

**Project Summary and
Preliminary Environmental Impacts Determination (PEID)**

The following project summary and environmental assessment has been prepared by the IEPA to assist the loan applicant in complying with the public notice requirements. Information in this report was obtained, in part, from the following sources: the 2014 Facility Plan Update, dated April 2015; Supplemental Memo & Implementation Plan, dated April 2020, all prepared by Trotter & Associates, Inc.

Part I – Project Information

Loan Applicant: Northern Moraine Wastewater Reclamation District (NMWRD)

Project Name: Waste Water System Upgrades

Project Number: L172930; L175822; L175823 & L175824

County: McHenry

Current Service Population: 15,614

Future Population (20 year): 27,921

Project Description:

Darrell Road Phase 1A (L172930)- Phase 1A includes construction of a new Headworks Facility at the District Waste Water Treatment Plant (WWTP) to accommodate the new Darrell Road Interceptor Sewer. It will be located adjacent to the existing screening channels and will include a new raw sewage wet well. The existing screening channel will remain in operation to screen septage received at the WWTP.

Darrell Road Phase 1B (L175823)- Phase 1B will include roughly 4,420 lineal feet of 42-inch interceptor sewer to connect the existing 24-inch Water's Edge Interceptor to the WWTP.

Unsewered Community- Village of Holiday Hills (L175824)- The proposed sewer extension project will provide sanitary sewer service to the 276 single family residences in the Village of Holiday Hills and 29 homes in the Le Villa Vaupell subdivision.

Fleet Maintenance Garage (L175822)- A Fleet Maintenance Garage will be constructed on existing WWTP property owned by the District. An on-site horse barn would be demolished.

Project Location: See the attached map.

Project Justification:

Darrell Road Phase 1A (L172930)- The headworks portion of the project will provide a reliable way to carry flows from the new Interceptor to the WWTP.

Darrell Road Phase 1B (L175823)- The Darrell Road Interceptor will provide the flexibility to reroute flow from built-out areas in the Northeastern Basin, thereby off-loading the existing downstream sewers and lift stations within the Northwestern Basin. The project will help provide service to future development, particularly in the Northeastern and Eastern Drainage Basins of the District's Facility Planning Area (FPA).

Unsewered Community- Village of Holiday Hills (L175824)- Residents currently own and maintain private septic systems, which are prone to flooding and fecal contamination. The elimination of nearly three hundred private septic systems located in the Fox River Floodway,

Floodplain, and their tributary canals, should improve the region's water quality. Residents would be disconnected from their private septic systems upon connection to the proposed sanitary sewer.

Fleet Maintenance Garage (L175822)- The fleet maintenance garage will allow the District to store and repair its vehicles used by District staff, including work trucks and heavy-duty equipment. The District has determined construction of a Garage to be a priority as they continue to invest in their vehicles and equipment.

Construction Time Frame: Construction is projected to begin in September 2021 and will take approximately 1 year and 6 months to complete once in progress.

Project Cost Estimate: \$12,213,072.00

Part II – Environmental Review and Impacts

Project construction impacts: Temporary adverse environmental impacts such as construction-associated noise, blowing dust, air emissions, traffic disruption, and soil erosion will likely occur during construction.

Illinois Department of Natural Resources: The loan applicant submitted project information to the Illinois Department of Natural Resources (IDNR) EcoCAT to determine compliance with the Illinois Endangered Species Act, Illinois Natural Areas Preservation Act, (Title 17 Illinois Administrative Code Part 1075) and the Illinois Interagency Wetlands Policy Act of 1989 (Illinois Administrative Code Part 1090). While each project ultimately secured a signoff from the Department, each project has requirements that need to be followed to preserve the integrity of natural resources. The District shall incorporate all required environmental protective and mitigative measures into the design and bidding specifications for construction of the projects. Project specific information is as follows:

Darrell Road Collection System Phase 1A (L172930)- An IDNR letter dated March 31, 2020 identified protected resources (Blanding's Turtle, Cotton Creek Marsh Illinois Natural Areas Inventory (INAI) Site & Cotton Creek Marsh Nature Preserve) that may be in the vicinity of the project location that require actions to avoid adversely impacting these resources. Given the recommendations below are adopted, the Department concluded adverse effects are unlikely.

Darrell Road Collection System Phase 1B (L175823)- An IDNR letter dated March 31, 2020 identified protected resources (Blanding's Turtle) that may be in the vicinity of the project location that require actions to avoid adversely impacting these resources. Given the above recommendations below are adopted, the Department concluded adverse effects are unlikely.

