April 22, 2005

TO: INTERESTED PARTIES

RE: Royalton Wastewater Treatment Facility Expansion

Enclosed is the Environmental Assessment Worksheet (EAW) for the proposed Royalton Wastewater Treatment Facility Expansion, Benton County. The EAW was prepared by the Minnesota Pollution Control Agency (MPCA) and is being distributed for a 30-day review and comment period pursuant to the Environmental Quality Board (EQB) rules. The comment period will begin the day the EAW availability notice is published in the EQB Monitor, which will likely occur in the April 25, 2005, issue.

In addition to the EAW, the MPCA’s draft National Pollution Discharge Elimination System Permit will also be available for public comment concurrently, beginning April 25, 2005. The contact person for the Discharge Permit is Robin Novotny at (218) 828-6114.

Comments received on the EAW will be used by the MPCA in evaluating the potential for significant environmental effects from this project and deciding on the need for an Environmental Impact Statement (EIS).

A final decision on the need for an EIS will be made by the MPCA Commissioner after the end of the comment period. If a request for an EIS is received during the comment period, or if the Commissioner recommends the preparation of an EIS, the MPCA Citizens’ Board (Board) will make the final decision. The final EIS need decision will also be made by the Board if so requested by the project proposer, other interested parties or MPCA staff and if this request is agreed to by one or more members of the Board or the MPCA Commissioner. The Board meets once a month, usually the fourth Tuesday of each month, at the MPCA office in St. Paul. Meetings are open to the public and interested persons may offer testimony on Board agenda items. A listing of Board members is available on request by calling (651) 296-7306.

Please note that comment letters submitted to the MPCA do become public documents and will be part of the official public record for this project.

If you have any questions on the EAW, please contact Lynne Kolze of my staff at (651) 282-5992.

Sincerely,

Beth G. Lockwood
Supervisor, Environmental Review Unit
Environmental Review and Operations Section
Regional Division

BGL:mln

Enclosure
**ENVIRONMENTAL ASSESSMENT WORKSHEET**

**Note to reviewers:** The Environmental Assessment Worksheet (EAW) provides information about a project that may have the potential for significant environmental effects. This EAW was prepared by the Minnesota Pollution Control Agency (MPCA), acting as the Responsible Governmental Unit (RGU), to determine whether an Environmental Impact Statement (EIS) should be prepared. The project proposer supplied reasonably accessible data for, but did not complete the final worksheet. Comments on the EAW must be submitted to the MPCA during the 30-day comment period which begins with notice of the availability of the EAW in the *Minnesota Environmental Quality Board (EQB) Monitor*. Comments on the EAW should address the accuracy and completeness of information, potential impacts that are reasonably expected to occur that warrant further investigation, and the need for an EIS. A copy of the EAW may be obtained from the MPCA by calling (651) 296-7398. An electronic version of the completed EAW is available at the MPCA Web site [http://www.pca.state.mn.us/news/eaw/index.html#open-eaw](http://www.pca.state.mn.us/news/eaw/index.html#open-eaw).

1. **Project Title:** Royalton Wastewater Treatment Facility Expansion

2. **Proposer:** City of Royalton  
   **Contact Person** Les Mateffy  
   **Address** 629 Old Highway 8 Northwest, New Brighton, Minnesota 55112-7767  
   **Phone** (651) 636-6166  

3. **RGU:** Minnesota Pollution Control Agency  
   **Contact Person** Lynne Kolze  
   **Address** 520 Lafayette Road North, St. Paul, Minnesota 55155  
   **Phone** (651) 282-5992

4. **Reason for EAW Preparation:**  
   - EIS Scoping  
   - Mandatory EAW X  
   - Citizen Petition  
   - RGU Discretion  
   - Proposer Volunteered  
   **If EAW or EIS is mandatory give EQB rule category subpart number and name:** Minn. R. 4410.4300 subp. 18

5. **Project Location:**  
   **County** Benton  
   **City/Twp** Royalton  
   **N W** 1/4  
   **NE W** 1/4  
   **Section** 2  
   **Township** 39N  
   **Range** 32W
6. Description:

a. Provide a project summary of 50 words or less to be published in the EQB Monitor.

