

# City of Waukesha Diversion Application

Public Hearings – August 17 & 18, 2015  
Waukesha, Milwaukee, Racine

DNR Water Use Section  
Bureau of Drinking Water and Groundwater



# Presentation Outline

- Meeting/hearing format
- Introduction
- Waukesha diversion proposal overview
- Key technical review criteria and decision overview
- Environmental review process overview

# WDNR Decision Milestones

PUBLIC NOTICE OF APPLICATION (July 8, 2011)

## PUBLIC HEARINGS I:

- Application process
- July 2011

## WDNR REVIEW PERIOD

Consider comments  
Draft EIS, Technical Review

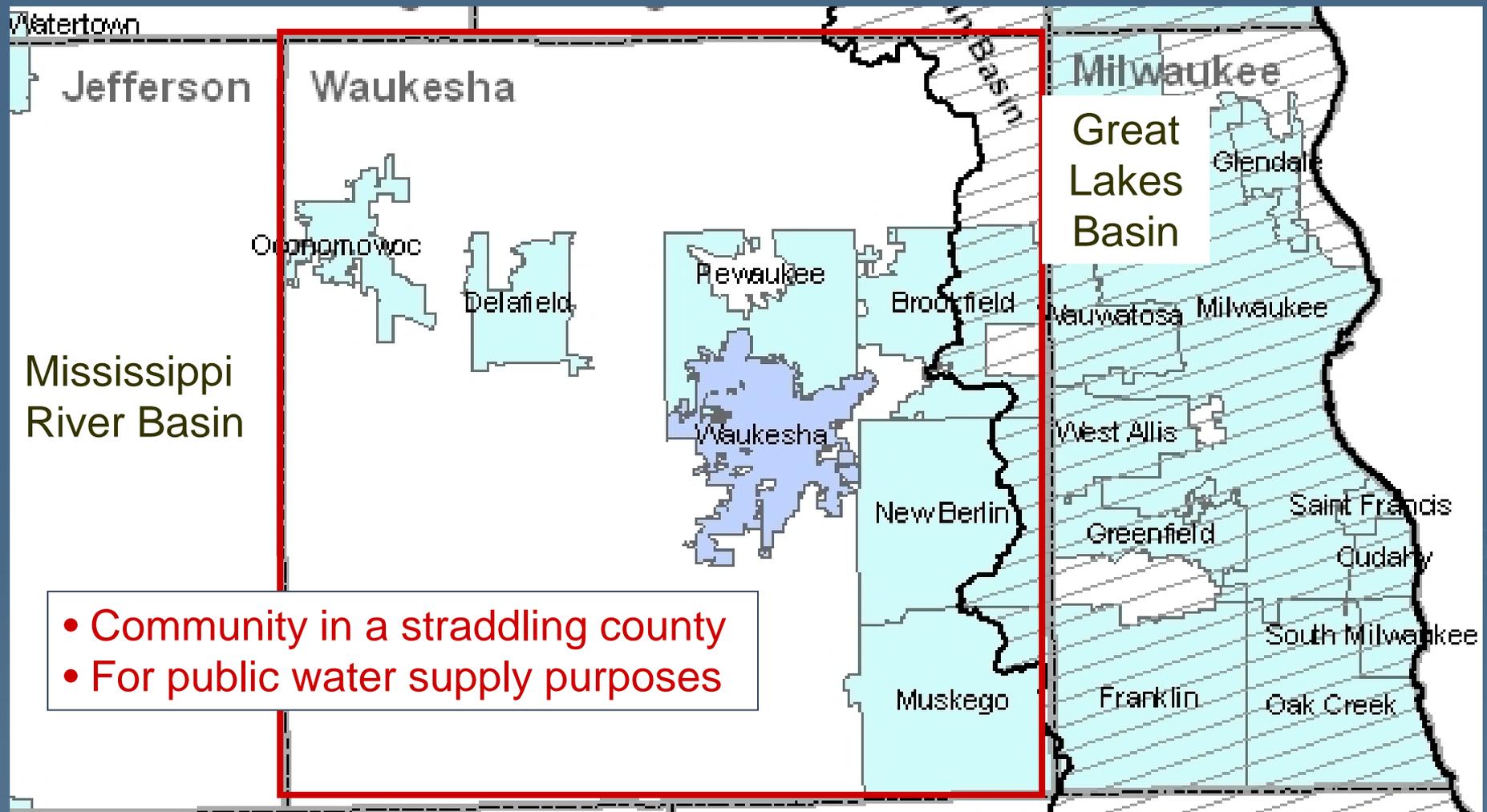
## PUBLIC HEARINGS II:

