
Upper Mokelumne River
Watershed Authority
Planscape

Agenda

- Introductions
- The brief
- Planscape
- Next steps
- Questions

The Planscape Co-operative

Introductions

Nick Povak
USFS

Carrie Levine
Planscape

Rob Lawson
Planscape

Taro Pusina
Planscape

Jason Moghaddas
Planscape

Shane Romsos
Planscape


The brief

UMRWA Brief

Sept/Oct 2023:	Decide on technical and planning partner
February 2024:	Up and running. Informing priorities for on the ground surveys
Late 2024:	NEPA completion Stanislaus and El Dorado

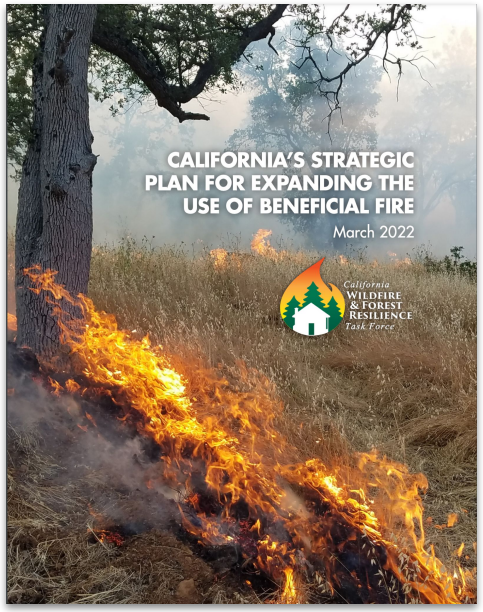
Evaluating LandTender, Planscape, possibly a third
Planning tool + associated services


Planscape
Placerville
Sly Park
Darlington
Bryants
Morrison
Kirkwood
Markleeville
Diamond Springs
Tiger Lily
Pleasant Valley
Happy Valley
Pilliken
Bonetti
Kit Carson
Round Top
Loope
Somerset
Sweeneys Crossing
Voss
Grizzly Flats
Meiss
Deadwood Peak
Raymond Peak
Melsons Corner
Caldor
Fair Play
Nashville
Omo Ranch
Croft
Mt Aukum
River Pines
Enterprise
Mokelumne Peak
Highland Peak
Tylers Corner
Fiddletown
Plymouth
Cape Horn
Lake Alpine
Arnot Peak
Bear Valley
Buckhorn
Volcano
New Chicago
Pioneer
TAMARACK
Amador City
Pine Grove
Big Meadow
Peaceful Pines
West Point
Porter
Ganns
Sutter Creek
Wilseyville
Clinton
Hams
Martell
Bonnefoy
Cottage Springs
Jackson
Fuchs
Dardanelle
Scottsville
Electra
Butte City
Camp Connell
Mokelumne Hill
Dorrington
Jesus Maria
Big Trees
Fort Jones
Arnold Lakeside Terrace
Camp Pardee
Fisher Place
Fly-In Acres
Mountain Ranch
Bumblebee
Black Hawk

The Challenge

Increase the Pace & Scale of Restoration:

- 10 yr wildfire crisis strategy
- 1M acres annually by 2025
- Enable collaboration



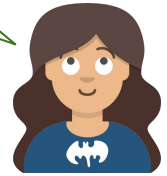
User Feedback

I want to be able to **collaborate with my stakeholders** and get their buy-in.

I want to see **up-to-date project data** from across agencies so I don't duplicate efforts.

Making decisions based on a single factor is not enough and we need to figure out how to **view the landscape holistically**.

When it comes to evaluating projects, **we lack data that helps evaluate things like "ecosystem impact"** objectively.



Local knowledge is very important but tools can help **fill in the gaps**.

Tools commonly offer heatmaps but don't **offer analysis or optimization**.

Planscape is a decision support tool that empowers regional planners to prioritize resilience treatments across the landscape and inform the funding process.

State Level Planner
Statewide

Prioritize regions for treatment (**where**) throughout the state.

Regional Resource Manager

Prioritize local treatments (**where**) throughout a region.

