Prioritizing Invasive Species Management in the Carlsbad Hydrologic Unit

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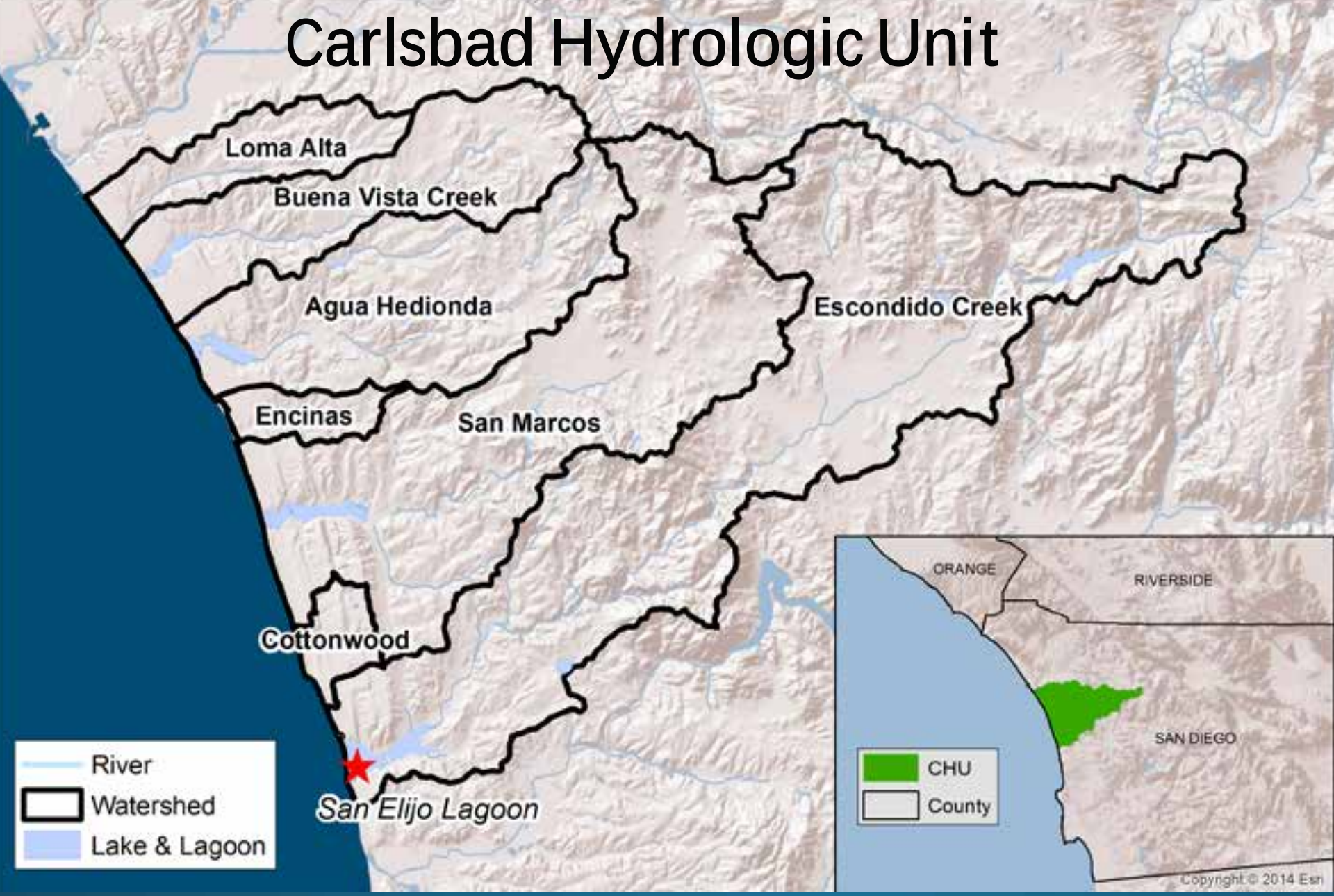
Carlsbad Hydrologic Unit



San Diego's Carlsbad Hydrologic Unit

Diverse habitats

Rare and threatened plant and animal species

San Elijo Lagoon CONSERVANCY

Connecting communities. Protecting nature.

