

TMDL: Castle Rock Creek, Wisconsin
Effective Date:

DECISION DOCUMENT FOR THE APPROVAL OF THE CASTLE ROCK CREEK WATERSHED, WISCONSIN TMDLS

Section 303(d) of the Clean Water Act (CWA) and EPA’s implementing regulations at 40 C.F.R. Part 130 describe the statutory and regulatory requirements for approvable TMDLs. Additional information is generally necessary for EPA to determine if a submitted TMDL fulfills the legal requirements for approval under Section 303(d) and EPA regulations, and should be included in the submittal package. Use of the verb “must” below denotes information that is required to be submitted because it relates to elements of the TMDL required by the CWA and by regulation. Use of the term “should” below denotes information that is generally necessary for EPA to determine if a submitted TMDL is approvable. These TMDL review guidelines are not themselves regulations. They are an attempt to summarize and provide guidance regarding currently effective statutory and regulatory requirements relating to TMDLs. Any differences between these guidelines and EPA’s TMDL regulations should be resolved in favor of the regulations themselves.

1. Identification of Waterbody, Pollutant of Concern, Pollutant Sources, and Priority Ranking

The TMDL submittal should identify the waterbody as it appears on the State’s/Tribe’s 303(d) list. The waterbody should be identified/georeferenced using the National Hydrography Dataset (NHD), and the TMDL should clearly identify the pollutant for which the TMDL is being established. In addition, the TMDL should identify the priority ranking of the waterbody and specify the link between the pollutant of concern and the water quality standard (see section 2 below).

The TMDL submittal should include an identification of the point and non-point sources of the pollutant of concern, including location of the source(s) and the quantity of the loading, e.g., lbs/per day. The TMDL should provide the identification numbers of the NPDES permits within the waterbody. Where it is possible to separate natural background from non-point sources, the TMDL should include a description of the natural background. This information is necessary for EPA’s review of the load and wasteload allocations, which are required by regulation.

The TMDL submittal should also contain a description of any important assumptions made in developing the TMDL, such as:

- (1) the spatial extent of the watershed in which the impaired waterbody is located;
- (2) the assumed distribution of land use in the watershed (e.g., urban, forested, agriculture);
- (3) population characteristics, wildlife resources, and other relevant information affecting

- the characterization of the pollutant of concern and its allocation to sources;
- (4) present and future growth trends, if taken into consideration in preparing the TMDL (e.g., the TMDL could include the design capacity of a wastewater treatment facility); and
- (5) an explanation and analytical basis for expressing the TMDL through *surrogate measures*, if applicable. *Surrogate measures* are parameters such as percent fines and turbidity for sediment impairments; chlorophyll *a* and phosphorus loadings for excess algae; length of riparian buffer; or number of acres of best management practices.

Comments:

The Wisconsin Department of Natural Resources (WDNR) developed TMDLs for sediment and phosphorus for Castle Rock Creek (also known as Fennimore Creek) and Gunderson Valley Creek (Table 1). The TMDLs address the section of Castle Rock Creek from mile 15.5 to mile 26 (WBIC 1211300), and the entire 4 mile length of Gunderson Valley Creek (WBIC 1212600) (Page 1 of the final TMDL submittal). The TMDLs address the poor biotic community as a result of habitat degradation and low dissolved oxygen (DO) due to sedimentation and excessive nutrients in both creeks. WDNR has determined that Castle Rock Creek is not meeting the designated use of Class II Coldwater fishery (see #2 below), and that Gunderson Valley Creek is not meeting the designated use of Coldwater fishery. Both waters were therefore listed as impaired on the Wisconsin 2002 303(d) list. The pollutants causing these impairments were identified as sediment and phosphorus. These segments were ranked as high priority on the Wisconsin 2002 303(d) list.

The creeks are located in northeastern Grant County, Wisconsin. The Castle Rock Creek watershed is 39.1 miles in size. About 12% of the watershed is used for cropland, 57% is in pasture/grassland, and 27% is forest, based upon 1998 data (Page 1 of the final TMDL submittal). Gunderson Valley Creek drains an area of 5.7 miles, and is a tributary of Castle Rock Creek. The land use is similar for this watershed, as 12% of the land is used for cropland, 57% for pasture/grassland, and 30% is forested, based upon 1998 data (Page 1 of the final TMDL submittal).

