



DANE COUNTY COMPREHENSIVE PLAN 5-YEAR UPDATE

Madison Area Surveyors March 12, 2014
Resource Protection Corridors

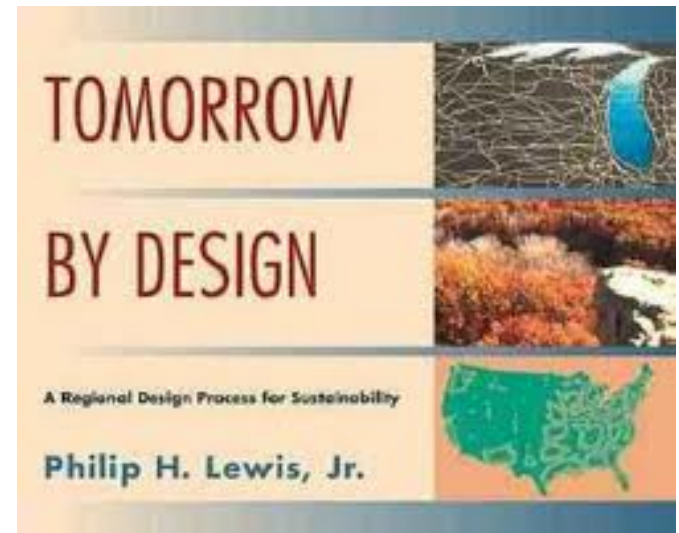


Resource Protection Corridors

Part 1: Purposes and Concepts

Resource Protection Corridors

- *“In all cases, when presented with any array that is not understood in its entirety, without a doubt, save all the pieces.”*
- *“Environmental corridors are a particularly vital pattern to protect because they are the key to regional diversity...”*
- -- Phil Lewis



What Are Resource Protection Corridors?

- Definition: “... areas that are not suitable for structural development due to environmental sensitivity or because of the presence of fragile, irreplaceable resources.”
- Goal: “...a framework to protect and where possible, restore, the natural environment and scenic values, provide outdoor recreation opportunities and preserve for posterity the nature and diversity of our natural heritage.”



Resource Protection Corridors

Green Arterials

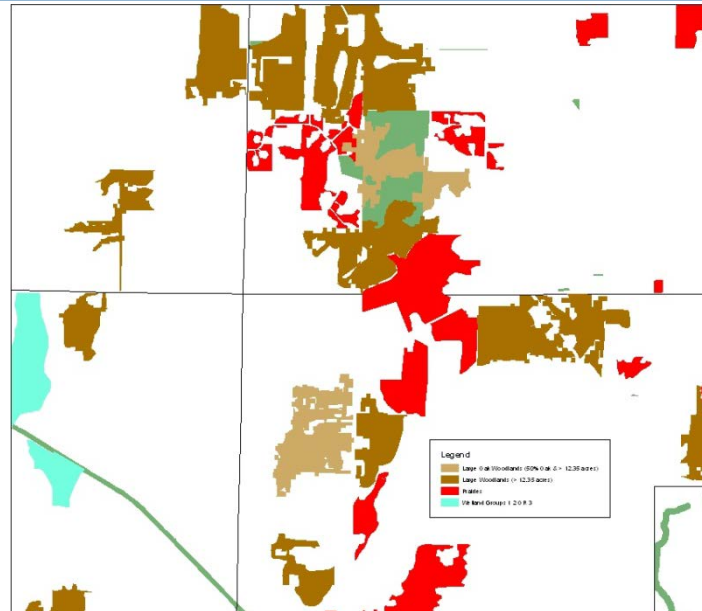
Corridors promote free movement and connections for:

- Flood/storm waters
- Fish and wildlife
- Human recreation

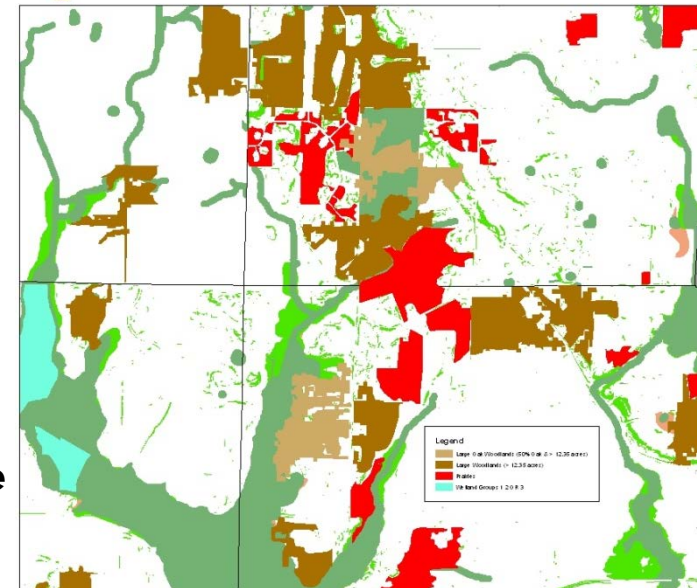
Maintain connections essential to sustain ecosystem services.

Preserve **potential** and **capacity** to meet anticipated demand.

Like official mapping for transportation corridors.



Fragmented landscape



Connected landscape

Why Protect Resource Protection Corridors?

- Keep people out of harm's way.
- Protect public and private investment.
- Preserve capacity to handle flood waters and storm events.
- Protect ecological function and services.
- Provide for free movement of water, plants and animals.
- Provide recreation and public health benefits.

