

# Project Review: MSTI Review Group

October 20, 2011 | Whitehall, Montana



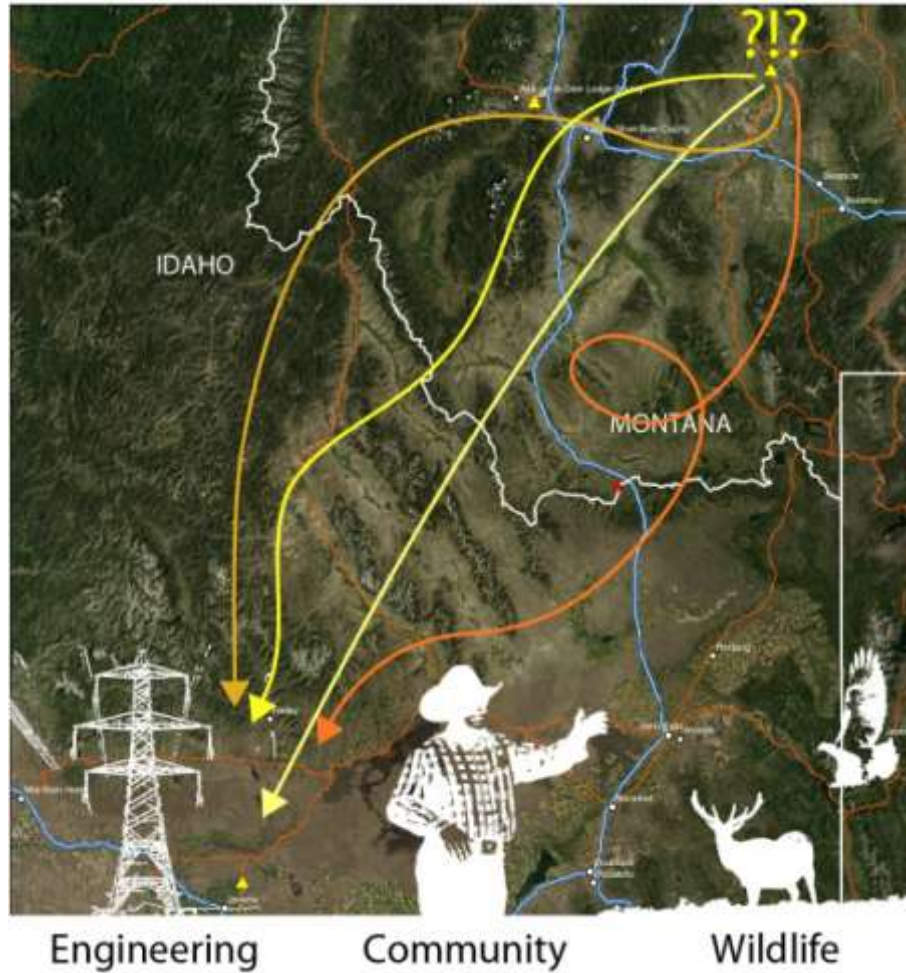
# Purpose of Spatial Model

- To Provide a Transparent, Objective, and Quantitative Analysis for Siting Potential Transmission Corridors (not routes)
- Incorporate Best Available Science and Expertise to Identify Corridors With Least Accumulated Impact on Wildlife and Community Values

# Decision Support Tool: Proof of Concept

- Proof of Concept – Nothing is set in stone
- Costs refer to potential changes to wildlife or habitat function or relative importance to community – Not \$

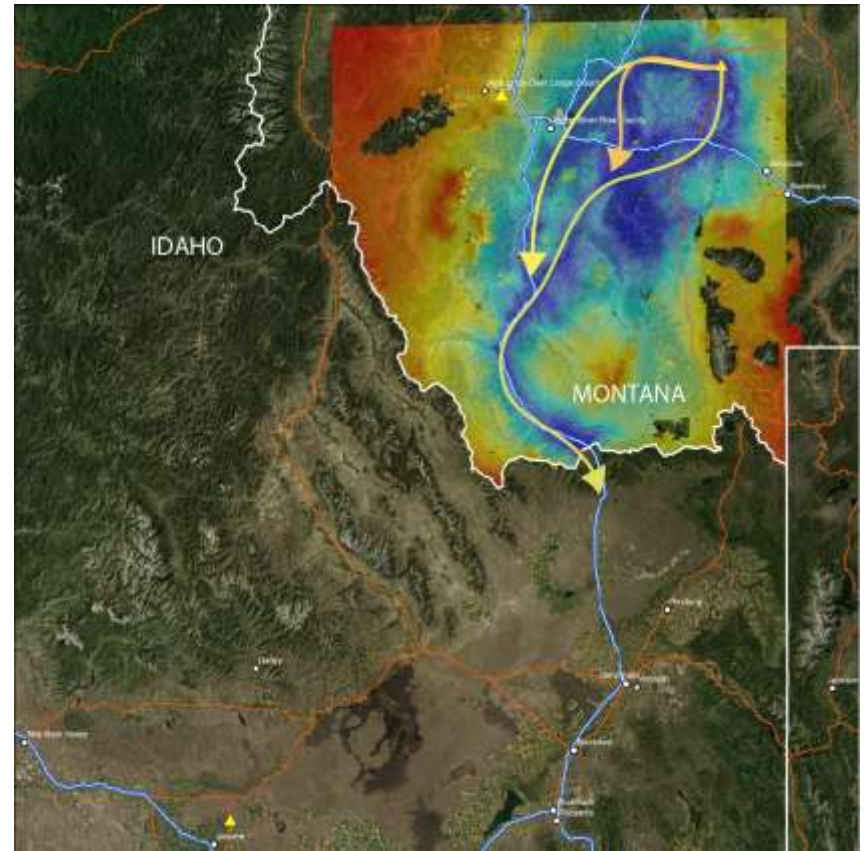
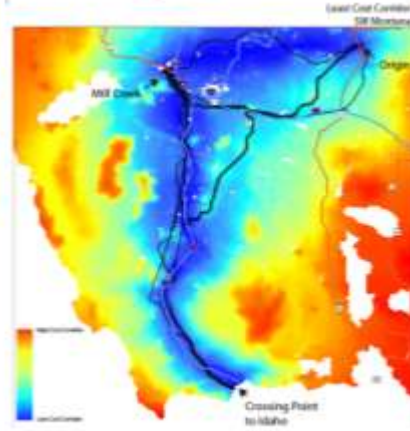
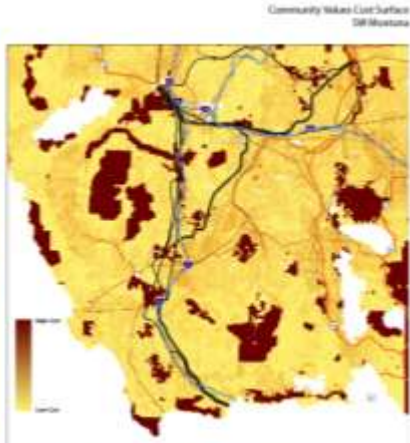
# How to choose the most defensible route across a sensitive landscape?



