

USDA Forest Service

URBAN FOREST CONNECTIONS

webinar series

Second Wednesdays | 1:00 – 2:00 pm ET

www.fs.fed.us/research/urban-webinars

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SEEING THE FUTURE FOREST: CANVIS & COMMUNITYVIS SCENARIO PLANNING TOOLS



Gretchen Riley

*Partnership Coordinator
Texas A&M Forest Service*



Lance Davisson

*Coordinator
Treasure Valley Canopy Network*

UTC & Canopy Viz Tools

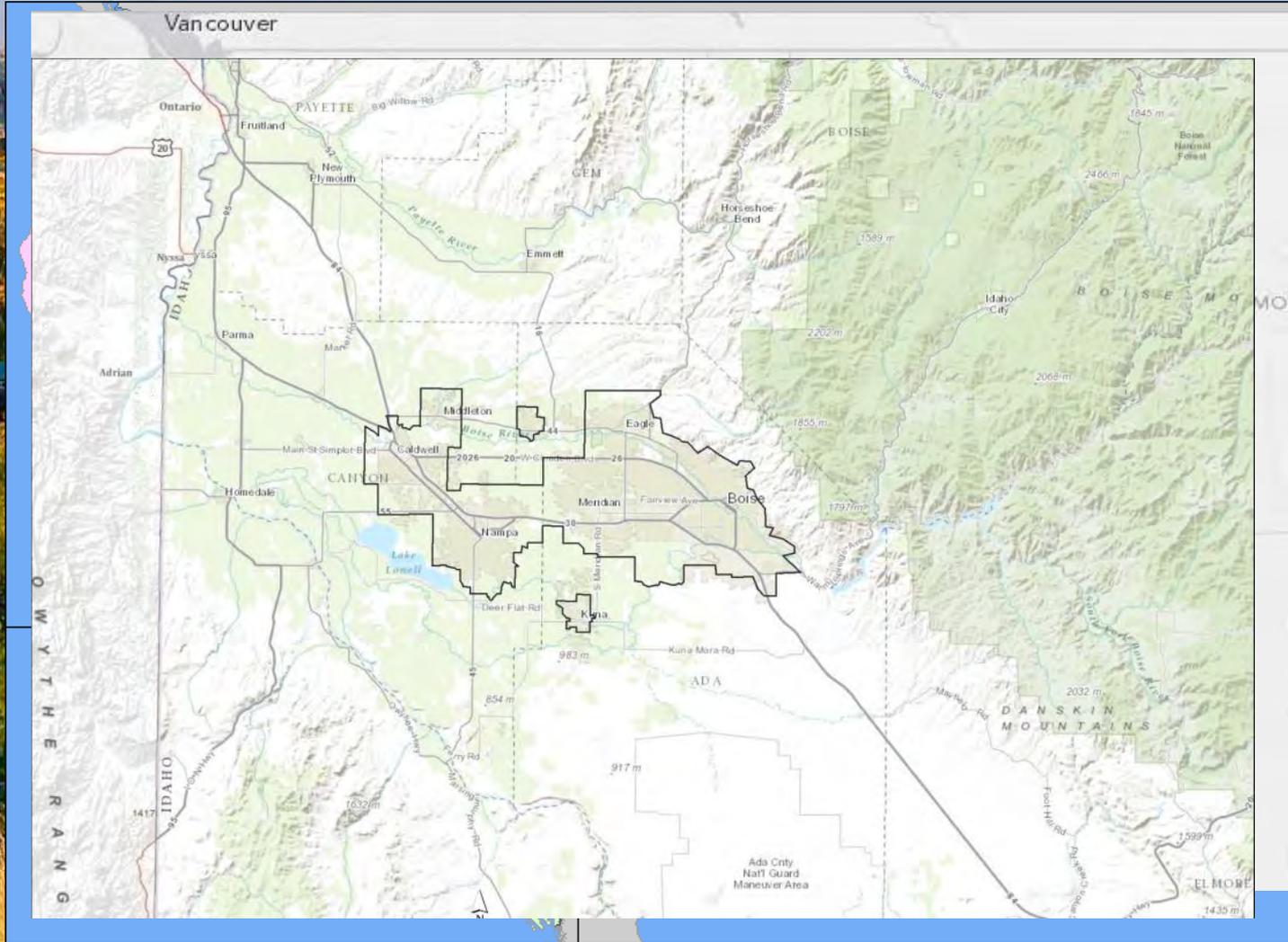
Catalyzing an innovative Regional Network



