Application for Variance to Begin Preliminary Grading and Excavation for the Rochester Water Reclamation Plant Prior to Completion of Environmental Review Process per Minnesota Rules 4410.3100

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EXECUTIVE SUMMARY

This Variance Application is being pursued by the City of Rochester (City) to conduct preliminary grading and excavation, including bedrock excavation, at the Rochester Water Reclamation Plant (RWRP) site prior to completion of the environmental review process. As demonstrated in this Variance Application:

- Preliminary grading and excavation will be conducted to serve only the first two phases of RWRP Expansion. The first two phases of treatment plant expansion combined do not trigger the requirement to prepare an Environmental Assessment Worksheet (EAW).

- The City owns all of the land on which the grading and excavation will occur. The land is designated as Public and zoned Industrial, consistent with its planned use for RWRP Expansion.

- Preliminary grading and excavation will not have a serious negative effect on the environment.

- Allowing preliminary grading and excavating will avoid negative aquatic and human health and safety impacts.

- Allowing preliminary site work to commence on schedule will avoid significant economic hardship.

- Substantially all of the impacts related to the preliminary grading and excavation are reversible.

- Preliminary grading and excavation is separable from the remainder of the RWRP Expansion construction and does not eliminate from consideration any feasible and prudent alternatives or mitigation measures likely to be presented in any Environmental Impact Statement (EIS), if required.

- Circumstances necessitating this Variance request are the result of unforeseen and unique circumstances peculiar to this project that were not caused by the City's own actions or inactions.

The first phase of a planned three-phase RWRP Expansion is scheduled to begin in 2004. These first two phases of RWRP Expansion will increase plant capacity by 8.5 million gallons per day (mgd) and do not require an Environmental Assessment Worksheet (EAW) under the Minnesota Environmental Quality Board (EQB) rules. The City, however, voluntarily decided to evaluate a comprehensive thirty-year growth scenario by preparing an EAW that addressed potential environmental impacts of the RWRP Expansion, several proposed trunk sewer extensions, and secondary development within the Kings Run, Northwest Territory, and Hadley Valley sewersheds (Figure 1). The public comment period for this EAW ended on March 31, 2004. Because one request for an EIS was submitted, the environmental review process will be extended.

Preliminary grading and excavation activities need to be initiated by early July 2004 in order to commence Phase I of the RWRP Expansion construction in September 2004. The first phase of RWRP Expansion needs to be completed by the end of 2006, in time to treat increased flow from projected growth. This is critical for continued compliance with existing National Pollutant Discharge Elimination System/Surface Disposal System (NPDES/SDS) permit requirements and to prevent the potential for a sewer connection or trunk sewer construction moratorium due to inadequate capacity.

Either or both situations would have negative consequences, including: suspending job growth, impeding the construction industry, losing sewer connection revenue that funds expansions, increasing the potential for fines, tarnishing the RWRP operational reputation, and shifting the wastewater treatment burden to Suburban Development Areas (that rely on septic systems) or to smaller surrounding communities that may be ill-equipped to handle additional wastewater flows.

Grading and excavation will disturb only eight acres of City-owned land that is zoned Industrial and reserved for RWRP expansion. This will result in the removal of 46,000 cubic yards (cy) of dolomite (a magnesium-rich limestone) bedrock and 127,000 cy of soil. This work will require the use of heavy equipment to rip the rock, or blasting if the rock cannot be ripped. All the dolomite bedrock and 98,500 cy of the soil will be temporarily stockpiled on other portions of the RWRP site for later reuse offsite. The remaining 28,500 cy of stockpiled soil will be used as backfill during later RWRP Expansion. Excavation is expected to occur below the water table, necessitating dewatering.

Today, the eight-acre parcel which will be re-graded is a gently sloping, turf-covered hillside with two small wooded knolls. The preliminary grading and excavation will convert approximately 1.4 acres of woodland/forest to additional lawn/landscaping cover until the first phase of RWRP Expansion is constructed. Ultimately, after RWRP Expansion, approximately 1.2 acres of lawn/landscaping will be converted to impervious cover. Completion of this project will be in accordance with the regulations contained in the *Rochester Code of Ordinances* as well as other applicable state and federal laws.

1.0 INTRODUCTION

This Variance Application addresses the need to conduct preliminary grading and excavation at the Rochester Water Reclamation Plant (RWRP) site, including bedrock excavation, to serve the first two phases of a planned three-phase expansion prior to the completion of the environmental review process. Although this Variance Application concentrates on the impacts to the southwest portion of the RWRP site (as detailed in Figure C-2), this Section provides on overview of the planned expansion and its related Environmental Assessment Worksheet (EAW).

In accordance with the 1996 Rochester Wastewater Master Plan and its 2004 Amendment, a three-phase expansion of the RWRP is scheduled to begin in 2004. These first two phases of RWRP Expansion will increase plant capacity by 8.5 million gallons per day (mgd) and do not require an Environmental Assessment Worksheet (EAW) under the Minnesota Environmental Quality Board (EQB) rules. The City, however, voluntarily decided to evaluate a comprehensive thirty-year growth scenario by preparing an EAW that addressed potential environmental impacts of the RWRP Expansion, several proposed trunk sewer extensions, and secondary development within the Kings Run, Northwest Territory, and Hadley Valley sewersheds (Figure 1).

The notice of availability of the RWRP Expansion – Trunk Sewer Extension EAW was published in the *EQB Monitor* on March 1, 2004 and the public comment period ended on March 31, 2004. The Minnesota Pollution Control Agency (MPCA) is the Responsible Governmental Unit (RGU). With assistance from the City, MPCA is currently preparing responses to comments, the Findings of Fact, Conclusions and Order for a decision on the need for an Environmental Impact Statement (EIS). Below is a brief summary of the EAW comments received.

The EAW comment letters included six letters in support of the EAW:

1. The Minnesota Department of Natural Resources expressing appreciation for the forward-looking approach the City has taken in anticipating sewer needs for the next several decades.

2. Yaggy and Colby Associates regarding the City's extensive controls to handle development projects in environmentally sensitive areas.

3. Rochester Public Utilities (RPU) stating that they had appended the section of the EAW describing geologic and groundwater impacts to their Decorah Edge "white paper" (distributed to the RPU Board) due to the quality of the information contained and that, from the perspective of the municipal water utility, the EAW is adequately complete and comprehensive.

4. The Rochester Area Builders, Inc. regarding the City's reasoned approach and comprehensive environmental review that will serve as a reference for landowners, developers, builders, and governmental officials.

5. McGhie and Betts, Inc. stating that the EAW provides consultants and the community with a valuable resource for helping developers accurately assess environmental issues and requesting elimination of the reference to the Draft Wetland Management Plan.

6. Stonehedge Land Development Company stating that existing processes, controls, practices, regulations, and required checklists and expertise of officials, consultants, and developers provide the guidance and control needed to ensure that development of Decorah Edge land is done in a responsible manner that promotes the quality and quantity of groundwater and

drinking water. Their letter also provided an example of a successful development project with Decorah Edge issues.

Four EAW comment letters expressed concerns or provided additional information:

1. The Minnesota Department of Transportation expressed concerns regarding traffic impacts to Trunk Highway (TH) 52 resulting from the traffic associated with projected secondary development over the next 35+ years.

2. Oronoco Township requested information on the impact of increased RWRP discharge volume on Lake Zumbro water levels.

3. The Minnesota Historical Society reviewed the EAW and received the Cultural Resources Technical Memorandum.

4. The Byron Independent School District stated that there would be impact to their District, which is partially included in the project area and that coordination regarding planning is needed.

5. Tony Ebert of Haverhill Township requested an EIS, citing stormwater impacts, karst geology, the cost of City sewer to property owners, erosion and sedimentation, discharge to the Zumbro River, land application of biosolids, and secondary development in Decorah Edge areas. Mr. Ebert also requested that Hadley Valley be removed from the project due to environmental impacts related to secondary development.

Due to the request for an EIS, an appearance before the MPCA Board and additional work by the MPCA are required, regardless of whether the request is justifiable or not. This negatively impacts the schedule for completion of the environmental review process. If the Hadley Valley sewershed were eliminated from future development, less treatment capacity would be needed at the RWRP. Even if the treatment capacity were to be reduced by removal of one sewershed, the need to proceed with preliminary grading and excavation to facilitate Phase 1 expansion at this time would not be eliminated.