Restore and enhance habitats for native plant and animal species

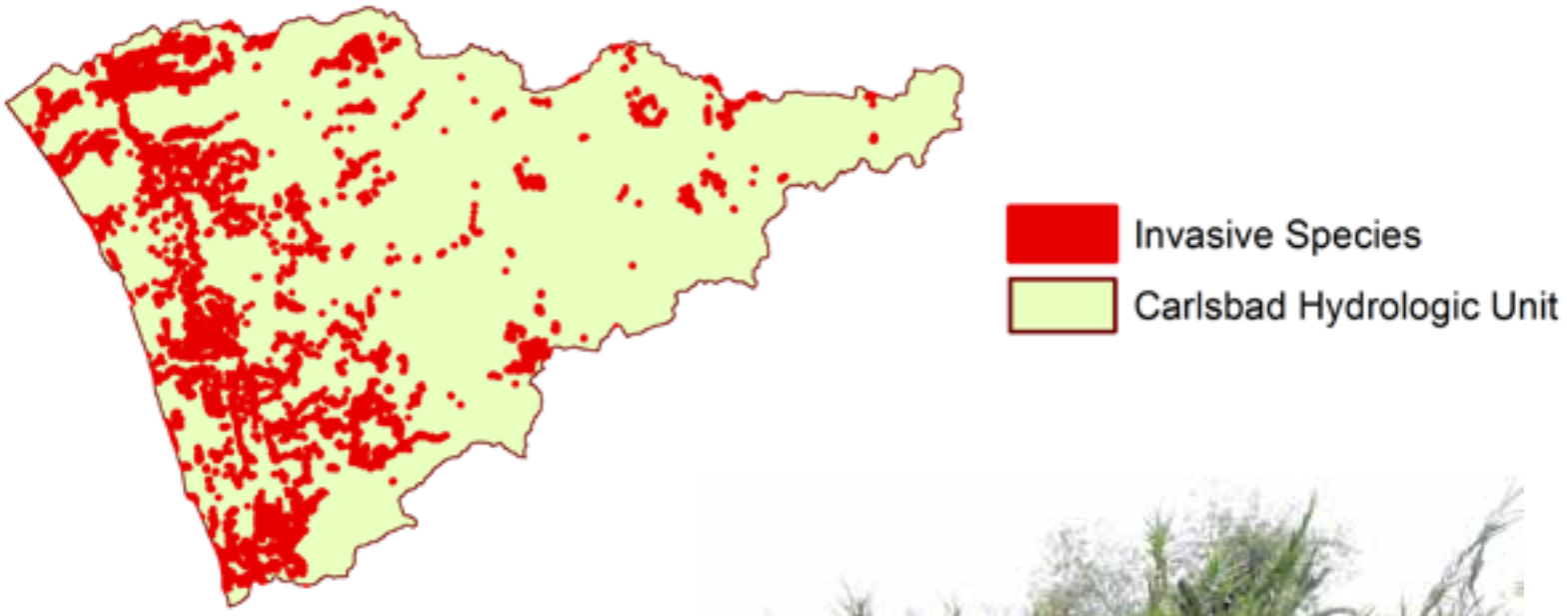
Arundo donax
Adaptable
Aggressive competitors
High reproductive capacity

Negative Effects of Invasive Plants

Ecosystem functionality

Biodiversity

Ability of the habitat to support rare and endangered species



Which infestations should be prioritized for mitigation?