Lance Davisson
Coordinator, Treasure Valley Canopy Network



Idaho's Treasure Valley



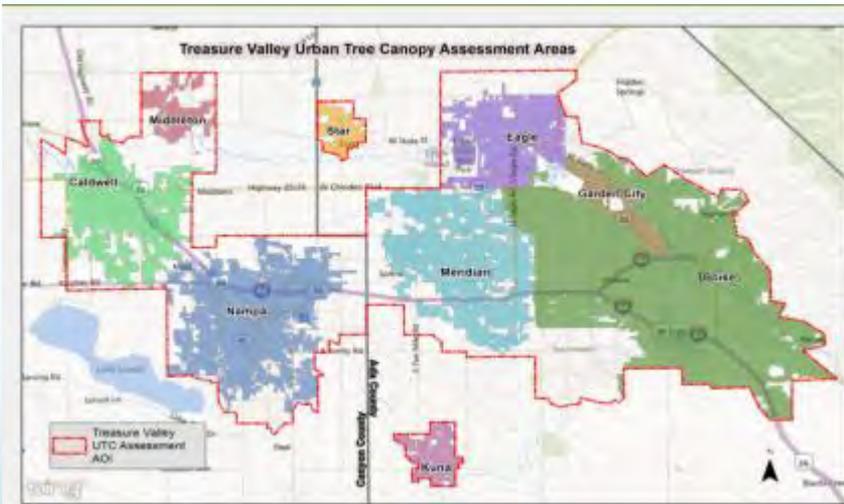
Presentation Outline

1. **2013 Treasure Valley Urban Tree Canopy Assessment:** an innovative and comprehensive regional assessment
2. **Treasure Valley Canopy Network:** Building a Network from the Assessment
3. **Tools & partnerships** having an *IMPACT*
4. **Lessons learned**



Regional UTC Assessment

- 2009
 - 2011-2013
- Urban Tree Canopy + Ecosystem Services = Strategic Management**



TREASURE VALLEY URBAN TREE CANOPY ASSESSMENT
MAY 2013
OCTOBER 2013 UPDATE

plan-it GEO
5690 Webster Street Arvada, Colorado 80002

i-Tree System Analysis
Treasure Valley

Best Effects and Values
May 2013

2013 Regional UTC Assessment

Extensive Analysis

UTC %

- Region
- Municipal
- Land Use
- Parcel
- R/W
- Census Blocks
- Neighborhood Assoc (partner request)

And more

- Land Cover
- Potential planting locations
- Ecosystem Services

UTC & PPA Types in Treasure Valley

Table 6. Air quality benefits of trees by city for current UTC and future scenario increase of 5% UTC

Category→	Air Pollution Removal						Total	Future Total (5% UTC gain)	Change
	Benefit→	CO	O ₃	NO ₂	PM <10μ	SO ₂			
Units→	lbs/yr								
Boise	14,097	240,129	26,645	223,215	477	11,482	516,045	541,847	25,802
Caldwell	1,450	24,701	2,741	22,961	49	1,181	53,083	55,737	2,654
Eagle	2,806	47,804	5,304	44,437	95	2,286	102,732	107,869	5,137
Garden City	1,032	17,575	1,950	16,337	35	840	37,769	39,658	1,888
Kuna	310	5,281	586	4,909	10	253	11,350	11,917	567
Meridian	2,219	37,790	4,193	35,128	75	1,807	81,211	85,272	4,061
Middleton	268	4,562	506	4,241	9	218	9,804	10,295	490
Nampa	2,841	48,401	5,371	44,992	96	2,314	104,016	109,217	5,201
Star	217	3,704	411	3,443	7	177	7,961	8,359	398
Unincorporated	7,197	121,916	13,483	113,961	244	5,862	262,663	275,796	13,133
Treasure Valley	32,438	551,864	61,190	513,624	1,098	26,420	1,186,634	1,245,966	59,332



