMAC 20.6.4.11(B)(2) which states that the critical low flow value for narrative criteria is the 4Q3 flow. There is no provision of New Mexico’s water quality standards that approves the use of annual median flows to state critical flow values, even with respect to narrative criteria. Additionally, the use of annual median flow in this instance is inconsistent with EPA regulations which require that TMDLs take “seasonal variations” in flow values into account. 40 C.F.R. § 130.7(c)(1). Finally in this regard, the NMED states that “[t]he use of the median flow . . . is appropriate [for purposes of stating TN critical flow] because of the long term growth cycle of algae in response to excess nutrients, in contrast to protecting for acute toxicity.” However, NMED correctly used the 4Q3 flow value to state TP critical flow despite the fact that “the long term growth cycle of algae in response to excess nutrients” has equal application in the context of TP critical flow. There is simply no justification provided by NMED for this divergent approach to TP and TN critical flows.

The use of annual median flow to state the critical flow value for the

---

<sup>5</sup> As discussed below in this comment letter, it appears that the “careful consideration” may have been nothing more than being successfully lobbied by a Village of Ruidoso consulting firm which had been retained to secure a relaxation in nutrient effluent limitations for the Ruidoso WWTP in the context of the TMDL.



Ms. Heidi Henderson  
August 7, 2014  
Page 8 of 17

calculation of target TN loading compounds the error discussed above – that is, the use of WWTP design capacity in the statement of critical flow in the Below WWTP Reach. As indicated above, the 4Q3 value for WWTP discharge flow is 1.01 mgd. Also as indicated above, if this number is added to the 4Q3 value for in-stream flow in the subject stream segment the total critical flow value for calculation of target loads in the Below WWTP Reach is 2.02 mgd. However, NMED's two errors in the calculation of TN critical flow result in a calculated critical flow of 7.29 mgd for TN – a flow which is 360% of the actual critical flow. Of course, the very significant overstatement of critical flow for TN leads to a wildly exaggerated TN target load. As noted in the introductory section of this comment letter, NMED's draft TMDL proposes to increase the TN target load in the receiving stream segment by approximately 225% from 27.2 lbs/day to 60.8 lbs/day. In a stream segment that is already in a non-attainment status for TN, and where flows are diminishing as a result of increased depletions associated with development of domestic water supply combined with global climate change and therefore losing assimilative capacity, it is clear that such a dramatic increase in TN target loading cannot assure compliance with the pertinent water quality standard.

In sum, the critical flow calculations in the draft TMDL are arbitrary, capricious, and in violation of law. The overstated critical flow values result in overstated target loads at levels that will almost certainly swamp the assimilative capacity of the Below WWTP Reach. For this reason, the TMDL cannot be approved.<sup>6</sup>

---

<sup>6</sup> In a July 22, 2014 article in the Ruidoso News entitled "Ruidoso keeps wastewater consultants onboard," an attorney for the Village of Ruidoso is quoted as stating that Parametrix (a Village consultant) convinced the NMED to alter critical flow values in the draft TMDL, thereby paving the way for increased target loads and increased WLAs. This statement confirms the fact that the guiding principle in development of the draft TMDL was relaxation of the effluent limitations for Ruidoso's WWTP, not attainment of applicable water quality standards. Such an approach is clearly at odds with the requirements of the Clean Water Act.

**3. The TMDL fails to account for pollutant loads associated with the Concentrated Animal Feeding Operation (“CAFO”) at Ruidoso Downs**

In an “NPDES Compliance Inspection Report” of August 9, 2012, NMED concluded that the Ruidoso Downs Racetrack CAFO “requires appropriate NPDES permit coverage.” That same Inspection Report notes that the Ruidoso Downs CAFO is too large to qualify for coverage under a general CAFO permit and that the facility fails to comply with requirements necessary to a determination that the facility has the ability to contain all process generated wastewater and the runoff from a 25 year - 24 hour storm event. The clear implication of NMED’s Inspection Report is that the facility cannot be expected to contain all discharges from a 25 year - 24 hour storm event.

Despite the fact that the Ruidoso Downs CAFO is recognized as an unpermitted point source discharger, the Sacramento Mountains TMDL does not assign any WLA to the facility. Nor does the TMDL assign any LA to the facility. Rather, the Sacramento Mountains TMDL is premised on the fiction that “no discharge is expected from this CAFO.” The apparent basis for this unsupported fictional assumption is the fact that the general CAFO permit – which does not apply in this case – contains a prohibition on the discharge of pollutants into waters of the United States. Clearly, NMED’s “analysis” of this issue is inadequate. The prohibition on discharge in the inapplicable general CAFO permit is simply irrelevant to the nature and extent of the Ruidoso Downs CAFO’s actual discharges into the Rio Ruidoso.

The Ruidoso Downs CAFO is in the Assessment Unit immediately upstream of the Below WWTP Reach. However, NMED’s failure to account for the CAFO in the pertinent TMDL has a direct and significant impact on pollutant budgeting in the Below WWTP Reach. Pollutant-laden discharge from that facility (which, under CWA requirements, must be assigned a WLA) contributes background levels of turbidity, bacteria, and nutrients to the Below WWTP Reach that must be taken into account in calculating the WLA for the Ruidoso WWTP and the LA for

the WWTP Reach.<sup>7</sup>

**4. The TMDL fails to account for elevated background levels of non-point source pollutants associated with recent forest fires in the Rio Ruidoso watershed**

The 2006 TMDL for the Rio Hondo system incorporates calculated values for background levels of nutrients. The 2014 proposed TMDL fails to incorporate such values, and is therefore inadequate, especially in light of the unusually large wildlife fires that occurred in the upper reaches of the impacted watersheds.

While the 2014 draft TMDL acknowledges that background levels of bacteria and nutrients are likely associated with unusually high run-off from the the White Fire area and the Little Bear Fire area in the Rio Ruidoso watershed, NMED makes no apparent effort to calculate these levels. Putting aside the question as to whether elevated levels of non-point source pollutants contributed by wildland fire scar run-off are best characterized as part of background or are accounted for in the pertinent Las, NMED cannot simply turn a blind eye to the fact that such pollutants currently contribute to the non-attainment status of quality-impaired stream segments within the geographic scope of the Sacramento Mountains TMDL.

**5. The TMDL fails to account for pollutants associated with leaks in Ruidoso's sewer system**

In the draft 2014 TMDLs for bacteria and nutrients, NMED acknowledges that “[w]ater pollution caused by on-site septic systems is a widespread problem in New Mexico” and that “groundwater contaminated by septic system effluent can discharge into gaining streams.” The TMDL purports to account for this pollution as part of the LA, despite the fact that prevailing case law on the issue indicates

---

<sup>7</sup> The draft TMDL is similarly flawed by NMED's failure to include estimates of the pollutant loads attributable to construction sites and storm-water discharges.

that such pollutants should be accounted for as a component part of the WLA.  
(See discussion below.)

However, despite the fact that NMED acknowledges a direct hydrological connection between groundwater and surface water and concludes that the impacts of on-site septic systems are one of the probable causes of non-attainment for bacteria and nutrients, NMED fails to account for the fact that leaks in its sewer system also contribute pollutants to the Rio Ruidoso.

It is widely acknowledged that there is a significant problem with inflow and infiltration *into* the Ruidoso sewer system. Indeed the Village of Ruidoso has studied this issue and estimated that approximately 500-600 acre-feet/year of groundwater finds its way into the sewer system through leaking pipes and loose connections. Accordingly, those portions of the Ruidoso sewer system that are above groundwater are likely to be discharging untreated sewage *out of* the Ruidoso sewer system, and that untreated sewage – like the discharge from on-site septic systems – makes its way into gaining streams. Of course, the introduction of this untreated sewage into the Rio Ruidoso contributes bacteria and nutrients which contribute to the water quality violations currently observed in the pertinent stream segments.

NMED's failure to account for this potentially significant contribution of pollutants in the draft TMDL is arbitrary and capricious, and requires disapproval of the TMDL.

**6. The required reductions in nutrient loads in the stream segment immediately upstream of the Below WWTP Reach are incorrectly stated**

NMED calculates the target nutrient loads for the stream segment immediately upstream of the Below WWTP Reach as 0.84 lbs/day TP and 38.3 lbs/day TN. (See Table 4.5) However, in calculating the load reductions necessary to attain water quality standards in the quality-impaired reach NMED uses an entirely different set of target load amounts: 2.03 lbs/day TP and 55.5 lbs/day TN.

(Table 4.9) There is no indication anywhere in the draft TMDL as to how the values in Table 4.9 were calculated, and it appears that the values are incorrect.

The net effect of the utilization of incorrect numbers in this regard is an understatement of the load reductions necessary to achieve compliance with the applicable nutrient standards. Based on erroneous target load values, NMED erroneously calculates that there is a requirement to reduce the TP load by 14% and the TN load by 45% in the segment in order to achieve compliance. In fact, substituting in the correct target loads for the incorrectly stated target loads indicates that much larger load reductions will be necessary to achieve compliance. Specifically, a 64% reduction in TP loading and a 62% reduction in TN loading will be required if water quality standards are to be achieved in this stream segment.

**7. The draft TMDL does not contain adequate implementation measures to assure that non-point source pollutants introduced into the quality-impaired segments will not exceed the assigned LAs**

As discussed above, the pollutant load allocated to WLA in the Below WWTP Reach is increased dramatically (and impermissibly) in the draft TMDL. Such an increase in the WLA requires a corresponding decrease in the LA. (Of course, the significant decrease in non-point source pollutants needed to achieve compliance with applicable water quality standards is masked in the 2014 draft TMDL by the wildly exaggerated critical flow values and target loads.) However, the draft TMDL provides patently inadequate assurances that the necessary reductions in non-point source pollutants can be achieved. For this reason, the draft TMDL must be disapproved.

**8. NMED did not take into account seasonal variations in developing the draft TMDL**

Regulations implementing the CWA require that TMDLs take into account seasonal variations in the calculation of target loads, WLAs, and LAs. 40 C.F.R. §

130.7(c)(1). NMED failed to meet this regulatory requirement in the case of the Sacramento TMDL. A consideration of seasonal variations is of particular importance in the Below WWTP Reach because the two component parts of flow volume in this stream segment – in-stream flow and discharge flow from the Ruidoso WWTP – work in tandem to create predictable variations in flow volume over the course of an annual cycle. That is, in-stream flow values in the Below WWTP reach are generally highest in the summer months as a result of the monsoonal pattern that prevails in the Sacramento Mountains. Likewise, WWTP discharge flows are generally highest in the summer months as an influx of tourists and part-time residents into the Ruidoso area results in a spike of inflow into the WWTP and a corresponding spike in discharge flow. Aggregating these two component parts of flow volume – and their independent and re-enforcing seasonal variations – depicts an annual flow cycle with a marked peak in the summer months and a marked trough in the winter months. Failure to consider these seasonal variations is a critical flaw in the TMDL.

