## THE TRUST for PUBLIC LAND



Watershed Conservation Planning Using the TPL Greenprint September 29, 2010

### **Objectives for this Meeting**

This presentation will provide an overview of Greenprint tools being used to help watershed partners objectively evaluate opportunities for conservation.

- Provide an overview of TPL's Greenprint Model used for conservation and watershed protection
- Demonstrate how the Greenprint model has been applied in communities to promote watershed health through case studies

### **Conserving Land for People**

The Trust for Public Land conserves land for people to enjoy as parks, gardens, and other natural places, ensuring livable communities for generations to come.

TPL Mission Statement

Over 300 staff working in 40 offices

## Railyard Park in Santa Fe



- Urban watershed education site
- Began water monitoring on the Acequia Madre this year



### Had a VISTA intern from the Western Watershed Hardrock Team this past summer









TPL works in cities and suburbs across America to ensure that everyone—in particular, every child—enjoys close-to-home access to a park, playground, or natural area.









TPL protects farms, ranches, and forests that support land-based livelihoods and rural ways of life.













TPL conserves places of natural beauty that preserve wilderness for our children's children to explore and that support other species with whom we share the planet.

















TPL protects places of historic and cultural importance that keep us in touch with the past and who we are as a people.















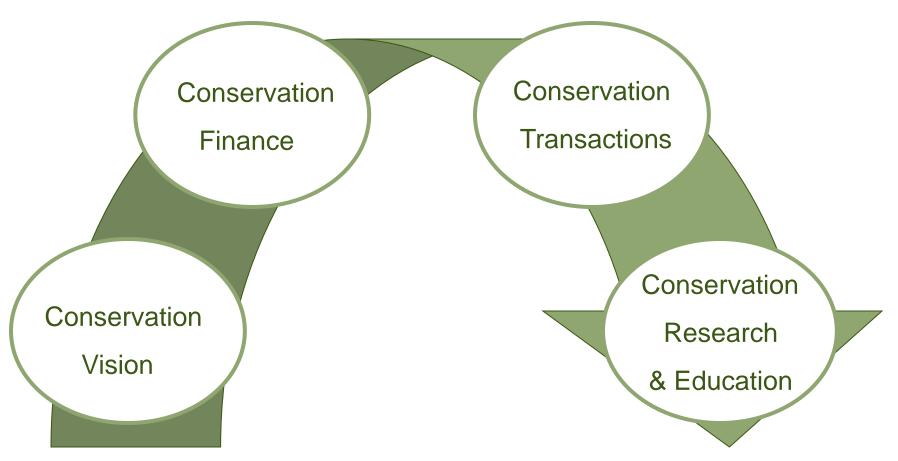






TPL preserves lands that protect clean drinking water and the natural beauty of our coasts and waterways.

### **TPL's Conservation Services**

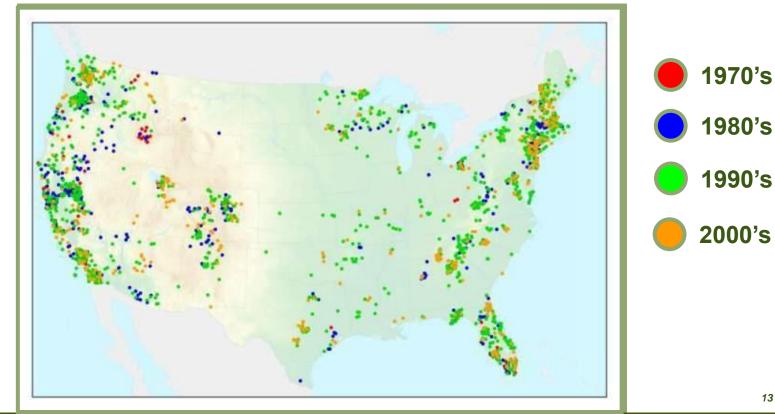


### **TPL's Conservation Results**

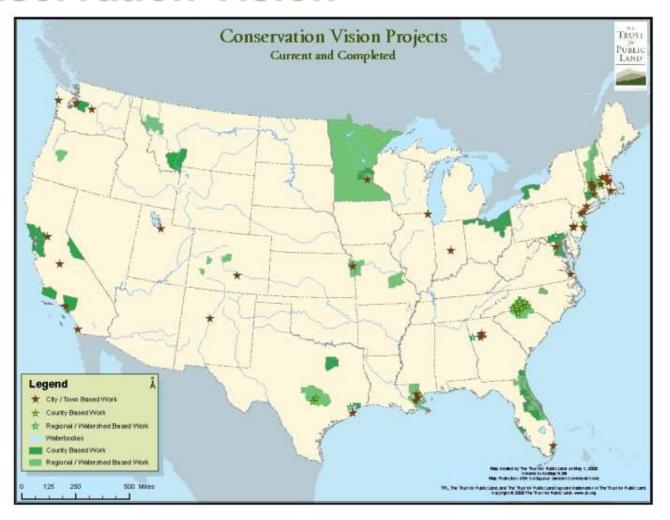
- Vision:
  - 50 Greenprints Completed
- Finance:
  - Over 400 state and local ballot measures passed
  - 82% passage rate
  - \$33 billion in new public funding created
- Transactions:
  - 4,147 projects completed in 46 states
  - 2.8 million acres protected
  - Fair market value of \$6.6 billion

## **Conservation Transactions Protecting Land**

Over 2.8 million acres, worth \$6.6 Billion



## **Conservation Vision**



### **Conservation Vision Setting Priorities**

TPL helps agencies and communities define conservation priorities, identify lands to be protected, and plan networks of conserved land that meet public need.



### **Current Conditions and Interviews**

In order to build on planning and research that has already been conducted and to ensure that it builds on existing initiatives, always start the process with document review and interviews.

- Review planning documents
- Water and natural resource studies and reports
- GIS analyses
- Interview key partners, local leaders and stakeholders

## **Conservation Vision Greenprint Process**

Constituency
Building

Greenpri
nting
(GIS)

Conserv
ation
Finance

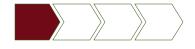
Planning

## Step 1: Constituency Building Outcomes

- Clear understanding of community's conservation goals.
- Political mandate to implement those goals, including support for a public finance measure.
- Strong partnerships for successful implementation of conservation strategies.







