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Regional Transmission Expansion Planning (RTEP)
Arizona Biennial Transmission Assessment
August 16, 2012

RTEP Update

Agenda

- Long-term Planning Tool
- Environmental and Water Considerations
- 2013 Transmission Plans
- FERC Order 1000

Long-term Planning Tool

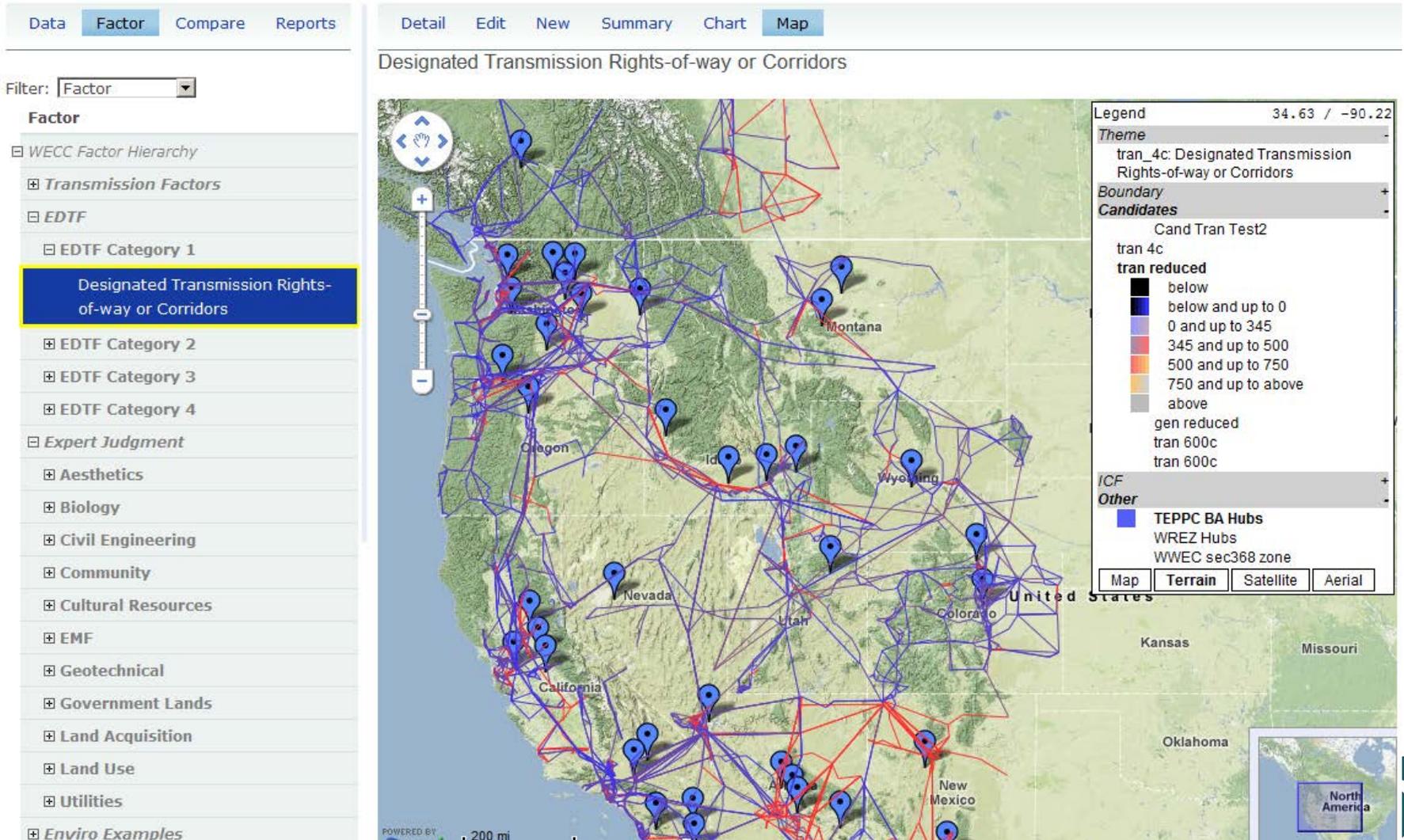
What is it?

