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July 6, 2007

Via Electronic and U.S. Mail

Gail Louis U.S. Environmental Protection Agency, Region 9 75 Hawthorne Street, WTR-3 San Francisco, California 94105

> Re: Comments on Public Review Draft: March 2007 Lost River, California Total Maximum Daily Loads

Dear Ms. Louis:

Thank you for the opportunity to comment on the public review draft of the Lost River Total Maximum Daily Loads (TMDL) for nitrogen and biochemical oxygen demand to address dissolved oxygen (DO) and pH impairments (Draft TMDL). On behalf of its constituent districts and Klamath Project farmers and ranchers, the Klamath Water Users Association (KWUA) appreciates your consideration of our concerns and offers the following suggestions for (1) the Draft TMDL; and (2) the implementation and monitoring recommendations that you have included as Chapter 7 of the Draft TMDL (Proposed Implementation Plan).

## I. <u>Draft TMDL</u>

Based on our review of the Draft TMDL, KWUA believes that Region 9 of the Environmental Protection Agency (EPA) has prepared the Draft TMDL without sufficient data to support the load allocations, sources, or baseline condition assumptions. KWUA understands that time constraints imposed by the Consent Decree require EPA to release the Draft TMDL prior to completion of appropriate data gathering and analysis, but KWUA urges EPA to pursue an extension of this deadline to ensure that any TMDLS adopted for the Lost River are based on accurate, current data and reasonable assumptions. In the event EPA adopts a TMDL without sufficient data, EPA must expressly and unambiguously acknowledge the limitations of the data and assumptions. Specifically, the TMDL should acknowledge that: (1) the technical model created to support the load allocations does not consider all factors affecting the environment, including natural background levels and significant contributions from waterfowl and aquatic fecal material; and (2) substantial discrepancies between the model and the actual water quality

conditions, particularly the inputs into Lost River from Oregon, likely exist. (See Draft TMDL, at pp. 25-31.)

KWUA offers the following specific comments and suggestions for the TMDL:

## A. "Lost River" Designation and Identified Water Bodies

The Draft TMDL fails to sufficiently explain the basis for directing the TMDL at the "Lower Lost River hydrologic area." In fact, the Regional Board and California have not defined a "Lower Lost River hydrologic area." Rather, the applicable hydrologic area is the Lost River hydrologic area, which is further divided into HSAs. EPA should clarify that the Tule Lake and Mount Dome HSAs, which comprise the area addressed by the TMDL (as depicted in Figure 1 of the Draft TMDL), are collectively referred to as the "Lower Lost River."

EPA has not sufficiently explained the basis for defining the "Lost River Hydrologic Area" listed on the California 303(d) list as: the Lower Lost River from the Oregon Border to Tule Lake Refuge; the Tule Lake Refuge (including the sumps and surrounding lease lands); the Lower Klamath Refuge; and the Straits Drain from Lower Klamath Refuge to the Oregon Border. (Draft TMDL, p. 4.) The Draft TMDL does not reference any specific 303 (d) listing for Straits Drain. Further, the Basin Plan does not specifically include Straits Drain or the leased lands within any given hydrologic area or subarea. As a practical matter, the leased lands comprise agricultural lands and do not fall subject to Clean Water Act regulation as a "water body"; thus, the leased lands are not the proper subject of a 303(d) listing or a TMDL. Moreover, the Draft TMDL provides no basis for suggesting that the Consent Decree requires a TMDL to be created for Straits Drain or the leased lands. KWUA acknowledges that the Basin Plan includes the Lower Klamath Lake National Wildlife Refuge within the Mount Dome HSA of the Lost River hydrologic area, even though it is in a distinct drainage basin from the Lost River. However, the Draft TMDL appears to address only the "Lower Lost River," which comprises the Mount Dome and Tule Lake HSAs, not the "Lost River hydrologic area." (Cf. Draft TMDL, p.4; Draft TMDL, p. 1, Figure 1.) To avoid misinterpretation and confusion, KWUA recommends that EPA state the specific 303(d) listing of each water body addressed by this TMDL and provide all applicable water quality objectives directed at such water bodies (with specific reference to the Basin Plan).