Invasive Species Prioritization Tool

python
ArcGIS
ArcMap
10.2
esri
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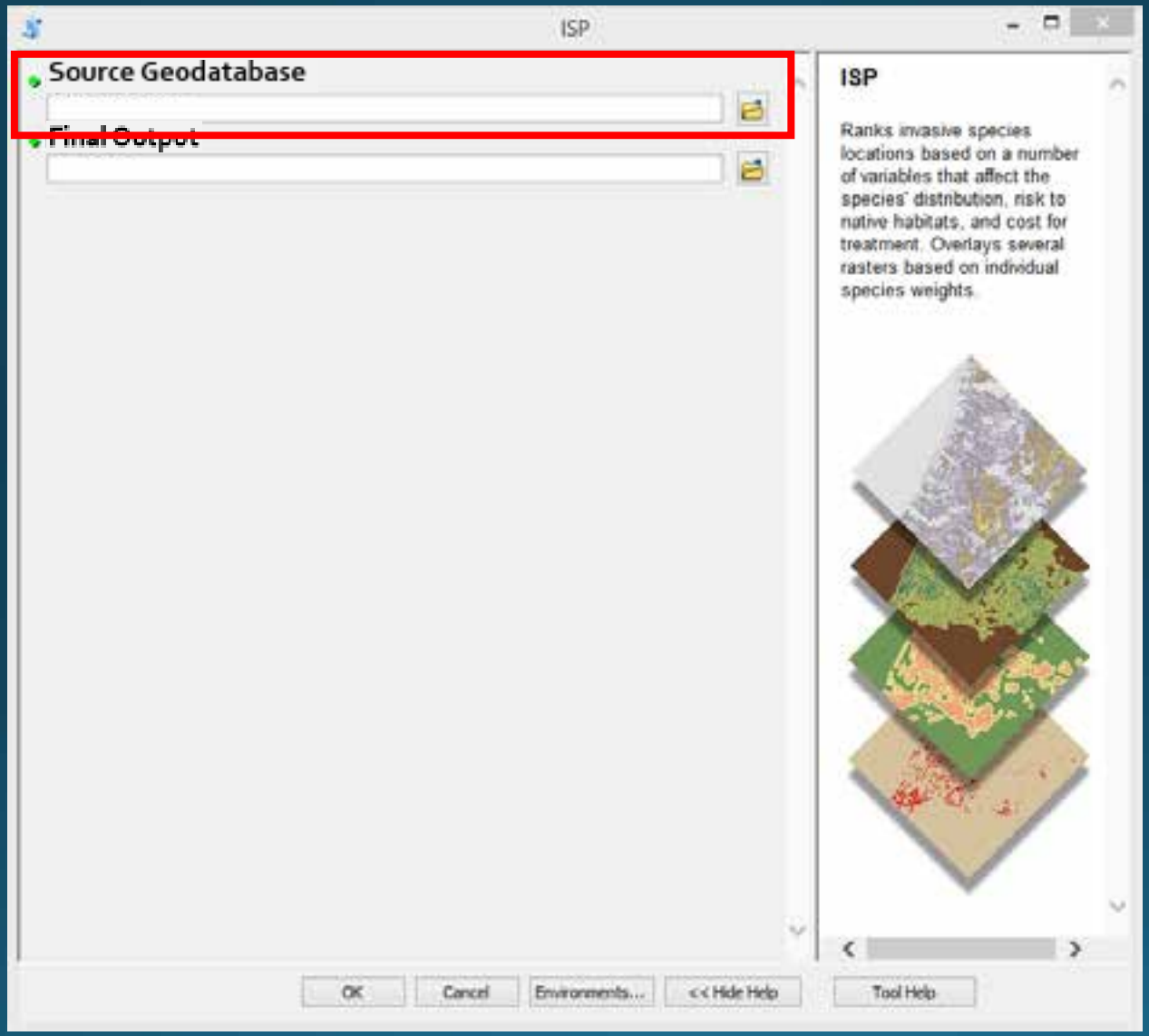

ISP
Source Geodatabase
Final Output
ISP
Ranks invasive species locations based on a number of variables that affect the species' distribution, risk to native habitats, and cost for treatment. Overlays several rasters based on individual species weights.
OK
Cancel
Environments...
<< Hide Help
Tool Help