Figure 2 shows the RWRP Expansion area in T107N, R14W, S½ 14 and N½ 23. The potential expansion area shows the land available for ultimate expansion, while the proposed expansion area identifies land needed for the three phases of expansion addressed in the EAW. Figure C-2 identifies the area of land disturbance being proposed for this Variance.

The City owns all of the land that will be used for the construction of the RWRP Expansion, as well as most of the adjacent land to the west, north, and east. A one-acre parcel along the southwest corner is occupied by two private businesses. Property to the south is developed commercial property. The RWRP Expansion will be completed in three phases. This Variance Application applies to preliminary grading and excavation to serve only the first and second phases of expansion (those phases which, if combined, do not require an EAW). The first phase of RWRP Expansion, which will increase the treatment capacity by 4.75 mgd and is intended to serve the City through 2015, will be initiated in the 2004 construction season. Phase 2 of the expansion will increase treatment capacity by an additional 4.75 mgd to meet anticipated treatment needs through 2025. A third expansion is planned to meet potential treatment needs through 2035 by increasing capacity an additional 4.75 mgd. Figure 3 presents a conceptual schematic of the proposed RWRP Expansion showing the three phases of expansion discussed in the EAW and this Variance Application. The neighboring private property owners will not be impacted by the planned three phases of expansion.

The overall project schedule is presented in Section 6.1. The preliminary grading and excavation activities will need to be initiated by early July 2004. Phase I of the RWRP Expansion construction needs to begin in September 2004 so that the first phase of RWRP Expansion is completed by the end of 2006, in time to treat increased flow from projected growth. This schedule is also critical for continued compliance with existing National Pollutant Discharge Elimination System/Surface Disposal System (NPDES/SDS) permit requirements. Maintaining permit requirements will avoid ecological impacts, potential threats to the public health and safety, and excessive and unusual economic hardship. If preliminary site grading and excavation are delayed, construction will be delayed at least six to eight months. To facilitate preliminary grading and excavation at the RWRP site prior to the formal completion of the environmental review process, the City has prepared this Variance Application per MN R. Ch. 4410.3100 Subps. 4 through 8 and is seeking approval of it by the Environmental Quality Board (EQB).

A detailed explanation of the project is provided in Section 2.0. Governmental approvals associated with preliminary excavation and grading are described in Section 3.0. Approving this Variance Application will not have serious adverse effects on the environment, as described under Section 4.0. The reversibility of environmental effects is presented in Section 5.0. Reasons necessitating the Variance are identified in Section 6.0, while affects of the Variance approval are discussed in Section 7.0. The formal request for approval is contained in Section 8.

2.0 DETAILED EXPLANTION OF PROPOSED PROJECT

2.1 PRELIMINARY GRADING AND EXCAVATION

The proposed project addressed in this Variance Application consists of preliminary grading and excavation to serve the first two phases of RWRP Expansion (those phases which, if combined, do not require an EAW). The preliminary grading and excavation will occur in the area shown in Figure C-2, and will disturb approximately eight acres. The geotechnical investigation for the project identified bedrock at depths ranging from 8.5 to 66 feet, resulting in top of bedrock elevations of about 920 to 990 feet AMSL. The uppermost bedrock is the Shakopee dolomite. This unit consists of dolomite (a magnesium-rich limestone) quartz sandstone, and interbedded shale layers. Excavation is expected to occur below the water table, necessitating dewatering. Preliminary grading and excavation will result in the removal of about 46,000 cubic yards (cy) of dolomite bedrock. If the rock cannot be ripped using heavy equipment, blasting may be required. Approximately 127,000 cy of soil will also be removed. The dolomite bedrock and 98,500 cy of the soil will be temporarily stockpiled on other portions of the RWRP site for later reuse offsite. No stockpiling will take place within a Shoreland District. Haul routes for material removal will be existing 9 and 10-ton capacity roadways. Approximately 28,500 cy of the excavated soil will be stockpiled for later use as backfill during the RWRP Expansion.

The secondary impact associated with preliminary grading and excavation is the reuse of these materials. All locations receiving these materials will be required to meet local and state requirements, including requirements to prepare grading and drainage plans and obtain grading and NPDES permits. Appropriate erosion control measures will also be required at these sites.

The RWRP Expansion site is designated by the *Rochester Land Use Plan* as “Public”, which supports RWRP use. The RWRP Expansion area is zoned Industrial and has been specifically reserved for RWRP Expansion. Nearby buildings to the west and south are primarily one to two story public and commercial buildings. Land immediately north consists of a closed landfill and a sand and gravel operation, while land to the east of the RWRP is City land. Completion of this project will be in accordance with the regulations contained in the *Rochester Code of Ordinances* as well as other applicable state and federal laws.

Approximately 1.4 acres of the woodland/forest cover type will be converted to additional lawn/landscaping as a result of the proposed preliminary work. When the first phase of RWRP Expansion is constructed, approximately 1.2 acres of lawn/landscaping will then be converted to impervious cover.

2.2 OVERVIEW OF PROPOSED RWRP EXPANSION

Table 1 and Figure 3 provide an overview of the elements of each phase of the proposed RWRP Expansion. This Variance Application only pertains to conducting the work shown in bold, italicized font in Table 1 (preliminary grading and excavation, including bedrock excavation). The remaining work for Phase 1 and later phases of RWRP Expansion identified in Table 1 will occur after the environmental review process has been formally completed.

TABLE 1

ROCHESTER WATER RECLAMATION PLANT EXPANSION PHASES

Expansion Phase	Added/Cumulative Average Wet Weather Flow *	Service Period	Construction Period	Proposed Construction Elements (including modifications to equipment, processes, and operations)
Phase 1	4.75 mgd/23.85 mgd	2006-2015	2004-2006	• ***Complete preliminary site grading and excavation, including bedrock excavation, for all three phases*** • Evaluate need for visual screening • Re-route drainageway • Re-align access road • Partial demolition, reuse, and remodeling of Phostrip Basins and Chemical Building • Add new raw sewage pumping station and headworks • Add one primary clarifier • Add two aeration basins • Add one final clarifier • Add one sludge storage tank • Add blower building • Add one gravity belt thickener • Add new dry polymer make-up and feed system • Add plant drain pump station • Add odor control facilities
Phase 2	4.75 mgd/28.60 mgd	2016-2025	2014-2016	• Add one primary clarifier • Add two aeration basins • Add one final clarifier • Add one sludge storage tank • Headworks equipment additions • Add truck loadout facility • Add odor control facilities
Phase 3	4.75 mgd/33.35 mgd	2026-2035	2024-2026	• Add one primary clarifier • Add two aeration basins • Add one final clarifier • Add one sludge storage tank • Headworks equipment additions • Add odor control facilities

* **Note:** Current Permit Capacity (Average Wet Weather Flow) = 19.1 mgd

3.0 GOVERNMENTAL APPROVALS

Table 2 lists permits and approvals that will be required for preliminary grading and excavation for which this Variance is being sought.

TABLE 2

PERMITS AND APPROVALS FOR RWRP PRELIMINARY GRADING AND EXCAVATION

Unit of Government	Type of Application	Status
MPCA	General NPDES Permit for discharge of stormwater during construction activities, for construction that will disturb more than one acre of non-impervious surface	To be applied for
DNR	• General permit for temporary dewatering I • Identification of state-listed Threatened, Endangered, and Special Concern Species	• To be applied for if groundwater dewatering during construction will exceed 10,000 gpd or 1 million gallons per year • Completed
State Historic Preservation Office (SHPO)	Concurrence on Findings of Cultural Resource Impacts	Completed, no survey required.
City of Rochester	Grading, Drainage, and Erosion Control Plan approval and Grading Permit	To be obtained

4.0 ANTICIPATED ENVIRONMENTAL AFFECTS OF UNDERTAKING

The preliminary grading and excavation activities for which this Variance is being sought will not have serious adverse effects on the environment, as described in detail in the following sections. The City understands that it undertakes this work at its own risk in order to maintain its critical construction schedule. The City also acknowledges that the granting of this Variance does not affect the findings of the RWRP Expansion – Trunk Sewer Extension EAW.