### Technical Advisory Team

- Local experts
- •With expertise in Planning, Finance, GIS, Conservation, Land Acquisition, Water issues, Soil issues, etc.
- •From:
  - City and County Governments
  - Agriculture Land Trusts
  - Universities
  - Council of Governments
  - Conservation Trusts
- Help in data identification
- Review draft results
- Participate in weighting exercise of individual criteria

### Greenprinting

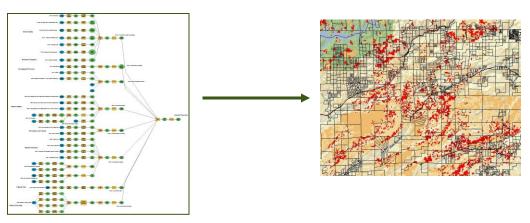
TPL's Greenprint is an interactive, community modeling process that uses a geographic information system (GIS) to identify priorities for planning and conserving parks and natural resources based on local input.



## **TPL's Greenprint Model**

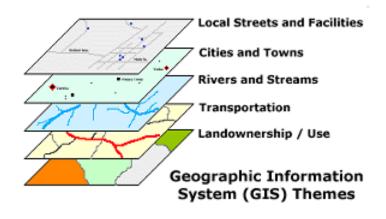
- Blends science with values
- Community engagement strategies that build consensus quickly and effectively
- Transparent and easy to understand
- Emphasizes multiple benefits of conservation and supports broader coalition-building
- Provides a decision support tool, not just a mapping

exercise



# **Greenprint Model** *Five steps*

- 1. Identify local goals and assemble data.
- 2. Translate data into a "priorities map" for each conservation goal....



### **Greenprint Model** (cont.)

 Priority maps are expressed in terms of conservation value ranging from low to high across the region (tan to red)



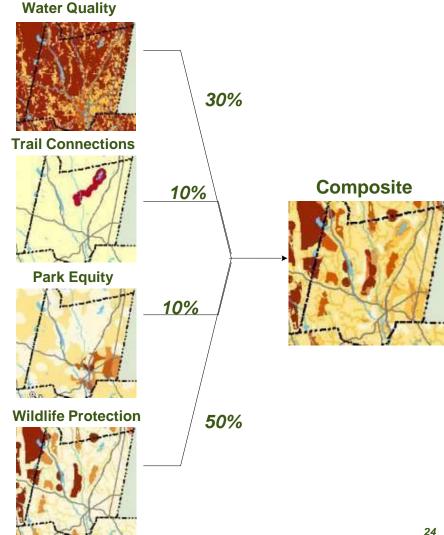
**Equity** 





### **Greenprint Model**

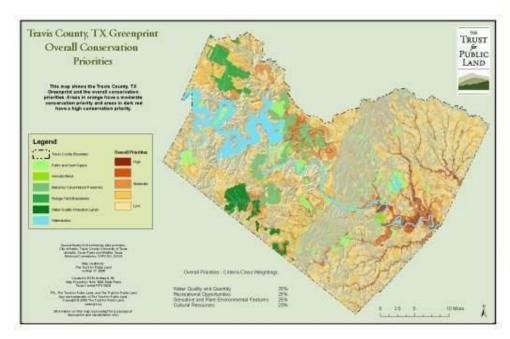
- 3. Assign relative weightings that reflect community or regional priorities.
- 4. Create alternative scenarios by adding additional criteria or modifying relative importance of existing criteria.
- 5. Combine the building blocks into a composite conservation priority map.

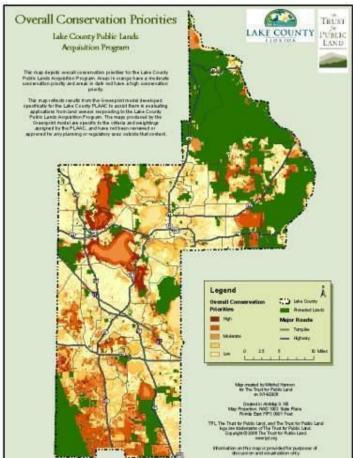


CONSERVING LAND FOR PROPLE

## **Greenprinting Results**

Color-coded overview maps





CONSERVING LAND FOR PROPLE

### **Greenprinting Results**

- Color-coded overview maps
- Strategic analysis reports
- Parcel prioritization maps

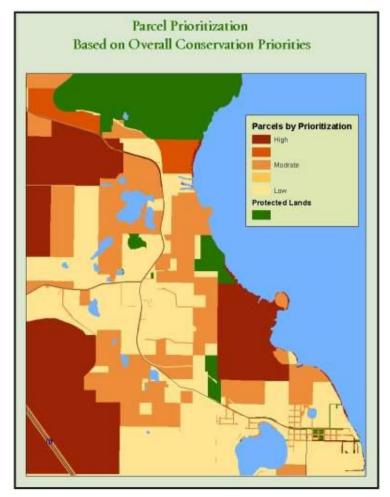
|                              |  | Priority | Percent          | Protected           | Pe |
|------------------------------|--|----------|------------------|---------------------|----|
|                              |  | Acres*   | of Total<br>Area | Priority<br>Acres** | of |
| Overall Conservation Priorit | ies  |          |                  |                     |    |
|                              | CP_All Overall Conservation Priorities                     | 212,075  | 37.1%            | 49,381              | 8  |
| AR - Adaptive Rea            | ise  |          |                  |                     |    |
|                              | AR1: Sand and Gravel Mining Locations                      | 1,742    | 0.3%             | 238                 | C  |
|                              | AR_All Adaptive Reuse                                      | 1,742    | 0.3%             | 238                 | 0  |
| FP - Farmland Protect        |  |          |                  |                     |    |
|                              | FP1: Prime Farm Soils                                      | 140,423  | 24.6%            | 17,883              | 3  |
|                              | FP2: Farm Landcover  | 85,549   | 15.0%            | 10,268              | 1  |
|                              | FP_All Farmland Protection                                 | 168,175  | 29.4%            | 20,711              | 3  |
| RO - Recreation Opportunit   | ies  |          |                  |                     |    |
|                              | RO1: Park Equity   | 10,413   | 1.8%             | 93                  | C  |
|                              | RO2: Flood Control Areas                                   | 2,305    | 0.4%             | 1,309               | 0  |
|                              | RO_All Recreation Opportunities                            | 12,717   | 2.2%             | 1,403               | 0  |
| SP - Special Pla             | ces  |          |                  |                     |    |
|                              | SP1: Special Places  | 115,633  | 20.2%            | 23,110              | 4  |
|                              | SP_All Special Places                                      | 115,633  | 20.2%            | 23,110              | 4  |
| SQ- Scenic Qua               | lity   |          |                  |                     |    |
|                              | SQ1: Prominent Ridgelines                                  | 68,738   | 12.0%            | 14,064              | 2  |
|                              | SQ2: Viewshed from the Housatonic River                    | 10,919   | 1.9%             | 4,378               | C  |
|                              | SQ3: Scenic Road Buffers                                   | 10,952   | 1.9%             | 2,576               | 0  |
|                              | SQ4: Large Undeveloped Parcels Adjacent to Appalachian Tra | 11,994   | 2.1%             | 383                 | 0  |
|                              | SQ_All Scenic Quality                                      | 92,059   | 16.1%            | 18,443              | 3  |
| TG - Trails and Greenwa      | ays  |          |                  |                     |    |
|                              | TG1: Trails  | 28,610   | 5.0%             | 16,898              | 3  |
|                              | TG2: Proposed Greenways                                    | 33,704   | 5.9%             | 7,725               | 1  |
|                              | TG_All Trails and Greenways                                | 58,391   | 10.2%            | 22,718              | 4  |
| WH - Wildlife Hab            | itat   |          |                  |                     |    |