**9. Backsliding in the Ruidoso WWTP’s effluent limitations is impermissible in this case**

As noted in the introductory section of this comment letter, NMED proposes in the draft TMDL that backsliding be allowed in current nutrient limits for Ruidoso’s WWTP, and that the effluent limitations be relaxed to 0.16 mg/L TP and 2.46 mg/L TN. At the outset, it bears noting that the proposed modification constitutes a significant modification to the current TN:TP ratio of 10:1 and will result in a new TN:TP ratio of 15.375:1. The introduction of proportionately greater quantities of nitrogen into the Rio Ruidoso is a concern, especially in light of the fact that NMED states in the draft TMDL that “nitrogen is the primary limiting nutrient in the Rio Ruidoso and is driving the productivity of algae and macrophytes in the stream.” The draft TMDL is impermissibly silent as to how a relaxation in effluent limitations resulting in a modification to the currently permitted TN:TP ratio will affect algae production in the Rio Ruidoso, a known issue associated with nutrient overloading in this particular stream.

Moreover, the CWA’s anti-backsliding requirements prohibit a relaxation of

Ms. Heidi Henderson  
August 7, 2014  
Page 14 of 17

the Ruidoso WWTP's effluent limitations. NMED asserts that one of the exceptions to the anti-backsliding requirement applies in this case – the exception applicable to treatment facilities that have been designed and constructed to achieve pertinent effluent limitations but have “nevertheless been unable to achieve the effluent limitations.” 33 U.S.C. § 1342(o)(2)(E). However, in the case of the Ruidoso WWTP it is absolutely clear that the facility was *not* designed or intended to meet the effluent limitation for nitrogen of 1.0 mg/L. The Village of Ruidoso admits this fact in the “Ruidoso Settlement Agreement Final Report” of March 1, 2013, wherein the Village concedes that “the New Plant was not designed to meet an effluent limitation of 1.0 mg/L . . . for TN.” Since the facility was clearly not designed or constructed to achieve compliance with the controlling TN limit, the exception is simply not applicable.

Furthermore, there are clear indications that the Village could make further improvements in TN discharges from the facility, but chooses not to for impermissible reasons. In the July 22, 2014 Ruidoso News article referenced in footnote 6 above, the WWTP operator is quoted as stating that relaxation of the TN effluent limitation will avoid “the need to use costly chemicals in achieving the [TN standard]” and will, thereby, avoid increases to monthly user fees. However, there are no exceptions to the CWA's anti-backsliding requirements that accommodate a municipality's desire to avoid user fee increases. As the Village acknowledges, and as NMED presumably knows, operations at Ruidoso's WWTP could be modified to improve TN concentrations in the WWTP's discharge. Simply put, the Village's desire to hold the line on user fees associated with a WWTP facility that was admittedly *not* designed to achieve the applicable TN standard is not permissible under the claimed exception.

As for the proposed relaxation in the effluent limitation for TP – from 0.1 mg/L to 0.16 mg/L – the claimed exception is likewise not applicable. By its plain terms, the exception only comes into play when an effluent limitation is *not* achieved. The exception is not available to justify backsliding with respect to an effluent limitation that is achieved – such as the TP effluent limitation in the case of the Ruidoso WWTP.

Ms. Heidi Henderson  
August 7, 2014  
Page 15 of 17

Furthermore, NMED asserts that back-sliding is permissible in the case pursuant to 33 U.S.C. § 1313(d)(4)(A). This assertion is likewise without foundation in law or fact. As a preliminary matter, the provision of 33 U.S.C. §1313(d)(4)(A) that permits backsliding is available *only* in those limited instances where backsliding is otherwise allowed by an applicable exception to the CWA's anti-backsliding requirement. As discussed immediately above, there is no exception to the anti-backsliding requirement that applies in this case. Accordingly, 33 U.S.C. § 1313(d)(4)(A) cannot be used to justify a relaxation in the Ruidoso WWTP effluent limitations.

Additionally, the provisions of 33 U.S.C. § 1313(d)(4)(A) allow for the relaxation of effluent limitations in the context of a TMDL *only* in those limited circumstances where the TMDL will nonetheless "assure the attainment" of pertinent water quality standards. As discussed throughout this comment letter, the NMED is *not* able to provide assurances that the draft TMDL will assure compliance with applicable nutrient standards in the Below WWTP Reach. In fact, all indications are that the draft TMDL – if approved – will result in increases in frequency and extent of nutrient exceedances in the Below WWTP Reach.

It is physically impossible for a non-attainment stream segment that is diminishing in flow over time as a result of additional depletions associated with domestic water development and global climate change – such as the Below WWTP Reach – to improve in quality when pollutant loading into that reach increases. In this case, NMED acknowledges that median in-stream flows in the Below WWTP Reach have decreased significantly over the period of record – specifically, those flows have decreased from 11.9 cfs to 6.75 cfs over the last decade – a dramatic decrease of 43% . At the same time, NMED proposes to increase the nutrient pollutant loading in the Below WWTP Reach by a significant fraction: NMED's proposal is to increase the TP load by almost from 2.72 lbs/day to 3.09 lbs/day and the TN load from 27.2 lbs/day to 60.8 lbs/day. Any expectation of quality improvement in such a scenario is patently arbitrary, and simply defies common-sense, logic, and science.

In this case, NMED – at the apparent behest of a permitted entity – has



Ms. Heidi Henderson  
August 7, 2014  
Page 16 of 17

manipulated critical flow values in the TMDL in order to increase nutrient target loads and the associated WLA for the Ruidoso WWTP. The manipulated critical flow values – and the overstated target loads and WLA which are premised on those manipulated critical flow values – are clearly inconsistent with CWA requirements and subvert the core purpose of TMDL development. In essence, the NMED has reduced the TMDL development process into an exercise in “providing cover” for otherwise impermissible backsliding in the Ruidoso WWTP’s effluent limitations.

## **10. Conclusion**

The draft TMDL for the Sacramento Mountains must be disapproved. The document fails to comply with CWA requirements, and represents nothing more than a transparent and impermissible attempt to set the stage for illegal backsliding on effluent limitations applicable to the Ruidoso WWTP. If approved, the draft TMDL will result in a deterioration of water quality in the Below WWTP Reach segment of the Rio Ruidoso as it contemplates increased pollutant loading into that stream segment which is already quality-impaired. Any assertion that the draft TMDL will assure compliance with applicable water quality standards by *increasing* the allowable pollutant loads into the Below WWTP Reach is simply illogical.

Clearly, the Village of Ruidoso desires a relaxation in the effluent limitations which apply to its WWTP. Equally obvious is the fact that NMED desires to accommodate the Village’s desire for relaxed effluent limitations. However, the draft TMDL simply fails to provide any permissible legal or factual basis for such backsliding. In sum, the draft TMDL – together with the proposed

Ms. Heidi Henderson  
August 7, 2014  
Page 17 of 17

relaxation in the Ruidoso WWTP's effluent limitations – is arbitrary, capricious, and contrary to the requirements of law. It must be disapproved.

Sincerely,

*/s/ Steven Sugarman*

Steven Sugarman

Attorney for Rio Hondo Land & Cattle Co, LP and  
WildEarth Guardians

cc: Katrina Coltrain, USEPA Region VI

September 29, 2016

**VIA ELECTRONIC MAIL**

heidi.henderson@state.nm.us

Ms. Heidi Henderson  
Surface Water Quality Bureau  
New Mexico Environment Department  
P.O. Box 5469  
Santa Fe, New Mexico 87502

Re: Comments on the August 22, 2016 Public Comment Draft of the  
Nutrient Total Maximum Daily Load in the Rio Ruidoso

Dear Ms. Henderson:

**I. Introduction**

I submit the following comments on the August 22, 2016 Public Comment Draft of the Total Maximum Daily Load (“TMDL”) for nutrients in the Rio Ruidoso. These comments are submitted on behalf of Rio Hondo Land & Cattle Co., LP and WildEarth Guardians (hereafter collectively referred to as “Rio Hondo Land”). Both entities are concerned that approval of the draft TMDL will result in the deterioration of water quality in the Rio Ruidoso, and submit that the TMDL as currently drafted must be disapproved as it violates pertinent provisions of the New Mexico Administrative Code and the federal Clean Water Act, and impermissibly contemplates prohibited backsliding in the effluent limitations

Ms. Heidi Henderson  
September 29, 2016  
Page 2 of 14

currently governing the quality of discharges from the Village of Ruidoso wastewater treatment plant.

The nutrient TMDLs proposed in the August 22, 2016 Public Comment Draft are substantially similar to the nutrient TMDLs that were proposed in the July 7, 2014 draft, and the 2014 draft nutrient TMDLs were the subject of an August 7, 2014 comment letter submitted by Rio Hondo Land. (Copy attached.) In light of the substantial overlap between the two sets of draft nutrient TMDLs – the 2014 draft and the 2016 draft - Rio Hondo Land incorporates by reference into this letter all the comments that it previously made to the New Mexico Environment Department (“NMED”) in its August 7, 2014 comment letter as if they were fully set out herein.

Rio Hondo Land is submitting this supplemental comment letter because it is particularly concerned that the nutrient TMDLs for the Rio Ruidoso are fundamentally flawed by NMED’s characterization of the relevant stream segments’ loading capacity for Total Nitrogen in a way that is not justified in law or in fact. NMED’s legally and factually erroneous characterization of the stream segments’ loading capacity for Total Nitrogen leads inevitably to the calculation of target loads – both Load Allocations and Wasteload Allocations – which *will not* assure compliance with relevant New Mexico water quality standards taking seasonal variations into account. Accordingly, the nutrient TMDLs violate Section 303(d)(1)(C), 33 U.S.C. § 1313(d)(1)(C), of the Clean Water Act. For this reason, Rio Hondo Land urges NMED to withdraw the draft nutrient TMDLs – or, at the least, the Total Nitrogen TMDL – and to redraft the TMDLs in a manner that complies with all state and federal regulatory and statutory requirements.

## **II. New Mexico regulations require that NMED utilize 4Q3 flows to calculate Rio Ruidoso’s Total Nitrogen loading capacity**

NMED has stated the year round loading capacity of the Rio Ruidoso for nutrients as the annual median flow during the period January 1, 2004 to December 31, 2015. Utilization of the annual median flow as the year round critical flow is arbitrary and capricious, and is impermissible.

**A. The requirements of the New Mexico Administrative Code**

NMED asserts, without any legal support or justification, that it is not required to use the 4Q3 flow as the critical flow for Total Nitrogen loading capacity because this pollutant is subject to a narrative – as opposed to numerical – standard. This assertion is incorrect. New Mexico regulations on this issue clearly and affirmatively require the use of 4Q3 flows as the critical flow in this case.

New Mexico regulations state the general rule with respect to the characterization of critical flows as follows:

The critical low flow of a stream at a particular site shall be used in developing point source discharge permit requirements to meet numeric criteria set in 20.6.4.97 through 20.6.4.900 NMAC and Subsection F of 20.6.4.13 NMAC.

NMAC 20.6.4.11(B). Apparently, NMED believes that this provision of the New Mexico water quality regulations somehow permits it to calculate Total Nitrogen loading capacity based on something other than “critical low flow.” NMED is incorrect in this regard, as is obvious from a more complete reading of the relevant regulatory provisions. Specifically, with respect to critical flow calculations, the New Mexico water quality regulations go on to state – at NMAC 20.6.4.11(B)(2) – that “[f]or all . . . narrative and numeric criteria [other than human-health organism only criteria]<sup>1</sup>, the critical low flow is the minimum average four consecutive day flow that occurs with a frequency of once in three years (4Q3).” (Emphasis added.)

