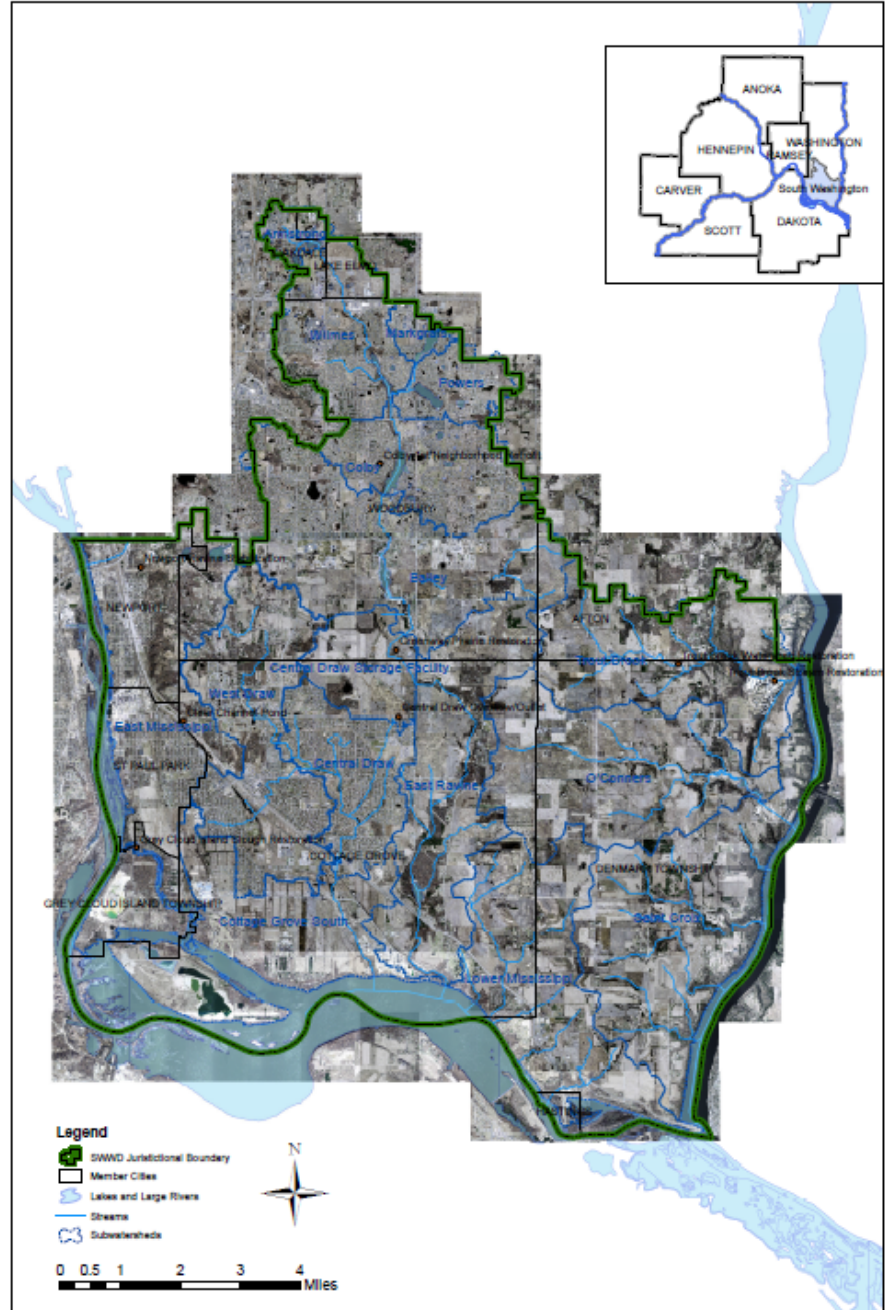




Board of Managers

- Jack Lavold
- Brian Johnson
- Don Pereira
- Mike Madigan

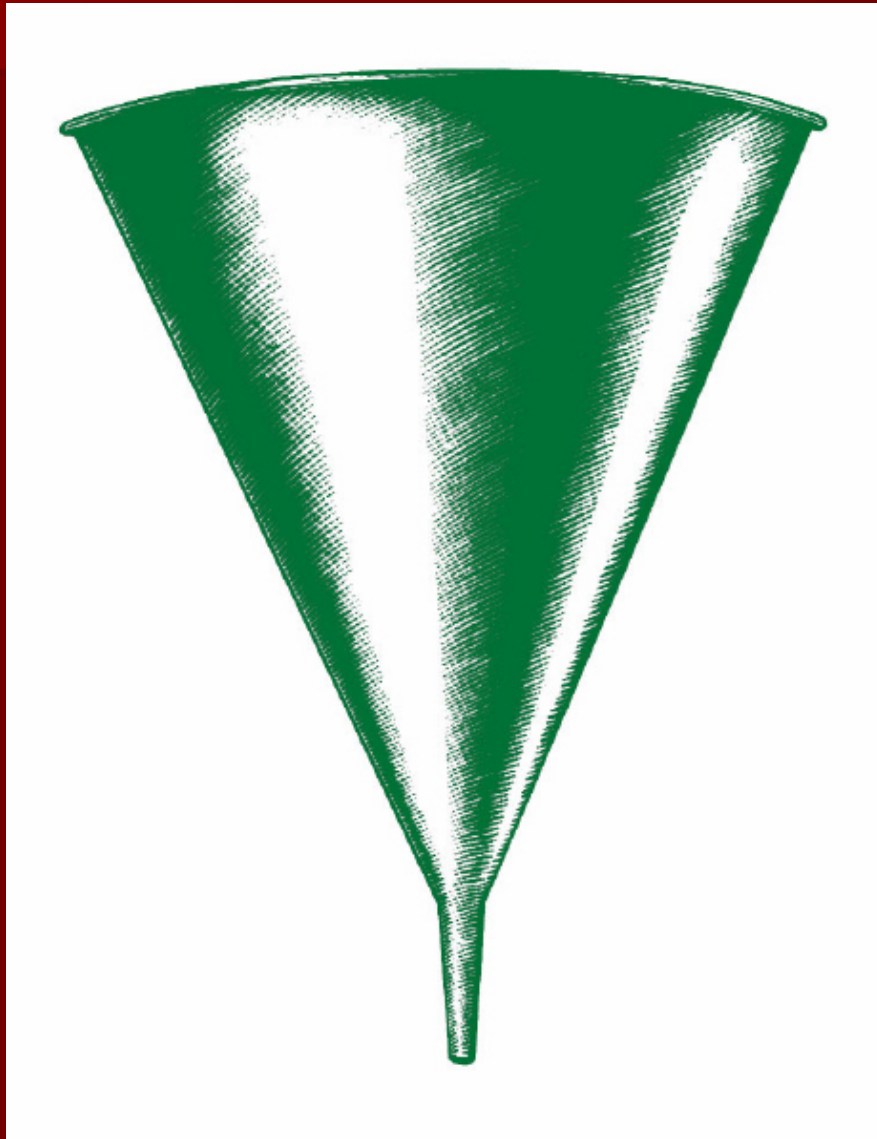


# So What's a Watershed, Anyway?

A watershed is all the land area that drains to a specific water resource, such as a lake or stream.