- Draft EIS, Technical Review
- 2 month comment period

WDNR prepares Final EIS including detailed response to comments, WDNR makes revisions to Technical Review

WDNR determines if application is approvable

# Waukesha is eligible to apply for a Great Lakes diversion.



# WDNR Decisions

- Does the application meet the Great Lakes Compact diversion criteria?
  - water supply/demand criteria
  - water conservation criteria
  - wastewater return criteria
- Draft conclusion - yes

# City of Waukesha Diversion Application Overview

## Volume:

- Annual average of 10.1 million gallons per day
- 16.7 million gallons per day (peak day)

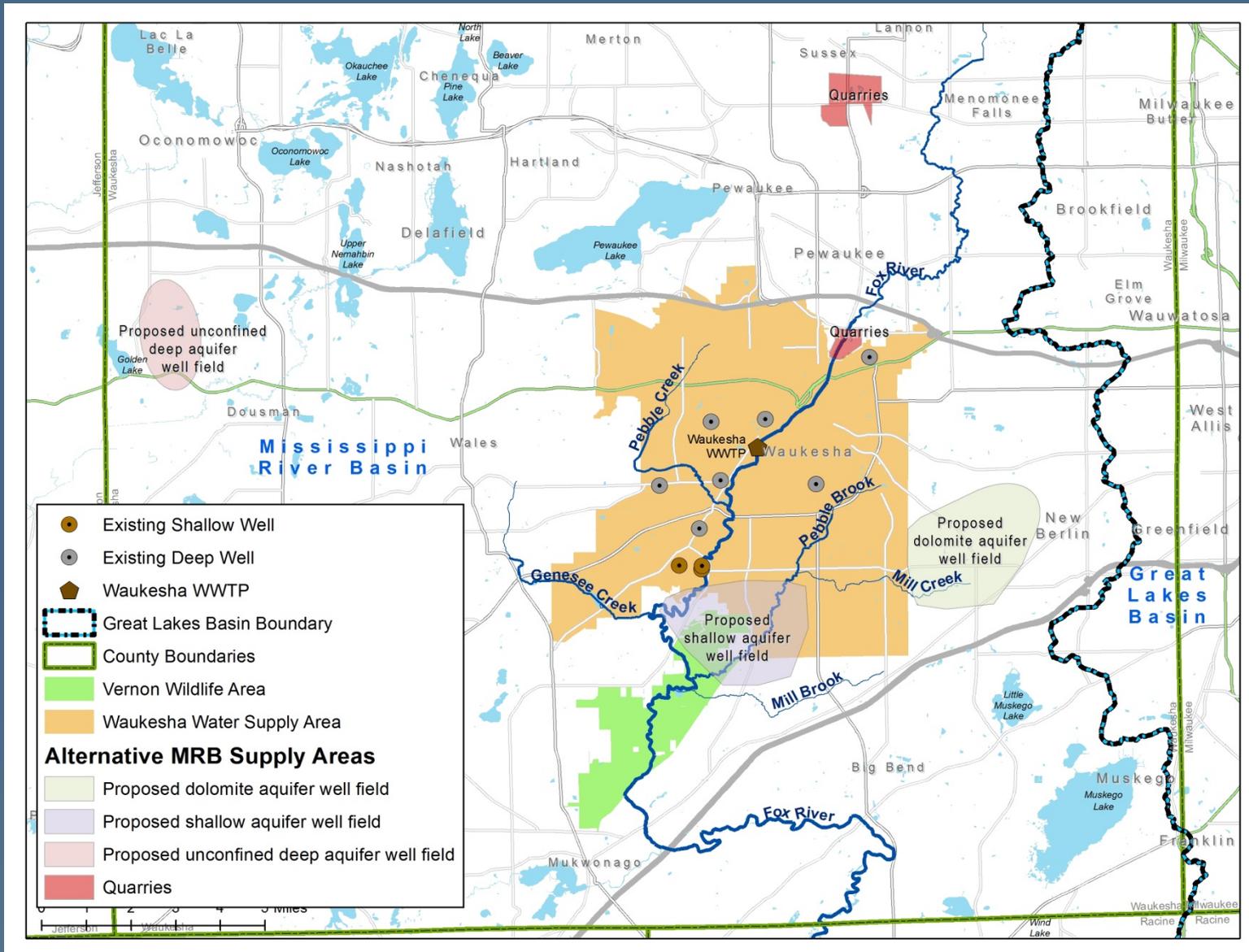
Source: Lake Michigan via Oak Creek Water Utility