4.1 LAND USE, VEGETATION COVER, AND POTENTIAL WETLAND IMPACTS

4.1.1 Land Use: Corresponds with planned use

Figure 3 presents the site plan for the proposed three phases of RWRP Expansion. The RWRP is an essential public facility that supports the City's residents and businesses and promotes orderly, compact growth. The site of the RWRP Expansion is designated by the *Rochester Land Use Plan* as "Public", which supports RWRP use. The intended use of the RWRP site, which is zoned Industrial, has been specifically reserved for RWRP Expansion. Nearby buildings to the west and south are primarily one to two story public and commercial buildings. Land immediately north consists of a closed landfill and a sand and gravel operation, while land to the east of the RWRP is City land. Completion of this project will be in accordance with the regulations contained in the *Rochester Code of Ordinances* as well as other applicable state and federal laws.

4.1.2 Cover, Habitat, and Wetlands: Changes or impacts will be minor

Since the proposed RWRP Expansion area is adjacent to existing commercial, industrial, or other disturbed areas, including the RWRP, the Zumbro River Flood Control Project, and the remediated sludge lagoon and landfill sites, there is little undisturbed wildlife habitat present. Preliminary site grading and excavation will result in changes in cover type. The preliminary grading and excavation area covers approximately 8 acres of the 54.25-acre RWRP potential expansion area.

As presented in Table 3, approximately 1.4 acres of woodland/forest would be converted to lawn/landscaping. The entire eight-acre area would then consist of lawn/landscaping until the first phase of RWRP Expansion is constructed, which would then result in the conversion of approximately 1.2 acres of lawn/landscaping to impervious cover. Impacts to "urban" wildlife species using these converted areas will be permanent once the facility is constructed, requiring them to relocate to other areas and compete with other individuals of their species. Seasonal activities, such as nesting or mating, may be disrupted or curtailed, depending upon the season of construction. An exception to this will be the resident goose population that currently uses the open areas north and east of the RWRP. Since they also use the nearby 29-acre closed landfill area and the 24-acre soccer complex northwest of the RWRP, they are unlikely to be stressed by the loss of the area planned for preliminary excavation and grading.

TABLE 3

ACREAGES BY COVER TYPE

Cover Type*	Acres Before Preliminary Grading and Excavation	Acres After Preliminary Grading and Excavation
Woodland	1.4	0
Lawn/Landscaping	6.6	8.0
Total	**8.0**	**8.0**

*__Note__: As determined by aerial photograph and site review.

The Department of Natural Resources (MnDNR) Natural Heritage Program was contacted regarding known occurrences of federally and state listed plants and animals, high quality natural communities, or other unique features at or near the site. The U.S. Fish and Wildlife Service (USFWS) was also contacted regarding the presence of known threatened or endangered species that may exist at, or in the vicinity of, the site. Results of their evaluation indicated that there are no state or federally listed threatened, endangered, or special concern species recorded in the RWRP proposed expansion area.

4.2 SURFACE WATER

4.2.1 Floodplain and Shoreland District Impacts: No changes or impacts

The RWRP proposed expansion area is outside of the floodway and 100-year and 500-year floodplains. It is also outside designated Shoreland Districts.

4.2.2 Erosion and Sedimentation: Increased impervious area will require stormwater management.

Site soils are not on the Natural Resources Conservation Service (NRCS) list of highly erodible soils for Olmsted County. Special precautions will be taken in any areas of steep slopes to decrease the amount of erosion. Excess soil, bedrock, and demolition debris generated by the project will be managed in accordance with applicable environmental regulations.

In compliance with the amendments to the Clean Water Act (CWA), this project will require General NPDES Stormwater Permits for Construction Activity for each phase of construction. The objective of this permit is to implement temporary and permanent erosion and sediment control measures to reduce and eliminate erosion and keep sediments on-site during and after construction. Erosion control methods will be included in the City-required Grading and Drainage Plan for the project. Erosion control measures will be implemented prior to the start of any construction activities. Once excavation and grading is complete, these disturbed areas will be stabilized using temporary or permanent erosion control measures pursuant to the construction stormwater permit. With these controls, no significant erosion and sedimentation is expected.

Dewatering discharges will be directed upgradient of the temporary erosion controls for settling and filtering. If dewatering discharges cannot be directed toward an existing silt fence or hay bale structure, filter bags or temporary sedimentation ponds will be used to contain and filter sediment so that impacts from dewatering discharges will not be an issue. Once construction is complete and the ground surface has been restored there will be no dewatering.

4.3 GEOLOGIC AND SOIL CONDITIONS

4.3.1 Groundwater: Impacts are related to dewatering during construction and will be temporary

Excavation is expected to occur below the water table, necessitating dewatering. Ground water in the area is typically shallow, with depths of 10 to 40 feet common. The water table was not encountered in goetechnical soil borings, but the engineer is using the elevation of 955 AMSL as the probable water table based on hydrogeologic information from a nearby site. The regional water table level appears to range from approximately 0 to 300 feet below grade (*Minnesota Geological Survey [MGS] Olmsted County Geologic Atlas, University of Minnesota 1988*).

4.3.2 Bedrock: Excavation of bedrock will occur

According to the *Geologic Atlas*, depth to bedrock is less than 50 feet. Bedrock types in this area are primarily Ordovician age limestone, sandstone, and shale. The geotechnical investigation for the project identified bedrock at depths ranging from 8.5 to 66 feet, resulting in top of bedrock elevations of about 920 to 990 feet AMSL. The uppermost bedrock was identified as the Shakopee dolomite. This unit consists of dolomite (a magnesium-rich limestone) quartz sandstone, and interbedded shale layers

4.3.3 Groundwater Contamination: Low potential for contamination during construction activities.

This work area is mapped as having very high sensitivity to pollution. The City does not anticipate that contamination of groundwater will occur from the proposed activities. However, as a precaution, during preliminary grading and excavation activities, care will be taken to avoid spills of controlled substances such as diesel fuel and hydraulic fluid. Any spills that occur will be cleaned up quickly, in accordance with regulatory requirements. Construction contractors will be required by the City to develop spill control plans and to make all project personnel aware of the control plan requirements, including notification to the MPCA/State Duty Officer, if necessary.

None of the sites on the MPCA Leaking Underground Storage Tank (LUST) database are located near the RWRP Expansion area. The Former Rochester Sanitary Landfill/Lagoon Site, a site that was remediated under the MPCA Voluntary Investigation and Cleanup (VIC) program, is near the work area. It is part of the RWRP property. Based on the VIC project remediation and subsequent monitoring, the proximity of the VIC site is not expected to impact the preliminary grading and excavation area or the RWRP expansion area.

4.3.4 Soils: Changes or impacts are minimal.

Approximately four acres of the work area contain soil that are classified as prime agricultural land. A farm homestead formerly occupied the work area, but the surrounding land has not been used for farming since 1945.

4.4 SOLID AND HAZARDOUS WASTE: No changes or impacts.

No impacts related to preliminary grading or excavation are anticipated.

4.5 TOXIC AND HAZARDOUS MATERIALS: No changes or impacts.

Preliminary grading and excavation equipment use oil, fuel, hydraulic fluid, and similar materials. The City does not anticipate that contamination of groundwater will occur from these activities. However, as a precaution, during preliminary grading and excavation activities, care will be taken to avoid spills of controlled substances such as diesel fuel and hydraulic fluid. Any spills that occur will be cleaned up quickly, in accordance with regulatory requirements. The contractors will be required by the City to develop spill control plans and to make all project personnel aware of the control plan requirements, including notification to the MPCA/State Duty Officer, if necessary.

4.6 CONSTRUCTION TRAFFIC: Changes or impacts are minimal and temporary.

Material hauling will occur in association with preliminary grading and excavation. Vehicles are anticipated to vary in size from mid-size trucks to full size semi-trucks carrying up to the maximum legal load. Vehicles will make multiple trips to the site on a daily basis to remove excavated soils and bedrock. Haul routes used for offsite reuse of excess excavated material will be 9 and 10-ton roadways.

The primary truck routes for construction related vehicles are TH 52, CSAH 22 (37th St. NW), and CR 133 (West River Parkway). Existing traffic volumes on these corridors are 38,500 vehicles per day (vpd), 20,800 vpd, and 10,400 vpd, respectively. The existing roadway capacities are expected to handle the relatively small amount of additional traffic. However, construction vehicles turning into and out of the RWRP site may impact traffic flows on adjacent roadways to a moderate degree. The access to the RWRP is in good condition and should not require replacement or improvement. Necessary and appropriate traffic warning devices will be used during construction.

4.7 AIR QUALITY: Changes or impacts are minimal and temporary.

Vehicle emissions associated with preliminary grading and excavation will not have a significant effect on air quality. Varying numbers of vehicles will be involved in excavation and transport activities. These vehicles will have only short-term, negligible impacts on local air emissions.