2013 Regional UTC Assessment

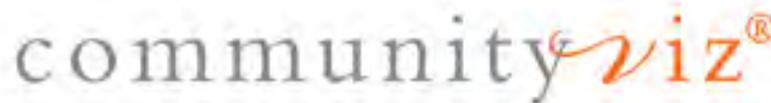
Tools for strategic management

1. CommunityViz Scenario Planning tools – Ecosystem Services

- Regional Air Quality & Energy Conservation
- Site-level stormwater management

2. Partner training

- GIS professionals & managers/planners



2013 Regional UTC Assessment

Lessons Learned

- Comprehensive & Innovative Assessment
 - Partner need
 - Ecosystem Services, strategic management
 - Extensive data – 21 GB GIS data & tools
 - Recognize potential future opportunity
 - Links to demographic data (census blocks)

- Invested partnerships
 - Collaborative tool development
 - Cviz, Interactive PDF's, UTC calculators
 - GIS + manager/planner partnership



Treasure Valley Canopy Network

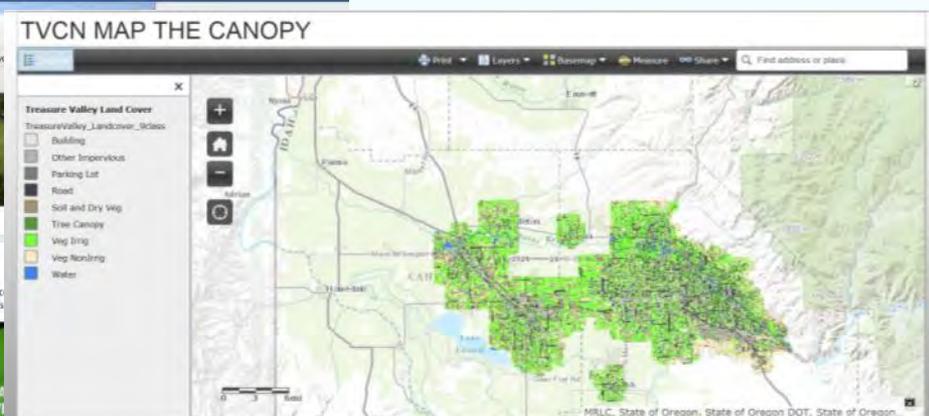
1. Committed partners



2. Framework

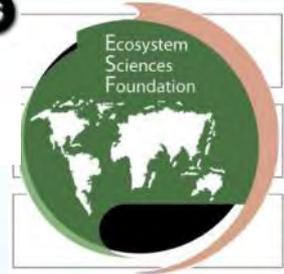
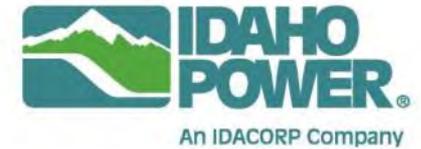
- Mission = *Collaborate, Innovate, Sustain*
- Identity & Outreach = Logo, website