Resource Protection Corridors

□ Environmental Corridors

- ▣ Inside Urban Service Areas

- ▣ Defined by *Dane County Water Quality Plan*

(CARPC / WI DNR)

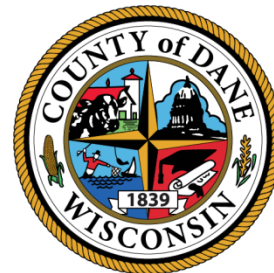


□ Resource Protection Corridors

- ▣ Outside Urban Service Areas

- ▣ Defined by *Dane County Comprehensive Plan*

(County Board)





Resource Protection Corridors

Part 2: Current Policy

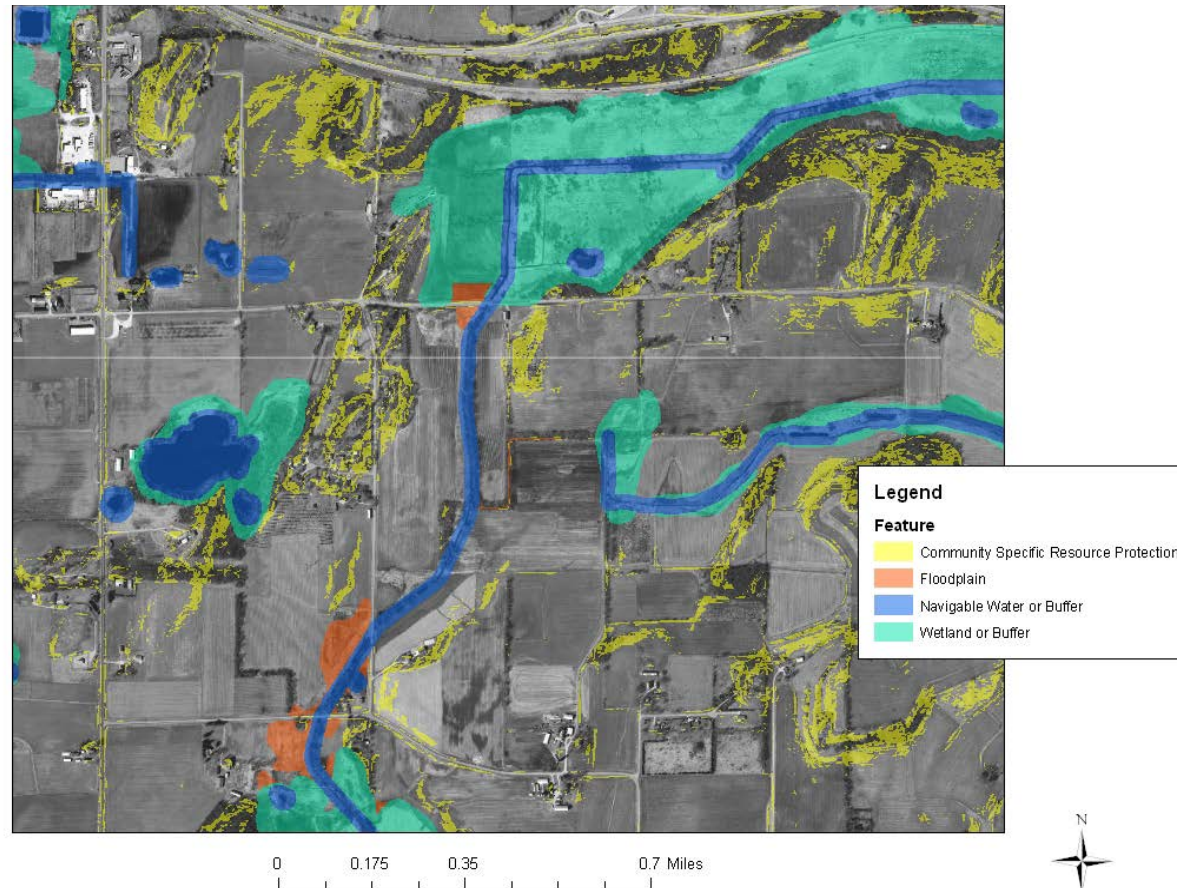
Resource Protection Corridor Policies

- *Generally prohibit new structures, buildings or urban development and limit impervious surfaces.*
- *Minimize encroachment and adverse impacts of utilities and transportation facilities.*
- *Maintain in agricultural, conservation or open space use.*
- *Require erosion control and soil and water conservation practices.*
- *Exemptions for existing development.*
- *Support programs to restore natural vegetation, remove invasive species and improve habitat.*



Resource Protection Corridors As Currently Defined

- Wetlands
- Shoreland and wetland buffers
- 1% regional (a.k.a. “100-year”) floodplains
- Other areas identified in adopted town, city or village plans
(may include slopes, farm soils or other environmental features)