4.8 NOISE, DUST, AND ODORS: Changes or impacts are minimal and temporary.

Typical construction equipment noise will be generated during preliminary grading and excavation, but contractors must abide by City noise ordinances. In particular, noise impacts from construction traffic should be negligible given the existing nature and volume of traffic on CSAH 22 and TH 52. There will be no long-term noise impacts. If blasting is necessary, there will be short-term noise impacts.

Fugitive dust is associated with the preliminary grading and excavation of large volumes of material that will be generated by earth moving equipment and, if used, blasting. A portion of this dust may consist of particles less than 10 microns in diameter (PM_{10}). The amount of dust is based on the estimated amount of earth moved. Where possible, paved roads will be used to access construction areas in an effort to minimize dust from construction equipment. Water trucks will be used to wet areas of exposed soils during dry and/or windy conditions. Vegetation may be used as an erosion control measure and to minimize dust generation.

Odor generation is not anticipated to be an issue in relation to preliminary grading and excavation.

4.9 CULTURAL RESOURCES: Changes or impacts are minimal.

A review of historic aerial photography showed that a farmstead, no longer present, had been located in the area designated for preliminary grading and excavation. The City consulted with the State Historical Preservation Office (SHPO) and, due to the level of disturbance in the area where preliminary grading and excavation will occur, they determined that no cultural resources survey or other work is required.

4.10 AESTHETICS: Changes or impacts are minimal.

No scenic views or vistas are present at the RWRP site. Temporary visual impacts are expected during construction activities, including the presence of construction equipment and materials at the site, stockpiles of excavated material, and potentially construction lighting if construction activities take place at night. Preliminary grading and excavation will remove some trees.

5.0 REVERSIBILITY OF ANITICPATED ENVIRONMENTAL EFFECTS

Table 3 summarizes the potential effects of preliminary grading and excavation and addresses the reversibility of these impacts after preliminary grading and excavation is completed, but before facility construction is initiated.

TABLE 4

REVERSIBILITY OF ENVIRONMENTAL EFFECTS FROM PRELIMINARY GRADING AND EXCAVATION

Resource	Impact Summary	Reversibility
Land Use	Corresponds with planned use	Change in land use is reversible.
Vegetation Cover and Habitat	• Preliminary grading and excavation would result in the habitat conversion of approximately 1.4 acres of woodland/forest to lawn/landscaping. The entire eight-acre area would consist of lawn/landscaping until the first phase of RWRP Expansion is constructed. • "Urban" wildlife species using these graded and excavated areas will relocate and compete in other areas. • Seasonal activities, such as nesting or mating, may be disrupted or curtailed, depending upon the season of construction.	• Could take a very long time to re-establish the woodland/forest cover type and any associated wildlife populations to pre-grading conditions. • Disruption of seasonal activities is temporary.
Floodplains/Shoreland	Work area is outside of the floodway and 100-year and 500-year floodplains and Shoreland Districts.	No impact.
Erosion and Sedimentation	• About 127,000 cy of soil excavation and about 46,000 cy of rock excavation. • No highly erodible soils mapped at site. • Excess soil and bedrock generated by the project will be managed in accordance with applicable environmental regulations. • Appropriate erosion and sediment control BMPs will be used to mitigate construction impacts. Grading permit and NPDES stormwater permit will be required.	• The original grade could be restored. • Other impacts are temporary and reversible.
Groundwater	Dewatering will likely be required.	Impacts of dewatering are temporary and reversible.
Geology	Shakopee dolomite bedrock at depths ranging from 8.5 to 66 feet.	Excavation of bedrock is irreversible.

TABLE 4

REVERSIBILITY OF ENVIRONMENTAL EFFECTS FROM PRELIMINARY GRADING AND EXCAVATION

Resource	Impact Summary	Reversibility
Groundwater Contamination	The work area is mapped as having a very high sensitivity to pollution. Potential for groundwater contamination related to grading and excavation is low because spill control plans will be implemented.	Impacts, if any, would be temporary and reversible.
Soils	Approximately four acres of prime agricultural land occurs within the eight-acre work area. The work area was the site of the original farmstead; the surrounding area has not been used for agricultural production since 1945. Today, the area is zoned industrial.	Impacts are temporary and reversible.
Solid and Hazardous Waste	No impacts related to preliminary grading or excavation are anticipated.	No impacts.
Toxic and Hazardous Materials	Preliminary grading and excavation equipment uses oil, fuel, hydraulic fluid, and similar materials. The City does not anticipate that contamination of groundwater will occur from these activities. However, as a precaution, during preliminary grading and excavation activities, care will be taken to avoid spills of controlled substances such as diesel fuel and hydraulic fluid. Any spills that occur will be cleaned up quickly, in accordance with regulatory requirements. Construction contractors will be required by the City to develop spill control plans and to make all project personnel aware of the control plan requirements, including notification to the MPCA/State Duty Officer, if necessary.	Impacts, if any, would be temporary and reversible.

TABLE 4

REVERSIBILITY OF ENVIRONMENTAL EFFECTS FROM PRELIMINARY GRADING AND EXCAVATION

Resource	Impact Summary	Reversibility
Construction Traffic	• Material hauling will be by truck. These vehicles are anticipated to vary in size from mid-size trucks to full size semi-trucks carrying up to the maximum legal load. Some vehicles will make multiple trips to the site on a daily basis. • Nine or ten-ton haul routes will be used for truck traffic. These roadways have adequate capacity to handle this additional traffic. Necessary and appropriate traffic warning devices will be used during construction.	Construction traffic impacts are temporary and reversible.
Air Quality	Vehicle emissions associated with grading and excavation equipment and truck traffic will not have a significant effect on air quality. Varying numbers of vehicles will be involved.	Construction air quality impacts are temporary and reversible.
Construction Noise, Dust, and Odors	• Typical grading and excavation equipment noise will be generated, but contractors must abide by City noise ordinances. Blasting of dolomite bedrock may be necessary, generating additional noise and dust. • These excavation and grading activities will require excavation, removal, stockpiling, and transport of large volumes of soil and rock. Dust will be generated as part of these construction activities. Where possible, paved roads will be used to access construction areas to minimize dust from trucks and construction equipment. Water trucks will be used to wet areas of exposed soils during dry and/or windy conditions. • Odor generation is not anticipated to be an issue in relation to preliminary grading and excavation.	Construction noise, dust, and odor impacts are temporary and reversible.

TABLE 4

REVERSIBILITY OF ENVIRONMENTAL EFFECTS FROM PRELIMINARY GRADING AND EXCAVATION

Resource	Impact Summary	Reversibility
Cultural	A review of historic aerial photography showed that a farmstead, no longer present, had been located in the proposed RWRP Expansion area. The City consulted with the State Historical Preservation Office (SHPO) and, due to the level of disturbance in the area where preliminary grading and excavation will occur, they determined that no cultural resources survey or other work is required.	If archaeological material were unearthed during construction, work would be suspended until the SHPO could be consulted to determine if documentation of cultural material is warranted. Thus, impacts are reversible.
Aesthetics	No scenic view or vistas are present at the RWRP site. Temporary visual impacts are expected during construction activities, including the presence of construction equipment and materials at the site, stockpiles of excavated soil, and potentially construction lighting if construction activities take place at night.	Construction visual impacts are temporary and reversible.

6.0 REASONS NECESSITATING THE VARIANCE

6.1 TIME-CRITICAL PROJECT SCHEDULE DRIVEN BY FASTER THAN PROJECTED COMMUNITY GROWTH

The approval of this Variance Application is critical to meet the planned construction schedule for Phase 1 of the RWRP Expansion. This is necessary to continue meeting current discharge limits, to sustain economic growth within Rochester and the surrounding region, and to prevent serious impacts to the environment. As described in more detail in Section 7.3 of this Application, the City of Rochester is growing at a much more rapid pace than previous City projections. This requires the City to move quickly to meet treatment requirements. If the planned schedule were to be delayed, economic and environmental impacts would be significant. The planned project schedule is shown below:

Planned Environmental Review and Construction Schedule

March 1, 2004	EAW notice of availability published in the EQB Monitor.
March 31, 2004	EAW comment period ends.
April 30, 2004	MPCA completes responses to comments, Findings of Fact, and MPCA Board Memorandum.
May 24, 2004	MPCA Board Meeting.
June 12, 2004	Negative Declaration (anticipated).
June 28, 2004	Bid opening for preliminary grading and excavation work.
June 29, 2004	City Council Award for preliminary grading and excavation work.
July 12, 2004	Notice to Proceed with preliminary grading and excavation work.
Sep. 10, 2004	Preliminary site grading and excavation complete.
Sep. 18, 2004	Notice to Proceed for Phase 1 RWRP Expansion.
Oct.6, 2006	Substantial completion Phase 1 RWRP Expansion.
Dec. 20, 2006	Phase 1 RWRP Expansion completion.