# Use local community values to inform and comment on routing options.

**Takeholder Weights for Community Values**

Category	Weight
<b>Proximity to Buildings</b>	<b>4.0%</b>
0 - 100	1
101 - 200	2
201 - 300	3
301 - 400	4
401 - 500	5
500 - 600	6
601 - 700	7
701 - 800	8
801 - 900	9
901 - 1000	10
<b>Distance to Wetlands</b>	<b>4.0%</b>
0 - 100	1
101 - 200	2
201 - 300	3
301 - 400	4
401 - 500	5
501 - 600	6
601 - 700	7
701 - 800	8
801 - 900	9
901 - 1000	10
<b>Water Property Lines</b>	<b>7.0%</b>
Edge of Water	1
Water Property Line	2
Public Water Property Lines	3
Land Use	<b>46.0%</b>
Undeveloped	1
Non-Developable	2
Intermediate	3
Developable	4
Highly Developed	5
Urban	6
Highway	7
Highway Interchange	8
Concentrated Commerce	9
<b>Population</b>	<b>8.0%</b>
Population Density	1
Population	2
Population	3
Population	4
Population	5
Population	6
Population	7
Population	8
Population	9
Population	10
<b>Viewshed (adjusted from view)</b>	<b>15.0%</b>
Viewshed from mountain areas	1
Viewshed from valley areas	2
Viewshed from ridge areas	3
Viewshed from urban areas	4
Viewshed from rural areas	5
<b>Viewshed (adjusted from view) - already included</b>	
Viewshed from mountain areas	1
Viewshed from valley areas	2
Viewshed from ridge areas	3
Viewshed from urban areas	4
Viewshed from rural areas	5
<b>Wilderness Areas</b>	
Wilderness Areas	1
Wilderness Areas	2
Wilderness Areas	3
Wilderness Areas	4
Wilderness Areas	5
Wilderness Areas	6
Wilderness Areas	7
Wilderness Areas	8
Wilderness Areas	9
Wilderness Areas	10



[www.MSTIReviewProject.org](http://www.MSTIReviewProject.org)



