



Environmental Assessment

East Side Stormwater Lift Station

City of Delano, Wright County, Minnesota

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List of Acronyms and Abbreviations

APE	Area of Potential Effect
ASTM	American Society for Testing and Materials
BMP	Best Management Practice
BWSR	Board of Water and Soil Resources
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CFS	cubic feet per second
CO	carbon monoxide
CR	County Road
CWA	Clean Water Act
dB	decibel
DHS	United States Department of Homeland Security
DNL	Day/Night Average Sound Level
EA	Environmental Assessment
EDR	Environmental Data Resources
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
HMGP	Hazard Mitigation Grant Program
HWL	High Water Level
LGU	Local Governmental Unit
MDNR	Minnesota Department of Natural Resources
MNRRRA	Mississippi National River and Recreation Area
MPCA	Minnesota Pollution Control Agency
MRCA	Mississippi River Critical Area
NAAQS	National Ambient Air Quality Standards
NCA	Noise Control Act of 1972
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHP	National Heritage Program
NO ₂	nitrogen dioxide
NPDES	National Pollution Discharge Elimination System
NPS	National Park Service
NRHP	National Register of Historic Places

List of Acronyms and Abbreviations

NWI	National Wetland Inventory
O ₃	ozone
OSA	Minnesota Office of the State Archaeologist
OSHA	Occupational Safety and Health Administration
PM ₁₀	particulate matter of 10 microns or less
RCRA	Resource Conservation and Recovery Act
SHPO	State Historic Preservation Office
SQG	Small Quantity Generator
SWA	Solid Waste Act
TSCA	Toxic Substance Control Act
URS	URS Group, Inc.
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
WCA	Wetland Conservation Act
WSRA	Wild and Scenic Rivers Act

1.1 PROJECT AUTHORITY

Since 2001, levels of the South Fork of the Crow River have caused floodgates to close on five separate occasions. During each of these events, the City of Delano experienced a 100-year storm event with the floodgates closed, which required the setup of four portable pumps. Despite the City's best efforts, a number of homes in the area experienced flooding and significant property damage.

The City of Delano, Wright County, Minnesota, applied for Hazard Mitigation Grant Program (HMGP) funding under Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act after significant flooding in 2002. The Federal Emergency Management Agency (FEMA) grants funds under this program for mitigation measures, projects, or actions proposed to reduce risk of future damage, hardship, loss, and suffering from future disasters. In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500 through 1508), and FEMA regulations for NEPA compliance (44 CFR Part 10), FEMA must fully understand and consider the environmental consequences of actions proposed for Federal funding. The purpose of this Environmental Assessment (EA) is to meet the FEMA responsibilities under NEPA and to determine whether to prepare a Finding of No Significant Impact (FONSI) or an Environmental Impact Statement for the proposed project.

1.2 PROJECT LOCATION AND SETTING

The City of Delano is in Wright County, approximately 25 miles west of the Minneapolis-St. Paul Metropolitan area in east-central Minnesota (Figure 1). The County is bordered on the north by the Mississippi River and on the east by the Crow River. The project site is located in the City of Delano, which lies along the Crow River in the southeastern part of the County. Delano has a population of 3,847 (U.S. Census, 2000). The project is proposed to be located just south of the current Wastewater Treatment Facility, in the northeast quadrant of the intersection of County Road (CR) 30 and CR 17. The South Fork of the Crow River lies to the northwest of the proposed project site (see project area photographs in Appendix A). A park and approximately 37 residences lie south of the project site.

1.3 PURPOSE AND NEED

The objective of the FEMA HMGP is to assist the community in mitigating conditions that will continue to occur during future natural disasters. The City has requested Federal funding under HMGP to construct a lift station near the current Wastewater Treatment Plant, to protect surrounding homes from flooding and to relieve sanitary sewer backup.

There is an earthen emergency levee that runs through the City, along the eastern bank of the South Fork of the Crow River. When the river reaches a flood level of 9 feet, the City's floodgates close, preventing the flow of water out of the City. In the project area, this procedure, in combination with the levee, creates a landlocked basin. All runoff goes toward the river and accumulates in the neighborhoods that the levee protects from the river, flooding area homes. Prior to 2001, the east side drainage area had 15 different crests over 10-foot flood level since 1990, over eight different years. In each case, the City had to pump water because high river

levels closed the floodgates. Since 2001, the river has reached this level on five separate occasions.

In one of the most significant events, on June 24, 2002, the flooding resulted in blockage of the outlet for the east side drainage area of the City. This forced the city to sustain a 100-year storm event with no outlet for the drainage system. The City initiated emergency pumping operations, setting up four large pumps near the outlet to pump water over the levee. The pumps required 24-hour maintenance and supervision. The four pumps ran continuously, causing one pump to burn up within three days. The remaining three pumps ran for a total of seven days to get the water to a manageable level. In all, this storm event caused basement flooding and property damage to nine residences.

From an engineering standpoint, typical storm sewer design for a landlocked basin is to handle two consecutive 100-year storm events. Based on stormwater modeling and the events of 2002, two consecutive flooding events within this area could affect up to 37 buildings. Based on County Assessor data of average market value of \$115,000 in this flood area, the total value of the 37 structures exceeds \$4,250,000. All of these buildings would be susceptible to flooding in back-to-back events. Therefore, a conservative estimate of damages at 10 percent of building value would be \$425,000 in damages per flood event. In addition, since 1990 the City has incurred an average cost of \$52,500 per flood event for emergency pumping activities, including equipment rental, staffing, fuel, and equipment replacement.

In the past, flooding in this area has also resulted in sanitary sewer backup. The City instituted an inspection program to find and eliminate sump pump connections into the sanitary sewer, and also replaced a number of manhole covers in flood-prone areas to reduce the amount of flood waters entering the sanitary sewer system through manholes. However, the City has determined that flooded basements also contribute to sanitary sewer problems. Floodwater enters basements and infiltrates the separate sanitary sewer system through shower and basement drains. The infiltration exceeds system capacity, forcing sewage and contaminated waters out into the basement. In addition to causing property damage, sanitary sewer system backup poses a significant and widespread health and safety risk to residents when raw sewage backs up into their homes. Therefore, improvement of the storm sewer system will also address the sanitary storm sewer issues in the project area.

Prolonged flood conditions and standing water in residential neighborhoods surrounding the proposed project site have also caused the area to be subject to sedimentation of wetlands, stormwater ponds, and stormwater pipes. It also causes surface erosion. Sedimentation impacts wetlands and further impairs the function of the drainage system, and surface erosion causes loss of vegetation and topsoil. The proposed improvements would help to reduce these impacts in the project area.

The purpose of the proposed project is to fulfill the need for more efficient (and cost-effective) handling of stormwater in flood events in order to protect human health, safety and private property. The project would protect surrounding homes from flooding and relieve sanitary sewer backups, and would also decrease the risk of surface erosion and sedimentation of the stormwater drainage system.

The CEQ has developed regulations for implementing NEPA. These Federal regulations require an evaluation of alternatives and a discussion of the potential environmental impacts of a

proposed Federal action as part of the EA process. FEMA regulations, which establish the FEMA process for implementing NEPA, are set forth in 44 CFR, Subpart 10. This EA was prepared in accordance with FEMA regulations as required under NEPA. As part of this NEPA review, the requirements of other environmental laws and Executive Orders (EOs) are also addressed.

2.1 ALTERNATIVE 1 – NO ACTION

Under the No Action Alternative, a lift station would not be constructed, and improvements would not be made to the existing storm sewer or outlets to the South Fork of the Crow River. The City of Delano would be required to continue to emergency pumping operations. During major storm events, residents would continue to experience flooded basements and extensive property damage. Health and safety risks for area residents as a result of sanitary sewer backup into homes would also continue, and the City of Delano would continue to expend local funds for emergency pumping costs.

2.2 ALTERNATIVE 2 – LIFT STATION WITH 40 CFS PUMPING CAPACITY FROM POND 1 (PREFERRED ALTERNATIVE)

Alternative 2 involves installation of a 1,024-square-foot lift station (approximately 32-feet by 32-feet) near the City's current Wastewater Treatment Facility on CR 17, north of the intersection with CR 30 (see Figure 2). The East Side Stormwater Lift Station would pump 40 cubic feet per second (cfs) of water from the existing pond (Pond 1) and force it through 250 feet of new 30-inch pipe. The pipe would run from the lift station to vicinity of the existing outlet on the west side of CR 17, with approximately 100 feet of the pipe jacked under the roadway. Water pumped from the lift station would discharge over the levee on the west side of the roadway, and would then be directed to an existing stream channel that outlets to the South Fork of the Crow River (see Figure 3). This would reduce the flood elevation of the area 5.3 feet by lowering the high water level (HWL) of the pond from 918 feet to 912.7 feet (Bonestroo, 1997). Construction of the lift station would require excavation to increase depth of the western one-third of Pond 1. This deepening of the pond would allow for proper pump operation, which is defined as an approach velocity of flow to the lift station intake that is less than 0.5 feet per second (Bonestroo, 1997).

Pond 1 is characterized by a small ditch that extends east from CR 17, which enlarges out to the remainder of the pond. Stormwater flows from the south-southeast through a series of ponds, wetlands, and ditches leading to Pond 1. Currently, the pond is connected to this system to the south via a 48-inch pipe under CR 30. It is not anticipated the capacity of this existing pipe would need to be modified as a result of this project. Water that enters Pond 1 then discharges via a 48-inch pipe under CR 17, which discharges into the existing stream that outlets to the South Fork of the Crow River. This 48-inch pipe will be retained to maintain normal water elevation of the pond. The new 30-inch pipe will discharge to the same area, but will only discharge when the lift station is operating.

As part of construction, existing turf grass would be cleared along the west side of Pond 1 where the lift station is being built, and along the path of the pipe until it meets CR 17. Vegetation on the west side of CR 17 would also be disturbed along the path of the proposed pipe. All vegetation will be restored to its existing condition after construction. Dewatering is anticipated during project construction.

Construction equipment and materials would be stored on site, which is part of the City-owned Wastewater Treatment Facility property.

Traffic on CR 17 will not be disrupted during construction of the lift station. The new 30-inch pipe under CR 17 will be directionally bored or jacked, and will not disrupt the roadway. The lift station and pipe from the lift station to CR 17 will be constructed on City property, with access from the existing driveway to the Public Works building. The entire project is anticipated to require up to three months to complete, with a planned start date of January/February 2006.

2.3 ALTERNATIVE 3 - LIFT STATION WITH 40 CFS PUMPING CAPACITY FROM POND 2

Alternative 3 involves installation of a 1,024-square-foot lift station within the City-owned Central Park property, just south of CR 30 near its intersection with CR 17 (see Figure 3). This lift station would pump 40 cfs of water, similar to Alternative 2. The water would be pumped from an area identified in the City's Stormwater Management Plan as HS-P607 (Pond 2). This area is near a large wetland complex that has been filled in recent years to construct athletic fields in the park, but retains characteristics of a wetland in some areas. A new 30-inch pipe would be installed along the south side of CR 30, west under CR 17, and north to the same discharge point as Alternative 2. This would be a total of approximately 400 feet of piping. The water would discharge over the levee and would then be directed to an existing stream channel that outlets to the South Fork of the Crow River (see Figure 2), also as in Alternative 2.

Construction of this lift station would reduce the flood elevation of the area 5.1 feet by lowering the HWL of the pond from 918 feet to 912.9 feet (Bonestroo, 1997). Construction of the lift station would require excavation of the area to achieve appropriate pumping capacity for the proposed lift station. This would allow for proper pump operation, which is defined as an approach velocity of flow to the lift station intake that is less than 0.5 feet per second.

As part of construction, existing turf grass and wetland vegetation would be cleared along the northeast side of Pond 2 where the lift station is being built. Dewatering is anticipated during project construction.

Construction equipment and materials would be stored at the City-owned Wastewater Treatment Facility property, across CR 30 from the proposed site.

Traffic on CR 30 and CR 17 would not be disrupted during construction of the lift station. The new 30-inch pipe under CR 17 would be directionally bored or jacked, and would not disrupt the roadway. The lift station itself will be constructed on City park property, with access from the main park entrance off CR 17. Trucks would drive across park turf to reach the site of construction. The entire project would require up to three months to complete, with a planned start date of January/February 2006.

2.4 ALTERNATIVES CONSIDERED BUT DISMISSED

Construction of a lift station with 60 cfs pumping capacity was also considered as an alternative to this project. However, this alternative was dismissed because it would provide very little added flood protection at a much higher cost.

The City of Delano also considered removing the homes within the area frequently affected by flooding. However, this alternative was dismissed because it would require significant effort and resources to reach agreements with each of the homeowners.

3.1 PHYSICAL ENVIRONMENT

3.1.1 Geology, Seismicity, and Soils

The physical relief in the region that includes the project area was formed by pre-Wisconsin glaciation, resulting in outwash plains, gently rolling to steep hills, and numerous depressions filled with marshes, wetlands, and lakes. The South Fork of the Crow River bisects the City of Delano, creating a well-defined river valley. The City is largely situated on a relatively flat floodplain, although the project area is outside of the 100-year floodplain.

Bedrock underlying the project area is primarily composed of Cambrian and Precambrian sedimentary rock formations, consisting of sandstone, shale, and dolomite in upper layers, and sandstone, siltstone, and shale in lower layers. Bedrock is overlain with undifferentiated drift, which is primarily gray, calcareous, silty till that is largely unsorted and unstratified. There may be buried sand and gravel deposits of varying extents (Wenck Associates, 2004).

Soils within the City of Delano area are mapped almost entirely within the Hayden-Lester-Peat association, which is described as “deep, medium-textured and moderately fine-textured soils on strongly rolling and hilly uplands” (USDA, 1968). However, soils in the project area consist of soils from the Hubbard Series, more specifically Hubbard loamy sand. This soil consists of deep, excessively drained loamy sands with slopes of 6 to 12 percent. The area is surrounded by alluvial deposits and other sandy soil types. Historically, aggregate mining has taken place on the project site.

Alternative 1 – No Action

Under the No Action Alternative, surface erosion and sedimentation of the stormwater drainage system would continue. In addition, with no lift station, sanitary sewer backup would continue to be a problem in the project area. Raw sewage could infiltrate the soil and cause contamination.

Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 1 (PREFERRED ALTERNATIVE)

It is not anticipated Alternative 2 would result in permanent negative impacts on geology, seismicity, or soils in the project area. Areas along the path of the proposed 30-inch pipe would be open-cut from the lift station to CR 17, and from CR 17 to the outlet past the levee, resulting in potential surface soil erosion. Approximately 500 cubic yards (CY) of excavation would be required to install the open-cut portions of pipe installation. This would be temporary and limited to periods of pipe installation. Soil disturbances as a result of the travels of construction equipment to and from the site may also result in a minimal temporary increase in surface soil erosion and compaction. This would be mitigated through use of required Best Management Practices (BMPs) that include protecting erodible surfaces (see Appendix C). Earthwork would not be allowed during precipitation events. Additionally, exposed soils would be seeded with a turf grass mix comparable to that which currently exists. In addition, compacted soils would be loosened by disking or raking prior to seeding. Overall, the project would reduce long-term

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surface erosion and sedimentation of the stormwater drainage system by more efficiently collecting and moving floodwaters.

All excavated soils would be inspected for contamination during the excavation process. All clean soils would be disposed of at the City Compost Facility, located across CR 17 to the west of the proposed project site. Any suspected or known contaminated soils would be disposed of and handled by the City in accordance with applicable local, State, and Federal regulations. This includes proper transportation and deposit of the soil at an MPCA-approved disposal site.

Alternative 3 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 2

It is not anticipated that Alternative 3 would result in permanent negative impacts on geology, seismicity, or soils in the project area. Areas along the path of the proposed 30-inch pipe would be open-cut, resulting in potential surface soil erosion. Approximately 800 cubic yards (CY) of excavation would be required to install the open-cut portions of pipe installation. This would be temporary and limited to periods of pipe installation. Soil disturbances as a result of the travels of construction equipment to and from the site may result in a minimal temporary increase in surface soil erosion and compaction, and would be minimized through the use of BMPs as described under Alternative 2. Overall, the project would reduce long-term surface erosion and sedimentation of the stormwater drainage system by more efficiently collecting and moving floodwaters.

All excavated soils would be inspected for contamination during the excavation process. All clean soils would be disposed of at the City Compost Facility, located across CR 17 to the west of the proposed project site. Any suspected or known contaminated soils would be disposed of and handled by the City in accordance with applicable local, State, and Federal regulations. This includes proper transportation and deposit of the soil at an MPCA-approved disposal site.

3.1.2 Water Resources and Water Quality

As part of the Clean Water Act (CWA) Sections 404 and 401, each State is required to prepare a biennial report for the Environmental Protection Agency (EPA) on the quality of its water resources. States may measure water quality through a number of parameters, including examining fish and wildlife contaminants, water and sediment chemistry, biological integrity/physical habitat, and stream flow. The goal of the CWA is to achieve waters suitable for fishing and swimming. This is assessed in terms of aquatic life, aquatic consumption, and aquatic recreation.

Minnesota's 2004 Water Quality Report states that the 31.4-mile stretch of the South Fork of the Crow River from Buffalo Creek to the North Fork of the Crow River, which includes the project area, is listed as not supporting the aquatic life and aquatic consumption assessment criteria. It was not evaluated for aquatic recreation. The indicators of impairment for this stretch of river include fish, turbidity, and mercury. This stretch of the river also exceeds ecoregion norms for total phosphorus, nitrite/nitrate, oxygen demand, and suspended solids (Minnesota Pollution Control Agency [MPCA], 2004).

As a result, this segment of the river is on the Impaired Waters List under Category 5A. Under Category 5, the water body does not meet applicable water quality standards or is threatened for one or more designated uses by one or more pollutants. Historically, agricultural runoff and

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faulty septic systems/wastewater treatment systems have been the primary causes of water pollution in this region.

Potential water quality impacts as a result of any new project construction generally originate from the following:

- Erosion of exposed soils during construction;
- Reduced infiltration and increased runoff from the construction of new impervious surfaces;
- Pollutants from automobiles, such as oil, grease, and metals, that collect on impervious surfaces and are washed off by runoff;
- Increased runoff that overburdens existing drainage systems, causing flooding; and
- Fill or construction in floodplains that affects flood levels in streams and rivers.

Both the Minnesota Department of Natural Resources (MDNR) Waters Division and the United States Army Corps of Engineers (USACE) were sent information describing and illustrating the proposed project. In an e-mail dated October 13, 2004, Patricia Fowler, MDNR Area Hydrologist, indicated that the proposed project does not impact any public waters of the State, and MDNR authorization is not required. She noted that a MDNR Water Appropriation Permit would be required if proposed construction dewatering would exceed 10,000 gallons per day or one million gallons per year (Appendix B). The proposed project alternatives would require dewatering due to construction of lift station footings and intakes. The Water Appropriation Permit will be applied for through the MDNR. The MDNR did not voice any concerns about impacts to the South Fork of the Crow River.

USACE also reviewed the project and did not voice any concerns about impacts to the South Fork of the Crow River (Appendix B). Wetlands are addressed in Section 3.2.2.

The proposed project would slightly increase the amount of impervious surface by constructing the lift station. However, the project would help to decrease the overburden on existing drainage systems that currently results in flooding and septic system backup during significant storm events. Erosion of exposed soils would be managed by BMPs as described in Section 3.1.1.

Potential sedimentation due to temporary construction impacts is discussed below. The proposed project would direct water through existing wetlands, which are discussed in Section 3.2.2.

Special Designation Areas

The project does not lie within the MNRRA or areas protected by the Wild and Scenic Rivers Act (WSRA). There are no other Federal- or State-designated areas within the project area. No further action is necessary under MNRRA, WSRA, or any State-designated program.

Alternative 1 – No Action

Under the No Action Alternative, periodic flooding and sanitary sewer backup during heavy rainfall events would still occur. Residents would continue to be at risk from raw sewage infiltrating the storm sewer and potentially reaching surface waters and drinking water supplies. Continued flooding would also result in increased erosion and sedimentation of water bodies.

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Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 1 (PREFERRED ALTERNATIVE)

Alternative 2 does not lie within any streams, lakes, or rivers, but stormwater would outlet from the proposed lift station to a small stream leading to the South Fork of the Crow River. The lift station would direct stormwater to the river in a more controlled manner than the emergency pumps that currently operate during storm events. Alternative 2 would not cause pollution or long-term sedimentation on the South Fork of the Crow River.

Alternative 2 has the potential for minor impacts on water quality as a result of construction grading, which may cause temporary sedimentation of Pond 1 due to erosion of bare soils. This possibility of sedimentation would be controlled through the use of BMPs as outlined in erosion control plans. BMPs may include protecting erodible surfaces and avoiding construction during precipitation events. The City of Delano has an approved Stormwater Management Plan, which outlines BMPs that are required through City ordinance (copies available at Delano City Hall, 952 Bridge Street). The following ordinances are cited in the plan and have BMP provisions for protecting water resources and water quality (Bonestroo, 1997):

- Grading, Erosion, and Sediment Control Ordinance
- Wetland Systems District Ordinance
- Floodplain District Ordinance

Each of these ordinances would be adhered to during project construction. A National Pollution Discharge Elimination System (NPDES) permit is required, as the project would involve more than one acre of grading. The City has initiated this permit process by preparing a Stormwater Pollution Prevention Plan (SWPPP), which lists the BMPs that would be used as part of the project, and how and when the BMPs would be implemented. The plan states the BMPs would all be in place prior to any excavation/construction, and would be maintained until viable turf or ground cover has been established. BMPs included in the SWPPP are:

- Rock construction entrance
- Erosion control blankets (Bioroll blanket system)
- Silt fence
- Inlet sediment filters

The City has initiated preparation of this plan, and will submit the plan to the selected contractor. The BMP detail sheets that would be included in the SWPPP are included in Appendix C. It would be the contractor's responsibility to use the SWPPP information to submit an NPDES permit to the Minnesota Pollution Control Agency (MPCA). This would be submitted 48 hours prior to construction, as mandated in permit requirements. The permit acts as a notification so the MPCA can monitor the project.

Alternative 3 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 2

Alternative 3 does not lie within any streams, lakes, or rivers, but stormwater would discharge from the proposed lift station to a small stream leading to the South Fork of the Crow River. The lift station would direct stormwater to the river in a more controlled manner than the emergency

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pumps that currently operate during storm events. Alternative 3 would not impose pollution or long-term sedimentation on the South Fork of the Crow River.

Alternative 3 would also lie near a wetland area, which creates the potential for minor impacts on water quality as a result of construction grading, which could cause temporary sedimentation of surrounding wetlands due to erosion of bare soils. This possibility of sedimentation would be controlled through the use of BMPs as outlined in erosion control plans, as described above under Alternative 2.

Ordinances as described under Alternative 2 would be adhered to during project construction. A National Pollution Discharge Elimination System (NPDES) permit would also be obtained from the MPCA, as the project would involve more than one acre of grading.

3.1.3 Floodplain Management (EO 11988)

Floodplain refers to the 100-year floodplains as defined by FEMA. They are shown on Flood Insurance Rate Maps or Flood Hazard Boundary Maps for all communities participating in the National Flood Insurance Program (NFIP).

The 100-year floodplain designates the area inundated during a flood that has a one percent chance of occurring in any given year. FEMA also identifies the 500-year floodplain, which designates the area inundated during a flood that has a 0.2 percent chance of occurring in any given year. Both of the project alternatives are located within the 100-year floodplain (see Figure 4).

EO 11988 directs Federal agencies to take action to minimize occupancy of and modification to floodplains. Specifically, EO 11988 prohibits FEMA from funding construction in the floodplain unless there are no practicable alternatives. FEMA regulations for complying with EO 11988 are promulgated in 44 CFR Part 9. FEMA applies the Eight-Step Planning Process as required by regulation to meet the requirements of EO 11988 (Appendix D).

Both the MDNR Waters Division and the USACE were sent information describing and illustrating the proposed project. In an e-mail dated October 13, 2004, Patricia Fowler, MDNR Area Hydrologist, noted that the proposed project does lie within the 100-year floodplain, and should be either floodproofed to meet State building code standards or elevated above the regulatory flood protection elevation in accordance with the City's floodplain ordinance. USACE also reviewed the project and did not voice any concerns about impacts to the 100-year floodplain (Appendix B).

FEMA applies the Eight-Step Planning Process as required by regulation to meet the requirements of EO 11988. This step-by-step analysis is included in Appendix D of this document.

Alternative 1 – No Action

No occupancy or direct modification to the 100-year floodplain would occur; therefore, EO 11988 is not applicable.

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Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 1 **(PREFERRED ALTERNATIVE)**

Alternative 2 lies within the 100-year floodplain. Elevation of the project area is not being raised. The project would direct floodwaters more efficiently across the floodplain and into the South Fork of the Crow River, decreasing the need for long-term flood storage and allowing for floodplain vegetation to withstand shorter durations of immersion. The 32 by 32-foot lift station structure would occupy approximately 5,120 cubic feet of floodplain, assuming a 5-foot vertical impact. Approximately 2,250 cubic feet of excavation would take place to deepen the western one-third of Pond 1. Therefore, this project would result in a loss of approximately 2,870 cubic feet of storage in the floodplain. This loss of flood storage at the East Side Lift Station location would ultimately be mitigated by the creation of a stormwater pond associated with the proposed West Side Lift Station, also located within Delano's 100-year floodplain. This stormwater pond would create approximately 12,000 cubic feet of water storage. See Section 4, Cumulative Impacts for additional information.

The project would also reduce the time that it takes for water to reach the river by providing a more efficient outlet system for Pond 1 and the project drainage area. The upstream watershed of the South Fork of the Crow River is approximately 1,200 square miles (768,000 acres). According to the City's Stormwater Management Plan, proposed Alternative 2 improvements would impact a watershed that is approximately 60 acres. Thus, the watershed affected by the proposed project is less than 0.01 percent of the upstream watershed. In addition, the proposed project would pump 40 cfs of water during a 100-year flood event. The National Weather Service categorizes "minor" flooding in South Fork of the Crow River at Delano as 8 to 12 feet. "Moderate" flooding is considered to be 12 to 14 feet, and "major" flooding is considered to be above 14 feet (National Weather Service, 2005). Since 2001, a majority of flooding has occurred in the moderate category (U.S. Army Corps of Engineers, 2005). Using the June 2002 floods as an example, the river reached a flood stage of approximately 13.5 feet. At this stage, the South Fork of the Crow River is flowing at 6,489 cfs (National Weather Service, 2005). The impact of the addition of 40 cfs at this stage is negligible at 0.6 percent. Based on this analysis, the proposed project will not negatively impact the elevation of the 100-year flood of the South Fork of the Crow River, and would not cause concerns for downstream properties (Krogstad, personal communication).

The lift station structure would be floodproofed in accordance with State building code standards, and would adhere to regulations established in the local Floodplain District Ordinance.

Alternative 3 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 2

Alternative 3 also lies within the 100-year floodplain. Excavation of Pond 2 would occur to achieve appropriate water velocity for the intake structure. This would increase storage within the floodplain. Elevation of the project area is not being raised. The project would direct floodwaters more efficiently across the floodplain and into the South Fork of the Crow River, decreasing the need for long-term flood storage and allowing for floodplain vegetation to withstand shorter durations of immersion. Similar to Alternative 2, which proposes the same pumping capacity, the project would not have any negative impact on floodplain elevation under this alternative.

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3.1.4 Air Quality

The Clean Air Act (CAA) of 1970, as amended, requires the EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The CAA establishes two types of national air quality standards: primary and secondary. Primary standards set limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, visibility, and damage to animals, crops, vegetation, and buildings.

The EPA Office of Air Quality Planning and Standards has set NAAQS for six principal pollutants called “criteria” pollutants: sulfur dioxide (SO₂), nitrogen dioxide (NO₂), carbon monoxide (CO), lead (Pb), particulate matter of 10 microns or less (PM₁₀), and ozone (O₃).

The EPA has designated specific areas throughout Minnesota as NAAQS attainment or non-attainment areas. Non-attainment areas are those that do not meet, or that contribute to ambient air quality in a nearby area that does not meet, either the national primary or the secondary air quality standards for a pollutant. According to the EPA, Wright County is in attainment for all six criteria pollutants (EPA, 2003).

Alternative 1 – No Action

No construction activities would take place under this alternative; therefore, there would be no impact to air quality.

Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 1 (PREFERRED ALTERNATIVE)

Implementation of Alternative 2 would involve limited use of heavy construction equipment, such as a backhoe, equipment trucks, power tools, and concrete trucks. The duration of the proposed project activities is anticipated to be approximately three months.

Heavy construction equipment is a source of fugitive dust emissions that may have a temporary effect on air quality. Emissions occurring during construction would be associated with earth-moving (grading). Dust emissions can vary from day to day, depending on the level of activity, the specific operations, and weather. Emissions from fuel-burning internal combustion engines (heavy equipment and earth-moving machinery) could temporarily increase the levels of volatile organic compounds and some of the priority pollutants, including CO, NO₂, O₃, and PM₁₀.

To mitigate for potential air quality impacts from fugitive dust and equipment emissions, vehicle engines would be kept in good repair and turned off while not in use, and the project area would be watered in dry conditions. The same measures would also be taken in the identified construction staging areas.

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Alternative 3 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 2

Implementation of Alternative 3 would involve limited use of heavy construction equipment, as described above under Alternative 2. The duration of the proposed project activities is anticipated to be approximately three months.

Heavy construction equipment is a source of fugitive dust emissions that may have a temporary effect on air quality. Emissions occurring during construction would be associated with earth-moving (grading). Dust emissions can vary from day to day, depending on the level of activity, the specific operations, and weather. Emissions from fuel-burning internal combustion engines (heavy equipment and earth-moving machinery) could temporarily increase the levels of volatile organic compounds and some of the priority pollutants, including CO, NO₂, O₃, and PM₁₀.

Mitigation measures to control fugitive dust emission would be the same as those described under Alternative 2.

3.2 BIOLOGICAL ENVIRONMENT

3.2.1 Terrestrial and Aquatic Environment

Terrestrial Environment

The proposed project site includes the area in which the lift station will be constructed, and areas west across the road and leading to the river.

A biologist with URS Group (URS) performed a site visit on September 17, 2004. The lift station would be constructed on the north side of Pond 1. The proposed lift station would draw water from the pond during high-water events, and would force water via pipe under CR 17 to near the existing outlet, and would discharge into a stream leading to the South Fork of the Crow River. Pond 1 was constructed in summer 2003 as part of the expansion of the Wastewater Treatment Facility, and functions as a stormwater pond. This area is vegetated with turf grass, alfalfa (*Medicago sativa*), clover (*Melilotus* sp.), and foxtail barley (*Hordeum jubatum*). This is low-lying vegetation and provides only limited wildlife habitat. Vegetation on the west side of CR 17, near the proposed pipe outlet, has limited vegetation. Riprap has been installed to dissipate water velocity. As floodwaters travel along the existing stream, the riprap gives way to typical floodplain forest, dominated by silver maple (*Acer saccharinum*) and some cottonwood (*Populus deltoides*). As the stream approaches the riverbank and becomes more of a wetland area, other vegetation emerges, such as reed canary grass (*Phalaris arundinaceae*), willow (*Salix exigua*), and jewelweed (*Impatiens capensis*). Annual weeds such as smartweed (*Polygonum penslyvanicum*) are also present.

Wildlife that may use the project site include mammals such as white-tailed deer (*Odocoileus virginianus*), Eastern cottontail rabbit (*Sylvilagus floridanus*), gray squirrel (*Sciurus carolinensis*), and raccoon (*Procyon lotor*), which likely use the site for movement between wooded areas. Songbirds will move through the area as habitat is suitable. Various songbirds were the only wildlife observed during the site visit.

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Aquatic Environment

Water directed by the proposed lift station would be discharged into the nearby South Fork of the Crow River, which contains a variety of fish species, including, but not limited to: walleye, northern pike, smallmouth bass, sunfish, bluegill, black crappie, catfish, bullhead, carp, and white sucker.

Ponds occasionally attracts ducks and geese. The proposed project would also direct water through a wetland area near the river. These areas likely provide temporary aquatic habitat, primarily in the spring, to species such as wood ducks, amphibians (frogs, toads, and salamanders), reptiles (snakes and turtles), and songbirds. Wetland impacts are discussed in Section 3.2.2.

Alternative 1 – No Action

Under this alternative, no changes to the existing terrestrial or aquatic environment would occur.

Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 1 (PREFERRED ALTERNATIVE)

Terrestrial Environment

The effects of Alternative 2 would include temporary disturbances to terrestrial habitat during project implementation. Existing turf grass along the bank of Pond 1, where the lift station would be constructed, would be removed. Turf grass along the path of the proposed pipe from the lift station to CR 17 would also be disturbed to allow for pipe installation. The area west of CR 17 to the outlet past the levee would also be open-cut to allow for pipe installation, disturbing limited vegetation. This area is also home to some rock riprap and debris, such as concrete block, monument spoil, and wire fence. Following project construction, turf grass will be reestablished on the lift station site and along the path of the pipe. The area between CR 17 and the outlet near the levee will also be restored, and debris would be removed. It is not anticipated that any vegetation would be removed from construction staging sites or at any point west of the outlet near the levee as a result of the proposed project.

Effects to the terrestrial environment would be limited and temporary until vegetation becomes reestablished. Existing habitat is limited due to the dominance of turf grass. Construction noise could disturb some species, but this impact would be temporary and last only for the duration of construction. Heavy construction equipment would compact soils in the project area. Soils compacted by construction machinery would be loosened by methods such as disking or raking. Overall, the existing terrestrial environment would be maintained, and would be improved by cleaning up debris in vicinity of the outlet.

Aquatic Environment

Limited temporary impacts to aquatic habitats would occur. These impacts would last for the duration of construction and would include removal of vegetation, soil erosion, and noise impacts. The proposed project would not impact water levels, but would rather assist in restoring water to normal levels more quickly after flooding. The proposed project is not anticipated to have negative consequences on aquatic resources.

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Alternative 3 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 2

Terrestrial Environment

The effects of Alternative 3 would include temporary disturbances to terrestrial habitat during project implementation. This disturbance would be in greater amounts than those experienced under Alternative 2, as this alternative requires additional piping. Existing wetland vegetation and turf grass along the bank of Pond 2, where the lift station would be constructed, would be removed. The predominant vegetation at this site is reed canary grass (*Phalaris arundinaceae*). Turf grass along the path of the proposed pipe would also be disturbed to allow for pipe installation. Following project construction, similar vegetation would be reestablished along the banks of Pond 2, and turf grass would be restored in the other areas. It is not anticipated that any vegetation would be removed from construction staging sites or at any point west of the outlet near the levee as a result of this alternative.

Effects to the terrestrial environment would be limited and temporary until vegetation becomes reestablished. Construction noise could disturb some species, but this impact would be temporary and last only for the duration of construction. Heavy construction equipment would compact soils in and around the project area, due to limited park access. Soils compacted by construction machinery would be loosened by methods such as disking or raking, and replanted with similar vegetation. Overall, the existing terrestrial environment would be maintained.

Aquatic Environment

Limited temporary impacts to aquatic habitats would occur. These impacts would last for the duration of construction and would include removal of vegetation, soil erosion, and noise impacts. The proposed project would not impact water levels, but would rather assist in restoring water to normal levels more quickly after flooding, although it would be a slightly slower response than that of Alternative 2. The proposed project is not anticipated to have negative consequences on aquatic resources.

3.2.2 Wetlands (EO 11990)

A wetland is defined by State and Federal regulations as an area that exhibits three distinct characteristics: 1) hydric soils; 2) inundation or saturation at or near the ground surface for a period of the growing season; and, 3) a prevalence of vegetation adapted to wet soil conditions. Wetlands are recognized as having important functions, including flood storage, water quality, wildlife and fisheries habitat, vegetation diversity, shoreland protection, aesthetics, and public recreation, resulting in their protection by local, State, and Federal regulations. These regulations require that wetland impacts be avoided or minimized to the extent feasible, with wetland replacement required for unavoidable impacts. Impacts that are unavoidable must be replaced at a ratio of at least 2 acres of wetland creation or restoration for every acre of wetland impact.

Under EO 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and preserve and enhance their natural and beneficial values. If a Federal action has the potential to impact jurisdictional waters of the United States as defined by Section 404 of the CWA, the USACE is contacted for appropriate permitting requirements. Section 404 of the CWA authorizes the USACE to issue permits, after notice and opportunity for public hearings, for the discharge of dredged or fill material into waters of the United States at specified disposal

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sites. The MDNR has regulatory authority over activities within selected wetlands and waters, as identified on Public Waters Inventory maps, published by the MDNR. The City of Delano has regulatory authority for all wetlands within its legal boundary.

FEMA applies the Eight-Step Planning Process as required by regulation to meet the requirements of EO 11990. This step-by-step analysis is included in Appendix D of this document.

In 1991, the State of Minnesota enacted the Wetland Conservation Act (WCA). This legislation authorized Local Governmental Units (LGUs) to administer State wetland regulations. The WCA requires that activities resulting in the draining or filling of a wetland must be avoided or minimized. Impacts that are unavoidable must be replaced at a 2:1 ratio. At least the first 1:1 must be creation of new wetland or purchase of wetland bank credits. The remaining 1:1 can be in the form of plantings or other creative mitigation on the site (MDNR-approved fishing areas, habitat improvements, etc.). The WCA is administered by the Board of Water and Soil Resources (BWSR) and implemented by LGUs. In those cases where wetland impacts occur on State land, the LGU is the State agency with administrative responsibility for that land.

Wetlands were identified using National Wetland Inventory (NWI) mapping and verified during a site visit on September 17, 2004. The proposed project is located in an historic upland area with soils that are not conducive to wetlands. The City constructed Pond 1 on the proposed project site in summer 2003, in conjunction with expansion of the Wastewater Treatment Facility. During and after flood events, excess water would be pumped through the lift station down the South Fork of the Crow River, where wetlands are more prevalent. Water would be directed via a small stream that splits two wetland areas, classified by the NWI as PEMCd (Palustrine, Emergent, Seasonally Flooded, Partially Drained/Ditched) and PFO1Bd (Palustrine, Forested, Broad-Leaved Deciduous, Saturated, Partially Drained/Ditched). Typical vegetation includes reed canary grass (*Phalaris arundinaceae*), willow (*Salix exigua*), and jewelweed (*Impatiens capensis*) in the PEMCd wetland (Wetland 1), with silver maple (*Acer saccharinum*) dominating the PFO1Bd wetland (Wetland 2).

Both the MDNR Waters Division and the USACE were sent information describing and illustrating the proposed project. In an e-mail dated October 13, 2004, Patricia Fowler, MDNR Area Hydrologist, indicated that the proposed project does not impact any public waters of the State (including wetlands), and MDNR authorization is not required. It should be noted that the entire area bordered by CR 17 and CR 30, home of the Wastewater Treatment Facility, Public Works building, and the proposed lift station, is covered by WCA Exemption under Minnesota Rule Chapter 8420.0122 (Appendix B). This exemption was granted March 31, 2003.

Following additional phone consultation, the USACE issued an email dated February 21, 2005, that stated a Federal permit is not required for excavation of Pond 1, and installation of the infall/outfall structures at the pond and on the west side of the levee would be authorized by a non-reporting General Permit (Installation of Outfall Structures).

Alternative 1 – No Action

Under this alternative, wetlands would continue to be subject to frequent flooding, causing potential sedimentation and contamination from sewer backups. This would cause temporary

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impacts to water quality, wildlife and plants during flood events, and could cause long-term degradation of the wetland system.

Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 1 **(PREFERRED ALTERNATIVE)**

There are no jurisdictional wetlands located within the vicinity of the proposed lift station. No construction is proposed within the Wetlands 1 and 2, east of CR 17 near the South Fork of the Crow River. It is not anticipated that water directed to the South Fork of the Crow River will adversely affect Wetlands 1 and 2, which contain the small stream channel. These wetlands would be inundated with water during flood periods, but this is similar to existing flood conditions where emergency pumps are utilized. The proposed lift station will provide a permanent pumping structure that would maintain a constant velocity of water during storm events, thereby reducing erosion and stream impacts associated with intermittent bursts of water due to pumps breaking down, or several pumps running through one outlet. Therefore, this project would provide the wetlands with a more consistent hydrologic regime, as compared to current conditions. This alternative does not require 2:1 replacement requirements under the WCA or MDNR.

Alternative 3 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 2

The Pond 2 area is very near a wetland area, and retains wetland characteristics of hydric soils and wetland vegetation such as reed canary grass. If this alternative were chosen, it would require more extensive review by the USACE and may require 2:1 replacement requirements under the WCA or MDNR.

As the outlet and path of the water to the river would be the same, Alternative 3 would have similar effects as described under Alternative 2.

3.2.3 Threatened and Endangered Species

The Endangered Species Act (ESA) of 1973 requires Federal agencies to determine the effects of their actions on threatened and endangered species of fish, wildlife, and plants and on their habitats, and to take steps to conserve and protect these species.

The MDNR was contacted in February 2003 for information regarding known occurrences of threatened, endangered, or otherwise significant plant and animal species, natural plant communities, and other natural features. In a letter dated November 10, 2003 (Appendix B), the MDNR concluded that there are four known occurrences of rare species or natural communities within an approximate 1-mile radius of the project site. However, based on the nature and location of the proposed project, the MDNR has determined that no known occurrences of rare features would likely be affected. In e-mail correspondence dated September 28, 2004 (Appendix B), the MDNR confirmed that this determination was still acceptable.

The United States Fish and Wildlife Service (USFWS) was sent a letter requesting review of the project for Federal threatened or endangered species. In e-mail correspondence dated January 6, 2005, the USFWS documented that the Federal threatened bald eagle (*Haliaeetus leucocephalus*) is known to nest in Wright County, typically in floodplain forest environments.

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However, no bald eagles are known to nest within the project area. Therefore, the USFWS does not believe the project will have any adverse impacts on the bald eagle or any other Federal threatened or endangered species (Appendix B).

No impacts to threatened and endangered species are anticipated under any of the alternatives.

3.3 HAZARDOUS MATERIALS

The Resource Conservation and Recovery Act (RCRA) defines hazardous waste as “a solid waste, or combinations of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of or otherwise managed.” While the definition refers to solids, it has also been interpreted to include semisolids, liquids, and contained gases (Wentz, 1989).