Fleet Maintenance Garage (L175822)- An IDNR letter dated March 31, 2020 identified protected resources (Blanding's Turtle, Cotton Creek Marsh Illinois Natural Areas Inventory (INAI) Site & Cotton Creek Marsh Nature Preserve) that may be in the vicinity of the project location that require actions to avoid adversely impacting these resources. Given the recommendations below are adopted, the Department concluded adverse effects are unlikely.

Unsewered Community- Village of Holiday Hills (L175824)- An IDNR letter dated April 1, 2020 identified protected resources (Blanding's Turtle, Moraine Hills State Park) that may be in the vicinity of the project location that require actions to avoid adversely impacting these resources. Given the recommendations below are adopted, the Department concluded adverse effects are unlikely.

The state-listed Blanding's turtle is known to occur in the vicinity of these projects. To avoid impact to this species the following steps will be taken during construction:

- Educate personnel working on site about the Blanding's Turtle. Post photos of juvenile and adult Blanding's turtles at a central location.
- Install exclusionary silt fence around the project area to prevent turtles from entering.
- Conduct daily inspections during construction to ensure that exclusionary fencing is properly installed (dug into the ground) and to check if turtles are present.
- Trenches should be covered at the end of each work day. Before starting each work day, trenches and excavations should be routinely inspected to ensure no turtles (or other wildlife) have become trapped within them.
- If Blanding's turtles are encountered, crews should stop work immediately, allow the turtle to move out of the way and contact IDNR at 815/675-2386, ext. 216.

The project area is adjacent to Cotton Creek Marsh INAI, Moraine Hills State Park, and Cotton Creek Nature Preserve. To avoid impacting these areas, the following steps will be taken during construction:

- Educate personnel working on site, on the location and boundaries of the Nature Preserve and INAI Site to ensure disturbances are avoided.
- Equipment should be washed before entering the work site to prevent the transfer of non-native and invasive species into the Nature Preserve.
- Soil erosion and sediment control BMP's should be implemented and properly maintained.
- If erosion control blanket is to be used, the Department also recommends that Wildlife-Friendly plastic-free blanket be used to prevent the entanglement of native wildlife.

Illinois Department of Natural Resources-Office of Historic Preservation Agency: The District submitted project information to the Illinois Department of Natural Resources, Illinois State Historic Preservation Office (IDNR-SHPO) for compliance with section 106 of the National Historic Preservation Act. IDNR- SHPO indicated there are no historic properties affected by the proposed project and the District is in compliance with the National Historic Preservation Act.

US Army Corps: The District submitted project information to the U.S. Army Corps of Engineers (USACE) to determine USACE jurisdiction. In a July 29, 2020 letter the USACE determined they did in fact have jurisdiction over portions of the project area. Project specific information is as follows:

Darrell Road Collection System Phase 1A & 1B (L172930 & L175823)- Application for coverage under Regional Permit Numbers Seven (7) and Eight (8) has been submitted to the USACOE for review. IEPA Planning Approval will not be granted until proof of coverage is submitted and reviewed. The District shall incorporate all required environmental protective and mitigative measures into the design and bidding specifications for construction of the project.

Fleet Maintenance Garage (L175822)- Letter of No Objection request has been submitted to the USACOE. IEPA Planning Approval will not be granted until proof of coverage is submitted and reviewed.

Unsewered Community- Village of Holiday Hills (L175824)- In a letter dated April 29, 2020, the USACOE issued a Letter of No Objection for this portion of the project. Within the letter, the USACOE noted the need for consultation with the McHenry County Department of Planning and Development.

Illinois Department of Natural Resources-Office of Water Resources (IDNR-OWR): Determination of compliance with the Illinois Rivers, Lakes and Streams Act by IDNR-OWR is unique to each project and discussed below:

Darrell Road Phase 1A & 1B (L172930 & L175823)- No floodway exists within the project area. The IEPA has requested, and the District has agreed to consult IDNR-OWR for verification. IEPA Planning Approval will not be granted until verification is submitted and reviewed. The District shall incorporate all required environmental protective and mitigative measures into the design and bidding specifications for construction of the project.

Fleet Maintenance Garage (L175822)- No floodway or floodplain exists within the project area. Consultation with IDNR-OWR is not required.

Unsewered Community- Village of Holiday Hills (L175824)- IDNR-OWR Regional Permit Number Three (RP3) authorizes construction of minor projects in Northeastern Illinois Regulatory floodways. The construction area is within this area, and the activities are consistent with the permit language. The District shall incorporate all required environmental protective and mitigative measures contained within RP3, into the design and bidding specifications for construction of the project.

