

# Memorandum

**Date:** April 10, 2020

**To:** Board Members

**From:** Marc Elliott, Director of Public Works

**Subject:** Sanitary Sewer Strategic Master Plan

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## **OBJECTIVE**

Board review and consideration of a Strategic Master Plan update for Sanitary Sewers.

## **DISCUSSION**

At a special March 10, 2020 meeting of the Oshtemo Township Capital Improvements Committee (CIC), members were requested to review changed conditions relative to Township's sanitary sewer Capital Improvement Plan (CIP). The change conditions which is not currently recognized are the Phase 1 and Phase 2 projects being pursued through project financing being provided by the Rural Development agency of USDA.

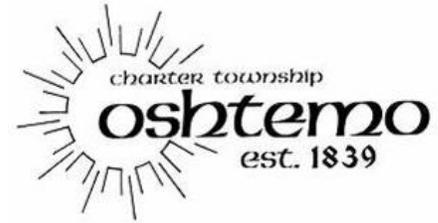
The CIC members did review and discuss the enclosed materials on March 10<sup>th</sup>, and by resolution did unanimously recommend to the Township Board that the proposed Sanitary Sewer CIP updates be adopted. The enclosed memo to the CIC members (attachment 1) includes a description of the associated figures.

## **RECOMMENDATION**

The Board is recommended to adopt a revised concept schedule for Sanitary Sewer Strategic Extensions (attachment 4) and a CIP Year for Local Sewer Extension (attachment 5). These will be used as "slip-streamed," board approved updates to the Township's Sanitary Sewer Capital Improvement Plan, and will be incorporated into the next regular update the overall Township Master Plan and associated long- and short-term CIP projects.

## **ATTACHMENT**

1. Memo, March 9, 2020, M. Elliott to CIC members.
2. Sanitary Sewer Service Boundaries
3. USDA Rural Development (RD) Load-Financed Neighborhood Sanitary Sewer Extensions.
4. Concept Schedule for Sanitary Sewer Strategic Extensions (new).
5. CIP Year for Local Sewer Extensions (new).