Because a request for an EIS has been received, regardless of whether it is justified or not, an appearance before the MPCA Board is required and a negative declaration (anticipated) will be delayed. Any delays will impede the timely commencement of RWRP construction. If construction cannot begin in September 2004, the footings and foundations cannot be constructed before heavy frosts and frozen ground halt further work for the remainder of the Fall and Winter construction period. If footings and foundations work can commence in September 2004 and completed before Winter, then other project construction can continue throughout the Winter. The substantial completion of the RWRP project schedule is based on the premise that facility expansion starts in September 2004 and continues throughout the 2004-2005 Winter period. This Variance is being sought to maximize the opportunity to maintain the planned schedule to preclude serious adverse environmental and economic effects, should the environmental view process be delayed.

It should be noted that issuance of the proposed new RWRP permit is following a parallel schedule that is anticipated to allow commencement of facility construction in September 2004

6.2 ECOLOGICAL AND HUMAN HEALTH AND SAFETY IMPACTS OF DELAYED CONSTRUCTION

Without the planned RWRP Expansion, the City runs the risk of not being able to treat the increasing sanitary sewer flow volumes to continue meeting current and proposed NPDES/SDS discharge limits. Since the initiation of the new permit application process, other factors have contributed to the need to expedite the RWRP Expansion process. In late 2003, the RWRP reached 95 percent capacity – five years sooner than predicted in the 1996 Master Plan.

The parameter that would most likely be exceeded first, if RWRP Expansion does not occur on schedule, would be Carbonaceous Biochemical Oxygen Demand ($CBOD_5$). $CBOD_5$ is the amount of oxygen required by aerobic microorganisms to decompose organic matter in a water sample, based on the maximum rate of oxygen consumption in a water sample over a five-day period in the dark at 20 degrees Celsius. This method uses a chemical inhibitor to block nitrification, thus preventing the nitrogenous, or second stage, Biochemical Oxygen Demand (BOD) from being consumed (MPCA Environmental Data Access Web page 2004). $CBOD_5$ is used to estimate the total amount of "biodegradable" organic matter in the system and therefore serves as a measure of the degree of water pollution. The RWRP may be able to maintain $CBOD_5$ limits for some limited time without expansion, however, very low dissolved oxygen (DO) levels would likely result. Very low DO would likely harm aquatic organisms and cause fish kills in the South Fork of the Zumbro River.

The ability to meet ammonia-nitrogen (NH_3-N) limits could also be impacted due to a lack of RWRP aeration capacity. NH_3-N is an inorganic form of nitrogen contained in fertilizers, septic system effluent, and animal wastes. It is also a product of bacterial decomposition of organic matter. NH_3-N becomes a concern if high levels of the un-ionized (dissolved gas) form are present. In this form, NH_3-N can be toxic to aquatic organisms. The presence of un-ionized ammonia is a function of the NH_3-N concentration, pH, and temperature. Conversion of NH_3-N to nitrate-nitrogen (NO_3-N) by nitrification requires large quantities of oxygen, which can kill aquatic organisms due to the resultant lowered DO concentrations in water (MPCA Web page 2004).

In summary, failure to allow the preliminary grading and excavation to proceed could result in DO and NH_3-N levels that could impact aquatic organisms and increase the risk of fish kills and the resulting aesthetic and human health impacts. Also, the South Fork of the Zumbro River contains threatened and special concern mussel species that are especially sensitive to water quality impacts.

6.3 AVOID EXCESSIVE AND UNUSUAL ECONOMIC HARDSHIP

The most unique condition/circumstance that is peculiar to this project, not characteristic of other similar projects, and not characteristic of general economic conditions of this area or state, relates to the MPCA's delay in re-issuing the RWRP's NPDES permit prior to its expiration on March 31, 1996. In anticipation of that expiration date, the RWRP submitted its' application to the MPCA for permit re-issuance according to applicable regulations on September 27, 1995. Since the application was submitted according to the required timeline and because MPCA never acted on that submittal, the RWRP may continue discharging effluent under its expired permit. Had the permit been re-issued in 1996, it would have expired again in early 2001. The City was not required to complete another permit application in 2001 since MPCA had not yet acted on the previous submittal.

The RWRP also submitted the *Rochester Wastewater Master Plan (Master Plan*) to the MPCA in early 1996 in response to a 1991 permit requirement. The Master Plan evaluated three primary alternatives for future treatment from which future plant expansion needs would be identified. The Plan also projected that 95 percent of current plant capacity would be reached in 2008. Therefore, in order to allow two years for design and three years for construction, the Master Plan further recommended that planning for the facility expansion begin in 2003 in order to complete expansion by 2008. Facility expansion planning and subsequent construction cannot fully commence until information about the preliminary permit conditions related to the plant expansion is provided by the MPCA.

MPCA revived the RWRP permit process in mid-2002. In response to the MPCA's November 2002 letter and subsequent conversations with MPCA staff, the City submitted a new permit application on January 29, 2003. This second application served two purposes:

- Provided MPCA with current data from which new permit limits would be set.
- Addressed RWRP expansion needs, as recommended by the 1996 Master Plan and modified by an Amendment to the Master Plan that was submitted to the MPCA in January 2003.

The proposed effluent discharge limits upon which the EAW evaluation and preliminary design could be based were not available until mid-January 2004, delaying the planning process by a year.

Since the initiation of the new permit application process, other factors have contributed to the need to expedite the RWRP Expansion process. In late 2003, the RWRP reached 95 percent capacity – five years sooner than predicted in the 1996 Master Plan. This change has been primarily due to uncharacteristic and unanticipated population growth in the Rochester area (source: Rochester-Olmsted Planning Department). Rochester is one of Minnesota's fastest growing cities and is now its third largest city. Had this threshold been forecast, the City would have started planning for an expansion in 1998, using 1996 permit limits (had they been available), so that construction could have begun in 2000.

Indications of the significant change in population growth rate and the subsequent impact on RWRP did not start to become evident until early 2001. Even at that time, this change was masked by an industrial process transition by one of RWRP's six largest customers. The impact of that process change was understood by and acceptable to RWRP. Unfortunately, the anticipated temporary and variable increases in BOD loadings from that process transition masked simultaneous increases in BOD loading attributable to community growth. It was only after this industrial customer's process transition was fully completed that it became evident that a community wide increasing trend in BOD loadings was rapidly emerging due to unanticipated population growth.

The City considered and dismissed other alternatives to address increasing BOD loads. As part of the 1996 Master Planning process, industrial pretreatment methods and options were evaluated. As a result of that study, it was determined that full biological treatment was not warranted for several reasons: geographic constraints, odor management in already urbanized areas, reliability of service, and cost. Additionally, it was determined that additional pretreatment, beyond the current program, would not be needed prior to the proposed RWRP expansion in 2008. The RWRP's pretreatment program for its six largest industrial customers focuses primarily on reuse of high strength waste streams, such as land application of high strength waste streams and animal feed.

Given this history, Rochester's economic hardship claim is not due to its own reasonably foreseeable actions or inactions. Rochester began planning for the expansion of its facility in 1996. It began the expansion design and EAW processes as soon as the permit process was re-initiated by the MPCA and

proposed future effluent discharge limits were available. The RWRP already had effective, facility-appropriate BOD pre-treatment controls in place for its largest industrial customers. The City had already evaluated the feasibility of making other process modifications to control BOD loads and determined them to be unjustifiable or not cost-effective.

Several additional related economic factors should also be considered as part of the Variance Application.

1. Good foresight was used in 1945 in purchasing the land for wastewater treatment. It was expected to be large enough and geographically well situated to serve the growth of Rochester for the distant future. The land on which the expansion will occur has always been designated for RWRP expansion. The entire expansion area is absent environmental constraints that would preclude grading and construction. The area is zoned for this use and surrounding property is primarily City-owned land developed for compatible uses. To date, Rochester's historical cost value investment in the RWRP and its equipment is nearly $88 million. It would not be economically prudent to relocate the plant or expand it at other locations until the expansion capacity of the site is depleted. The current site can provide treatment at this location until the City of Rochester reaches a population of 300,000, which is estimated to occur sometime between 2080 and 2150.