McHenry County Department of Planning and Development (MCDPD): In a letter dated May 1, 2020, the MCDPD confirmed the need for a Stormwater Management Permit to cover the construction activities associated with the Unsewered Community- Village of Holiday Hills (L175824) portion of the project. The IEPA will not issue a loan until proof of coverage is submitted and reviewed. The District shall incorporate all, if any, required environmental protective and mitigative measures into the design and bidding specifications for construction of the project.

Part III – Project Affordability for Residents and Utility Customers

The estimated costs for the project are:

	Phase 1A & 1B	Garage	Holiday Hills
1A Construction	\$1,419,520	\$450,000	\$4,855,000
1B Construction	\$3,111,000		
Contingency (10%)	\$ 453,052	\$ 45,000	\$ 485,500
Design Engineering	\$ 107,000	\$ 36,000	\$ 437,000
<u>Construction Engineering</u>	<u>\$ 341,000</u>	<u>\$ 36,000</u>	<u>\$ 437,000</u>
Individual Project Cost	\$5,431,572	\$567,000	\$6,214,500

Sum of all Project Cost: \$12,213,072

The applicant is proposing to finance the project costs with four loans from the IEPA Water Pollution Control Loan Program (WPCLP). Loans totaling \$12,213,072 with an estimated interest rate of 1.35% for a twenty (20) year period, would have an annual repayment of approximately \$697,138. If the annual loan repayment amount is divided between the District’s 5,190 sewer customers, each customer would pay \$135.05 per year, which equals \$11.25 per month.

The current loan program interest rate is 1.35%. The interest rate adjusts annually on July 1st. All loans are subject to the interest rate in effect at the time a loan agreement is issued. The loan program rules include provisions for incentives such as reduced interest rates, partial principal forgiveness, and extended repayment periods for qualifying applicants. The criteria used to determine incentive qualifications are found in Section 365.210 and 365.250 of the Procedures for Issuing Loans from the WPCLP, which is available on the Agency’s website. The final decision for incentive qualifications will be determined at the time a loan agreement is issued using updated Census Bureau and Department of Labor data. Using current data, the District is not eligible for any incentives. The Agency adjusts qualifying criteria annually on July 1st and the community specific information is also subject to change.

Source of Loan Repayment: The District proposes to repay the loan with increased user charges. The District completed a Strategic Financial Plan Model Review in March 2020 which considered sewer rate and connection fee increases to self-fund the proposed projects. Rates are adjusted annually, in April.

Scheduled Rate Increases are as follows:

- 4.0% in FY 2021
- 8.0% in FY 2022-FY 2026
- 4.0% in FY 2027-FY 2029

Average Monthly Residential Water Use: 6,000 gallons

Current Average Monthly Residential Cost of Service: \$40.50

Projected Average Monthly Residential Cost of Service: Existing customers will pay \$45.50 per month or \$546 annually, for service. Those numbers include a flat fee of \$5 per month to pay for the Maintenance Garage and Darrell Road Facilities. Holiday Hills residents will pay a flat fee of \$92.50 per month or \$1,110 annually for service.

How is the monthly residential rate/cost of service calculated? Current users pay a fee of \$40.50 for the first 10,000 gallons consumed. Since 95% of users consume less than 10,000 gallons per month, that is the average monthly user rate. Usage above 10,000 gallons a month is charged \$4.05 per 1,000 gallons consumed per month.

Number of Service Connections: 5,190 customers; the proposed projects will increase this number to 5,612.