# Memorandum

**Date:** March 9, 2020

**To:** Members, Capital Improvements Committee

**From:** Marc Elliott, Director of Public Works

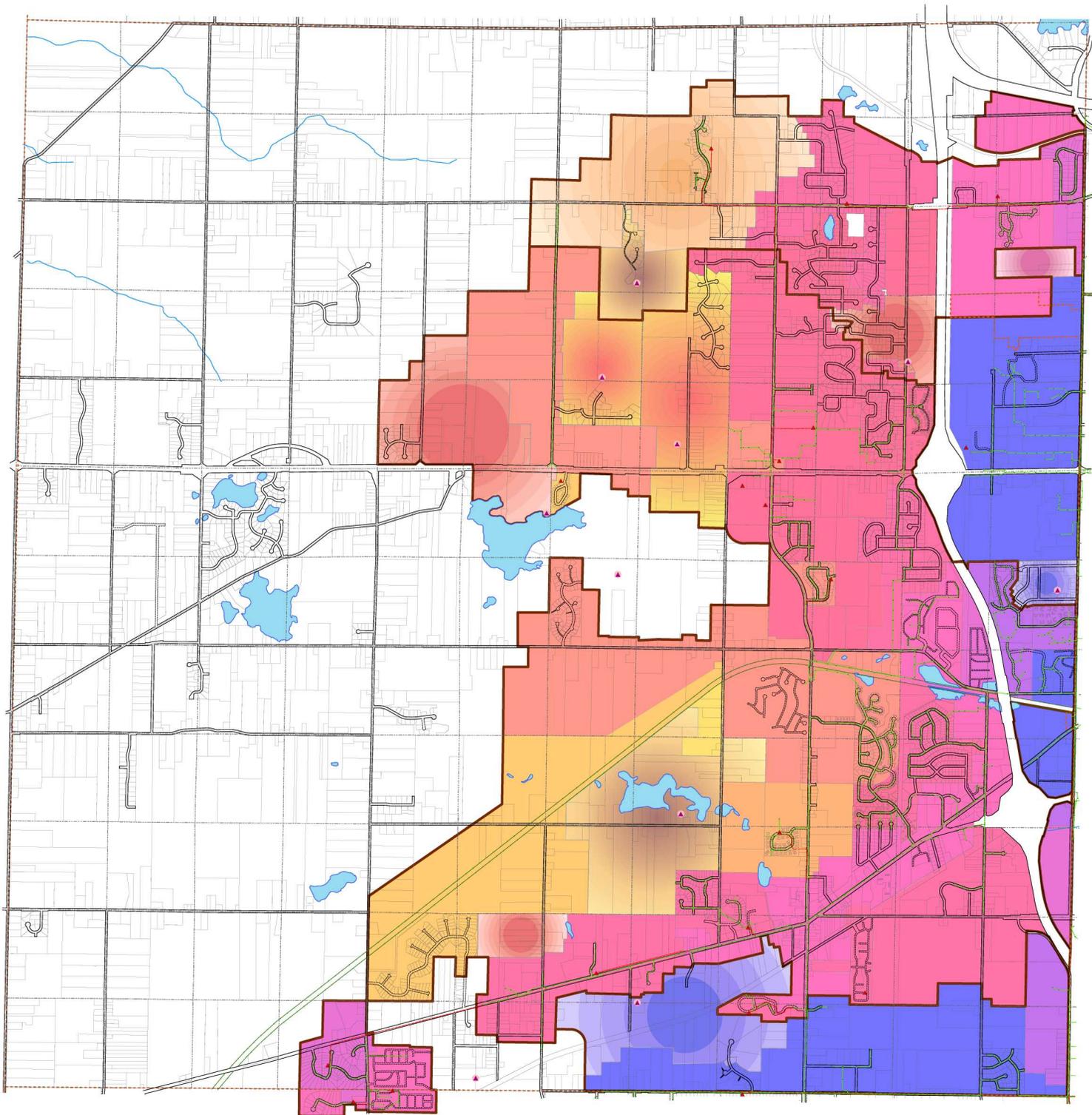
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Departmental staff has been working diligently since an application to USDA was submitted in 2017 seeking funding to implement needed public sewer extensions. Having been approved for major funding, the manpower needed to propel the project forward has forestalled other initiatives. It is therefore timely for CIC members to review changing condition and consider adjustments to the overall, long-term strategic vision for public sewer extensions.

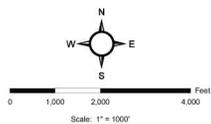
The following attachments are intended to initiate CIC member discussions and dialog:

1. Sanitary Sewer Service Boundaries (2011). This figure is a “heat” map of service areas.
  - The first thing to note is that the separate boundary areas are based upon ground topography, and generally represent areas in which a well-designed, major collector sewer main is likely to collect the boundary area flows.
  - The colors, ranging from cool to hot, represent an ordered and rational extension of sewer service. They also typically represent lower (blue) elevations that higher (hotter) elevations will flow into. Blues also largely represent areas where sewer service is generally available. A step-wise movement between boundary areas by color temperature generally suggests the rational-order of construction of various gravity sewer extensions which extend from low to higher elevations.
  - This map also indicates boundary areas that are topographical bowls. These areas have interior, circular color-concentrations in the general area where a future pump station is anticipated. Elsewhere in white areas, additional future pump stations are also indicated. However, white areas have generally not been evaluated to any great extent regarding future sewer service.
2. USDA Rural Development (RD) Load-Financed Neighborhood Sanitary Sewer Extensions.
3. Concept Schedule for Sanitary Sewer Strategic Extensions – Draft (new).
4. CIP Year for Local Sewer Extensions – Draft (new).