The Long-Term Planning Tool (LTPT) is a GIS-based capital expansion planning tool for performing long-term transmission planning studies

- Optimizes new generation and transmission build out
- Incorporates reliability, policy, environmental, and cost considerations

Long-term Planning Tool

Example



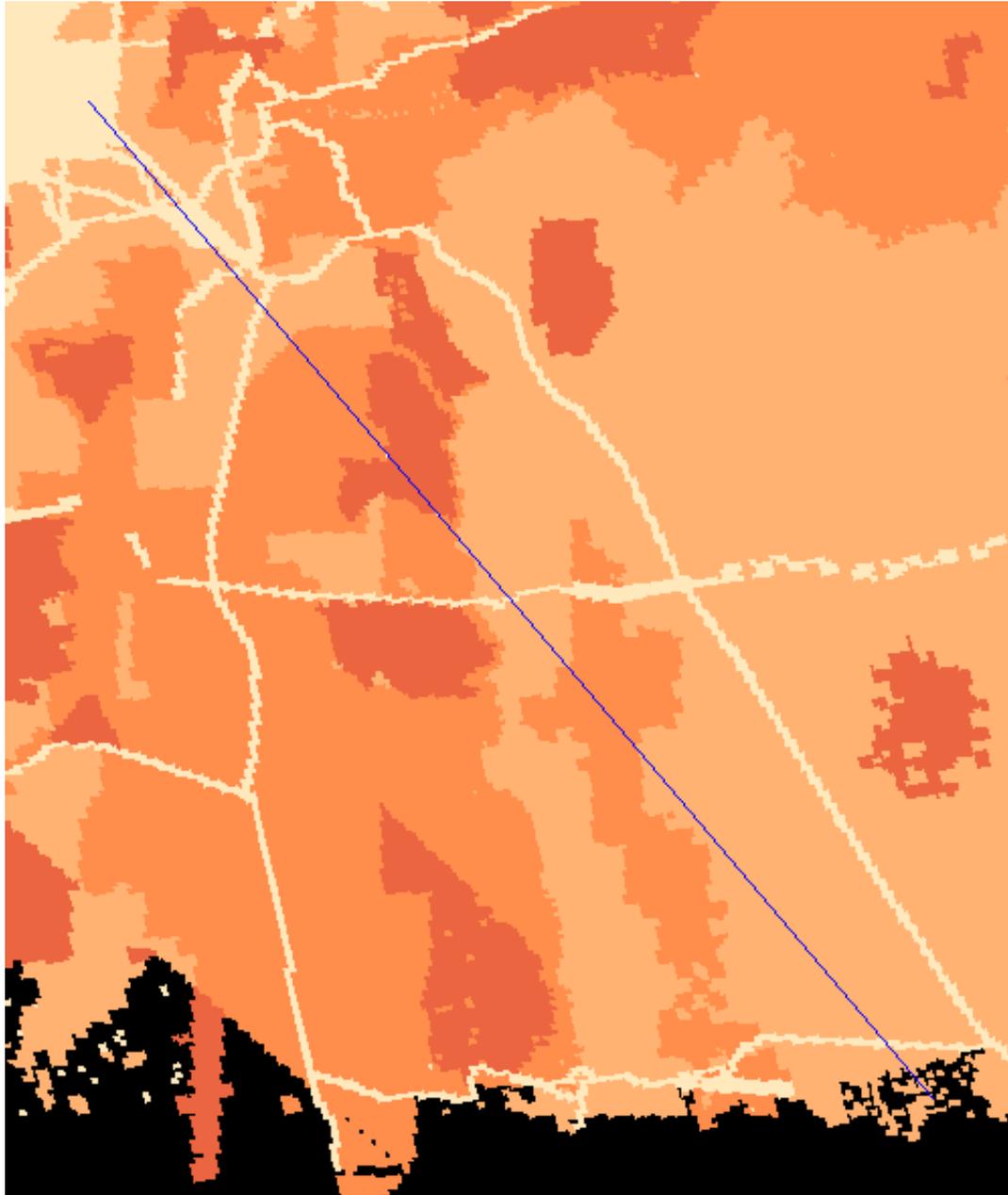
Incorporating Environmental Data

Environmental Data Task Force (EDTF)