Return: Lake Michigan via Root River near  
60<sup>th</sup>/Oakwood in City of Franklin

# Proposed intake and outfall



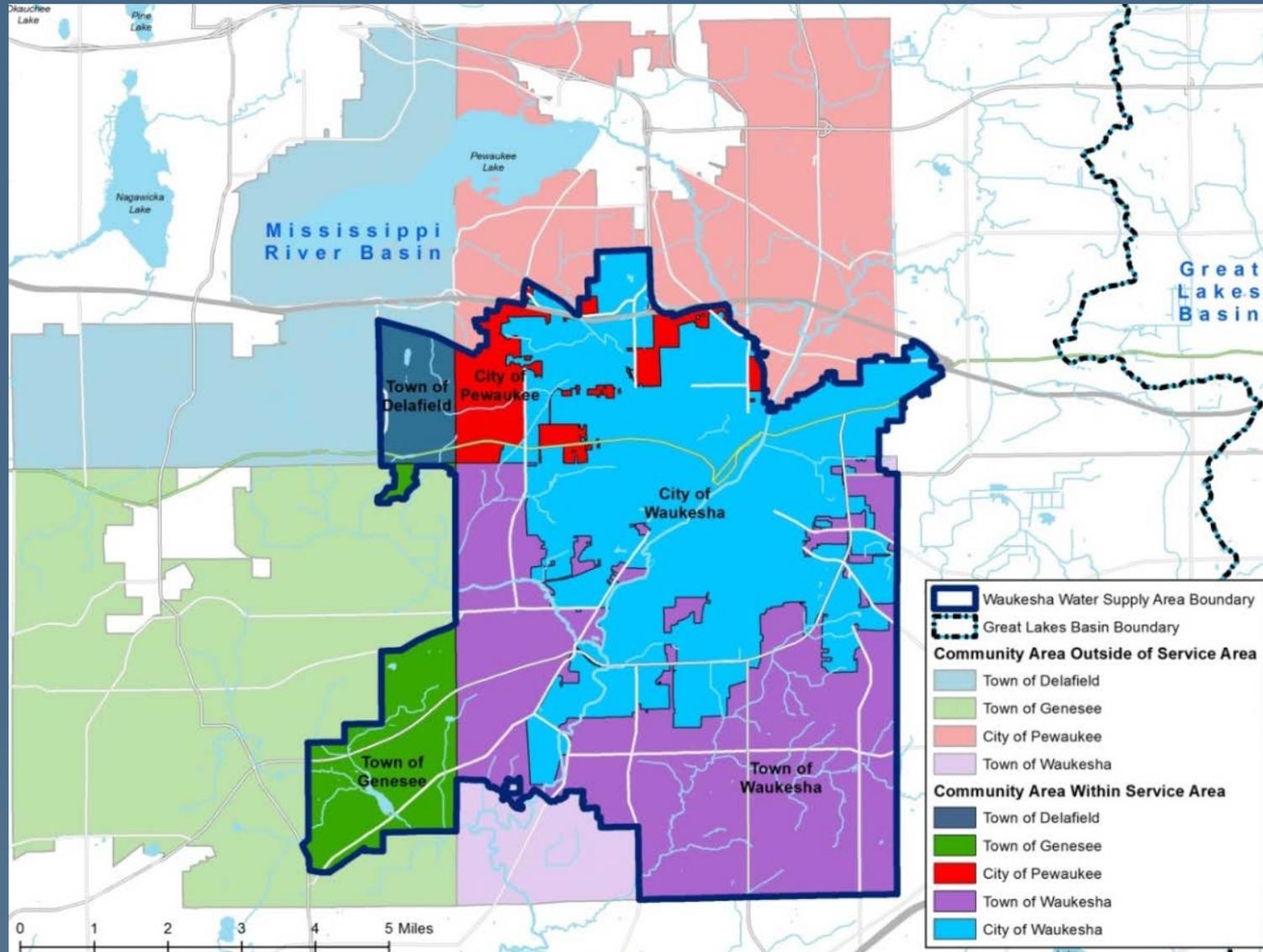
# Water Supply Sources



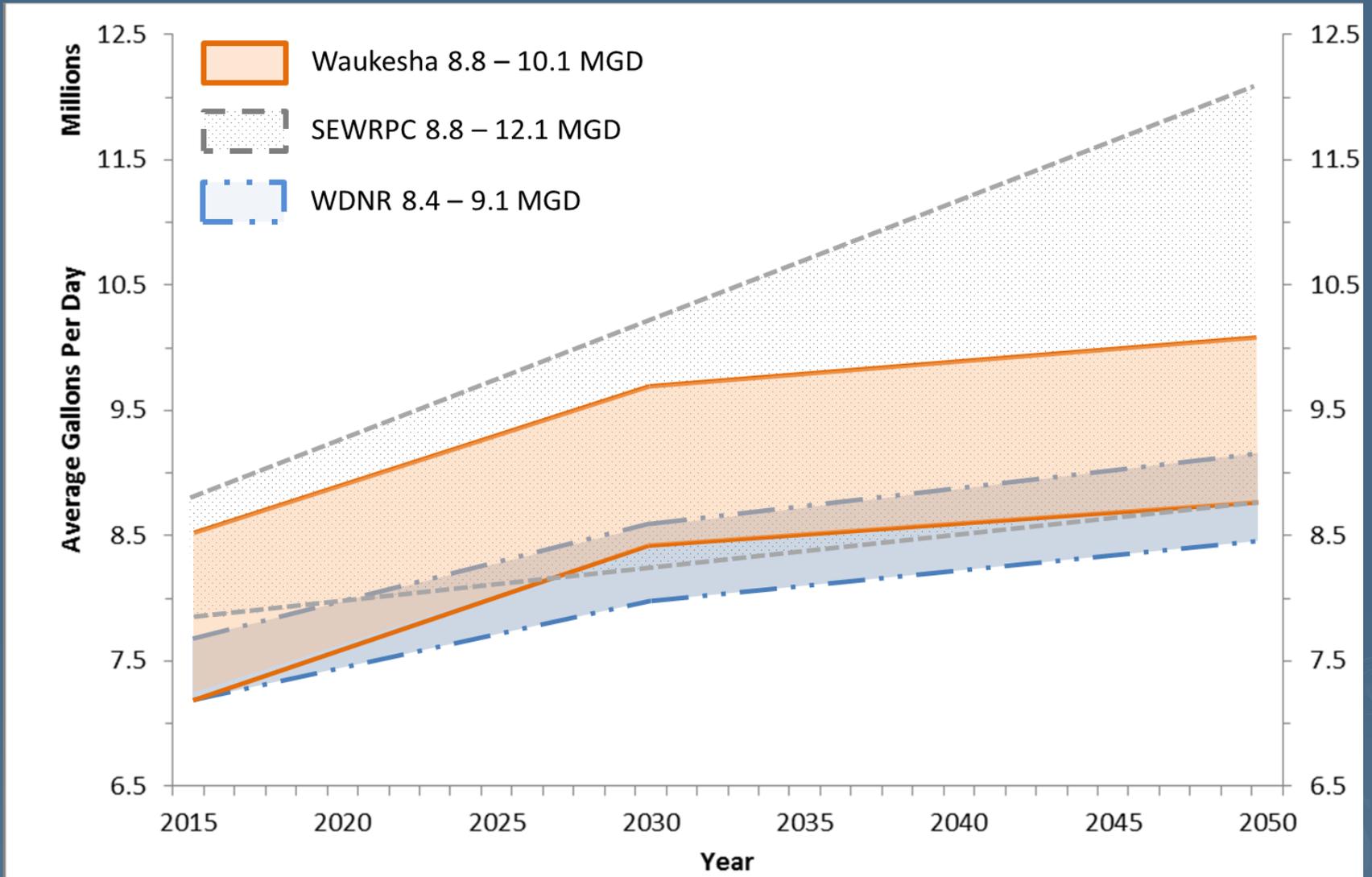
# Without adequate supplies of potable water