Forest Unit Resource Manager

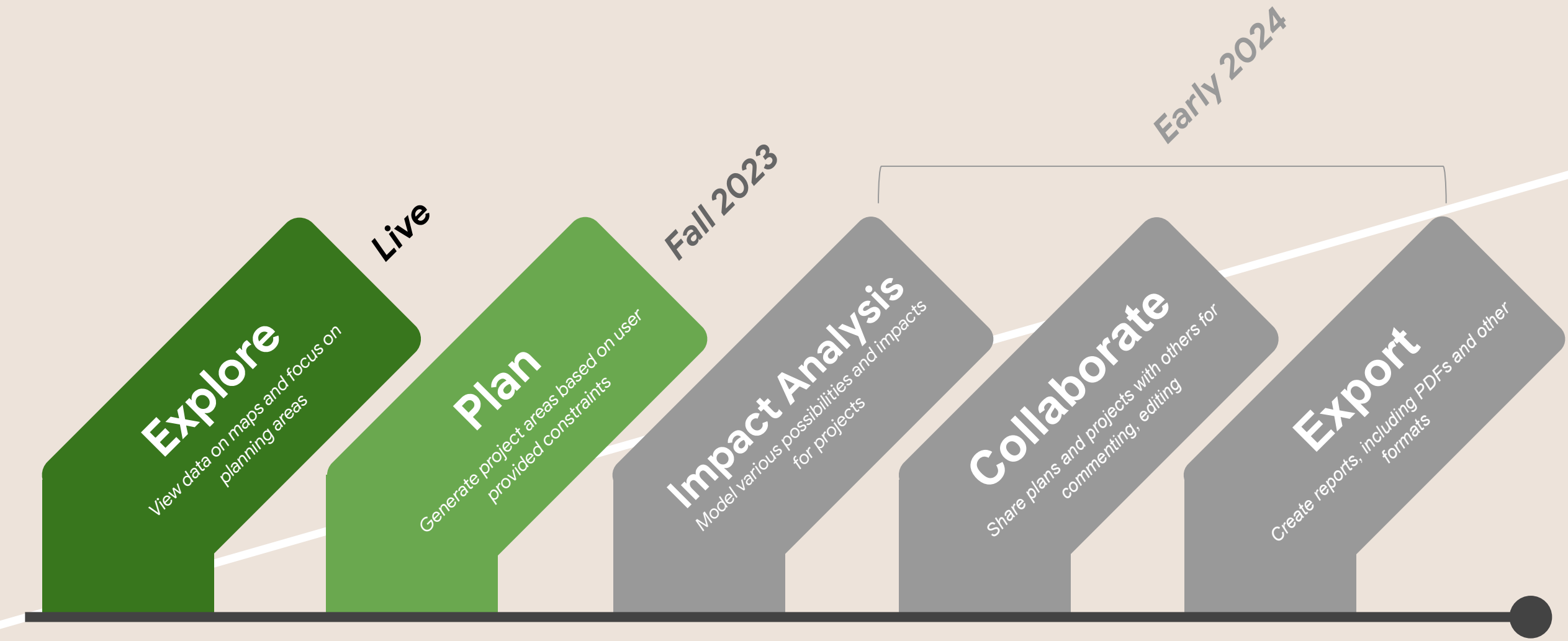
Both prioritize unit and local areas for treatment (**where**) and identify treatment (**how**).

Local Resource Manager

Prioritize local areas for treatment (**where?**) and identify treatment (**how**).