4 Categories of Data

Ecological

- 6 vector datasets
- 1 raster dataset

Land Base

- 1 vector dataset

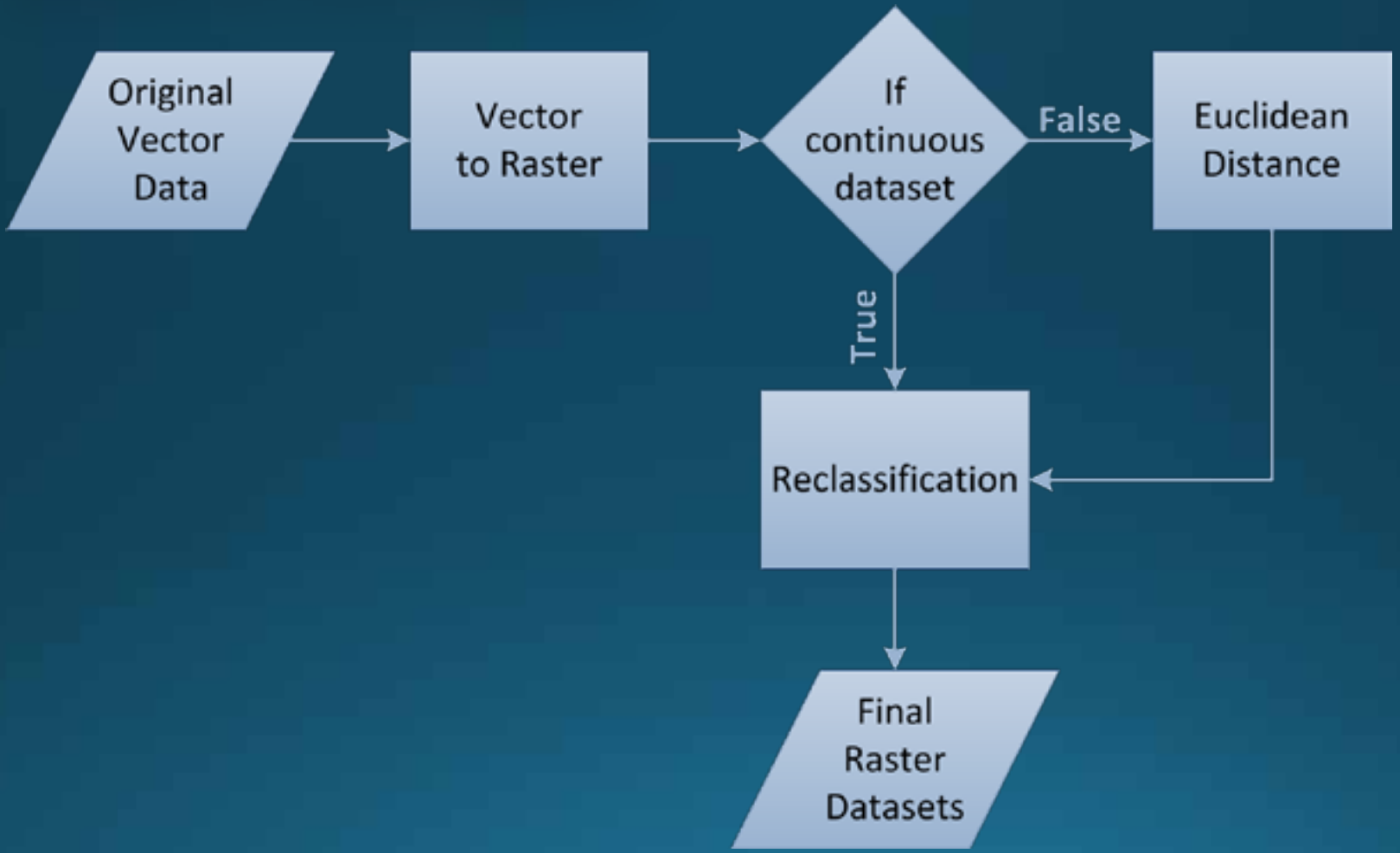
Hydrologic

- 2 vector datasets

