Lower and Upper Gallatin TMDL Watershed Advisory Group and Technical Advisory Group Meeting
July 22, 2008

In Attendance:

Craig Campbell	*DNRC*	Charity Fletcher	*Madison county*
Bill Simkins	*Simkins Holdings, LLC*	Scott McCormack	*The Club at Spanish Peaks*
Kerri Strasheim	*DNRC*	Dustin Johnson	*City of Bozeman*
Debbie Arkell	*City of Bozeman*	Paul Layton	*City of Bozeman*
JP Pomnichowski	*MT State Legislature*	Dave Crawford	*Thomas, Dean & Haskins*
Robin Hoover	*Yellowstone Country Tourism*	Erik Suffridge	*NRCS*
Mike Vaughn	*MT FWP*	Bruce Rich	*MT FWP*
Tammy Crone	*Gallatin Water Quality Protection Dist*	Sean O'Callaghan	*Gallatin County*
Simon Trautman	*Moonlight Basin*	Peter Skidmore	*Skidmore Consulting*
Brian McGlynn	*MSU*	Lucy Marshall	*MSU*
Stuart Jennings	*Reclamation Research Group*	Tony Thatcher	*DTM Consulting*
Buddy Drake	*Drake & Associates*	Steve Custer	*MSU*
Gill Geesey	*MSU*	Clain Jones	*MSU*

Minutes

1. *Introductions* –
    - Pete Schade, Senior TMDL Planner for the Montana Department of Environmental Quality, introduced Kristin Gardner, Executive Director of the Blue Water Task Force (BWTF) and Sharlyn Izurieta, Watershed Coordinator, Greater Gallatin Watershed Council (GGWC).
    - Pete described the purpose of the meeting and how members of the Watershed Advisory (WAG) and Technical Advisory Group (TAG) were solicited. The MT DEQ is required to meet TMDL consultation requirements under MCA 75-5-703. Representatives from a diverse set of interest groups were solicited to participate in the WAG/TAG in an advisory capacity for both the upper and lower Gallatin watershed. The solicitation process was informal with Pete collaborating with the BWTF and GGWC to identify potential WAG/TAG members.

2. *What is a TMDL?*
    - A TMDL (Total Daily Maximum Load) is the maximum amount of a pollutant a river, stream or lake can receive and still support all designated use." TMDLs are pollutant specific – a LOAD can be calculated to measure how much a stream is impaired.A TMDL is both a number and a plan. It is a number or an "amount of pollutant that a waterbody can receive from point, non-point and natural sources and still meet water quality standards. It is also a plan, or a "systematic approach to assess water quality determining if there is a problem, developing and implementing solutions." A TMDL is not a cure all for all issues, but is a plan to reduce pollutant load to a level that meets state water quality standards and beneficial uses. A TMDL should also be viewed as a tool to use with other methods to provide comprehensive planning.

3. *Regulatory background of TMDLs* –

- Federal Clean Water Act of 1972 set the stage for TMDLs and the State of Montana's version, the Montana Water Quality Standard, further defined what needed to be done with TMDLs. Once the standards are identified, water bodies have to be identified and determined if they meet the standards. The State Impaired Stream List, 303(d) lists streams which didn't meet water quality standards. Once the list is developed it gives the MT DEQ a list to develop TMDLs.

4. *The TMDL process*
    - Pete described the TMDL process from a project standpoint as being a problem solving exercise to determine the source of pollution contributing to the stream. Pete described the problem solving process as (1) Sampling and monitoring streams (Assessment); (2) Evaluating data; (3) Determining stream reference conditions which represent non-impaired conditions for a watershed of a comparable size, with similar land use distributions, and other related characteristics; and (4) Use standard water quality assessment Methods (SCD/BUD). He also noted that no TMDL infringes on water rights.

5. *Required components of a TMDL*
    - Watershed Characterization – can be obtained from the GGWC (Lower Gallatin) or the BWTF (Upper Gallatin).
    - Water Quality Standards & Impairment Status Review
    - Pollutant Source Assessment
    - Establish TMDL and develop allocations – the crux of TMDLs
    - Monitoring, restoration, and adaptive management

6. *Where to find TMDL data/information on Montana Streams*
    - Data is available at www.deq.mt.gov/CWAIC or http://cwaic.mt.gov/.