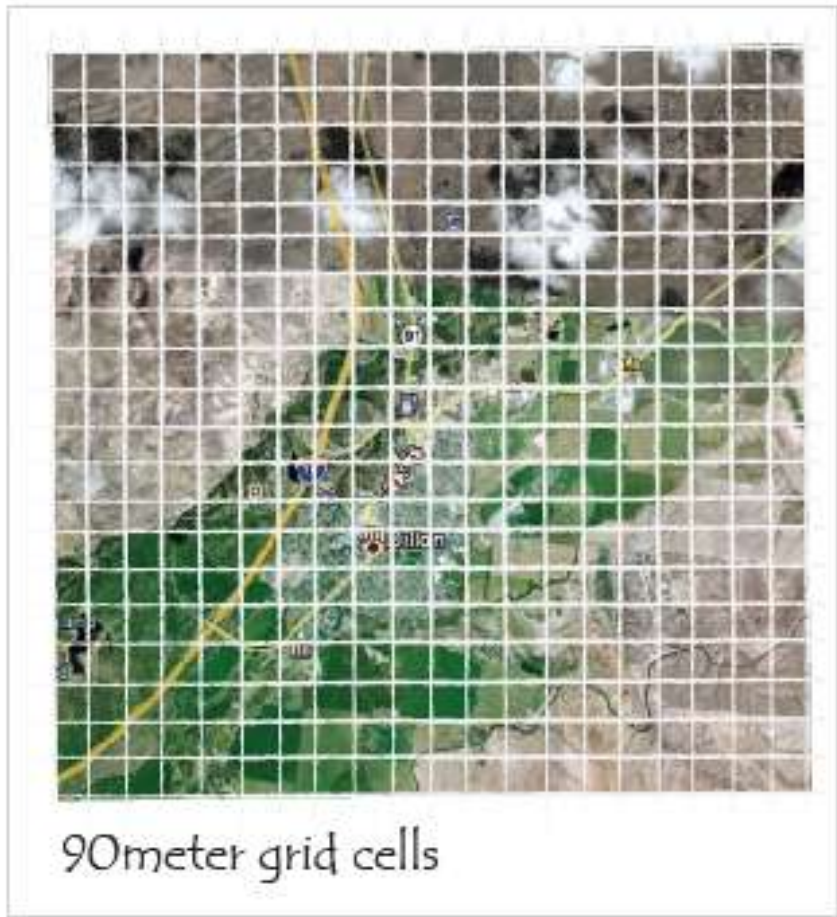


hypothetical study area



[www.MSTIReviewProject.org](http://www.MSTIReviewProject.org)

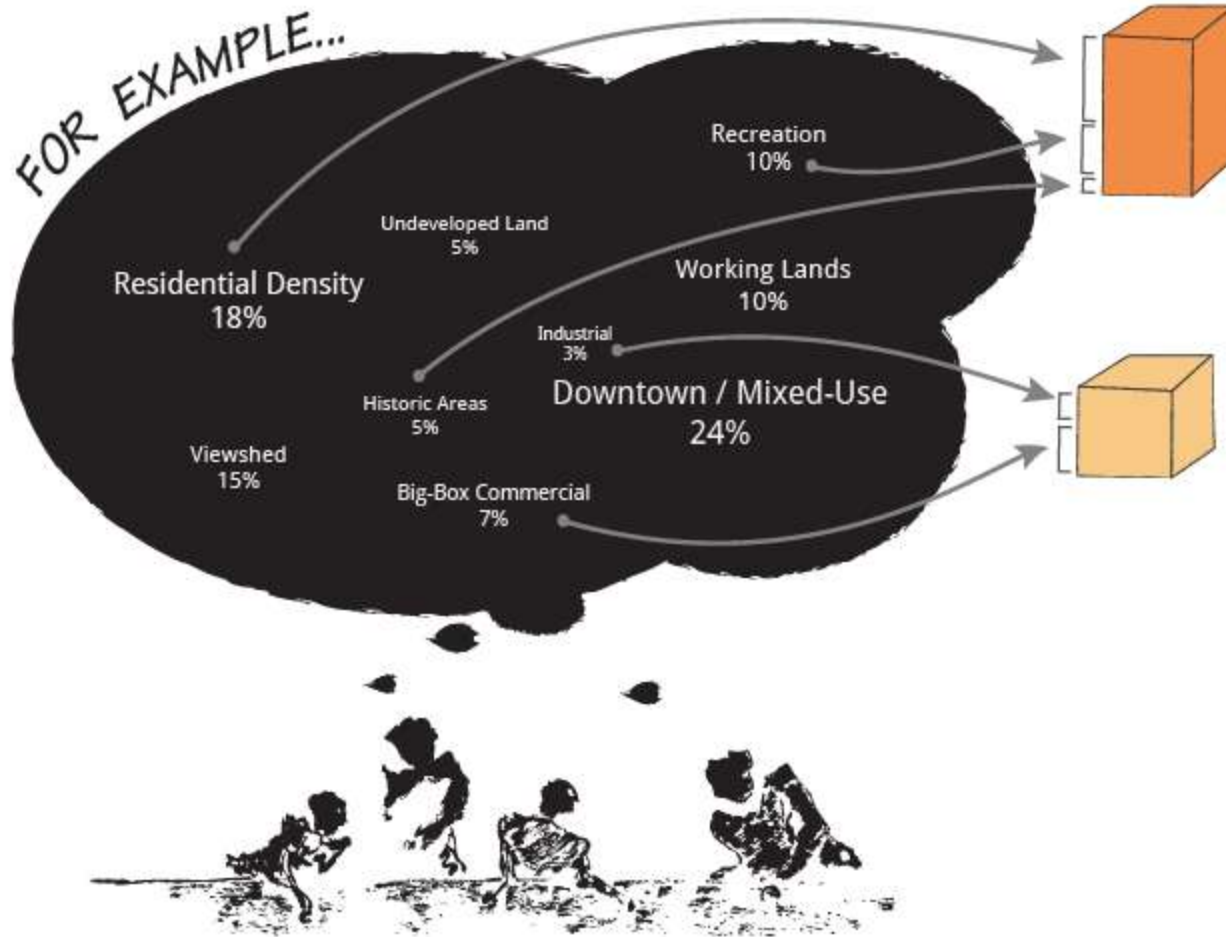




[www.MSTIReviewProject.org](http://www.MSTIReviewProject.org)

**Community Values**  
 Renewable Energy Transmission Siting Methodology  
**SPATIAL MODEL**  
[cellis@sonoraninstitute.org](mailto:cellis@sonoraninstitute.org)