Hazardous materials and wastes are regulated in Minnesota through a combination of Federally mandated laws and State laws developed by the MPCA. Minnesota State Hazardous Waste Rules are contained in Chapter 7045 of the Minnesota Rules. Federal regulations governing hazardous wastes include RCRA; the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Solid Waste Act (SWA); and the Toxic Substance Control Act (TSCA).

To determine the presence and approximate location of known hazardous materials in the vicinity of the proposed project, a database search was conducted by FirstSearch Technology Corporation (FirstSearch, 2005). The database search queried multiple Federal, State, and local hazardous materials and underground storage tank (UST) databases to identify sites of potential concern. Identified USTs were also cross-checked in the MPCA Storage Tank Database (MPCA, 2004).

Three sites were identified within 0.5 mile of the proposed project site. One site is approximately 320 feet northeast of the proposed lift station, and is classified as a State SPILLS site. In March 2003, approximately 5 gallons of sewage/wastewater spilled due to an equipment malfunction at the Wastewater Treatment Plant. Response was completed in accordance with State guidelines, and the site was closed within two days. The small size of the spill, and the fact it was appropriately closed, suggests that risk of contamination to the project site is minimal.

The remaining two sites are registered UST sites containing fuel oil, with no reported violations. One is located approximately 600 feet southeast of the project site, and one is located 0.5 mile east of the project site. According to topographic mapping, the first UST site (600 feet southeast) is located at higher elevation than the project site, in a presumed upgradient groundwater flow position from the project site. Area elevations indicate that surface and groundwater drainage occurs toward the proposed project site, and west to the river. The second UST site (0.5 mile east) does not appear to present a potential risk to the project area give the distance of this site from the proposed lift station.

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No subsurface materials testing was conducted in the project area as part of this analysis. Conclusions are based on FirstSearch review, MPCA database search, and review of topographic maps and aerial photos.

Alternative 1 – No Action

Under the No Action Alternative, there would be no impacts to hazardous materials or wastes. Any unknown hazardous wastes and materials that may be present in the project area would not be altered from their present condition.

Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 1 (PREFERRED ALTERNATIVE)

Based upon the information reviewed, no impacts from hazardous materials or wastes are anticipated under Alternative 2. Although a UST site is located approximately 600 feet upgradient from the project site, a fuel release has not been documented from the UST at this location. Additionally, the distance between the UST site and the proposed lift station minimizes the potential for impact from an unknown release.

Although subsurface hazardous materials are not anticipated to be present in the project area, excavation activities could expose or otherwise affect subsurface hazardous wastes or materials. Any hazardous materials discovered, generated, or used during implementation of the proposed project would be disposed of and handled by the City in accordance with applicable local, State, and Federal regulations.

Alternative 3 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 2

Impacts from hazardous materials or wastes are also not anticipated under Alternative 3. However, under this alternative, the proposed pump station location shifts to the southeast and is within 300 feet of the first UST site. While a release has not been detected from this UST, the closer proximity and upgradient position of the tank raises the potential for impact from an unknown fuel release.

Although subsurface hazardous materials are not anticipated to be present in the project area, excavation activities could expose or otherwise affect subsurface hazardous wastes or materials. Any hazardous materials discovered, generated, or used during implementation of the proposed project would be disposed of and handled by the City in accordance with applicable local, State, and Federal regulations.

3.4 SOCIOECONOMICS

3.4.1 Zoning and Land Use

Wright County, Minnesota, was officially created in 1855. It is located in the east-central part of the State, and is one of seven counties in the Twin Cities Metropolitan Area. The size of the County is approximately 716 square miles (Wright County, 2003), containing 17 cities and 18 townships. It is bordered by Sherburne and Stearns Counties to the north, Meeker County to the

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west, Carver and McLeod Counties to the south, and Hennepin County to the east. Due to Wright County's proximity to the Twin Cities, it is considered one of the fastest growing counties in the State. The population of Wright County has increased 31 percent since 1990, to an estimated 89,986 people.

The proposed project is located within the limits of the City of Delano, in the southeast corner of Wright County. The current population of the City is 3,847. It has experienced steady population growth, most recently experiencing a 38 percent growth in population between 1990 and 2000 (U.S. Census Bureau, 2000). It is anticipated that this trend will continue, with an estimated growth of 103 people per year through the year 2015 (Bonestroo, 1997).

The project site lies within City-owned property occupied by the Wastewater Treatment Facility and the Public Works building. The project area is zoned public/institutional. Land uses to the northwest, across CR 17, are primarily undeveloped and include woodlands and wetlands typical of a floodplain environment. The City Compost Facility is also located in this area. Land use to the south, across CR 30, is occupied by City-owned Central Park, which includes several athletic fields and an open area. Residential homes lying south and east of Central Park are those that have been historically affected by flood events. These homes were built from the 1970s to present, and are identified by the City of Delano as medium to upper-value homes.

Alternative 1 – No Action

Under the No Action Alternative, there would be no land use and zoning changes. In a storm event, area residents would likely be affected by basement flooding and sanitary sewer backups. In the future, reoccurrence of these events could continue to depress home and land values of nearby properties.

Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 1 (PREFERRED ALTERNATIVE)

Alternative 2 would improve the drainage in the project area during storm events, protecting surrounding land uses from flooding and sanitary sewer backup. Property values in the area may increase as a result of flood control activities. Most of the surrounding area is already developed, and opportunities for additional development are also constrained by the City's Floodplain District Ordinance.

Improvements under Alternative 2 are consistent with current land use and zoning in the project area. No rezoning would be required due to the proposed project.

Alternative 3 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 2

Alternative 3 would improve the drainage in the project area during storm events, protecting surrounding land uses from flooding and sanitary sewer backup. Property values in the area may increase as a result of flood control activities. Most of the surrounding area is already developed, and opportunities for additional development are also constrained by the City's Floodplain District Ordinance.

Improvements under Alternative 3 are consistent with current land use and zoning in the project area. No rezoning would be required due to the proposed project.

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3.4.2 Visual Resources

Visual resources refer to the landscape character (what is seen), visual sensitivity (human preferences and values regarding what is seen), scenic integrity (degree of intactness and wholeness in landscape character), and landscape visibility (relative distance of seen areas) of a geographically defined viewshed.

The general character of the project area is public use, as it is contained within City-owned property. The site contains a Wastewater Treatment Facility containing several structures, and a large Public Works building, in addition to Pond 1 near the intersection of CR 17 and CR 30. Vegetation is mostly turf grass with some other types of low-lying vegetation. The project site is relatively flat to gently sloping, and is not directly visible from residential homes in the area. Drivers traveling on CR 17 or CR 30 get the best view of the site.

Alternative 1 – No Action

Under the No Action Alternative, no activities would be undertaken and visual resources would not be affected.

Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 1 (PREFERRED ALTERNATIVE)

Under Alternative 2, new piping would be installed underground and would not be visible to the public. During construction, overturned earth would be visible in the installation areas, as well as construction fencing and equipment in the staging area. Post-construction, the disrupted soil would be seeded with grass to match the existing turf. These would be temporary impacts and, overall, visual resources would be unchanged under this alternative.

Alternative 3 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 2

Heavy equipment would be seen more predominantly during construction than that seen under Alternative 2, as this alternative is located within a City park. The staging areas would also be more visible. However, these would be temporary impacts and, overall, visual resources would be unchanged under this alternative.

3.4.3 Noise

Sound is most commonly measured in decibels (dB) on the A-weighted scale, which is the scale most similar to the range of sounds that the human ear can hear. The Day/Night Average Sound Level (DNL) is an average measure of sound. The DNL takes into account the volume of each sound incident, the number of times each incident occurs, and the time of day each incident occurs (nighttime sound is weighted more heavily because it is assumed to be more annoying to the community). The DNL descriptor is accepted by Federal agencies as a standard for estimating sound impacts and establishing guidelines for compatible land uses.

Noise, defined herein as unwanted or unwelcome sound, is regulated by the Federal Noise Control Act (NCA) of 1972. Although the NCA gives the EPA authority to prepare guidelines for acceptable ambient noise levels, it only requires those Federal agencies that operate noise-

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producing facilities or equipment to implement noise standards. EPA guidelines (and those of many Federal agencies) state that outdoor sound levels in excess of 55 dB DNL are “normally unacceptable” for noise-sensitive land uses such as residences, schools, and hospitals. Potential noise-sensitive receivers in the vicinity of the project consist of residences and a park.

City ordinance dictates that construction can only occur between 7:00 AM and 7:00 PM Monday through Saturday.

Alternative 1 – No Action

Under the No Action Alternative, proposed activities would not occur and noise levels would be anticipated to remain at current levels.

Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 1 (PREFERRED ALTERNATIVE)

Noise associated with Alternative 2 would be limited to construction noise emitted by mechanical equipment, including a backhoe, trucks, and a skid steer. Noise typically associated with this type of construction equipment can measure as much as 80 dB within 50 feet of the source, attenuating at a rate of 6 dB per doubling of distance away from the source.

As the project lies on City property that houses many of the same noises on a day-to-day basis, it is not anticipated that noise would be an issue for this alternative. The closest residence is over 600 feet away from the proposed project. Central Park is located approximately 300 feet away, but it is across CR 30 from the site and is not a passive recreational park where quiet is necessary. Rather, it is an active recreational park with ball fields where groups of people gather in the summer on a regular basis. Construction activities would not be continuous, would be restricted to daylight areas, and are not anticipated to impact the park.

Area residents may also experience daily noise from trucks hauling to and from staging areas and the project site. However, Public Works trucks already travel these routes, and additional traffic due to project construction would be minimal. In addition, project-related traffic would be temporary and spaced out over the daily hours of construction.

All activities would conform to the set hours of 7:00 AM to 7:00 PM as dictated by city ordinance. Construction equipment would be kept in good repair to ensure that proper noise muffling is maintained. Appropriate protective gear would be required to ensure the hearing protection of project workers.

Alternative 3 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 2

Noise associated with Alternative 3 would be limited to construction noise emitted by construction equipment as described above under Alternative 2, as both alternatives are in the same general area. However, this alternative is much closer to residential-sensitive noise receivers, with the closest being a multi-family development less than 100 feet east of the project area. Therefore, residents would experience a higher level of noise during periods of construction.

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All activities would conform to the set hours of 7:00 AM to 7:00 PM as dictated by city ordinance. Construction equipment would be kept in good repair to ensure that proper noise muffling is maintained. Appropriate protective gear would be required to ensure the hearing protection of project workers.

3.4.4 Public Services and Utilities

There is currently a 48-inch storm sewer pipe running from Pond 1 to the outlet on the west side of CR 17, and a 48-inch pipe between Pond 1 and a ditch on the south side of CR 30. These pipes provide day-to-day drainage and maintenance of the normal water level of ponds within stormwater drainage system, and would not be affected by the project alternatives. During storm events, temporary emergency pumps direct water over CR 17 and discharge on the west side of the levee. The lift station and new 30-inch pipe under CR 17 would replace this emergency pumping scenario. The 30-inch pipe will accommodate a continuous flow of 40 cfs during flood events.

There are also underground electric utilities in the project area. Delano Municipal Utilities is the local power supplier. There are no other utilities within the proposed project site.

Alternative 1 – No Action

Under the No Action Alternative, periodic flooding would still occur, and nearby residents would still experience flooded basements and structural damage, as well periodic backups of the sanitary sewer system.

Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 1 (PREFERRED ALTERNATIVE)

Under Alternative 2, the existing emergency pumping system would be upgraded with the construction of a lift station and more efficient routing of water during a storm event. This would allow for quicker restoration of normal water levels, and would alleviate the effects of the landlocked basin in residential and public areas when the floodgates close. It would also help to prevent infiltration of floodwaters into the sanitary sewer system, alleviating backup of sewage into residences.

Electric utilities exist along CR 17 within the route of the proposed pipe. Service interruptions would be minor and would occur only during final hookup. Area residents would be notified of any potential service interruptions prior to final hookup. No other utilities would be affected by this alternative.

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Alternative 3 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 2

Alternative 3 would provide the same benefits to the storm and sanitary sewer systems, and the same interruptions to electric service as described under Alternative 2, with the addition of electric utilities located under CR 30. Area residents would be notified as described under Alternative 2. No other utilities would be affected by this alternative.

3.4.5 Traffic and Circulation

The proposed project involves construction of a lift station on City property, and replacement of existing storm sewer piping beneath CR 17, which is a two-lane County roadway that borders the project site to the west. The pipe would be directionally bored or jacked, and therefore the roadway would not be open-cut during installation.

Alternative 1 – No Action

Under the No Action Alternative, the existing storm sewer beneath CR 17 would not be disturbed. However, flooding would likely continue to overtop CR 17 and occasionally CR 30, which would temporarily close the roads to traffic.

Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 1 (PREFERRED ALTERNATIVE)

Under Alternative 2, CR 17 would not be disturbed, and traffic would not be impeded at any time during construction. Current access to the Wastewater Treatment Facility and Public Works building would be maintained. Access to the lift station would occur from the existing Public Works driveway.

In addition, the proposed improvements would reduce the HWL in Pond 1 and nearby areas, thereby alleviating existing problems of water overtopping the adjacent roadways during flood events, and preventing the need for emergency pumps to direct water over the roadway.

Alternative 3 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 2

Under Alternative 3, CR 30 and CR 17 would not be disturbed, and traffic would not be impeded at any time during construction. Current access to Central Park would be maintained.

In addition, the proposed improvements would reduce the HWL in Ponds 1 and 2 and nearby areas, thereby alleviating existing problems of water overtopping the adjacent roadways during flood events, and preventing the need for emergency pumps to direct water over the roadway.

3.4.6 Environmental Justice (EO 12898)

EO 12898 requires Federal agencies to make environmental justice part of their mission. Agencies are required to identify and correct programs, policies, and activities that have disproportionately high and adverse human health or environmental effects on minority and low-income populations. EO 12898 also tasks Federal agencies with ensuring that public notifications regarding environmental issues are concise, understandable, and readily accessible.

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Socioeconomic and demographic data were studied to determine if a disproportionate number (greater than 50 percent) of minority or low-income people have the potential to be adversely affected by the alternatives. Table 1 summarizes the demographic information for Wright County and the City of Delano, in comparison to averages for the State of Minnesota.