WDNR monitoring surveys and sampling results from Castle Rock Creek shows that sediment has been washed into the creek, degrading the habitat for the biotic (specifically, the trout) community. Sediment in the streams covers the stream bed, which can hinder spawning, reduce potential food sources for the trout, and can reduce the water volume in pools which can serve as a haven for trout in low flow periods or during hot weather (page 3 of the final TMDL submittal). In addition, filamentous algae was found in the creek, indicating high levels of nutrients (page 3 of the final TMDL submittal). These algae can contribute to the low dissolved oxygen values found by WDNR in Gunderson Valley Creek, and can have a negative impact on habitat in the streams, thus impacting the biotic community (pages 3 and 4 of the final TMDL submittal). WDNR has targeted phosphorus reductions to reduce the filamentous algae, and thereby improve the habitat and biotic community, as well as sediment reductions (page 3 of the final TMDL submittal). For Gunderson Valley Creek, monitoring and sampling have shown that the waterbody has very high levels of phosphorus, which WDNR believes are the major cause of

the low DO values in the creek. There are also high levels of sediment in the stream, which, in conjunction with the high nutrient levels and low DO levels, severely degrade the habitat and biotic community (page 5 of the final TMDL submittal).

There are no point sources on either waterbody segment. WDNR believes that the major source of sediment and nutrients to the creeks is run-off from pasture and cropland, which is often manure-laden (pages 3 and 5 of the final TMDL submittal). The mechanism for transmitting these loads to the creeks is believed to be storm events, as WDNR has not noted any continuous sources of phosphorus to the streams.

EPA finds that the TMDL document submitted by WDNR satisfies all requirements of this first element.

2. Description of the Applicable Water Quality Standards and Numeric Water Quality Target

The TMDL submittal must include a description of the applicable State/Tribal water quality standard, including the designated use(s) of the waterbody, the applicable numeric or narrative water quality criterion, and the antidegradation policy. (40 C.F.R. §130.7(c)(1)). EPA needs this information to review the loading capacity determination, and load and wasteload allocations, which are required by regulation.

The TMDL submittal must identify a numeric water quality target(s) – a quantitative value used to measure whether or not the applicable water quality standard is attained. Generally, the pollutant of concern and the numeric water quality target are, respectively, the chemical causing the impairment and the numeric criteria for that chemical (e.g., chromium) contained in the water quality standard. The TMDL expresses the relationship between any necessary reduction of the pollutant of concern and the attainment of the numeric water quality target. Occasionally, the pollutant of concern is different from the pollutant that is the subject of the numeric water quality target (e.g., when the pollutant of concern is phosphorus and the numeric water quality target is expressed as Dissolved Oxygen (DO) criteria). In such cases, the TMDL submittal should explain the linkage between the pollutant of concern and the chosen numeric water quality target.

Comments:

WDNR has identified that the waterbodies are not meeting their designated use, which is the aquatic life use of Coldwater fishery as set forth at Section NR 102.04 (3) of the Wisconsin Administrative Code (WAC) as the applicable standard (pages 2-4 of the final TMDL submittal). All coldwater fish communities must meet the water quality criteria for DO at WAC NR 102.04(4)(e) (page 6 of the final TMDL submittal). Gunderson Valley Creek is not meeting the DO requirements of WAC NR 102.04(4)(e) which require DO values to be maintained above 6.0 mg/l at any time.

In addition, the WDNR standards at WAC NR 102.04(1) also apply. This standard states, in part, “[s]ubstances that will cause objectionable deposits on the shore or in the bed of a body of water, shall not be present in such amounts as to interfere with public rights in waters of the state.”

WDNR has determined that excessive algal growths due to high phosphorus levels and excessive sedimentation are impairing Castle Rock Creek and Gunderson Valley Creek. These impairments are causing violations of WAC NR 102.04(1) and (4)(e) discussed above.