More strategic — **Mix of both** — **More tactical**

Five User Journeys & Timelines



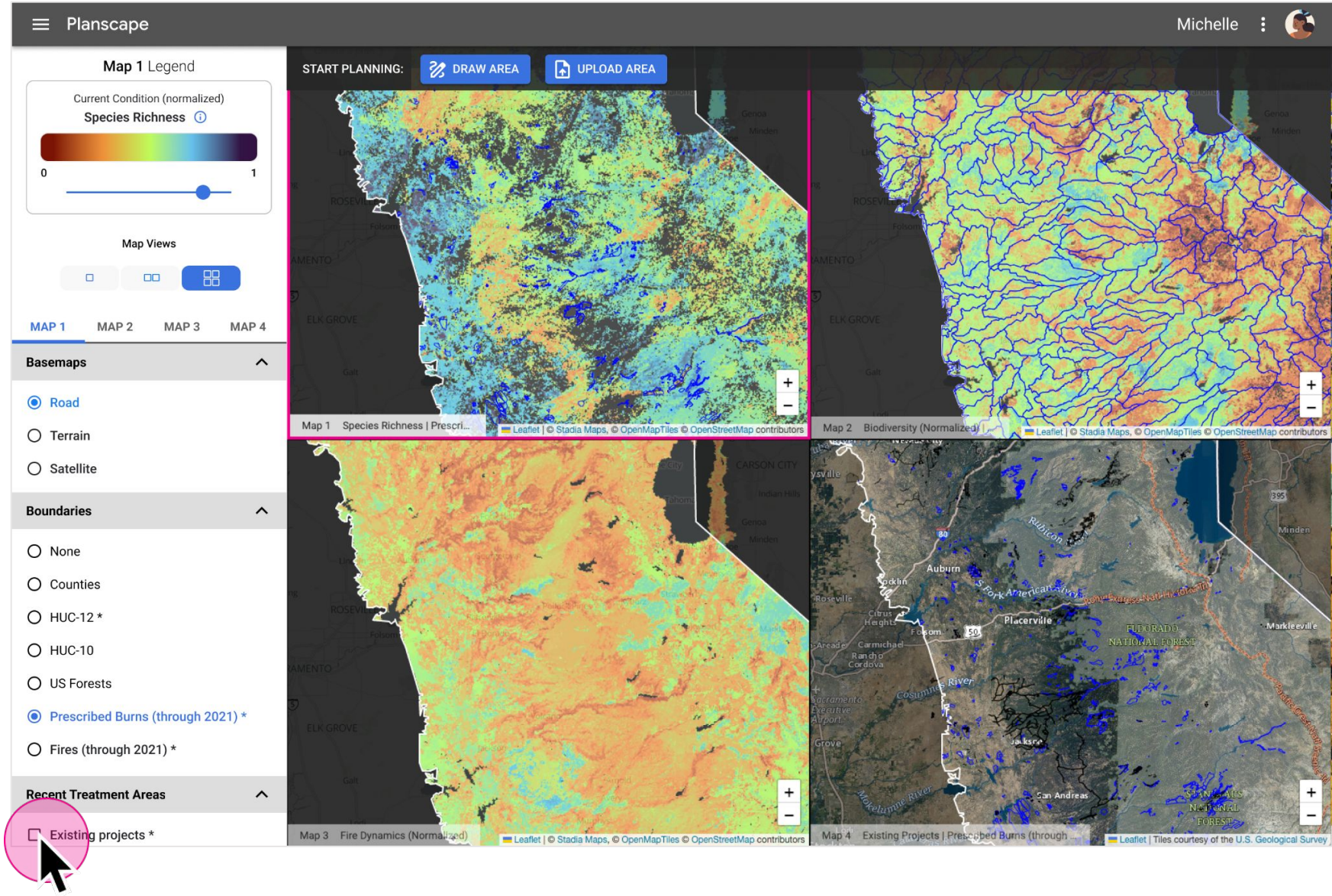
10 Pillars of Resilience