Litchfield Hills Greenprint Resource Profile Report



### **Greenprinting Results**

- Color-coded overview maps
- Parcel prioritization analysis



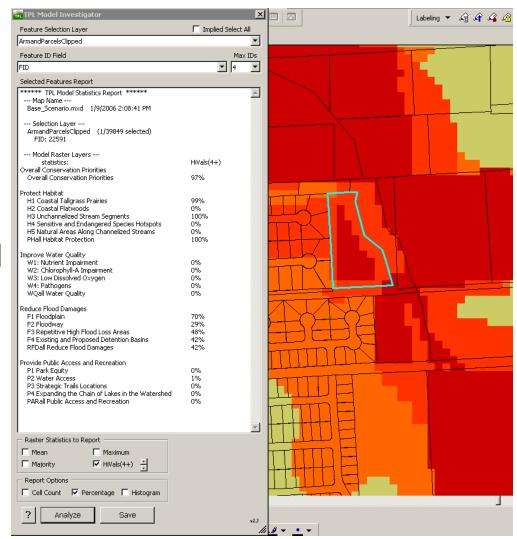


### Greenprint Model: Instant profile for any property



#### **Parcel Selection Criteria:**

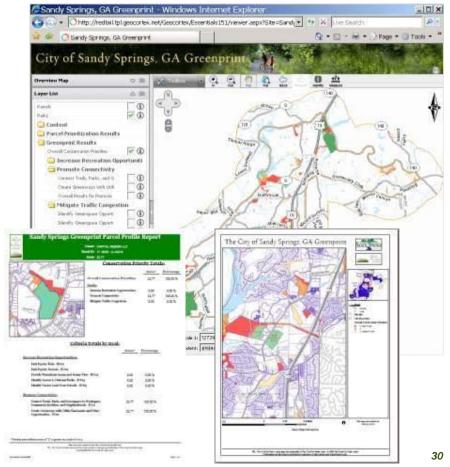
- Property size
- Amount of stream frontage
- Natural heritage elements
- Adjacent to protected land
- Percent of parcel that's high priority



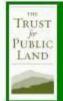


### **Web-based Greenprint Delivery**

- Greenprint results accessed on the internet.
- Property Profile reports and maps created on-the-fly
- TPL manages the overhead: software; hardware; Greeprint data
- Quarterly updates



You can create parcel profile reports that show how a parcel scored on all the goals in the Greenprint.

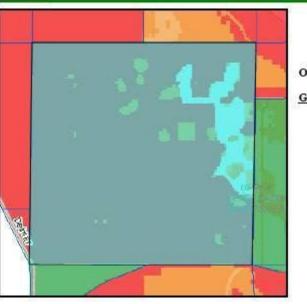


#### Osceola Greenprint Parcel Profile Report

Owner: AVATAR PROPERTIES INC

Parcel ID: 212628000000100000

Acres: 652.86



#### Conservation Priority Totals:

| 4 93.61%                              |
|---------------------------------------|
| 33.0176                               |
|                                       |
| 93.01 %                               |
| 92.23 %                               |
| 3 26.64 %                             |
| 4 99.33 %                             |
| 93.68 %                               |
| ֡֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜ |

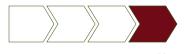
#### Criteria Totals by Goal:

|   | Acres* | Percentage |
|---|--------|------------|
| nan, Social Values:   |        |            |
| Conservation Equity - HSo1  | 0.00   | 0.00 %     |
| Enhances Aesthetic Setting of County - HSo3   | 0.00   | 0.00 %     |
| Connectivity to Other Greenspaces, Greenways, and / or Conservation Areas - HSo4          | 0.00   | 0.00 %     |
| Appropriate Access for Passive Recreation and Other<br>Compatible Uses - HSo <sub>5</sub> | 591.71 | 90.73 %    |
| Geological, Paleontological, Archeological or Historic                                    | 0.00   | 0.00 %     |

### **Action Plan**

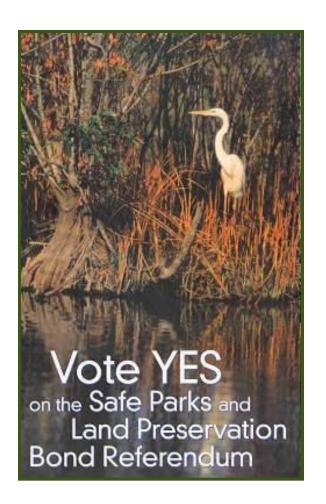
We deliver concrete plans that:

- Create both short- term success and a longterm conservation strategy.
- Are realistic, cost-effective, and implementable.
- Are politically and publicly supported.
- Accomplish multiple conservation objectives.



