

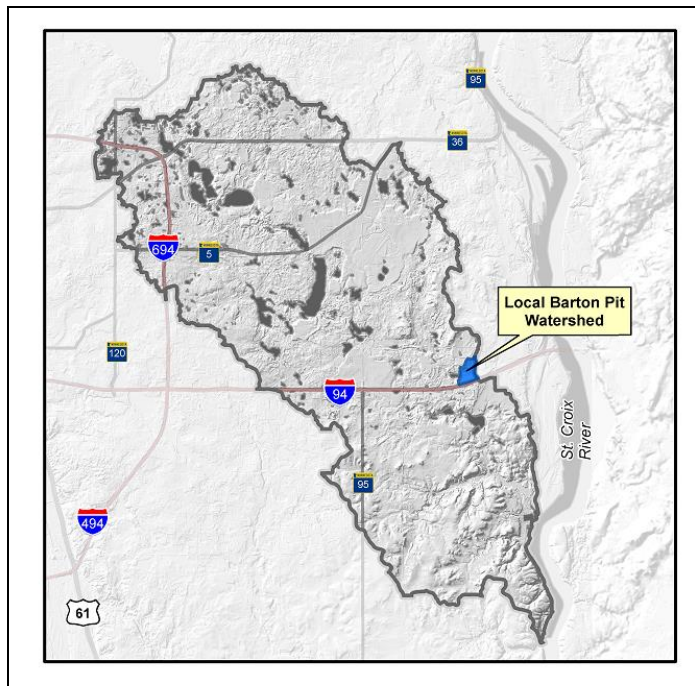
5.35	Barton Pit Watershed Management Plan	5.35-1
5.35.1	General Information	5.35-1
5.35.2	Water Quality Management Plan	5.35-2
5.35.3	Water Quantity Management Plan	5.35-2
5.35.4	Groundwater Issues	5.35-2
5.35.5	References.....	5.35-2

List of Figures

Figure 5.35-1	Barton Pit Watershed – Subwatersheds and Flow Routing	5.35-3
Figure 5.35-2	Barton Pit – Current (2010) and Future (2030) Land Use	5.35-4

5.35 Barton Pit Watershed Management Plan

5.35.1 General Information



The Barton Pit watershed lies entirely within West Lakeland Township, south of 10th Street North (CSAH 10), north of Interstate 94, and about one quarter mile west of Stagecoach Trail (CSAH 21). The watershed is 121 acres. All but 13 acres are owned and operated by Tiller Corporation, who operates the land as the Barton Sand and Gravel pit. Figure 5.35-1 shows the watershed, and Figure 5.35-2 shows the existing and future land use of the watershed. There are no lakes or streams within the watershed. The watershed is landlocked. Any stormwater runoff in the watershed is dissipated through infiltration.

It is unclear how much longer the Barton Pit will operate, but the Metropolitan Council's estimated future land use data shows the watershed as consisting of rural or large-lot residential land use in 2030 (see Figure 5.35-2). The 2010 West Lakeland Township Comprehensive Plan states that this watershed will be reclaimed after mining is complete, stating that single-family homes with minimum 2.5 acre lot sizes will predominate.

The VBWD's Project 1007 pipe leaving from Rest Area Pond (see Section 5.17) runs through the watershed and Barton Pit.

In 2004, Xcel Energy was investigating possibly using a portion of the site for a fly ash landfill. In 2006, Xcel Energy began a

Barton Pit Local Watershed Information	
Tributary Area (acres)	121
MDNR-Designated Basins within Watershed	None
Downstream Watershed	St. Croix River
Barton Pit Information	
MDNR Designation	None
Surface Area (acres)	None
Mean Depth (feet)	Not Applicable
Maximum Depth (feet)	Not Applicable
Volume Below Discharge Elevation (acre-feet)	Not Calculated
Discharge Elevation	Not Determined
Outlet Type	Landlocked (Overland)
MDNR Ordinary High Water Level (OHW)	None
100-Year Flood Level	Not Determined
VBWD "Allowable Fill" (cubic yards/lineal foot of shoreline) (See Section 4.7.)	None Calculated
VBWD Water Quality Priority Category	Not Applicable

voluntary environmental impact assessment (EIS) detailing the proposed project and its environmental effects. In 2008, the Minnesota Pollution Control Agency (MPCA) determined the EIS to be adequate, but the project was prevented by when the Minnesota legislature passed a partial moratorium on landfill development in order to update regulations. In 2011, the MPCA adopted regulations prohibiting fly ash landfills in areas of potential karst geology and sandy type soils which

are susceptible to contamination. These new rules make it unlikely that Xcel Energy will be able to locate a fly ash landfill at the Barton Pit in the future.