Since there is no numeric WQS for phosphorus, WDNR has developed a site-specific in-water target for phosphorus to meet the narrative WQS in WAC NR 102.04(1) (page 7 of the final TMDL submittal). As discussed in #1 above, phosphorus has been determined by WDNR to be impairing the habitat and biotic community (page 3 of the final TMDL submittal). As explained in the TMDL, this phosphorus target is 0.095 mg/l of total phosphorus (TP), based upon an analysis of 25 streams in the southwestern portion of Wisconsin with similar watersheds. WDNR selected the 75th percentile of the data as the target (page 7 of the final TMDL submittal). By meeting this in-stream concentration and corresponding load, WDNR believes the waterbodies will meet the designated uses (pages 7-9 of the final TMDL). EPA agrees that the setting of these targets is reasonable, given the data available. The TMDL can be modified if necessary as additional data and information is gathered.

There is also no numeric WQS for sediment, and therefore, WDNR calculated a loading based upon similar streams that support a coldwater fishery (page 13 and 14 of the final TMDL; phone record with Jim Baumann, WDNR, 7/23/04) (see #3 below). As discussed in #1 above, sediment has been determined by WDNR to be impairing the fish community. The sediment loading was based upon a computer model, comparison of unit loads between the watersheds of concern and other similar watersheds supporting trout fisheries, and the best professional judgement of the WDNR staff (see #3 below). The loading of sediment to Castle Rock Creek is set at an annual load of 24,000 tons/year, and the loading of sediment to Gunderson Valley Creek is set at an annual loading of 3,400 tons/year. By meeting this in-stream concentration and corresponding load for TP and sediment, WDNR believes the waterbodies will meet the designated uses (pages 7-9 of the final TMDL).

EPA finds that the TMDL document submitted by WDNR satisfies all requirements of this second element.

3. Loading Capacity - Linking Water Quality and Pollutant Sources

A TMDL must identify the loading capacity of a waterbody for the applicable pollutant. EPA regulations define loading capacity as the greatest amount of a pollutant that a water can receive without violating water quality standards (40 C.F.R. §130.2(f)).

The pollutant loadings may be expressed as either mass-per-time, toxicity or other appropriate measure (40 C.F.R. §130.2(i)). If the TMDL is expressed in terms other than a daily

load, e.g., an annual load, the submittal should explain why it is appropriate to express the TMDL in the unit of measurement chosen. The TMDL submittal should describe the method used to establish the cause-and-effect relationship between the numeric target and the identified pollutant sources. In many instances, this method will be a water quality model.

The TMDL submittal should contain documentation supporting the TMDL analysis, including the basis for any assumptions; a discussion of strengths and weaknesses in the analytical process; and results from any water quality modeling. EPA needs this information to review the loading capacity determination, and load and wasteload allocations, which are required by regulation.

TMDLs must take into account *critical conditions* for stream flow, loading, and water quality parameters as part of the analysis of loading capacity. (40 C.F.R. §130.7(c)(1)). TMDLs should define applicable *critical conditions* and describe their approach to estimating both point and non-point source loadings under such *critical conditions*. In particular, the TMDL should discuss the approach used to compute and allocate non-point source loadings, e.g., meteorological conditions and land use distribution.

Comments:

Phosphorus: WDNR will consider that Castle Rock Creek and Gunderson Valley Creek are meeting the narrative WQSs when the algal growth is reduced and DO targets are met. To do this, WDNR has established a water quality target of 0.095 mg/l of TP. Table 2 (below) shows the total loading capacity for the two creeks. WDNR established loading capacities for phosphorus for Castle Rock Creek at two locations, Baumgartner Road and Homer Road. Baumgartner Road is an intermediate location on the creek which has a substantial amount of data, and Homer Road is at the downstream end of the watershed. The loading capacity at Baumgartner Road is 2.5 lbs/day of TP, and the loading capacity at Homer road is 3.0 lbs/day of TP. The loading capacity for Gunderson Valley Creek is 0.42 lbs/day (page 9 of the final TMDL submittal).