The City of Royalton, Minnesota is proposing to expand its existing municipal Wastewater Treatment Facility (WWTF). The existing WWTF is designed to treat 75,000 gallons per day (gpd) Average Wet Weather Flow (AWW). The new WWTF would treat approximately 173,000 gpd (AWW) of wastewater and would discharge its effluent to the Platte River.

b. Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.

Background

The city of Royalton’s (City) existing WWTF has been in operation for approximately 35 years. The original stabilization ponds were constructed in 1969 and then reconstructed in 1985. The WWTF currently consists of two stabilization ponds (Figures 1-3). The primary treatment pond is approximately eight acres in size. The secondary treatment pond is approximately four acres in size. The existing ponds are constructed of earth (primarily sands) and lined with a Polyvinyl Chloride (PVC) liner to protect ground water. The treatment system is sized to treat approximately 75,000 gpd AWW of normal municipal strength wastewater.

To date, the ponds have performed well in treating wastewater to state water quality standards. However, the City is expecting substantial population growth and is planning ahead to meet the needs of their expanding community. The City has considered a number of different wastewater treatment alternatives. These included regionalizing the treatment system with the city of Rice, constructing non-aerated facultative treatment ponds, installing an activated sludge plant, and expanding the existing WWTF by constructing additional aerated ponds. The option that best suited the City's needs was expanding the existing WWTF. For a more detailed discussion of the alternatives that were considered by the City, see Item 31.

Proposed Expansion

The new WWTF will be designed to have three new aerated primary treatment ponds, two secondary treatment ponds, a chlorination and dechlorination system and two sand filters (Figure 4).
A. Primary Treatment Ponds

Primary treatment ponds remove solids and provide the first level of treatment for wastewater. Two of the three new one-acre aerated primary treatment cells will have dimensions of 381 feet (length) by 126 feet (width) by 16.5 feet (depth). The third new primary aerated pond will have dimensions of 381 feet by 136 feet.

The ponds will be built in an area where there are primarily sandy soils, which are highly permeable. To prevent an unacceptable level of leakage from the ponds, each will be lined with a PVC liner, similar to those which have been used in the existing ponds. The liner would then be covered with a foot of clean sand. Liners will allow the ponds to meet the state standard for pond leakage of 500 gallons per acre per day.

The dike slopes of the pond will be constructed using normal earth moving equipment. Bulldozers, backhoes, excavators, dump trucks, scrapers, and other similar equipment will be used to construct them.

B. Secondary Treatment Ponds

The two existing ponds would be converted to secondary treatment ponds. Additional wastewater treatment and polishing will occur within these ponds. Their dimensions will remain the same at 150 feet (length) by 150 feet (width) by 4.5 feet (depth). The ponds will be equipped with a submerged aeration system to allow for treatment of additional wastewater as the community grows. Chlorination to destroy bacteria and pathogens, and dechlorination to reduce chlorine levels will also occur within these ponds. Removal of residual chlorine is required for the protection of aquatic life.

C. Sand Filters

Two half-acre sand filters will also be constructed to filter water leaving the secondary treatment ponds. These filters would be used, when necessary, to meet water quality standards. The filters will be equipped with an alum feed to assist in the removal of phosphorus, when needed. Treated water will be discharged to the Platte River. The reconfigured and expanded WWTF will be capable of meeting all state water quality standards, including a new requirement to meet a one milligrams per liter (mg/L) phosphorus effluent limit.

Construction Schedule

The expansion would begin and be completed during the 2005 construction season, after all necessary approvals have been received.

c. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

The purpose of the project is to meet the wastewater treatment needs of a growing community. The project has been designed to meet wastewater treatment needs for the next 20 years. The City intends to support growth and development while ensuring that local surface waters are protected. The City will be responsible for implementing this project. City residents and businesses will benefit from the expansion. Without the expansion, growth in the community would be hindered over the long-term.
Currently, the City has a population of 816. Within the next 20 years, that population is expected to grow by at least 25 percent. The City is currently being approached by developers who wish to build residential subdivisions. Given the growth projections for the Twin Cities Metropolitan Area, Royalton’s population could actually double within the next 20 years. Consequently, expansion of the WWTF appears inevitable and essential to the long-term economic health of the community.

d. Are future stages of this development including development on any outlots planned or likely to happen?  
\[ \checkmark \] Yes  \[ \square \] No 
If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

Future expansions of the WWTF will be necessary, however, this project, as proposed, should meet the needs of the community for the next 20 years. Should growth exceed projections, an expansion will be needed sooner, and depending upon the size of the expansion may require the development of another EAW.

e. Is this project a subsequent stage of an earlier project? \[ \checkmark \] Yes  \[ \checkmark \] No 
If yes, briefly describe the past development, timeline and any past environmental review.