# B. <u>Water Quality Objectives</u>

In assigning the loads to achieve state water quality objectives, EPA should recognize that the Basin Plan water quality objectives for the Lost River hydrologic area are not achievable due to natural or historic conditions. (Basin Plan, p. 3-6.00.) For

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<sup>&</sup>lt;sup>1</sup> This TMDL effort is based on the State of California's continual 303(d) listing of the "Lost River System." (Draft TMDL, p. 1.) The Draft TMDL appropriately states that California has listed "Tule Lake and Lower Klamath Lake National Wildlife Refuge for pH" and the Tule Lake and Mount Dome Hydrologic Sub Areas (HSA) of the Klamath River Hydrologic Unit, Lost River Hydrologic Area for nutrients. (Draft TMDL, p. 1.)

example, the Ady Canal during summer months diverts water from Klamath River, which fails to meet water quality objectives for temperature, pH, DO, nutrients, and chlorophylla; all of which are attributable to loading from Upper Klamath Lake. If the water quality objectives are simply unattainable, preparing a TMDL is a futile exercise.

### C. Beneficial Uses

By grouping the refuges and the "Lost River" in California as a general "Lower Lost River" designation, the Draft TMDL fails to appropriately consider the applicable beneficial uses. The Basin Plan separately identifies beneficial uses for the Mt. Dome HSA and the Tule HSA; however, the Draft TMDL provides a table of beneficial uses for the "Lower Lost River Subbasin" that does not match up with the separately designated beneficial uses in the Basin Plan. (Draft TMDL, p. 9; cf. Basin Plan, 2.700.) <sup>2</sup>

#### D. Source Identification

The Draft TMDL designates entire stream segments as "sources" of the water quality problems. These segments are described as "irrigation drain flow," which in no way identifies the source of any water quality impairment. The one unique "source" identified by EPA is the "Ady Canal," which is a mere diversion of water. If EPA cannot identify actual sources, the TMDL should explain the related data deficiencies. Moreover, the TMDL should explain that the identified sources "Ady Canal" and "irrigation drain flow" point to various irrigation, farming, and other land use practices applied along those stream segments, the specifics of which contributions EPA fails to understand. KWUA recognizes that EPA does not have sufficient information to identify actual sources of the contaminants. However, this failure to identify sources within the TMDL effectively shifts that burden to other parties. This lack of information will minimize the utility of any TMDL.

We also question the "assignment" of loads to a district or other governmental agency rather than to actual "sources." (E.g., Draft TMDL, pp. 23-24.) EPA regulations do not contemplate the delegation of source identification to other governmental agencies. Rather, the regulations suggest that a load allocation should be "attributed either to one of its existing or future nonpoint sources of pollution or to natural background sources." (40 C.C.R., § 130.2(g).) As the Draft TMDL recognizes, when individual nonpoint sources cannot be quantified or distinguished from natural background sources, the TMDL should assign a "gross allotment" to all the nonpoint and natural background sources contributing to a receiving water. (Draft TMDL, p. 33; 40 C.C.R., § 130.2(g).) However, rather than assign a gross allotment to all nonpoint and natural background sources to the Lost River, the Draft TMDL attempts to assign loads to governmental agencies, diversion points, and other water bodies. The load allocations must be reevaluated to ensure that the EPA regulations are appropriately applied.

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<sup>&</sup>lt;sup>2</sup> Similarly, the Draft TMDL does not acknowledge that the Basin Plan identifies specific water quality objectives for "Lower Lost River", "Tule Lake", "Lower Klamath Lake", and "Other Streams" of the Lost River Hydrologic Area. (Basin Plan, p. 3-6.00.)

Further, it is highly unusual for a TMDL to identify a diversion structure (e.g., Ady Canal) as a source. The water quality in Ady Canal is a function of the quality of the Klamath River water that it diverts (in Oregon). Identification of the Ady Canal as a source is in practical effect no different than identifying the Klamath River as a source. The Draft TMDL also does not explain the parameters by which established water quality objectives even apply to Straits Drain. <sup>3</sup> Additionally, the Draft TMDL does not appear to identify Lower Klamath Lake or Lower Klamath National Wildlife Refuge as a source of loading to Straits Drain. KWUA asks that EPA address and reconcile these issues. <sup>4</sup>