---

<sup>1</sup> For human-health organism only criteria, New Mexico regulations prescribe the use of the “harmonic mean flow.” NMAC 20.6.4.11(B)(1). This section of the regulations does not apply to the development of nutrient TMDLs.

Despite the pellucidly clear language of New Mexico's water quality regulations, NMED posits in the Draft TMDLs that the "regulations do not require a specific low flow condition." Obviously, NMED's reading of the regulatory requirements cannot be squared with the plain language of the regulations which state that the critical low flow to be used for planning purposes – such as TMDL development – is the 4Q3 flow "for *all* narrative *and* numeric criteria." This language does not contain any exception to the 4Q3 requirement, other than the limited exception for human-health organism only criteria which does not apply here. For this reason, the NMED committed legal error when it departed from the plain language of the requirements of the New Mexico regulations and utilized an annual median flow to determine the Rio Ruidoso's loading capacity for nutrients.

Furthermore, it is *not* the case that there is no numeric standard for nitrogen in the Rio Ruidoso. While the WQCC has not formally adopted numeric criteria for nitrogen in the Rio Ruidoso, NMED has set the phosphorous standard in the relevant stream reaches at 0.1 mg/L and – upon its review of "regional studies from the Rocky Mountain West as well as site-specific data from the Rio Ruidoso" – has consistently stated that the appropriate numeric translator for determination of the nitrogen standard is 10:1 nitrogen:phosphorous. In other words, NMED has determined that the appropriate numeric standard for nitrogen in the stream reaches is 1.0 mg/L. Accordingly, even if NMED were correct that it need not use 4Q3 flows as the critical flows for narrative criteria – which is clearly not the case, as the plain language of the relevant regulation makes absolutely clear – this circumstance would not excuse the NMED's failure to use 4Q3 as the critical flow for nitrogen because there *are* numeric criteria for nitrogen that are based on the numeric criteria for phosphorous.<sup>2</sup>

---

<sup>2</sup> NMED's use of two vastly different critical flows for phosphorous and nitrogen is arbitrary and capricious, as this approach "delinks" the calculated phosphorous and nitrogen loads for the Rio Ruidoso nutrient TMDLs in such a way that the 10:1 nitrogen:phosphorous ratio will inevitably be exceeded. Since NMED has determined that the Rio Ruidoso is nitrogen limited, the loading of nitrogen at rates predicated on annual median flow as the critical flow and of phosphorous at rates predicted on 4Q3 will lead to serious imbalances in nutrient

**B. NMED provides no evidence whatsoever that it is rational to use the annual median flow as the critical flow for TMDL development**

Even if it were permissible for NMED to depart from the requirements of New Mexico regulations which prescribe the use of 4Q3 flows as the critical flows for nutrients – and Rio Hondo Land specifically states that this is *not* permissible – NMED would still have to establish that its use of the annual median flow as the critical flow for TMDL development is rational and based on a reasoned consideration of the relevant scientific factors. NMED has not cleared this crucial hurdle. To the contrary, NMED has not provided any reasoned explanation whatsoever for its use of annual median flow as the critical flow for the Total Nitrogen TMDL.

In the latest iteration of the TMDL document, NMED states that it chose to use annual median flow as the critical flow condition for Total Nitrogen “after careful consideration of a number of critical flow conditions.” To Rio Hondo Land’s knowledge, NMED has *never* before used annual median flow to calculate nutrient loading for TMDL purposes and NMED’s decision to institute such a practice in this case must be supported by a credible and scientifically defensible explanation as to why annual median flow is the appropriate critical flow for development of a nitrogen TMDL in this case.<sup>3</sup>

---

loading.

<sup>3</sup> In preparing these comments, Rio Hondo Land reviewed the PowerPoint presentation that Shelly Lemon, NMED Surface Water Quality Bureau Chief, delivered at an EPA-sponsored conference in February of 2011. In that presentation, Ms. Lemon discussed three case studies: the Rio Ruidoso nutrient TMDLs developed in 2006, the Mora River nutrient TMDLS developed in 2007, and the Cieneguilla Creek nutrient TMDLs developed in 2010. In each of those cases, NMED used the 4Q3 flow value as the critical flow for the calculation of the relevant stream reaches’ nutrient loading capacity. Likewise, in the November

In fact, all the available evidence shows that the selection of annual median flow as critical flow is inconsistent with the scientific evidence and clearly at odds with the Clean Water Act's express requirements that TMDLs account for the seasonality in the calculation of TMDLs. In the EPA's July 2000 publication entitled "Nutrient Criteria Technical Guidance Manual: Rivers and Streams," the EPA discusses the myriad factors that must be taken into account in the development of nutrient TMDLs – including the biological, ecological, physical, and chemical characteristics of the relevant stream. The EPA also states that a variety of flow conditions should be considered, including not only "[l]ow and stable flow conditions," but also the "frequency and timing of floods":

Low and stable flow conditions should be considered in addition to frequency and timing of floods when physically classifying stream systems. Flood frequency and scouring may be greater in steep-gradient (steep slope) and/or channelized streams and in watersheds subject to intense precipitation events or rapid snow melt. Periods of drying can also reduce algal biomass to low levels (Dodds et al. 1996). A stream may flood frequently during certain seasons, but also remain stable for several months at a time. The effects of eutrophication may be evident during stable low flows. Also, stable flow periods are generally associated with low flow conditions, resulting in the highest nutrient concentration from point source

---

2011 Updated TMDL for sediment/siltation in the Mora River, NMED used the 4Q3 flow value as the critical flow. The June 2015 Updated TMDL for nutrients in the Mora River are based on seasonal median flows – *not* annual median flows – in recognition of the variability of flow conditions over the course of the year. Likewise, nutrient TMDLs for the Rio Hondo in the Upper Rio Grande Basin are based on seasonal 4Q3 flows. The important point here is that NMED's use of annual median flow to determine the year round nutrient loading capacity in the relevant stream reaches in this case is novel and untested. If NMED desires to adopt this approach in this case, it has an affirmative obligation to support its decision with credible scientific evidence.



loading. Hence, low-flow periods often present ideal conditions for achieving maximum algal biomass. *For these reasons, nutrient control plans may require strategies that vary seasonally (e.g., criteria for a specific system may differ with season or index period).*

(Emphasis added.) The EPA publication goes on to discuss the fact that desert streams in the southwest present a particularly nettlesome problem for nutrient TMDL development:

The nutrient regime of streams in general can be complex, however, desert streams present particular complexities not found in more homogeneous, mesic landscape stream ecosystems. Spatial and temporal variability in physical structure, community composition, materials availability and the interactions between these elements strongly control nutrient processes in desert streams. Dent and Grimm (in press) found a high coefficient of variability (as high as 145%) in the spatial distribution of nutrients in Sycamore Creek, Arizona, with coefficients of variation increasing over successional time. Part of this is due to hydrologic variability, in all its temporal, spatial and amplitude scales.

In particular, the EPA discusses that the variability in flows and wetted surface over the course of a year is a significant factor that must be taken into account in the assessment of and planning for nutrients in southwestern streams. NMED has swept this annual variability under the rug in an effort to justify its selection of the annual median flow value as the year round critical flow. In the draft TMDL document, NMED states that “there is no significant difference between the summer and annual median flows.”<sup>4</sup> In fact, monthly median flow

---

<sup>4</sup> NMED concludes, without citing to any evidentiary or scientific support, that “summer months are the critical time period for nutrient growth as this is when stream temperature, and this stream metabolism, is greatest.” However, NMED does not cite to any *actual* data on the Rio Ruidoso to support its supposition that summer months are the critical time for nutrient growth in the

values in the Rio Ruidoso vary quite widely over the course of a year. Over the 2004-2014 period selected by NMED for TMDL planning in this case, the highest monthly median flow was observed in August (10 cfs) and the lowest monthly median flow was observed in June (5 cfs). Looking at the complete period of record, the monthly variability in flows is even more pronounced – from a high of 22 cfs in April to a low of 7.9 cfs in January. The essential point here is that NMED’s choice of an annual median flow as the critical flow for nitrogen overlooks the fact that the Rio Ruidoso is *not* a “steady state” stream. There is high annual variability in monthly precipitation over the course of any given year, and there is also high annual variability in the accrual period over the course of any given year. Any TMDL that does not take this variability into account is arbitrary and capricious.

There is an additional legal infirmity in the choice of annual median flow as the critical flow for nitrogen. As the NMED states in the draft document, “[a] TMDL defines the amount of a pollutant that a waterbody can assimilate without exceeding the state’s water quality standard for that waterbody.” Thus, in this case, the proposed TMDL for phosphorous is based on a 4Q3 critical flow so that there will not be an exceedance of the phosphorous standard more than once every three years on average. On the other hand, and impermissibly, using the annual median flow as the critical flow for nitrogen means that – over the course of any given year – the water quality standard for nitrogen will be exceeded 50% of the

---

Rio Ruidoso. In fact, it is just as likely that nutrient growth is most problematic during those times of year when the nutrient “accrual period” – *i.e.*, the period of time between hydrologic scouring events in which there is a “reset” in the nutrient level in a stream – tends to be longest: the period between the end of summer monsoons and peak springtime snowmelt and the period after peak springtime snowmelt and before the onset of summer monsoons. NMED’s draft TMDL document – and, in particular, its choice of the annual median flow to determine the nitrogen loading capacity in the Rio Ruidoso – sweeps the critical issue of “accrual period” under the rug, as it treats annual precipitation rates (precipitation/unit of time) as constant over the year. This is *not* the condition that obtains in the Rio Ruidoso.

time. This circumstance is simply inconsistent with the essential nature of a TMDL which is to *plan for compliance* with applicable water quality standards, not to *plan for 50% compliance*. This issue becomes even more critical when taking into account flows on a month-by-month basis over the course of a year. Over the 2004-2014 period used by NMED in the development of the subject TMDL, the percentages of days in the following months that fell *below* the annual median flow are as follows: January (77%), November (73%), June (72%), February (67%), December and October (65%). (See attached table.) Accordingly, NMED's approach to the nitrogen TMDL for the Rio Ruidoso essentially "writes off" compliance for these months were daily flows are generally *below* the annual median flow – *i.e.*, NMED tacitly concedes that the standard for nitrogen will *not* be obtained on the large majority of days during those months. A TMDL that concedes non-compliance with water quality standards on 50% of the days in the year (and on up to 77% of the days in some months of the year) – like the proposed TMDL for nitrogen in the Rio Ruidoso – simply does not pass muster under the Clean Water Act.

### **C. NMED incorrectly calculated annual median flow**

As explained above, (1) New Mexico regulations require NMED to use the 4Q3 flow as the critical flow value for nutrients in TMDL development and (2) annual median flow would not be an appropriate critical flow for a year round TMDL even if 4Q3 was not the required critical flow (which is not the case). However, even if NMED could use the annual median flow as the critical flow for the nitrogen TMDL in this instance, it has incorrectly calculated the annual median flow in the relevant stream reach. NMED's calculation was flawed by a number of errors, all of which combine to render the annual median flow calculated by NMED (9.13 cfs) irrational.