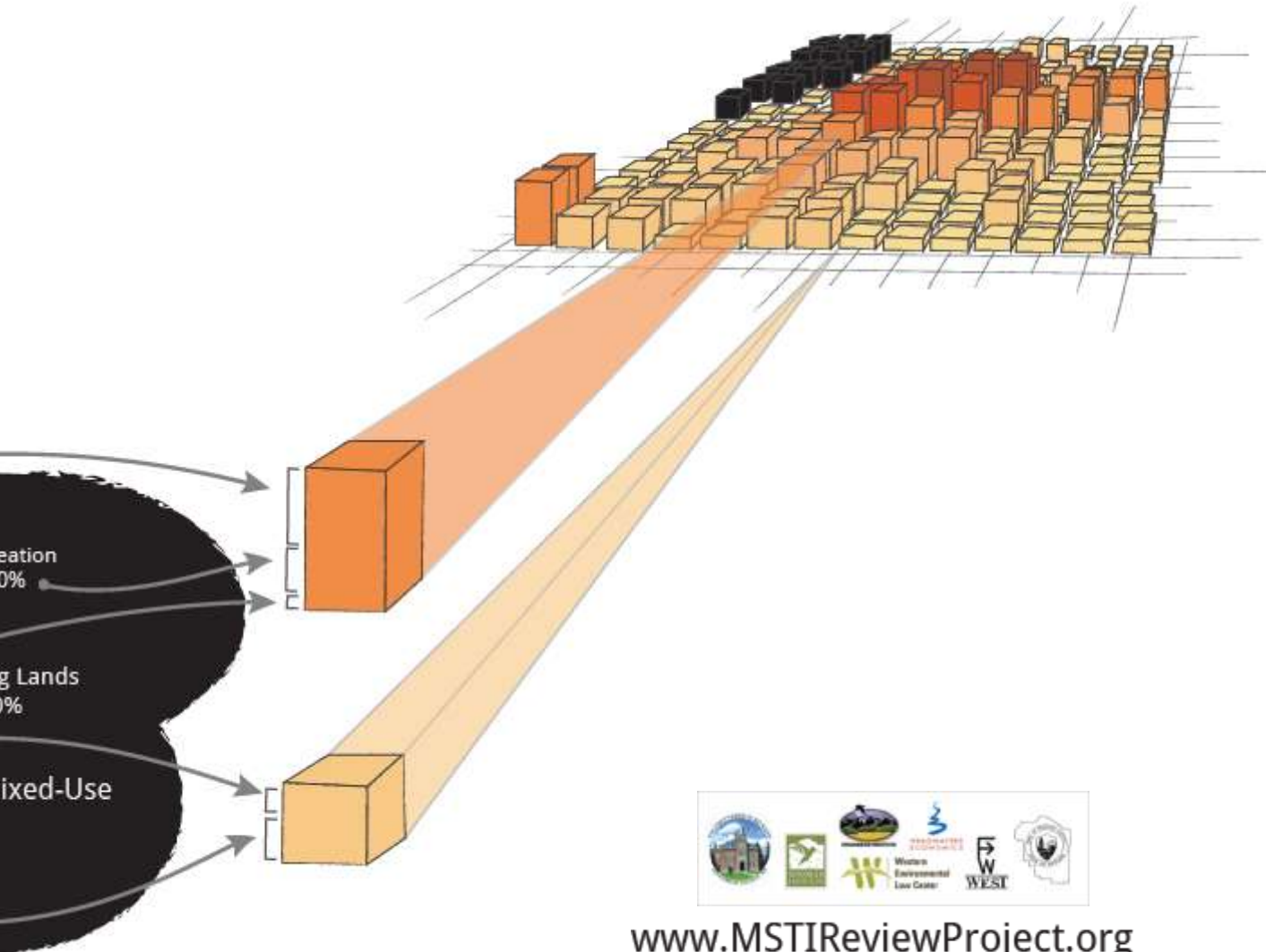
# Identify and prioritize community values



[www.MSTIReviewProject.org](http://www.MSTIReviewProject.org)

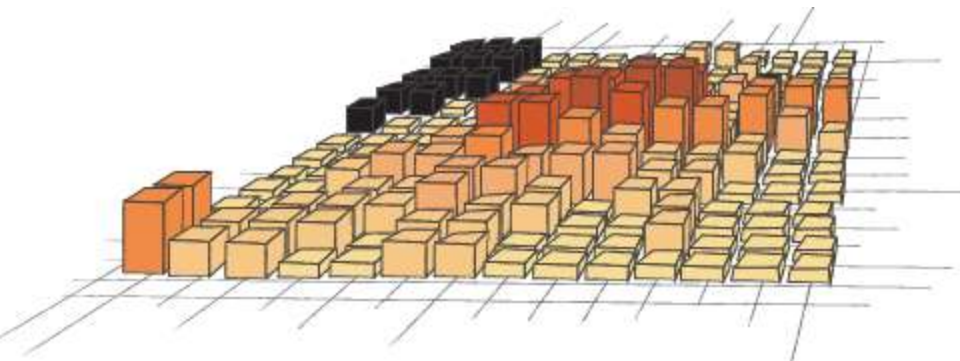
**Community Values**  
Renewable Energy Transmission Siting Methodology  
**SPATIAL MODEL**  
[cellis@sonoraninstitute.org](mailto:cellis@sonoraninstitute.org)

Map those values, building a GIS layer that quantifies community values across the entire study area.