#### E. Background (Upstream Segment) Loads:

The Draft TMDL assumes that the water coming into the Lost River in California will meet the 50% load reduction. The reliance on "the State of Oregon['s] plans to develop TMDLs for DIN and CBOD for Lost River in Oregon in the near future" is not sufficient assurance that specific load reductions will be met. (Draft TMDL, p. 22.) Put simply, a failure to achieve the load reduction at the top of the California system will inevitably create a ripple effect whereby each downstream source will not be able to ensure the total load requirement assigned to its respective segment is met. EPA must account for the actual nature of incoming contaminants and their effect on achieving the load allocations throughout the Lost River segments in California. (Draft TMDL, at pp. 32-36.) On the other hand, it is not clear how the Draft TMDL has taken into consideration the TMDL for Upper Klamath Lake. Reduction in loads to (and from) Upper Klamath Lake would reduce pollutants both in drainage waters entering Lost River in California and in Klamath River water that enters the Lost River basin directly. In addition, the Draft TMDL does not appear to recognize that drainage waters from Oregon enter California by means other than the Lost River itself. For example, drains flow under the J Canal from Oregon into California. KWUA also urges EPA to reexamine the assumption of specific loads to Lost River between the state line and Tule Lake.

EPA should reconsider the fictional "background load" that the Draft TMDL assigns to outflow from Tule Lake Refuge to Lower Klamath Refuge and from Lower Klamath Refuge to Straits Drain. The Draft TMDL reduces the existing load for these identified "sources" to 50% and then requires an additional 50% load reduction under the TMDL. (Draft TMDL, pp. 34-35.) The Draft TMDL does not provide sufficient justification for the inequitable treatment of these segments.

KWUA recognizes that the Draft TMDL attempts to address the background load concerns by explaining that the same method is used in other areas and that "[e]ven if projected load reductions are not met upstream, [downstream source] allocations will still

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<sup>&</sup>lt;sup>3</sup> Notably, KWUA has previously been advised that Straits Drain would be treated as a "source" in any Klamath River TMDL.

<sup>&</sup>lt;sup>4</sup> Due to the recent United States Supreme Court decision in *Rapanos v. United States*, 126 S.Ct. 2208 (2006) and subsequent guidance put out by the United States Army Corps of Engineers and Environmental Protection Agency, it may be appropriate for EPA consider whether any of these waters are subject to the federal Clean Water Act.

be applicable." (Draft TMDL, p. 33.) However, this language does nothing to ensure that the loads assigned to the downstream sources, potentially affected by upstream contributions that exceed the assumed loads, will be adjusted to consider the failed assumption of 50% reductions to sources not addressed by this, or any other, TMDL.

## F. Identification of Non-Agricultural Contributions

The Draft TMDL identifies load allocations to reduce the (estimated) existing loads of all agricultural sources by 50%, but does not treat all contributions similarly. Though the Draft TMDL assigns the 50% load reduction to all nonpoint sources and one existing National Pollutant Discharge Elimination System (NPDES) permittee, the Draft TMDL does not assign the "equitable" 50% reduction to all point sources. (Draft TMDL, at p. 33.) As a further example, the Draft TMDL fails to clearly articulate load reductions for bird defecation in refuges. The Draft TMDL does not specifically estimate natural background levels and rather appears to assume that each "background load" somehow incorporates the unknown natural background levels entering each segment. (Draft TMDL, p. 21.) The 50% load reduction assigned to all background loads and nonpoint sources inherently assumes a 50% load reduction to natural background without any analysis or rationale for reducing the natural background levels. (Draft TMDL, p. 36.) The failure to explicitly consider natural background levels must be remedied in this Draft TMDL.

#### G. Coordination and Consistency with Other TMDLs in Region

EPA must recognize that Klamath farmers and ranchers are on the receiving end of various TMDL processes. The Lost River TMDL for California cannot be prepared without proper and substantial coordination with Upper Klamath Lake and Klamath River TMDLs. At the very least, the iterative processes set forth in the implementation of those TMDLs must inform the assumptions about water quality in this California Lost River TMDL. Though EPA maintains that California irrigators will not be held accountable for non-California sources, the Draft TMDL does not expressly provide such assurances.