Royalton constructed its original wastewater treatment and collection facility in the late 1960's. Upgrades of that system were completed in the mid-1980's. An EAW was developed on the project at that time and a negative declaration on the need for an EIS was issued.

7. **Project Magnitude Data**

<table>
<thead>
<tr>
<th>Total Project Area (acres)</th>
<th>40</th>
<th>or Length (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Residential Units:</td>
<td>Unattached</td>
<td>NA</td>
</tr>
<tr>
<td>Commercial/Industrial/Institutional Building Area (gross floor space):</td>
<td>total square feet</td>
<td>NA</td>
</tr>
<tr>
<td>Indicate area of specific uses (in square feet):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>NA</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>Retail</td>
<td>NA</td>
<td>Other Industrial</td>
</tr>
<tr>
<td>Warehouse</td>
<td>NA</td>
<td>Institutional</td>
</tr>
<tr>
<td>Light Industrial</td>
<td>NA</td>
<td>Agricultural</td>
</tr>
<tr>
<td>Other Commercial (specify)</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Building height</td>
<td>If over 2 stories, compare to heights of nearby buildings</td>
<td></td>
</tr>
</tbody>
</table>

8. **Permits and approvals required.** List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans, and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure.

<table>
<thead>
<tr>
<th>Unit of Government</th>
<th>Type of Application</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPCA</td>
<td>Sanitary Sewer Extension Permit</td>
<td>Draft Permit is currently on public notice</td>
</tr>
<tr>
<td>MPCA</td>
<td>Modification of National Pollutant Discharge Elimination System (NPDES) Permit</td>
<td></td>
</tr>
<tr>
<td>MPCA</td>
<td>Facility Plan</td>
<td>Approved</td>
</tr>
<tr>
<td>MPCA</td>
<td>Plans and Specifications</td>
<td>Approval pending</td>
</tr>
<tr>
<td>DNR</td>
<td>Water Appropriation Permit</td>
<td>Pending</td>
</tr>
<tr>
<td>City Bond Council</td>
<td>Financing</td>
<td>Pending</td>
</tr>
</tbody>
</table>
9. **Land use.** Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines.

It is believed that prior to 1969, the site of the WWTF was used for farming or as a woodlot. Recently, the land has been used for wastewater ponds, leaf, grass, and brush composting, and farming. Approximately 800 people live within a one-mile radius of the WWTF, most to the north of the existing ponds. Land to the south, east and west of the WWTF is currently used for row crop agriculture.

Royalton is currently reviewing a developer’s proposal to build a residential subdivision across the street from the WWTF. The developer has agreed to notify each homeowner within the subdivision of the fact that they will be in close proximity to a WWTF and that there may be some odors from time to time. Given that the expanded WWTF will, for the first time, have aerated ponds, the potential for odor problems will be reduced over existing conditions. To date, there have not been complaints to the City about odors from the existing WWTF. The City does not expect that neighboring residences will be impacted by the expanded WWTF.

There have been no past environmental conflicts, contamination or hazards at the site.

10. **Cover Types.** Estimate the acreage of the site with each of the following cover types before and after development:

<table>
<thead>
<tr>
<th>Types 1-8 wetlands</th>
<th>Before</th>
<th>After</th>
<th>Lawn/landscaping</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wooded/forest</td>
<td>8.5</td>
<td>7</td>
<td>Impervious Surfaces</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Brush/grassland</td>
<td>0</td>
<td>0</td>
<td>Other(ponds +filter)</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Cropland</td>
<td>7.5</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>40</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. **Fish, Wildlife, and Ecologically Sensitive Resources.**

   a. Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.