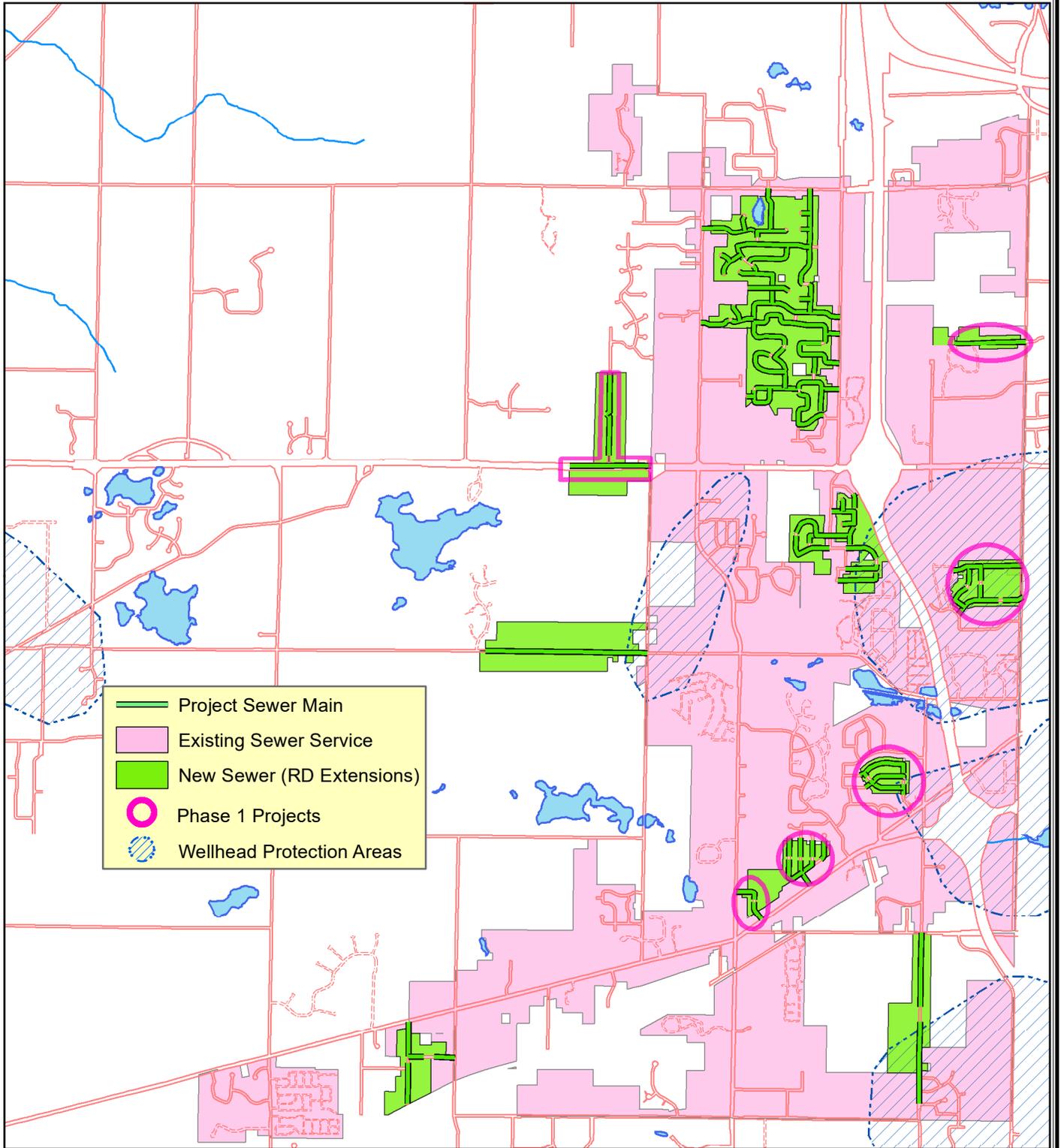


**CONCEPT PLAN LEGEND**

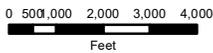
-  Sanitary Sewer Shed Area
-  USGS Watershed Boundaries
-  Sanitary Sewer Pump Station - Existing
-  Sanitary Sewer Pump Station - Future



**Charter Township of Oshtemo**  
 Kalamazoo County, Michigan  
**Sanitary Sewer**  
**Service Area Boundaries**



- Project Sewer Main
- Existing Sewer Service
- New Sewer (RD Extensions)
- Phase 1 Projects
- Wellhead Protection Areas



This map is for reference purposes only. While it is intended to be an accurate graphic representation, its accuracy cannot be guaranteed. Any conclusions or information derived from this map are at the users sole risk.