# **Conservation Finance Securing Funds**

- Research: Identify and analyze existing local, state, federal funding sources.
- Technical assistance: create new funding for conservation.
  - Feasibility research
  - Public opinion surveys
  - Ballot measure design
  - Legislative support



## **Conservation Finance Ballot Measures** 1998-2007





### The Trust for Public Land: 82% of Measures Passed

| Year  | # of Measures | Wins | Funds Approved |
|-------|---------------|------|----------------|
| 1996  | 27            | 26   | \$0.6 billion  |
| 1997  | 13            | 11   | \$0.2 billion  |
| 1998  | 34            | 30   | \$4.1 billion  |
| 1999  | 14            | 12   | \$0.9 billion  |
| 2000  | 71            | 55   | \$4.2 billion  |
| 2001  | 41            | 31   | \$0.5 billion  |
| 2002  | 61            | 47   | \$4.4 billion  |
| 2003  | 22            | 21   | \$0.9 billion  |
| 2004  | 52            | 45   | \$2.4 billion  |
| 2005  | 46            | 41   | \$0.8 billion  |
| 2006  | 49            | 41   | \$4.9 billion  |
| 2007  | 18            | 15   | \$0.6 billion  |
| 2008  | 58            | 45   | \$7.5 billion  |
| 2009  | 11            | 6    | \$0.4 billion  |
| Total | 517           | 426  | \$32.4 billion |

### Tualatin Watershed Demonstration Project

## Enabling Source Water Protection: Aligning Land Use and Source Water Protection

- Cooperative Agreement with the US EPA
- The Partners
  - Smart Growth Leadership Institute
  - Trust for Public Land
  - Association of State Drinking Water Administrators
  - River Network

## Tualatin Watershed Demonstration Project

## Enabling Source Water Protection: Aligning Land Use and Source Water Protection

- The Project
  - Focuses on protecting drinking water sources through alignment of state land use and drinking water programs
  - Involves collaborating with state program managers, and recognized national experts in land use, land conservation, and water quality protection
  - Aims to help states work across political and programmatic boundaries to better align planning, economic development, regulation and conservation to protect drinking water sources
- Funding for Oregon Demonstration
  - US EPA, part of state demonstration grant program
  - Doris Duke Charitable Foundation Grant

## **Tualatin Watershed Demonstration Project:**

Drinking Water Source Protection and Habitat Conservation Landscape Analysis

- **Primary Goal** 
  - **Develop GIS-based tool** to identify (1) healthy lands within the watershed to protect, and (2) impaired lands within the watershed that should be restored to protect water quality.

#### Technical Advisory Team

Oregon DEQ

Oregon DHS (Environmental Health Specialist)

Oregon Land Conservation and Development

Oregon Fish and Wildlife

US EPA

**USGS** 

NRCS (Soil Scientist and District Conservationist)

Portland Metro (Natural Resources)

Washington County

Clean Water Services

City of Hillsboro (Water Resources)

The Nature Conservancy

**Tualatin Watershed Council** 



## **Tualatin Watershed Demonstration Project** GIS Data Layers

#### Land Uses and Characteristics

Land Uses and Urban Growth Boundaries **Oregon Water Bodies and Water Courses Tualatin Watershed Vacant Lands** Regional Vegetation/Land Use Raster **Impervious Surface Oregon Cropland Public Land Survey System** 

#### **Water Quality Permits**

**NPDES General** NPDES Industrial to Surface Water NPDES Domestic to Surface Water **Water Pollution Control Facility General** Water Pollution Control Facility Industrial **Water Pollution Control Facility Domestic** 

#### **Potential Sources of Contaminants**

Potential Contaminant Sources Identified in Source Water Assessments for Public **Water Systems Leaking Underground Storage Take Sites Hazardous Waste Sites Septic by Tax Lot Confined Animal Feeding Operations Environmental Clean-up Sites Underground Injection Control Sites Underground Storage Tank Sites** State Fire Marshal Facilities **Water Quality Outfall Locations** Solid Waste Sites

#### Sensitive Areas

**Vulnerable Soils** 

- **High Permeability Soils**
- **High Runoff Potential**
- **Highly Erodible Land**

Landslide Locations

Metro Title 13 Lands

**Water Quality Limited Streams and Lakes** 

Flood Zones

Wetlands

**Groundwater Well Locations** 

Willamette Basin Effective Shade

**Habitats of Concern** 

**Oregon Fish Habitat Distribution** 

**Groundwater & Surface Water Drinking** Water Source Areas - Public Water **Systems** 

**Synthesis Conservation Opportunity Areas Tualatin River HUC5 with Barney Reservoir Effective Stream Shade** 

# **Tualatin Watershed Demonstration Project** *Results*

- Source water protection and land prioritization maps that show where communities should invest limited resources to meet related goals
  - Protecting Water Quality in Source Areas
  - Restoration of Water Quality in Source Areas
  - Habitat Conservation Opportunities

## Strategic Recommendations Utilizing the GIS Tool for Source Water Protection

- **Voluntary Conservation Assistance** 
  - Land conservation professionals identified factors that are practical considerations for their work, like size of property, adjacency to certain natural resources, property value, etc.
  - The high priority GIS results can be narrowed by applying these criteria, built into the GIS tool, and running a parcel search

Oregon DEQ Drinking Water Division plans to repeat this landscape analysis in other drinking watersheds across the state, using applicable location-specific datasets that parallel those identified through this process.

Tualatin River Watershed Demonstration Project

Drinking Water Source Protection and Habitat Conservation Landscape Apalysis

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Stilleting water source restriction and Habitat Conservation Landscape

Documentation | FAQs | Contact

Tualatin River Watershed Demonstration Project:
Drinking Water Source Protection and Habitat Conservation Landscape Analysis

#### Watershed Collaboration

Located just west of the Portland Metropolitan area, the Tualatin River serves as the primary source of drinking water for residents of Washington County, the fastest growing county in Oregon. In the coming years, population growth and land use changes around the Tualatin River are expected to increase, threatening the quality of the drinking water supply for the region. Representatives from the following agencies - City of Hillsboro Water Resources, Clean Water Services, US Geological Survey, Natural Resources Conservation Service, Oregon Dept. of Land Conservation and Development, Oregon Department of Human Services, Environmental Protection Agency, Tualatin River Watershed Council, Oregon Department of Environmental Quality, Metro Natural Resources, The Nature Conservancy, Oregon Conservation Strategy – joined together to identify those areas of the Tualatin Watershed that present the best opportunities for conservation or restoration for a sustainable and vibrant future.

The goal of the Tualatin River Watershed Demonstration Project is to develop a GIS-based tool that will identify the healthy lands within the watershed most important for conservation of water quality, to identify the impaired lands within the watershed that ought to be restored to help protect water quality, and identify areas for habitat conservation opportunity. The GIS mapping products represent a first pass at identifying those key lands, and further analysis and outreach with landowners is necessary to "groundtruth" the mapping results.

#### Online Interactive Mapping Site

The Tualatin River Watershed Demonstration Project results available on the online mapping site provide the user a set of water quality protection maps, water quality restoration maps, and habitat conservation opportunity maps that show where communities should investigate investing limited resources in order to meet multiple land protection, restoration, and acquisition goals. This mapping site will allow the user to:

- Create custom maps
- Explore the protection, restoration, and habitat results at the local level
- Identify key properties for conservation and restoration

#### How to Use this Website

The tabs across the top of this page will guide you in accessing the information and tools provided on this website.