Table 1. Demographic Information

	City of Delano	Wright County	State of Minnesota
Total Population	3,837	89,986	4,919,479
White	98.3%	97.9%	89.4%
African American	0.3%	0.3%	3.4%
American Indian/Alaska Native	0.2%	0.3%	1.1%
Asian	0.3%	0.4%	2.9%
Of Hispanic Origin	0.9%	1.1%	2.9%
Total Minority	1.7%	2.1%	10.6%
Median Household Income ¹	\$52,917	\$53,945	\$47,111
Persons Below Poverty Level ¹	0.03%	4.7%	7.9%

Source: U.S. Census Bureau, 2000; League of Minnesota Cities, 2004

¹1999 data

Based on review of the above information, none of the three alternatives would affect greater than 50% of any minority or low-income population in the project area. The City is consistent with Wright County and well below State averages for minorities and persons below poverty level. Additionally, Alternatives 2 and 3 would reduce potential future flooding of basements and backup of the sanitary sewer system, and would benefit all people residing within the project area. Therefore, the project is in compliance with EO 12898.

3.4.7 Safety and Security

Safety and security issues considered in this analysis include the health and safety issues of the area residents and the public at-large, and the protection of personnel involved in activities related to the implementation of the Preferred Alternative.

EO 13045, Protection of Children, requires Federal agencies to make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children.

Alternative 1 – No Action

Under the No Action Alternative, the potential for future flooding of basements and backup of sanitary storm sewers would remain. Residents would also be susceptible to injury or negative health impacts due to unsanitary conditions following flooding, including the significant and widespread health and safety risk to residents who experience raw sewage backup into their homes.

Since the No Action Alternative does not involve the employment of personnel to perform the project activities, there would be no potential risks to the personal safety of project workers.

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Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 1 **(PREFERRED ALTERNATIVE)**

Under Alternative 2, storm sewer improvement activities could present safety risks to individuals performing the activities. To minimize risks to safety and human health, all project activities would be performed using qualified personnel trained in the proper use of the appropriate equipment, including safety precautions. In addition, all activities would be conducted in accordance with Occupational Safety and Health Administration (OSHA) regulations.

Implementation of Alternative 2 would increase the efficiency of the storm sewer system. This would reduce the risk of injury and negative health impacts to residents as a result of flooding and storm sewer backup.

Persons of all ages reside in the project area neighborhood, and youth of all ages utilize nearby Central Park. Additional protection will be ensured at the project site by the used of cautionary signage and protective fencing. The project would take measures to protect children, and is therefore in compliance with EO 13045.

Alternative 3 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 2

Under the Alternative 3, storm sewer improvement activities could present safety risks to individuals performing the activities. Actions to minimize risks to safety and human health would be completed as described under Alternative 2, as both alternatives follow similar alignment and would require similar construction activities.

Implementation of Alternative 3 would increase the capacity of the storm sewer system. This would reduce the risk of injury and negative health impacts to residents as a result of flooding and storm sewer backup.

Persons of all ages reside in the project area neighborhood, and the project would occur within Central Park, which is utilized by youth of all ages. Additional protection will be ensured at the project site by the used of cautionary signage and protective fencing. The project would take measures to protect children, and is therefore in compliance with EO 13045.

3.5 CULTURAL RESOURCES

In addition to review under NEPA, consideration of impacts to cultural resources is mandated under Section 106 of the National Historic Preservation Act, as amended, and implemented by 36 CFR Part 800. Requirements include identification of significant historic properties that may be affected by the proposed project. Historic properties are defined as archaeological sites, standing structures, or other historic resources listed in or eligible for listing in the National Register of Historic Places (NRHP) (36 CFR 60.4).

As defined in 36 CFR Part 800.16(d), the Area of Potential Effect (APE) “is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist.”

In addition to identifying historic properties that may exist in the APE of the Preferred Alternative, FEMA must also determine, in consultation with the appropriate State Historic Preservation Office (SHPO), what effect, if any, the action would have on historic properties.

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Moreover, if the project would have an adverse impact on these properties, FEMA must consult with the SHPO on ways to avoid, minimize, or mitigate the adverse effect.

The Minnesota Department of Public Safety/Homeland Security and Emergency Management initiated consultation with the SHPO in October 2003. The SHPO responded in a letter dated December 2, 2003, that no properties eligible for or listed in the NRHP are within the project's area of effect. In an e-mail dated October 1, 2004, the SHPO stated that its review findings from 2003 remain the same (Appendix B).

Alternative 1 – No Action

Under the No Action Alternative, there would be no effects to cultural resources because proposed improvements would not occur.

Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 1 (PREFERRED ALTERNATIVE)

Based on research and the archaeological survey, it is not anticipated that any NRHP-eligible or listed properties exist within the proposed project area; however, if artifacts or human remains are encountered during construction, work in the vicinity would be halted, and FEMA, the Office of the State Archaeologist (OSA), and the SHPO would be immediately contacted.

Alternative 3 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 2

As under Alternative 2, it is not anticipated that any NRHP-eligible or listed properties exist within the project area for Alternative 3; however, if artifacts or human remains are encountered during construction, work in the vicinity would be halted, and FEMA, the OSA, and the SHPO would be immediately contacted.

3.5.1 Tribal Coordination

Initial American Indian group contacts were suggested by the Minnesota SHPO (see list in Section 7). Letters were sent to the list of potential consulting and interested parties on October 29, 2004.

Follow-up consultation was initiated on April 8, 2005. A response was received from the Shakopee Mdewakanton Community, which expressed an interest in any areas of potential historical significance that may be disturbed (see Appendix B). Consultation with the SHPO was addressed as discussed above. The American Indian community will continue to be notified of project progress, and will be involved in review of this EA.

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Table 2. Impact Summary Matrix

Description of Alternative	Alternative 1 – No Action	Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity from Pond 1 (Preferred Alternative)	Alternative 3 - Stormwater Lift Station with 40 cfs Pumping Capacity from Pond 2
	<ul style="list-style-type: none"> FEMA funds would not be used for improvements 	<ul style="list-style-type: none"> Construction of a 1,000-square-foot lift station on Pond 1 at the Wastewater Treatment Facility 250 feet of 30-inch piping to run under CR 17 and discharge to a small stream leading to the South Fork of the Crow River 	<ul style="list-style-type: none"> Construction of a 1,000-square-foot lift station on Pond 2 in Central Park 400 feet of 30-inch piping to run along CR 30 and under CR 17, and discharge to a small stream leading to the South Fork of the Crow River
Potential Impacts	No Action (Alternative 1)	Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity from Pond 1 (Preferred Alternative)	Alternative 3 - Stormwater Lift Station with 40 cfs Pumping Capacity from Pond 2
Geology, Seismicity, and Soils	<ul style="list-style-type: none"> No impacts 	<ul style="list-style-type: none"> Temporary increase in surface soil erosion and compaction during construction along approximately 250 linear feet of pipe installation 500 cubic yards (CY) of excavation along path of proposed pipe (open-cut areas) Geologic framework of area would not be affected 	<ul style="list-style-type: none"> Temporary increase in surface soil erosion and compaction during construction along approximately 400 linear feet of pipe installation 800 CY of excavation along path of proposed pipe (open-cut areas) Geologic framework of area would not be affected
Water Resources and Water Quality	<ul style="list-style-type: none"> No immediate impacts Flooding and sanitary sewer backups would still occur 	<ul style="list-style-type: none"> Potential for minor impact on water quality as a result of construction grading In compliance with MNRRA¹ and MRCA² requirements Not a Wild and Scenic River Requires dewatering during construction 	<ul style="list-style-type: none"> Potential for minor impact on water quality as a result of construction grading In compliance with MNRRA¹ and MRCA² requirements Not a Wild and Scenic River Requires dewatering during construction

¹ Mississippi National River and Recreation Area

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Potential Impacts	No Action (Alternative 1)	Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity from Pond 1 (Preferred Alternative)	Alternative 3 - Stormwater Lift Station with 40 cfs Pumping Capacity from Pond 2
Floodplain Management	<ul style="list-style-type: none"> EO³ 11988 is not applicable to this alternative 	<ul style="list-style-type: none"> Lift station would occupy the floodplain Western 1/3 of Pond 1 to be excavated (deepened) Flood elevation in project area reduced by 5.3 feet (Bonestroo, 1997) 	<ul style="list-style-type: none"> Lift station would occupy the floodplain Pond to be created on-site Flood elevation in project area reduced by 5.1 feet (Bonestroo, 1997)
Air Quality	<ul style="list-style-type: none"> No impacts 	<ul style="list-style-type: none"> Temporary emissions from heavy construction equipment 	<ul style="list-style-type: none"> Temporary emissions from heavy construction equipment
Terrestrial and Aquatic Environment	<ul style="list-style-type: none"> No immediate impact 	<ul style="list-style-type: none"> Temporary disturbances due to noise Removal of turf grass and other vegetation along 150 feet of pipe installation during construction; remaining 100 feet directionally jacked under CR 17 Existing vegetation would be re-established 	<ul style="list-style-type: none"> Temporary disturbances due to noise Removal of turf grass and some wetland species for 200 feet of pipe installation; remaining 200 feet directionally jacked under CR 30 and CR 17 Existing vegetation would be re-established
Wetlands	<ul style="list-style-type: none"> No changes to the existing wetlands would occur 	<ul style="list-style-type: none"> Water from lift station would be directed to a stream/wetland area leading to the river 	<ul style="list-style-type: none"> Temporary construction impact to wetland vegetation in Pond 2 Water from lift station would be directed to a stream/wetland area leading to the river

² Mississippi River Critical Area

³ Executive Order

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Potential Impacts	No Action (Alternative 1)	Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity from Pond 1 (Preferred Alternative)	Alternative 3 - Stormwater Lift Station with 40 cfs Pumping Capacity from Pond 2
Threatened and Endangered Species	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> No impact
Hazardous Materials and Wastes	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> Two LUST sites in proximity of this alternative, however, no violations have been reported and the site is not a threat One SPILLS site that has been cleaned up and due to small size of spill, not considered a threat to the project site 	<ul style="list-style-type: none"> One LUST site in proximity of this alternative with no reported violations; site is not a threat Second LUST site in closer proximity to this alternative. No reported violations, but potential of impact from unknown fuel release is higher than for Alternative 2 One SPILLS site that has been cleaned up and due to small size of spill, not considered a threat to the project site
Zoning and Land Use	<ul style="list-style-type: none"> No impact Continued flooding compromises property values in the area 	<ul style="list-style-type: none"> Project is compatible with existing and future land use 	<ul style="list-style-type: none"> Project is compatible with existing and future land use
Visual Resources	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> Temporary impacts due to construction equipment and soil disturbance during construction 	<ul style="list-style-type: none"> Temporary impacts due to construction equipment and soil disturbance during construction Located in park, so more visible to park users Located less than 100 feet from high density residential, so more visible to residents
Noise	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> Construction noise similar to existing noise at Wastewater Treatment Facility/Public Works building Closest residence over 600 feet away; no impact anticipated 	<ul style="list-style-type: none"> Construction noise similar to existing noise at Wastewater Treatment Facility/Public Works building Closest residence less than 100 feet east of this alternative would experience noise impacts during construction

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Potential Impacts	No Action	Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity from Pond 1 (Preferred Alternative)	Alternative 3 - Stormwater Lift Station with 40 cfs Pumping Capacity from Pond 2
Public Services and Utilities	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> Minimal disruption to electric utilities in CR 17; brief service interruption only at final hook-up 	<ul style="list-style-type: none"> Minimal disruption to electric utilities in CR 17 and CR 30; brief service interruption only at final hook-up
Traffic and Circulation	<ul style="list-style-type: none"> Surrounding roadways would continue to overtop with water during storm events 	<ul style="list-style-type: none"> Equipment staging would occur on site Site access via existing Public Works driveway No disruption to road surface or traffic during construction 	<ul style="list-style-type: none"> Equipment staging would occur on site Site access via main park entrance; driving across park land required No disruption to road surface or traffic during construction
Environmental Justice	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> No impact
Safety and Security	<ul style="list-style-type: none"> Future flooding could result in compromised access on surrounding roadways No potential risks to the personal safety of project workers 	<ul style="list-style-type: none"> Safety risks created to individuals performing project activities Project would prevent water from overtopping roads and provide safer driving conditions during storm events 	<ul style="list-style-type: none"> Safety risks created to individuals performing project activities Project would prevent water from overtopping roads and provide safer driving conditions during storm events
Cultural Resources	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> No potential archaeological sites No historic sites eligible for listing on the NRHP⁴ Tribal consultation has taken place 	<ul style="list-style-type: none"> No potential archaeological sites No historic sites eligible for listing on the NRHP Tribal consultation has taken place

⁴ National Register of Historic Places

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Cumulative impacts are those effects on the environment that result from the incremental effect of the action when added to past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor, but collectively significant, actions taking place over a period of time.

Four HMGP projects are currently proposed within the City of Delano. The East Side Lift Station project is one of these four projects. The other three include the Elm Avenue Diversion, the West Side Lift Station, and Alley Resurfacing (Figure 5). All of these projects are designed to control excessive flooding that has plagued the City of Delano in recent years. On many occasions in 2001 and 2002, the City was forced to conduct emergency pumping and sandbagging activities to attempt to protect local homes and businesses.

Cumulatively, a basic hydraulic analysis of total stormwater discharge from the four projects compared to total watershed size indicates these projects will not have substantial negative impacts on the South Fork of the Crow River system or the floodplain system as a whole (Bonestroo, 1997). The Elm Avenue Diversion would direct water to the area south of the high school, which is part of the same system of ditches and wetlands that would eventually run through the East Side Lift Station and to the South Fork of the Crow River. The northeast portion of the Alley Resurfacing Project would also direct water through wetlands to the East Side Lift Station, with the remainder of the area draining through the existing stormwater piping to the river. The West Side Lift Station would serve the west part of the City, collecting stormwater for discharge to the river. Collectively, during a 100-year flood event the projects would deliver approximately 120 cfs to the South Fork of the Crow River. This is derived from the 40 cfs pumping capacity at East Side Lift Station (which would collect water from the Elm Avenue Diversion and the Alley Resurfacing Project) and the 80 cfs of pumping capacity at the West Side Lift Station. Using the June 2002 flood example of 13.5 feet, the South Fork of the Crow River is flowing at 6,489 cfs (National Weather Service, 2005). The impact of the addition of 120 cfs is negligible at 1.8 percent. This slight increase would not increase the elevation of the 100-year floodplain or impact downstream areas (Krogstad, personal communication).