# What is a watershed?



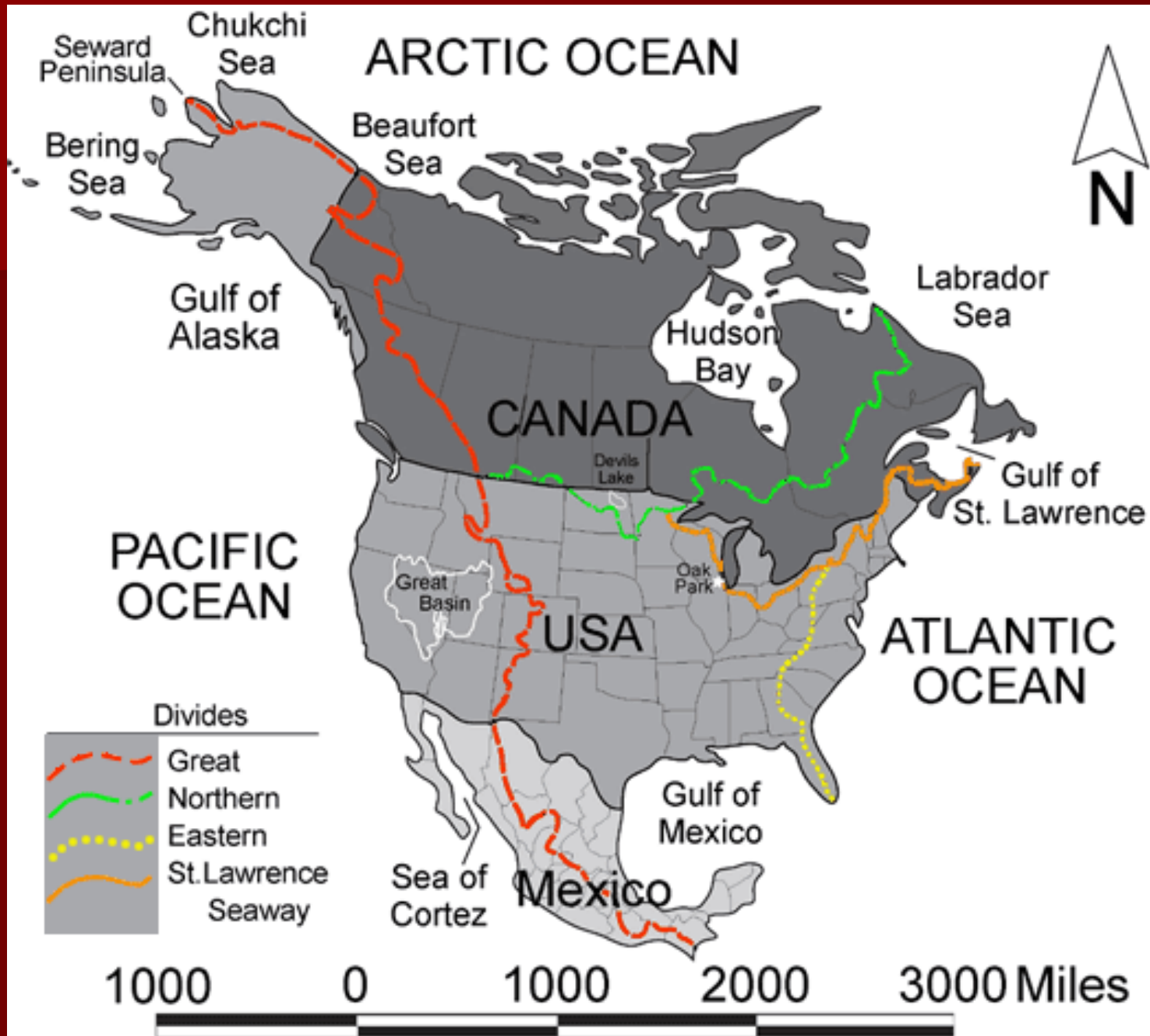
## What is A Watershed?

A watershed is an area of land that drains into a lake or river. As rainwater and melting snow run downhill, they carry sediment and other materials into our streams, lakes, and groundwater. The image below is a watershed illustration.



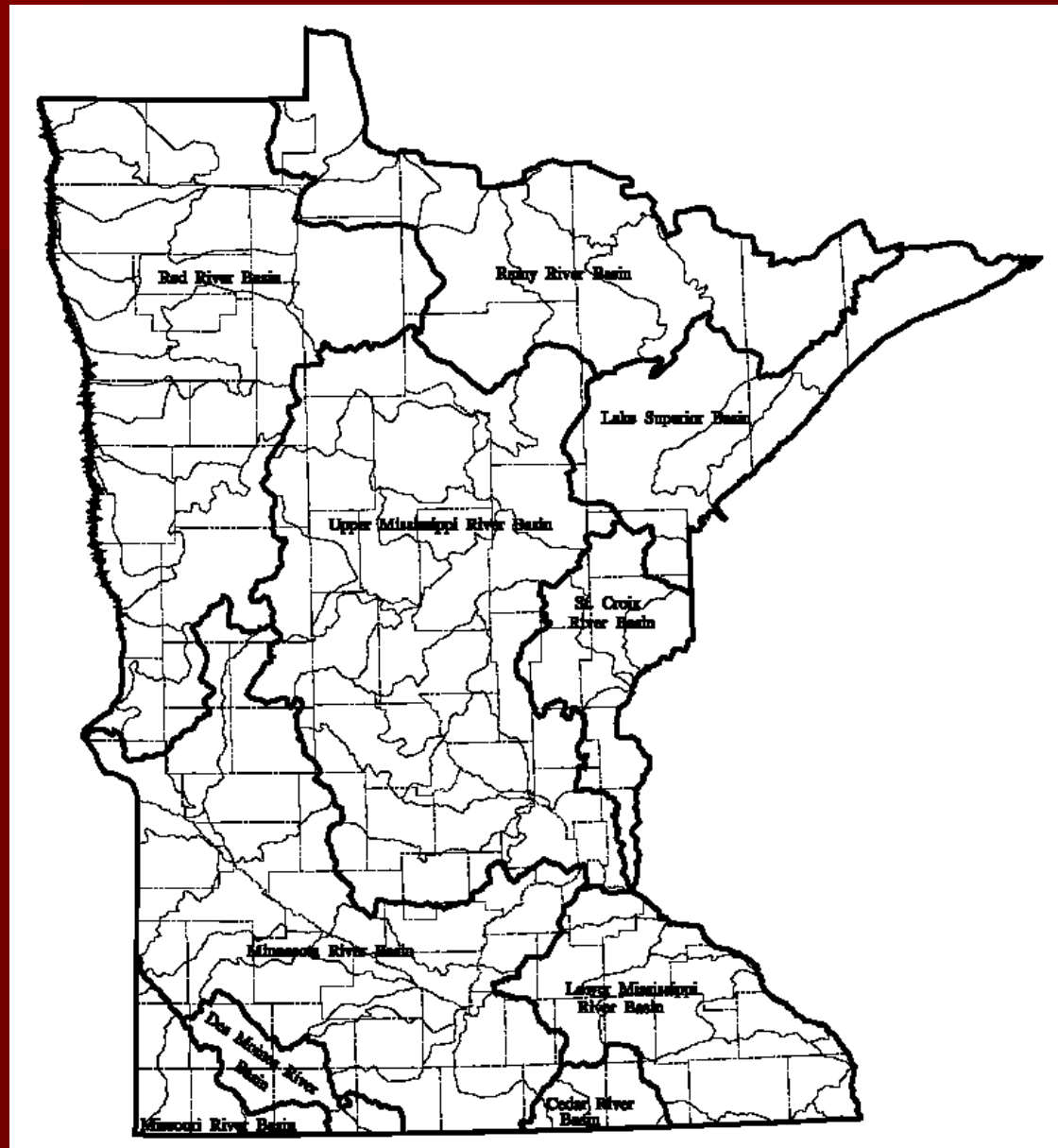
Watersheds provide water for drinking, irrigation, and streams. Many people also enjoy the lakes and streams for their beauty -- and for boating, fishing, and swimming. Healthy watersheds also provide food and shelter for wildlife.