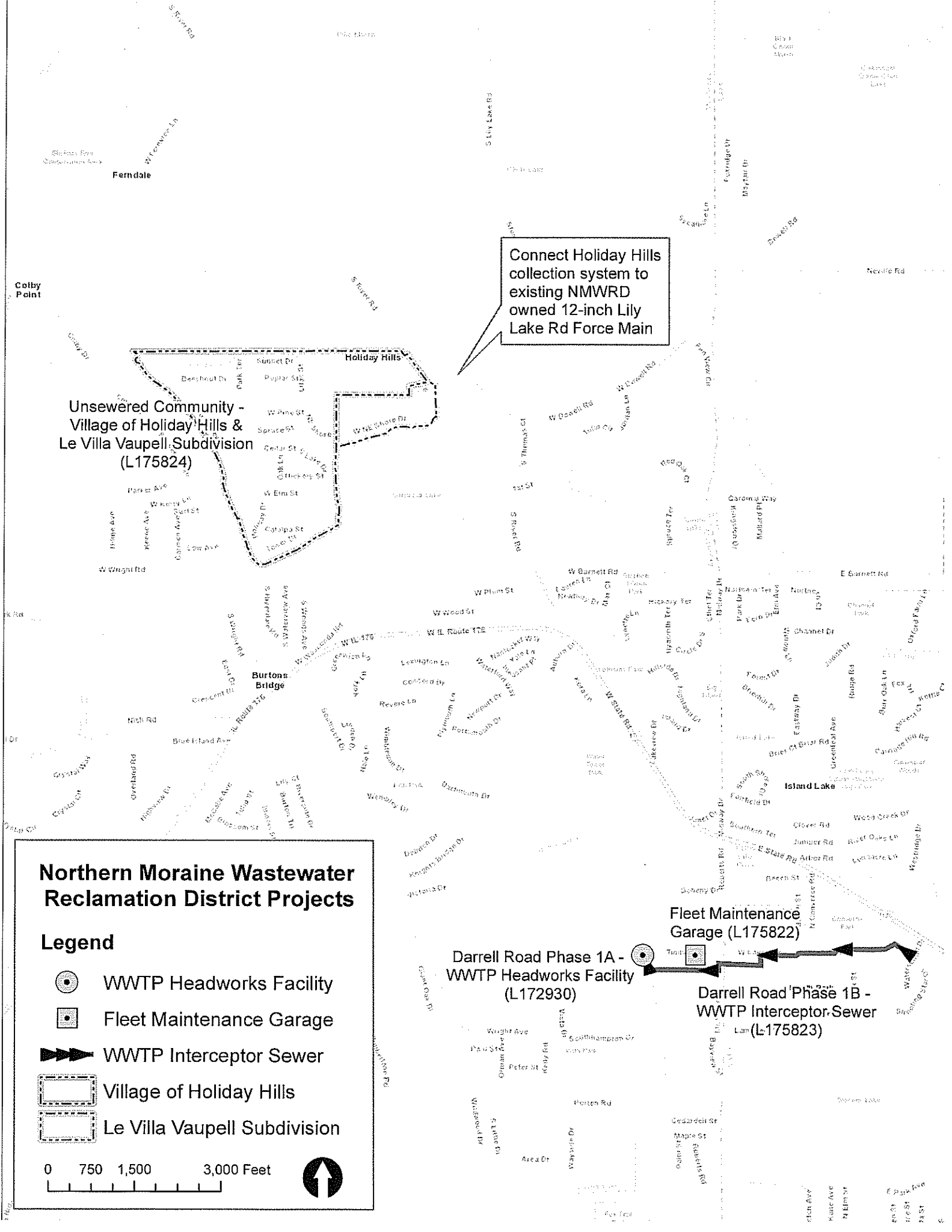
Median Household Income (MHI): The majority of the Districts population is contained within the Villages of Island Lake, Lakemoor and Port Barrington. The Island Lake MHI is \$77,129; Lakemoor is \$81,847, and Port Barrington is \$133,056. The prorated MHI for the District as a whole is therefore \$84,007.72. The MHI for the Village of Holiday Hills is \$73,947.

Financial Evaluation of the Proposed Project: To evaluate the costs of the proposed project for the community, a percentage comparison of the MHI to the average, annual cost for water services is utilized. The prorated MHI listed above is from the current year's census information. The projected annual cost of service for nonresidents of the Village of Holiday Hills is \$546, which is 0.65% of the MHI. The projected annual cost of service for residents of the Village of Holiday Hills is \$1,110, which is 1.50% of their MHI. The percentage is for comparison only and has no impact on whether a project qualifies for funding from the IEPA. The percentage comparison and MHI are two of several criteria used to determine whether a loan project qualifies for interest rate reductions or principal forgiveness.

Public comments are invited on the proposed project. For further information contact:

George Lambert, Project Manager
Infrastructure Financial Assistance Section
Illinois Environmental Protection Agency
Bureau of Water

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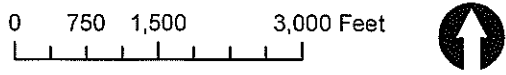
Connect Holiday Hills collection system to existing NMWRD owned 12-inch Lily Lake Rd Force Main

Unsewered Community - Village of Holiday Hills & Le Villa Vaupell Subdivision (L175824)

Northern Moraine Wastewater Reclamation District Projects

Legend

-  WWTP Headworks Facility
-  Fleet Maintenance Garage
-  WWTP Interceptor Sewer
-  Village of Holiday Hills
-  Le Villa Vaupell Subdivision



Darrell Road Phase 1A - WWTP Headworks Facility (L172930)

Fleet Maintenance Garage (L175822)

Darrell Road Phase 1B - WWTP Interceptor Sewer Line (L175823)