With these projects implemented, the City of Delano would be better able to manage its stormwater and floodwater during and after storm events. This allows for quicker emergency response, and also contributes positively to the overall quality of life for Delano residents. Better water management would reduce risk of property damage from flooding, and protect residents from health and safety risks associated with excess water and sewer backups. The City would be able to expend money on other necessary municipal improvements and programs, instead of funding extensive emergency pumping activities.

It is not anticipated that floodplain development would be promoted as a result of implementing the proposed projects. The City of Delano has an existing Floodplain District Ordinance that prohibits development within the floodway of the South Fork of the Crow River within the City. In addition, the City has actively pursued and successfully obtained Flood Damage Reduction (FDR) grant funding from the WDNR to purchase and remove repetitive loss properties within the 100-year floodplain. The former Bock property, at the site of the proposed West Side Lift Station, was purchased under this grant. The City continues to identify and pursue funding for removal of additional properties. Currently, FDR funding has been received for removal of a residence in the south part of the city, and two other commercial properties along the east bank

of the river in the downtown area are also slated for acquisition and demolition (Fick, personal communication).

Individually, each of the projects would have long-term positive impacts on the natural environment. Any combination of these projects would magnify these benefits citywide. Managing stormwater and handling floodwater more efficiently would create a more consistent hydrologic regime for wetlands, which supports stable habitat and plant and animal life, as well as overall water quality. A more controlled system would also reduce erosion and sedimentation impacts that result from emergency pumping, standing basins of floodwater, and overtopping of roads and basins.

The Delano Stormwater Task Force (Task Force) was appointed by the Delano City Council on November 12, 2002. This was a nine-member committee appointed to identify priorities for flood mitigation projects within the City. Members included City residents as well as two professional engineers. Task Force meetings were held on the following dates:

- November 21, 2002
- December 6, 2002
- December 12, 2002
- December 19, 2002
- January 6, 2003
- January 9, 2003
- January 30, 2003
- February 5, 2003
- February 19, 2003
- March 13, 2003 – joint meeting with City Council

All City Council meetings are open to the public and are also locally televised. Minutes from meetings are also available on the City of Delano website. A specific public hearing discussing sump pump operations and the City's stormwater drainage ordinance was held February 4, 2003. The public notice from this meeting is included on the following page.

Public notice advertising the availability of the draft EA was drafted and provided to a local newspaper of general distribution (see Appendix E). The document was made available for hard copy review and was also available for review online at the FEMA website: <http://www.fema.gov/ehp/docs.shtm>. The public was provided 30 days for comment on the EA, and a public meeting was held on September 6, 2005.

The Minnesota Department of Natural Resources provided comments on the Draft EA. The comment letter is included in Appendix E.

The following table provides a summary of the anticipated permitting and mitigation requirements for the proposed project alternatives.

Table 3. Permits and Mitigation by Alternative

Alternatives	Permit/Mitigation Requirements
Alternative 1 – No Action	<ul style="list-style-type: none"> • No permits or mitigation measures are required.
<p>Alternative 2 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 1 (Preferred Alternative)</p> <p>Alternative 3 – Stormwater Lift Station with 40 cfs Pumping Capacity on Pond 2</p>	<ul style="list-style-type: none"> • Erosion would be minimized through the use of BMPs, including protecting erodible surfaces (through mechanisms such as silt fences) and not working during precipitation events. • An NPDES permit would be obtained for proposed project grading. • Exposed soils would be seeded in accordance with the NPDES permit. Native/non-invasive species would be used whenever feasible. • Compacted soils would be loosened by disking or raking. • Project would be in compliance with EO 79-19 and the MNRRA/MRCA. • Vehicle engines would be kept in good repair and turned off while not in use to prevent air emissions. • Any hazardous materials discovered, generated, or used during implementation of the proposed project would be disposed of and handled by the City in accordance with applicable local, State, and Federal regulations. • Vegetation would be replanted with species comparable to existing vegetation. • A MDNR Water Appropriations Permit will be obtained prior to construction. • A WCA exemption has been obtained for the immediate project area. • An NPDES permit will be obtained for proposed project grading. • A local floodplain development permit will be obtained prior to construction. • The lift station will be floodproofed in accordance with the City’s Floodplain Management Ordinance. • All activities would conform to the hours of construction set by the City (7:00 a.m. through 7:00 p.m. Monday through Saturday).

Alternatives	Permit/Mitigation Requirements
	<ul style="list-style-type: none">• Appropriate gear would be required to protect the hearing of project workers.• All project activities would be performed using qualified personnel trained in the proper use of the appropriate equipment, including safety precautions.• All activities would be conducted in accordance with OSHA regulations.• If artifacts or human remains are encountered during construction, work in the vicinity would be halted, and FEMA, the OSA, and the SHPO would be immediately contacted.• Flagging and fencing would be used to limit construction staging and parking areas.

7.1 CONSULTATIONS

The Minnesota Office of Homeland Security and Emergency Management sent initial consultation letters to the following agencies in October 2003:

- Minnesota Department of Natural Resources, Division of Waters
- State Historic Preservation Office
- United States Army Corps of Engineers

These agencies were contacted again by URS in September/October 2004 to ensure that findings relayed in 2003 were still applicable to the project. Agencies were sent a summary of the project and an update on the NEPA process.

In addition, MDNR consultation for rare, threatened, and endangered species was initiated by the Minnesota Office of Homeland Security and Emergency Management in February 2003. Consultation with the USFWS was initiated by URS in October 2004, and the MDNR Natural Heritage Program (NHP) was also contacted to ensure that the original findings were still applicable to the project. The findings of the USFWS and the MDNR NHP are incorporated into the EA. These responses are included in Appendix B.

Additional consultations included:

- Federal Emergency Management Agency
- Minnesota Department of Public Safety - Homeland Security and Emergency Management
- City of Delano

The following will receive a copy of the Draft EA:

Federal Agencies

United States Army Corps of Engineers

United States Department of the Interior, U.S. Fish and Wildlife Service

Tribes

Lower Sioux Community

Prairie Island Indian Community

Shakopee Mdewakanton Sioux Community

Upper Sioux Community

State, County, and Local Agencies

Minnesota Department of Emergency Management

Minnesota Department of Natural Resources

State Historic Preservation Office

Office of the State Archaeologist
Minnesota Indian Affairs Council
Board of Water and Soil Resources
Wright County Soil and Water Conservation District
Wright County Planning
City of Delano

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Personal Communication

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- Dressler, Lisa, Minnesota Homeland Security and Emergency Management, Hazard Mitigation Administrator. Personal communication with Jessica Overmohle, URS Environmental Planner, ongoing throughout project process.
- Fairchild, Laurie, USFWS. 2004. Personal communication with Jessica Overmohle, URS Environmental Planner, September 28, 2004.
- Fell, Tim, USACE. Personal communication with Lydia Nelson, URS Professional Wetland Scientist, October 15, 2004.
- *Fick, Ed, MDNR, Hydrologist. Personal communication with Jessica Overmohle, URS Environmental Planner, July 22, 2005.
- Fowler, Patricia, MDNR, Area Hydrologist. Personal communication with Jessica Overmohle, URS Environmental Planner, September 28, 2004.
- *Krogstad, Brad, URS Engineer. Personal Communication with Jessica Overmohle, URS Environmental Planner, July 25, 2005.
- Torve, Kent, Wenck Associates, Inc., City Engineer for Delano. Personal communication with Jessica Overmohle, URS Environmental Planner, ongoing throughout project process.
- Torve, Kent, Wenck Associates, Inc., City Engineer for Delano. Personal communication with Lydia Nelson, URS Professional Wetland Scientist, February 17, 2005.

*Referenced in text; Record of Conversation attached.

Lydia Nelson, Professional Wetland Scientist, URS-Minneapolis (MSP) – Peer Reviewer/Field Assessment/Floodplain Review. Conducted field research for sections on Water Resources and Water Quality, Floodplain Management, Terrestrial and Aquatic Environment, Wetlands.

Jessica Overmohle, Environmental Planner, URS-MSP – Technical Researcher and Task Coordinator. Author of sections on Purpose and Need, Alternatives, Geology, Seismicity, and Soils, Air Quality, Hazardous Materials, Threatened and Endangered Species, Zoning and Land Use, Visual Resources, Noise, Public Services and Utilities, Traffic and Circulation, Environmental Justice, Safety and Security, Cumulative Impacts.

Amy Siegel, Document Control Supervisor, URS-Gaithersburg (GTB) – Document Quality Control.

Stephen Carruth, FEMA National Environmental Coordinator, URS-GTB – Independent Technical Reviewer.

Evelyn Tidlow, URS-MSP – Project Manager.

Figures



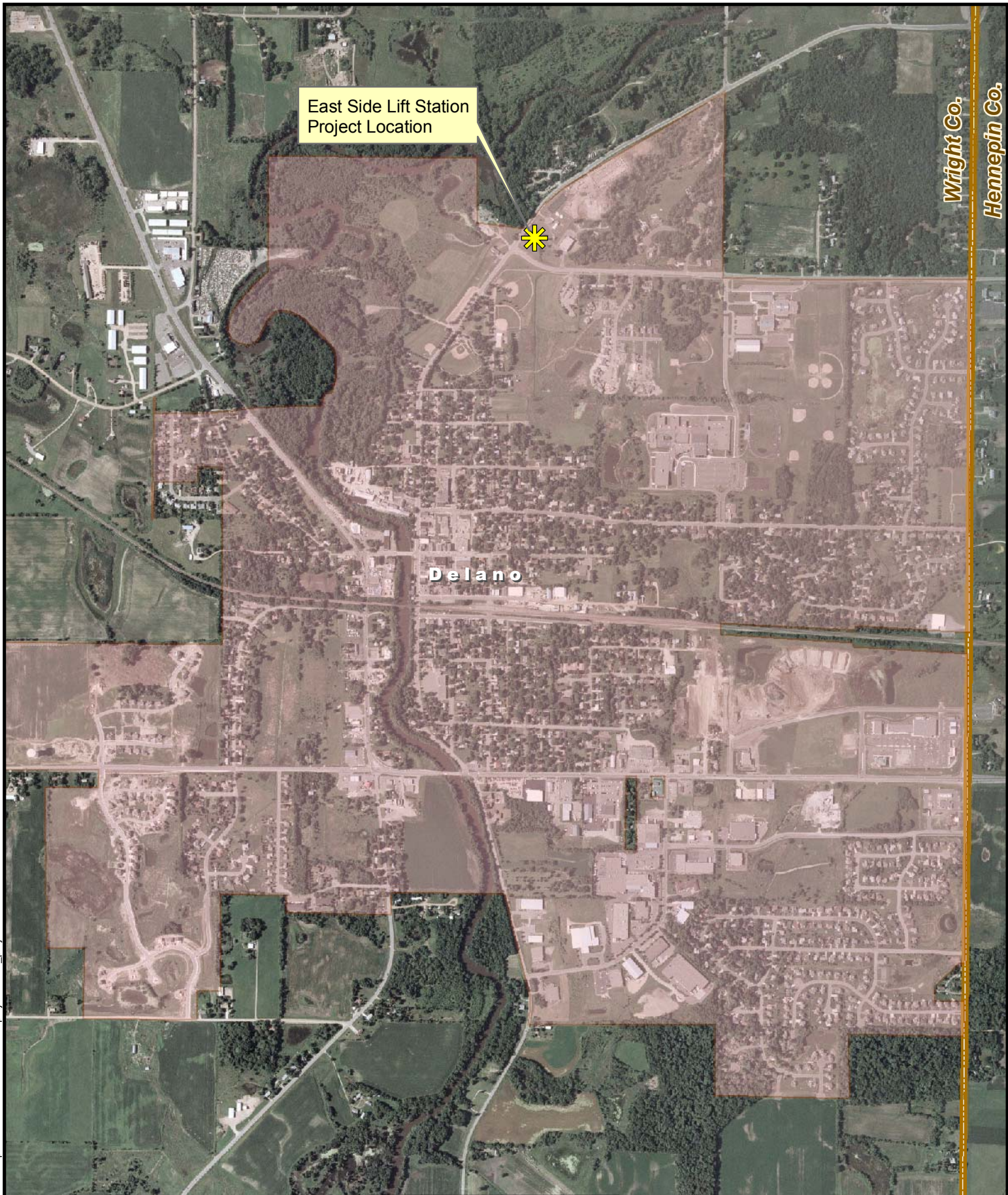
NO SCALE

Source:
U.S. Census Bureau

**ELM AVENUE DIVERSION
REGIONAL LOCATION
DELANO, MINNESOTA**

DRN BY: JO	10/14/04	PROJECT NO. 15702311.00100	FIG. NO. 1
CHEK'D BY: XX	10/14/04		

URS Corporation N:\1570231\100100\projects\ELS_proj\mxd Date: 2/16/2005 10:17:27 AM Name: sbusk



East Side Lift Station
Project Location

Delano

Wright Co.
Hennepin Co.