First, rather than calculate the annual median flow for the period 2004-2015 – as NMED suggests that it did in the draft TMDL document – NMED calculated the annual median flow for each year of that period and then averaged each of those annual median flows. If NMED had correctly calculated the annual median flow over the 2004-2015 period – rather than averaging fifteen annual medians – it

would have determined that the annual median flow over the chosen analysis period is 7.4 cfs and *not* 9.13 cfs. (See attached graph.) This is significant for a number of reasons. First, NMED's incorrect calculation of the annual median flow overstates annual median flow over the period of interest by more than 23%. This means that NMED's load calculations for nitrogen calculate a permissible load that is more than 23% higher than a load based on the *actual* annual median.<sup>5</sup> Second, the percentage of days with flows *below* the annual median flow as incorrectly calculated by NMED over the period of interest – that is 9.13 cfs – is approximately 60%, and not 50%. Thus, the TMDL has been calculated so that there will be exceedances of water quality standards on about 60% of the days in each year.

Second, NMED's calculation of the annual median flow for use in development of the nitrogen TMDL for the Rio Ruidoso entirely fails to account for stream flow depletions between the Hollywood gage and the downstream gage in Glencoe towards the bottom of the impaired reach. While NMED used the Thomas equation to extrapolate annual median flows below the wastewater treatment plant from the observed flows at the Hollywood gage – and, in so doing, accounted for the increase in drainage – it entirely failed to consider both the natural and the man-made depletions that occur below the wastewater treatment plant. These depletions are significant, and they cannot be ignored by NMED since the TMDL must be drafted to assure compliance with standards *throughout* an impaired reach, and not just at the *top* of an impaired reach.<sup>6</sup>

---

<sup>5</sup> Of course, as previously stated in this comment letter, NMED does not have the authority to use the annual median flow as the critical flow for nitrogen, even if that annual median flow were correctly calculated.

<sup>6</sup> Of course, the fact that NMED *increased* the annual median flow at Hollywood to account for the larger drainage area of the impaired reaches but did not concurrently *decrease* that same flow to account for corresponding natural and manmade depletions in the larger drainage area is evidence of a flawed and biased assessment which was intended to state the maximum possible critical flow for

#### **D. Scientifically defensible alternatives to 4Q3**

As discussed above, Rio Hondo Land asserts that NMED does not have the authority to depart from the New Mexico water quality regulations' mandate to use the 4Q3 flow as the critical flows for development of the nutrient TMDL in the Rio Ruidoso. However, if NMED *did* have such authority, it would be obligated to use a scientifically defensible critical flow value – as opposed to the apparently random and scientifically *indefensible* annual median flow – for the nitrogen TMDL. The most appropriate critical flow value for the nitrogen TMDL (if it is not 4Q3) is beyond the scope of these comments, but Rio Hondo land asserts that TMDLs developed in New Mexico and other states provide frameworks and concepts that can be applied in the case of Ruidoso.

For example, some states have used 30Q10 flow values for the development of nutrient TMDLs to reflect the fact that nutrient exceedances do not present an acute – but rather a chronic – problem. Use of a 30Q10 flow value is the critical flow focuses TMDL development on the chronic and long-term nature of nutrient exceedances, and implicitly accounts for the fact that accrual time and frequency of scouring are essential factors to consider in the selection of an appropriate critical flow. For the period of interest (January 1, 2004 through December 21, 2015) the 30Q10 flow value at the Hollywood gage is 2.1 cfs. Another similar approach would be to utilize the 30Q3 flow as the critical flow for development of a nitrogen TMDL. Using a 30Q3 flow rather than a 30Q10 flow as the critical flow will yield a higher loading capacity, but will of course be associated with more frequent exceedances of standards – but still exceedances that are *far less* frequent than use of an annual median flow as the critical flow. For the period of interest (January 1, 2004 through December 21, 2015) the 30Q3 flow value at the Hollywood gage is 3.01 cfs.<sup>7</sup>

---

nitrogen TMDL purposes – notwithstanding legal requirements and the facts.

<sup>7</sup> Rio Hondo land concedes that these flow values must be summed with flow from the wastewater treatment plant in order to calculate the actual

Another option would be to develop the nitrogen TMDL for the Rio Ruidoso on the basis of a critical flow curve (or “loading curve”) that takes into account varying hydrologic conditions in the Rio Ruidoso over the course of a year. NMED used this approach in the development of a TMDL for fecal coliform in Cieneguilla Creek. The advantages of this approach are that it complies with the Clean Water Act’s statutory mandate to incorporate seasonality considerations into the TMDL, and it accounts for the broad range in monthly median flows over the course of the year.

The essential point here is that regulatory bodies have developed a range of scientifically defensible approaches to the definition of critical flow in the nutrient TMDL context, and these approaches could be used in the case of the Rio Ruidoso for the nitrogen TMDL. However, instead of defining a rational and scientifically-based critical flow for the nutrient TMDL in the Rio Ruidoso, NMED has randomly selected the annual median flow as the critical flow in an apparent effort to “reverse engineer” a loading capacity that will accommodate the existing chemical characteristics of the effluent from the wastewater treatment plant for the most part. This “backwards” approach to TMDL development – where the regulator’s object becomes calculation of a sufficiently large loading capacity to accommodate existing water quality standard exceedances rather than the attainment of water quality standards – is clearly and patently irrational and illegal.

### **III. The Rio Ruidoso nitrogen draft TMDL should include a table of projected TN effluent limits at the wastewater treatment plant**

The 2014 iteration of the draft nitrogen TMDL for the Rio Ruidoso contains a table that projects the Total Nitrogen effluent limits that will apply to the discharge at the wastewater treatment plant at different discharge volume levels, given the nitrogen wasteload allocation assigned to the wastewater treatment plant in that draft. (See Table 8.1) The current draft TMDL omits this crucial table.

---

critical flow downstream of the plant.

The inclusion of a table similar to Table 8.1 from the 2014 draft is crucial in this case, because the table displays the practical effect of the TMDL. That is, the table enables the reviewer to understand how the proposed wasteload allocation relates to the wastewater treatment plant's current NPDES permit limitations on nutrient discharges.

The existing NPDES permit for the wastewater treatment plant has a Total Nitrogen effluent limit of 1.0 mg/L. The 2014 draft TMDL proposed a nitrogen wasteload allocation for the wastewater treatment plant of 41.3 pounds/day. At that allocation (and assuming Total Nitrogen discharge at that allocated level), the effluent from the wastewater treatment plant when the plant discharges at 1.75 mgd – the approximate median discharge flow – was projected to contain Total Nitrogen at a concentration of 2.6 mg/L, or 260% of the currently permitted concentration. The current draft of the TMDL increases the Total Nitrogen wasteload allocation to 53.3 pounds per day (taking into account future growth) – an increase of 29% over the 2014 proposed Total Nitrogen wasteload allocation. Of course, the increase in the Total Nitrogen wasteload allocation over the proposed 2014 level will also result in the discharge of effluent from the wastewater treatment plant that has an even higher concentration of Total Nitrogen, but the current draft obfuscates that face through omission of a table similar to Table 8.1 in the 2014 draft TMDL.

In the interests of public transparency, and to provide assurances that the proposed TMDL for nitrogen will not lead to illegal backsliding or degradation, NMED should restore the table to the current draft TMDL, and inform the public of the relationship between the proposed wasteload allocation and the wastewater treatment plant's effluent characteristics.

#### **IV. The draft TMDL will result in illegal backsliding and degradation**

NMED apparently believes adoption of the draft TMDL will justify a “next generation” NPDES permit for the wastewater treatment plant that contains *only* a mass loading limitation for Total Nitrogen and that dispenses with the concentration limit currently in place. NMED is incorrect in this regard, as such a

Ms. Heidi Henderson  
September 29, 2016  
Page 14 of 14

hypothetical NPDES permit would impermissibly violate the statutory prohibition on backsliding. In support of this erroneous position, NMED cites to Section 303(d)(4) of the Clean Water Act, 33 U.S.C. § 1313(d)(4), which allows for the revision of NPDES permits affecting impaired streams when the existing permit contains “an effluent limitation based on a total maximum daily load or other wasteload allocation.” While it is true that the currently-in-place 2006 TMDL for nutrients in the Rio Ruidoso contains a Total Nitrogen wasteload allocation for the wastewater treatment plant, it is *decidedly not the case* that the current NPDES permit for the wastewater treatment plant contains a nitrogen limit that is based on a TMDL or other wasteload allocation. To the contrary, the nitrogen effluent limitation in the current NPDES permit is water quality standard based and was adopted to assure attainment of water quality standards below the wastewater treatment plant. For this reason, Section 303(d)(4) of the Clean Water Act is inapplicable in this case and the backsliding that is contemplated by the draft nutrient TMDL is unauthorized and is illegal. In short, even adoption of the proposed TMDL would not – and legally could not – provide any relief from the current 1.0 mg/L nitrogen limitation in the current NPDES permit.

## V. Conclusion

For the reasons set forth in this comment letter and in Rio Hondo Land’s previous comment letter of August 7, 2014, the proposed TMDL for nutrients in the Rio Ruidoso fails to comply with state and federal regulatory and statutory requirements. The draft TMDL cannot be approved in its current state.

Respectfully submitted,

/s/ Steven Sugarman  
Steven Sugarman  
Attorney for Rio Hondo Land & Cattle Co., LP and  
WildEarth Guardians



Rio Ruidoso at Hollywood Flow  
 Characteristics During Time Period Used  
 for NMED/SWQB Critical Flow  
 Calculations (January 1, 2004 -  
 December 31, 2015)

