

AMENDMENT TO AGREEMENT WITH LIMNO TECH, INC.

This AMENDMENT, made this 11th day of JULY 2012, by and between Limno Tech, Inc, hereinafter referred to as "CONSULTANT" and CITY OF RENO and CITY OF SPARKS, hereinafter referred to as "CLIENT".

RECITALS

1. CLIENT and CONSULTANT executed an AGREEMENT dated July 28, 2008, by which CLIENT retained CONSULTANT to perform consulting services for Phase I regarding Stakeholder Education on Watershed-based Water Quality Planning and TMDL Development for the Truckee River in relation to TMWRF ("PROJECT").
2. On October 12, 2009, CLIENT and CONSULTANT amended the July 28, 2008, agreement to continue the term of the agreement, add additional services and increase the amount of the agreement by the sum of \$400,000.00.
3. It is necessary for CONSULTANT to continue to perform the services, including additional services, to complete the PROJECT as set forth in Attachment "A-1", consisting of 6 pages, which is attached hereto and incorporated herein by this reference. CONSULTANT will perform the services in accordance with the terms and provisions of Attachment "A-1," which presents the scope of services and schedule of work associated with these additional services.

NOW, THEREFORE, for and in consideration of the respective promises and duties herein contained, the parties agree as follows:

- A. CONSULTANT agrees to perform the additional consulting services for the PROJECT defined in Attachment "A-1" which is incorporated herein by this reference, in an amount

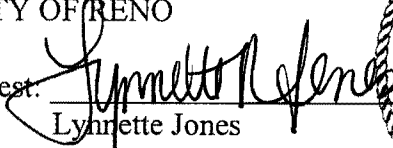
not-to-exceed the sum of \$250,000.00. Said not-to-exceed amount includes fees as well as costs.

- B. CONSULTANT acknowledges that CLIENT is to be reimbursed by the Western Regional Water Commission pursuant to a separate funding interlocal agreement.
- C. All other terms and provisions of the AGREEMENT dated July 28, 2008, and Amendment dated October 12, 2009, unless inconsistent with the terms herein, remain in full force and effect.

IN WITNESS WHEREOF, CLIENT has caused these presents to be executed by its officers hereunto duly authorized and the CONSULTANT has subscribed same, all on the day and year first above written.


CITY OF RENO

Attest: _____


Lynnette Jones
City Clerk



By: _____


Robert A. Cashell, Sr.
Mayor

CITY OF SPARKS

Attest: _____

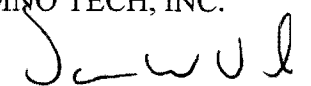
Sparks City Clerk
City Clerk

By: _____

Geno Martini
Mayor

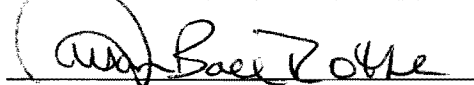
LIMNO TECH, INC.

By: _____


David W. Dilks, Ph.D.
Vice President

APPROVED AS TO FORM ONLY:

By: _____


Susan Ball Rothe, Deputy City Attorney

APPROVED AS TO FORM ONLY:

By: _____

Chet Adams, Spark City Attorney

Work Scope for:
Continuation of Services for
Water Quality Standards and TMDL Review and Revision
for the Truckee River

LimnoTech, May 14, 2012

Background

Restoration of the Truckee River requires a comprehensive basin-wide effort to evaluate management, pollution control and restoration strategies with respect to flow, land-use, pollutant loading, habitat and biological resources. Only in this regard can we effectively improve, protect, and sustain the biological, recreational and economic value of this important resource. Comprehensive efforts are needed that address the chemical, physical and biological aspects of this waterbody and watershed. Review and potential revision of nutrient water quality standards (WQS) and development of a revised Truckee River total maximum daily load (TMDL) can address the chemical/water quality aspects of this comprehensive strategy, which serves as a foundation on which other efforts can be built.