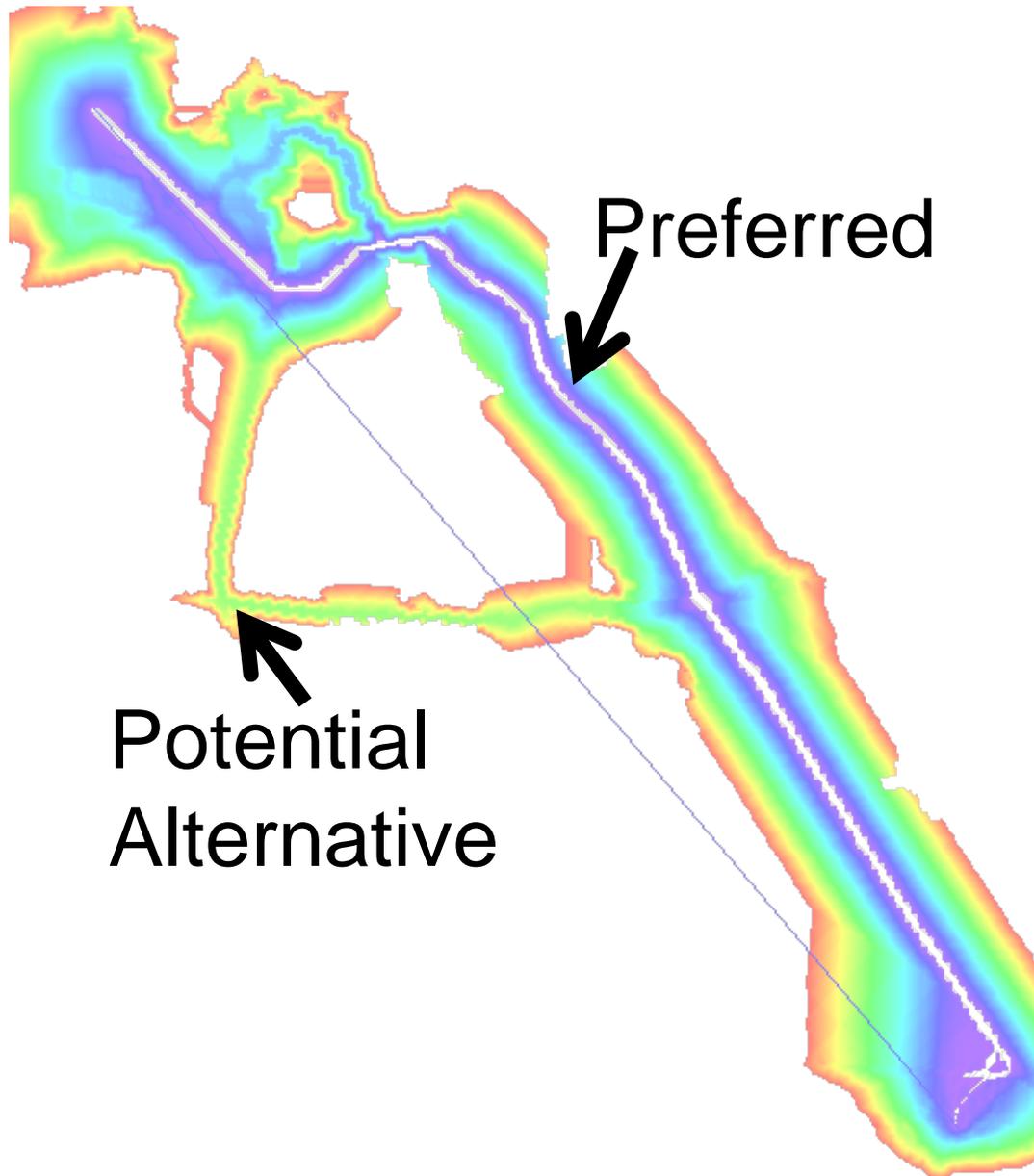
- Develop and incorporate information on land, wildlife, cultural, historical, archaeological, and water resources into the transmission planning process
 - Created Environmental Risk categories based on a number of land-use environmental risks
 - Working on mitigation cost calculations

