

# Hiawatha Valley Atlas

A Tool for Land Use Decisions



Red Wing to Wabasha, Minnesota

2006

## Maps

Base map of the Hiawatha Valley: Red Wing to Wabasha, Minnesota	1
St. Lawrence Edge	2
Depth to Bedrock	3
Depth to Watertable	4
Areas Containing Steep Slopes	5
Potential for Soil Erosion	6
Areas Containing Flood-prone Soils	7
Soils with poor Suitability for Homes with Basements	8
Susceptibility of Groundwater to Pollutants	9
Designated Trout Streams and Their Watersheds	10
Sites of Biodiversity Significance	11
Prime Farmland and Farmland of Statewide Significance	12
Potential Aggregate Resource Areas	13
Protected (Public) Waters and Adjacent Shoreland	14
Recreation Areas and Facilities	15
Archeological and Historical sites	16
Areas Visible from the Great River Road	17

Caution: These maps are large scale general data layers and should not be used for site specific projects. Use these for initial planning purposes only. Please contact data sources for meta-data and assistance.

## Introduction

The Hiawatha Valley Atlas is a set of maps and narratives concerning factors relevant to regional land-use planning. It is a companion to the Hiawatha Valley Partnership Presentation and Ordinance Matrix.

The Hiawatha Valley, the corridor from Red Wing to Wabasha Minnesota, is nationally recognized for its breathtaking scenery. The Great River Scenic Highway in the Hiawatha Valley is rated second only to the Pacific Coast Highway in California and Oregon.

Real estate has become the investment of choice in the new millennium. This has triggered a rash of investment in second and third homes and supportive services. Residential housing developments are transferring valuable agricultural land and environmentally sensitive areas into paved-over land tracts. The Hiawatha Valley's water, natural beauty and location make it prime for a development boom.

The Hiawatha Valley contains environmental and geologic intricacies that are not common knowledge. The purpose of the Hiawatha Valley Partnership Project is public environmental education preparatory to land use decisions.

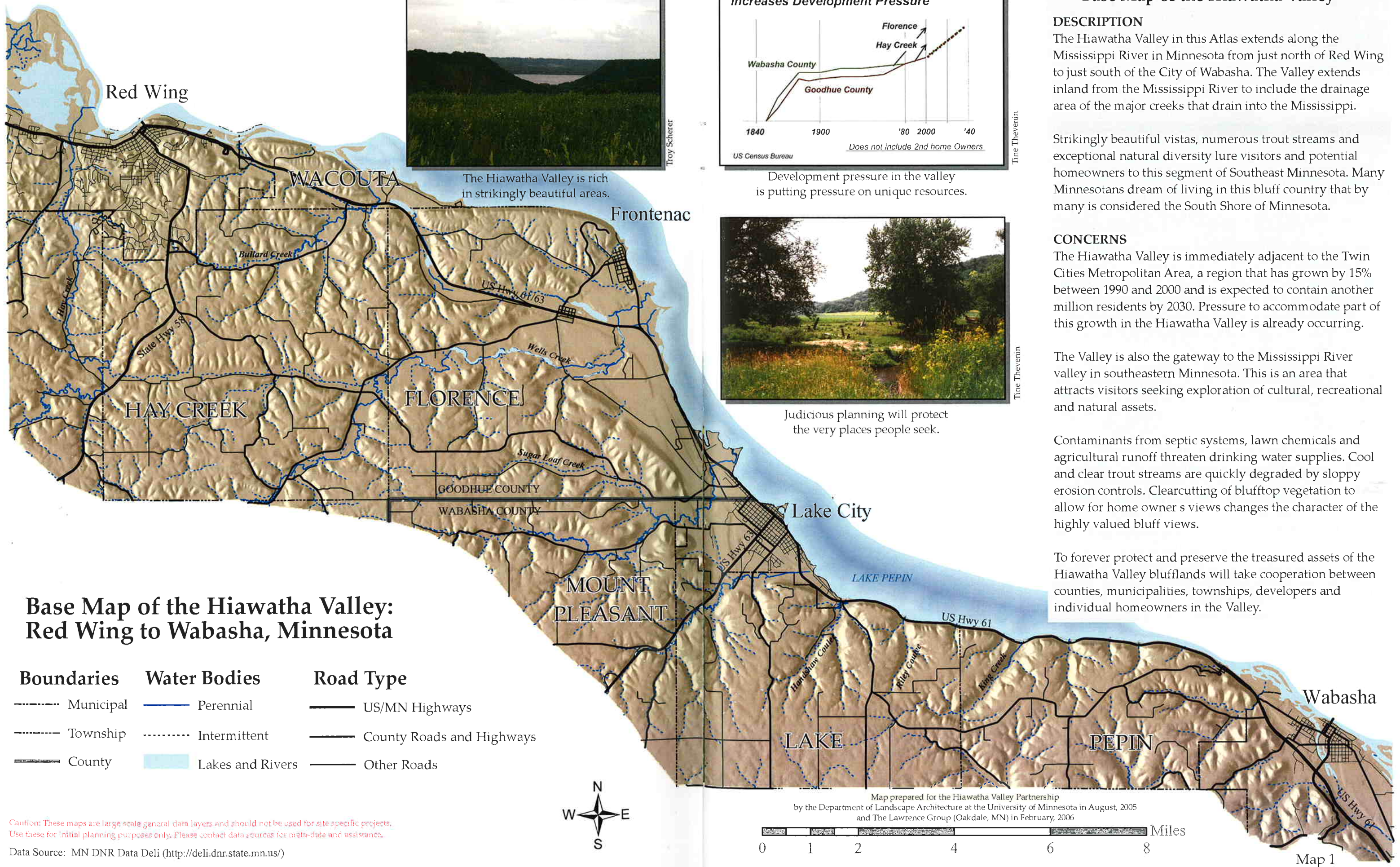
Public development policy ignoring environmental realities would risk blighting the Hiawatha Valley's beauty and devaluating its natural assets. Inappropriate development could even contaminate the valley's drinking water.