WDNR made a clear distinction between the phosphorus concentration that is needed to ensure the designated use is met, and the phosphorus load generated in the watershed (page 11 of the final TMDL submittal). The loading capacity shown in Table 2 below is based upon the phosphorus concentration needed to ensure the algae is eliminated. WDNR determined that a mass (load) reduction did not equal a concentration reduction (page 11 of the final TMDL submittal). WDNR has determined that much of the load into the waters is due to storm events, and therefore is often “flushed” through the creeks without being used by the algae. Therefore, the reduction in overall TP load (mass) in the watershed is not directly related to the reduction in TP needed to meet the target concentration (page 11 of the final TMDL submittal).

WDNR applied the Soil and Water Assessment Tool (SWAT) to estimate nutrient and sediment loads in 11 subwatersheds (page 12-13 of the TMDL). The model showed that the TP loads were much higher than would be expected based upon the TP concentrations already monitored. WDNR believes this demonstrates that much of the TP moves through the systems and is only

“deposited” in certain areas of the creeks (page 3 of the final TMDL submittal). WDNR simulated the elimination of overgrazing near the streams, and determined that the reductions in overall load would result in unit area loads in the TMDL watersheds similar to unit loads for other similar waters meeting their designated use (page 14 of the final TMDL submittal). Page 12 and 13 of the TMDL discusses the assumptions made in running the model, and the sources of model inputs. The EPA believes the model is appropriate given the data available, and the TMDL can be modified if necessary as new data and information is generated.

The total load capacity represents an approximate 45% reduction in TP at Baumgarten Road, and a 70% reduction in TP at Homer Road. In Gunderson Valley Creek, the TP reduction is 80%.

Sediment: WDNR will consider that Castle Rock Creek is meeting the narrative WQSs when the habitat improves and the coldwater fishery is restored. To do this, WDNR has determined the loading capacity to be 24,000 tons/yr for Castle Rock Creek, and 3,400 tons/yr for Gunderson Valley Creek (Table 2 below). This represents a reduction of 33% in sediment loads for Castle Rock Creek, and an 18% reduction in sediment loads for Gunderson Valley Creek (page 13 of the final TMDL submittal).

WDNR used the SWAT model to determine the current load of sediment transported into the streams (page 13 of the final TMDL submittal; phone record with Jim Baumann, WDNR, 7/23/04). The model was then run to determine the effects of elimination of overgrazing near the streams. This elimination had already been determined to address the TP loads. Once the reduced load was determined (24,000 tons/yr), then WDNR looked at the “unit area load”, defined as the annual load divided by the drainage area of the streams. Once this was calculated (page 14 of the TMDL), the results were compared to similar streams in this area of Wisconsin. The comparison shows that reducing sediment to 24,000 tons/yr in Castle Rock Creek and 3,400 tons/yr in Gunderson Valley Creek will result in unit load areas consistent with unit load areas in waters that are supporting trout fisheries. The relative load reductions were also reviewed by WDNR biology staff, who agreed that meeting the relative reduction targets should result in the fish community WQSs being met (phone record with Jim Baumann, WDNR, 7/23/04).

The critical condition for phosphorus was identified as summer base flow conditions, when temperatures are highest and conditions for algal growth are the greatest. For sediments, there is no one critical condition, as sediment impacts are present throughout the year. However, sediment loading does occur mainly during run-off events, and WDNR will be targeting those events for implementation activities (page 15 of the final TMDL submittal).

EPA finds that the TMDL document submitted by WDNR satisfies all requirements of this third element.

4. Load Allocations (LAs)

EPA regulations require that a TMDL include LAs, which identify the portion of the loading capacity attributed to existing and future non-point sources and to natural background.

Load allocations may range from reasonably accurate estimates to gross allotments (40 C.F.R. §130.2(g)). Where possible, load allocations should be described separately for natural background and non-point sources.

Comments:

Since there are no point sources in the watershed, and the margin of safety is implicit, the LA is equal to the loading capacity (TMDL). The load allocations for Castle Rock Creek are in Table 2 (below). For phosphorus, the LA is 3.0 lbs/day at Homer Road. A loading target was also set for an interim point on Castle Rock Creek 2.5 lbs/day at Baumgartner Road. For sediment, the LA is 24,000 tons/yr. For Gunderson Valley Creek, the phosphorus LA is 0.42 lbs/day, and for sediment the LA is 3,400 tons/yr. While WDNR did not determine the LA for subcategories or subwatersheds, the SWAT model did look at the tillage practices and nutrient inputs from various types of farming practices, which could be used by WDNR to more specifically target sediment and phosphorus reduction activities (page 12-13 of the final TMDL submittal).