2. If the City is unable to increase RWRP treatment capacity in a timeframe commensurate with City growth, the ability to sustain Rochester-based housing and commercial / industrial building and job growth will be hindered. If housing growth is not provided in Rochester, the local demand for housing will only be shifted to large-lot Suburban Development Areas (that rely on Individual Sewage Treatment Systems) or to surrounding small communities (that may not be well equipped to handle increased demands on their own wastewater treatment facilities). Additionally, since Rochester is the major regional employment center in Southeast Minnesota, this type of urban sprawl increases commuting and its commensurate economic and environmental impacts.

3. If preliminary grading and excavation and subsequent construction does not occur as scheduled, the City may be required to freeze new sewer connection or trunk sewer construction or risk violating its NPDES permit. If a moratorium on sewer extensions and/or sewer connections is placed on the City, the loss of sewer connection revenue will reduce the City's ability to pay for RWRP's capital improvements and that will require an otherwise avoidable increase in sewer rates to pay for the uncollected debt.

4. Similarly, a moratorium on sewer extensions and/or sewer connections will stall the economic engine critical to Rochester's vital economic health. Potential to expand existing businesses or attract new businesses will be delayed or lost. The development and construction industry in Rochester and the local wholesale and retail businesses that depend on it will also suffer. A decline in available jobs will translate into increased demand for social services, a further economic burden for the community.

5. Inability to address plant capacity needs in a timely manner could result in permit violations and enforcement actions, leading to fines or expensive corrective actions. This would take money and resources away from the fundamental need to provide additional wastewater treatment capacity. It would also tarnish the RWRP's excellent reputation for wastewater treatment operations**.** The RWRP has been a regular recipient of MPCA's operations award. Since June 1, 1997, to the present, the RWRP has only had one violation. That one-month violation for total suspended solids in 1999 was due to the inadvertent development of poorly settling

microorganisms that thrive when a nutrient imbalance is created by removing too much phosphorus at the beginning of the treatment train.

6.4 WILL NOT ELIMINATE FROM CONSIDERATION ANY FEASIBLE OR PRUDENT ALTERNATIVES OR MITIGATION MEASURES

The preliminary grading and excavation construction activities are separable from the remainder of the RWRP Expansion and would not have the effect of eliminating from consideration any feasible and prudent alternatives or mitigation measures likely to be presented in any EIS, if required. Any future expansion of the RWRP would need to occur within the Potential RWRP Expansion area (Figure 2). The RWRP proposed expansion area is the portion of the site that would best meet engineering criteria while minimizing environmental impacts for the three phases of expansion.

As described in Section 7.3, the RWRP Expansion is part of an ongoing process with the MPCA and other regulatory and planning entities and includes the Master Planning processes that have led to the current proposed design.

7.0 EFFECTS OF APPROVAL

As demonstrated in this Variance Application:

- Preliminary grading and excavation will be conducted to serve only the first two phases of RWRP Expansion. The first two phases of treatment plant expansion combined do not trigger the requirement to prepare an Environmental Assessment Worksheet (EAW).

- The City owns all of the land on which the grading and excavation will occur. The land is designated as Public and zoned Industrial, consistent with its planned use for RWRP Expansion.

- Preliminary grading and excavation will not have a serious negative effect on the environment.

- Allowing preliminary grading and excavating will avoid negative aquatic and human health and safety impacts.

- Allowing preliminary site work to commence on schedule will avoid significant economic hardship.

- Substantially all of the impacts related to the preliminary grading and excavation are reversible.

- Preliminary grading and excavation is separable from the remainder of the RWRP Expansion construction and does not eliminate from consideration any feasible and prudent alternatives or mitigation measures likely to be presented in any Environmental Impact Statement (EIS), if required.

- Circumstances necessitating this Variance request are the result of unforeseen and unique circumstances peculiar to this project that were not caused by the City's own actions or inactions.

8.0 REQUEST FOR APPROVAL

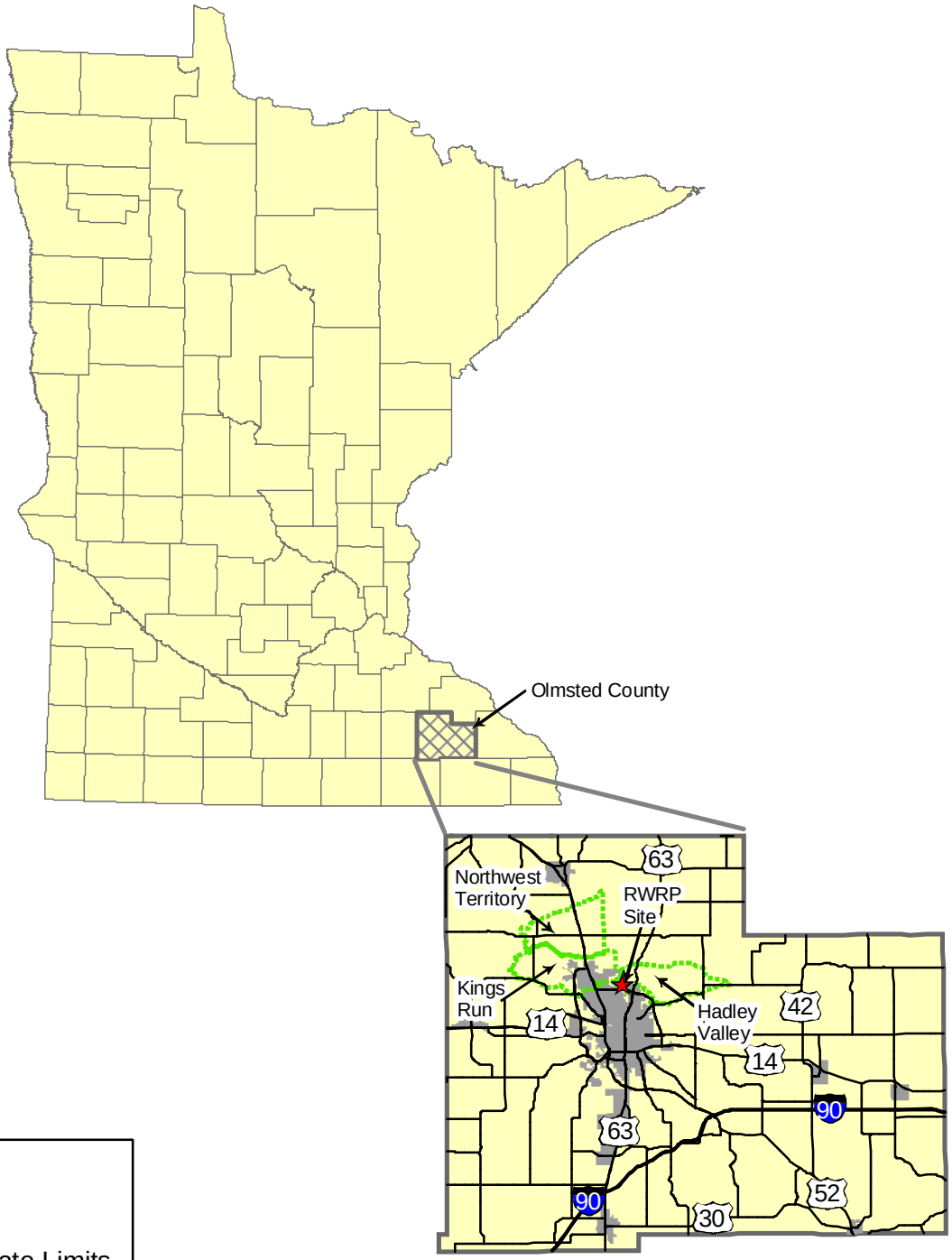
This Variance Application is being pursued by the City to conduct preliminary grading and excavation, including bedrock excavation, at the RWRP site. Preliminary grading and excavation will be conducted to serve only the first two phases of RWRP Expansion (those phases which, if combined, do not require an EAW). This Application provides numerous reasons why a Variance to complete preliminary grading and excavation for RWRP Expansion prior to receiving a Negative Declaration on the RWRP Expansion – Trunk Sewer Extension EAW is justified. Approval will avoid economic hardship for the City of Rochester without compromising environmental protection associated with the proposed RWRP Expansion. Approval will optimize the expansion construction schedule so that the RWRP will continue to have adequate treatment capacity as growth continues, thereby maintaining compliance with it current effluent discharge limits along with the forthcoming new discharge limits. Timely expansion will avoid short-term, but potentially detrimental, ecological and human health and safety impacts. Inability to address plant capacity needs in a timely manner could result in permit violations and enforcement actions, leading to fines or expensive corrective actions. Similarly, a moratorium on sewer extensions and/or connections will stall the economic engine critical to Rochester's vital economic health.

