

# The Ecosystem Services Identification & Inventory Tool



*Understand the Benefits from Nature,  
Incorporate Nature into Your Decisions*

In 2013 the TNC/Dow Collaboration identified the need for a tool to help Dow track progress towards their Nature Goal.

The completed tool was released to the public in early 2016 . . .



Identification

Quantification

Valuation







Value



Ecosystem Services



Ecological Functions



Landscape Attributes



# The ESII Tool

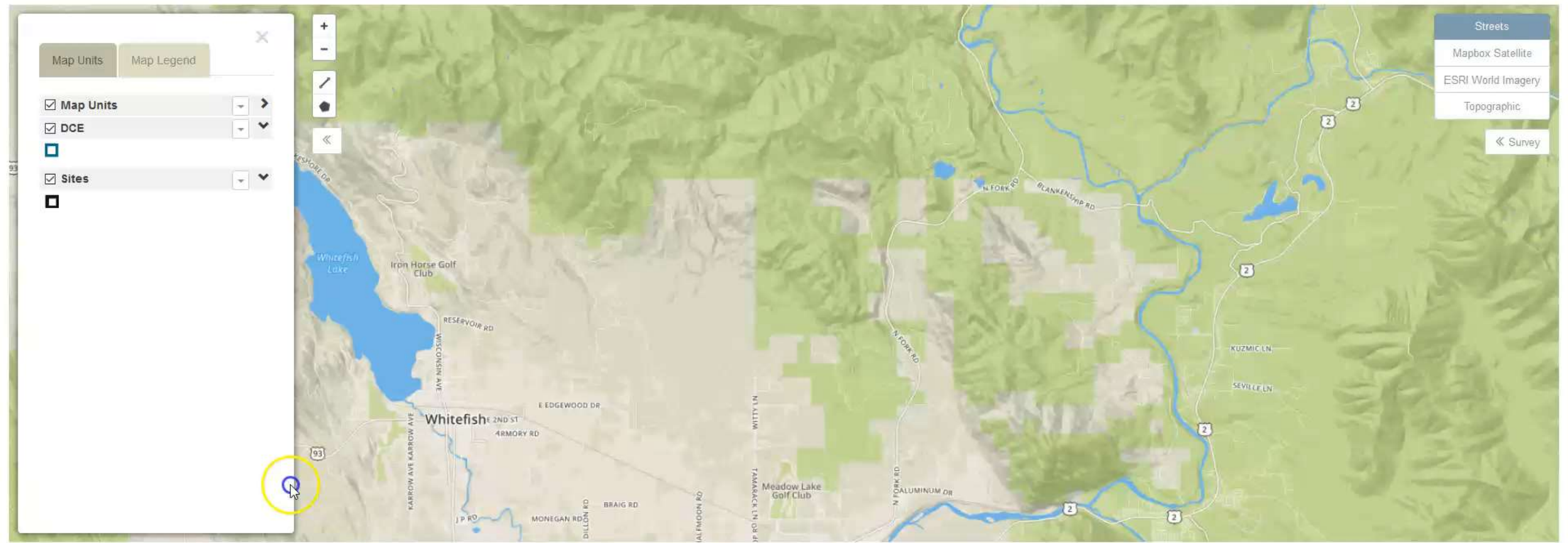


ESII Field App





ESII Project Workspace





Sites

Candlestick	Using 5.83 MB		Refresh Map
Public housing			
Cedar Flats Demo	Using 299 MB		Refresh Map
Cedar Flats Project Area			
Chinook Site	N/A		Download Maps
Staging Lot			



Site Cedar Flats

DCE Cedar Flats Project Area

Scenario Baseline

## Cedar Flats - Cedar Flats Project Area

Settings

Data

Reports

+

-

Map Units

Streets

Mapbox Satellite

ESRI World Imagery

Topographic

Reload

Save Edits

Editing map unit mecopyfromsnapshot915 survey  
Last edited on 2016-09-16, 5:54AM

### Map Unit Habitat Type

Which of the following best describes the map unit habitat type? Select only one.