EPA finds that the TMDL document submitted by WDNR satisfies all requirements of this fourth element.

5. Wasteload Allocations (WLAs)

EPA regulations require that a TMDL include WLAs, which identify the portion of the loading capacity allocated to individual existing and future point source(s) (40 C.F.R. §130.2(h), 40 C.F.R. §130.2(i)). In some cases, WLAs may cover more than one discharger, e.g., if the source is contained within a general permit.

The individual WLAs may take the form of uniform percentage reductions or individual mass based limitations for dischargers where it can be shown that this solution meets WQs and does not result in localized impairments. These individual WLAs may be adjusted during the NPDES permitting process. If the WLAs are adjusted, the individual effluent limits for each permit issued to a discharger on the impaired water must be consistent with the assumptions and requirements of the adjusted WLAs in the TMDL. If the WLAs are not adjusted, effluent limits contained in the permit must be consistent with the individual WLAs specified in the TMDL. If a draft permit provides for a higher load for a discharger than the corresponding individual WLA in the TMDL, the State/Tribe must demonstrate that the total WLA in the TMDL will be achieved through reductions in the remaining individual WLAs and that localized impairments will not result. All permittees should be notified of any deviations from the initial individual WLAs contained in the TMDL. EPA does not require the establishment of a new TMDL to reflect these revised allocations as long as the total WLA, as expressed in the TMDL, remains the same or decreases, and there is no reallocation between the total WLA and the total LA.

Comments:

The WLA for both Castle Rock Creek and Gunderson Valley Creek is 0, as there are no identified point sources in the watershed (page 9 of the final TMDL submittal).

EPA finds that the TMDL document submitted by WDNR satisfies all requirements of this fifth element.

6. Margin of Safety (MOS)

The statute and regulations require that a TMDL include a margin of safety (MOS) to account for any lack of knowledge concerning the relationship between load and wasteload allocations and water quality (CWA §303(d)(1)(C), 40 C.F.R. §130.7(c)(1)). EPA's 1991 TMDL Guidance explains that the MOS may be implicit, i.e., incorporated into the TMDL through conservative assumptions in the analysis, or explicit, i.e., expressed in the TMDL as loadings set aside for the MOS. If the MOS is implicit, the conservative assumptions in the analysis that account for the MOS must be described. If the MOS is explicit, the loading set aside for the MOS must be identified.

Comments:

WDNR included an implicit margin of safety by using conservative assumptions in the development of the TMDLs. WDNR underestimated the amount of phosphorus reduction that would be achieved by various reduction efforts when applying the SWAT model (page 14 of the final TMDL submittal). For example, the model run did not assume any reduction in either pollutant from cropped fields, only on the elimination of overgrazing (page 14 of the final TMDL submittal). WDNR anticipates that implementation activities could reasonably be expected to reduce the phosphorus and sediments loads running off cropped fields. The model also did not account for the use of vegetated buffers along the streams, which could reduce pollutant loads by 10%-15% or more.

The effect of these conservative assumptions is to underestimate the load of phosphorus reduced. If these measures are implemented, WDNR believes there will likely be far more reduction than needed to meet the water quality targets.

EPA finds that the TMDL document submitted by WDNR satisfies all requirements of this sixth element.

7. Seasonal Variation

The statute and regulations require that a TMDL be established with consideration of seasonal variations. The TMDL must describe the method chosen for including seasonal variations. (CWA §303(d)(1)(C), 40 C.F.R. §130.7(c)(1)).

Comments:

WDNR has accounted for seasonal variations in the TMDLs by focusing on the episodic nature of the sediment and nutrient loadings. Since the sediment and phosphorus loads are due to rainfall and snowmelt events (as opposed to the summer low flow critical condition when the phosphorus impacts on the biotic community are greatest), WDNR will target the implementation activities to ensure these loads are reduced.

EPA finds that the TMDL document submitted by WDNR satisfies all requirements of this seventh element.