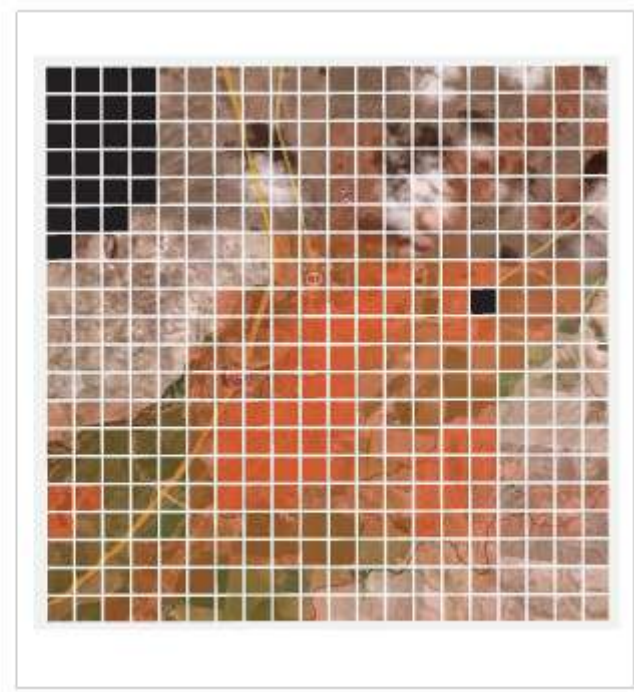


[www.MSTIReviewProject.org](http://www.MSTIReviewProject.org)





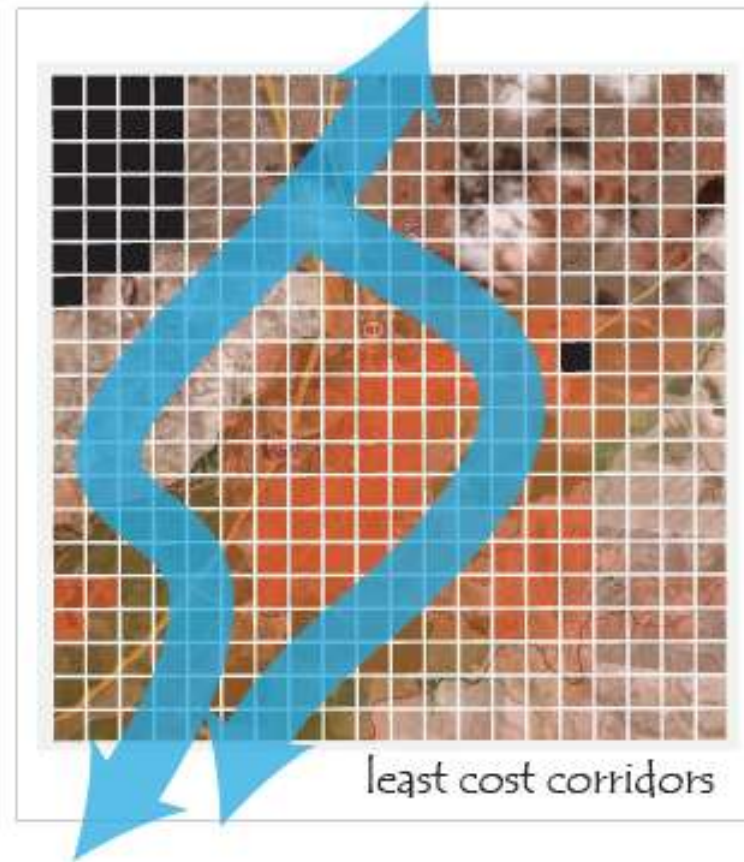
=



[www.MSTIReviewProject.org](http://www.MSTIReviewProject.org)

**Community Values**  
Renewable Energy Transmission Siting Methodology  
**SPATIAL MODEL**  
[cellis@sonoraninstitute.org](mailto:cellis@sonoraninstitute.org)

Use those quantified and mapped values to identify "least cost" corridors across the map