### H. Assumptions

The Draft TMDL hinges the success of the TMDL effort on the "reductions in DIN and CBOD loadings of approximately 50% from the estimated baseline loads from 1999" to attain the applicable pH and dissolved oxygen water quality standards in California. (Draft TMDL p. 6.) The Draft TMDL and supporting Model Configuration and Results, Lost River for TMDL Development, August 29, 2005 ("Model") suffer from three fatally flawed assumptions: (1) Oregon source inputs into the Lost River system will also see reductions of 50% without any regulatory program or other assurance that such reductions will be made; and (2) the incomplete data from eight years ago has set an appropriate baseline by which to judge all success in attaining the water quality standards; and (3) the natural background conditions are such that the water quality standards are in fact attainable.

EPA regulations require TMDLs to incorporate a "margin of safety" to account for uncertainties in the data, modeling, or other information used to develop the TMDL. (40 C.F.R., §§ 130.2(g)-(i), 130.7(c)(1); EPA-440-4-91-01, Apr. 1991.) The model relied on to support the Draft TMDL, however, does not explain or justify the margin of safety and merely states that "no margin of safety (MOS) was explicitly considered in the modeling." (Model, p. 55.) Given that the Model admittedly has "extensive data limitations" and critical data sets are simply "not currently available," the Model should apply and consider explicit margins of safety to address severe uncertainties and data gaps. (Model, p. 4; see also Draft TMDL, pp. 22-23 ["additional water quality and flow monitoring in the supply and drainage system is needed to more accurately characterize the loading contributions from the different irrigation districts and refuge areas. . . . insufficient data are currently available to distinguish pollutant loads from TID and Refuge operations"].) The TMDL does not sufficiently justify the absence of a calculated margin of safety. (Draft TMDL, p. 35.) "Conservative assumptions" do not serve as an appropriate margin of safety when based solely on guesswork derived from eight-year old data.

# II. Proposed Implementation Plan

KWUA appreciates the Draft TMDL's statements that the recommendations within the Proposed Implementation Plan are not mandatory and are without effect. (Draft TMDL, pp. 3, 4, 37.) However, KWUA respectfully disagrees with the characterization of the Proposed Implementation Plan, which assigns responsible parties and contains aggressive timelines, as "a few recommended general strategies." (Draft TMDL, p. 37.) KWUA objects to the inclusion of Proposed Implementation Plan within the Draft TMDL and respectfully urges EPA to remove Chapter 7 from the Draft TMDL.

KWUA recognizes that EPA has put some effort into the discussion of implementation measures, and reasonable recommendations may well arise from the suggestions therein. To the extent EPA wishes to provide the North Coast Regional Water Quality Control Board (Regional Board) or interested parties some ideas or recommendations, EPA should develop and furnish any such recommendations outside of this TMDL document. The Regional Board could, pursuant to its authority under California law, then consider the recommendations, obtain the necessary information, and rely on local resources to formulate workable implementation measures. (See California Water Code, § 13240 [requiring that Regional Board consult with and consider recommendations from State and *local* agencies in amending or devising basin plans].) The Regional Board has authority to formulate implementation measures. In doing so, the Regional Board must comply with various state laws that EPA has ignored in devising Proposed Implementation Plan. Thus, inclusion of Proposed Implementation Plan as Chapter 7 of this TMDL evades state law and allows for complete avoidance of any accountability.

KWUA recognizes that EPA has an existing obligation and authority to devise the Draft TMDL. However, EPA has no obligation to develop an implementation plan and, in

fact, has no authority to draft the implementation plan for the Regional Board. (33 U.S.C. § 1313(e) [States in charge of defining the method for ensuring "adequate implementation" of TMDLs]; *Pronsolino v. Nastri*, 291 F.3d 1123, 1129 (9<sup>th</sup> Cir. 2002); *Pronsolino v. Nastri*, 91 F.Supp.2d 1337, 1355-56 [implementation of TMDLs for nonpoint sources is subject only to state regulation].)<sup>5</sup> EPA cannot step into the shoes of the State in regulating nonpoint sources. In providing a specific implementation plan including directives to individuals and districts that unquestionably fall under the State nonpoint source jurisdiction, EPA is inappropriately exceeding its legal authority. The Regional Board, not EPA, has authority to propose regulations or "action items" to address nonpoint sources in the Lower Lost River system. EPA simply cannot impinge upon the Regional Board's exercise of its discretion to regulate nonpoint sources by "assist[ing] local stakeholders in targeting actions to address suspected causes of water quality impairment in the Lost River system." (Draft TMDL, p. 3.)