EDTF Risk Classes 1-4

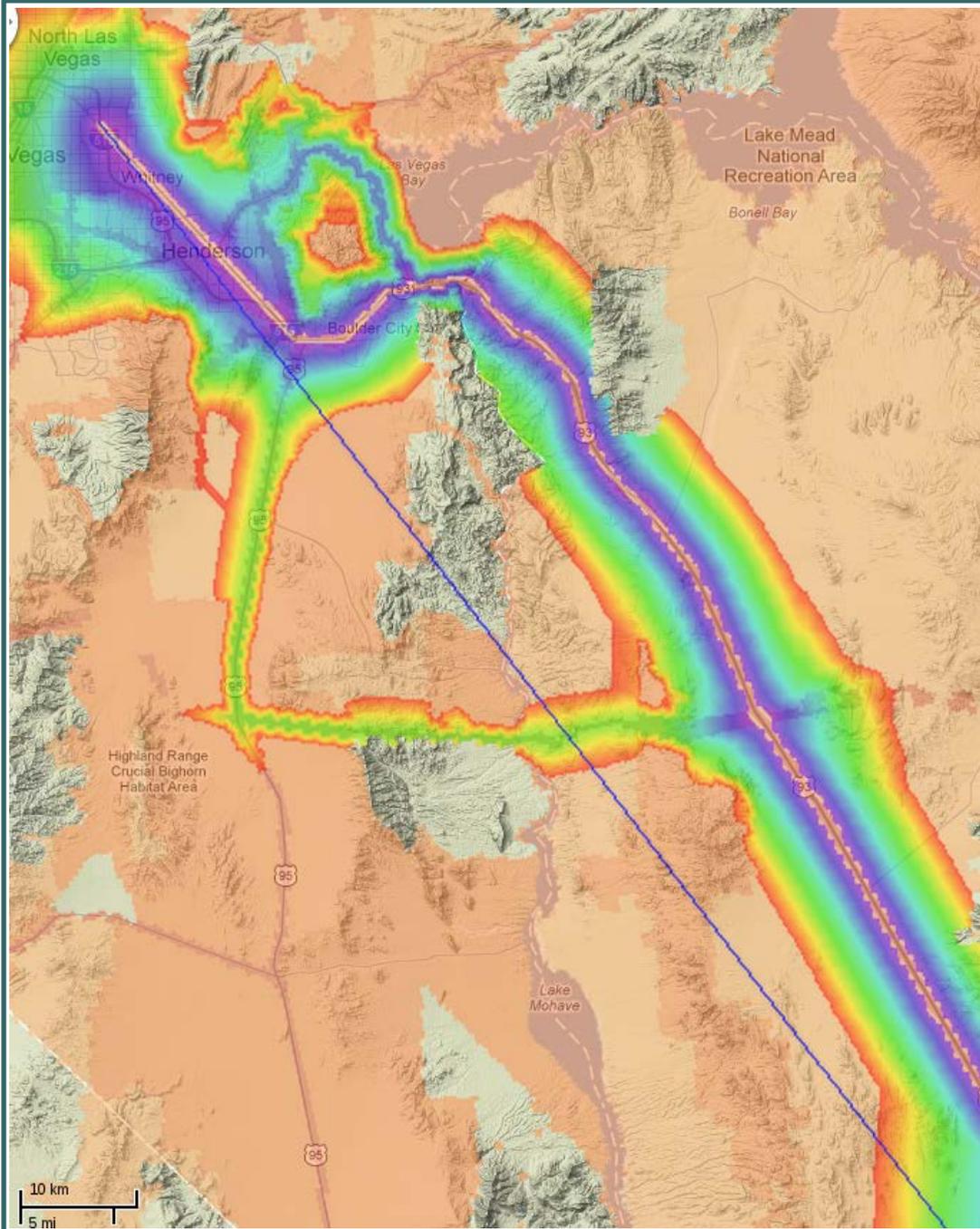
- Blue line connects endpoints
- Darker areas = higher risk category