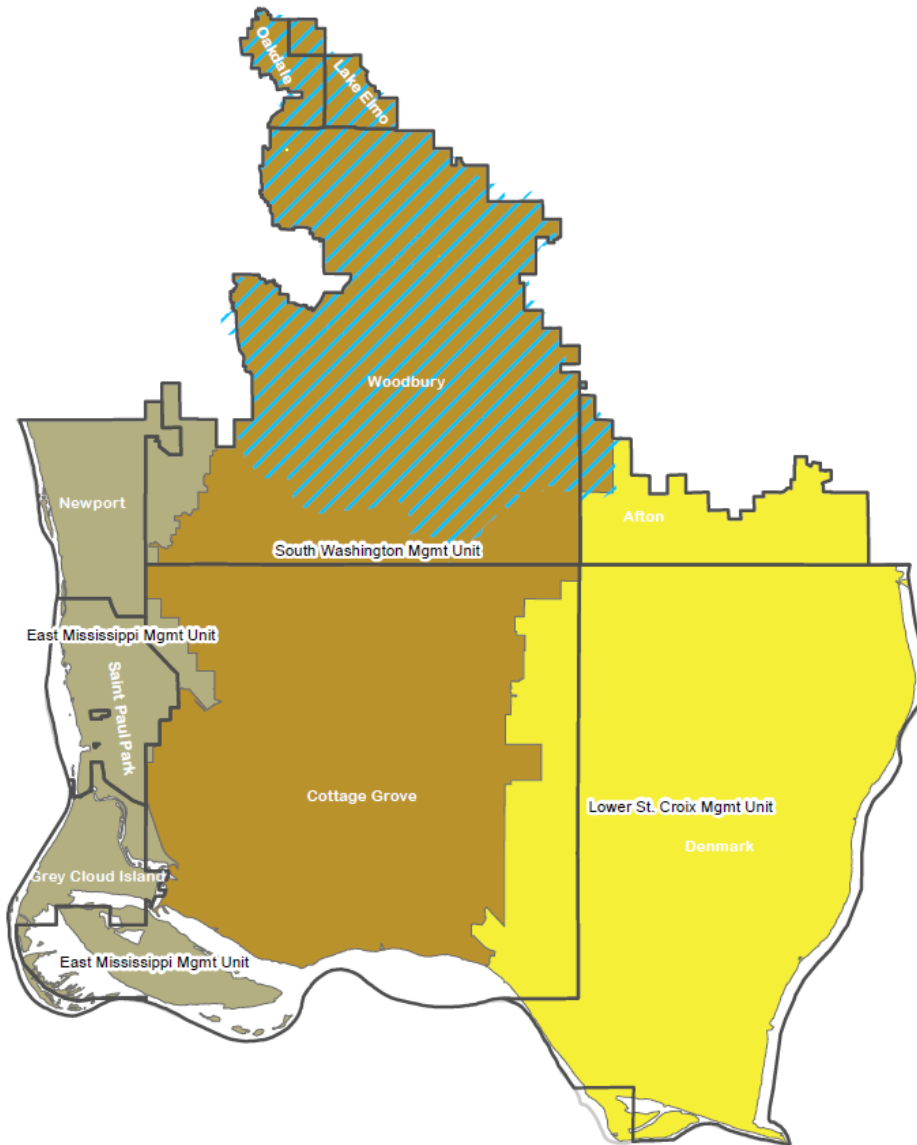


Best example of  
Watershed importance:







- State of Minnesota
- Headwaters to 4 Major watershed
  - Hudson Bay
  - Lake Superior
  - Missouri River
  - Mississippi River
- Dictates good stewards of the Water







**KEY TO FEATURES**

-  Northern Watershed - 75% Area
-  CITY AREA IN SWWD
- MngmtUnit**
-  East Mississippi Mgmt Unit
-  Lower St. Croix Mgmt Unit
-  South Washington Mgmt Unit
-  SWWD Boundary

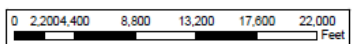


SWWD  
MANAGEMENT UNITS &  
REPRESENTATION

2013 Aerial Photo

SHEET NO:

1 in = 8,291 ft



Source: PWS 1/20/09 TEMPLATE/STUT\_Landscape.dwg



When you're  
fertilizing the  
lawn,  
remember  
you're not  
just fertilizing  
the lawn.

WHEN YOU'RE FERTILIZING THE LAWN.

REMEMBER YOU'RE NOT JUST

FERTILIZING THE LAWN.





# About the SWWD

- Formed on August 25, 1993, via a petition from Cities
- Governed by five-person Board of Managers
  - Appointed by County Commissioners
- 54 square miles in:
  - Cities: Oakdale, Lake Elmo, Afton, Woodbury and Cottage Grove
- 17 square miles in:
  - Cities: Woodbury, Cottage Grove, Newport, St. Paul Park and Grey Cloud Island Township
  - Added in 2003 at the Request of Washington County
- 39 square mile:
  - Cities: Cottage Grove, Afton, Hastings and Denmark Township
  - Added in 2012 at the Request of Washington County and Lower St. Croix WMO
- Approximately 70,400 acres



# Mission

To effectively manage the environmental resources of the South Washington Watershed District in cooperation with our citizens and communities.



# Programs and Projects

## ■ Programs:

- Water Quality Monitoring
- Infiltration Monitoring
- Education
- Development Reviews

## ■ Projects:

- Lake Assessments
- Regional Facilities
- Groundwater Protection and Monitoring
- Hydrologic Modeling and Mapping
- Watershed Overflow



# So What's a Watershed District, Anyway?

- Watershed Districts are special purpose local units of government, with taxing and (limited) regulatory authority.
- Why WDs? Water is a very important resource, but it does NOT follow political boundaries making it difficult to protect and manage.