0 0.125 0.25 Miles

Data Sources:
MndOT, DNR



**EAST SIDE LIFT STATION
PROJECT LOCATION
DELANO, MINNESOTA**

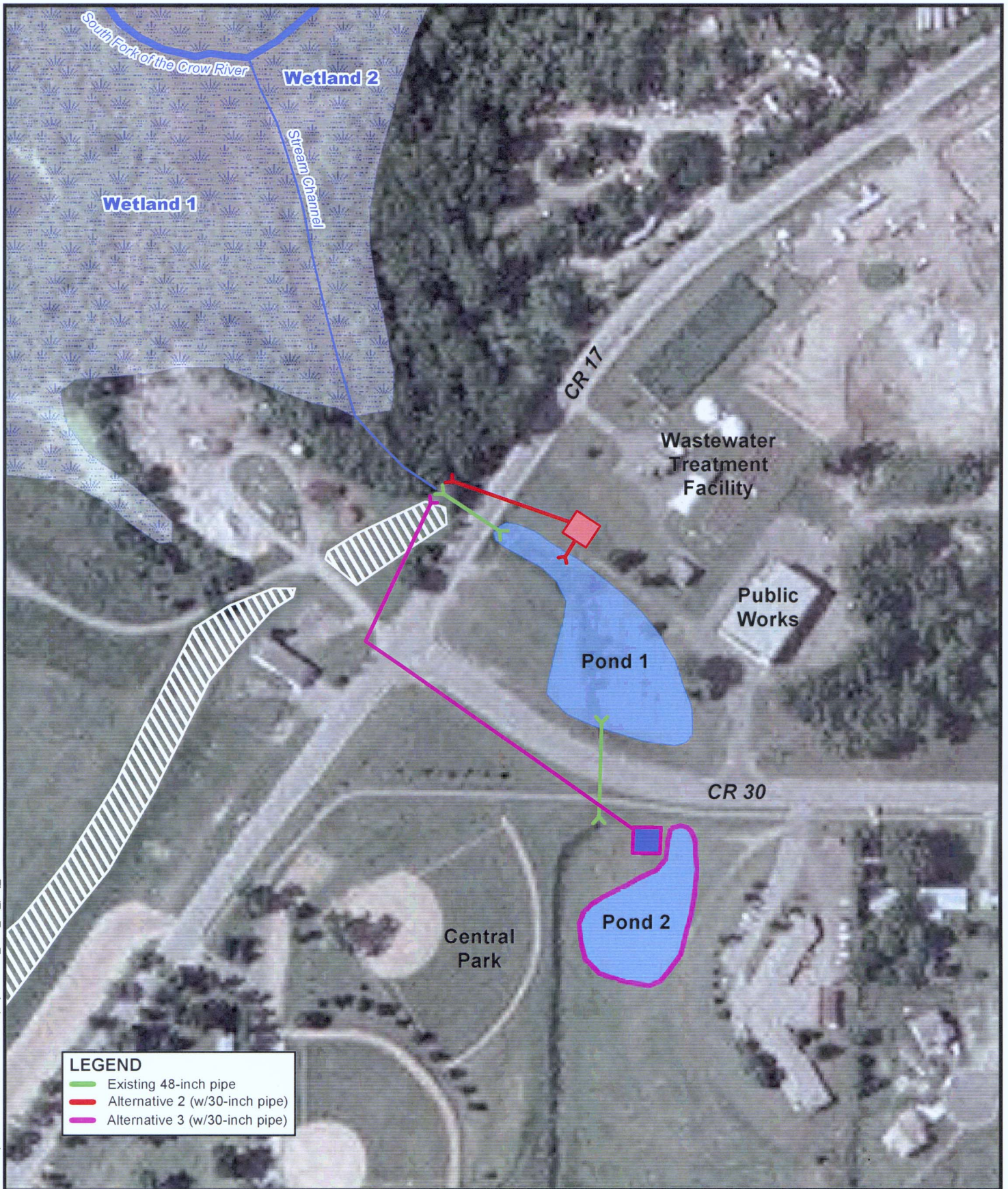
Thresher Square
700 Third Street South
Minneapolis, MN 55415
612-370-0700 Tel
612-370-1378 Fax

DRN BY: SB DATE: 02/16/05
CHKD BY: XX DATE: 02/16/05

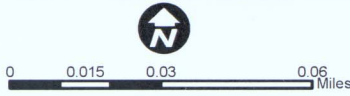
PROJECT NO.
1570231.00100

FIG. NO.
2

URS Corporation N:\15702311\00100\projects\East_Side_LS_pro_loc.mxd Date: 2/16/2005 9:47:00 AM Name: sbusk



LEGEND	
	Existing 48-inch pipe
	Alternative 2 (w/30-inch pipe)
	Alternative 3 (w/30-inch pipe)



Data Sources:
MnDOT, DNR

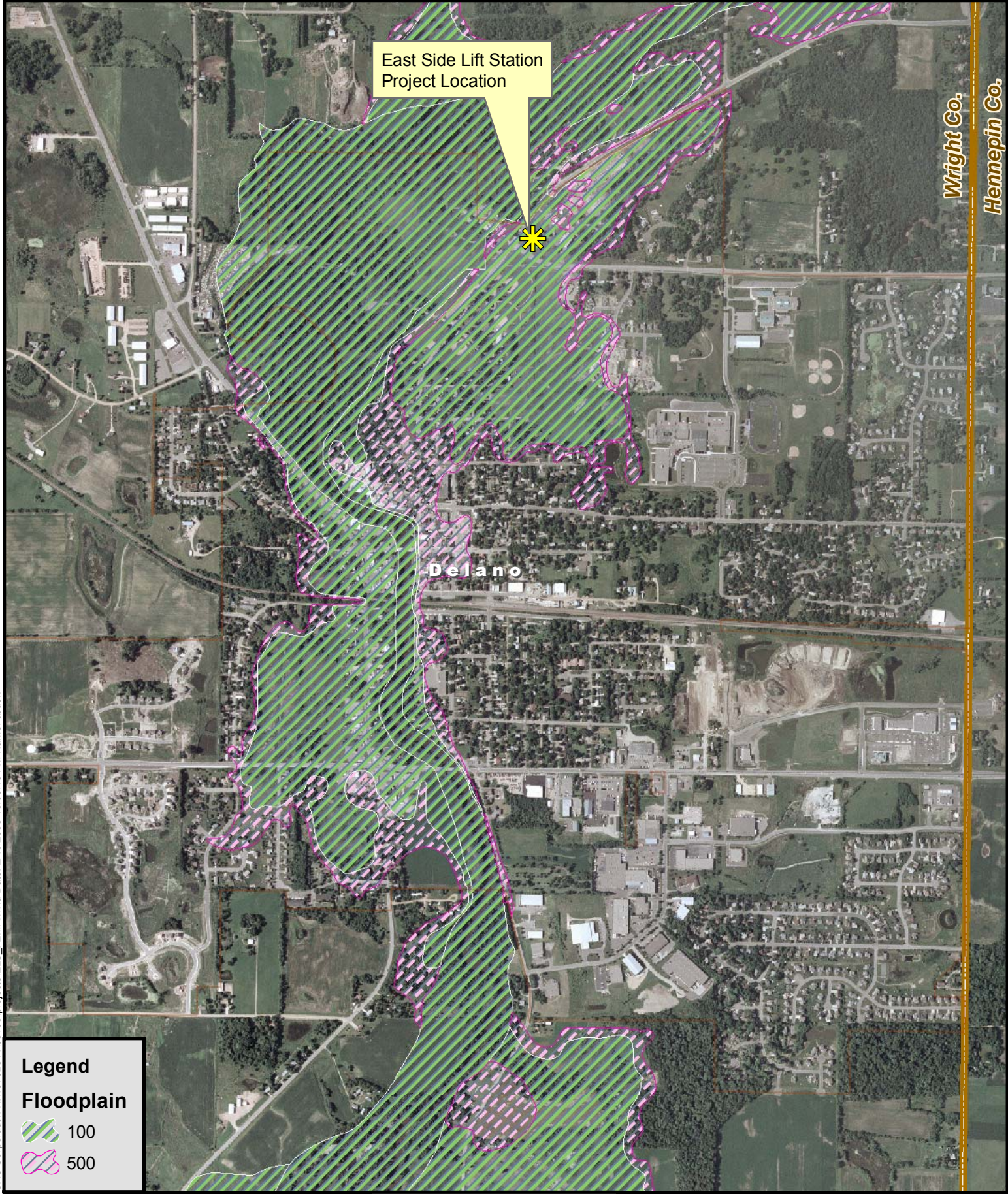


URS EAST SIDE LIFT STATION PROJECT ALTERNATIVES

DRN BY: SB	DATE: 02/16/05	PROJECT NO: 15702311 00100	FIG. NO: 3
CHKD BY: XX	DATE: 02/16/05		

Thresher Square
700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1378 Fax

URS Corporation N:\1570231\100100\projects\ELU_FEMA.mxd Date: 2/16/2005 10:35:43 AM Name: sbusk





East Side Lift Station
Project Location

Wright Co.
Hennepin Co.

Legend

Floodplain

-  100
-  500



0 0.125 0.25 Miles

Data Sources:
MnDOT, DNR, FEMA



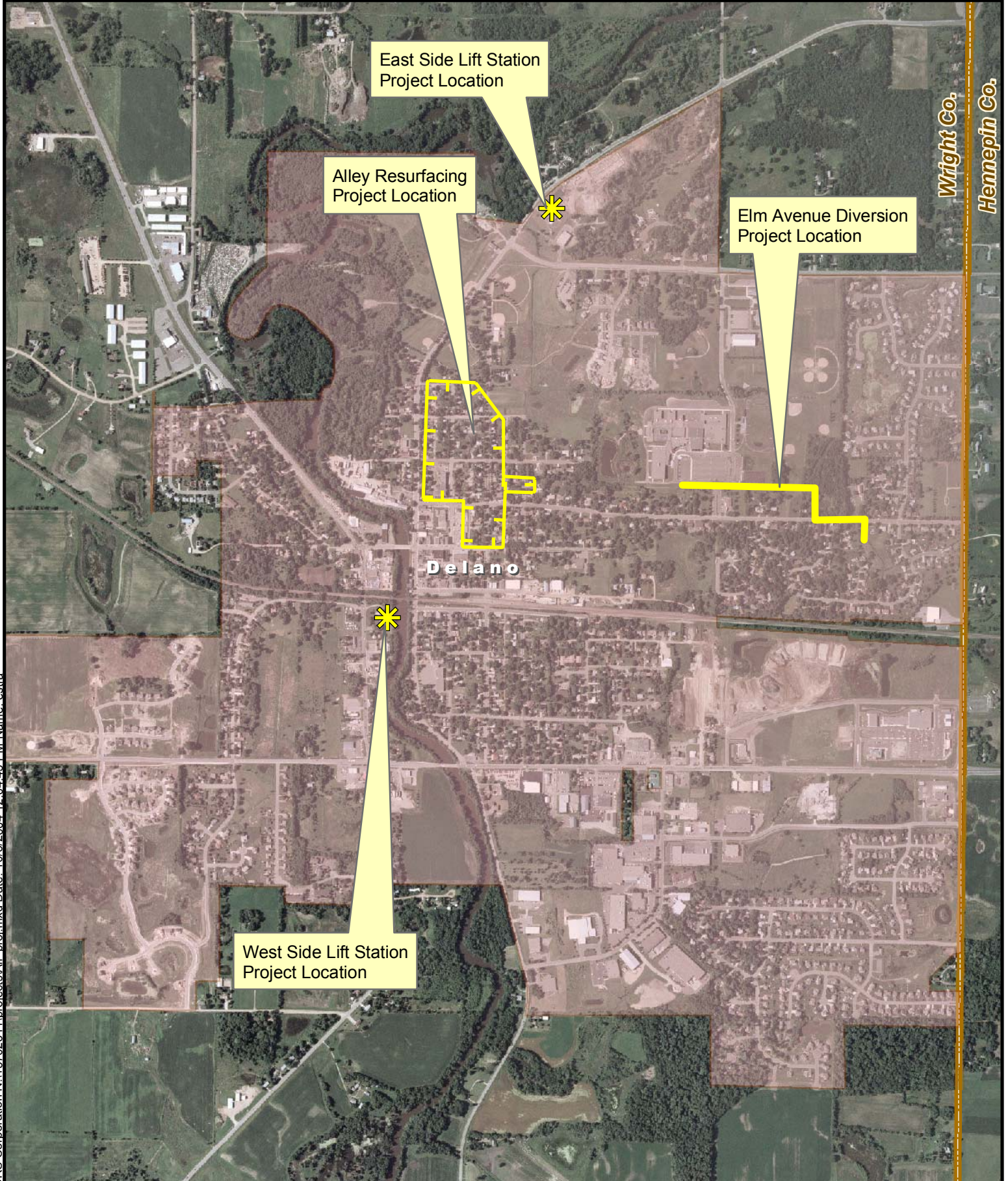
URS

**EAST SIDE LIFT STATION
FEMA FLOODPLAINS
DELANO, MINNESOTA**

Thresher Square
700 Third Street South
Minneapolis, MN 55415
612-370-0700 Tel
612-370-1378 Fax

DRN BY: ES	DATE: 10/5/04	PROJECT NO: 1570231.00100	FIG. NO. 4
CHKD BY: XX	DATE: 10/5/04		

URS Corporation N:\15702311\projects\All_proj.mxd Date: 10/5/2004 12:04:43 PM Name: esitra



East Side Lift Station
Project Location

Alley Resurfacing
Project Location

Elm Avenue Diversion
Project Location

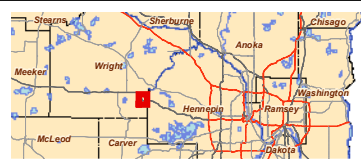
West Side Lift Station
Project Location

Wright Co.
Hennepin Co.



0 0.125 0.25 Miles

Data Sources:
MndOT, DNR



**PROPOSED HMGP
PROJECT LOCATIONS
DELANO, MINNESOTA**

Thresher Square
700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1378 Fax

DRN BY: ES	DATE: 10/5/04	PROJECT NO. 15702311.00100	FIG. NO. 5
CHKD BY: XX	DATE: 10/5/04		

Appendix A
Project Area Photos



View of existing pond inlet from the south.



View of site from the south, along CR 30.



View of the north edge of existing stormwater pond and inlet. CR 17 visible in top left.



View of existing stormwater pond.



View of existing stormwater pond outlet and debris.



Stream channel near existing outlet.



Stream channel approaching the South Fork of the Crow River.



Typical floodplain forest/wetland adjacent to stream channel.

Appendix B
Agency Correspondence

Appendix C
Best Management Practices (BMPs)

For information on the availability of Appendix C which is not included due to size formatting issues, please use contact instructions given in the Public Notice.