8. Reasonable Assurances

When a TMDL is developed for waters impaired by point sources only, the issuance of a National Pollutant Discharge Elimination System (NPDES) permit(s) provides the reasonable assurance that the wasteload allocations contained in the TMDL will be achieved. This is because 40 C.F.R. 122.44(d)(1)(vii)(B) requires that effluent limits in permits be consistent with “the assumptions and requirements of any available wasteload allocation” in an approved TMDL.

When a TMDL is developed for waters impaired by both point and non-point sources, and the WLA is based on an assumption that non-point source load reductions will occur, EPA’s 1991 TMDL Guidance states that the TMDL should provide reasonable assurances that non-point source control measures will achieve expected load reductions in order for the TMDL to be approvable. This information is necessary for EPA to determine that the TMDL, including the load and wasteload allocations, has been established at a level necessary to implement water quality standards.

EPA’s August 1997 TMDL Guidance also directs Regions to work with States to achieve TMDL load allocations in waters impaired only by non-point sources. However, EPA cannot disapprove a TMDL for non-point source-only impaired waters, which do not have a demonstration of reasonable assurance that LAs will be achieved, because such a showing is not required by current regulations.

Comments:

WDNR has demonstrated adequate reasonable assurance that the non-point source reductions should occur by having various programs in place that will address the phosphorus and sediment loads into Castle Rock Creek and Gunderson Valley Creek.

WDNR has significant regulatory tools available to encourage or require that appropriate Best Management Practices (BMPs) become implemented. Under Ch. NR 151, Wis Adm Code, performance standards and prohibitions are described for BMPs that can be used to address the phosphorus and sediment loads into the streams. Waters that are impaired are prioritized for improvement (page 15 of the final TMDL submittal).

Grant County has applied for and received two Targeted Runoff Management Project Grants for implementation of BMPs in the watershed (page 15 of the final TMDL submittal). The watershed is also eligible under the Conservation Reserve Enhancement Program (CREP) to establish riparian buffers. The United States Department of Agriculture/ Natural Resources Conservation Service has funds available through the Environmental Quality Incentives Program (EQIP) to address conservation practices in the watersheds. Watersheds with approved TMDLs are prioritized under the funding rules in EQIP (NRCS final rule summary, 2003).

EPA finds that the TMDL document submitted by WDNR adequately addresses this eighth element.

9. Monitoring Plan to Track TMDL Effectiveness

EPA's 1991 document, *Guidance for Water Quality-Based Decisions: The TMDL Process* (EPA 440/4-91-001), recommends a monitoring plan to track the effectiveness of a TMDL, particularly when a TMDL involves both point and non-point sources, and the WLA is based on an assumption that non-point source load reductions will occur. Such a TMDL should provide assurances that non-point source controls will achieve expected load reductions and, such TMDL should include a monitoring plan that describes the additional data to be collected to determine if the load reductions provided for in the TMDL are occurring and leading to attainment of water quality standards.

Comments:

WDNR included a discussion of the monitoring proposed for Castle Rock Creek and Gunderson Valley Creek. Water quality and fishery data were gathered in 2001 and 2002, as well as in 1999 (Castle Rock Creek TMDL Project Final Report, WDNR, April, 2003). The local watershed group, the Castle Rock Creek Watershed Committee, has also collected data in 1998 and 2000. WDNR plans on continuing the monitoring of these streams every 3-5 years depending on resources and the progress of BMP installation. This will include both water quality and fishery data.

EPA finds that the TMDL document submitted by WDNR adequately addresses this ninth element.

10. Implementation

EPA policy encourages Regions to work in partnership with States/Tribes to achieve non-point source load allocations established for 303(d)-listed waters impaired by non-point sources. Regions may assist States/Tribes in developing implementation plans that include reasonable assurances that non-point source LAs established in TMDLs for waters impaired solely or primarily by non-point sources will in fact be achieved. In addition, EPA policy recognizes that other relevant watershed management processes may be used in the TMDL process. EPA is not required to and does not approve TMDL implementation plans.

Comments:

The Reasonable Assurance section of the TMDL report discusses the programs and projects to be implemented in the watershed. See Section 8 above for more details.

While this information was reviewed, it did not form a basis for the decision.