Lowest risk Corridor



- Auto-generated lowest environmental risk score path
- Note: potential alternative corridor

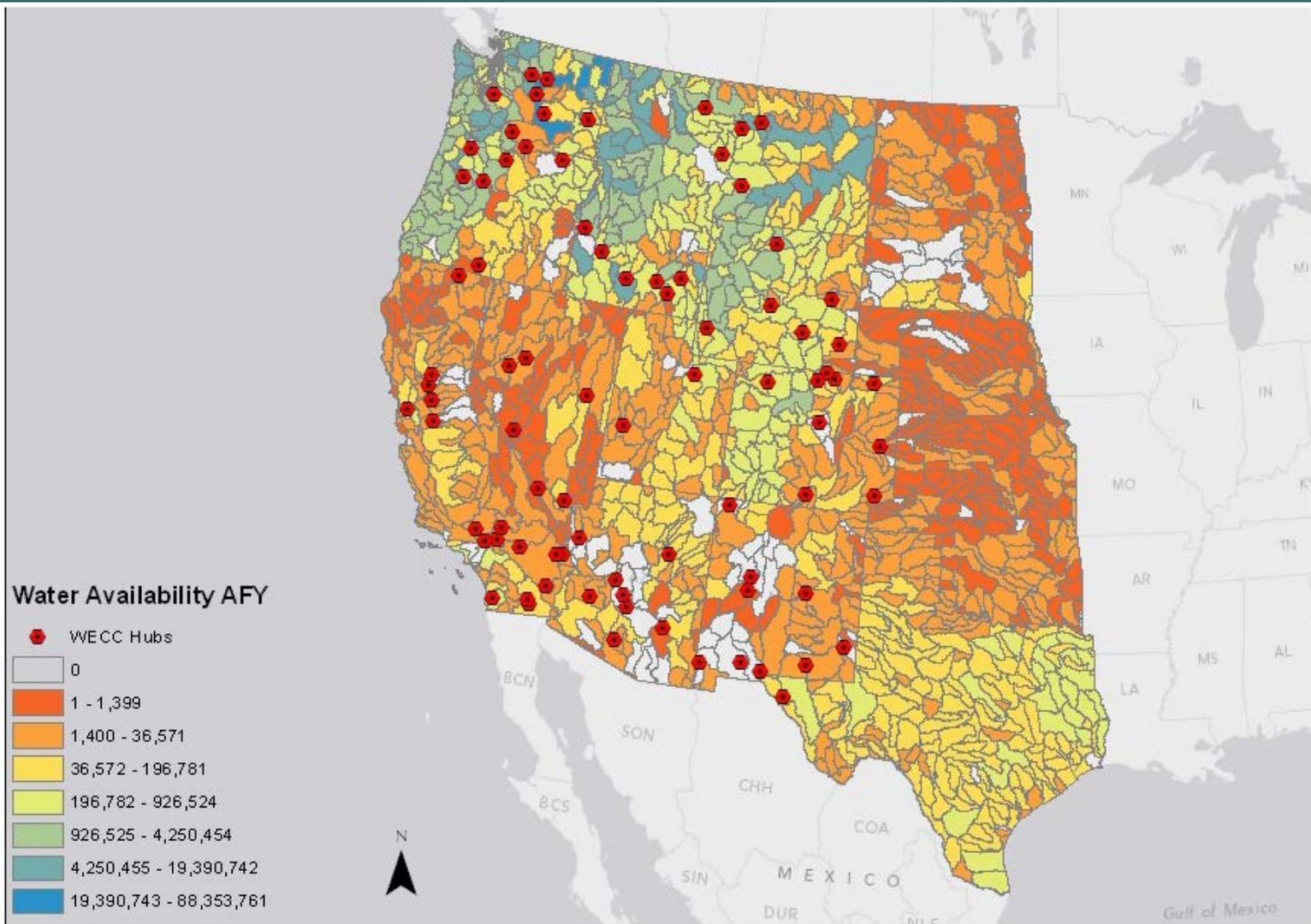