Appendix D
EO 11988 and EO 11990 Eight-Step Planning Process

EO 11988 and EO 11990 Eight-Step Planning Process

<p>Step 1: Determine whether the Preferred Alternative is located in a wetland and/or the 100-year floodplain, or whether it has the potential to affect or be affected by a floodplain or wetland.</p>	<p>Project Analysis: The City of Delano is a participant in good standing with the NFIP. According to FEMA mapping, the proposed project is located in the 100-year floodplain of the South Fork of the Crow River.</p> <p>According to NWI maps and a site visit conducted by URS on September 17, 2004, there are two wetlands located west of the project area, and floodwater will be directed to this area as a result of the proposed project.</p>
<p>Step 2: Notify public at earliest possible time of the intent to carry out an action in a floodplain or wetland, and involve the affected and interested public in the decision-making process.</p>	<p>Project Analysis: Status of the project has been discussed at numerous Delano City Council meetings to date. The project was also developed by a citizen task force which met nine times in 2002 and 2003, and whose findings were reported to the City Council. All City Council meetings are open to the public and are also locally televised. Minutes from meetings are also available on the City of Delano website.</p> <p>A notice will also be published by the Applicant in a newspaper of general circulation when the EA is made available for public review.</p>
<p>Step 3: Identify and evaluate practicable alternatives to locating the Preferred Alternative in a floodplain or wetland.</p>	<p>Project Analysis: The Preferred alternative includes the least amount of wetland impact that still allows for the project to proceed, and consequently could incur temporary wetland impact and no long-term wetland impact. Other than the No Action Alternative, there are no practicable alternatives for improving the storm sewer system that would not involve these indirect impacts to wetlands.</p> <p>The Preferred Alternative is located within the 100-year floodplain. The Preferred alternative would not increase the 100-year flood elevation of the South Fork of the Crow River, but rather work to decrease the high water level. The proposed East Side Lift Station would be located at an existing stormwater pond, and would positioned to collect water from an 805-acre drainage area (Bonestroo, 1997). Its position in the floodplain would allow for minimal required excavation for piping of water to the South Fork of the Crow River. Due to the functional nature and capacity of this facility, this is the most practicable alternative for addressing the purpose and need of the project. Other than the No Action Alternative, there are no practicable alternatives for improving the storm sewer system that would not involve</p>

Appendix D
EO 11988 and EO 11990 Eight-Step Planning Process

	<p>building in the floodplain.</p> <p>The following alternatives were evaluated in the EA:</p> <p><i>Alternative 1: No Action</i></p> <p>(continued)</p> <p><i>Alternative 2: Preferred alternative</i></p> <p>Construction of a 1,000-square-foot lift station on Pond 1 at the Wastewater Treatment Facility, and 250 feet of 30-inch piping to run under CR 17 and outlet to a small stream leading to the South Fork of the Crow River.</p> <p><i>Alternative 3</i></p> <p>Construction of a 1,000-square-foot lift station on Pond 2 in Central Park, and 400 feet of 30-inch piping to run along CR 30 and under CR 17, and outlet to a small stream leading to the South Fork of the Crow River.</p> <p><i>Alternatives Considered but Eliminated</i></p> <p>Construction of a lift station with 60 cfs pumping capacity was also considered as an alternative to this project. However, this alternative was dismissed because it would provide very little added flood protection at a much higher cost.</p> <p>The City of Delano also considered removing the homes within the area frequently affected by flooding. However, this alternative was dismissed because it would come at a much higher cost than the lift station, and would be more time-consuming to come to agreements with each of the homeowners.</p>
<p>Step 4: Identify the full range of potential direct or indirect impacts associated with the occupancy or modification of floodplains and wetlands, and the potential direct and indirect support of floodplain and wetland development that could result from the Preferred Alternative.</p>	<p>Project Analysis: The Preferred Alternative will result in only temporary impacts to identified wetlands. No excavation or disturbance to vegetation would take place. The water would enter the wetlands at a more continuous rate than currently exists under emergency pumping operations.</p> <p>The Preferred alternative would not increase the 100-year flood elevation of the South Fork of the Crow River. Construction of the lift station would not promote development in the floodplain, as the area is protected by the City’s Floodplain District Ordinance.</p>

EO 11988 and EO 11990 Eight-Step Planning Process

<p>Step 5: Minimize the potential adverse impacts to work within floodplains and wetlands to be identified under Step 4, restore and preserve the natural and beneficial values served by wetlands.</p>	<p>Project Analysis: As wetland impacts are anticipated to be temporary and minimal, there will be no replacement requirements necessary.</p> <p>The Applicant must follow all applicable local, State, and Federal laws, regulations, and requirements and obtain and comply with all required permits and approvals, prior to initiating construction on this project. No staging of equipment or project activities shall begin until all permits are obtained. The Applicant must apply BMPs for soil erosion prevention and containment during staging of equipment and project activities. Should project activities be delayed for 1 year or more after the date of this EA, coordination and project review by the appropriate regulating agencies must be re-initiated.</p> <p>There are no anticipated impacts to the 100-year floodplain or the 100-year flood elevation of the South Fork of the Crow River. Impacts of other projects adjoining this stormwater system will be reviewed as necessary to ensure that cumulative impacts to the floodplain are addressed.</p>
<p>Step 6: Re-evaluate the Proposed Action to determine: 1) if it is still practicable in light of its exposure to flood hazards; 2) the extent to which it will aggravate the hazards to others; 3) its potential to disrupt floodplain and wetland values.</p>	<p>Project Analysis: The Preferred alternative remains practicable based on the storm sewer improvement objectives.</p>
<p>Step 7: If the agency decides to take an action in a floodplain or wetland, prepare and provide the public with a finding and explanation of any final decision that the floodplain or wetland is the only practicable alternative. The explanation should include any relevant factors considered in the decision-making process.</p>	<p>Project Analysis: A public notice will be submitted informing of the FEMA decision to proceed with the project. This notice will include rationale for wetland and floodplain impacts; a description of all significant facts considered in making the determination; a list of the alternatives considered; a statement indicating whether the action conforms to State and local wetland and floodplain protection standards; a statement indicating how the action affects the wetlands and floodplains; and a statement of how mitigation will be achieved.</p>
<p>Step 8: Review the implementation and post-implementation phases of the Proposed Action to ensure that the requirements of the EOs are fully implemented. Oversight responsibility shall be integrated into existing processes.</p>	<p>Project Analysis: This step is integrated into the NEPA process and FEMA project management and oversight functions.</p>

Appendix E
Public Notice and Public Comment

Federal Emergency Management Agency
PUBLIC NOTICE
Notice of Availability for Draft Environmental Assessments
For Elm Avenue Diversion, East Side Lift Station and West Side Lift Station
Delano, Wright County, MN

Environmental Assessments for Elm Avenue Diversion, East Side Lift Station, and West Side Lift Station; City of Delano, Wright County, Minnesota. FEMA-MN-2003-MN.

Interested persons are hereby notified that the Federal Emergency Management Agency (FEMA)/Department of Homeland Security (DHS) is proposing to assist in the funding of storm sewer system improvements to mitigate and prepare for damage caused by flooding in the City of Delano. In accordance with the National Environmental Policy Act (NEPA) of 1969 and the implementing regulations of FEMA, Environmental Assessments (EAs) are being prepared to assess the potential impacts of each of the proposed actions on the human and natural environment. This also provides public notice to invite public comments on the proposed project in accordance with Executive Order 11988, Floodplain Management, and Executive Order 11990, Protection of Wetlands. In addition, this notice and the draft EAs provide information to the public on potential impacts to historic and cultural resources from the proposed undertaking, as outlined in the National Historic Preservation Act of 1966.

The draft EAs are available for review between August 22, 2005 and September 20, 2005 at Delano Public Library, 140 Bridge Avenue East, and Delano City Hall, 234 2nd Street North, during normal hours of operation. A public meeting will be held to discuss these three proposed FEMA projects in Delano on September 6, 2005 from 6:00 PM to 7:00 PM at Delano City Hall. The draft EA is also available for review online at the FEMA website <http://www.fema.gov/ehp/docs.shtm>.

Written comments regarding this environmental action should be received no later than 5PM on September 20, 2005, by Jeanne Millin, Regional Environmental Officer, 536 South Clark, 6th Floor, Chicago IL 60605-1521, or at Jeanne.Millin@dhs.gov.

If no comments are received by the above deadline, the draft EA will be considered final and a Finding of No Significant Impact will be published by FEMA.

The public may request a copy of the final environmental documents from Jeanne Millin at the address listed above.



Minnesota Department of Natural Resources

500 Lafayette Road
St. Paul, Minnesota 55155-40__

September 22, 2005

Ms. Jeanne Millin
Regional Environmental Officer
Federal Emergency Management Agency (FEMA)
Department of Homeland Security
536 South Clark Street, Sixth Floor
Chicago, IL 60605-1521

Subject: Delano East Side Stormwater Lift Station
Delano, Minnesota Environmental Assessment

Dear Ms. Millin:

The Minnesota Department of Natural Resources (DNR) has reviewed the Environmental Assessment for the East Side Stormwater Lift Station Project in the City of Delano, Minnesota. This Environmental Assessment has been prepared for the Department of Homeland Security, Federal Emergency Management Agency. The proposed East Side Stormwater Lift Station stormwater system improvement project is designed to protect surrounding homes from flooding, relieve sanitary sewer backups, and decrease the risk of surface erosion and sedimentation of the stormwater drainage system. The DNR has the following comments to offer for your consideration regarding this Environmental Assessment.

Generally, the DNR has concerns with the approach taken for this Environmental Assessment (as well as for two other EAs for stormwater system improvement projects in the City of Delano; the DNR will be submitting comments on each EA separately). Our understanding is that a directive in the National Environmental Policy Act (NEPA) is to not segment projects to reduce or minimize the apparent magnitude of their impacts. The EAs for these projects would be a more effective planning tool if all three of the stormwater system improvement projects in the City of Delano were considered one project and addressed in a single EA. For example, the EA does not address specifically the land use plans that the City of Delano has implemented which may have contributed to the situation for which mitigation from flooding is now needed. The EA also is not specific regarding the land use plans that the City of Delano can implement as mitigation to not exacerbate the situation or to reverse the current situation. The EA should discuss whether the flooding is caused by unique topography, by inadequate numbers or sizes of stormwater ponds, or by the amount of impervious density permitted or facilitated by new developments. The EA should also identify whether flooding can be remedied by reducing impervious densities, restoring wetlands, or by designing stormwater systems to infiltrate rather than run off as surface flow. Based on the DNR's review of these three proposed projects, it appears as though combining the projects into one project and addressing them in a single EA would probably not reveal significant impacts.

DNR Information: 651-296-6157 • 1-888-646-6367 • TTY: 651-296-5484 • 1-800-657-3929

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Ms. J. Millin
September 22, 2005
Page 2

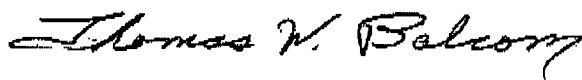
We also have concerns that although the EA has a section on cumulative effects, this section of the EA does not completely or comprehensively address cumulative impacts associated with these projects, especially with respect to other potential stormwater management practices to be implemented in currently developed areas or that will be included in future developments.

Please be aware that stormwater line crossings of the Crow River will require a utility crossing license from the Minnesota Department of Natural Resources, and any outfall structures installed in the river bank will require a DNR public waters work permit. Construction dewatering associated with the proposed project will also need an appropriation permit from the Department. A designated representative of the project should contact DNR Waters staff at the Central Regional Office for further information about the various permit and/or approval requirements (651-772-7910).

Thank you for the opportunity to review and to provide the comments and recommendations of the Minnesota Department of Natural Resources on this Environmental Assessment for the East Side Stormwater Lift Station Project in the City of Delano, Minnesota.

If you have further questions, please contact me at the above address, by telephone at 651-296-4796, or by electronic mail to tom.balcom@dnr.state.mn.us.

Sincerely,



Thomas W. Balcom, Supervisor
Environmental Policy and Review Unit
Division of Ecological Services

c: Tim Bremicker
Dale Homuth
Mike North
Wayne Barstad
Steve Colvin
Dan P. Stinnett, USFWS
Jessica Overmohle, URS

DELANO EAST SIDE STORMWATER LIFT STATION FEMA ENVIRONMENTAL ASSESSMENT (092205F).DOC
File No.: 20040315-0004



FEMA

May 31, 2006

Thomas W. Balcom, Supervisor
Environmental Policy and Review Unit
Division of Ecological Services
Minnesota Department of Natural Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155

RE: Elm Avenue Diversion Environmental Assessment – Delano, MN
East Side Lift Station Environmental Assessment – Delano, MN

Dear Mr. Balcom,

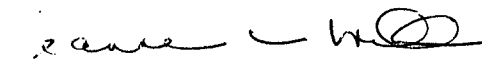
This letter is in response to your comments on the above-referenced Environmental Assessments, issued in letters dated September 22, 2005 (see attachment). As you will recall, three separate EAs for projects in Delano were released for review at the same time: Elm Avenue Diversion EA, East Side Lift Station EA and West Side Lift Station EA. The projects were placed on hold for a time, but FEMA is now prepared to complete the environmental process for the Elm Avenue and East Side Lift Station projects. These projects have not changed from that described and evaluated in the EAs. As the DNR's comments on these two EAs were the same, response has been condensed into one letter covering both EAs.

The DNR expressed concern regarding the approach taken for the EAs, and felt the projects would be a more effective planning tool if all three of the stormwater improvement projects were considered one project and evaluated in a single EA. These projects were separated because under the FEMA grant program, the cost/benefit must be evaluated separately. However, FEMA is mindful of the importance of evaluating cumulative effects, and a discussion the cumulative impact of all three projects is included in the EA.

The City of Delano recognizes the effects of past floodplain development on current flooding problems. That is why, as described in the Cumulative Impacts section of each EA, the City has implemented a Floodplain District Ordinance prohibiting development within the floodway. The City has also obtained and continues to actively pursue Flood Damage Reduction (FDR) grant funding from the DNR to purchase and remove repetitive loss properties within the 100-year floodplain. The 100-year floodplain is identified on City maps and has special provisions in the zoning code for development. These projects have been identified as a best use of existing City resources, and best methods of achieving relief for frequent flooding and sanitary sewer backup in the County Line Pond area and the east side drainage area, with minimal environmental impact. The projects are identified in the City's Stormwater Management Plan (1997), were studied in a comprehensive Flood Analysis (2002), and are part of an overall long-term program for stormwater management within the City.

For further reference, the West Side Lift Station project is no longer being considered for FEMA funding at this time, therefore we have not prepared a response to your comments on that EA. If you have any further questions, please feel free to contact me at (312) 408-5540 or Jeanne.Millin@dhs.gov

Sincerely,

A handwritten signature in black ink, appearing to read "Jeanne Millin", with a stylized flourish at the end.

Jeanne Millin
DHS/FEMA Region V Environmental Officer

Copy: Vince Parisi, DHS/FEMA
Mary Donohue, MN HSEM
Jessica Overmohle, URS