5.35.2 Water Quality Management Plan

There are no permanent waterbodies within the Barton Pit watershed; stormwater runoff in the watershed infiltrates to groundwater. The VBWD has not specific management objectives for the Barton Pit watershed. As with all watersheds within its jurisdiction, the VBWD will continue to enforce its Rules and Regulations (2013, as amended) within the Barton Pit watershed. The VBWD Rules and Regulations are included as Appendix A-4.5 to this Plan.

5.35.3 Water Quantity Management Plan

While it would likely be relatively easy to create an outlet for the Barton Pit watershed by connecting to the VBWD's Project 1007, the VBWD has no plans to create an outlet from the Barton Pit watershed. The VBWD has no specific water quality implementation tasks for Barton Pit.

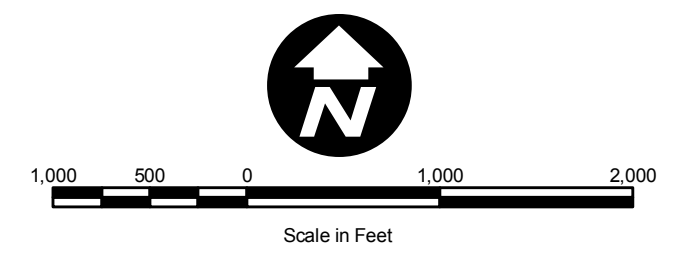
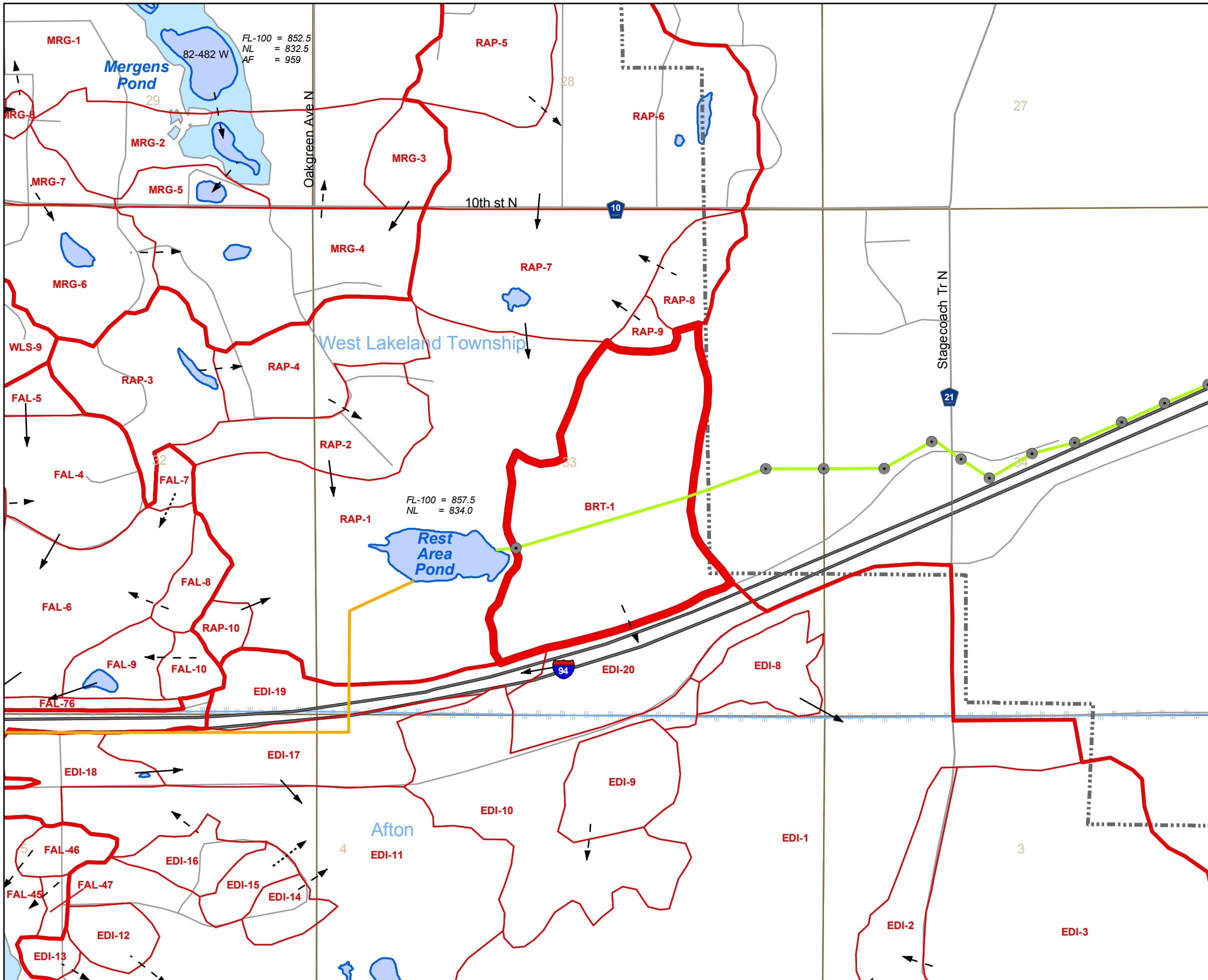
5.35.4 Groundwater Issues