3. Engage community

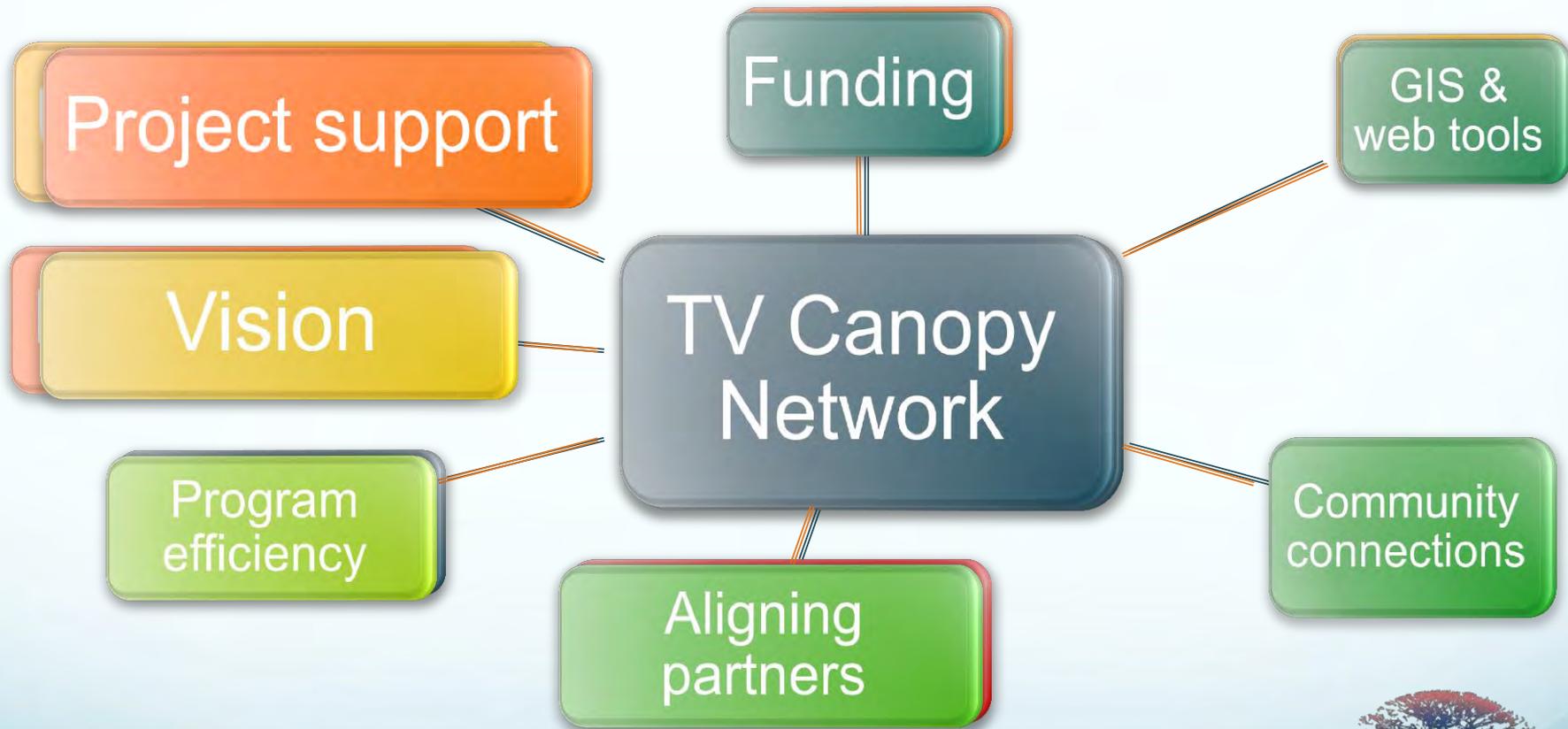


Partnership Growth

- 2009
- 2011
- 2013
- The Future!



Weaving the Network



COLLABORATE, INNOVATE, SUSTAIN



Geospatial tools & partnerships

Deliver Impact

1. Deliver Tools

- GIS users
- *Map the Canopy* tool & future tools

2. Develop projects & programs

- Boise Neighborwoods
- Idaho Power Shade Tree project



Deliver tools

Regional GIS Users-Group

- Audience
 - Natural Resources
 - Parks & Recreation
 - Planning, Transportation, Risk Management
 - Law enforcement, Fire, etc.
- Partner presentations
 - Energy
 - Stormwater
 - Watersheds
 - Municipal Forestry
 - Planning
- 21 GB of data delivered



Deliver Tools

Map the Canopy

- User friendly web-based mapping interface
- Engages users in UTC data

Map the Canopy — Treasure Valley Canopy Network

www.tvcanopy.net/map-the-canopy

MAP THE CANOPY

The "Map the Canopy" page is a simple online mapping tool that highlights the Treasure Valley Urban Tree Canopy (UTC) Data.