KWUA respectfully requests that EPA consider the following suggestions for any implementation recommendations provided to the Regional Board:

- Discuss the Relationship Between the Various TMDLs in the Region: EPA has made it clear that EPA is preparing this TMDL now only because of the schedule within the Consent Decree. In the meantime, other TMDLs for interrelated waters in both California and Oregon that will be prepared at some undetermined time in the future. Any implementation recommendations should include specific terms to ensure consistency, equity, and consideration of the larger regulatory picture.
- Remove Timeframes: The timeframes within the Proposed Implementation Plan must be removed because: (1) they suggest that these "recommendations" are mandatory; and (2) the dates are arbitrarily created without the appropriate studies and data to support the feasibility or necessity of completing the "suggested" measures by that date. To the extent EPA seeks to evaluate the feasible timing of actions, KWUA suggests EPA recommend that the Regional Board coordinate work groups and prepare models to determine appropriate timeframes for carrying out any appropriate implementation measures. Any timeframes created must recognize the iterative nature of other water quality efforts upstream of the Lost River in California. The timelines set forth in the Proposed Implementation Plan suggest that EPA defines success as taking uninformed quick action rather than acquiring sufficient understanding of the water quality conditions to use in formulating reasonable solutions. (Draft TMDL, p. 45 ["even though there is uncertainty regarding how long the river system may take to fully recover and how much past practices may be influencing current conditions, given the current conditions of the river there is need to speed up recovery to the extent practicable"].) KWUA urges EPA to reconsider the inclusion of timeframes to ensure that appropriate time is allowed to ascertain the existing water quality

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<sup>&</sup>lt;sup>5</sup> EPA's authority "related to implementation of nonpoint source pollution control measures are generally limited to education and outreach as provided by" Clean Water Act section 319. (See California Continuing Planning Process Report, at p. 31.)

conditions and coordinate with the various other water quality efforts in the Klamath Basin.

- Form Work Group: The current attempt to assign responsibilities to the districts, agencies, and individual growers will not ensure a successful TMDL. For example, districts have no authority to enforce water quality discharges or change farming practices of their constituents. Rather than attempt to assign tasks to various parties without a full understanding of the local dynamic in the Klamath Basin, EPA should recommend that the Regional Board form a work group of local stakeholders (irrigators, districts, KWUA, UC Cooperative Extension) to, among other things, gather more site-specific data about Lost River impairments and consider workable solutions. (See California Continuing Planning Process Report, p. 7.) Rather than EPA attempting to dictate new requirements for federal lessees<sup>6</sup> and force Reclamation to initiate a monitoring program, the work group could further coordinate with the Bureau of Reclamation and U.S. Fish and Wildlife Service to consider potential measures for addressing federal involvement and management activities to improve water quality. The work group could also analyze implementation possibilities on a regional level or, at the very least, coordinate with other water quality efforts in the region.
- Consider Technical and Economic Feasibility: Any implementation plan should identify implementation measures necessary to carry out the plan, including financing, the time needed to carry out the plan, and the economic, social, and environmental impact of carrying out the plan. (See e.g., 40 CFR 130.6(6).) KWUA appreciates EPA's willingness to assist in locating funding sources, but any implementation recommendations should discuss in more detail how EPA or others would assist with locating funding sources. EPA must recognize obstacles outside of Klamath farmers' control, such as regulatory limitations on algae and aquatic weed removal, power rates, and water costs. This feasibility analysis is especially important with respect to aquatic plant removal. As drafted, the Proposed Implementation Plan assumes that individual growers will remove aquatic plants, but does not sufficiently account for limitations on individual's authority or ability to do so.
- Consider Other Efforts: Any implementation recommendations should consider other efforts in the Klamath Basin to improve water quality, such as the Oregon Department of Agriculture's Lost River Subbasin Agricultural Water Quality Management Area Plan and the Klamath River and Upper Klamath Lake TMDLs. EPA should suggest that the Regional Board coordinate with other agencies (EPA (including Regions 9 and 10), State Water Resources Control Board, Oregon

land managers and lessees.