Undeveloped or Agricultural

Undeveloped or Agricultural

Undeveloped or Agricultural

Forest

### Vegetation Attributes

#### Dominant Vegetation

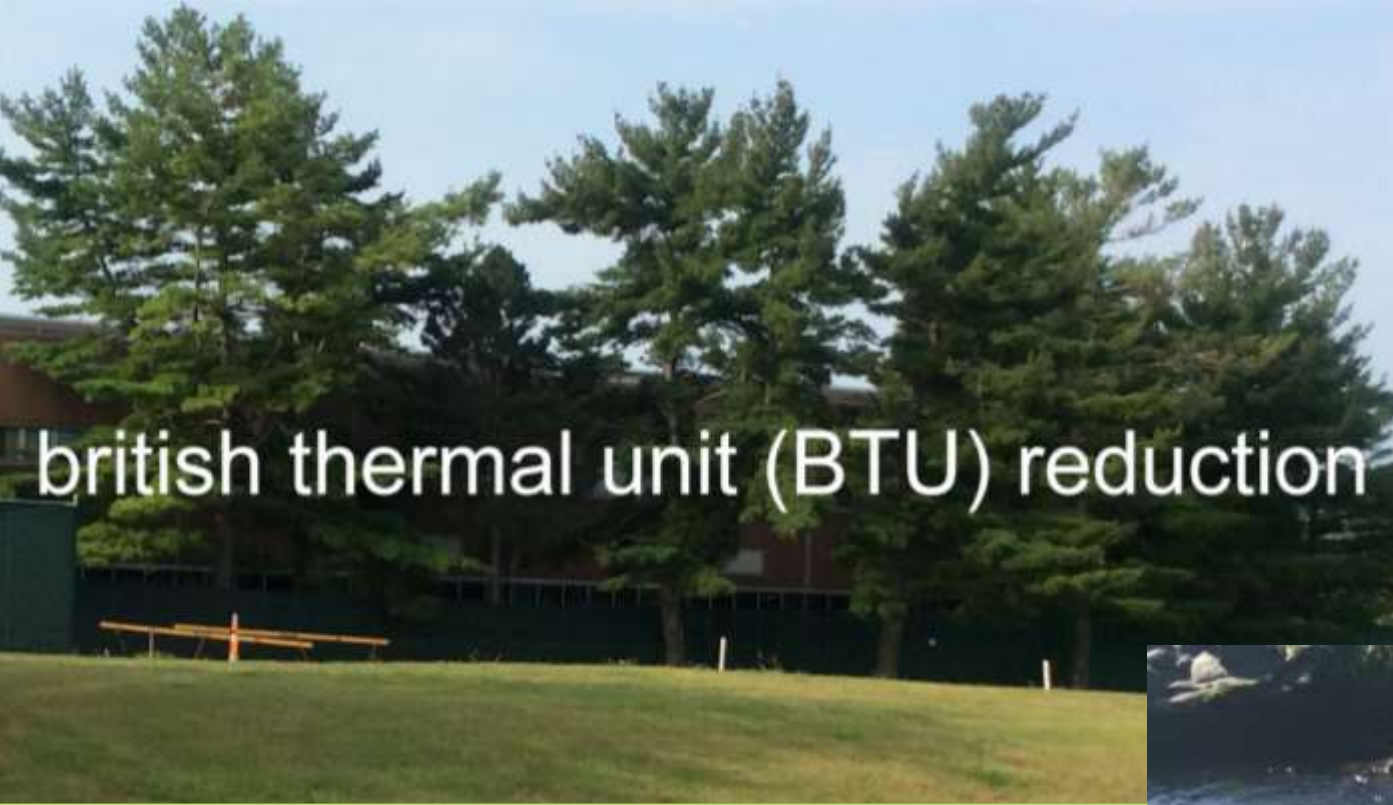




- Percent performance of functions and services: measure of how well an area performs relative to optimal conditions
- Functional/service acres: measure of the total amount of functional performance or service benefit provided by an area
- Engineering unit: absolute measure of benefit in units specific to the benefit







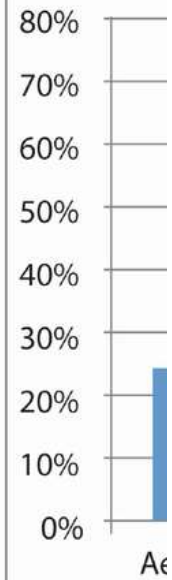
british thermal unit (BTU) reduction


**Engineering units** are an absolute measure of ecosystem performance in the same units engineered solutions are measured.