Some portions of the site currently have habitat value. There is a small wooded area to the east of the proposed ponds. Some of the trees (approximately 1.5 acres) will have to be removed to make room for the ponds and filters. Consequently, some habitat will be lost for song birds, raptors and small mammals. Displaced animals will have to move to other areas where they may have to compete for territory and food. Some mortality may occur as a result, though impacts are not expected to be substantial.

For many years, this property has been used for farming, wastewater treatment ponds and composting activities. While the site is close to the Platte River, its footprint will be outside of the 100-year and 500-year floodplains.
b. Are any state (endangered or threatened) species, rare plant communities, or other sensitive ecological resources such as native prairie habitat, colonial waterbird nesting colonies, or regionally rare plant communities on or near the site? ☒ Yes ☐ No

If yes, describe the resource and how it would be affected by the project. Indicate if a site survey of the resources has been conducted and describe the results. If the DNR Natural Heritage and Nongame Research program has been contacted give the correspondence reference number: **ERDBZ0030544**

Describe measures to minimize or avoid adverse impacts.

The DNR has identified one sensitive natural community and one special concern specie in the vicinity of the project. Specifically, a Dry Prairie Sand Gravel Subtype has been identified on the steep west-facing slope above the Mississippi River. This natural community is not within the proposed project area, so impacts will not occur.

Three Bald Eagle nests have been found in recent years within one mile of the WWTF site. Two of the three nests are now gone. The DNR has determined that based on the nature and location of the proposed project, it should not effect the remaining nesting site. (Figure 5)

12. **Physical Impacts on Water Resources.** Will the project involve the physical or hydrologic alteration (dredging, filling, stream diversion, outfall structure, diking, and impoundment) of any surface waters such as a lake, pond, wetland, stream or drainage ditch? ☒ Yes ☐ No

If yes, identify water resource affected. Describe alternatives considered and proposed mitigation measures to minimize impacts. Give the DNR Protected Waters Inventory (PWI) number(s) if the water resources affected are on the PWI.

The outfall structure for the existing WWTF is located approximately 210 feet southeast of the existing WWTF (Figure 6). The proposal is to continue to use this outfall for the expanded WWTF.

13. **Water Use.** Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)? ☒ Yes ☐ No

If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and DNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

A temporary DNR Appropriation Permit will be required during the time that the pre-fill water balance tests are conducted on the new ponds. In order to conduct this test, the City will have to withdraw 7.5 million gallons of water from the Platte River and use that to fill the new ponds to a 13.5-foot depth. The water will be withdrawn from the river in an area approximately 500 feet southeast of the existing ponds. This test will help to determine whether the new ponds are leaking at an unacceptable rate. If so, changes to the lining system would have to be made.

Water removed from the Platte River will eventually be returned to the river prior to the start-up of the newly expanded WWTF.
14. **Water-related land use management districts.** Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district? ☒ Yes ☐ No

If yes, identify the district and discuss project compatibility with district land use restrictions.

The project is within 1,000 feet of the Platte River. The project has been designed to meet all pertinent land use ordinances developed by the City. The project is close to the 500 year flood plain, but does not infringe on that or the 100 year flood plain.

15. **Water Surface Use.** Will the project change the number or type of watercraft on any water body? ☐ Yes ☒ No

If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses.

16. **Erosion and Sedimentation.** Give the acreage to be graded or excavated and the cubic yards of soil to be moved: 40 acres; 50,000 cubic yards. Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.

There are no steep slopes or highly erodible soils on the project site. The soils on the site are quite sandy. A large area will be disturbed during construction of the ponds. While this activity is taking place, the City will install silt fencing, berms, and vegetated buffer strips to control erosion and sedimentation. Once the ponds have been completed, all disturbed areas will be reseeded or sodded. This should significantly reduce the potential for soil erosion after the WWTF is operating. The majority of the precipitation falling on this site should remain there, either within the ponds or infiltrated into the grassy areas around them.

17. **Water Quality – Surface-water Runoff.**

a. Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any storm water pollution prevention plans.