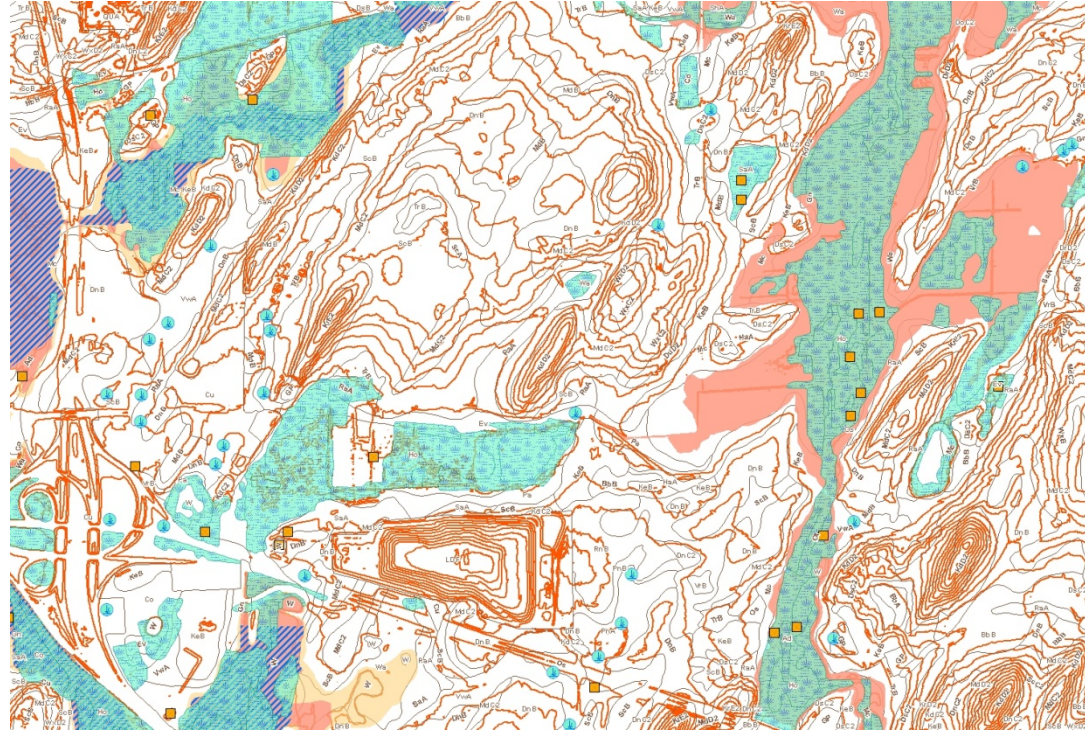


Existing Development and Redevelopment

- Applies **only** to new rezones and land divisions.
- No effect on existing structures, buildings or currently permitted uses (such as agriculture or an existing residence)
- Replacement structures permitted if compliant with shoreland, wetland and floodplain ordinances.
- Rezones and CUPs for reuse of existing structures considered if (*proposed*):
 - ▣ structures are floodproofed
 - ▣ shoreland mitigation is completed
 - ▣ sanitary system is brought up to current specifications
 - ▣ consistent with adopted town/county comprehensive plans
 - ▣ compatible with surrounding uses

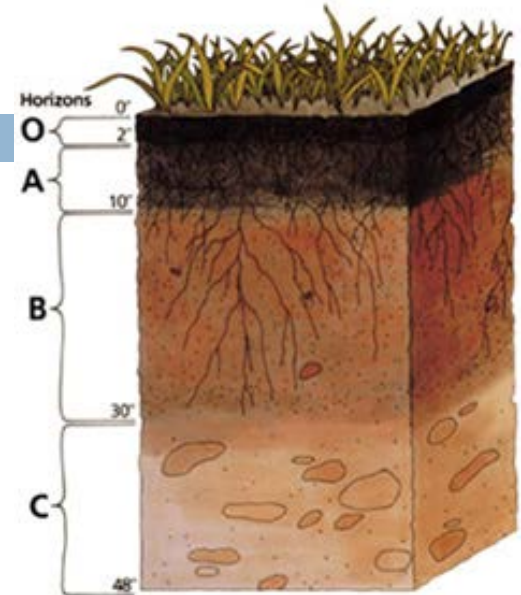
Mapping Precision

- Data sources:
 - ▣ Wisconsin Wetland Inventory (WI DNR, 2013)
 - ▣ Flood Insurance Rate Maps (US FEMA, 2014)
 - ▣ Dane County Soil Survey (US NRCS, 1978)
 - ▣ Dane County 2-foot contours (Dane Co. LIO, 2009)



Correcting Resource Protection Corridor Maps

- Existing Comprehensive Plan language:
 - *“Where there are disputes over mapped wetlands, floodplains, soil or slope conditions, the local zoning authority may refer to detailed studies derived from onsite field conditions to determine actual Resource Protection Corridor boundaries.”*
 - *“Any such study must be reviewed and approved by the appropriate regulatory authority.”*
 - *“Developers bear the burden of proof that mapped Resource Protection Corridors are in error.”*





Resource Protection Corridors

Part 3: Proposed Changes

Flooding and Storm Damage

Date	Event	Property Damage (\$ Million)
June, 1993	Flood	\$12.60
May, 1998	Severe Storms	\$3.10
June, 2000	Flood	\$6.10
July, 2006	Flood	\$10.00
August, 2007	Flood	\$6.80
June, 2008	Severe Storms and Flooding	\$13.50
Total		\$52.10

* Souce: Dane County Emergency Management

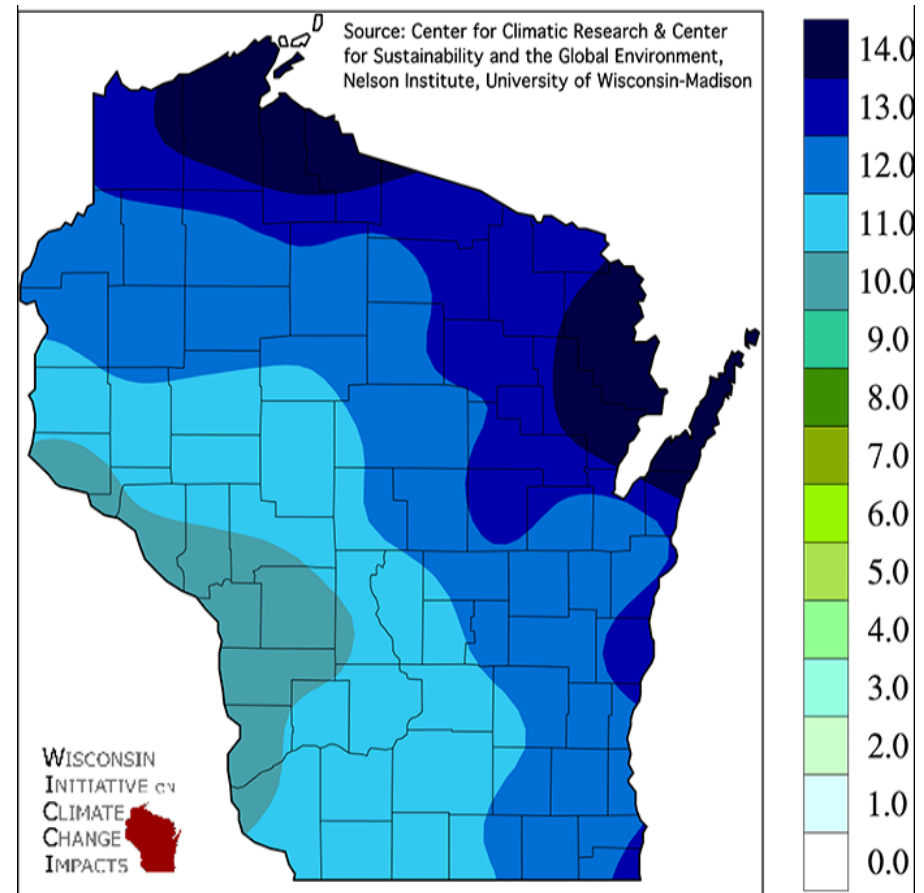
Six so-called “100-year” events in the last 21 years.



Emerging Trends: Climate Change

- More frequent, persistent and severe floods.
- More frequent and severe rainfall events.
- More frequent and severe droughts.
- More frequent 100-degree days.
- More frequent and extensive algae blooms.
- Shifting ecological landscapes.
- Ecological “edge effects.”
- Increase in invasive species.
- Higher summer and winter temperatures.
- Increase in number of freeze / thaw cycles.