LTPT with Env Overlay

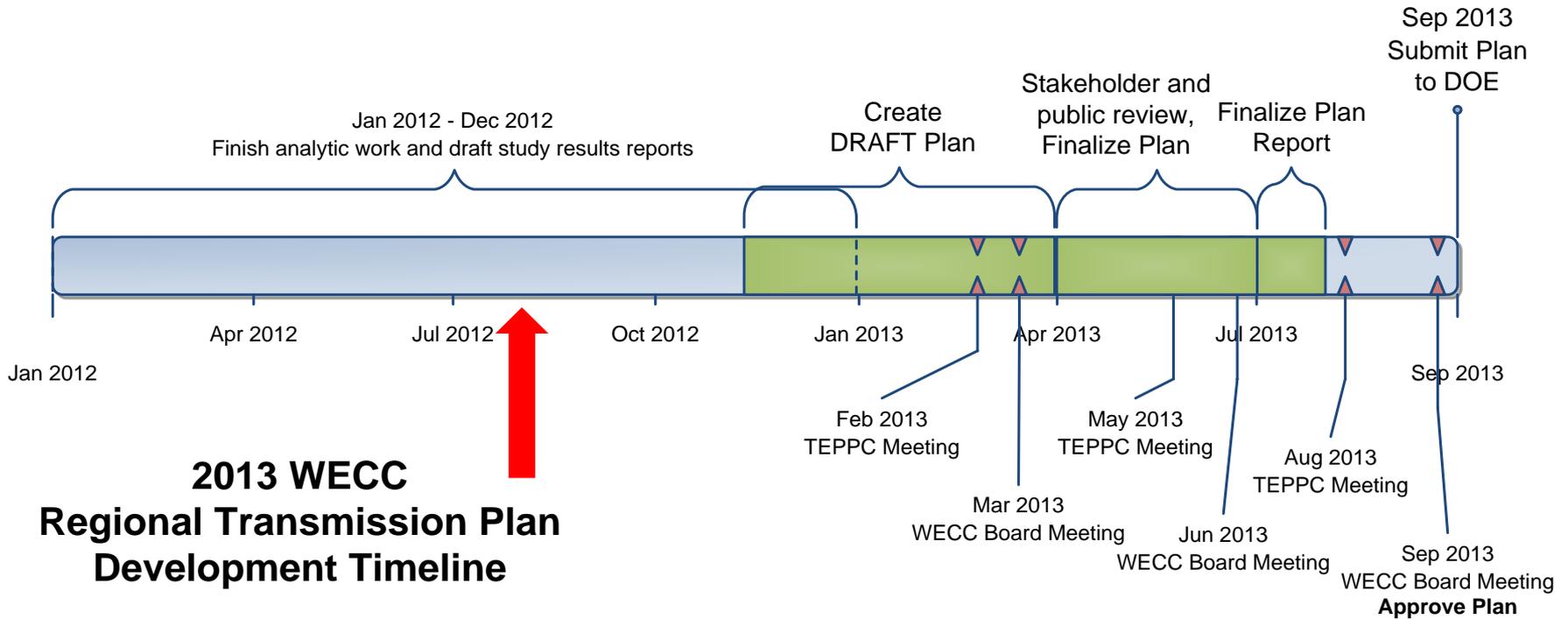
- Semi-transparent EDTF overlay on terrain map
- Semi-transparent corridor over EDTF and terrain maps