## USDA Rural Development (RD) Loan-Financed Neighborhood Sanitary Sewer Extensions

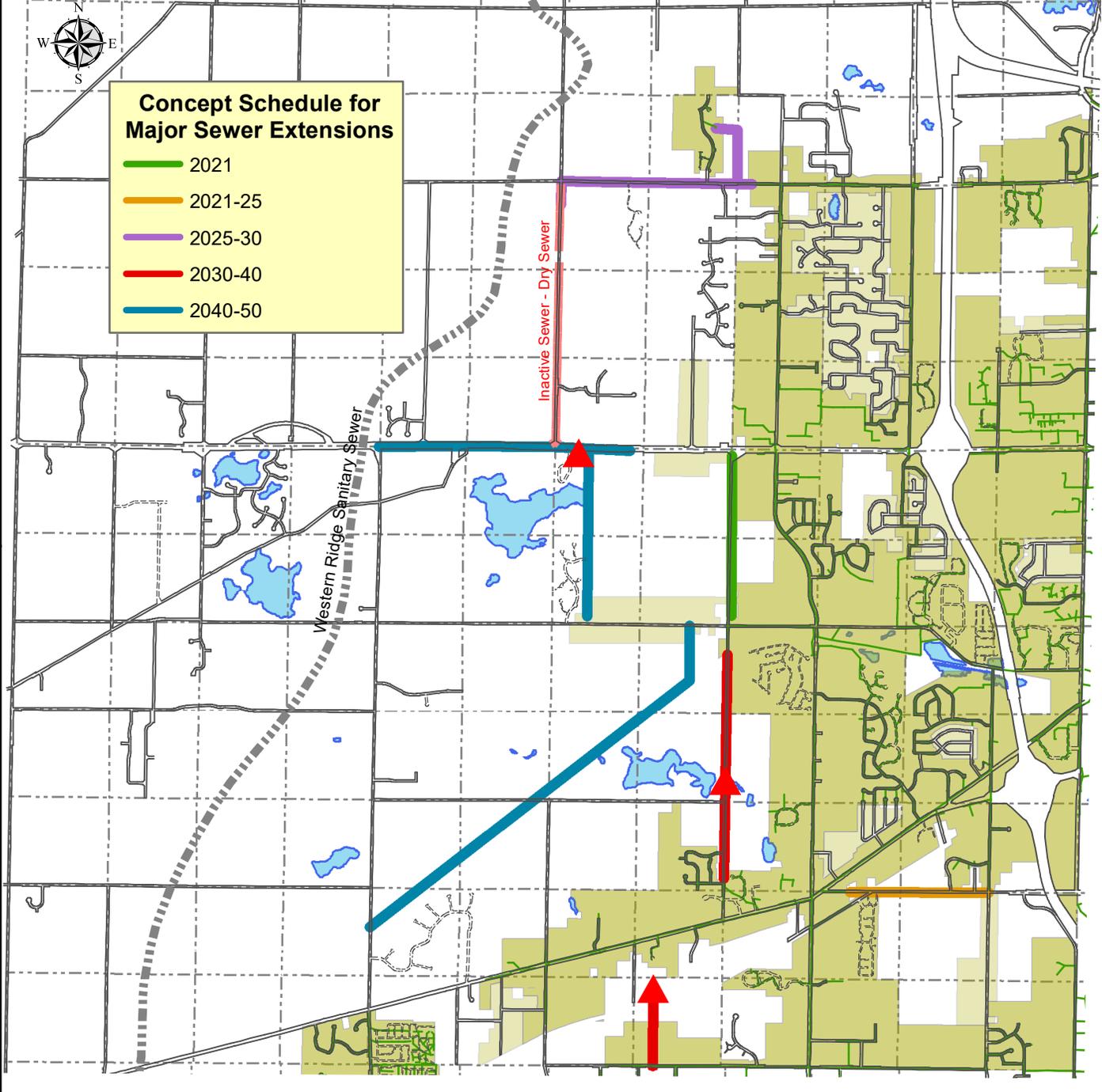
Charter Township of Oshtemo  
Kalamazoo Co., Michigan

Date: 3/8/2020



**Concept Schedule for Major Sewer Extensions**

- 2021
- 2021-25
- 2025-30
- 2030-40
- 2040-50



- ▲ Future Sewer Pump Station
- Sanitary Sewer Available
- Future Sewer Availability (with USDA Extensions)