7. *TMDL Status of the Lower and Upper Gallatin Watershed*
    - Upper Gallatin completion date – 2009
    - Lower Gallatin completion date – 2011
    - Upper Gallatin –
        - Sediment impaired streams: West Fork, Middle Fork and South Fork (the West Fork Watershed), Taylors Fork and Cache Creek.
            - Focus of TMDLs will be on the West Fork watershed
            - Taylors Fork and Cache Creek flow mostly within Federal management. If the federal agency has a management planning document it can serve in lieu of a TMDL, but the stream water quality must still meet DEQ standards.
        - Nutrient impaired streams: Storm Castle Creek (formerly Squaw Creek); West Fork Gallatin, Middle Fork West Fork Gallatin and South Fork West Fork Gallatin.
            - An evaluation and validation of listed streams is being conducted. For example, Storm Castle Creek was listed due to

high Phosphorus levels, however algal growth is very low and P may be the result of natural geology.
        - Middle Fork West Fork Gallatin has been determined to be impaired for E.coli.
- Lower Gallatin –
    - This summer sampling sites and data will be collected for nutrient and e.coli .
- Present data collected from both the Upper and Lower Gallatin will eclipse the data that has been collected to date.

8. *Gallatin TMDL Planning Documents are available from GGWC or BWTF and include:*
    - Sampling Analysis Plans (SAP)
    - Aerial Assessments
    - Data Reports and Deliverables
    - TMDL Sections and Reports – Watershed Characterization and Water Quality Status
    - Public Involvement Strategy
    - Other Planning documents

9. *Next Steps:*
    - Public and Stakeholder Involvement Strategy roles – WAG meetings will be held at least annually and TAG meetings at least semi-annually. Both WAG/TAG can have additional meetings as needed.
    - List of reports will be made available to WAG/TAG members in the next few weeks.
    - Role of GGWC and BWTF – 319 Funds are made available to both watershed groups who provide local coordination. Their role is to provide local planning to the TMDL process. GGWC and BWTF help with restoration and implementation of TMDLs, on-going water quality trends and restoration tracking, and homegrown stewardship efforts.

Technical Discussion Topics/Questions:

- Is temperature or dewatering/low flow part of the TMDL?

  DEQ does evaluate dewatering and low flow conditions during its waterbody assessment process, and dewatering and low flows may be cited as sources of water quality impairment. DEQ does not develop TMDLs for low flow or dewatering issues but does address flows where they contribute to a specific pollutant impairment

  DEQ does consider excessive 'thermal load' a pollutant and does develop temperature TMDLs where data supports a determination that beneficial uses are impaired. There are presently no temperature impairment listings in the Upper and Lower Gallatin TMDL Planning areas.

- How does the TMDL address natural loads?

  It depends on the pollutant of concern and the established Montana water quality standard. TMDLs do not typically call for reductions of natural loads, but aim to reduce anthropogenic loads to levels that, in conjunction with natural loading, will maintain beneficial uses. The goal is to keep controllable, anthropogenic pollutant loads from impacting water quality.

  *For instance, **sediment standards** call for 'no increases above naturally occurring concentration that are deleterious to aquatic life' (paraphrased). In this case it is necessary to establish what the natural background condition is in order to determine whether sediment loading is above naturally occurring conditions AND whether the non-natural sediment load is impacting aquatic communities.*

  Nutrient and E.coli water quality standards are not based on a 'naturally occurring' condition, but on conditions believed to maintain the recreation uses of state waters. In these cases, naturally occurring conditions are commonly much lower than water quality standards.
  Also, in many cases ascertaining what is a 'naturally occurring' load is challenging and may require a variety of approaches to evaluate naturally occurring conditions.

- How are ecoli sampling sites chosen and evaluated?

  Sampling sites are chosen by 1) evaluating all existing sampling locations and data results, 2) evaluating the potential for in-stream ecoli contamination through recent aerial photo interpretation 3) site recon and field investigation and 4) consultation with local landowners and local resource professionals.

  Final ecoli sites are chosen so that known and potential local impacts may be evaluated against the State's water quality ecoli standard to determine whether standards are maintained. Care must be taken in choosing sites where impacts may be expected. Where no 'hot spots' or obvious contamination is observed, sites are chosen to adequately represent water quality throughout the reach.

*****NOTE:** DEQ adheres to Standard Operating Procedures for most technical assessments, water quality monitoring, collection and evaluation of biologic samples, and other technical procedures. For more information on these SOPs and how DEQ incorporates technical planning guidance into TMDL development, please see online documentation at http://www.deq.state.mt.us/wqinfo/QAProgram/index.asp and/or contact Pete Schade, TMDL Project manager at 444-6771 or pschade@mt.gov.

For more information, please contact:

Pete Schade, Senior TMDL Planner
Montana Department of Environmental Quality
(406) 444-6771
PSchade@mt.gov

Lower Gallatin:
Sharlyn Izurieta, Watershed Coordinator
Greater Gallatin Watershed Council
(406) 219-3739
info@greatergallatin.org

Upper Gallatin:
Kristin Gardner, Executive Director
Blue Water Task Force
(406)993-2519
bluewatertaskforce@gmail.com