- Interactive Mapping Provides interactive investigation and mapping of project goals. Start with the Training Guide and Tutorial for step by step examples on how to use this site.
- . Training Guide Provides step by step exercises for using the interactive project mapping tool.
- Final Project Maps Provides overview maps of project results. For more detailed, customized maps use the Interactive Mapping tool or Contact Us tab.
- . Documentation Describes the data and methodology behind the maps and reports.
- · FAQs This tab provides answers to frequently asked questions about the site.
- . Contact Us Contacts for additional information on this project.

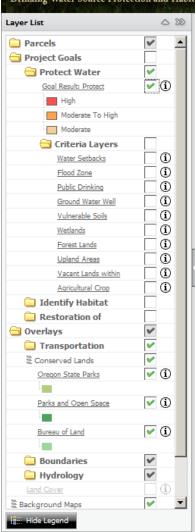
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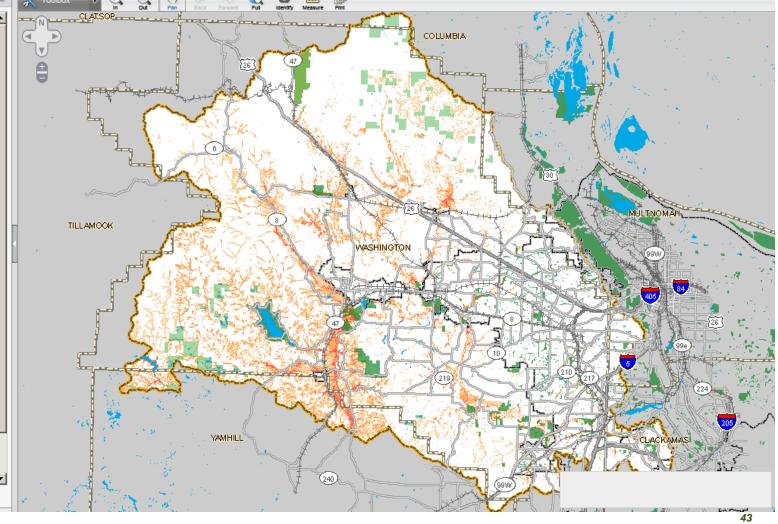
#### THE TRUST for PUBLIC LAND CONSERVING LAND FOR PEOPLE

Tualatin River Watershed Demonstration Project Drinking Water Source Protection and Habitat Conservation Landscape Analy

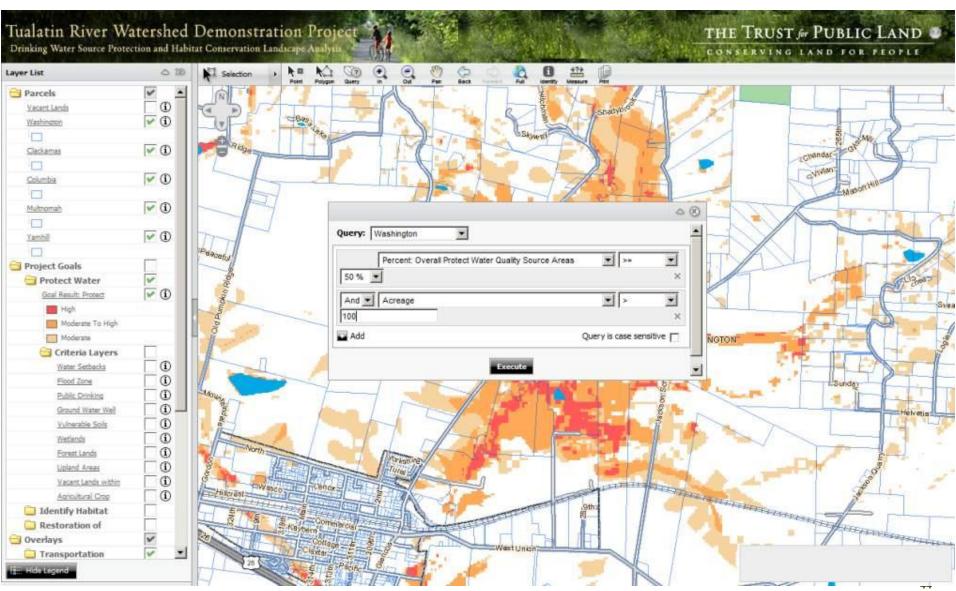
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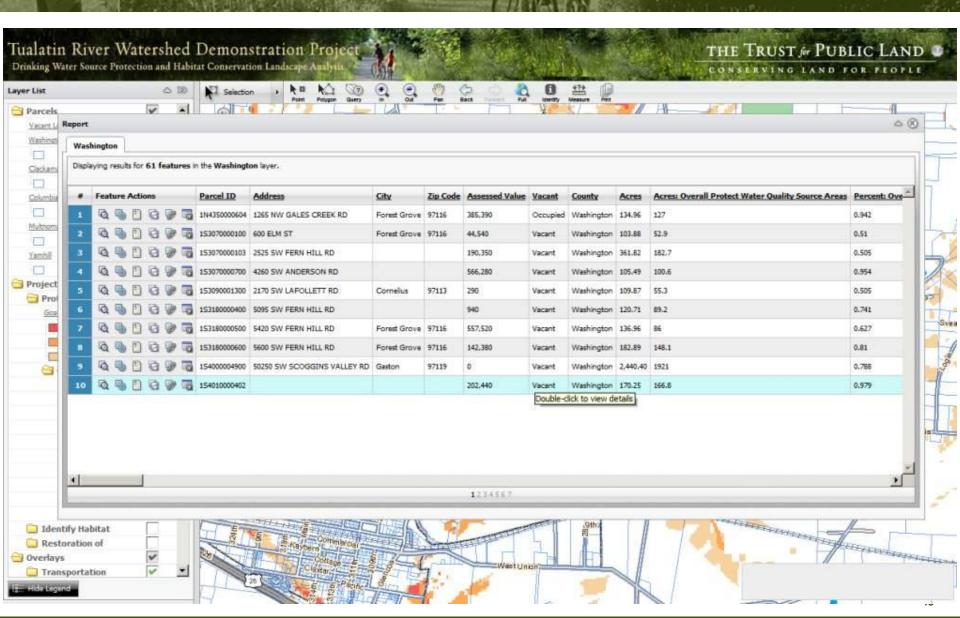