Given the history presented in Section 6.3, Rochester's economic hardship claim is not due to its own reasonably foreseeable actions or inactions. Rochester completed its initial Master Planning process in 1996. Evaluation of feasible and prudent pretreatment options had been completed as part of that process. The unexpected population growth was not predictable. Rochester began the preliminary expansion design and EAW processes in earnest as soon as the proposed permit limits were confirmed by the MPCA.

Based on the information included in this application, the City of Rochester requests approval of this Application for a Variance to conduct preliminary grading and bedrock excavation for the RWRP Expansion prior to the formal completion of the Environmental Review process.

FIGURES

RWRP Expansion - Trunk Sewer Extension EAW



Legend

Corporate Limits

Howard R. Green Company
Hoisington Koegler Group Inc.
The Osgood Group
Richardson Richter Associates Inc.
106 Group Ltd.

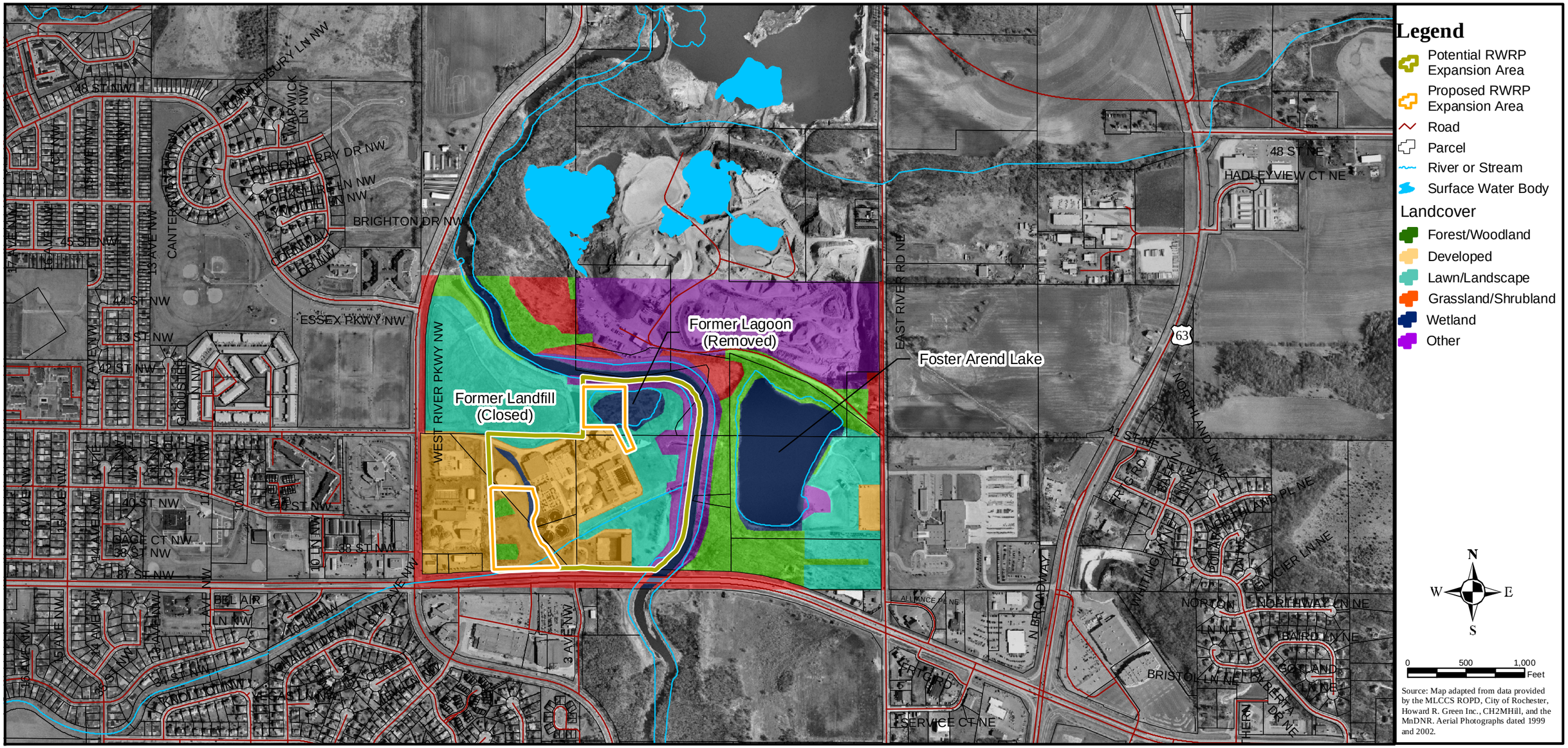
March 2004

Figure 1
General Location Map
Rochester, MN

ROCHESTER
Minnesota

RWRP Expansion - Trunk Sewer Extension EAW

ROCHESTER
Minnesota



Source: Map adapted from data provided by the MLCCS ROPD, City of Rochester, Howard R. Green Inc., CH2MHill, and the MnDNR. Aerial Photographs dated 1999 and 2002.

EARTH TECH

Howard R. Green Company
Hoisington Koegler Group Inc.
The Osgood Group
Richardson Richter Associates Inc.
106 Group Ltd.