Demo

1 View the best available data & science in one tool

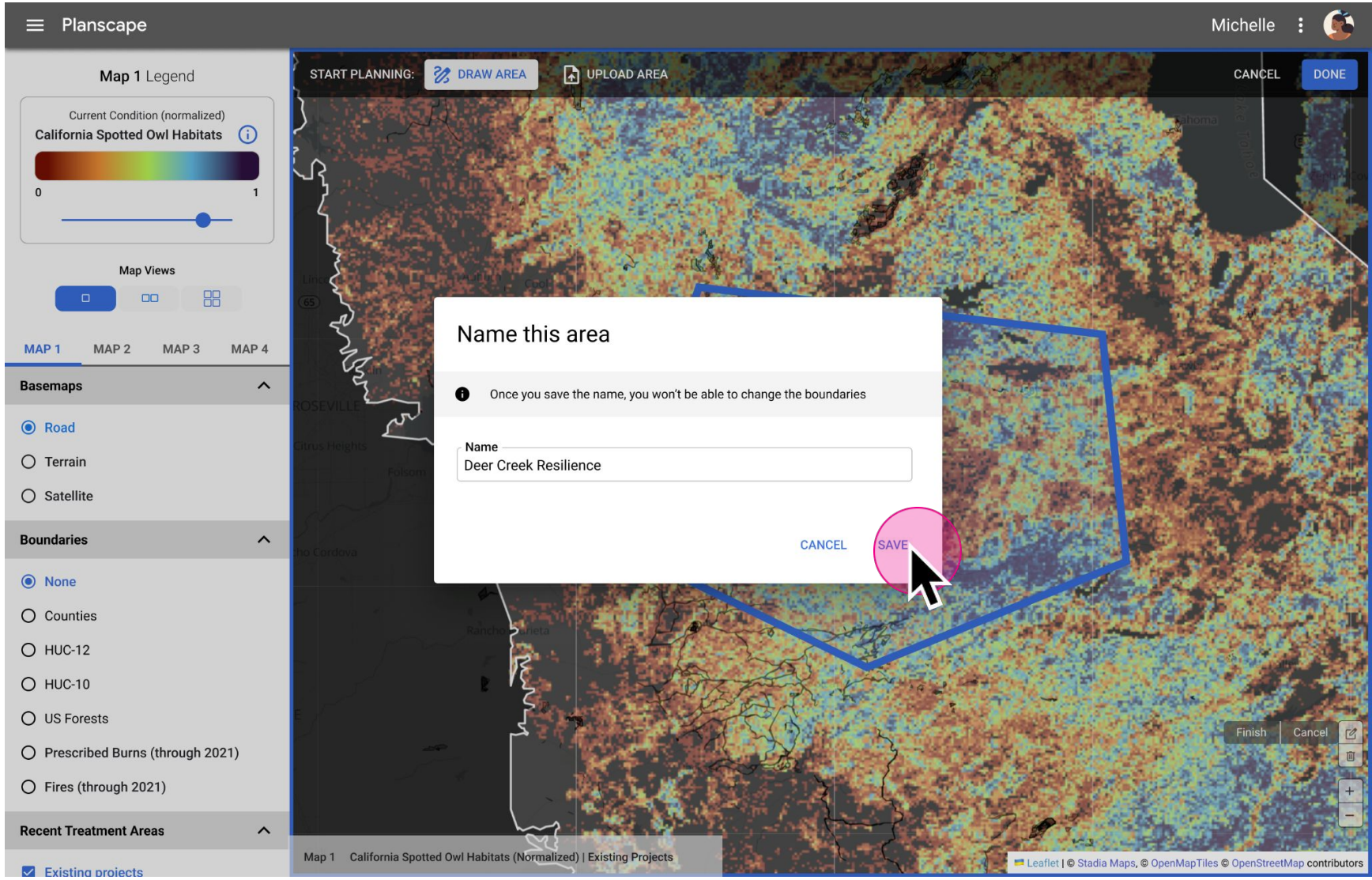
Visualize different data layers on maps side-by-side