MAP THE CANOPY HERE

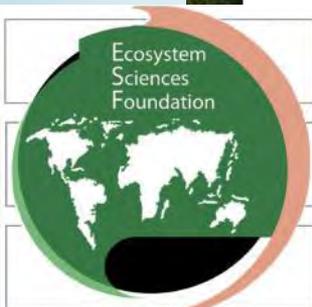
HERE ARE A FEW TIPS:

CHANGE YOUR LAYERS OR BASEMAP:

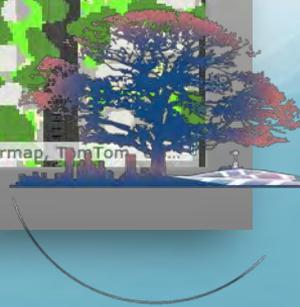
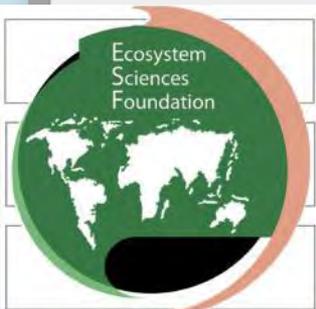
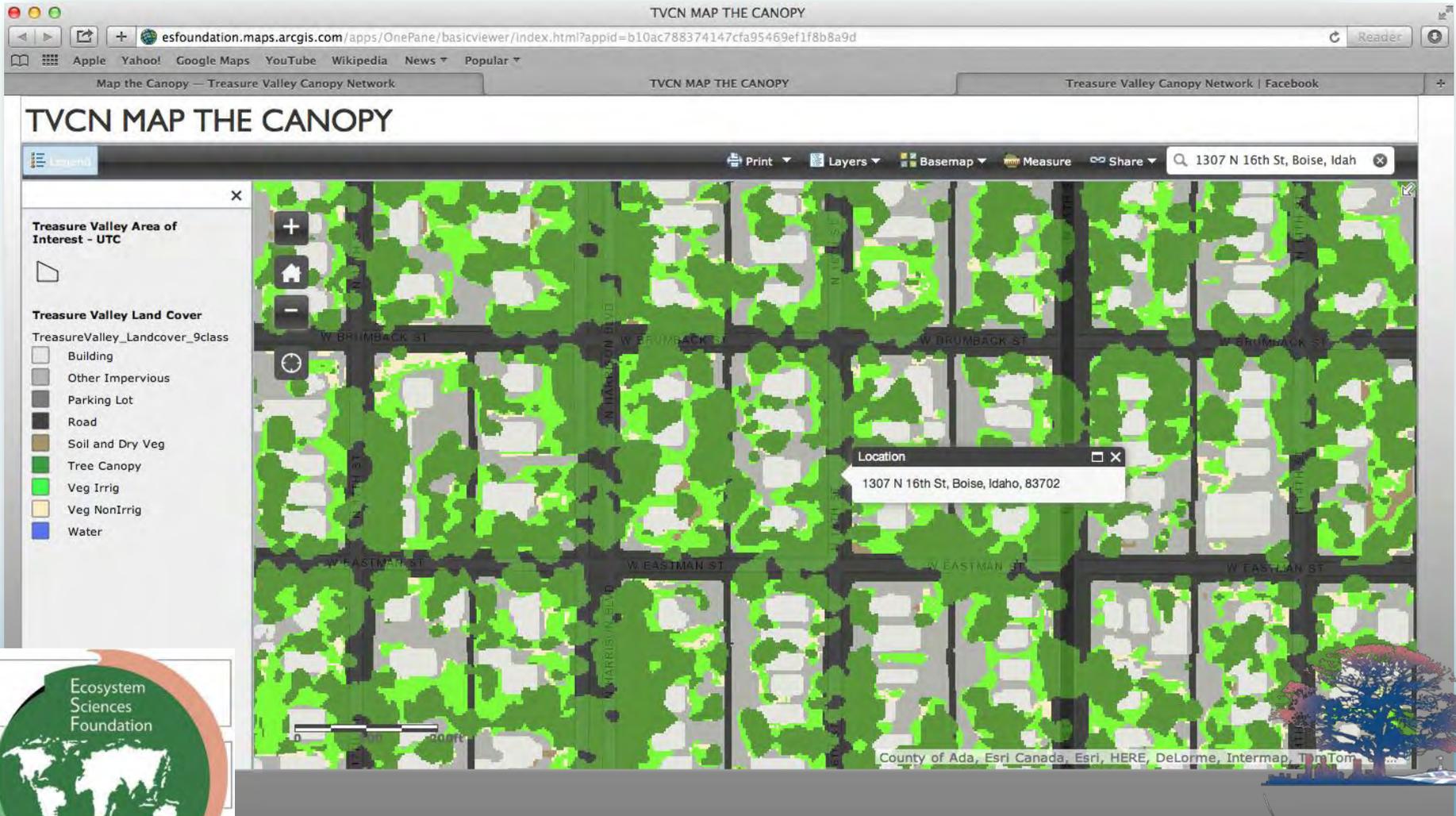