Projected Change in Frequency of 1” Precip. Events
(days/decade) from 1980 to 2090 (A2)



How do we handle more water?

1. **Stay out of its way.**

- ▣ Keep flood channels clear.
- ▣ Keep new buildings and other obstructions out of floodplains.

2. **Give it more room.**

- ▣ Expand protected areas to include 500-year floodplain.

3. **Soak it up.**

- ▣ Restore wetlands.
- ▣ Protect hydric soils.

4. **Put it in the ground.**

- ▣ Promote infiltration.
- ▣ Protect steep, wooded slopes.

Potential Amendments to Resource Protection Corridors

□ Technical Updates

- New DNR Wisconsin Wetland Inventory maps (complete)
- New FEMA Flood Insurance Rate Maps (in progress)
- Town plan updates

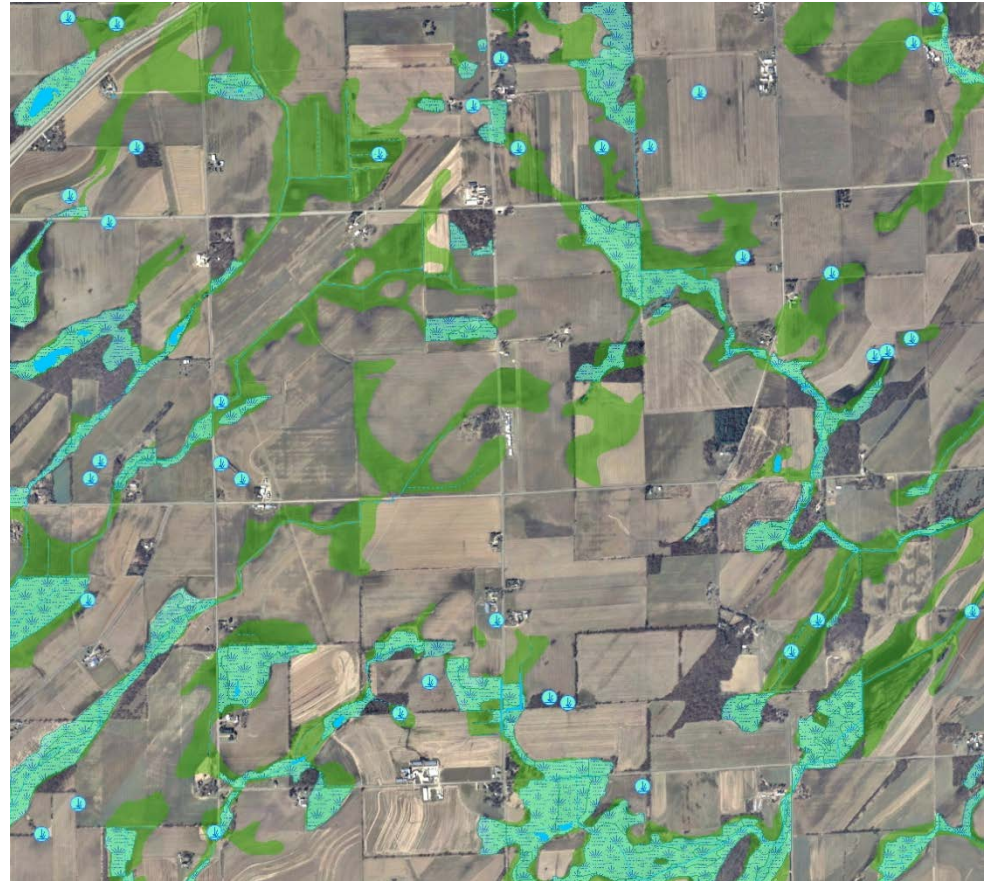
□ Policy Updates (for discussion)

- Public and nonprofit conservation lands
- 0.2% (a.k.a. “500-year”) regional floodplain
- Hydric soils



Hydric Soils in Dane County

- In Dane County, almost all hydric soils were wetlands at one time.
- If not actively drained, many hydric areas will revert to wetland.
- At least 60% of isolated wetlands in Dane County are connected via hydric soils.
- Important for flood storage, stormwater control and water quality.



Hydric Soils in Dane County



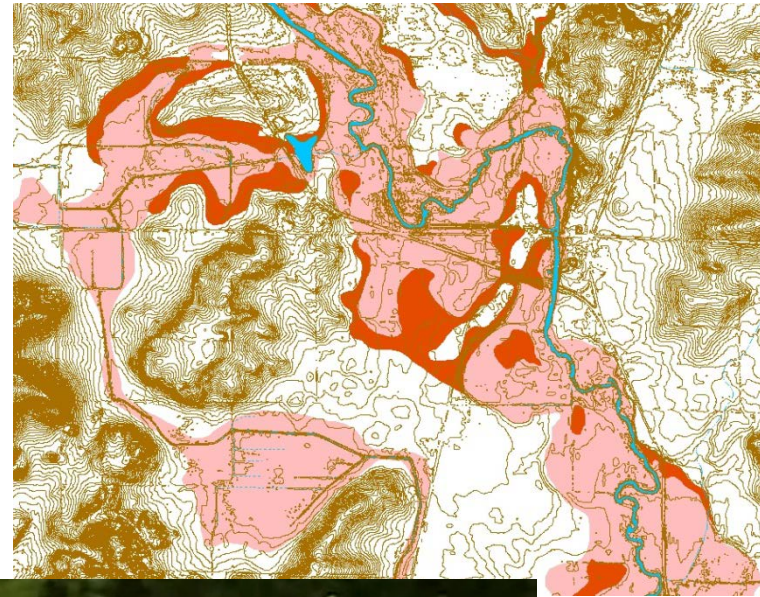
Dane County Hydric Soils (Source: Dane County Soil Survey, NRCS)