March 2004

Figure 2

RWRP Potential Expansion Area

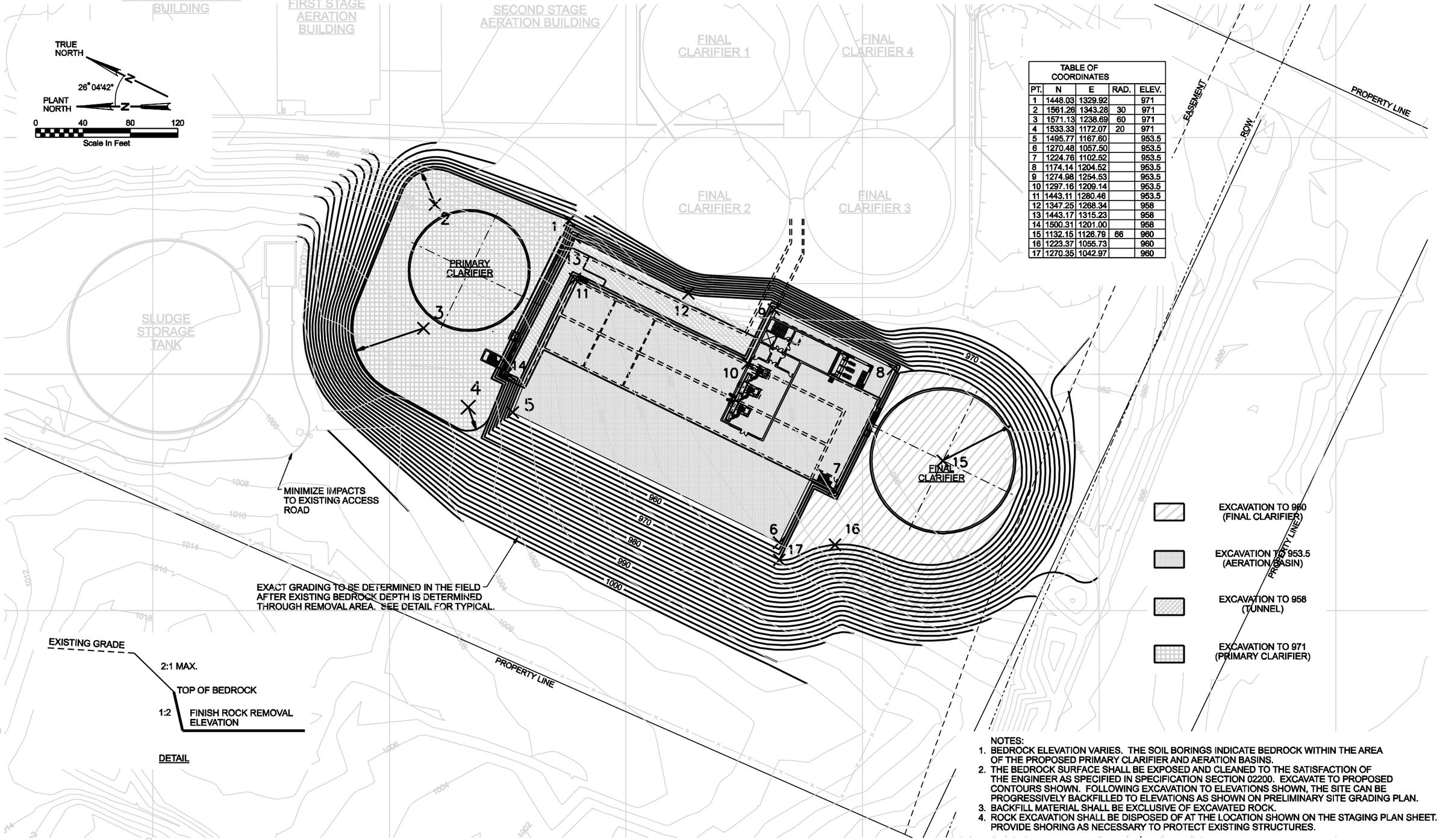


TABLE OF COORDINATES				
PT.	N	E	RAD.	ELEV.
1	1448.03	1329.92		971
2	1561.26	1343.28	30	971
3	1571.13	1238.69	60	971
4	1533.33	1172.07	20	971
5	1495.77	1167.60		953.5
6	1270.48	1057.50		953.5
7	1224.76	1102.52		953.5
8	1174.14	1204.52		953.5
9	1274.98	1254.53		953.5
10	1297.16	1209.14		953.5
11	1443.11	1280.46		953.5
12	1347.25	1268.34		958
13	1443.17	1315.23		958
14	1500.31	1201.00		958
15	1132.15	1126.79	66	960
16	1223.37	1055.73		960
17	1270.35	1042.97		960

NOTES:
1. BEDROCK ELEVATION VARIES. THE SOIL BORINGS INDICATE BEDROCK WITHIN THE AREA OF THE PROPOSED PRIMARY CLARIFIER AND AERATION BASINS.
2. THE BEDROCK SURFACE SHALL BE EXPOSED AND CLEANED TO THE SATISFACTION OF THE ENGINEER AS SPECIFIED IN SPECIFICATION SECTION 02200. EXCAVATE TO PROPOSED CONTOURS SHOWN. FOLLOWING EXCAVATION TO ELEVATIONS SHOWN, THE SITE CAN BE PROGRESSIVELY BACKFILLED TO ELEVATIONS AS SHOWN ON PRELIMINARY SITE GRADING PLAN.
3. BACKFILL MATERIAL SHALL BE EXCLUSIVE OF EXCAVATED ROCK.
4. ROCK EXCAVATION SHALL BE DISPOSED OF AT THE LOCATION SHOWN ON THE STAGING PLAN SHEET. PROVIDE SHORING AS NECESSARY TO PROTECT EXISTING STRUCTURES.

PRELIMINARY
NOT FOR CONSTRUCTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ENGINEER'S SIGNATURE

DATE _____ REG.NO. _____

DSGN	
DR	R.MONJEAU
CHK	K.THOMPSON
APVD	

NO.	DATE	REVISION	BY	APVD

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

CH2MHILL
Howard R. Green Company
integrated technology ENGINEERING, INC.

WATER RECLAMATION PLANT
CITY OF ROCHESTER, MINNESOTA

2004 PLANT SITE PREPARATION
SITEWORK
EXCAVATION PLAN AND DETAIL

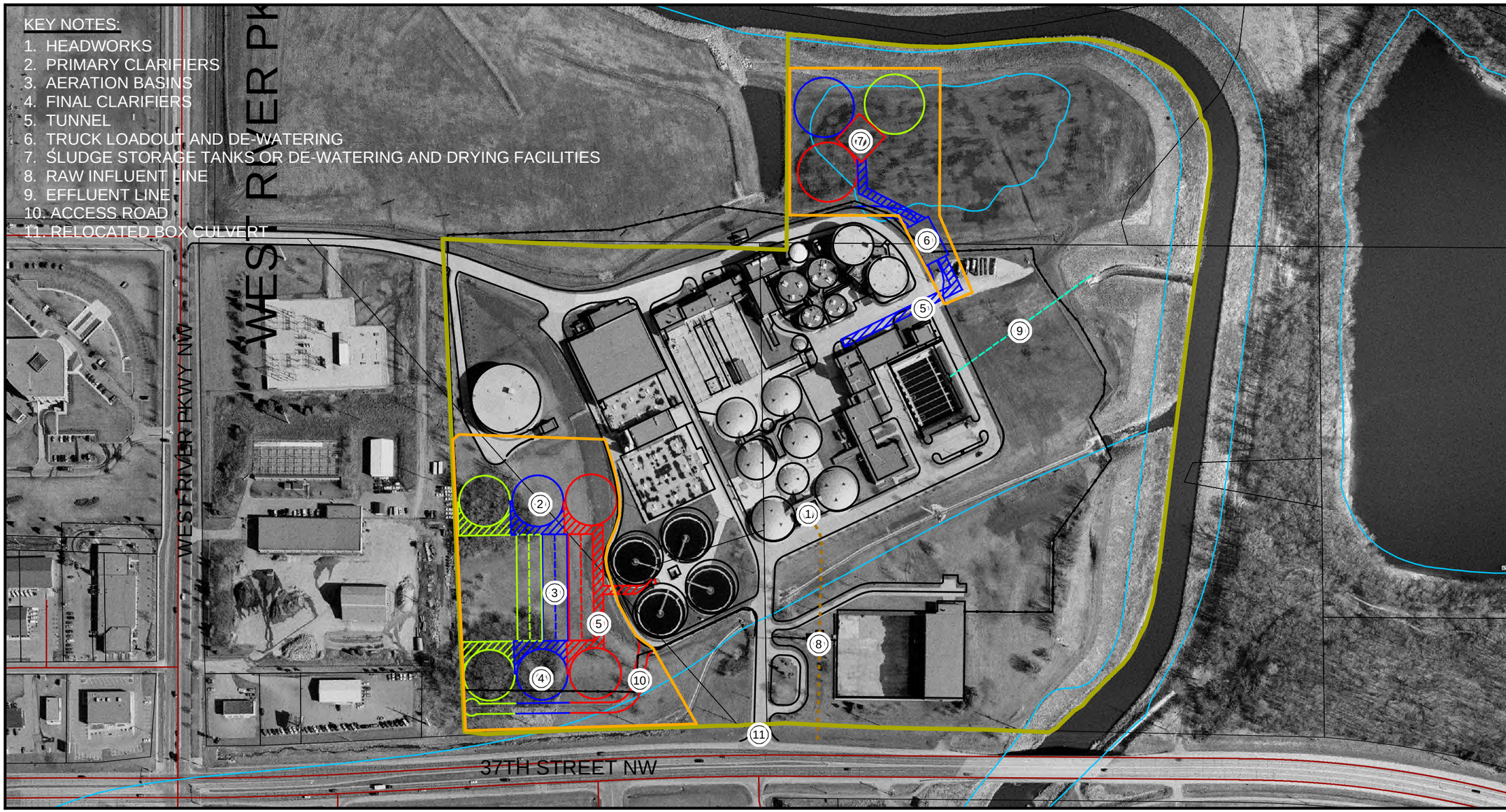
SHEET	__
DWG	C-2
DATE	APRIL 2004
PROJ	182925.CD.SP

FILENAME: 03c02d4c.dgn PLOT DATE: 14-APR-2004 PLOT TIME: 11:46:36

ROCHESTER
Minnesota

RWRP Expansion - Trunk Sewer Extension EAW

ROCHESTER
Minnesota



Legend

- Potential RWRP Expansion Area
- Proposed RWRP Expansion Area
- Road
- Parcel
- River or Stream
- Surface Water Body
- RWRP Phase 1 Expansion
- RWRP Phase 2 Expansion
- RWRP Phase 3 Expansion

N
W E
S

0 125 250 Feet

Source: Map adapted from data provided by the ROPD, City of Rochester, Howard R. Green Inc., CH2MHill, and the MnDNR. Aerial Photographs dated 1999 and 2002.

EARTH TECH

Howard R. Green Company
Hoisington Koegler Group Inc.
The Osgood Group
Richardson Richter Associates Inc.
106 Group Ltd.

March 2004

Figure 3
RWRP Expansion Schematic Showing Phasing