The maps in this Atlas are designed to show where specific issues may be especially important to making informed land use decisions. This is not to replace on-site inspection which is necessary for a fully informed land use decision.

Cooperation is needed to protect and preserve the unique assets that make this valley special and beautiful. Together we can make that happen.

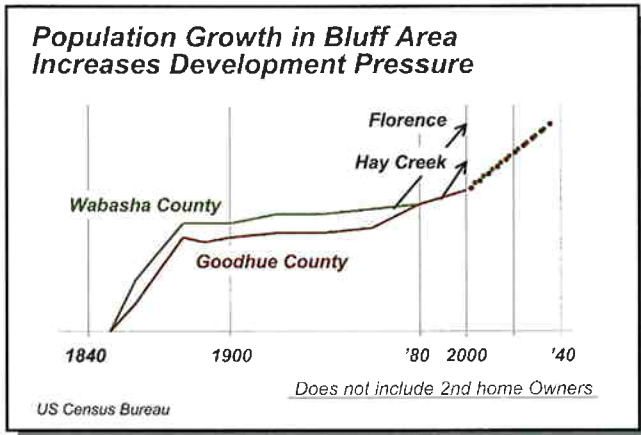
---

The maps and general layout were prepared for the Hiawatha Valley Partnership by the Department of Landscape Architecture at the University of Minnesota and The Lawrence Group, Oakdale, MN



Troy Scherer

The Hiawatha Valley is rich in strikingly beautiful areas.



Tina Thevenin

Development pressure in the valley is putting pressure on unique resources.



Tina Thevenin

Judicious planning will protect the very places people seek.

### Base Map of the Hiawatha Valley

**DESCRIPTION**  
The Hiawatha Valley in this Atlas extends along the Mississippi River in Minnesota from just north of Red Wing to just south of the City of Wabasha. The Valley extends inland from the Mississippi River to include the drainage area of the major creeks that drain into the Mississippi.

Strikingly beautiful vistas, numerous trout streams and exceptional natural diversity lure visitors and potential homeowners to this segment of Southeast Minnesota. Many Minnesotans dream of living in this bluff country that by many is considered the South Shore of Minnesota.

**CONCERNS**  
The Hiawatha Valley is immediately adjacent to the Twin Cities Metropolitan Area, a region that has grown by 15% between 1990 and 2000 and is expected to contain another million residents by 2030. Pressure to accommodate part of this growth in the Hiawatha Valley is already occurring.