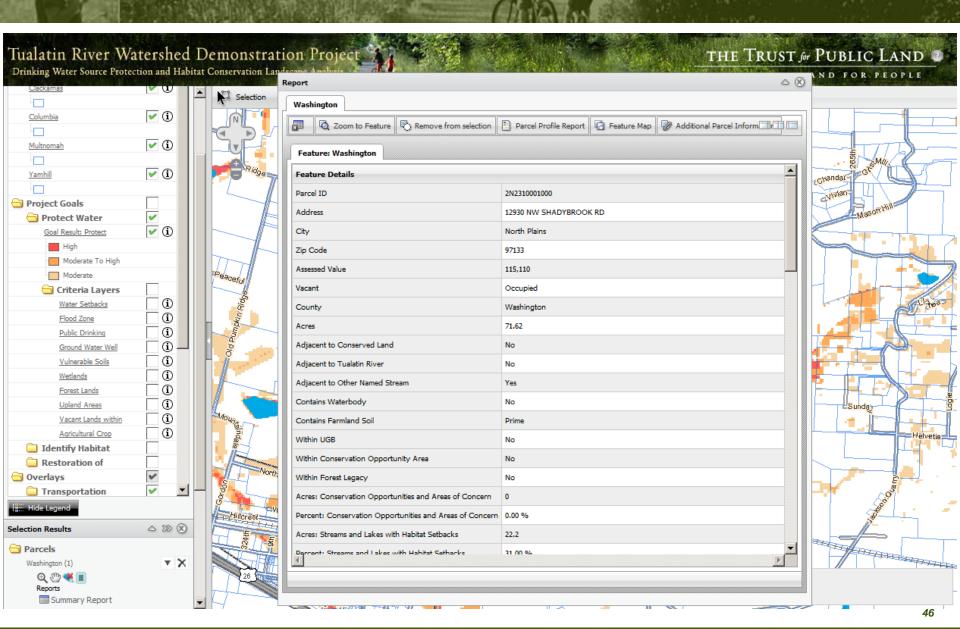














Geographic Information Systems



Navigation: Washington County » GIS » Reports: A&T Report 2N2310001000 |

#### -General Information

interactive maps
map gallery
data catalog
contacts
other gis links
gis introduction
frequently asked questions

#### -Property Search

property / taxlot tax maps

- +Survey Search
- +Land Services
- +Building Services

| Assessment & Taxation Report |  |  |
|------------------------------|--|--|
| General Property Information |  |  |
| Site Address:                | 12930 NW SHADYBROOK RD. NORTH PLAINS OR, 97133 |  |
| Tax Lot ID:                  | 2N2310001000                                   |  |
| Property Account ID:         | R789196,                                       |  |
| Property Classification:     | 5515   |  |
| Neighborhood Code:           | 2N34   |  |
| Latitude / Longitude:        | 45.6092151 / 122.978442                        |  |

#### Sales / Deed Information

|   | Sale Date | Sale Instrument | Deed Type | Sale Price |
|---|-----------|-----------------|-----------|------------|
|   |           |                 |           | \$         |
|   |           |                 |           | \$         |
| П |           |                 |           | \$         |

#### Assessed Values for Account R789196

| Roll Date:               | 09/21/2009       |
|--------------------------|------------------|
| Taxcode:                 | 001.24           |
| Market Land Value:       | \$0              |
| Market Bldg Value:       | \$55,190         |
| Special Market Value:    | \$575,710        |
| Market Total Value:      | \$630,900        |
| Taxable Assessed Value:  | \$95,450         |
| Legal:                   | No Legal Found   |
| Lot Size:                | A&T Acres: 74.00 |
| Bldg Sq Ft:              | 2036             |
| Year Built:              | 1910             |
| Improvement Information  |                  |
| Total Improvement Value: | ¢55,100          |

| Total Improvement value: |          | \$55,190 |
|--------------------------|----------|----------|
|                          | Plumbing | BATH=01  |
|                          | Bedrooms | 04       |

#### **Improvement Details**

| Improvement Details   |          |             |
|-----------------------|----------|-------------|
| Description           | Value    | Square Feet |
| FEEDER BARN           | \$6,480  | 5200        |
| MAIN AREA             | \$14,400 | 1312        |
| MULTIPURPOSE BUILDING | \$18.930 | 2240        |



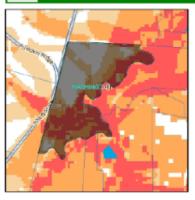


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#### **Tualatin River Watershed Demonstration Project**

Drinking Water Source Protection and Habitat Conservation Landscape Analysis

Washington County



#### Detailed Parcel Information:

Address: 12930 NW SHADYBROOK RD

City: North Plains Zip Code: 97133

Parcel ID: 2N2310001000
Vacant: Occupied
Assessed Value: 115,110
Acres:\*\* 71.62

#### Parcel Prioritization Results

| Adjacent to Conserved Land:     | No  | Contains Farmland Soil:         | Prime |
|---------------------------------|-----|---------------------------------|-------|
| Adjacent to Tualatin River:     | No  | Within UGB:                     | No    |
| Adjacent to Other Named Stream: | Yes | Within Conservation Opportunity | No    |
| Contains Waterbody:             | No  | Within Forest Legacy:           | No    |

#### Criteria Totals by Goal

|   | Acres* |  |
|---|--------|--|
| Identify Habitat Conservation Opportunities:    |        |  |
| Conservation Opportunities and Areas of Concern | 0.00   |  |
| Streams and Lakes with Habitat Setbacks         | 22.20  |  |
| Fish Habitat Distribution                       | 15.50  |  |
| Wetlands with Habitat Setbacks                  | 49.50  |  |
| Flood Zone                                      | 57.70  |  |

<sup>+</sup> Priority acres reflects a score of "3" or greater on a scale of o to 5. ++ Acres was generated in GIS by TPL; Please do more research for exact acreage.