At the present time, a portion of the site of the existing WWTF is being used for row crop agriculture. This land use typically contributes nonpoint sources of pollution to surface water, although it has never been quantified at this site. The new WWTF will take approximately 5.5 acres of cropland out of production, potentially reducing the amount of fertilizers, nutrients and soil that leaves this site. The expanded number of ponds would serve as catchments for precipitation, reducing surface runoff to some degree. Water would be released to the Platte River at a controlled rate rather than at the unpredictable levels that can occur presently.

Best Management Practices (BMPs) will be implemented during construction to prevent polluted runoff from reaching the Platte River. The proposer will utilize BMPs such as silt fences, bale or rock check dams, vegetated buffer strips, grassed swales, and temporary storm ponds. After construction is completed, all disturbed areas will be reseeded and stabilized. The quality and quantity of runoff leaving the project site should not change appreciably as a result of the WWTF expansion.
b. Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate impact runoff on the quality of receiving waters.

Should runoff move off site, it would move toward the east toward the Platte River. Prior to reaching the river, the runoff will move over grassed and vegetated areas where infiltration and some filtration will occur. Runoff, once in the Platte River, would eventually reach the Mississippi River. Runoff from this project will have negligible effects on the Platte and Mississippi Rivers.


a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.

The WWTF will be designed to treat normal domestic wastewater. Royalton does have several industries, however, none produce high-strength waste that would require pretreatment prior to its discharge to the City sewer system.

The composition of raw wastewater entering the WWTF has the following characteristics:

- Influent Biochemical Oxygen Demand (CBOD5) 260mg/L
- Total Suspended Solids (TSS) 280mg/L
- Ph 7-9
- Phosphorus 7-10mg/L

b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies, and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.

Proposed Design

The proposed expansion will include the construction of three new one-acre aerated primary treatment cells, each approximately 16.5 feet (in depth). The soils in the area are primarily sands which are highly permeable. To prevent unacceptable levels of leakage from the ponds, all will be lined with PVC liners, similar to those which have been used in the existing ponds. Liners would then be covered with one foot of clean sand. Liners would ensure that the ponds do not leak at a rate greater than 500 gallons per acre, per day, which is a state standard for stabilization ponds. The ponds would be constructed to maintain or exceed the required separation distance of four feet above the ground water.

The dike slopes of the pond will be constructed using normal earth moving equipment. Bulldozers, backhoes, excavators, dump trucks, scrapers, and other similar equipment will be used to construct the new ponds.

Within primary treatment ponds, natural physical and chemical processes break down some pollutants. By continuously aerating wastewater in the primary ponds, bacteria and other microorganisms can more efficiently remove wastes from the water. Aerated ponds provide faster waste treatment, allow for shorter detention times and a smaller facility footprint. The primary treatment ponds would hold wastewater for up to 46 days. Water would be then discharged to the secondary treatment ponds.
The dimensions of the secondary ponds would remain the same at 150 feet (length) by 150 feet (width) by 4.5 feet (depth). As partially treated wastewater enters the secondary treatment ponds, liquid alum would be added to reduce phosphorus levels and remove additional solids. After an appropriate detention time, wastewater would be chlorinated to kill harmful bacteria, then dechlorinated to protect aquatic life in the Platte River.

The water would then move to two half-acre sand filters which will be constructed for final polishing of the wastewater. The filters, each 150 feet (length) by 150 feet (width) by 4.5 feet (depth), will be used when necessary to meet water quality standards. The filters would only be used if there was a concern that solids or phosphorus levels in the effluent would be too high. After this final polishing, effluent would be discharged to the Platte River on a continuous basis, 365 days per year.

Proposed Effluent Limitations

This reach of the Platte River is classified as 2B (Aquatic Life and Recreation Category), 3B (Industrial Consumption Category), 4A (Crop Irrigation Category), 4B (Livestock and Wildlife Watering Category), 5 (Aesthetic Enjoyment and Navigation Category), and 6 (Other Uses) waters. The quality of such as water should permit the propagation and maintenance of a healthy community of cool or warm water fish and their related habitat. These waters should also be safe for direct body contact.