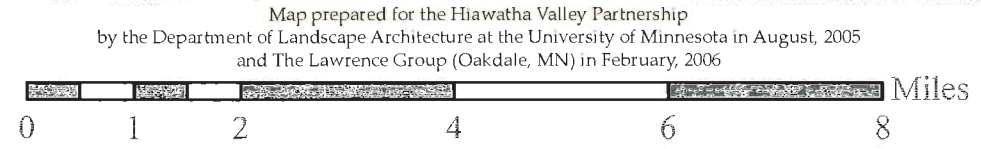
The Valley is also the gateway to the Mississippi River valley in southeastern Minnesota. This is an area that attracts visitors seeking exploration of cultural, recreational and natural assets.

Contaminants from septic systems, lawn chemicals and agricultural runoff threaten drinking water supplies. Cool and clear trout streams are quickly degraded by sloppy erosion controls. Clearcutting of blufftop vegetation to allow for home owner s views changes the character of the highly valued bluff views.

To forever protect and preserve the treasured assets of the Hiawatha Valley blufflands will take cooperation between counties, municipalities, townships, developers and individual homeowners in the Valley.

### Base Map of the Hiawatha Valley: Red Wing to Wabasha, Minnesota

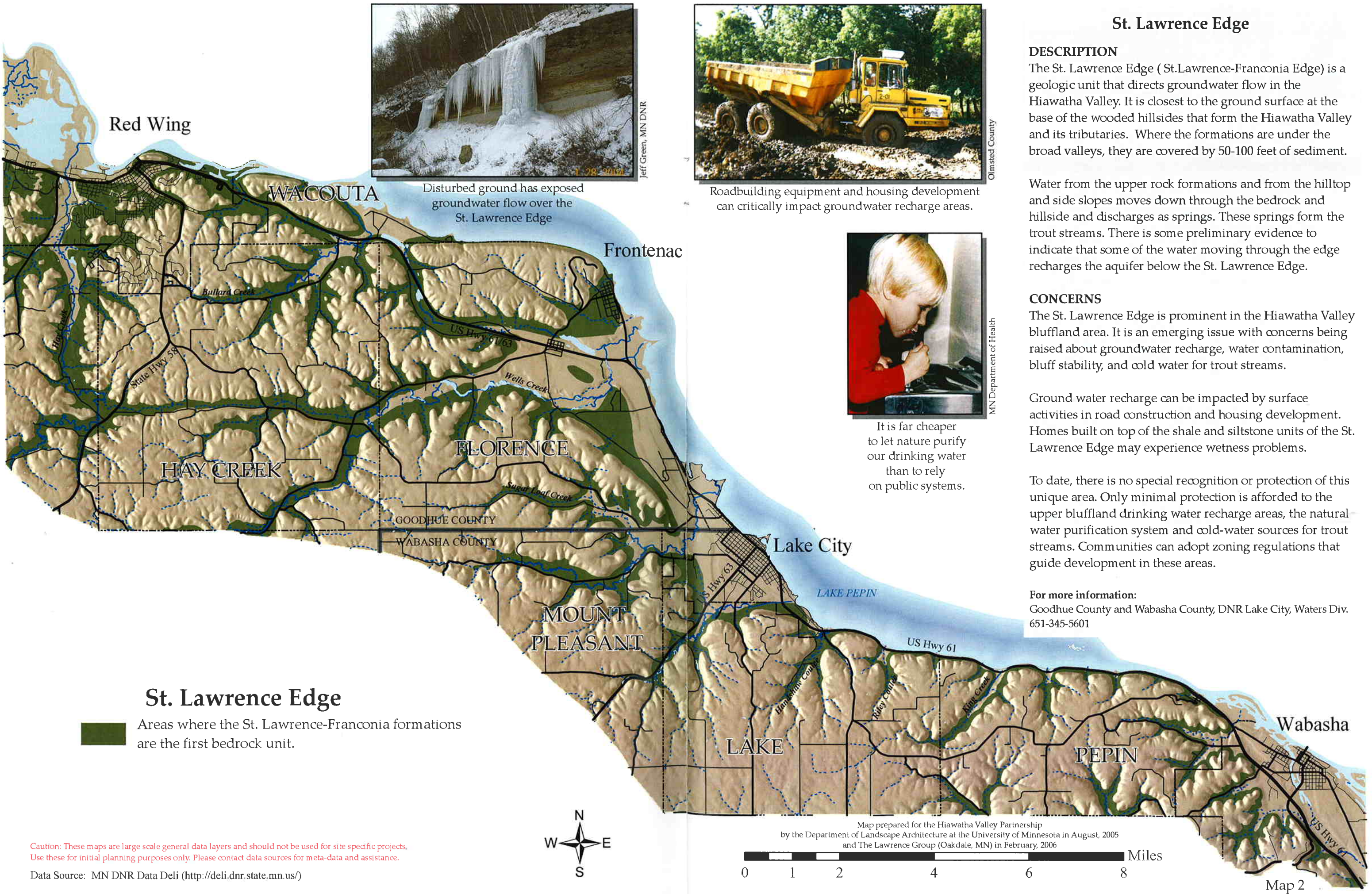
Boundaries	Water Bodies	Road Type
----- Municipal	— Perennial	— US/MN Highways
----- Township	----- Intermittent	— County Roads and Highways
----- County	— Lakes and Rivers	— Other Roads