# Minnesota Watershed District Authorities

An overview of duties and  
authorities

Adapted from: Doug Thomas,  
BWSR



# Why are watershed districts formed (basic purposes)

- (1) to control or alleviate damage from flood waters;
- (2) to improve stream channels for drainage, navigation, and any other public purpose;
- (3) to reclaim or fill wet and overflowed land;
- (4) to provide a water supply for irrigation;
- (5) to regulate the flow of streams and conserve the streams' water;
- (6) to divert or change all or part of watercourses;
- (7) to provide or conserve water supply for domestic, industrial, recreational, agricultural, or other public use;
- (8) to provide for sanitation and public health, and regulate the use of streams, ditches, or watercourses to dispose of waste;
- (9) to repair, improve, relocate, modify, consolidate, and abandon all or part of drainage systems within a watershed district;
- (10) to control or alleviate soil erosion and siltation of watercourses or water basins;
- (11) to regulate improvements by riparian property owners of the beds, banks, and shores of lakes, streams, and wetlands for preservation and beneficial public use;
- (12) to provide for hydroelectric power generation;
- (13) to protect or enhance the water quality in watercourses or water basins; and
- (14) to provide for the protection of groundwater and regulate its use to preserve it for beneficial purposes.



# Why are watershed districts formed (basic purposes)

- (1) to control or alleviate damage from flood waters;
- (5) to regulate the flow of streams and conserve the streams' water;
- (10) to control or alleviate soil erosion and siltation of watercourses or water basins;
- (11) to regulate improvements by riparian property owners of the beds, banks, and shores of lakes, streams, and wetlands for preservation and beneficial public use;
- (13) to protect or enhance the water quality in watercourses or water basins; and
- (14) to provide for the protection of groundwater and regulate its use to preserve it for beneficial purposes.



# How are WD's formed and modified?

- Creation
  - Citizen or local government petition
  - Hearing(s)
  - DNR Division of Waters Director report
  - BWSR action
- Enlargement, consolidation, boundary changes
  - Petition
  - Hearing
  - BWSR action
- Termination
  - Petition by 25% of resident owners
  - Hearing
  - BWR action



# How are WD's governed

- Appointed board of managers (3-9)
  - Not a public officer, except SWCD supervisor
  - Voting resident of the District
  - Serve a 3 year term, no term limits, unless restricted by the county



# Who runs the place?

- Board of managers
  - Advisory Committee (mandatory)
    - Annually appointed by the managers
    - Advise managers on all matters affecting WD
    - Make recommendations on all contemplated projects
  - Employees (optional)
  - Attorney
  - Engineer (optional)





# Basic fiscal authorities

- General Fund levy (\$250,000 or 0.048% TMV)
- Survey & Data Acquisition Fund (once every 5 years \$50,000 max.)
- Projects of Common Benefit petitioned by political subdivisions or 50 resident owners (0.00798% TMV up to 15 consecutive years)
- Emergency projects (25% of admin levy)



# Fiscal authorities (cont.)

- Assessment Levies (funds projects, assessment based on benefit, no \$ limit)
- Charges - Stormwater utilities (fee collected with a sub taxing district based on characteristics of runoff)
- May receive grants from state and federal govt.



# Basic watershed district powers

- Sue and be sued
- Incur liabilities
- Power of eminent domain
- Levy property taxes and special assessments
- Issue certificates, warrants, and bonds
- Acquire real property
- Hire staff and consultants
- Regulate the use and development of land under specific circumstances



# When does a WD have expanded authorities

- When acting as a public drainage authority under MS103E
  - Must follow procedures in 103E
- When acting as a metropolitan watershed management organization (WMO) under MS103B.201
  - Expanded ad-valorem authority
  - Ability to certify capital projects to county for payment and collection
  - Must identify capital improvements in the WD plan
  - Approval authority of municipal water plans



# Watershed Districts Statewide

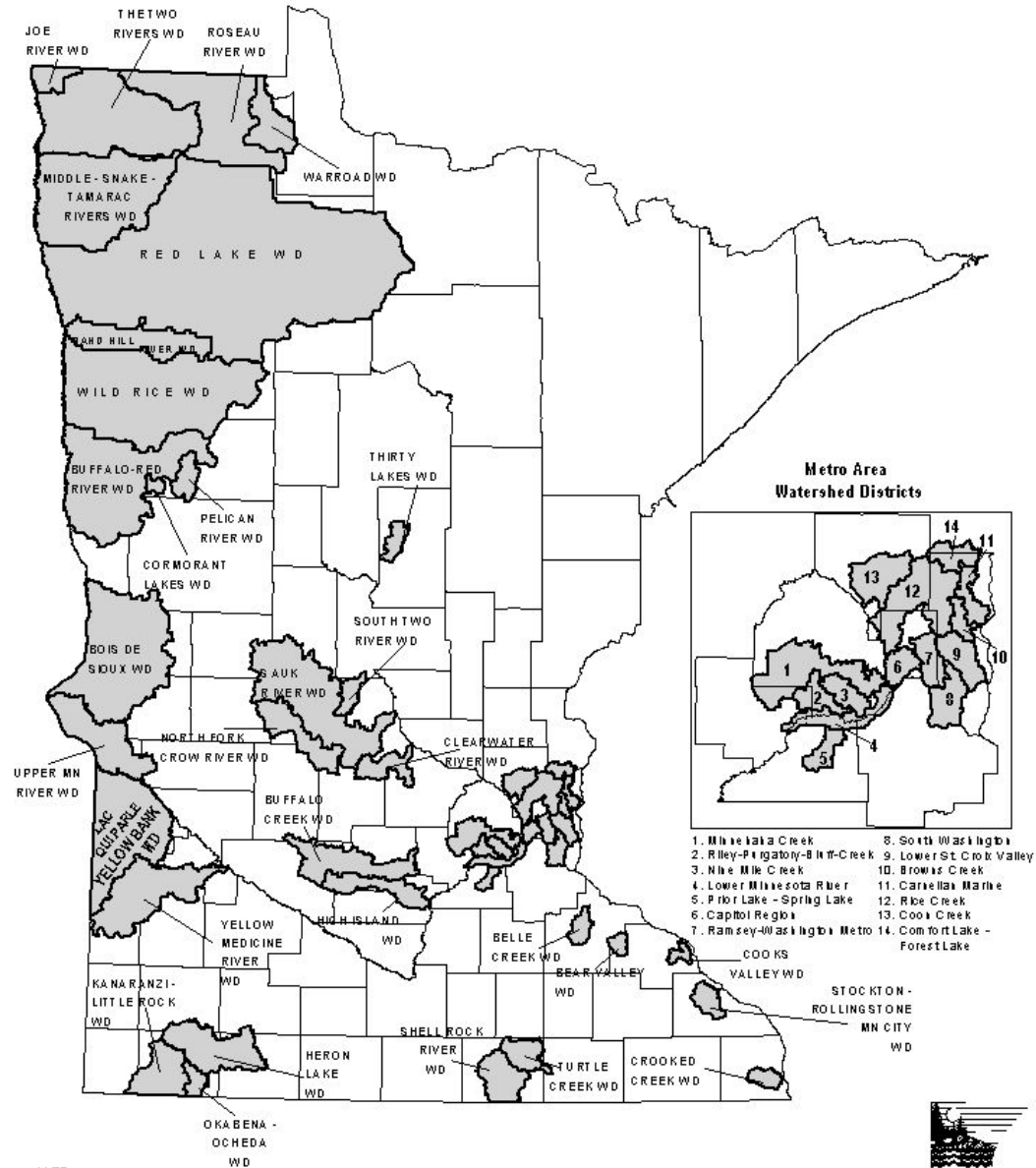
Since the inception of the Watershed Act;

46 watershed districts have been created;

They range in size from 40 to 6,000 square miles;

Cover approximately 30 percent of Minnesota's land area.