<i>Soil name</i>	<i>MUSym</i>	<i>Suitability for dwellings with basements</i>	<i>Suitability for dwellings without basements</i>
Adrian muck	Ad	Very limited	Very limited
Alluvial land, wet	Af	Very limited	Very limited
Colwood silt loam	Co	Very limited	Very limited
Elvers silt loam	Ev	Very limited	Very limited
Granby loamy sand	Gn	Very limited	Very limited
Houghton muck	Ho	Very limited	Very limited
Marsh	Mb	Very limited	Very limited
Marshan silt loam	Mc	Very limited	Very limited
Montgomery silty clay loam, 0 to 3 percent slopes	MoA	Very limited	Very limited
Orion silt loam, wet	Os	Very limited	Very limited
Otter silt loam	Ot	Very limited	Very limited
Palms muck	Pa	Very limited	Very limited
Sable silty clay loam, 0 to 3 percent slopes	SaA	Very limited	Very limited
Wacousta silty clay loam	Wa	Very limited	Very limited

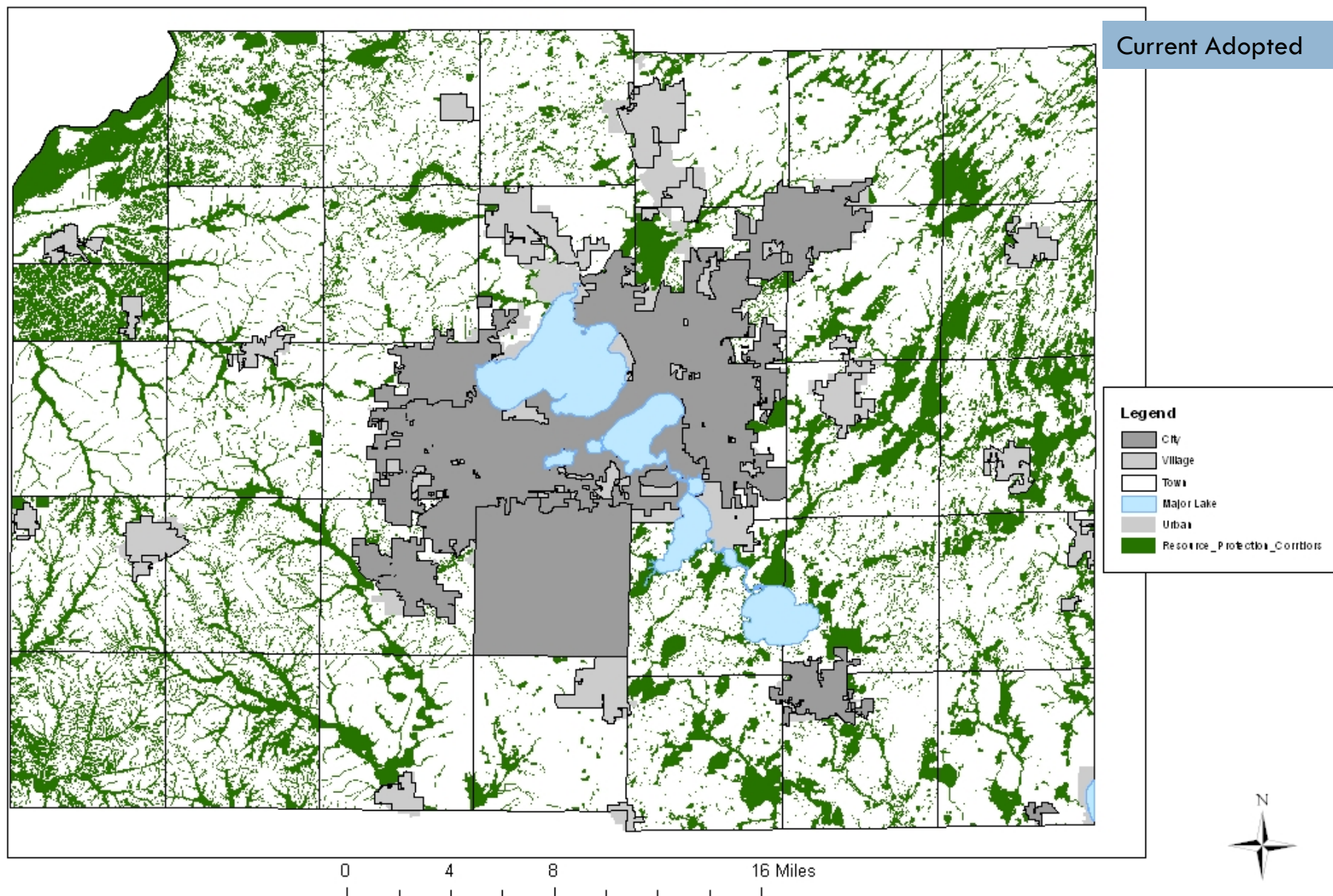
- Hydric soils rated as “very limited” for dwelling construction.
- **Not** prime building sites.