WHO SHOULD USE IT?

Anyone from residents to planners to community leaders can use this tool to see an interactive map of the region's tree canopy.

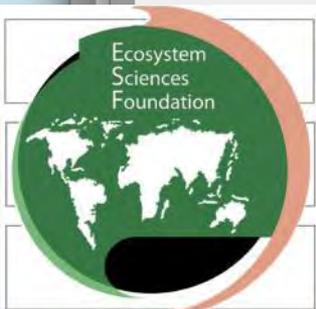
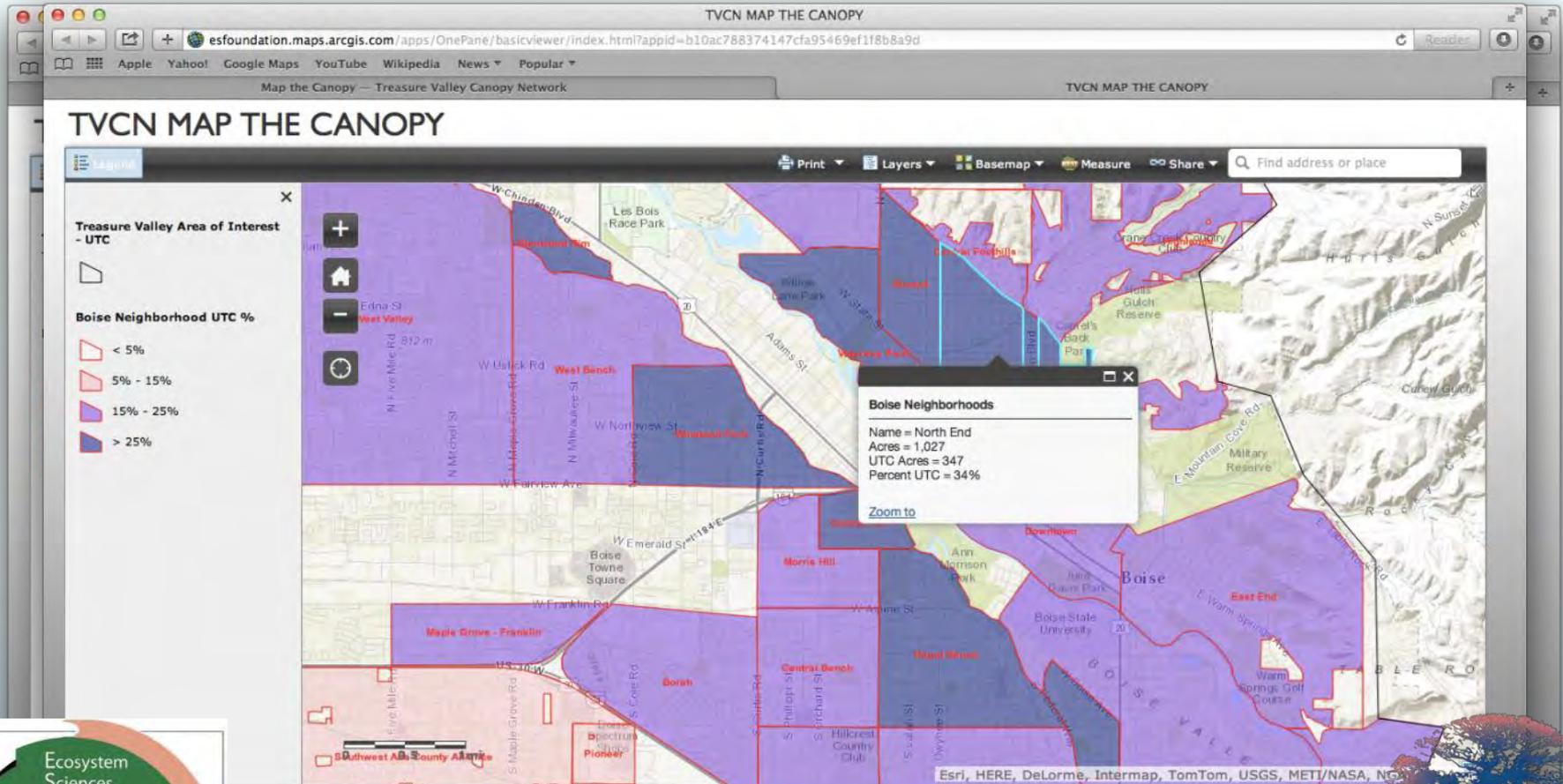