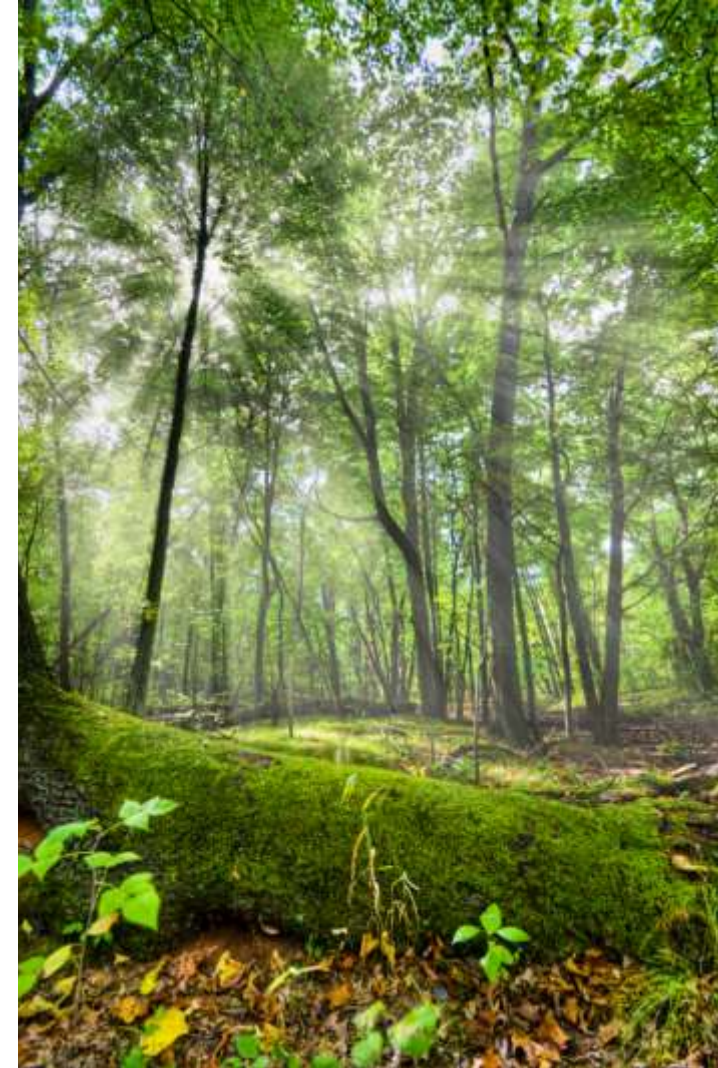
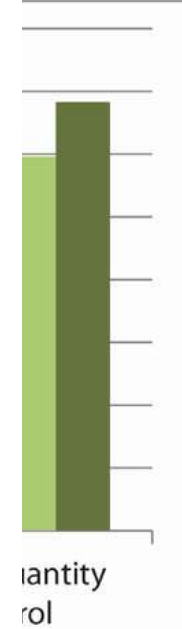
gallons per minute





	Example Alternatives Analysis					
	Past Condition		Present Condition		Amount of Change	
	Drainage Ditch (Intermittent or Ephemeral)		Managed Wetland in Maintained Lawn or Green Space			
	Average % Performance	Functional Acres	Average % Performance	Functional Acres	Change in % Performance	Functional Acres
Carbon Sequestration	NA	NA	49%	0.05	100%	0.05
Channel Diversity	10%	0.01	NA	NA	-100%	-0.01
Channel Equilibrium	33%	0.04	NA	NA	-100%	-0.03
Evaporation	13%	0.01	39%	0.04	26%	0.03
Filtration	0%	0.00	27%	0.03	100%	0.03
Infiltration	NA	NA	23%	0.02	100%	0.02
Interception	NA	NA	56%	0.06	100%	0.06
Nitrogen	0%	0.00	23%	0.03	100%	0.03
Noise Attenuation	12%	0.01	12%	0.01	0%	0.00
Organic Matter Production	0%	0.00	38%	0.04	100%	0.04
Phosphorus	0%	0.00	13%	0.01	100%	0.01
Sediment Transport	33%	0.04	33%	0.04	0%	0.00
Soil Quality	NA	NA	70%	0.08	100%	0.08
Soil Retention	NA	NA	38%	0.04	100%	0.04
Soil Stability	NA	NA	100%	0.11	100%	0.11
Temperature (albedo)	0%	0.00	14%	0.02	100%	0.02
Temperature (water quality)	0%	0.00	5%	0.01	100%	0.01
Transpiration	0%	0.00	42%	0.05	100%	0.05
Visual Screening	5%	0.01	5%	0.01	0%	0.00

\*Some functions are not relevant in all map units. Therefore, functional acre scores reflect the sum of the map unit acreages where the functions are capable of being performed.

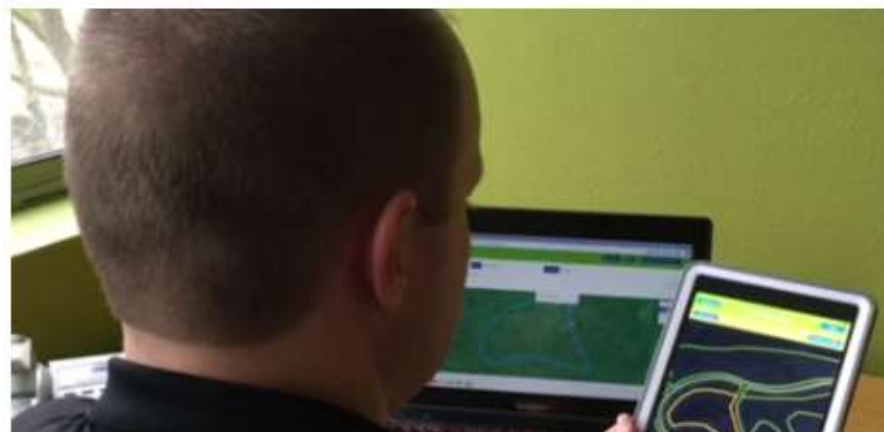




# ESII

The tool that helps you make better decisions.  
Better for your organization and better for nature.

The Ecosystem Services Identification & Inventory Tool, or the ESII Tool, is an iPad app and web interface that lets people understand the benefits that nature provides and incorporate the value of nature into decision making.





# Questions?