## Minnesota Association of Watershed Districts MAWD





# Metropolitan Surface Water Management Act 1982

Entire 7-County area covered by a Water Management Organization (WMO)

Three types County, Joint Powers and Watershed Districts

23 Joint Powers

3 County

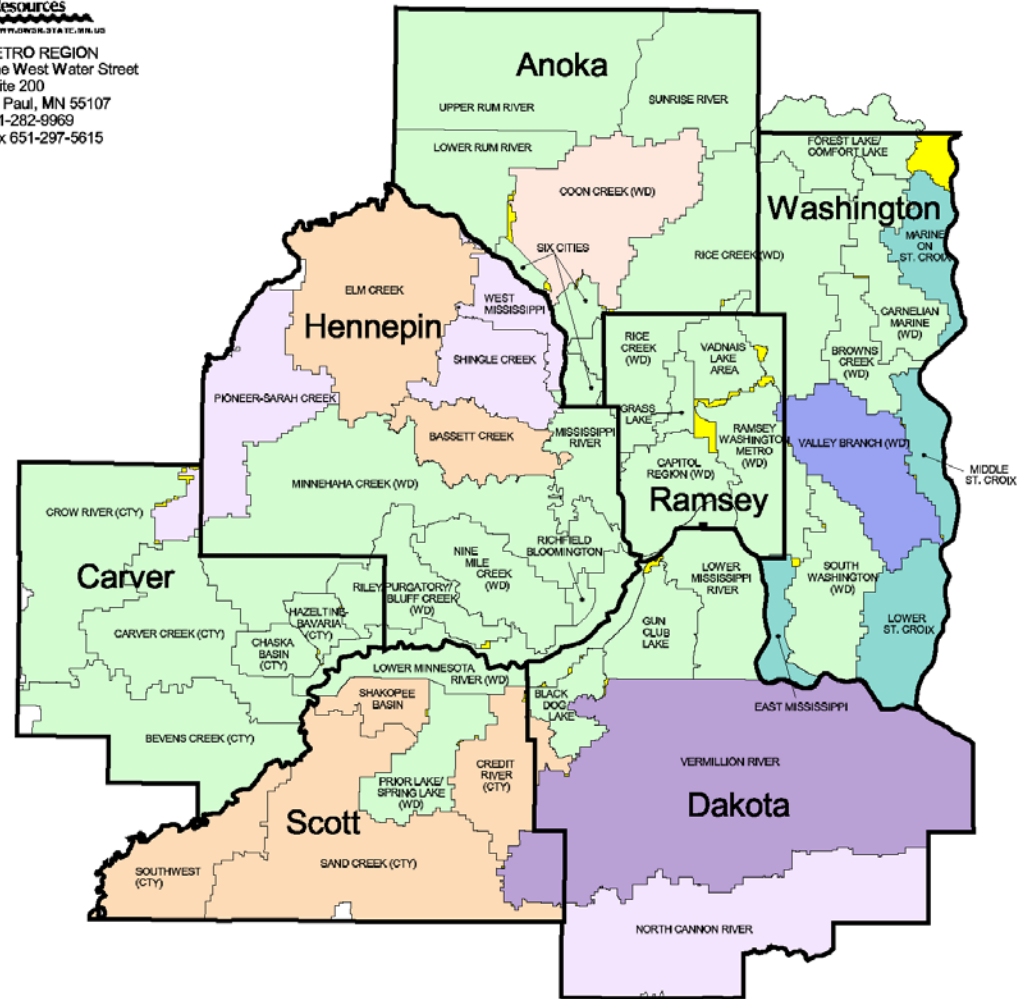
14 Watershed Districts

Difference: Taxing Authority



**Minnesota Board of Water & Soil Resources**  
 WWW.DNR.STATE.MN.US  
 METRO REGION  
 One West Water Street  
 Suite 200  
 St. Paul, MN 55107  
 651-282-9969  
 Fax 651-297-5615

## Plan Review Schedule Dates of Watershed Management Organizations in the Twin Cities Metropolitan Area February, 2002



### Plan review Schedule Date

- 1998
- 1999
- 2001
- 2002
- 2004
- Pending
- Plan Approved
- Boundary Correction Needed

### Organizational Structure

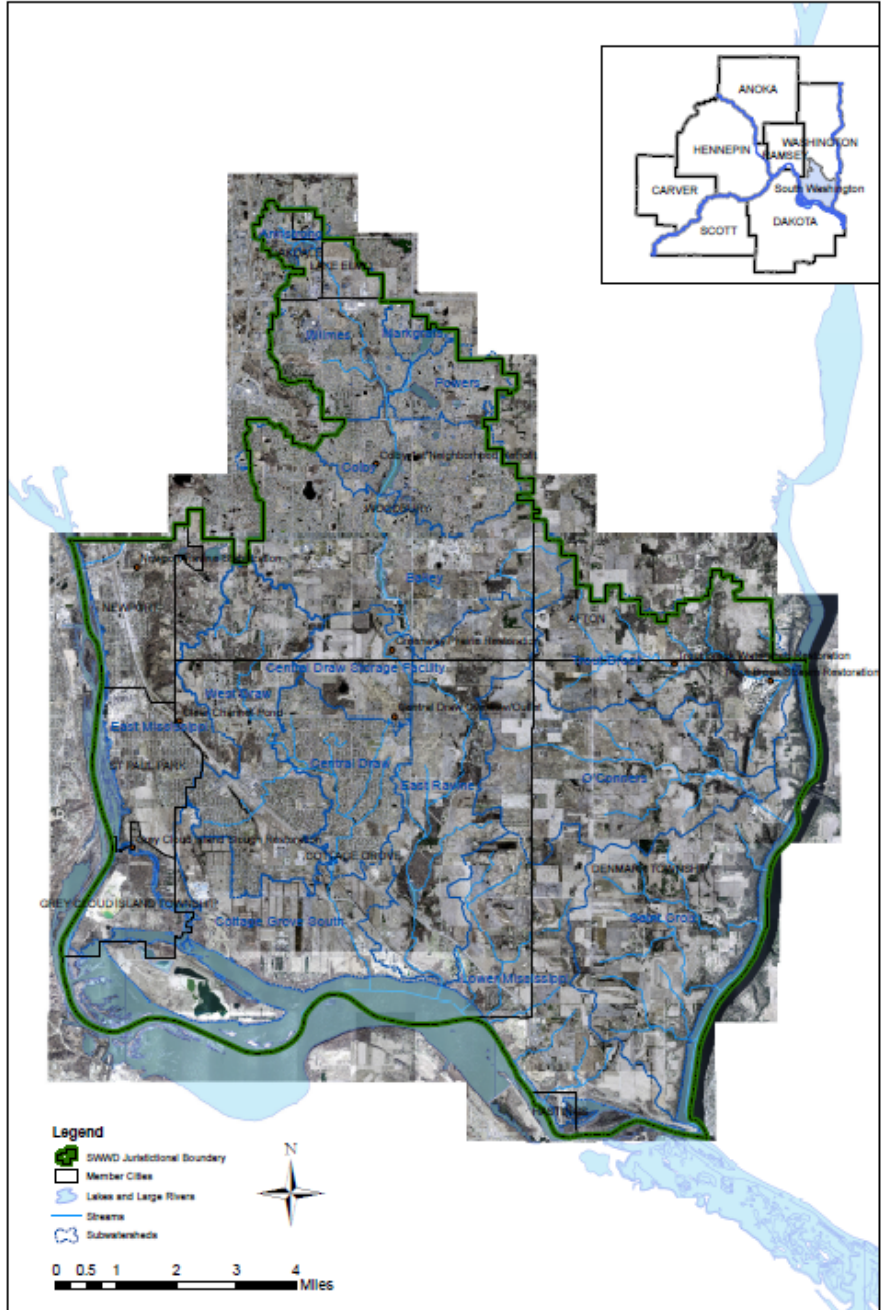
- (WD) Administration provided through Watershed District Structure
- (CTY) Administration provided through County Government Structure
- (not noted) Administration provided through Joint Powers Agreement Structure