Generally, gravel pits have high infiltration rates. Therefore, there is potential risk of groundwater contamination. Water that seeps from Barton Pit probably flows easterly towards the St. Croix River and probably does not contribute to the groundwater feeding Valley Creek. However, there is a large bedrock fault east of the site and likely several smaller faults in the general area. The faults combined with high capacity pumping wells could influence the groundwater flow patterns in the area. More information regarding regional groundwater characteristics is included in Section 3.7 of this Plan. The VBWD's role in managing groundwater is described in Section 4.2 of this Plan.

5.35.5 References

Barr Engineering Company. December 2005. *Valley Branch Watershed District Watershed Management Plan*.

West Lakeland Township Board and Planning Commission. October 2010. *Comprehensive Plan for West Lakeland Township, Washington County, Minnesota*.

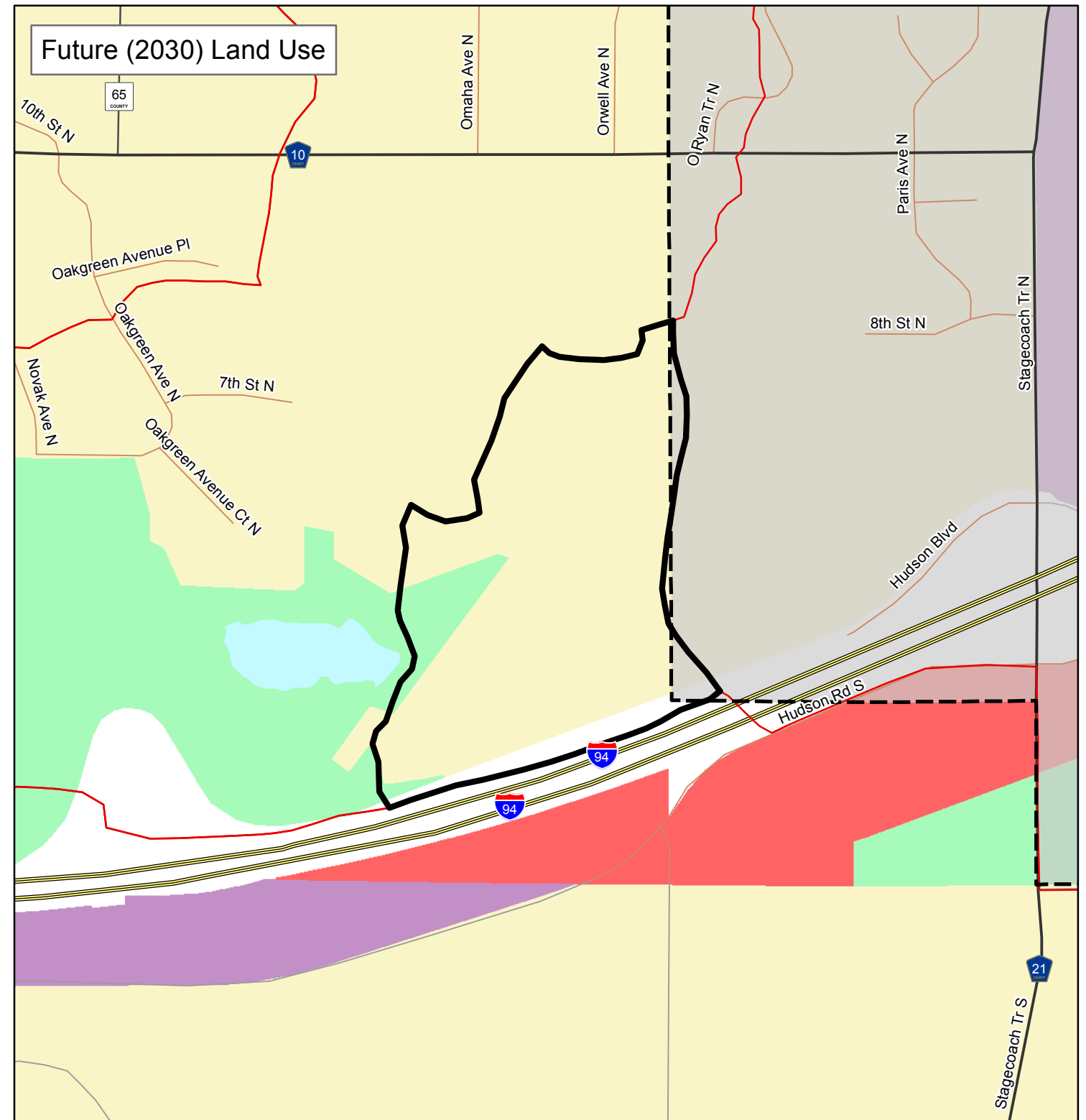
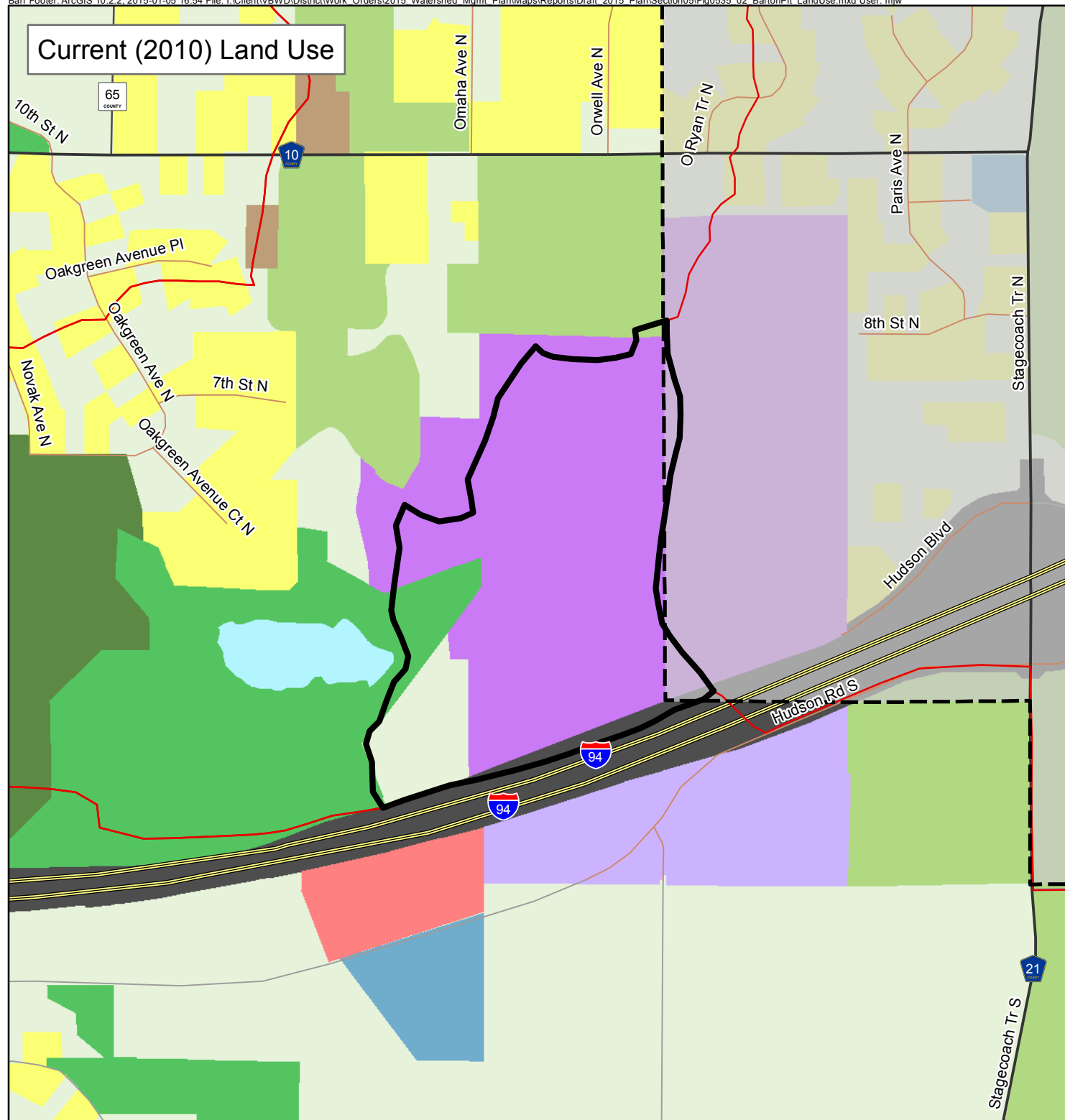