A collection of water agencies with interests in the Truckee River, the 3rd Parties (Cities of Reno and Sparks, Washoe County, Truckee Meadows Water Authority [TMWA], TWMRF), are collaborating with the Nevada Division of Environmental Protection (NDEP), USEPA, and other stakeholders to conduct watershed-based water quality planning and thereby review the existing nutrient WQS and potentially develop a technical basis for revisions to the WQS and the existing Truckee River (TMDL) for nutrients. This scope outlines a continuation of the proposed approach which involves comprehensive education of stakeholders on both technical and management elements to help ensure a transparent effort which builds regional acceptance and promotes collaboration towards improving the chemical, physical and biological health of the Truckee River.

LimnoTech is currently conducting work under contract 12088-1650 (City of Reno, October 12, 2009) as funded by the WRWC, which is an amendment to contract A-3676 (City of Reno, July 28, 2008). This work scope proposes a continuation of efforts by LimnoTech to support the WQS and TMDL review and revision process.

Status of Work

Activity under the current scope since August 2009 has included:

Educational Tool Development:

- Draft and final Technical Fact Sheets were completed for the following topics:
 - Dissolved oxygen impairment
 - TMWRF performance
 - Water quality standards
 - The Total Maximum Daily Load (TMDL) process
- Conducted hands-on TRHSPF model training for DRI.

Stakeholder / TMDL Working Group Support:

- Provided technical support to 3rd Parties and regulators during TMDL Work Group meetings on topics such as historical dissolved oxygen impairment, TMWRF effluent quality, and monitoring data.
- Supported 3rd Parties in stakeholder outreach during one-on-one meetings, field visits, and large group stakeholder meetings.
- Presented results of model calibration and confirmation to organized stakeholder group.
- Developed a conceptual approach for technical elements of a WQS and TMDL review and revision and identified elements requiring additional input from regulators and 3rd parties (e.g., definition of representative low flow condition).
- Conducted model simulations to evaluate water quality impacts of a range of flows below Derby Dam and a range of TMWRF effluent scenarios.
- As needed, traveled from Ann Arbor to Reno to participate in meetings.

NDEP Collaboration:

- Supported development of a finalized TMDL Work Plan by attending meetings, investigating technical requirements, and developing text.
- Coordinated with NDEP to investigate TMDL elements such as water quality standards, NDEP 303(d) list, and the regulatory basis for selection of a representative low flow year for TMDL analysis.
- Performed flow ranking analysis of TROM model output to characterize low flow years.

Technical Research and Model Refinement:

- Completed model linkage testing and implemented improvements to link the watershed (WARMF) and stream (TRHSPF) water quality models.
- Updated model databases through 2008, conducted model confirmation (verification) runs, and documented all model updates in a model confirmation report (LimnoTech, 2011).
- In coordination with the 3rd Parties and MBK Engineers, examined the feasibility of using TROM and/or RiverWare to support the selection of a low flow year for WQS and TMDL water quality modeling.

Project Management:

- General oversight of project activities. Participated in internal meetings. Tracked scope, schedule and budget.

Under the most recent contract amendment, all tasks have been completed or partially completed as shown in Tables 1 and 2. Note that as of May 1, 2012, a remaining budget of \$79,000 is available through June 30, 2012 for work on Task 4, Alternatives Analysis.

Table 1. Cumulative Expenditures as of May 1, 2012 (WRWC, Reno, and Sparks funding).