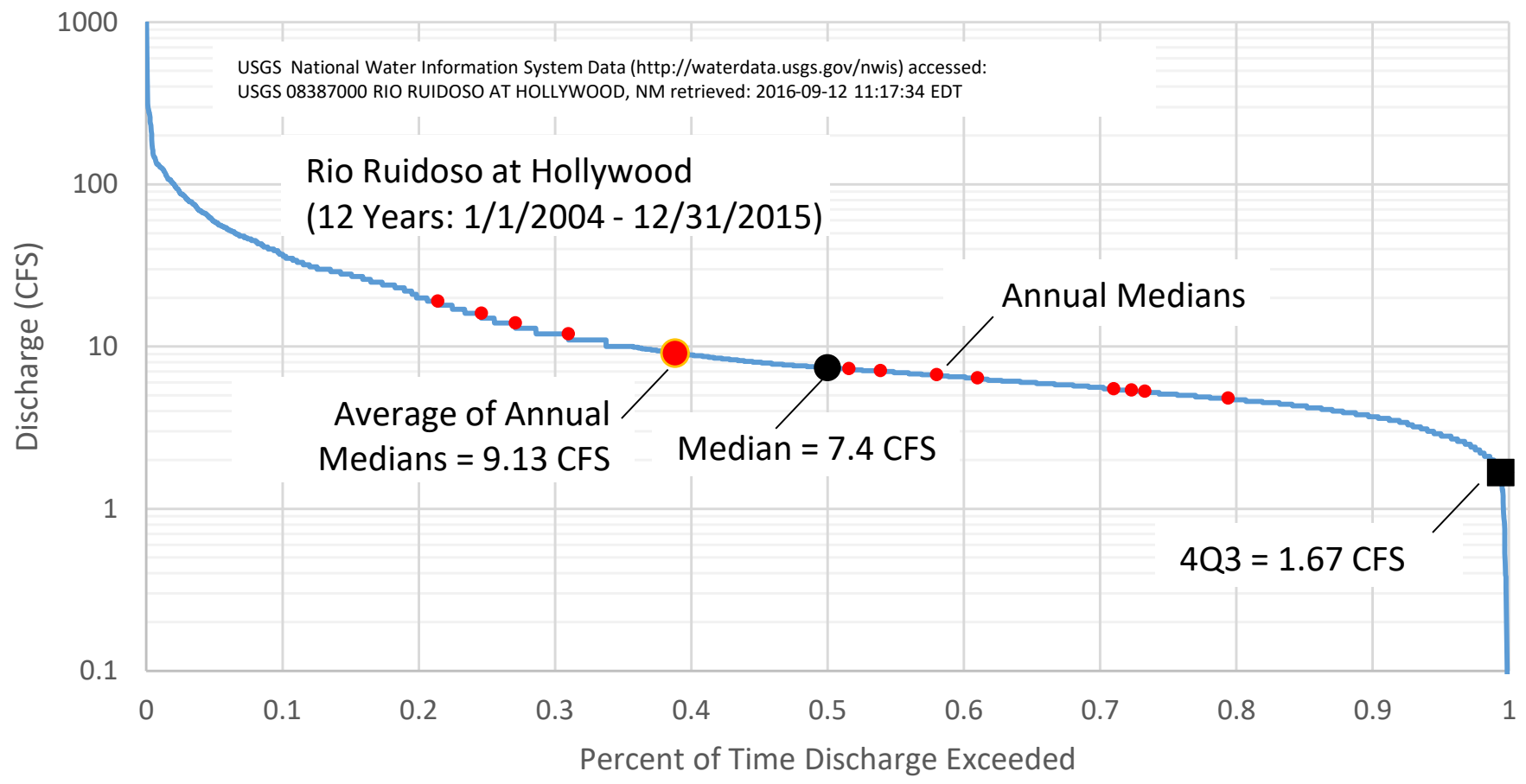
Month	Median Discharge (CFS)	Percent of Days Where Discharge was Less than 9.13 CFS Critical Flow
January	6.5	77%
February	6.6	67%
March	9.15	50%
April	8.35	52%
May	7.3	56%
June	5	72%
July	6.7	60%
August	9.95	45%
September	8.6	54%
October	7.4	65%
November	7.6	73%
December	7.5	65%
Entire Period	7.4	61%

Rio Ruidoso at Hollywood Flow  
 Characteristics for Period of Record  
 (October 1, 1953 - September 11,  
 2016)

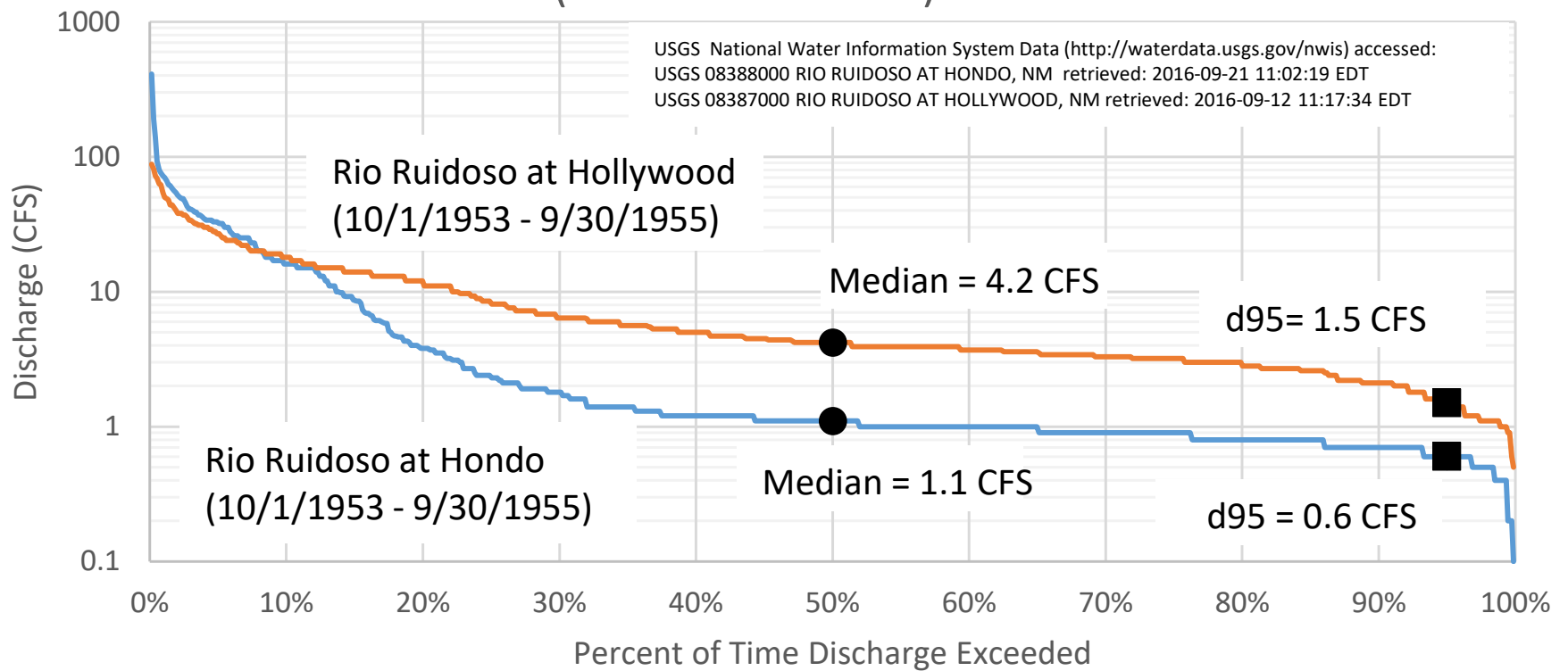
Month	Median Discharge (CFS)	Percent of Days Where Discharge was Less than 9.13 CFS Critical Flow
January	7.9	62%
February	9.2	50%
March	15	34%
April	22	25%
May	16	34%
June	7.9	56%
July	8.6	53%
August	14	30%
September	13	34%
October	9.3	49%
November	8.3	59%
December	8.1	59%
Entire Period	10.00	45%

USGS National Water Information System Data (<http://waterdata.usgs.gov/nwis>) accessed:  
USGS 08387000 RIO RUIDOSO AT HOLLYWOOD, NM retrieved: 2016-09-12 11:17:34 EDT

### Rio Ruidoso at Hollywood (12 Years: 1/1/2004 - 12/31/2015)



## Estimate of Flow Loss from Hollywood Gage to Hondo Gage (Two Years of Data)



Note: Flow loss from Hollywood gage to Glencoe is scaled by catchment to the data above.

August 7, 2014

**VIA ELECTRONIC MAIL**

heidi.henderson@state.nm.us

Ms. Heidi Henderson  
Surface Water Quality Bureau  
New Mexico Environment Department  
P.O. Box 5469  
Santa Fe, New Mexico 87502

Re: Comments to Draft TMDL for the Sacramento Mountains

Dear Ms. Henderson:

I submit the following comments to the draft TMDL for the quality-impaired Sacramento Mountain stream segments on behalf of Rio Hondo Land & Cattle Co, LP and WildEarth Guardians. Both entities are concerned that approval of the draft TMDL will result in the deterioration of water quality in the Rio Ruidoso, and submit that the TMDL as currently drafted must be disapproved as it violates pertinent provisions of the Clean Water Act and impermissibly contemplates prohibited backsliding in the effluent limitations currently governing the quality of discharges from the Village of Ruidoso wastewater treatment plant.

## **1. Introduction**

On July 7, 2014, the New Mexico Environment Department (“NMED”) issued a draft Total Maximum Daily Load (“TMDL”) for the Sacramento Mountains. The Rio Hondo stream system is within the geographic scope of the TMDL and, accordingly, the draft document includes proposed TMDLs for water-quality impaired segments of the Rio Ruidoso and its tributaries.

The proposed TMDL violates the Clean Water Act (“CWA”) in various respects, some of which are set out below, and cannot be approved. Most fundamentally, TMDLs for impaired stream segments must be “established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety.” 33 U.S.C. § 1313(d)(1)(C). The TMDL drafted for the Eagle Creek to U.S. Highway 70 Bridge Assessment Unit of the Rio Ruidoso (hereafter referred to as the “Below WWTP Reach,” as the Assessment Unit includes the outfall of the Ruidoso wastewater treatment plant) *will not* bring this quality-impaired segment into compliance with applicable water quality standards.<sup>1</sup> For this reason, the TMDL must be disapproved.

Even on its face, the proposed TMDL for the Below WWTP Reach fails to comply with the CWA requirement that a TMDL for a quality-impaired segment ensures compliance with applicable water quality standards. The 2006 TMDL for the subject stream segment *did not* bring the segment into compliance with applicable water quality standards.<sup>2</sup> Notwithstanding the failure of the 2006

---

<sup>1</sup> This comment letter focuses on the various inadequacies of the TMDL drafted for the Eagle Creek to U.S. Highway 70 Bridge Assessment Unit of the Rio Ruidoso, however many of the comments incorporated into this letter are also applicable to other quality-impaired segments addressed in the Sacramento Mountains TMDL.

<sup>2</sup> The Assessment Unit that includes the outfall of the Ruidoso WWTP in the 2006 TMDL does not exactly conform in length to the Assessment Unit including the outfall of the Ruidoso WWTP in the draft 2014 TMDL. The 2014

Ms. Heidi Henderson  
August 7, 2014  
Page 3 of 17

TMDL to bring the Below WWTP Reach into compliance with applicable water quality standards, NMED now proposes to increase target pollutant loads for the reach above and beyond the target pollutant loads established in the 2006 TMDL for the segment. In fact, NMED proposes to increase the target load for Total Nitrogen by almost 225% from 27.2 lbs/day to 60.8 lbs/day. At the same time, NMED acknowledges that stream flow in the segment is decreasing – presumably as a result of increased depletions associated with additional surface diversions and groundwater pumping for domestic water supply combined with global climate change. It states that the median flow value for the period of record has decreased from 11.9 cfs to 6.75 cfs. Clearly, a TMDL which elevates pollutant loading into a stream segment which is increasingly unable to assimilate pollutants through dilution is not a recipe for the attainment of applicable water quality standards.

Additionally, the TMDL for the Below WWTP Reach is critically flawed by the erroneous assumption that the U.S. Environmental Protection Agency (“EPA”) can (and will) approve a relaxation in the effluent limitations that are incorporated into the WWTP’s NPDES permit. Currently, NPDES effluent limits for the WWTP include a 0.1 mg/L limit for Total Phosphorous (“TP”) and a 1.0 mg/L limit for Total Nitrogen (“TN”). The proposed TMDL for the Below WWTP Reach is premised on the erroneous assumption that the effluent limits will be relaxed to 0.16 mg/L for TP and 2.46 mg/L for TN. The assumed relaxation in effluent limits would constitute a violation of the CWA’s anti-backsliding provision, 33 U.S.C. § 1342(o)(1), and there is no exception to the general prohibition on backsliding that applies in the case of the WWTP.