0.2% Floodplain in Dane County

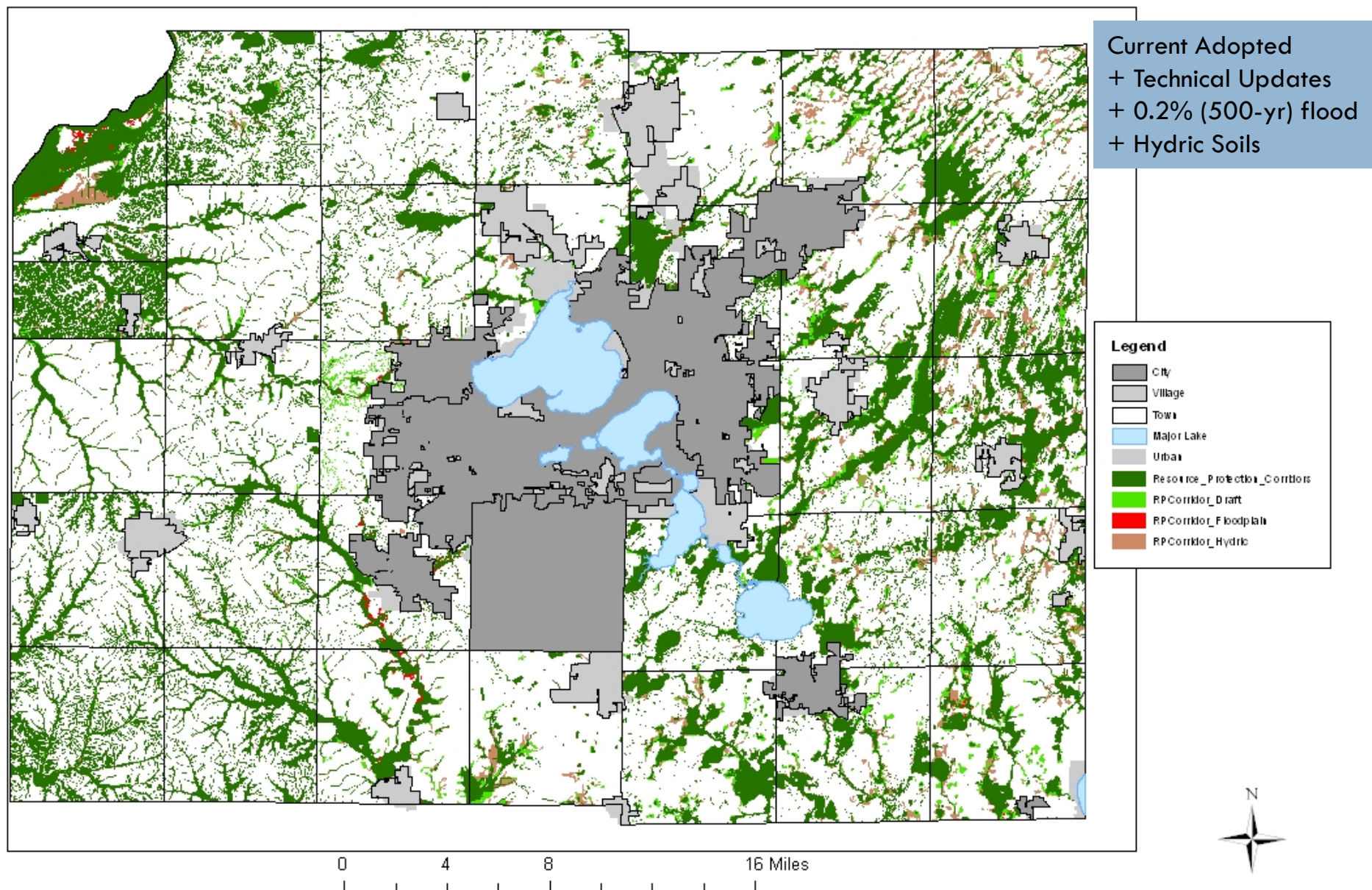
- Mapped by FEMA, but not regulated.
- Flood insurance not required.
- Based on historic data:
 - ▣ 0.2% chance of flooding in any given year
 - ▣ 6.8% chance of flooding over 30-year mortgage
- Is historic data still accurate?