\* These boundaries are being updated, they are to be used for reference only.



Board of Managers

- Jack Lavold
- Brian Johnson
- Don Pereira
- Mike Madigan





# Land Use and Watershed Management





# Changing Fast

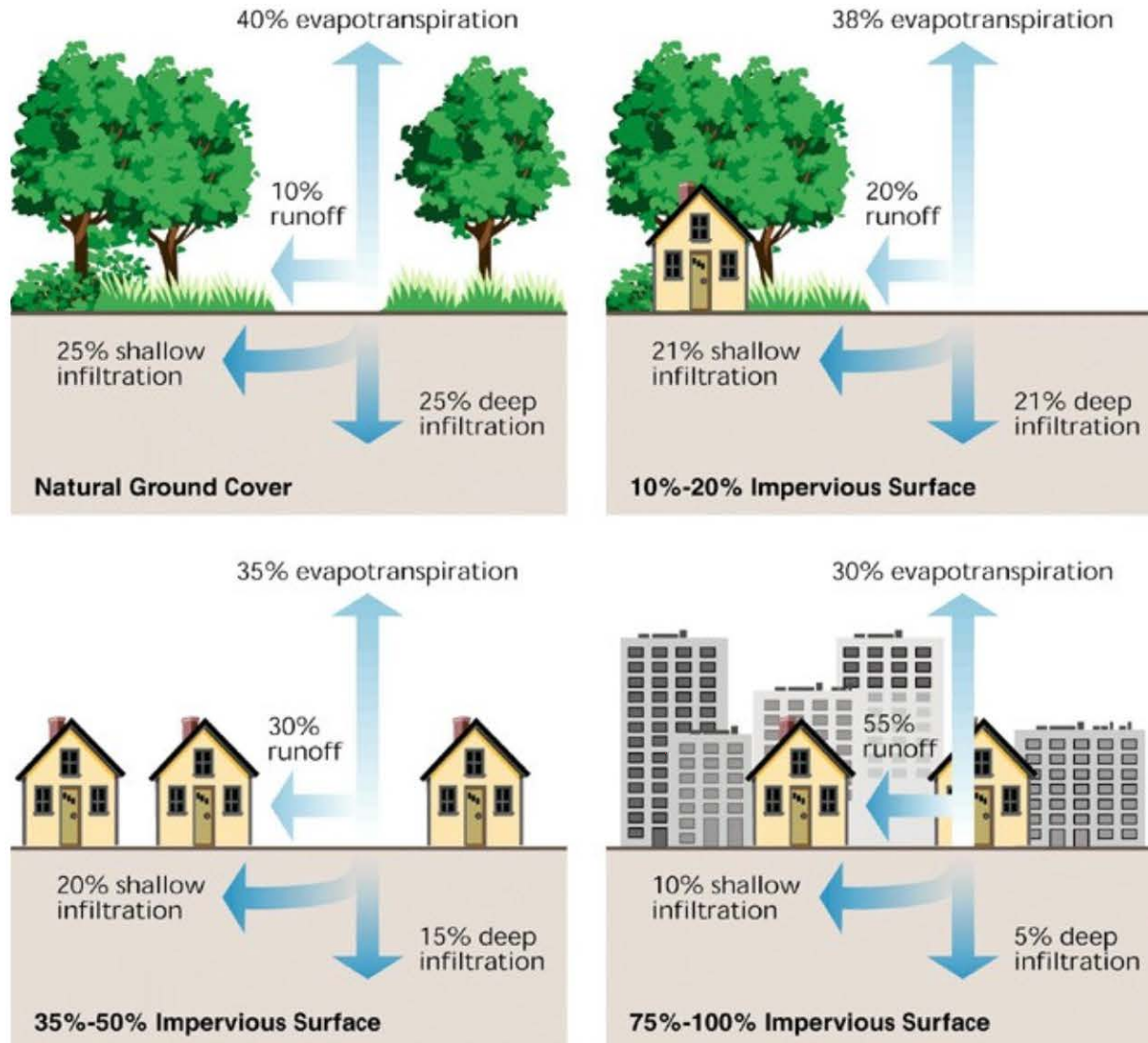




# Coming Soon



# Environmental Impacts of Urban Development



# SWWD Budget

**2005**

**Fund/Project/Task**

**Total**

<b>Projects</b>			
310	Lake Assessments/Strategic Plans	\$	34,000.00
311	Greenways	\$	54,800.00
312	Infiltration	\$	58,800.00
313	Regional Facilities	\$	855,800.00
315	Groundwater Protection and Monitoring	\$	75,000.00
317	Watershed Hydrologic and Hydraulic modeling & mapping	\$	27,000.00
322	Overflow	\$	909,582.00
319	East Mississippi	\$	-
<b>PROGRAMS</b>			
200	Surface Water Monitoring	\$	90,770.00
201	Infiltration	\$	82,800.00
203	Information and Education	\$	28,000.00
205	Watershed Plan & Rules update	\$	51,500.00
206	Development reviews	\$	61,800.00
210	Stormwater Utility Administration	\$	50,000.00
<b>General</b>			
101	General	\$	168,550.00
<b>Total</b>		<b>\$</b>	<b>2,549,012.00</b>





# Current Efforts

- Watershed Overflow
- Provide necessary capacity for existing development
- Provide necessary capacity for future growth

# Comprehensive Solution

- Existing conditions and potential flood risk
- Future conditions and flood damage reduction
  - Emergency Response Plan
  - Watershed Overflow



Flood  
Storage  
Volumes

Emergency  
Response  
Plan

**COMPREHENSIVE  
SOLUTION**

Flood  
Damage  
Reduction

Watershed  
Overflow



# Element Definition

## Flood Storage Volumes

- Establish high water elevations
- Maintain sub-watershed storage volumes
- Provide adequate flood protection for future development

- Determine trigger points for action
- Identify high risk areas
- Establish response requirements

## Emergency Response Plan

### COMPREHENSIVE SOLUTION

- Implement cost effective flood damage reduction measures to minimize risk in high priority areas