NMED first claims that a relaxation in the WWTP’s effluent limitations is appropriate under the anti-backsliding exception provided by 33 U.S.C. § 1342(o)(2)(E). This is incorrect, as that exception applies only to facilities where “[t]he permittee has installed the treatment facilities required to meet the effluent limitations in the previous permit.” Here, Ruidoso itself acknowledges that the WWTP was *not* designed to meet the effluent limitation for TN. Under such

---

Assessment Unit is shorter than the 2006 Assessment Unit.

Ms. Heidi Henderson  
August 7, 2014  
Page 4 of 17

circumstances, Exception (2)(E) cannot come into play. NMED also claims that backsliding in connection with the WWTP's NPDES permit, if permissible under Exception (2)(E) (which, as explained immediately above, is not the case), is allowed by 42 U.S.C. § 1313(d)(4)(A). However, this provision of the CWA allows backsliding in non-attainment waters *only* in the event that (1) relaxation of NPDES permit limits is otherwise allowed by one of the exceptions enumerated in 33 U.S.C. § 1342(o)(2) *and* (2) a relaxation of NPDES permit limits in the applicable TMDL will nonetheless "assure attainment of [pertinent] water quality standards." Neither of these two requirements are met in this case: no exception to the CWA's anti-backsliding provision applies *and* the TMDL for the Below WWTP Reach does not assure attainment of applicable water quality standards.

At bottom, it is plainly evident that NMED's guiding principle in drafting the Sacramento Mountains TMDL was *not* compliance with water quality standards in quality-impaired stream segments. Rather, it is clear that NMED's primary concern in drafting the TMDL was to provide a justification for relaxation of the effluent limitations incorporated into the Ruidoso WWTP NPDES permit. The resulting load targets and allocations are nothing less than egregious. As just one example, NMED calculated a target load of 27.2 lbs/day of TN in the stream segment that includes the WWTP outfall in the 2006 TMDL. In the 2014 draft TMDL, NMED proposes a Waste Load Allocation ("WLA") of 38.6 lbs/day of TN for the Ruidoso WWTP alone. This proposed WLA is more than 200% of the WLA calculated for the WWTP in the 2006 TMDL (18.9 lbs/day) and exceeds the *total* calculated permissible TN load for the stream segment from the 2006 TMDL (27.2 lbs/day) by more than 40%. In this connection, it also bears noting that even the more stringent 2006 TMDL did not achieve compliance with pertinent water quality standards and that decreasing flow volumes attributable to increased depletions associated with domestic water supply combined with global climate change indicate a need to draft a more stringent TMDL – *not a relaxed TMDL* – to satisfy the CWA's core TMDL requirement.

For the reasons set forth above, and for the other reasons set out in this comment letter, NMED's Sacramento Mountains TMDL cannot be approved consistent with the requirements of the CWA.

## **2. NMED's calculations of target loads is arbitrary and capricious**

A critical threshold step in the development of any TMDL is the calculation of target loads for pollutants of concern in quality-impaired stream segments. This calculation combines applicable water quality standards for the relevant pollutants with appropriate critical flows to yield a total volume of regulated pollutant that can be discharged into a stream segment without a resulting water quality standard violation. As applicable water quality standards are exogenous to the TMDL development process, there is generally no problem in the determination of such values in the context of target load calculation. However, the Sacramento Mountains TMDL demonstrates that the development of a TMDL that will ensure compliance with water quality standards, as required by the CWA, can be subverted by an arbitrary selection of critical flow values.

Specifically, the bacteria and nutrient TMDLs for the Below WWTP Reach are flawed at their cores by NMED's overstatement of critical flows. This overstatement yields artificially – and arbitrarily – high target loads for bacteria and nutrients. Since the WLA and the Load Allocation (“LA”) for the Below WWTP Reach are guided and constrained by the inflated target loads, it is impossible that implementation of the TMDL will result in compliance with applicable water quality standards.

As NMED acknowledges in the draft TMDL, calculation of target loads should be based on critical low flow values – or “4Q3” values – as these values determine the pollutant assimilative capacity of receiving waters in low flow conditions. Using a higher value for critical flows results in pollutant concentrations that exceed applicable water quality standards. In stating one component of the critical flow values for the Below WWTP Reach – in-stream flow – NMED correctly uses the 4Q3 value of 1.01 mgd for the stream segment. However, NMED makes two critical mistakes in its statement of total critical flows. First, NMED erroneously uses the design capacity of the Ruidoso WWTP – 2.70 mgd – in its calculation of critical flows, despite the fact that a flow of this



magnitude has never been observed at the WWTP.<sup>3</sup> Second, in stating the critical flow value for TN, NMED arbitrarily – and impermissibly – uses median flow values rather than 4Q3 values.

As for the first error – the use of the WWTP’s 2.70 mgd design capacity to define critical flows – there is simply no basis in law or in fact for the use of this value when there is ample data on *actual* flows discharged from the WWTP. At the request of Rio Hondo, Balleau Groundwater, Inc. (“BGW”) reviewed and analyzed WWTP discharge flow data reported by the Village of Ruidoso. Using the DFLOW 3.1 software, the same software used by NMED in calculating 4Q3 values, BGW calculated the 4Q3 value of WWTP discharge flows at 1.01 mgd.<sup>4</sup> The 4Q3 value for this flow is only 37% of the WWTP design capacity flow (2.70 mgd) that NMED used in the statement of critical flows for bacteria and TP.

If NMED had correctly used the 4Q3 value of WWTP discharge flows to calculate total critical flow values in the Below WWTP Reach for bacteria and TN, then the aggregate critical flow value for the bacteria and TP parameters would be 2.02 mgd (1.01 mgd in-stream + 1.01 mgd WWTP 4Q3 discharge). NMED’s statement of 3.71 mgd (1.01 mgd in-stream + 2.70 mgd WWTP design discharge) as the critical flow for bacteria and TP overstates the actual critical flow value for those parameters in the Below WWTP Reach by more than 83%. In turn, the significant overstatement of critical flow values for bacteria and TP results in a correspondingly significant overstatement of target loads for bacteria and TP.

The second error – the use of median flow to define critical flow values for TN – is also without basis. NMED asserts in the draft TMDL that New Mexico water quality standards do not require the use of 4Q3 values to define critical low flows for narrative criteria. NMED also states that “after careful consideration of

---

<sup>3</sup> In the draft TMDL, NMED reports that the highest observed flow discharged from the WWTP is 1.88 mgd.

<sup>4</sup> The data set that BGW used for this calculation are discharge flows from the WWTP for the period April 2006 through March 2013.

Ms. Heidi Henderson  
August 7, 2014  
Page 7 of 17

a number of low flow stream conditions NMED is proposing to use the annual median flow” to define critical low flow for TN.<sup>5</sup> NMED provides no information as to the issues that it took into account during the course of its “careful consideration,” and it is not apparent that there is any legitimate justification for the use of annual median flow data as critical flow data in this circumstance. Indeed, the 2006 TMDL utilized the expected – and permissible – approach by stating the critical flow for calculation of *all* target nutrient loads (both TP and TN) in the same way. That is, there was no divergence between critical flow for TN and TP in the 2006 TMDL.

As for NMED’s claim that New Mexico water quality standards permit the use of annual median flow in the calculation of critical flow for TN loading, this claim is inconsistent with NMAC 20.6.4.11(B)(2) which states that the critical low flow value for narrative criteria is the 4Q3 flow. There is no provision of New Mexico’s water quality standards that approves the use of annual median flows to state critical flow values, even with respect to narrative criteria. Additionally, the use of annual median flow in this instance is inconsistent with EPA regulations which require that TMDLs take “seasonal variations” in flow values into account. 40 C.F.R. § 130.7(c)(1). Finally in this regard, the NMED states that “[t]he use of the median flow . . . is appropriate [for purposes of stating TN critical flow] because of the long term growth cycle of algae in response to excess nutrients, in contrast to protecting for acute toxicity.” However, NMED correctly used the 4Q3 flow value to state TP critical flow despite the fact that “the long term growth cycle of algae in response to excess nutrients” has equal application in the context of TP critical flow. There is simply no justification provided by NMED for this divergent approach to TP and TN critical flows.

The use of annual median flow to state the critical flow value for the

---

<sup>5</sup> As discussed below in this comment letter, it appears that the “careful consideration” may have been nothing more than being successfully lobbied by a Village of Ruidoso consulting firm which had been retained to secure a relaxation in nutrient effluent limitations for the Ruidoso WWTP in the context of the TMDL.

Ms. Heidi Henderson  
August 7, 2014  
Page 8 of 17

calculation of target TN loading compounds the error discussed above – that is, the use of WWTP design capacity in the statement of critical flow in the Below WWTP Reach. As indicated above, the 4Q3 value for WWTP discharge flow is 1.01 mgd. Also as indicated above, if this number is added to the 4Q3 value for in-stream flow in the subject stream segment the total critical flow value for calculation of target loads in the Below WWTP Reach is 2.02 mgd. However, NMED’s two errors in the calculation of TN critical flow result in a calculated critical flow of 7.29 mgd for TN – a flow which is 360% of the actual critical flow. Of course, the very significant overstatement of critical flow for TN leads to a wildly exaggerated TN target load. As noted in the introductory section of this comment letter, NMED’s draft TMDL proposes to increase the TN target load in the receiving stream segment by approximately 225% from 27.2 lbs/day to 60.8 lbs/day. In a stream segment that is already in a non-attainment status for TN, and where flows are diminishing as a result of increased depletions associated with development of domestic water supply combined with global climate change and therefore losing assimilative capacity, it is clear that such a dramatic increase in TN target loading cannot assure compliance with the pertinent water quality standard.

In sum, the critical flow calculations in the draft TMDL are arbitrary, capricious, and in violation of law. The overstated critical flow values result in overstated target loads at levels that will almost certainly swamp the assimilative capacity of the Below WWTP Reach. For this reason, the TMDL cannot be approved.<sup>6</sup>

---

<sup>6</sup> In a July 22, 2014 article in the Ruidoso News entitled “Ruidoso keeps wastewater consultants onboard,” an attorney for the Village of Ruidoso is quoted as stating that Parametrix (a Village consultant) convinced the NMED to alter critical flow values in the draft TMDL, thereby paving the way for increased target loads and increased WLAs. This statement confirms the fact that the guiding principle in development of the draft TMDL was relaxation of the effluent limitations for Ruidoso’s WWTP, not attainment of applicable water quality standards. Such an approach is clearly at odds with the requirements of the Clean Water Act.

**3. The TMDL fails to account for pollutant loads associated with the Concentrated Animal Feeding Operation (“CAFO”) at Ruidoso Downs**

In an “NPDES Compliance Inspection Report” of August 9, 2012, NMED concluded that the Ruidoso Downs Racetrack CAFO “requires appropriate NPDES permit coverage.” That same Inspection Report notes that the Ruidoso Downs CAFO is too large to qualify for coverage under a general CAFO permit and that the facility fails to comply with requirements necessary to a determination that the facility has the ability to contain all process generated wastewater and the runoff from a 25 year - 24 hour storm event. The clear implication of NMED’s Inspection Report is that the facility cannot be expected to contain all discharges from a 25 year - 24 hour storm event.