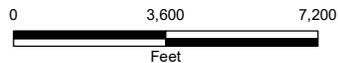
## Sanitary Sewer Strategic Extensions

Major Collector/Interceptor Sewer  
Mains & Pump Stations

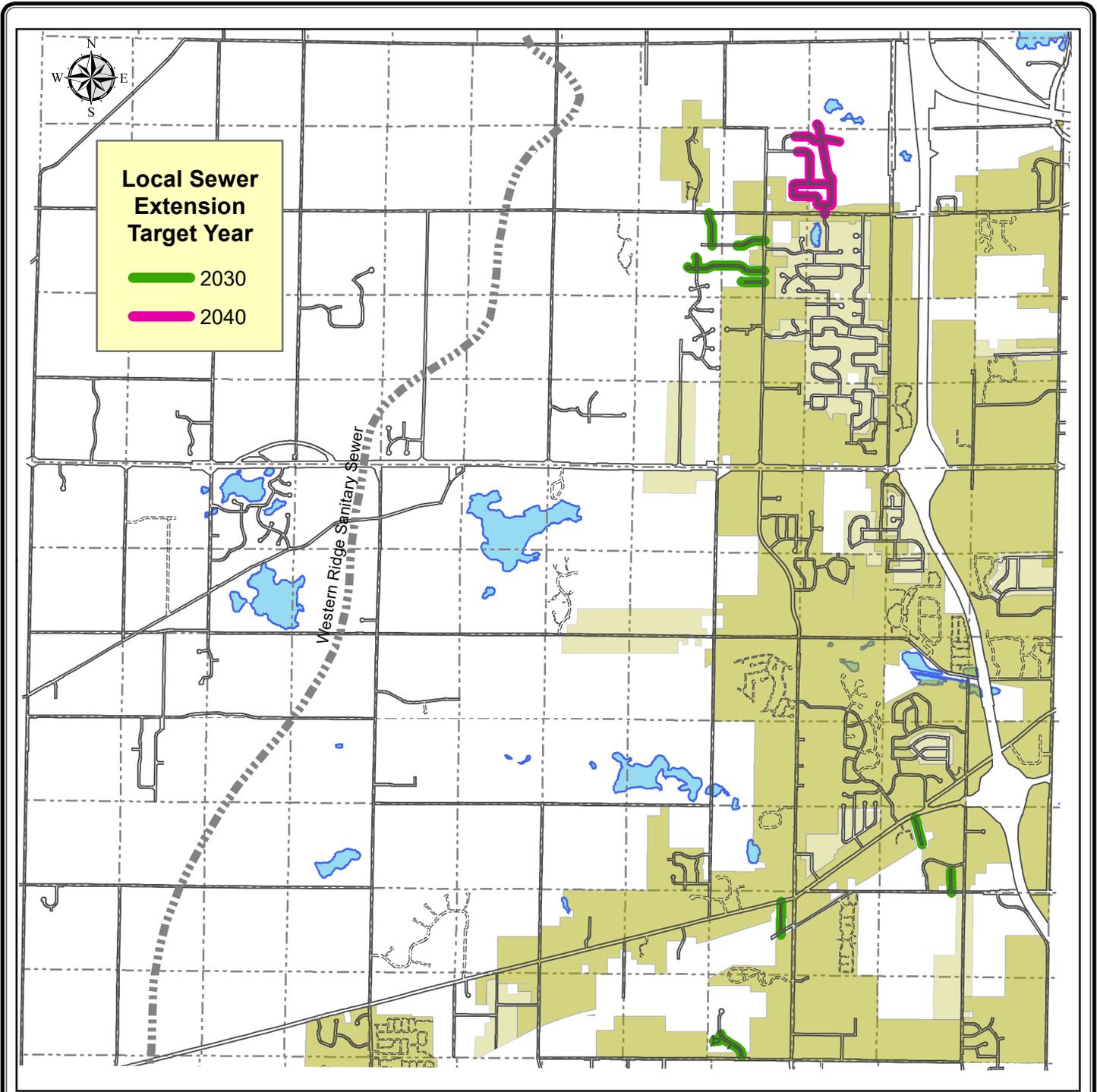
Charter Township of Oshtemo  
Kalamazoo Co., Michigan



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Date: 4/20/2020



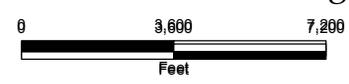
- ▲ Future Sewer Pump Station
- Sanitary Sewer Available
- Future Sewer Availability (with USDA Extensions)

## Sanitary Sewer CIP Plan Local Sewer Extensions



Charter Township of Oshtemo  
Kalamazoo Co., Michigan

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Date: 4/15/2020