- Lift station upgrade 150 cfs
- CD-P86 North and South
- CR #19 stabilization
- CGCR upgrade
- Gables Lake overflow

## Flood Damage Reduction

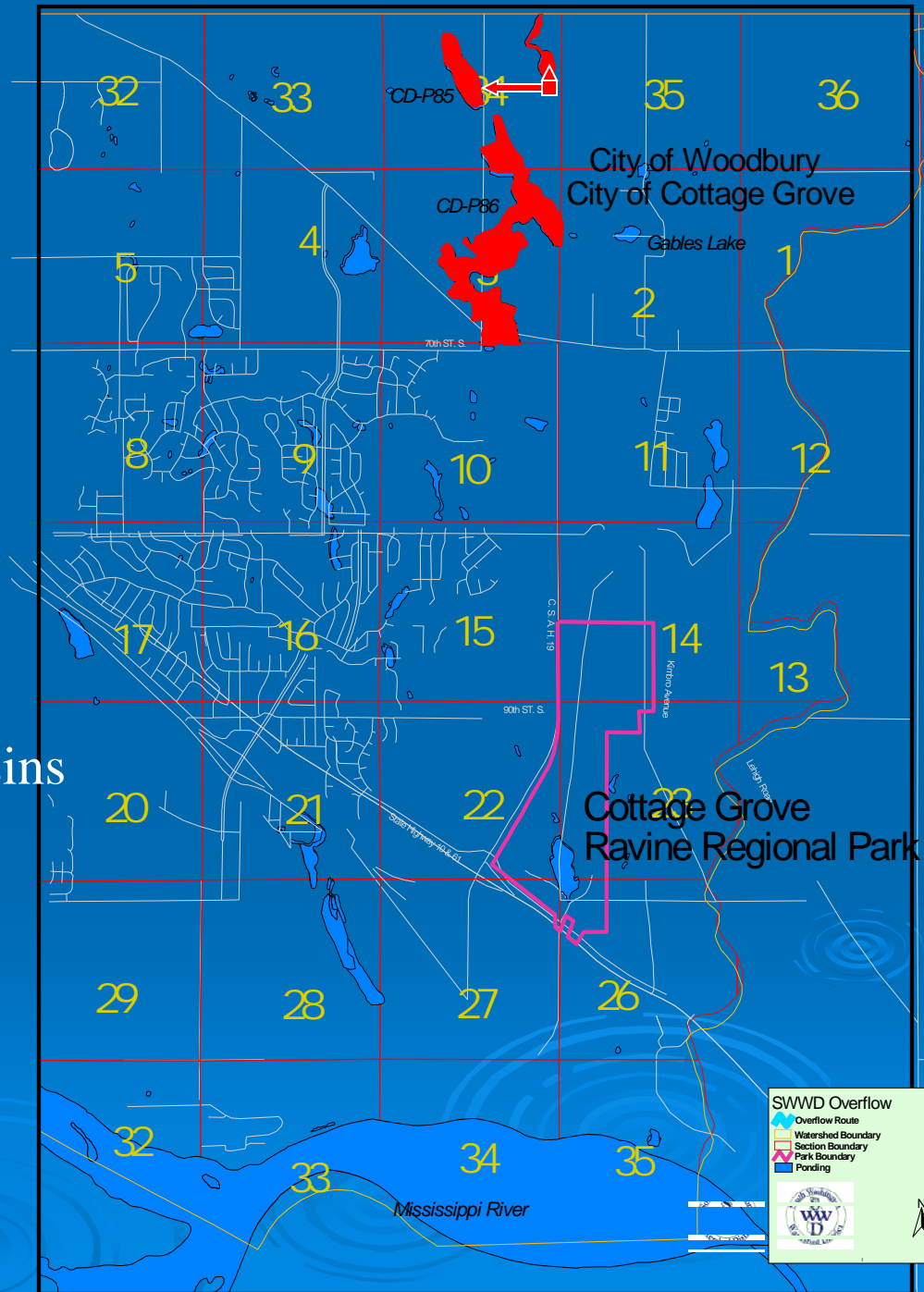
## Watershed Overflow





# Phase I

- Bailey Lake and lift station
- Lift station 150 cfs
- Regional detention/infiltration basins