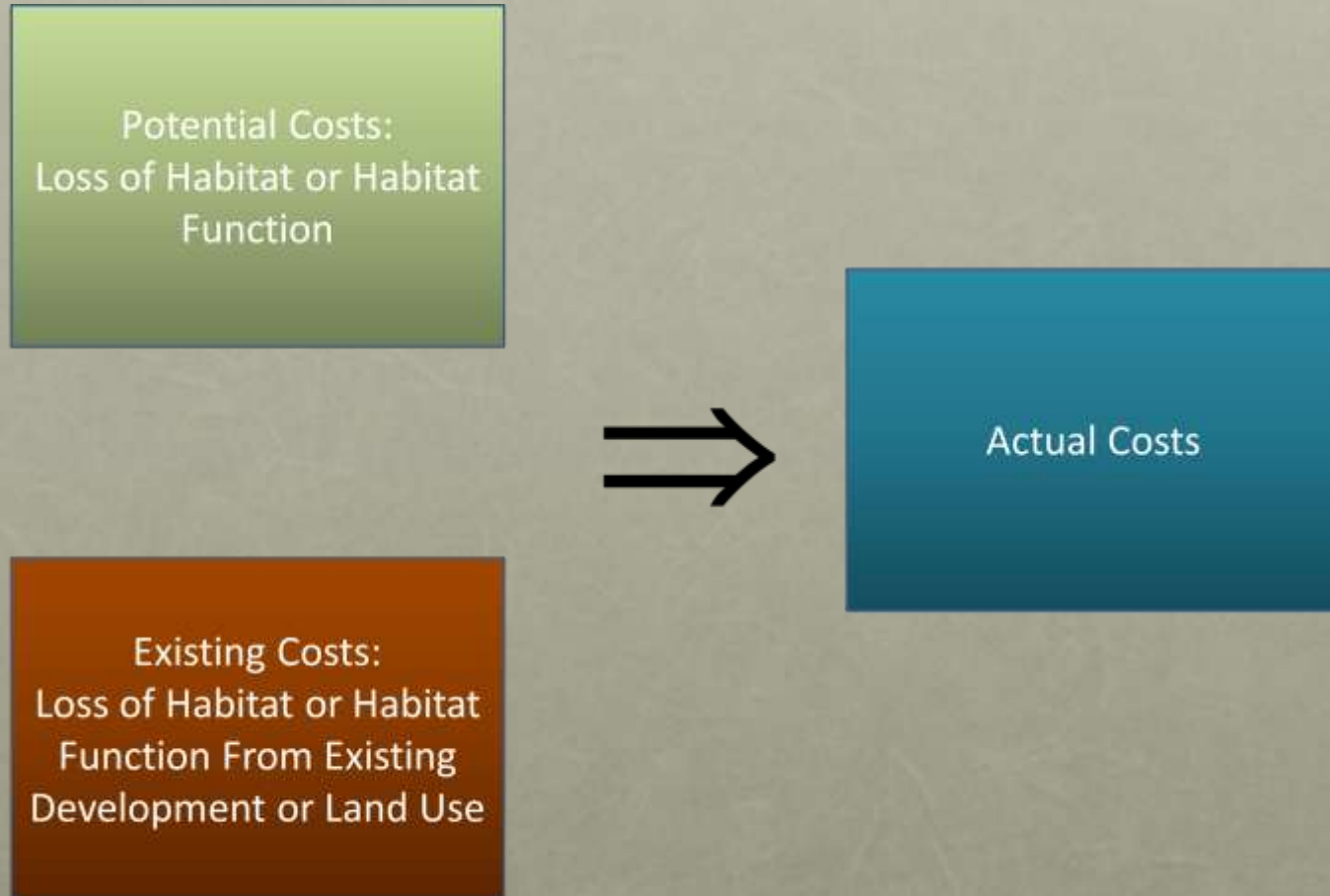


[www.MSTIReviewProject.org](http://www.MSTIReviewProject.org)





# Decision Support Tool: Wildlife



# Does Not Replicate Regulatory and EIS Processes

- Regulatory
  - A patchwork of laws and regulations designed for many purposes
  - Represents compromise among multiple, often competing, stakeholders
  - Our models focus on wildlife and community values regardless of regulation – but account for “no-go” areas
- EIS
  - Evaluates and compares *actual* environmental impacts of proposed action and alternatives
  - Our models weight *relative* effects based on perceived and documented sensitivities among all possible routes