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#### **Tualatin River Watershed Demonstration Project**

Drinking Water Source Protection and Habitat Conservation Landscape Analysis

Washington County

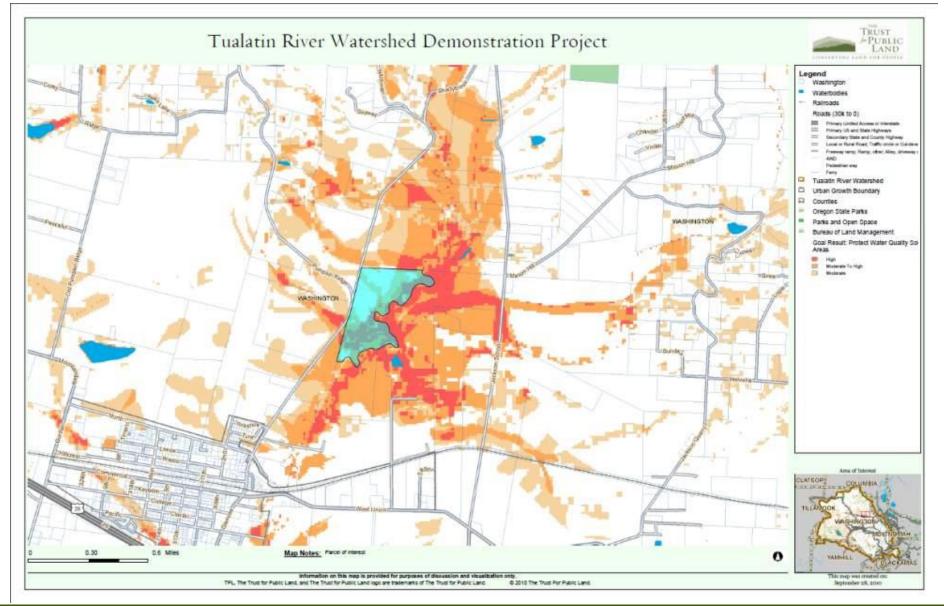
#### Criteria Totals by Goal (cont.)

|   | Acres* |
|---|--------|
| Forest Habitat  | 17.90  |
| Regenerating Forest Habitat   | 0.00   |
| Additional Urban Riparian Habitat   | 0.00   |
| Overall Habitat Conservation Opportunities  | 30.40  |
| Protect Water Quality in Source Areas:  |        |
| Water Setbacks  | 29.30  |
| Flood Zone  | 57.70  |
| Public Drinking Water Intakes/Wells Source Areas  | 71.60  |
| Ground Water Well Density   | 0.00   |
| Vulnerable Soils  | 41.30  |
| Wetlands  | 10.70  |
| Forest Lands  | 17.90  |
| Upland Areas  | 0.00   |
| Vacant Lands within UGB   | 0.00   |
| Agricultural Crop Type - Protection   | 32.00  |
| Overall Protect Water Quality Source Areas  | 51.10  |
| Restore Water Quality in Source Areas:  |        |
| Water Quality Limited Streams and Lakes   | 14.20  |
| Biodiversity Restoration  | 0.00   |
| Potential Contaminant Sources   | 0.00   |
| Effective Stream Shade  | 0.70   |
| Proximity to Confined Animal Feeding Operations   | 0.00   |
| Flood Zones and Wetlands  | 57.70  |
| Agricultural Crop Type - Restoration  | 10.50  |
| Vulnerable Soils  | 41.30  |
| Permitted Water Discharge Sites   | 0.00   |
| Proximity to Urban Areas  | 0.00   |
| Tax Lots with Septic  | 0.00   |
| Overall Restoration of Water Quality Source Areas   | 13.80  |
| <ul> <li>Priority acres reflects a score of "3" or greater on a scale of o to 5.</li> </ul> |        |

This report was created on the Tualatin Source WaterHabitat Protection Project Internet Mapping Dite TPL. The Thust for Public Land, and The Thust for Public Land logs are tradements of The Thust for Public Land. Cooperated 20 2010 The Thust for Public Land.

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## **Greenprinting for Door County**

- Reflects county-specific resource goals
- Offers a unique blend of science and preference:
  - Community members identify broad resource goals
  - Criteria models are designed by local experts and scientists using best available regional data
  - Goal weighting reflects the preferences and priorities of local municipalities and stakeholders.
- Useful to a broad range of users:
  - property owners, municipal planners, developers, land trusts, County staff
- Assists municipalities in implementing their Smart Growth Plans
- Provides an on-going decision support tool ... not just a mapping exercise.

## **Greenprinting Process**

- Identify conservation goals.
- Translate each goal into science-based metrics using local data and research.
- Model and map critical resources across the landscape.
- Provide public access to objective information about natural resources for planning, development, and conservation.
- 5. Enable creation of customized maps that reflect local priorities





## Door County Greenprint Goals ...

### Identified by stakeholders; consistent with adopted plans

- 1. Protect Surface Water Quality
- 2. Protect Ground Water Quality
- 3. Protect Habitat for Native Plants and Animals
- 4. Restore Landscape Connectivity









# Greenprint Metrics and Data ... characterized using best available science and data

| Goal                             | Criteria                               | Methodology   | Data   |                  |
|----------------------------------|--|---|--|------------------|
| Protect Surface Water<br>Quality |  |   |  |                  |
| <b>ኛ</b> ግን                      | Depth to bedrock  Depth to water table | This model assigns priority to areas in close proximity to surface water that exhibit shallow soils. Data was grouped using the following data ranges for depth to bedrock:  0-20 inches 20-60 inches greater than 60 inches  Areas were scored using a scale of 0-5, with 5 representing highest concern for protecting surface water.  Priorities were assigned using a combination of distance to surface water, formations, and depth to bedrock:  0-1/4 mi from surface water:  5: 0-20", beaches, pits, and rock outcrops 4: 20-60" 3: 60"+  1/4 - 1/2 mi from surface water 4: 0-20", beaches, pits, and rock outcrops 3: 20-60" 2: 60"+  Surface water includes shoreline, but does not include wetlands.  This model assigns priority to areas in close proximity to surface water that exhibit shallow depth to | Bedrock, derived from NRCS Soils data 1979 Hydrology SSURGO Soils Data 1979 with soil survey | Door Count       |
|                                  |  | water table. Data was grouped using the following data ranges for depth to water table:  0-30 inches 30-72 inches greater than 72 inches  Areas were scored using a scale of 0-5, with 5 representing highest concern for protecting surface water.  Priorities were assigned using a combination of distance to surface water and depth to water table:  0-1/4 mi from surface water:  | depths in feet attached<br>Streams and water bodies  | NRCS Door County |

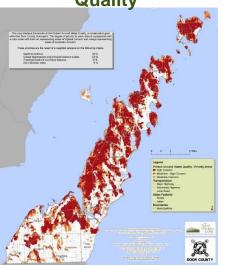
## Greenprint Results ...