Current Adopted

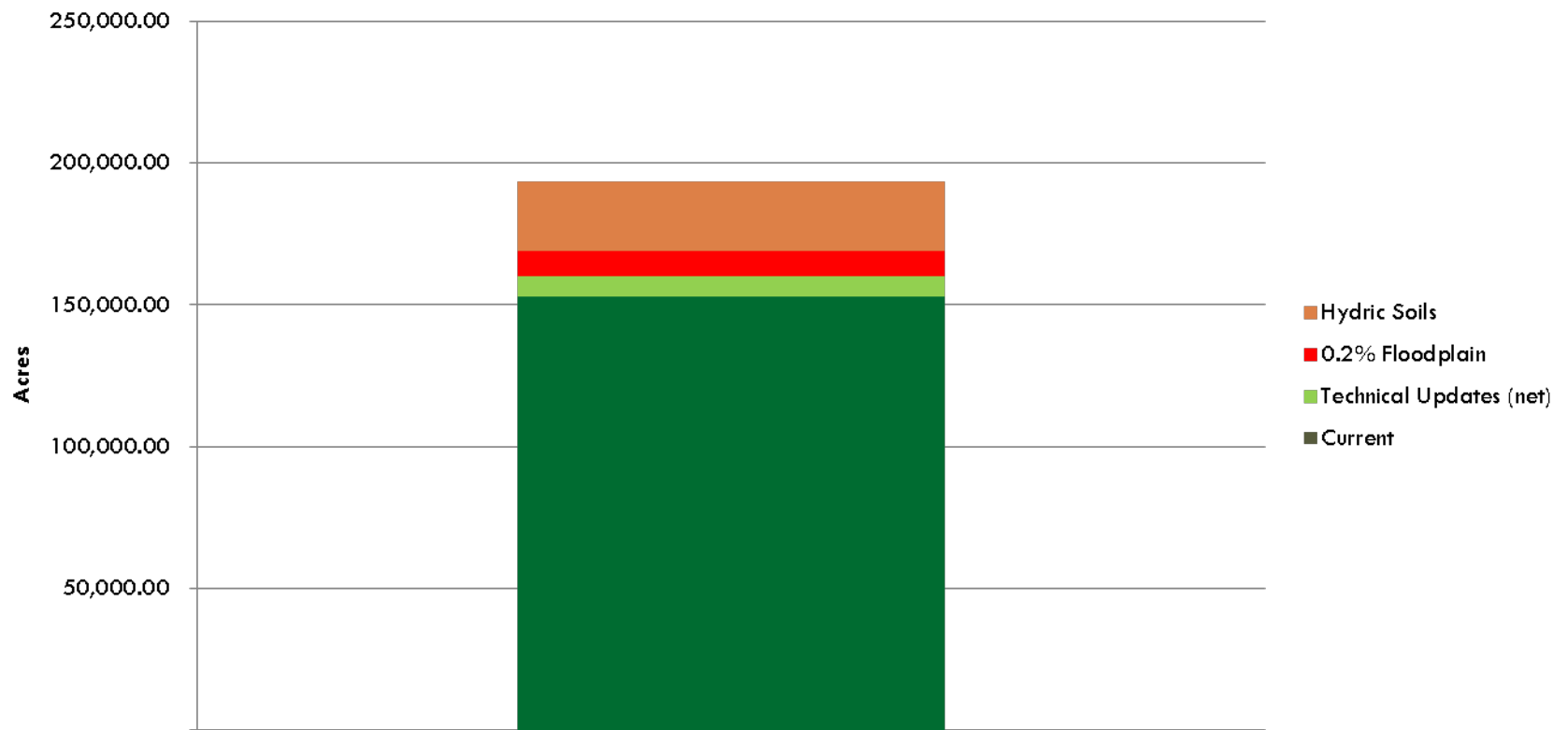


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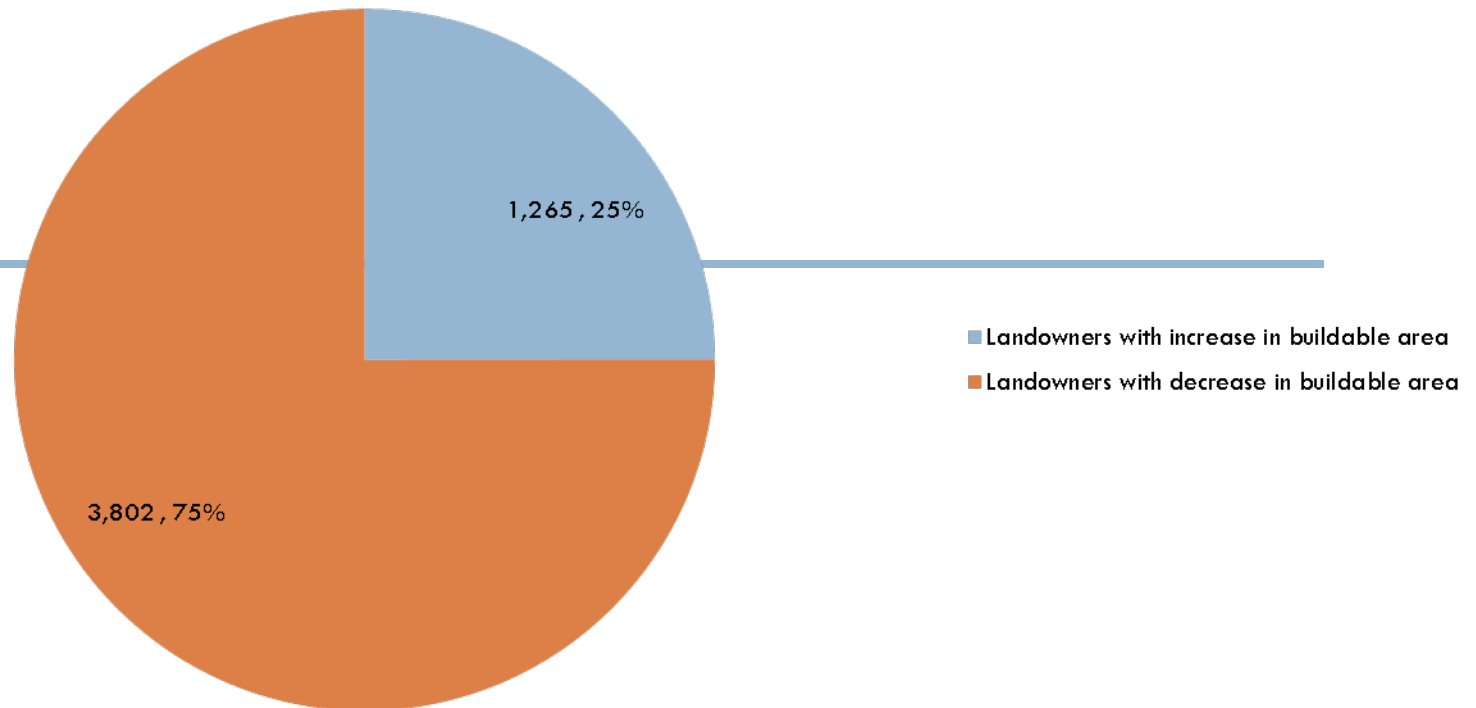
Net Effect on Area