Transportation

- 2 vector datasets

Data Preparation



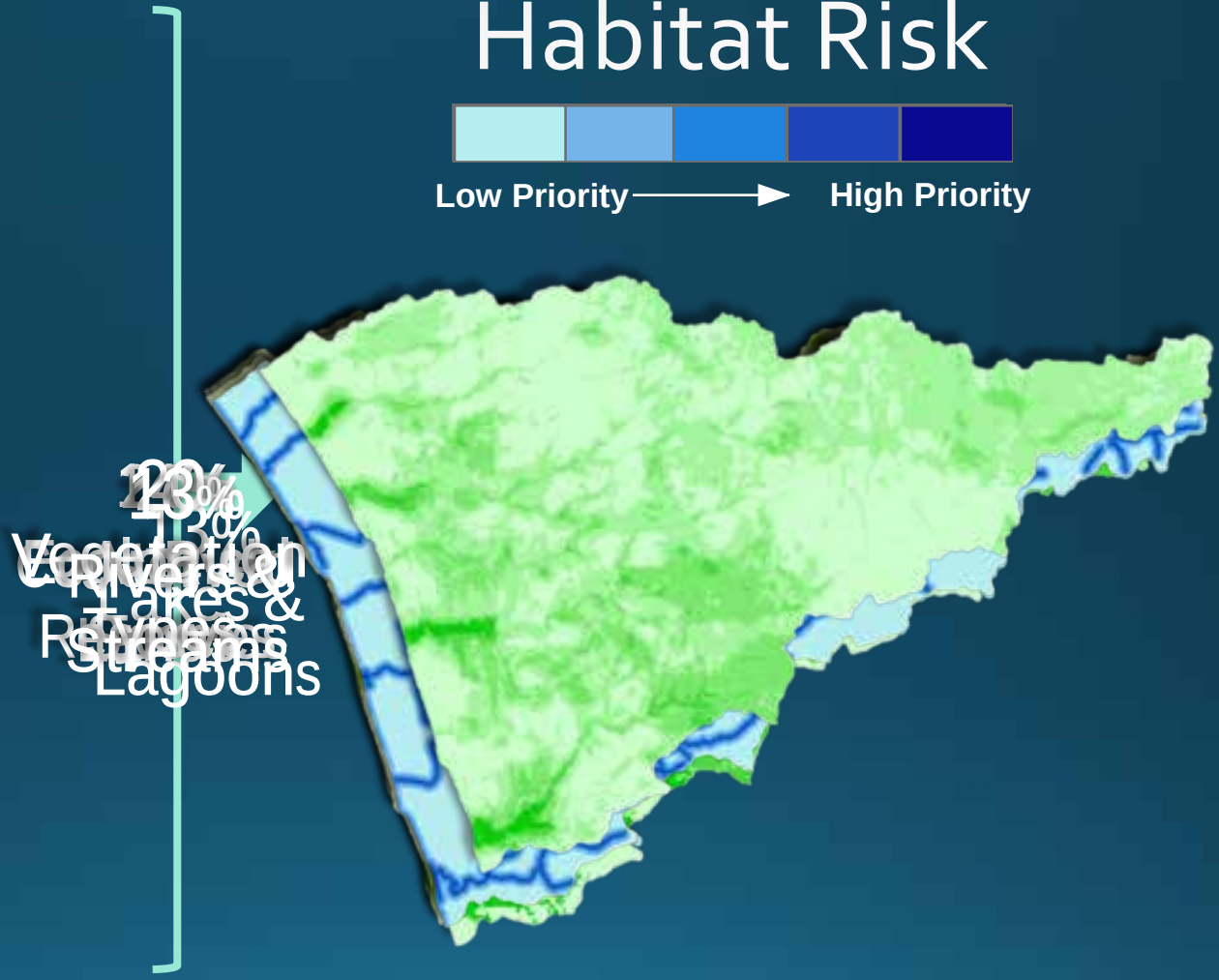
Analysis Workflow

Perform on each species in the weights table