- 2014 – Water demand - 6.6 MGD
  - 5.1 MGD treated for radium or blended before entering water system
  - 1.5 MGD not treated for radium
  - Current water system does not meet state drinking water standards

# Water Supply Service Area



# Demand Projections



Alternative demand projections including estimated water conservation savings.

# No reasonable water supply alternative at 8.5 MGD demand

► Cost ► Public Health ► Environmental Impacts

Alternative	Resource of concern
1 – Deep and Shallow Aquifers	Wetland impacts (910 - 1036 ac)
1a – Deep and Shallow Aquifers (Fox River wells only)	Wetland impacts (804 – 1069 ac)
2 – Shallow Aquifers	Wetland impacts (1939 - 2326 ac)
3- Unconfined deep aquifer, western Waukesha Co.	Lake impacts (6-12” drawdown, > 10% decrease in baseflow)
4 – Multiple Sources	Wetland impacts (713 - 893 ac)
5 – Lake Michigan and Shallow Aquifers	Wetland impacts (910 - 1036 ac)
6 – Lake Michigan	Proposed Diversion

# Water Conservation Findings

- The proposed diversion cannot be reasonably avoided through conservation measures
  - Projected 1.0 MGD savings through implementing water conservation measures
- Will implement water conservation measures that are environmentally sound and economically feasible
  - Applicant meets requirements in NR 852 – Water Conservation Wisconsin Administrative Rule

# Wastewater Return: Root River

- Shares the water supply from Oak Creek pipeline route
- Volume: return previous year's average day withdrawal to the Root River, a tributary of Lake Michigan
  - Excess wastewater discharged to Fox River
- Returned wastewater will need to meet all applicable permit requirements

# Environmental Impacts

## ➤ Water Quantity Impacts

	Total volume (Million Gallons)	Maximum annual withdrawal (MG)	Maximum annual withdrawal (% of total volume)
Lake Michigan	1,299,318,237	3,687	0.000284%
Great Lakes	6,056,144,311	3,687	0.000061%

## ➤ Water Quality

- Expect minimal to no impacts to the Lake Michigan Basin

# Environmental Impact Statement

## What is an EIS?

- Relevant environmental information to inform a WDNR decision

## Outline

- 1) Introduction and Project Summary
- 2) Project Alternatives
- 3) Affected Environment
- 4) Environmental Effects
- 5) Comparison of Alternatives

# DECISION STEPS FOR WAUKESHA DIVERSION APPLICATION

Wisconsin determines if application is approvable



If yes...  
forwarded to Great Lakes States and Provinces

If no...  
Application ends.

Great Lakes States Decision

- Approval
- Approval with conditions
- Denial

If yes...  
returned to Wisconsin for permits and **FINAL DECISION**

If no...  
Application ends.



# Public Comments

- Comments accepted until August 28, 2015:
  - Draft Environmental Impact Statement
  - Draft Technical Review
- Provide comments:
  - Orally at public hearing
  - Written submitted at hearing
  - U.S. postal service
  - Email

A scenic sunset over a frozen body of water, likely a lake or river. The sun is low on the horizon, casting a warm, golden glow across the sky and reflecting off the ice. The water is partially frozen, with large, irregular ice floes scattered across the surface. The background shows a dark silhouette of a forest line under the bright sky.

Thank you!

DNR – Water Use Program  
Drinking Water and Groundwater Bureau  
<http://dnr.wi.gov/org/water/dwg/wateruse.html>