color-coded maps of critical resource areas

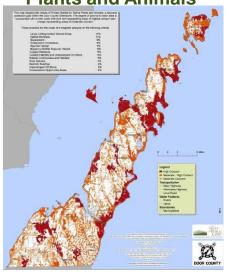
#### Legend

- High Concern
- Moderate High Concern
- Moderate Concern

**Protect Ground Water** Quality



**Protect Habitat for Native Plants and Animals** 



**Protect Surface Water** Quality



**Restore Landscape** Connectivity

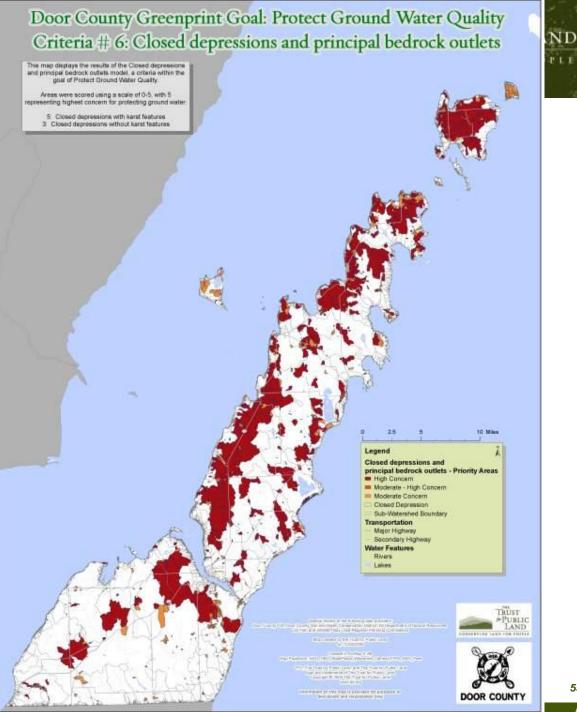




## **Protect Ground** Water Quality

#### Legend

- High Concern
- Moderate High Concern
- Moderate Concern

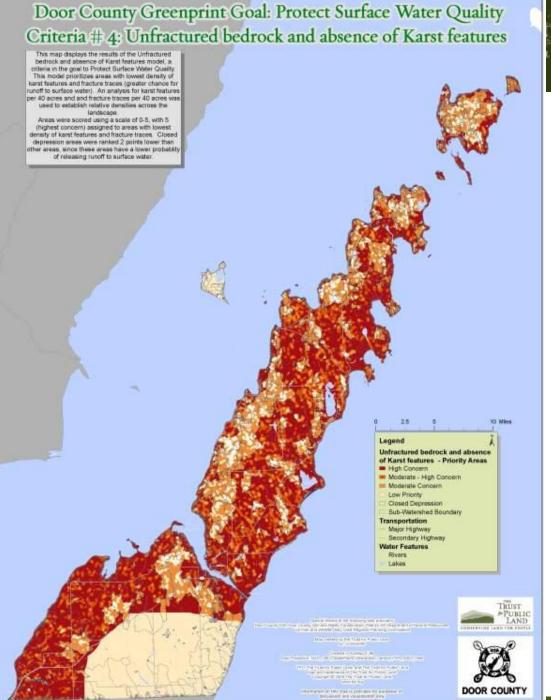




# Protect Surface Water Quality

#### Legend

- High Concern
- Moderate High Concern
- Moderate Concern

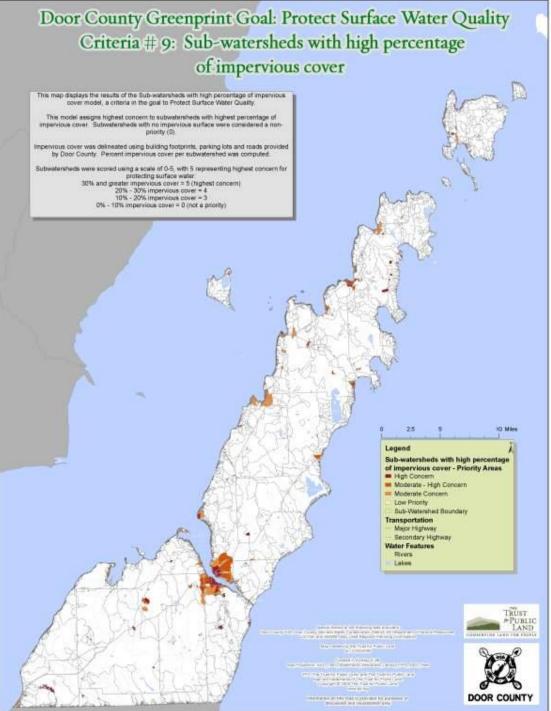




# Subwatersheds With high % Impervious cover

#### Legend

- High Concern
- Moderate High Concern
- Moderate Concern



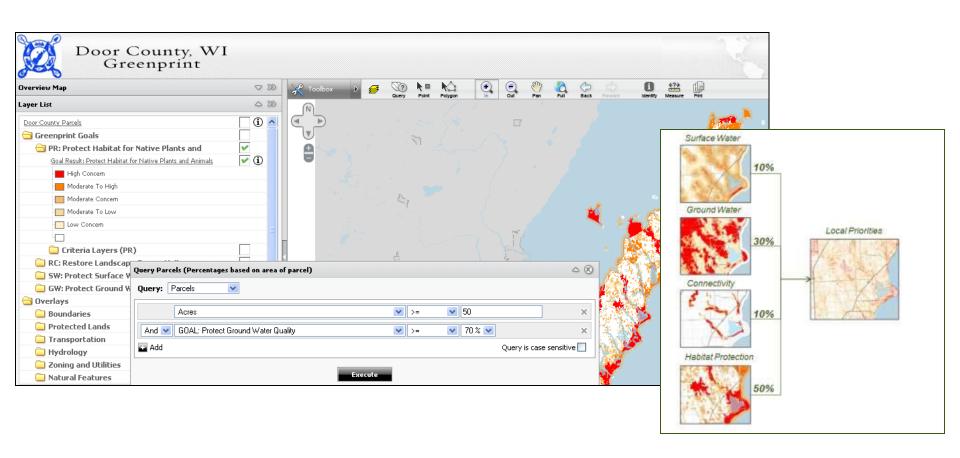
AND

## **Door County Greenprint**

- Provides a publicly accessible web-based tool
- Adds new, county-owned data and capabilities
- Not a regulatory tool ... an information tool:
  - Assists with implementation of municipal plans
  - Provides development community with objective information about natural resources, helping to minimize project costs
  - Provides private landowners with a better understanding of natural resource characteristics
  - Focuses efforts of local conservation groups

## Greenprinting Tools ...

## Publicly accessible, interactive web-mapping





Breece Robertson, National ConVis and GIS Director - <u>breece.robertson@tpl.org</u>

**Bob Heuer, National Greenprint Project Manager – bob.heuer@tpl.org** 

Mitchel Hannon, National GIS Specialist — mitchel.hannon@tpl.org