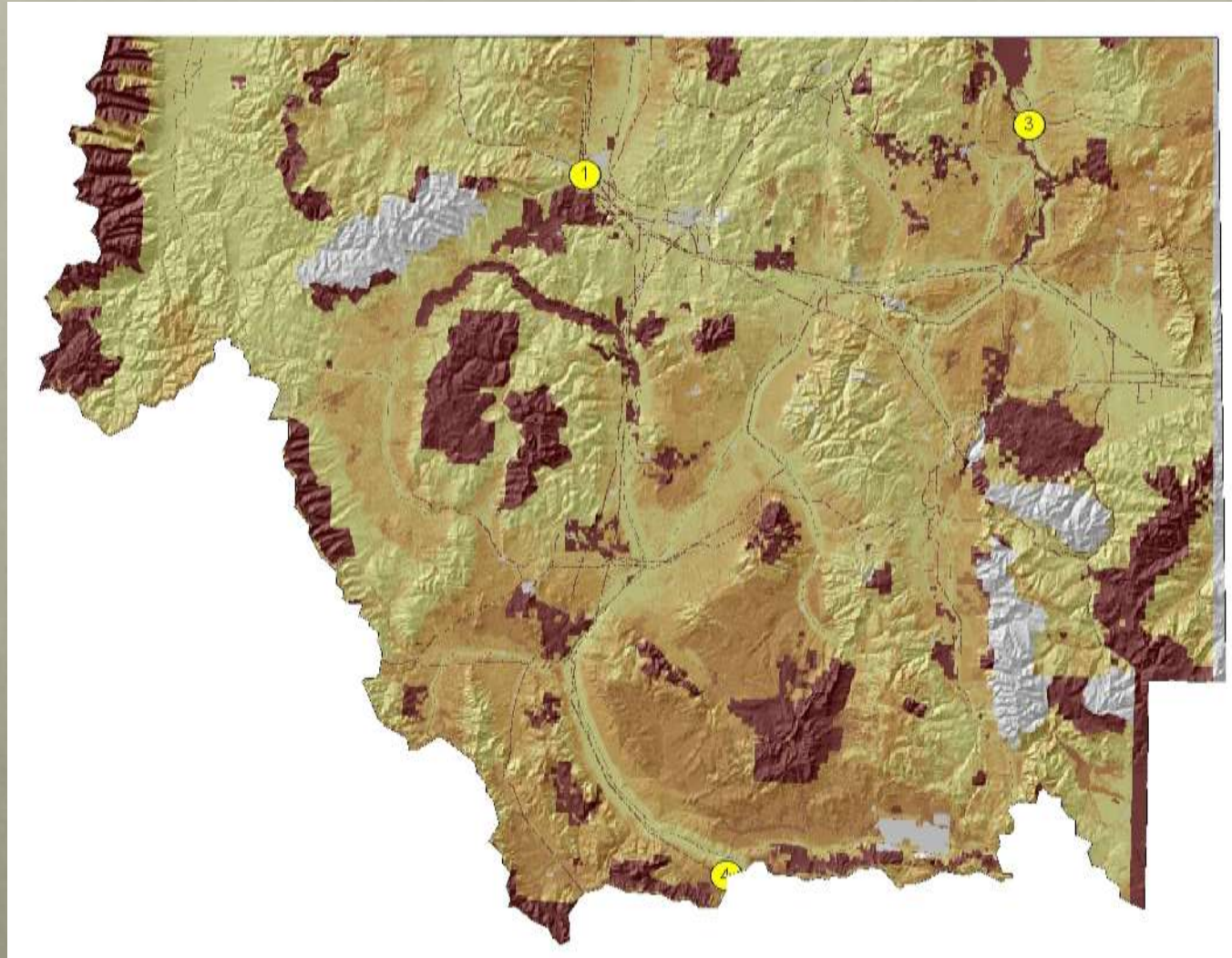
# Decision Support Tool: Wildlife



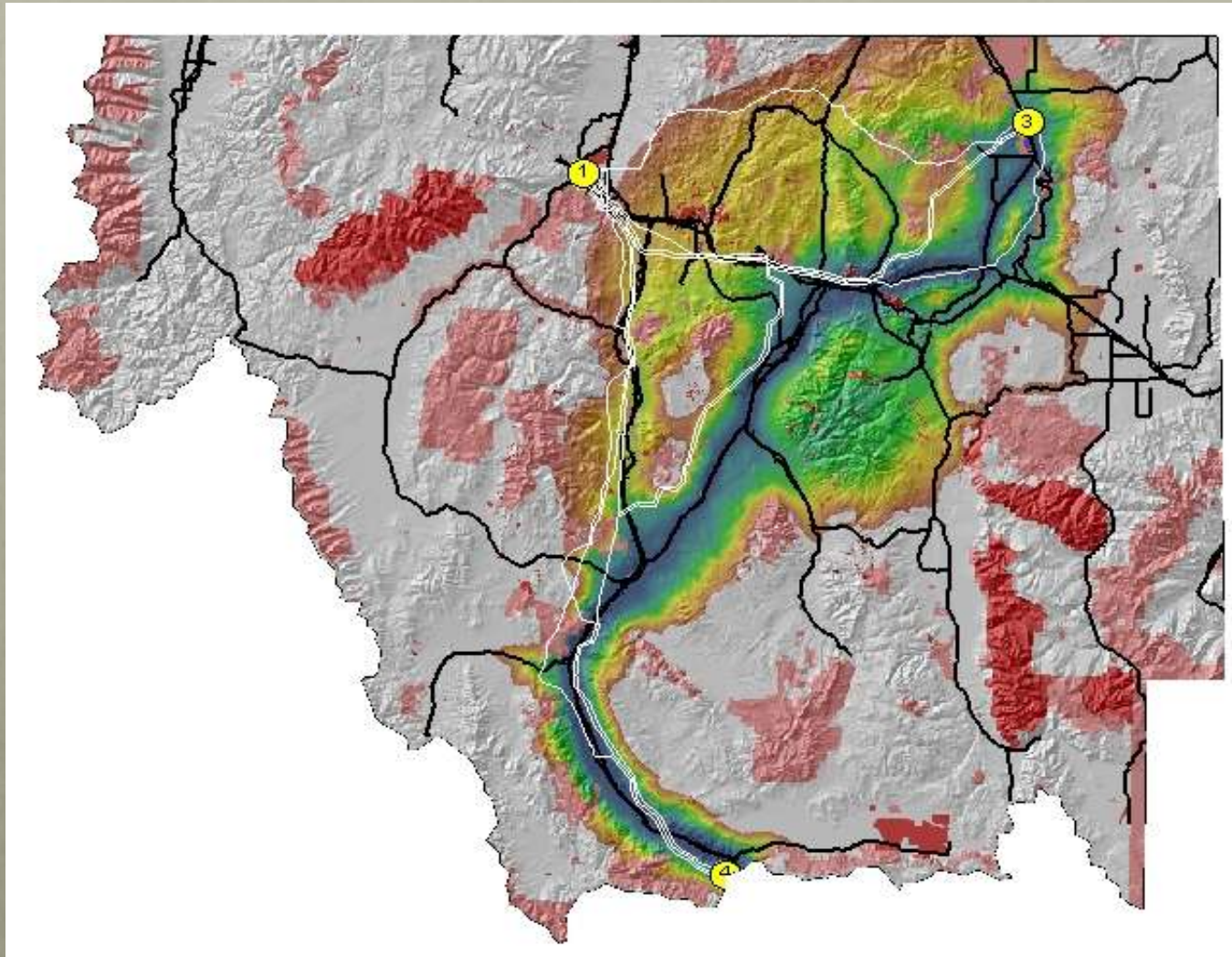
# Decision Support Tool: Wildlife

- **Avoids most vulnerable habitats**
- **Avoids habitat fragmentation**
- **Increases costs through habitats with species of concern**
- **Increases costs through secure habitats**
- **Decreases costs through habitats already modified by infrastructure**