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<sup>&</sup>lt;sup>6</sup> KWUA finds EPA's attempt to require management plans for federal leased lands especially troubling. The Proposed Implementation Plan, as currently drafted, treats growers with leased lands differently by mandating special requirements for federal leases. Though KWUA understands that EPA is trying to get all actors focused on resolving water quality issues, KWUA urges EPA to instead recommend that the potential water quality improvements related to federal land management practices be considered by the local federal

Department of Agriculture, and Oregon Department of Environmental Quality, Natural Resource Conservation Service, California Resource Conservation Districts), before finalizing an implementation plan, to avoid inconsistent and potentially conflicting regulation or efforts. Considering the limitations of the Draft TMDL, the concerns identified herein, and various other regulatory activities in the region, KWUA does not believe that it is prudent or good public policy for EPA to suggest that the Regional Board adopt the Proposed Implementation Plan.

Encourage Non-Regulatory Measures: KWUA appreciates the inclusion of non-regulatory measures (as provided for in the Basin Plan) within the Draft Implementation Plan (See e.g., North Coast Basin Plan, 4-31.00, 4-32.00; see also " (40 CFR 130.6(c)(4)(ii) ["Regulatory programs shall be identified where they are determined to be necessary by the State to attain or maintain an approved water use or where non-regulatory approaches are inappropriate in accomplishing that objective"].) KWUA supports the pursuit of nonregulatory measures to gain an understanding of the water quality conditions in the Lower Lost River system, including:

- Development of Memoranda of Understanding with other agencies and organizations;
- Coordination with local government and non-profit organizations and individuals to develop control strategies;
- Incentives for organizations and individuals to control waste discharges and conduct watershed restoration activities;
- Focus on public outreach and education;
- Development of a guidance document;
- Develop a monitoring strategy for filling gaps in current data and for ensuring progress with implementation measures.
- Review Criteria: Any implementation recommendations must recognize that the Regional Board has started considering the appropriateness of its DO objective due to the infeasibility of meeting the DO standards in light of natural conditions. EPA should recommend that the Regional Board consider the water quality objectives through Basin Plan amendments based on site-specific data for the watershed. (See e.g., North Coast Basin Plan, 4-34.00.)
- Reconsider Recommendation to Reduce Return Flows: Return flows are an important part of water management in the Klamath Basin. Return flows provide water to wildlife refuges and downstream irrigators as well as assimilative capacity for pollutants. Rather than focus on reducing return flows, any implementation recommendations should instead focus on studying any impacts from return flows and studying appropriate measures to enhance the water quality of return flows.
- <u>Implement Adaptive Management</u>: Adaptive management and phasing is imperative due to the lack of information and the high contribution to water quality impairment from natural and historic conditions.

- <u>Discuss Past and Current Efforts:</u> The implementation plan should take into account and discuss voluntary actions taken by landowners and others in the Klamath Basin to address water quality issues. These actions were taken subsequent to the data gathering in 1999 upon which the Draft TMDL and Proposed Implementation Plan rely.
- Remove Inapvropriate Responsible Party Designations: The Proposed Implementation Plan obligates individuals and governmental agencies to duties that are not necessarily within their legal authority or area of competence. These inappropriately assigned actions, if incorporated into an adopted implementation plan, will likely not be carried out effectively or at all. KWUA suggests that EPA remove these inappropriate responsible party designations in Table 8 of the Proposed Implementation Plan. (E.g, Draft TMDL, p. 38 [requiring irrigation districts to assist with development and implementation of nutrient and residue management plans].)

EPA should not recommend implementation measures devised without appropriate data or modeling of implementation measures. Any planning efforts must be informed and take into account the unique nature of the Lower Lost River system and the surrounding region.

# III. Summary of KWUA Recommendations

KWUA recognizes that water quality impairments within the Upper Klamath Basin exist and require attention. However, from a public policy perspective, the most appropriate course of action for EPA is to amend the schedule in the current Consent Decree to establish a more logical and orderly approach to addressing the issues raised by the Draft TMDL and these comments.

Thank you again for your consideration of these comments. KWUA is committed to pursuing proactive efforts to understand the existing water quality conditions in the Lower Lost River system. KWUA maintains, however, that such an understanding must come before the establishment of TMDLs or implementation plans for this complex hydrologic system.

Executive Director

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