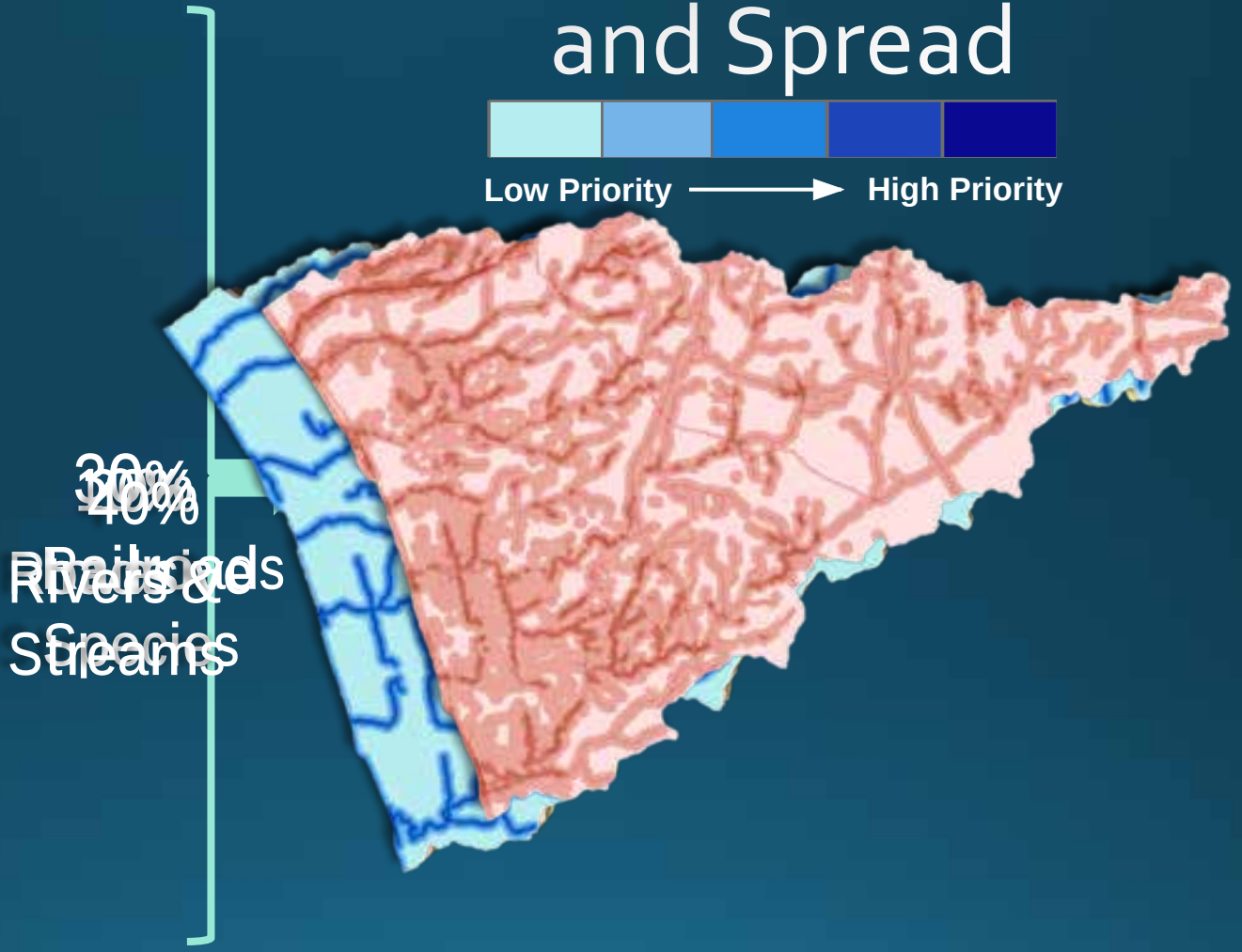
Weights Table

Species	Habitat Risk	Disturbance	Cost
Arundo	.....	.....	.....
Pampas Grass	.....	.....	.....
Default	.....	.....	.....