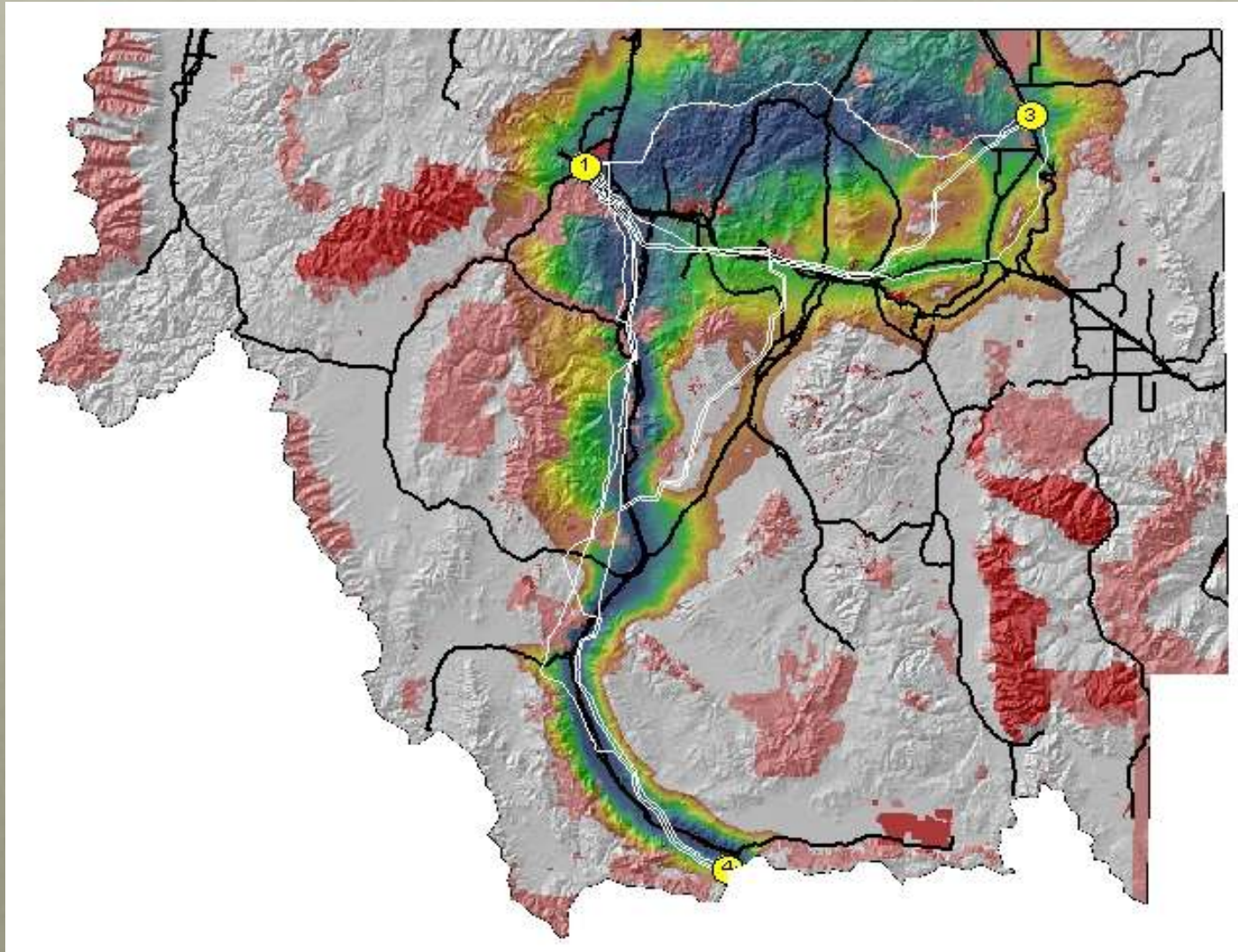
# Wildlife Cost Surface



# Wildlife Townsend to Idaho Best 10%



# Wildlife Townsend to Mill Creek to Idaho Best 10%



# Contact

- Project Coordinator: Monique DiGiorgio & Betsy Hands, Western Environmental Law Center
  - 406-451-0051; [digorgio@westernlaw.org](mailto:digorgio@westernlaw.org)
- Economic & Policy Analysis: Julia Haggerty, Headwaters Economics
  - 406-600-1766; [julia@headwaterseconomics.org](mailto:julia@headwaterseconomics.org)
- Decision Support Tool: Brent Brock, Craighead Institute and Cameron Ellis, Sonoran Institute
  - 406-585-8705; [bbrock@craigheadresearch.org](mailto:bbrock@craigheadresearch.org)
  - 406-587-7331; [cellis@sonoraninstitute.org](mailto:cellis@sonoraninstitute.org)
- Stakeholder Outreach: Dennis Glick, Future West
  - 406-587-2974; [dennis@future-west.org](mailto:dennis@future-west.org)