Map prepared for the Hiawatha Valley Partnership by the Department of Landscape Architecture at the University of Minnesota in August, 2005 and The Lawrence Group (Oakdale, MN) in February, 2006

Caution: These maps are large scale general data layers and should not be used for site specific projects. Use these for initial planning purposes only. Please contact data sources for meta-data and assistance.

Data Source: MN DNR Data Deli (<http://deli.dnr.state.mn.us/>)



### St. Lawrence Edge

 Areas where the St. Lawrence-Franconia formations are the first bedrock unit.



Disturbed ground has exposed groundwater flow over the St. Lawrence Edge

Jeff Green, MN DNR



Roadbuilding equipment and housing development can critically impact groundwater recharge areas.

Olmsted County



It is far cheaper to let nature purify our drinking water than to rely on public systems.

MN Department of Health

### St. Lawrence Edge

#### DESCRIPTION

The St. Lawrence Edge (St. Lawrence-Franconia Edge) is a geologic unit that directs groundwater flow in the Hiawatha Valley. It is closest to the ground surface at the base of the wooded hillsides that form the Hiawatha Valley and its tributaries. Where the formations are under the broad valleys, they are covered by 50-100 feet of sediment.

Water from the upper rock formations and from the hilltop and side slopes moves down through the bedrock and hillside and discharges as springs. These springs form the trout streams. There is some preliminary evidence to indicate that some of the water moving through the edge recharges the aquifer below the St. Lawrence Edge.

#### CONCERNS

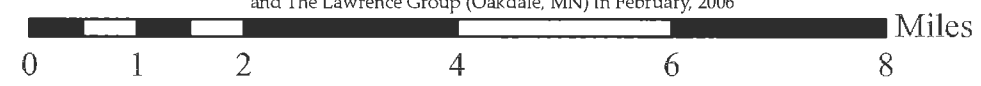
The St. Lawrence Edge is prominent in the Hiawatha Valley bluffland area. It is an emerging issue with concerns being raised about groundwater recharge, water contamination, bluff stability, and cold water for trout streams.

Ground water recharge can be impacted by surface activities in road construction and housing development. Homes built on top of the shale and siltstone units of the St. Lawrence Edge may experience wetness problems.

To date, there is no special recognition or protection of this unique area. Only minimal protection is afforded to the upper bluffland drinking water recharge areas, the natural water purification system and cold-water sources for trout streams. Communities can adopt zoning regulations that guide development in these areas.

#### For more information:

Goodhue County and Wabasha County, DNR Lake City, Waters Div. 651-345-5601



Caution: These maps are large scale general data layers and should not be used for site specific projects. Use these for initial planning purposes only. Please contact data sources for meta-data and assistance.

Data Source: MN DNR Data Deli (<http://deli.dnr.state.mn.us/>)

Map prepared for the Hiawatha Valley Partnership by the Department of Landscape Architecture at the University of Minnesota in August, 2005 and The Lawrence Group (Oakdale, MN) in February, 2006