11. Public Participation

EPA policy is that there should be full and meaningful public participation in the TMDL development process. The TMDL regulations require that each State/Tribe must subject calculations to establish TMDLs to public review consistent with its own continuing planning process (40 C.F.R. §130.7(c)(1)(ii)). In guidance, EPA has explained that final TMDLs submitted to EPA for review and approval should describe the State's/Tribe's public participation process, including a summary of significant comments and the State's/Tribe's responses to those comments. When EPA establishes a TMDL, EPA regulations require EPA to publish a notice seeking public comment (40 C.F.R. §130.7(d)(2)).

Provision of inadequate public participation may be a basis for disapproving a TMDL. If EPA determines that a State/Tribe has not provided adequate public participation, EPA may defer its approval action until adequate public participation has been provided for, either by the State/Tribe or by EPA.

Comments:

There was public participation in the development of the elements of the two TMDLs consistent with Wisconsin's continuing planning process in Sections NR 120.08 and NR 121.07(1) of the WAC. A public notice was issued on January 27, 2004, and extended through March 1, 2004, for the TMDL. A news release was published as part of the weekly WDNR News which is available on the WDNR website. Copies of the news release were sent to daily and weekly newspapers, television, and radio stations state-wide, as well as interest groups and individuals. Over 900 notices were sent out. Copies of the public notice, and draft TMDLs were sent to the Grant County Land Conservation Department, to all members of the Castle Rock Creek Watershed Association, and other interested members of the public.

Two comments were received by WDNR on these TMDLs, and copies of the comments were submitted to the USEPA along with WDNR's responses. WDNR clarified changes to the TMDL report in the response to the comments.

EPA finds that the TMDL document submitted by WDNR satisfies all requirements of this eleventh element.

12. Submittal Letter

A submittal letter should be included with the TMDL submittal, and should specify whether the TMDL is being submitted for a *technical review* or *final review and approval*. Each final TMDL submitted to EPA should be accompanied by a submittal letter that explicitly states that the submittal is a final TMDL submitted under Section 303(d) of the Clean Water Act for EPA review and approval. This clearly establishes the State's/Tribe's intent to submit, and EPA's duty to review, the TMDL under the statute. The submittal letter, whether for technical review or final review and approval, should contain such identifying information as the name and location of the waterbody, and the pollutant(s) of concern.

Comments:

U.S. EPA received the Castle Rock Creek and Gunderson Valley Creek TMDLs on July 14, 2004, accompanied by a submittal letter dated July 6, 2004. The submittal letter stated that this is the final TMDL submittal for Castle Rock Creek and Gunderson Valley Creek, and includes a copy of the Final TMDL (monitoring) report, public notice information, and a copy of all comments and responses.

EPA finds that the TMDL document submitted by WDNR satisfies all requirements of this twelfth element

13. Conclusion

After a full and complete review, EPA finds that the TMDLs for Castle Rock Creek and Gunderson Valley Creek satisfy all of the elements of a approvable TMDLs. This document addresses TMDLs for 2 waterbodies for 2 pollutants each for a total of 4 TMDLs addressing 3 impairments from the 2002 Wisconsin 303d list (Table 1).

EPA's approval of this TMDL does not extend to those waters that are within Indian Country, as defined in 18 U.S.C. Section 1151. EPA is taking no action to approve or disapprove TMDLs for those waters at this time. EPA, or eligible Indian Tribes, as appropriate, will retain responsibilities under the CWA Section 303(d) for those waters.

Table 1

<u>Waterbody</u>	<u>Pollutant</u>	<u>Impairments</u>
Castle Rock Creek	phosphorus, sediment	degraded habitat
Gunderson Valley Creek	phosphorus, sediment	low DO, sedimentation

Table 2

phosphorus

waterbody	loading capacity (lbs/day)	WLA	LA	reduction %
Castle Rock Creek - Baumgartner Rd	2.5	0	2.5	45
Castle Rock Creek - Homer Rd.	3.0	0	3.0	70
Gunderson Valley Creek	0.42	0	0.42	80

Sediment

waterbody	loading capacity (tons/year)	WLA	LA	reduction %
Castle Rock Creek	24,000	0	24,000	33
Gunderson Valley Creek	3,400	0	3,400	18