Map the Canopy *Land Cover*



Map the Canopy

Boise Neighborhood % UTC



Potential future tool?

UTC Storymap

Boise, Idaho Urban Tree Canopy (UTC)

Boise, Idaho Urban Tree Canopy (UTC)

plan-it GEO

Southwest Neighborhood : Potential Planting Sites

Potential Planting Sites

Southwest Neighborhood : Potential Planting Sites

Using the land cover data and GIS models, Plan-It Geo is able to map potential tree planting sites. This makes it easy to see the areas with the most potential for new plantings. Areas like new neighborhoods and along highway rights of way show lots of locations where trees could be planted.

1 North End Neighborhood : Land Cover Mapping

2 West Downtown : Land Cover Stats

3 West Downtown : Land Cover Stats

4 Morris Hill Neighborhood : Census Blocks

5 Borah Neighborhood : Parcels

6 Southwest Neighborhood : Potential Planting Sites

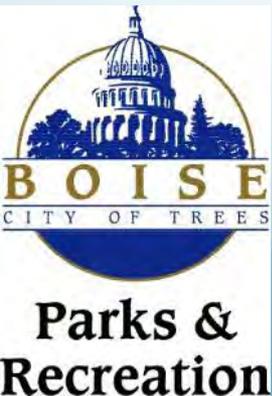
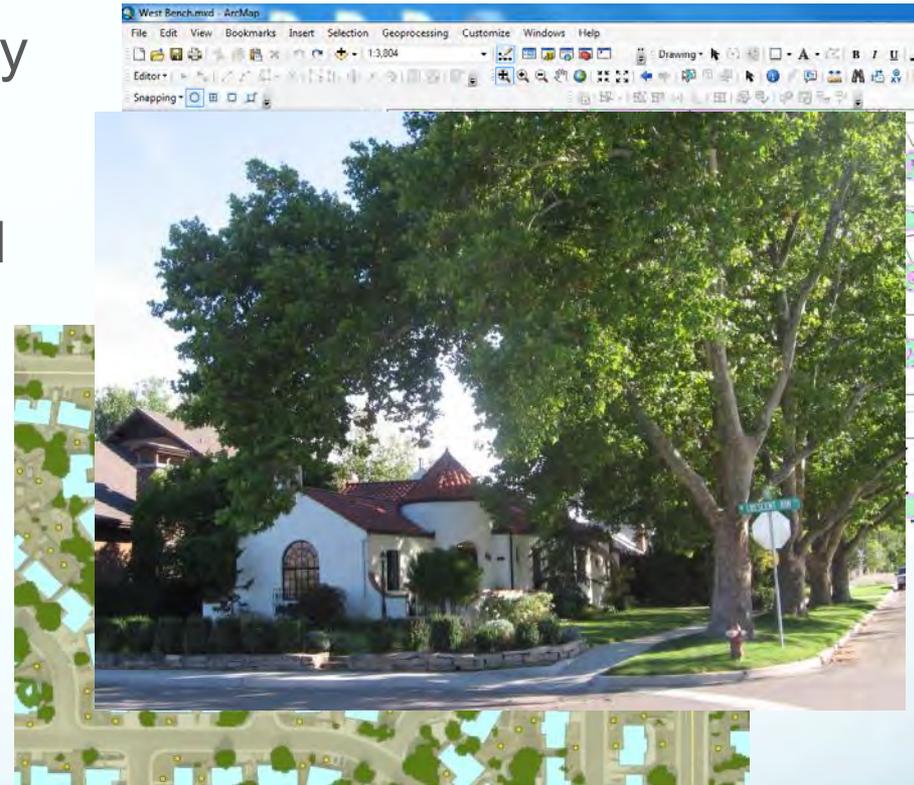
7 Southeast Neighborhood : Right-of-Way

plan-it GEO

Building programs

Boise Neighborwoods

- Trees planted on private property adjacent to R/W
- Strategic planting where needed
 - Public/Private benefits