# 2002 Watershed Plan Amendment



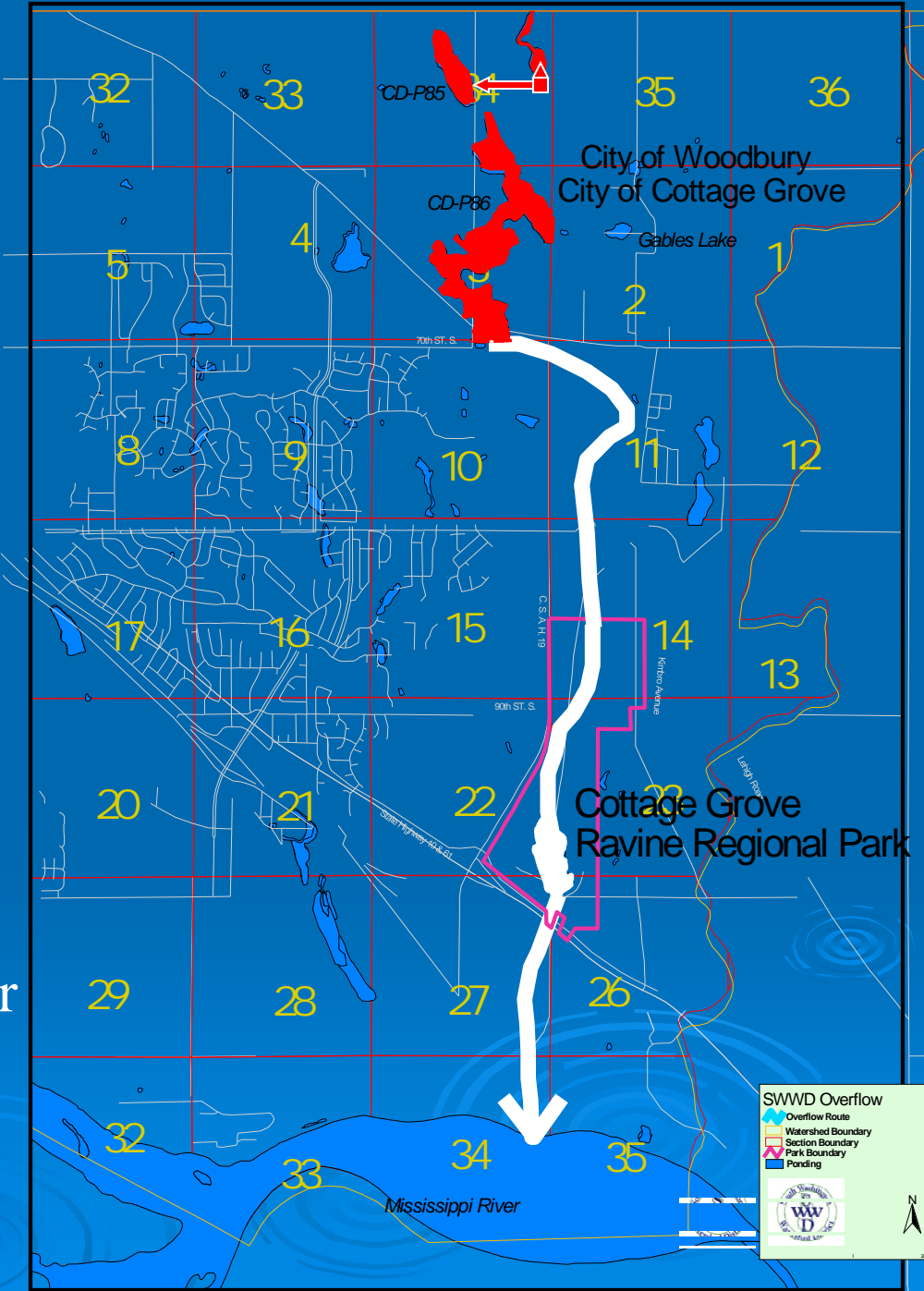
Microsoft  
erPoint Presenta



# Watershed Overflow

## Phase II

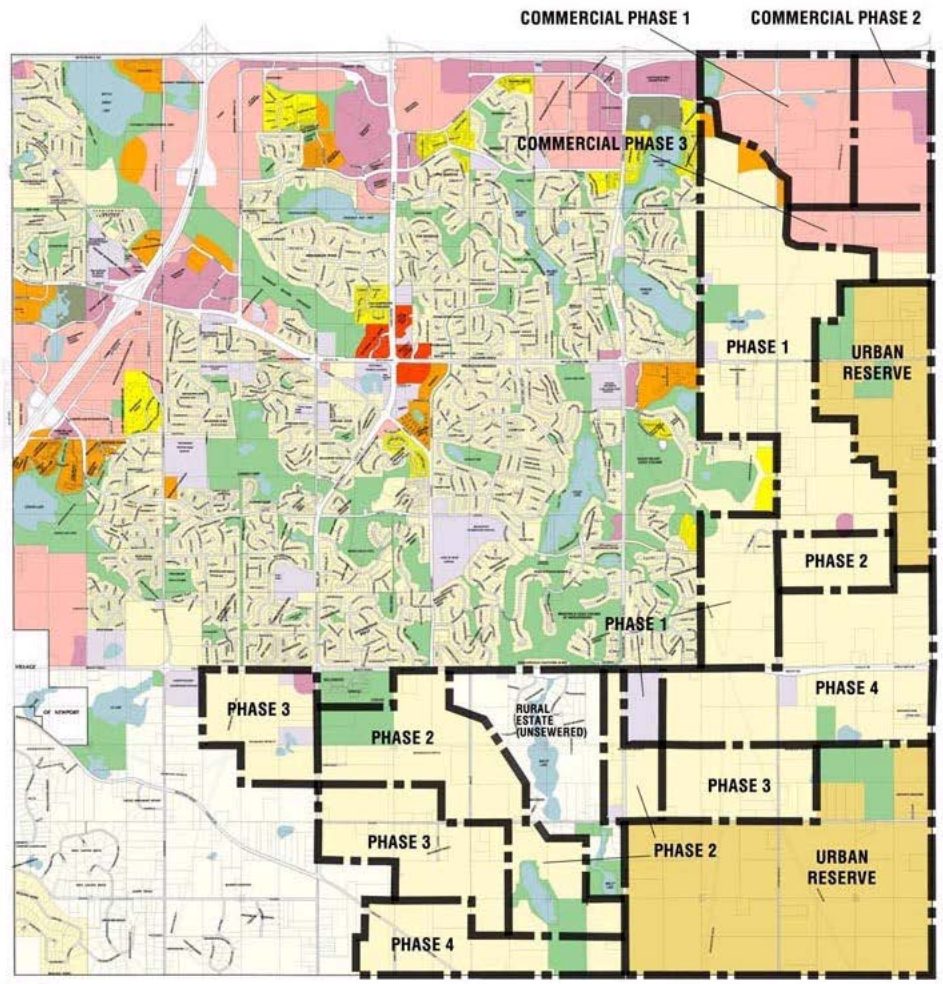
- Pipe conveyance system
- Overland conveyance system
- Flow through lake
- Overland conveyance to River





# Next Step

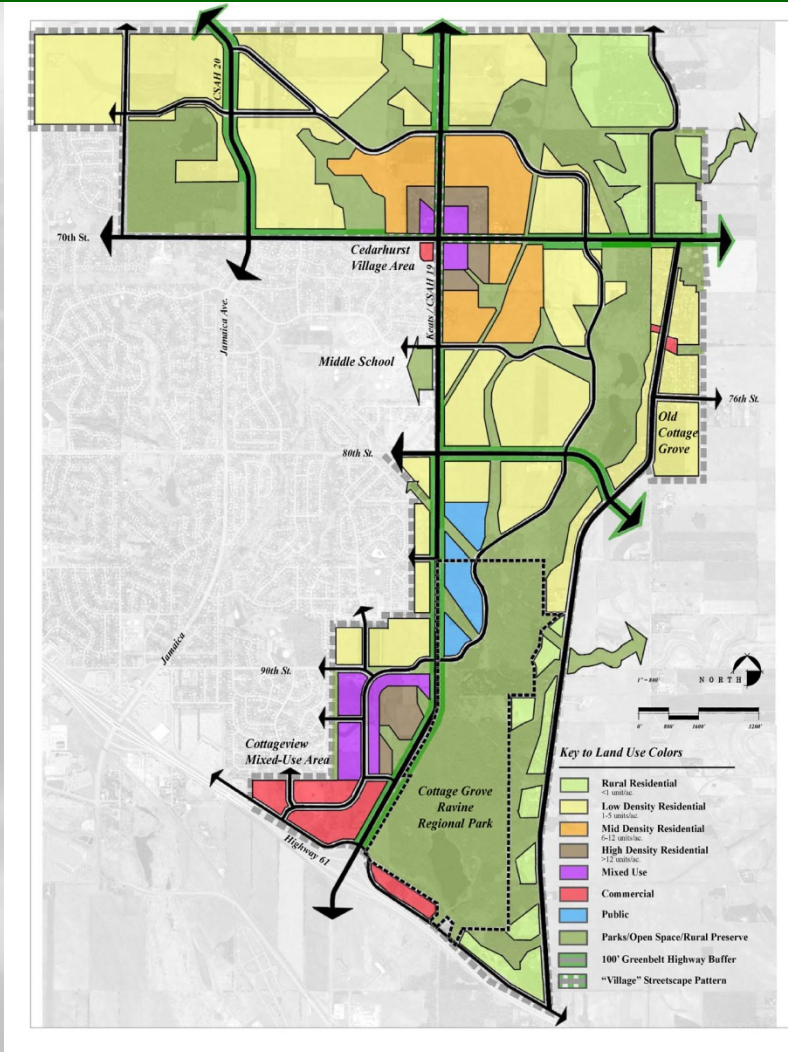




- City Centre
- Places to Shop
- Places to Work
- Mixed Use
- Open Space
- Public/Semi-Public
- High Density Urban Residential
- Medium Density Urban Residential
- Urban Mixed Residential
- Rural Estate
- Urban Reserve



Plotted JULY 2000



## Concept D