The reconfigured WWTF will be capable of meeting all state water quality standards, including a new requirement to meet a one mg/L phosphorus effluent limit. The treated wastewater that is discharged to the Platte River must meet the following effluent limitations:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBOD</td>
<td>25 mg/L</td>
</tr>
<tr>
<td>TSS</td>
<td>45 mg/L</td>
</tr>
<tr>
<td>Fecal Coliform</td>
<td>200 organisms/100ml</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>1 mg/L (monthly average)</td>
</tr>
<tr>
<td>PH range</td>
<td>6-9 standard units</td>
</tr>
<tr>
<td>Ammonia as Nitrogen</td>
<td>17 mg/L (June – September)</td>
</tr>
</tbody>
</table>

Water Quality Impacts

Once water leaves the WWTF outfall, it would travel 5.5 miles to the confluence of the Mississippi River. The Mississippi River is an outstanding resource value water (ORVW) at the confluence of the Platte River. Effluent limitations proposed for the expanded WWTF are expected to assure no deterioration in the quality of this downstream ORVW. Also, the ORVW designation for this reach of the Mississippi River terminates one-half mile downstream at the county line between Morrison and Sherburne Counties.

Lake Pepin, a lake on the Mississippi River near Lake City, Minnesota, is also downstream of the proposed discharge. Lake Pepin was placed on the 2002 MPCA Clean Water Act Section 303d Total Maximum Daily Load (TMDL) list of impaired waters due to excess algal growth in Lake Pepin. Federal regulations (40 CFR 122.4(I)) state that NPDES Permits for new or expanded discharges are not to be issued if the discharge causes or contributes to violation of a water quality standard for a TMDL listed water.
In an effort to protect the receiving waters from further degradation, increases in phosphorus loading upstream of Lake Pepin will be limited to reduce degradation of this important resource. Once a TMDL is established for Lake Pepin, additional controls or limits may be required. The policy for new or expanded discharges upstream of Lake Pepin is still under development at this time. In the interim, the MPCA phosphorus strategy is utilized to set phosphorus limits for facilities upstream of Lake Pepin.

Due to the fact that this is an expanding discharge upstream of Lake Pepin, where phosphorus is a concern due to cumulative sources, and that the WWTF would cause an increased loading of phosphorus greater than 1,800 pounds per year, the “de minimus level”, the MPCA phosphorus strategy indicates a phosphorus limit must be assigned. Lower phosphorus limits may be established at some in the future if it can be shown that it will protect water quality in the Mississippi River and Lake Pepin.

c. If wastes will be discharged into a publicly owned treatment facility, identify the facility, describe any pretreatment provisions and discuss the facility’s ability to handle the volume and composition of wastes, identifying any improvements necessary

Not applicable.

d. If the project requires disposal of liquid animal manure, describe disposal technique and location and discuss capacity to handle the volume and composition of manure. Identify any improvements necessary. Describe any required setbacks for land disposal systems.

Not applicable.

19. Geologic hazards and soil conditions.

a. Approximate depth (in feet) to Ground water: 15 minimum; 15 average.
   Bedrock: 100 ± minimum; 100 ± average.

Describe any of the following geologic site hazards to ground water and also identify them on the site map: sinkholes, shallow limestone formations or karst conditions. Describe measures to avoid or minimize environmental problems due to any of these hazards.

Sinkholes, limestone formations, and karst formations are not known to exist in this area of Minnesota.

b. Describe the soils on the site, giving SCS classifications, if known. –Discuss soil granularity and potential for ground-water contamination from wastes or chemicals spread or spilled onto the soils. Discuss any mitigation measures to prevent such contamination.

The site consists primarily of sandy soils. The soils are identified as Hubbard loamy sand (7A +7B), with 7A most commonly found. The soils underlying the ponds are quite permeable, requiring that the new ponds include PVC synthetic liners to prevent contamination of the ground water. The liners will be 30 millimeters thick and are a proven technology used to protect ground water. Approximately every five years, the City will have to conduct a desktop water balance test to ensure that leakage has not increased to an unacceptable level.
20. **Solid Wastes, Hazardous Wastes, Storage Tanks.**

   a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.

   Biosolids are typically anaerobically digested (without oxygen) in wastewater ponds. Past probes have indicated that there is no significant biosolids buildup in the bottom of the existing ponds. This is not expected to change in the new ponds. If at some point biosolids need to be removed, they will be taken to a proper land fill or land application site.

   b. Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating ground water. If the use of toxic or hazardous materials will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.