- LEGEND**
- Barton Pit Watershed
 - Major Watershed Divide
 - Subwatershed Divide
 - Subwatershed Designation
 - 82-482W DNR Protected Waters Designation
 - Subwatershed Contributing Runoff
 - Overflow Path from Landlocked Watershed (Non-Contributing Subwatershed)
 - Overflow Path from Semi-Landlocked Watershed
 - Lakes, Ponds, Wetlands, Approximate Normal Water Surface Level
 - Lakes, Ponds, Wetlands, Approximate 100 Year Flood Surface Level
 - FL-100 100 Year Flood Level
 - NL Normal Level
 - AF Acre Feet of Storage at 100 Year Flood Level
 - OHW DNR Established Ordinary High Water Elevation
- Project 1007**
- Catch Basin
 - Manhole Cover
 - Open Channel
 - Pipe
 - MN-DOT Pipe
 - Section Lines
 - VBWD Legal Boundary
 - Municipal Boundary

Landlocked: Basin does not overflow using VBWD simplified method for calculating its 100-year flood level or using a more detailed analysis, such as the 1% probability flood level.

Semi-Landlocked: Basin does not overflow in the 100-year 24-hour rainfall total or the 100-year 10-day snowmelt event, but does overflow when calculating its 100-year flood level based on the VBWD simplified method or the 1% probability flood level.

Figure 5.35-1
BARTON PIT WATERSHED
 Valley Branch Watershed District



- | | | | |
|--------------------------------|--------------------------------|---------------|-----------------------------|
| Current (2010) Land Use | Office | Golf Course | Barton Pit Subwatershed |
| Farmstead | Mixed Use Residential | Major Highway | Major Subwatershed Boundary |
| Seasonal/Vacation | Mixed Use Industrial | Railway | VBWD Legal Boundary |
| Single Family Detached | Mixed Use Commercial and Other | Airport | |
| Manufactured Housing Park | Industrial and Utility | Agricultural | |
| Single Family Attached | Extractive | Undeveloped | |
| Multifamily | Institutional | Water | |
| Retail and Other Commercial | Park, Recreational or Preserve | | |

- | | | | |
|--------------------------------|-------------------------------|-----------------------------|-----------------------------|
| Future (2030) Land Use | Industrial | Rights-of-Way (i.e., Roads) | Barton Pit Subwatershed |
| Agricultural | Institutional | Railway (inc. LRT) | Major Subwatershed Boundary |
| Rural or Large-Lot Residential | Mixed Use | Airport | VBWD Legal Boundary |
| Single Family Residential | Multi-Optional Development | Vacant or Unknown | |
| Multifamily Residential | Park and Recreation | Open Water | |
| Commercial | Open Space or Restrictive Use | | |



1 inch = 1,000 feet

Figure 5.35-2

**BARTON PIT WATERSHED
CURRENT (2010) AND FUTURE (2030) LANDUSE**
2015-2025 Watershed Management Plan
Valley Branch Watershed District