Despite the fact that the Ruidoso Downs CAFO is recognized as an unpermitted point source discharger, the Sacramento Mountains TMDL does not assign any WLA to the facility. Nor does the TMDL assign any LA to the facility. Rather, the Sacramento Mountains TMDL is premised on the fiction that “no discharge is expected from this CAFO.” The apparent basis for this unsupported fictional assumption is the fact that the general CAFO permit – which does not apply in this case – contains a prohibition on the discharge of pollutants into waters of the United States. Clearly, NMED’s “analysis” of this issue is inadequate. The prohibition on discharge in the inapplicable general CAFO permit is simply irrelevant to the nature and extent of the Ruidoso Downs CAFO’s actual discharges into the Rio Ruidoso.

The Ruidoso Downs CAFO is in the Assessment Unit immediately upstream of the Below WWTP Reach. However, NMED’s failure to account for the CAFO in the pertinent TMDL has a direct and significant impact on pollutant budgeting in the Below WWTP Reach. Pollutant-laden discharge from that facility (which, under CWA requirements, must be assigned a WLA) contributes background levels of turbidity, bacteria, and nutrients to the Below WWTP Reach that must be taken into account in calculating the WLA for the Ruidoso WWTP and the LA for

the WWTP Reach.<sup>7</sup>

**4. The TMDL fails to account for elevated background levels of non-point source pollutants associated with recent forest fires in the Rio Ruidoso watershed**

The 2006 TMDL for the Rio Hondo system incorporates calculated values for background levels of nutrients. The 2014 proposed TMDL fails to incorporate such values, and is therefore inadequate, especially in light of the unusually large wildlife fires that occurred in the upper reaches of the impacted watersheds.

While the 2014 draft TMDL acknowledges that background levels of bacteria and nutrients are likely associated with unusually high run-off from the the White Fire area and the Little Bear Fire area in the Rio Ruidoso watershed, NMED makes no apparent effort to calculate these levels. Putting aside the question as to whether elevated levels of non-point source pollutants contributed by wildland fire scar run-off are best characterized as part of background or are accounted for in the pertinent Las, NMED cannot simply turn a blind eye to the fact that such pollutants currently contribute to the non-attainment status of quality-impaired stream segments within the geographic scope of the Sacramento Mountains TMDL.

**5. The TMDL fails to account for pollutants associated with leaks in Ruidoso's sewer system**

In the draft 2014 TMDLs for bacteria and nutrients, NMED acknowledges that “[w]ater pollution caused by on-site septic systems is a widespread problem in New Mexico” and that “groundwater contaminated by septic system effluent can discharge into gaining streams.” The TMDL purports to account for this pollution as part of the LA, despite the fact that prevailing case law on the issue indicates

---

<sup>7</sup> The draft TMDL is similarly flawed by NMED's failure to include estimates of the pollutant loads attributable to construction sites and storm-water discharges.

that such pollutants should be accounted for as a component part of the WLA.  
(See discussion below.)

However, despite the fact that NMED acknowledges a direct hydrological connection between groundwater and surface water and concludes that the impacts of on-site septic systems are one of the probable causes of non-attainment for bacteria and nutrients, NMED fails to account for the fact that leaks in its sewer system also contribute pollutants to the Rio Ruidoso.

It is widely acknowledged that there is a significant problem with inflow and infiltration *into* the Ruidoso sewer system. Indeed the Village of Ruidoso has studied this issue and estimated that approximately 500-600 acre-feet/year of groundwater finds its way into the sewer system through leaking pipes and loose connections. Accordingly, those portions of the Ruidoso sewer system that are above groundwater are likely to be discharging untreated sewage *out of* the Ruidoso sewer system, and that untreated sewage – like the discharge from on-site septic systems – makes its way into gaining streams. Of course, the introduction of this untreated sewage into the Rio Ruidoso contributes bacteria and nutrients which contribute to the water quality violations currently observed in the pertinent stream segments.

NMED's failure to account for this potentially significant contribution of pollutants in the draft TMDL is arbitrary and capricious, and requires disapproval of the TMDL.

**6. The required reductions in nutrient loads in the stream segment immediately upstream of the Below WWTP Reach are incorrectly stated**

NMED calculates the target nutrient loads for the stream segment immediately upstream of the Below WWTP Reach as 0.84 lbs/day TP and 38.3 lbs/day TN. (See Table 4.5) However, in calculating the load reductions necessary to attain water quality standards in the quality-impaired reach NMED uses an entirely different set of target load amounts: 2.03 lbs/day TP and 55.5 lbs/day TN.

(Table 4.9) There is no indication anywhere in the draft TMDL as to how the values in Table 4.9 were calculated, and it appears that the values are incorrect.

The net effect of the utilization of incorrect numbers in this regard is an understatement of the load reductions necessary to achieve compliance with the applicable nutrient standards. Based on erroneous target load values, NMED erroneously calculates that there is a requirement to reduce the TP load by 14% and the TN load by 45% in the segment in order to achieve compliance. In fact, substituting in the correct target loads for the incorrectly stated target loads indicates that much larger load reductions will be necessary to achieve compliance. Specifically, a 64% reduction in TP loading and a 62% reduction in TN loading will be required if water quality standards are to be achieved in this stream segment.

**7. The draft TMDL does not contain adequate implementation measures to assure that non-point source pollutants introduced into the quality-impaired segments will not exceed the assigned LAs**

As discussed above, the pollutant load allocated to WLA in the Below WWTP Reach is increased dramatically (and impermissibly) in the draft TMDL. Such an increase in the WLA requires a corresponding decrease in the LA. (Of course, the significant decrease in non-point source pollutants needed to achieve compliance with applicable water quality standards is masked in the 2014 draft TMDL by the wildly exaggerated critical flow values and target loads.) However, the draft TMDL provides patently inadequate assurances that the necessary reductions in non-point source pollutants can be achieved. For this reason, the draft TMDL must be disapproved.

**8. NMED did not take into account seasonal variations in developing the draft TMDL**

Regulations implementing the CWA require that TMDLs take into account seasonal variations in the calculation of target loads, WLAs, and LAs. 40 C.F.R. §

130.7(c)(1). NMED failed to meet this regulatory requirement in the case of the Sacramento TMDL. A consideration of seasonal variations is of particular importance in the Below WWTP Reach because the two component parts of flow volume in this stream segment – in-stream flow and discharge flow from the Ruidoso WWTP – work in tandem to create predictable variations in flow volume over the course of an annual cycle. That is, in-stream flow values in the Below WWTP reach are generally highest in the summer months as a result of the monsoonal pattern that prevails in the Sacramento Mountains. Likewise, WWTP discharge flows are generally highest in the summer months as an influx of tourists and part-time residents into the Ruidoso area results in a spike of inflow into the WWTP and a corresponding spike in discharge flow. Aggregating these two component parts of flow volume – and their independent and re-enforcing seasonal variations – depicts an annual flow cycle with a marked peak in the summer months and a marked trough in the winter months. Failure to consider these seasonal variations is a critical flaw in the TMDL.

**9. Backsliding in the Ruidoso WWTP’s effluent limitations is impermissible in this case**

As noted in the introductory section of this comment letter, NMED proposes in the draft TMDL that backsliding be allowed in current nutrient limits for Ruidoso’s WWTP, and that the effluent limitations be relaxed to 0.16 mg/L TP and 2.46 mg/L TN. At the outset, it bears noting that the proposed modification constitutes a significant modification to the current TN:TP ratio of 10:1 and will result in a new TN:TP ratio of 15.375:1. The introduction of proportionately greater quantities of nitrogen into the Rio Ruidoso is a concern, especially in light of the fact that NMED states in the draft TMDL that “nitrogen is the primary limiting nutrient in the Rio Ruidoso and is driving the productivity of algae and macrophytes in the stream.” The draft TMDL is impermissibly silent as to how a relaxation in effluent limitations resulting in a modification to the currently permitted TN:TP ratio will affect algae production in the Rio Ruidoso, a known issue associated with nutrient overloading in this particular stream.

Moreover, the CWA’s anti-backsliding requirements prohibit a relaxation of



Ms. Heidi Henderson  
August 7, 2014  
Page 14 of 17

the Ruidoso WWTP's effluent limitations. NMED asserts that one of the exceptions to the anti-backsliding requirement applies in this case – the exception applicable to treatment facilities that have been designed and constructed to achieve pertinent effluent limitations but have “nevertheless been unable to achieve the effluent limitations.” 33 U.S.C. § 1342(o)(2)(E). However, in the case of the Ruidoso WWTP it is absolutely clear that the facility was *not* designed or intended to meet the effluent limitation for nitrogen of 1.0 mg/L. The Village of Ruidoso admits this fact in the “Ruidoso Settlement Agreement Final Report” of March 1, 2013, wherein the Village concedes that “the New Plant was not designed to meet an effluent limitation of 1.0 mg/L . . . for TN.” Since the facility was clearly not designed or constructed to achieve compliance with the controlling TN limit, the exception is simply not applicable.

Furthermore, there are clear indications that the Village could make further improvements in TN discharges from the facility, but chooses not to for impermissible reasons. In the July 22, 2014 Ruidoso News article referenced in footnote 6 above, the WWTP operator is quoted as stating that relaxation of the TN effluent limitation will avoid “the need to use costly chemicals in achieving the [TN standard]” and will, thereby, avoid increases to monthly user fees. However, there are no exceptions to the CWA's anti-backsliding requirements that accommodate a municipality's desire to avoid user fee increases. As the Village acknowledges, and as NMED presumably knows, operations at Ruidoso's WWTP could be modified to improve TN concentrations in the WWTP's discharge. Simply put, the Village's desire to hold the line on user fees associated with a WWTP facility that was admittedly *not* designed to achieve the applicable TN standard is not permissible under the claimed exception.

As for the proposed relaxation in the effluent limitation for TP – from 0.1 mg/L to 0.16 mg/L – the claimed exception is likewise not applicable. By its plain terms, the exception only comes into play when an effluent limitation is *not* achieved. The exception is not available to justify backsliding with respect to an effluent limitation that is achieved – such as the TP effluent limitation in the case of the Ruidoso WWTP.

Ms. Heidi Henderson  
August 7, 2014  
Page 15 of 17

Furthermore, NMED asserts that back-sliding is permissible in the case pursuant to 33 U.S.C. § 1313(d)(4)(A). This assertion is likewise without foundation in law or fact. As a preliminary matter, the provision of 33 U.S.C. §1313(d)(4)(A) that permits backsliding is available *only* in those limited instances where backsliding is otherwise allowed by an applicable exception to the CWA's anti-backsliding requirement. As discussed immediately above, there is no exception to the anti-backsliding requirement that applies in this case. Accordingly, 33 U.S.C. § 1313(d)(4)(A) cannot be used to justify a relaxation in the Ruidoso WWTP effluent limitations.

Additionally, the provisions of 33 U.S.C. § 1313(d)(4)(A) allow for the relaxation of effluent limitations in the context of a TMDL *only* in those limited circumstances where the TMDL will nonetheless "assure the attainment" of pertinent water quality standards. As discussed throughout this comment letter, the NMED is *not* able to provide assurances that the draft TMDL will assure compliance with applicable nutrient standards in the Below WWTP Reach. In fact, all indications are that the draft TMDL – if approved – will result in increases in frequency and extent of nutrient exceedances in the Below WWTP Reach.