   Liquid sodium and sodium bisulfate, used for dechlorination, and hypochlorite, used for disinfection will be stored and used on site. These chemicals (in the small quantities, less than 300 gallons) do not pose a threat to the environment. Should a spill or leak occur, plant personnel will handle chemicals according to the recommended practices for each respective chemical.

   c. Indicate the number, location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.

   Liquid alum will be used to reduce phosphorus levels in the WWTF’s effluent. The alum will be stored in two - 550 gallon above ground polyethylene storage tanks. These tanks will be inside polyethylene emergency spill containment tanks. The spill containment tanks will capture 100 percent of any chemical that might leak from the bulk storage tanks. Should a leak or spill occur, the public works staff will notify the MPCA and follow procedures required by the Material Safety Data sheets which are provided by the chemical supplier.

21. **Traffic.** Parking spaces added: 0  Existing spaces (if project involves expansion): 0

   Estimated total average daily traffic generated: 1
   Estimated maximum peak hour traffic generated (if known) and its timing: 8:00am to 5:00 pm
   Provide an estimate of the impact on traffic congestion affected roads and describe any traffic improvements necessary. 1 car per hour. If the project is within the Twin Cities metropolitan area, discuss its impact on the regional transportation system.

   This project will not cause an increase in traffic in the vicinity of the proposed site.

22. **Vehicle-related Air Emissions.** Estimate the effect of the project’s traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts. Note: If the project involves 500 or more parking spaces, consult *EAW Guidelines* about whether a detailed air quality analysis is needed.

   Not applicable.
23. **Stationary Source Air Emissions.** Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants (consult EAW Guidelines for a listing), any greenhouse gases (such as carbon dioxide, methane, and nitrous oxides), and ozone-depleting chemicals (chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons or sulfur hexafluoride). Also describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.

Wastewater ponds can cause some odors for a few weeks in the spring and fall. Typically these odors are not noticed beyond the property boundaries. These odors are primarily nuisances and do not propose a known health threat. As a result of using continuous aeration in the primary treatment ponds, odors should be reduced from existing levels.

24. **Odors, noise and dust.** Will the project generate odors, noise or dust during construction or during operation? ☒ Yes ☐ No

If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)

**Odors** – To date, this WWTF has had no odor complaints from neighbors. Installation of aeration devices should further reduce odors from this operation. Proper operation of the WWTF will also minimize odor problems.

**Noise and Dust** - A small amount of noise and dust would be generated during the construction process. The levels of noise and dust would be similar to that which is currently caused by farming practices in the area. If dust becomes a problem on haul roads, the City will periodically water these areas to control it. Noise may be somewhat noticeable from the roads, however, there are no residents living in close proximity to the new ponds, limiting potential impacts substantially. Noise can also be muffled to some degree with proper mufflers and by operating during daylight hours.

Impacts from odors, noise and dust should be negligible given the location of the WWTF, the lack of nearby receptors, the temporary duration of the construction process and the constant aeration of the primary stabilization ponds.

25. **Nearby resources.** Are any of the following resources on or in proximity to the site?

a. Archaeological, historical, or architectural resources? ☒ Yes ☐ No  *See Figure 7*
b. Prime or unique farmlands or land within an agricultural preserve? ☒ Yes ☐ No
c. Designated parks, recreation areas, or trails? ☒ Yes ☐ No
d. Scenic views and vistas? ☒ Yes ☐ No
e. Other unique resources? ☒ Yes ☐ No

If yes, describe the resource and identify any project-related impacts on the resources. Describe any measures to minimize or avoid adverse impacts.

A dry prairie and eagle’s nests were present within Section 10, however neither of these features would be impacted by this project. A small portion of the Red River Trail has been identified about 3/8 of a mile SE of the site. Construction activities should not impact use of this trail.
26. **Visual impacts.** Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks?  
☐ Yes  ☒ No  
If yes, explain.

27. **Compatibility with plans and land use regulations.** Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency?  
☒ Yes  ☐ No  
If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.

This project complies with City zoning and land use regulations.