Energy-Water Nexus

Water Availability Example



2013 Transmission Plans Plan Development Timeline



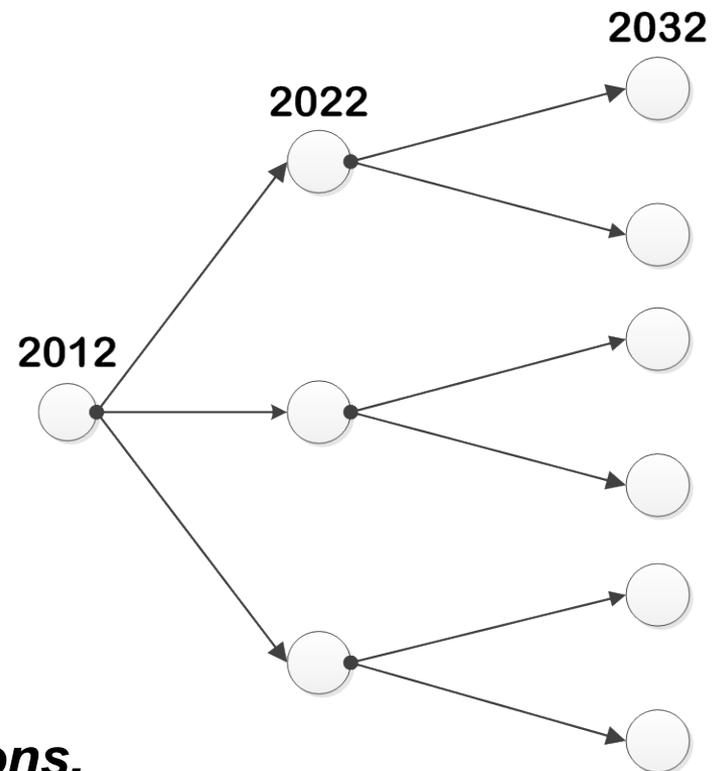
2013 Transmission Plans

Connecting the Dots

How might the Western Interconnection need to change to accommodate changes in the supply and demand for electric energy?

- 10-year – understanding impacts of near-term decisions (bottoms-up)
- 20-year – understanding drivers of potential energy futures (top-down)
- The Plans tell the story of how they are connected

*Understanding the impacts of decisions,
not determining what should be done*



2013 Transmission Plans

Enhancements from 2011

- Cost of cycling
- Flexibility Reserve calculation
- Environmental data
- Capital cost calculation methodology
- Improved demand-side modeling
- Energy-water nexus
- Connection of studies with scenarios
- Reliability analysis of the 2022 Common Case
- 2010 Benchmarking Case

2013 Transmission Plans

Making it useful – Value to Stakeholders

Our diverse stakeholders have varying needs and expectations of the 2013 Plans and the RTEP process.

What does success look like?

- Created credible data and models for use in other planning processes
- Connected energy futures to transmission needs, costs, and environmental impacts
 - Goals-Assumptions-Analysis-Results
 - Stories for others to use in their decision-making processes
- Discussed pertinent energy planning issues

2013 Transmission Plans

Get Involved!

- Pertinent discussions at workgroup, subcommittee, and committee level
 - Opportunity to learn and share ideas
- Visit the RTEP calendar on the WECC website

FERC Order 1000

Overview of WECC Actions

WECC continues to work with stakeholders to understand their potential needs under the Order

- Gathering broad stakeholder input
- Working with Subregional Planning Groups on regional-interregional coordination
 - Individual SPGs focused on “Regional” Compliance Filings due in October
 - July meeting was held to discuss SPG Planning Cycle alignments and status – next meeting in September

Questions

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All information on the WECC 10-Year Regional Transmission Plan may be found at <http://www.wecc.biz/10yrPlan>.