 - GIS tools = management efficiencies
- *“Plant Trees, Grow a Neighborhood”*



Building Programs

TV Shade Tree Project

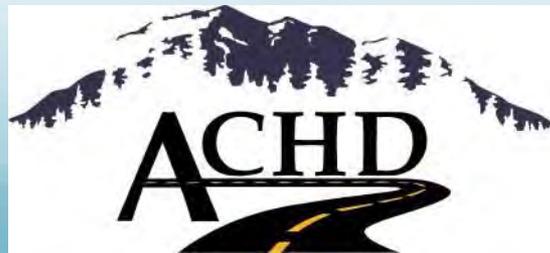
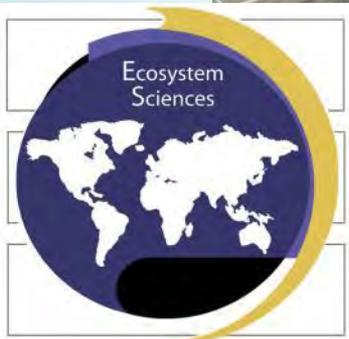
- Strategic planting for energy conservation
 - “West is Best”
- Coming in 2015
 - Enhanced *Map the Canopy* tool
 - Potential planting locations for multiple ecosystem services



Looking to the future

Green Stormwater Infrastructure (GSI)

- Watershed Planning
- Local stormwater modeling
- Streetscape re-design



Looking to the future

Urban Revitalization

- Boise's West End & Central Addition
- Sustainability – developing a public/private vision for an EcoDistrict in the urban core



U.S. GREEN BUILDING COUNCIL
IDAHO CHAPTER



CAPITAL CITY DEVELOPMENT CORP.

TV Canopy Network

Lessons learned

- Invest beyond the assessment
- Continue to learn & evolve
 - Be innovative
 - Build a strong foundation – data, tools & partners
 - Evolve with the industry & community – public, private, non-profit
- Be strategic & solution oriented
 - Collaborate, Innovate, Sustain





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