28. **Impact on infrastructure and public services.** Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project?  
☐ Yes  ☒ No  
If yes, describe the new or additional infrastructure or services needed. (Note: any infrastructure that is a connected action with respect to the project must be assessed in the EAW; see EAW Guidelines for details.)

29. **Cumulative impacts.** Minn. R. 4410.1700, subp. 7, item B requires that the RGU consider the “cumulative potential effects of related or anticipated future projects” when determining the need for an environmental impact statement. Identify any past, present or reasonably foreseeable future projects that may interact with the project described in this EAW in such a way as to cause cumulative impacts. Describe the nature of the cumulative impacts and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to cumulative impacts (or discuss each cumulative impact under appropriate item(s) elsewhere on this form).

In general, the expansion of municipal utilities encourages or enables new development within a service area. Due to its proximity to St. Cloud, Royalton is expected to grow by 25-100 percent over the next 20 years. Development would be encouraged in accordance with local zoning ordinances, comprehensive plans, and state codes and regulations intended to manage, minimize or eliminate adverse environmental impacts. However, new development in the community would result in increased traffic, air pollution, storm water runoff, and solid waste generation. As residential and commercial areas expand, the amount of farmland, open space and wildlife habitat in an area would decrease. The communities within the service area would need to regularly assess and address impacts that would occur due to the secondary development.

New development would also result in increases in impervious surfaces and an increase in the amount of precipitation that may run off into surface waters. Surface waters will be protected to some degree by the requirements of the NPDES General Stormwater Permit for Construction Activity. This Permit requires use of BMPs and incorporation of stormwater ponds in areas where new construction is occurring. In addition, individual development projects may be subject to environmental review and the preparation of project-specific EAWs or an Alternative Urban Areawide Review. Future sanitary sewer extensions would require a Permit from the MPCA.

30. **Other Potential Environmental Impacts.** If the project may cause any adverse environmental impacts not addressed by items 1 to 28, identify and discuss them here, along with any proposed mitigation.

None.
31. **Summary of issues.** List any impacts and issues identified above that may require further investigation before the project is begun. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.

The City considered a number of alternatives before selecting the treatment system described above. These alternatives included:

1. **Taking No Action** – This alternative has the largest adverse effect. Taking no action would be in direct conflict with the City’s comprehensive plan and Morrison County’s Economic Development Plan. By doing nothing, the City would effectively limit or stop development within the City limits for the foreseeable future.

2. **Regionalization with the Rice WWTF** – This alternative would involve installing a lift station and a force main that would pump wastes to a site far outside of the existing planning area. This option was not considered feasible due to the cost of pumping waste long distances for treatment.

3. **Expansion of the Existing Stabilization Ponds** – While this option would produce environmental benefits, to double the capacity of the existing WWTF, the City would have to buy approximately 40 acres of land. Because of the high land costs, this option was not considered economically feasible.

4. **Aerated Lagoons** – This type of WWTF would require less acreage than would a traditional stabilization pond system, saving the City considerable upfront costs. Aerated lagoons do consume more electricity to run the aeration pumps, however, aeration results in significant reductions in the production of odors. Given that a new residential development is planned across the street from the new WWTF, this was an important consideration. Given all factors, this option looked like the most economically feasible and desirable for the City.

5. **Mechanical Plant** – Chemical Systems/Oxidation Ditch/Activated Sludge Plant – This option would require a smaller footprint than the pond systems, however, these facilities requires a skilled technician to operate them and require continual maintenance. In addition, mechanical plants produce biosolids as a byproduct of treatment, which can be problem to store and dispose of. Consequently, this option was not considered economically viable at this time.
RGU CERTIFICATION.

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minn. R. 4410.0200, subps. 9b and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Name and Title of Signer:

Beth G. Lockwood, Supervisor, Environmental Review Unit
Operations and Environmental Review Section
Regional Environmental Management Division

Date:

The format of the Environmental Assessment Worksheet was prepared by the staff of the Environmental Quality Board at Minnesota Planning. For additional information, worksheets or for EAW Guidelines, contact: Environmental Quality Board, 658 Cedar St., St. Paul, MN 55155, 651-296-8253, or at their Web site http://www.eqb.state.mn.us/review.html.