Habitat Risk

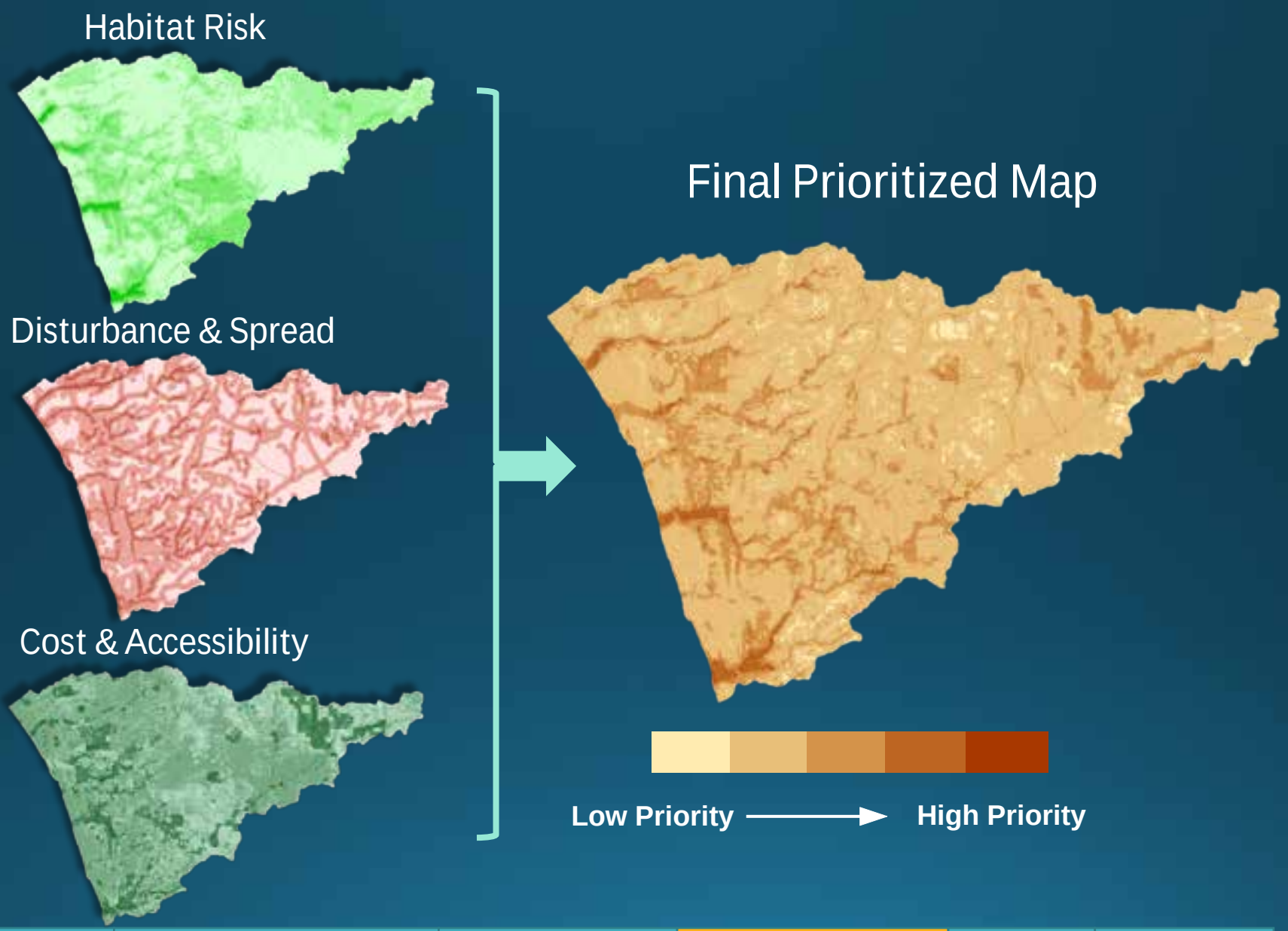


Disturbance and Spread



Cost and Accessibility

Low Priority → High Priority


Habitat Risk
Disturbance & Spread
Cost & Accessibility
Final Prioritized Map
Low Priority
High Priority

Final Prioritized Map

Invasive Species

Prioritized Invasive Species

Low Priority → High Priority

Summary

Thank you

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