It is physically impossible for a non-attainment stream segment that is diminishing in flow over time as a result of additional depletions associated with domestic water development and global climate change – such as the Below WWTP Reach – to improve in quality when pollutant loading into that reach increases. In this case, NMED acknowledges that median in-stream flows in the Below WWTP Reach have decreased significantly over the period of record – specifically, those flows have decreased from 11.9 cfs to 6.75 cfs over the last decade – a dramatic decrease of 43% . At the same time, NMED proposes to increase the nutrient pollutant loading in the Below WWTP Reach by a significant fraction: NMED's proposal is to increase the TP load by almost from 2.72 lbs/day to 3.09 lbs/day and the TN load from 27.2 lbs/day to 60.8 lbs/day. Any expectation of quality improvement in such a scenario is patently arbitrary, and simply defies common-sense, logic, and science.

In this case, NMED – at the apparent behest of a permitted entity – has

Ms. Heidi Henderson  
August 7, 2014  
Page 16 of 17

manipulated critical flow values in the TMDL in order to increase nutrient target loads and the associated WLA for the Ruidoso WWTP. The manipulated critical flow values – and the overstated target loads and WLA which are premised on those manipulated critical flow values – are clearly inconsistent with CWA requirements and subvert the core purpose of TMDL development. In essence, the NMED has reduced the TMDL development process into an exercise in “providing cover” for otherwise impermissible backsliding in the Ruidoso WWTP’s effluent limitations.

## **10. Conclusion**

The draft TMDL for the Sacramento Mountains must be disapproved. The document fails to comply with CWA requirements, and represents nothing more than a transparent and impermissible attempt to set the stage for illegal backsliding on effluent limitations applicable to the Ruidoso WWTP. If approved, the draft TMDL will result in a deterioration of water quality in the Below WWTP Reach segment of the Rio Ruidoso as it contemplates increased pollutant loading into that stream segment which is already quality-impaired. Any assertion that the draft TMDL will assure compliance with applicable water quality standards by *increasing* the allowable pollutant loads into the Below WWTP Reach is simply illogical.

Clearly, the Village of Ruidoso desires a relaxation in the effluent limitations which apply to its WWTP. Equally obvious is the fact that NMED desires to accommodate the Village’s desire for relaxed effluent limitations. However, the draft TMDL simply fails to provide any permissible legal or factual basis for such backsliding. In sum, the draft TMDL – together with the proposed

Ms. Heidi Henderson  
August 7, 2014  
Page 17 of 17

relaxation in the Ruidoso WWTP's effluent limitations – is arbitrary, capricious, and contrary to the requirements of law. It must be disapproved.

Sincerely,

*/s/ Steven Sugarman*

Steven Sugarman

Attorney for Rio Hondo Land & Cattle Co, LP and  
WildEarth Guardians

cc: Katrina Coltrain, USEPA Region VI

**IN THE COURT OF APPEALS**  
**FOR THE STATE OF NEW MEXICO**

RIO HONDO LAND & CATTLE	)	
CO., LP and WILDEARTH	)	
GUARDIANS,	)	Appeal No. 36039
	)	
Petitioners/Appellants	)	
	)	
vs.	)	
	)	
NEW MEXICO WATER QUALITY	)	
CONTROL COMMISSION,	)	
	)	
Respondent/Appellee.	)	
_____	)	

On appeal from: State of New Mexico  
Water Quality Control Commission

In the Matter of:  
Final Total Maximum Daily Load for the Rio Ruidoso  
Approval date: November 15, 2016

**DOCKETING STATEMENT**

I. Nature of the Proceedings

On November 15, 2016, the New Mexico Water Quality Control Commission (“WQCC”) approved a Total Maximum Daily Load (“TMDL”) for Rio Ruidoso. The TMDL was prepared pursuant to the mandatory requirements

of the federal Clean Water Act, 33 U.S.C. § 1313(d)(1)(C), which requires a state to adopt a TMDL for all surface waters that are not in compliance with applicable state water quality standards. Since the Rio Ruidoso is non-compliant with state water quality standards for Total Nitrogen and Total Phosphorous, amongst other pollutants, the WQCC was required to adopt a TMDL for those pollutants in the Rio Ruidoso. Pursuant to the federal Clean Water Act, the state-approved TMDL must assure that future discharges of the relevant pollutants into the pertinent receiving water do not result in a violation of state water quality standards. In this regard, the federal Clean Water Act states in pertinent part as follows:

[A TMDL] shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.

33 U.S.C. § 1313(d)(1)(C).

In this appeal, Appellants contend that the TMDL approved by the WQCC on November 15, 2016 (1) is arbitrary and capricious, (2) is not supported by substantial evidence, and (3) does not satisfy the stringent and salutary requirements of the federal Clean Water Act. In fact, if the WQCC-approved TMDL is implemented, water quality in the Rio Ruidoso will *not* improve and will *not* comply with state water quality standards; to the contrary, the WQCC-

approved TMDL will lead to a deterioration in existing water quality, and the ongoing violations of state water quality standards for Total Nitrogen and Total Phosphorous in the Rio Ruidoso will be exacerbated.

## II. Date of Approval, and the Notice of Appeal

The WQCC approved the TMDL subject to this appeal on November 15, 2016. The Appellants filed a timely Notice of Appeal on December 12, 2016.

## III. Brief Factual Statement

As set out above in Section I, the Rio Ruidoso is non-compliant with state water quality standards for Total Nitrogen and Total Phosphorous, amongst other pollutants. This non-compliance triggered a requirement, under the federal Clean Water Act, for state adoption of a TMDL intended to assure that future charges of pollutants into the Rio Ruidoso do not result in continuing exceedances of state water quality standards for Total Nitrogen and Total Phosphorous. A TMDL serves as a “pollution budget,” and sets out the specific amount of pollutants that can be introduced into a receiving water on a daily basis without a resultant violation of state water quality standard. A TMDL accounts for all the various sources of a pollutants which contribute to the degraded condition of a surface water and the associated violation of state water quality standards for that pollutant – including background levels of the pollutant, non-point sources of the pollutant,

and point sources of the pollutant – and if future discharges of the pollutant of concern remain within the limit set by the state in an approved TMDL, then future violations of state water quality standards are averted and the state is in compliance with the federal Clean Water Act.

#### IV. Issues Presented by the Appeal and Basic Authorities

##### A. Preservation of Issues for Appeal

The federal Clean Water Act is very prescriptive with respect to both the methodology for adoption and the required substance of TMDLs that a state is required to approve. 40 C.F.R. § 130.7. In this appeal, the Appellants contended throughout the administrative process that led to the WQCC's adoption of the TMDL subject to this appeal that the TMDL failed to comply with mandatory statutory and regulatory requirements of the federal Clean Water Act in various respects. Specifically, the Appellants provided written comments on draft versions of the WQCC-approved TMDL on August 7, 2014 and September 29, 2016, and participated in the WQCC's November 15, 2016 hearing at which the the WQCC approved the TMDL subject to this appeal.

##### B. Issues on Appeal

Amongst the issues that the Appellants raised with respect to the TMDL are the following:



1. The failure to properly state the assimilative capacity – otherwise known as the “loading capacity” – of the Rio Ruidoso. Essentially, the WQCC erroneously, arbitrarily, and without evidence assumed that the natural flow within the Rio Ruidoso is sufficient to assimilate or dilute the discharges of Total Nitrogen and Total Phosphorous that are contemplated by the TMDL to such an extent that compliance with state water quality standards is achieved.

2. The TMDL subject to this appeal arbitrarily and capriciously failed to account for the discharge of pollutants into the Rio Ruidoso which originate at the Ruidoso Downs racetrack, a known point source of Total Nitrogen and Total Phosphorous discharges into the Rio Ruidoso that is illegally operating without the permit required by the federal Clean Water Act – all as currently known and acknowledged by the New Mexico Environment Department.

3. The TMDL that is subject to this appeal arbitrarily and capriciously fails to account for elevated background levels of Total Nitrogen and Total Phosphorous in the Rio Ruidoso.

4. Throughout the administrative proceedings relative to the TMDL subject to this appeal, the municipalities of Ruidoso and Ruidoso Downs repeatedly informed the New Mexico Environment Department and the WQCC that the wastewater treatment plant operated by the municipalities would *not* be able to

meet the discharge levels assigned to the wastewater treatment plant in the TMDL. In other words, the municipalities repeatedly stated that the WQCC-approved TMDL contains sideboards on Total Nitrogen and Total Phosphorous discharges that *cannot* and *will not* be met. Nonetheless, the WQCC arbitrarily and capriciously approved the TMDL subject to this appeal knowing that the substance of that TMDL was flawed and fictitious.

5. The TMDL subject to this appeal arbitrarily and capriciously fails to account for the discharges of Total Nitrogen and Total Phosphorous into the Rio Ruidoso that emanate from leaks in Ruidoso's sewage collection system, which system is – in large part – located beneath the Rio Ruidoso.

6. The TMDL subject to this appeal does not take into account seasonal variations in the flow on the Rio Ruidoso in calculating permissible levels of discharges of Total Nitrogen and Total Phosphorous that will result in compliance with state water quality standards. Instead, the TMDL arbitrarily and capriciously assumes that flows within the Rio Ruidoso are consistent throughout the year, and thereby violates the express requirement of the federal Clean Water Act that all TMDLs account for seasonal variations in flow in the receiving surface water body.

C. Basic authorities

*City of Roswell v. New Mexico Water Quality Control Commission,*

84 N.M. 561 (App. 1972)

The WQCC's order approving a TMDL must contain an adequate statement of reasons for approving the TMDL to provide a meaningful basis for appellate review of its approval.

*Gila Resources Information Project v. New Mexico Water Quality Control Commission*, 355 P.3d 36(App. 2015)

A reviewing court must set aside the WQCC's order approving the TMDL subject to this appeal since it is arbitrary and capricious, unreasonable, and without a rational basis when viewed in the light of the record as a whole.

V. Audio Recording

The November 15, 2016 hearing of the WQCC, at which the WQCC adopted the TMDL subject to this appeal, was audio recorded. A transcript of that audio recording has not been prepared.

/

/

/

/

/

/

/

VI. Related or Prior Appeals

There are no related or prior appeals.

Dated: January 11, 2017

Respectfully submitted,

---

Steven Sugarman  
347 County Road 55A  
Cerrillos, New Mexico 87010  
(505) 672-5082

**CERTIFICATE OF SERVICE**

I hereby certify that this Docketing Statement was served upon the following by first class mail on the 11<sup>th</sup> day of January, 2017:

Pam Castaneda  
Administrator for Boards & Commissions  
New Mexico Environment Department  
P.O. Box 5469  
Santa Fe, NM 87502

John T. Grubescic  
Office of the Attorney General  
Counsel to the New Mexico WQCC  
P.O. Box 1508  
Santa Fe, NM 87504

John Verheul  
Assistant General Counsel  
New Mexico Environment Department  
121 Tijeras Avenue NE, Ste 1000  
Albuquerque, NM 87102

Edmund H. Kendrick  
Montgomery & Andrews, P.A.  
P.O. Box 2307  
Santa Fe, NM 87504-2307

---

Steven Sugarman