**Resource Protection Corridors
Net Change in Acreage by Component**



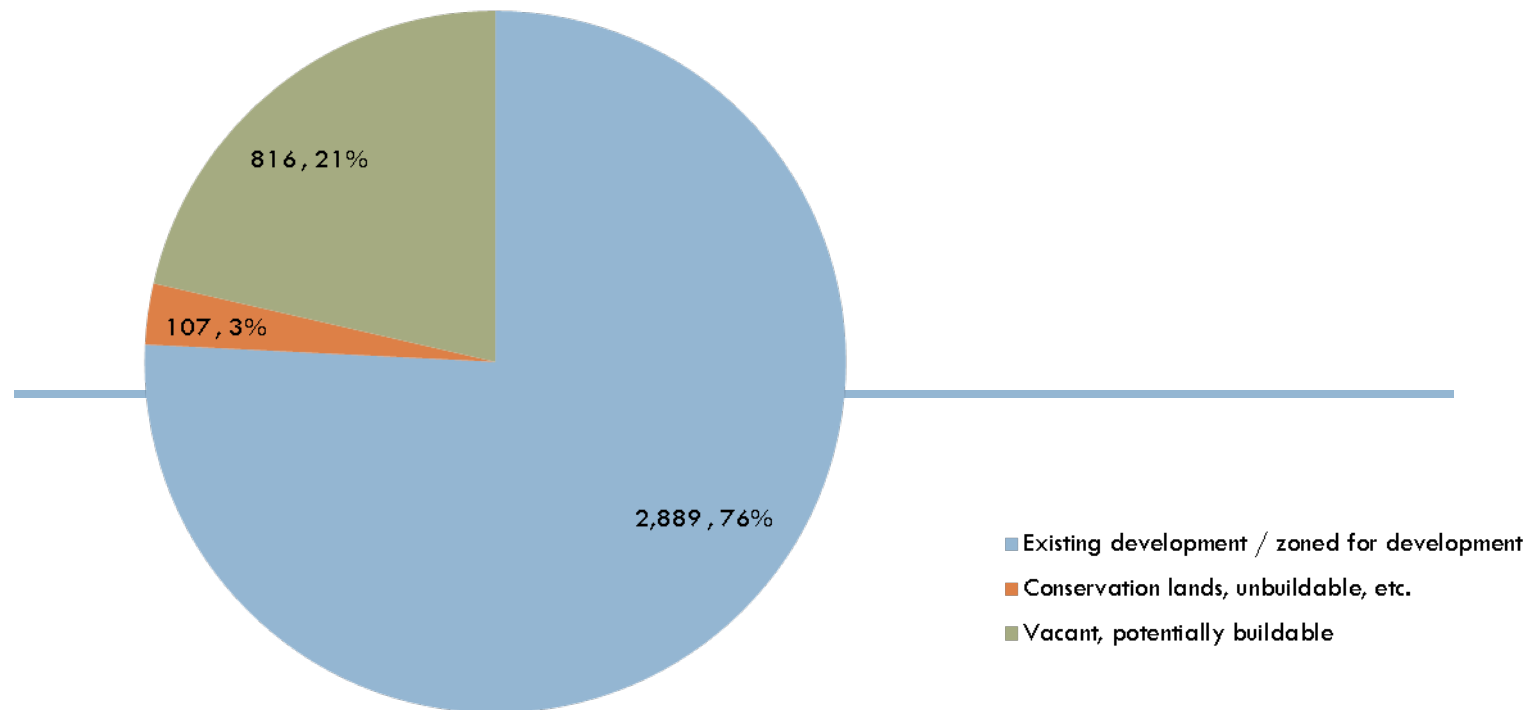
Impacts to Landowners

Landowners affected by amended corridors (n = 5,067)



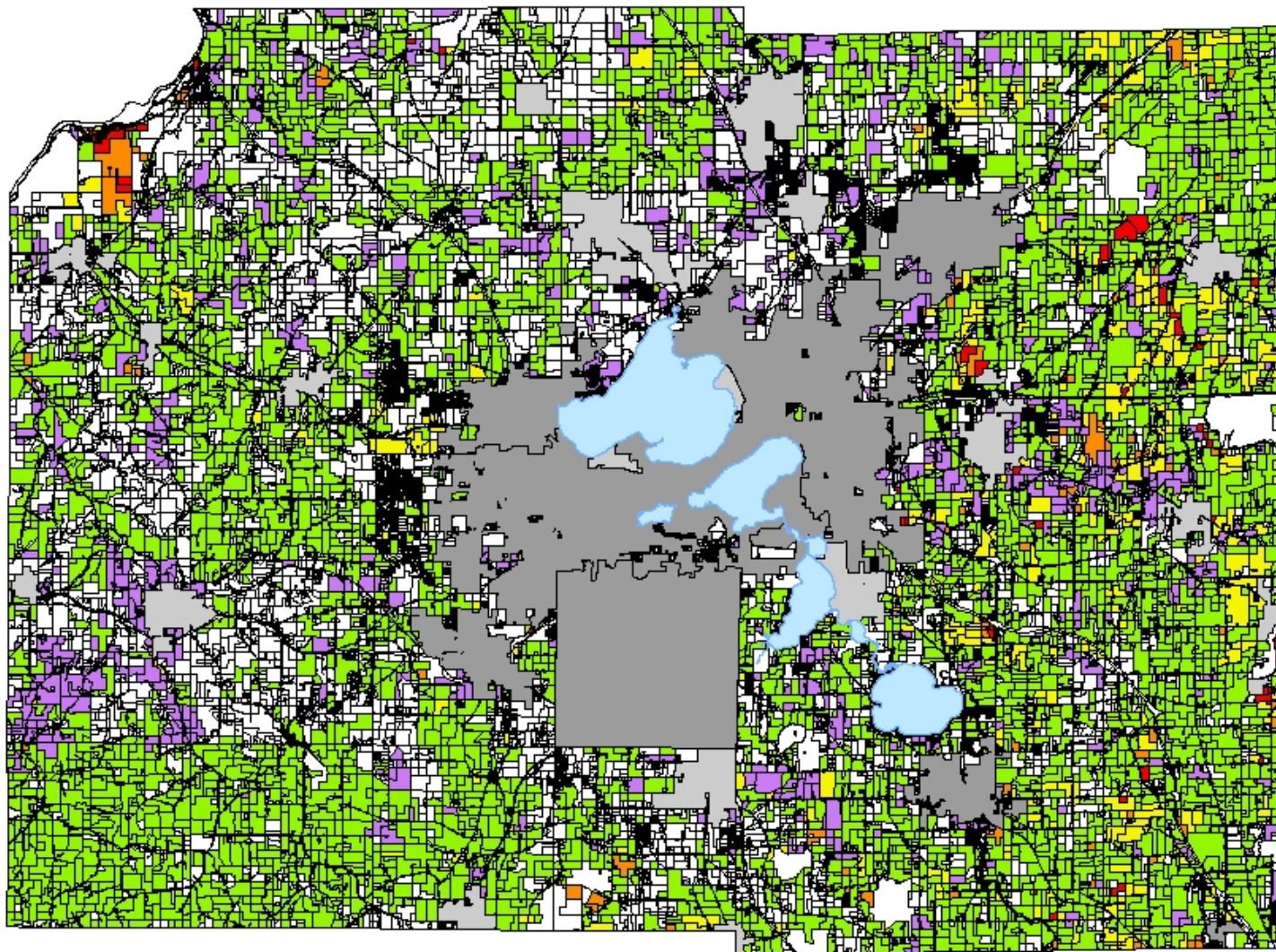
Impacts to Landowners

Number of landowners with decrease in buildable area (n = 3,802)



DANE COUNTY
PLANNING & DEVELOPMENT

Current
Technical Updates
+ Public Lands
+ 0.2% (500-yr) flood
+ Hydric soils



 City
 Village
 Town
 Major Lake

ChgPercent

 -75% to -100%
 -50% to -75%
 -25% to -50%
 0% to -25%
 Increase
 No change

0 4 8 16 Miles



Potential Amendments to Resource Protection Corridors

- Next Steps
 - Receive public input
 - Revise staff recommendations to Comprehensive Plan Steering Committee to reflect public input
 - Present to Comprehensive Plan Steering Committee
 - Incorporate Steering Committee recommendations into revised Comprehensive Plan
 - Comprehensive Plan Adoption Process
 - 30-day public notice of draft amendment
 - Introduce to County Board for adoption
 - ZLR Public Hearing
 - County Board action
- More information:
 - daneplan.org
 - **Brian Standing, Senior Planner**
 - standing@countyofdane.com 267-4115