Task	Original Budget (10/2008) ¹	Ammended Budget (7/2009)	Total Budget	Cumulative Expenditure
1. Stakeholder education	\$ 50,000	\$ 50,000	\$ 100,000	\$ 100,000
2. Stakeholder / TMDL Working Group Support	\$ 25,000	\$ 75,000	\$ 100,000	\$ 100,000
3. NDEP / USEPA Coordination and collaboration	\$ 70,000	\$ 40,000	\$ 110,000	\$ 110,000
4. Screening of Potential Alternatives	\$ -	\$ 81,000	\$ 81,000	\$ 2,000
5. Technical Research / Model Refinement / TRIG Coordination	\$ 70,000	\$ 39,000	\$ 109,000	\$ 109,000
6. TAC Development and Support	\$ 45,000	\$ 60,000	\$ 105,000	\$ 105,000
7. Watershed Education	\$ 55,000	\$ 30,000	\$ 85,000	\$ 85,000
8. Project Management	\$ 25,000	\$ 25,000	\$ 50,000	\$ 50,000
TOTAL	\$ 340,000	\$ 400,000	\$ 740,000	\$ 661,000

¹ Funded jointly by WRWC (\$197,500), City of Reno (\$97, 800.60), and City of Sparks (\$44,699.40)

Table 2. Cumulative Expenditures as of May 1, 2012 (WRWC funding only).

Task	Original Budget (10/2008) ¹	Ammended Budget (7/2009)	Total Budget	Cumulative Expenditure
1. Stakeholder education	\$ 50,000	\$ 50,000	\$ 100,000	\$ 100,000
2. Stakeholder / TMDL Working Group Support	\$ 25,000	\$ 75,000	\$ 100,000	\$ 100,000
3. NDEP / USEPA Coordination and collaboration	\$ -	\$ 40,000	\$ 40,000	\$ 40,000
4. Screening of Potential Alternatives	\$ -	\$ 81,000	\$ 81,000	\$ 2,000
5. Technical Research / Model Refinement / TRIG Coordination	\$ 10,000	\$ 39,000	\$ 49,000	\$ 49,000
6. TAC Development and Support	\$ 45,000	\$ 60,000	\$ 105,000	\$ 105,000
7. Watershed Education	\$ 55,000	\$ 30,000	\$ 85,000	\$ 85,000
8. Project Management	\$ 12,500	\$ 25,000	\$ 37,500	\$ 37,500
TOTAL	\$ 197,500	\$ 400,000	\$ 597,500	\$ 518,500

¹WRWC funding only.

Future Work

A continuation of the WQS and TMDL review and revision effort will be led by the 3rd Parties in consultation with the regulatory agencies and targeted stakeholders. Work to be conducted by LimnoTech is expected to include activities as outlined by four major tasks below. Note that the specific elements of each task and the extent of time spent under each task are uncertain and will be highly dependent on stakeholder and regulatory drivers. Since many of the tasks defined in the previous authorizations overlapped each other, this proposed scope of work is organized into a smaller number of basic tasks:

1. Develop Technical Basis for WQS and TMDL Review and Revision

Efforts will continue to ensure that all technical issues are clearly defined and that appropriate tools and analysis are available to address these issues in the WQS and TMDL review and revision processes. LimnoTech will continue to continue support 3rd Party TMDL working group activities, attend scheduled meetings either in person or by teleconference, prepare technical materials and provide strategic advice on moving the WQS and TMDL processes forward, and

respond to requests made by 3rd Parties or regulators to investigate technical elements. Efforts will be made to frame and execute an approach which considers potential risks, possible alternative pathways, and results in progress towards revised WQS and a NDEP approvable and legally defensible TMDL.

As necessary, LimnoTech will continue refinement of modeling tools to improve robustness and defensibility of the scientific basis for the TMDL and potential water quality standards revision. LimnoTech will coordinate with NDEP, EPA, and the 3rd Parties to review and select an appropriate methodology for establishing a representative low flow condition which will serve as the basis for the WQS and TMDL analysis. At the request of the 3rd parties and regulators, LimnoTech will perform data and model analysis to screen the universe of potential alternatives related to TMDL load allocations and reasonable nutrient standards. Model analysis will include:

- Coordination with stakeholders to appropriately define model inputs and assumptions;
- Coordination with MBK Engineers to develop any TROM and/or RiverWare-based model inputs;
- Set up, execution, and evaluation of requested model runs; and
- Presentation of model results to 3rd Parties, regulators, and/or stakeholders.

LimnoTech will use the modeling analysis to determine the applicability and suitability of current WQS related to TMDL endpoints and explore any revision of numeric criteria to represent site specific conditions. This analysis will follow in accordance with federal and state requirements for setting WQS. Water quality model output will be examined to understand levels of minimum DO excursions under various system conditions (e.g., low flows, nutrient loadings).

As related to a TMDL revision, a technical analysis will be conducted to establish acceptable load allocations (non-point sources and margin of safety) and waste load allocations (point sources and stormwater) to serve as the basis of a revised TMDL.

2. Stakeholder Coordination and Collaboration

To ensure transparent and shared understanding of technical complexities associated with the project, the 3rd Parties are committed to provide background information to stakeholders. Efforts will continue to enhance the understanding of Truckee River stakeholders on Truckee River conditions, issues, data and tools. This process allows for all participants to gain fundamental and factual understanding, will help reduce misconceptions, and allow for stakeholder issues and concerns to be aired.

As necessary, LimnoTech will continue development of technical fact sheets to help the necessary education of the 3rd Parties, regulators, and other stakeholders regarding the technical complexity of the Truckee River system and how that relates to TMDL development and water quality standards revision. Upon request from the 3rd Parties, LimnoTech will participate in any scheduled stakeholder meetings and prepare the necessary information for dissemination of technical results. LimnoTech will continue to coordinate with custodians of the Truckee River

Information Gateway website (<http://truckeerverinfo.org/>) to supply data, models, and educational tools for stakeholder access.

3. Regulatory Coordination and Requirements

Efforts will continue to clearly identify all regulatory requirements for the WQS and TMDL review and development in process, objectives and technical analysis. This will ensure a well designed WQS and TMDL process that can achieve final regulatory approval.

Under this task, LimnoTech will:

- Maintain communication with NDEP and USEPA regarding reasonable pathways for an approvable 3rd Party TMDL and potential water quality standards revision.
- Perform requested analysis to better define TMDL endpoint thresholds (e.g. representative low flow, minimum level of dissolved oxygen excursions, limited impacts to Pyramid Lake and Lahontan Reservoir).
- Conduct necessary analysis and reporting to submit proposed changes for nutrient water quality standards to NDEP and USEPA.

If applicable and as required, LimnoTech will support the development of formal documentation for NDEP and EPA review that makes recommendations for any proposed revisions to the nutrient WQS. LimnoTech will participate in any required public meetings and SEC hearings related to a WQS revision process.

If applicable and as required, LimnoTech will support the development of a formal TMDL document for NDEP and EPA review and possible approval. LimnoTech will participate in any required public meetings related to a TMDL revision process.

4. Project Management

LimnoTech will manage and coordinate all project work including that of any subconsultants. LimnoTech will also provide monthly status reports on progress and budget and keep the stakeholder group advised of any necessary refinements to the scope or budget reallocation.

Budget

The estimated budget to continue work for 12 months beyond the current contract amendment (12088-1650) is \$250,000 for LimnoTech services (Table 3).

Table 3: Estimated Project Budget by Task: 2012-2013 Fiscal Year

Task	Proposed New Authorization (for fiscal year 2012-2013)
1. Develop Technical Basis for WQS / TMDL Review and Revision	\$ 120,000
2. Stakeholder Coordination and Collaboration	\$ 60,000
3. Regulatory Coordination and Requirements	\$ 60,000
4. Project Management	\$ 10,000
TOTAL	\$ 250,000

References:

LimnoTech, 2011. Model Confirmation and Database Extension for WARMF and TRHSPF to Support the Third-Party Reviews of Truckee River Nutrient Water Quality Standards and TMDLs, Prepared for: Truckee River Third-Parties (City of Reno, City of Sparks, Washoe County, and Truckee Meadows Water Authority), November 28, 2011.