Boundaries, existing projects, raw and normalized condition scores are available

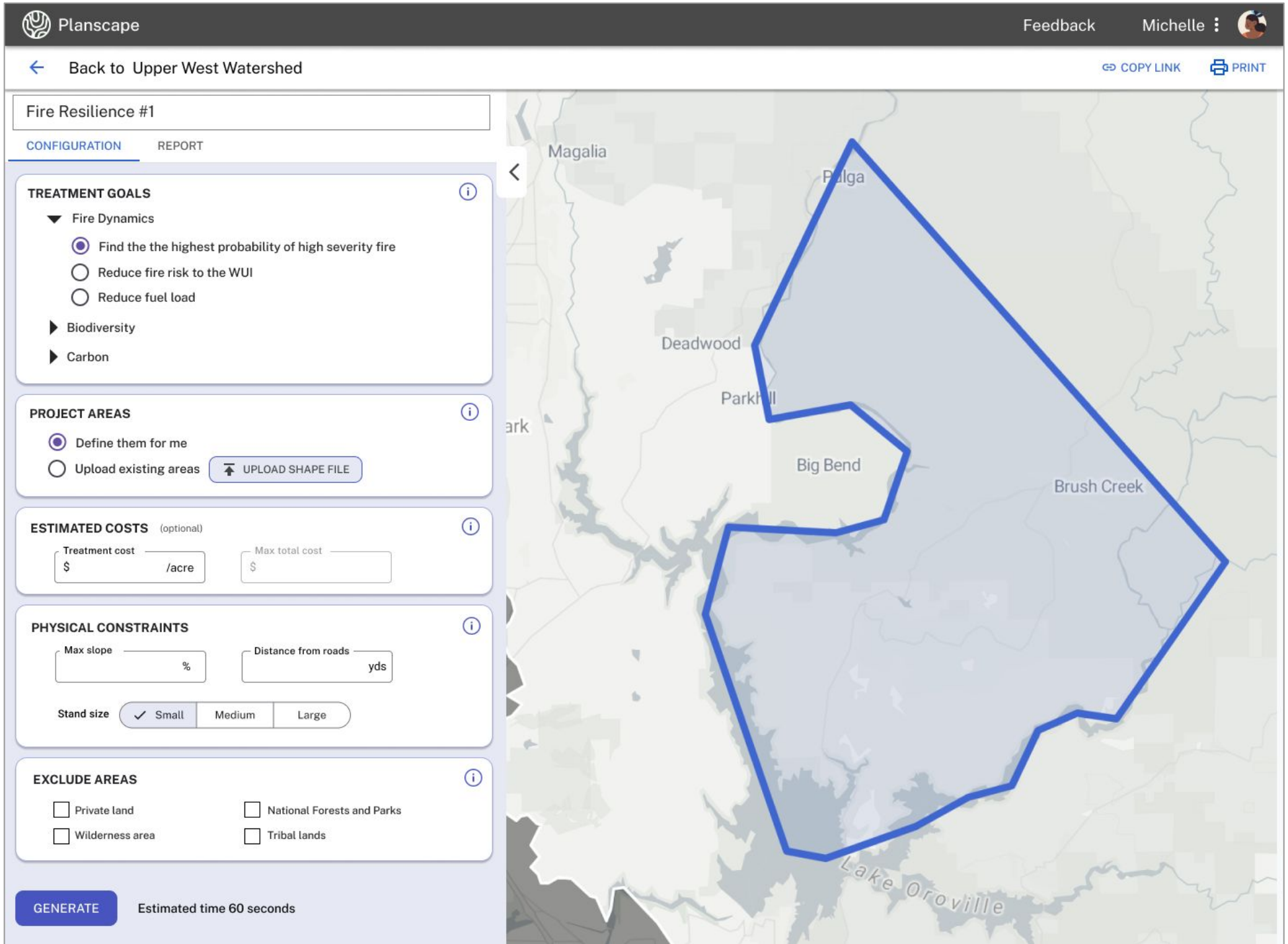


2 Define the area you want to plan within

Evaluate the conditions only within a desired area



3 Configure scenarios



4 View Outcomes

Planscape | Feedback | Michelle

Back to Upper West Watershed | COPY LINK | PRINT

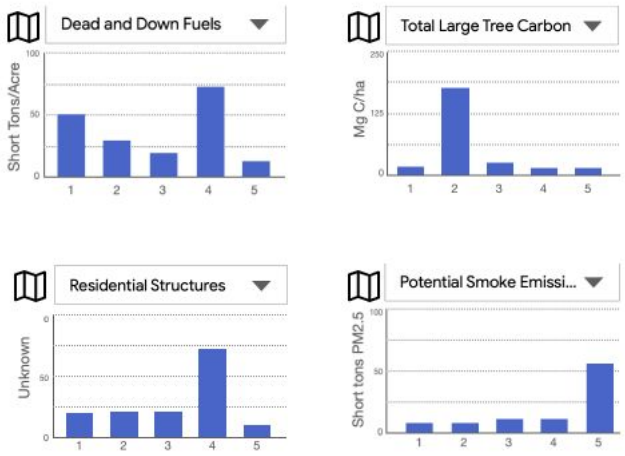
Fire Resilience #1

CONFIGURATION | REPORT | TREATMENTS

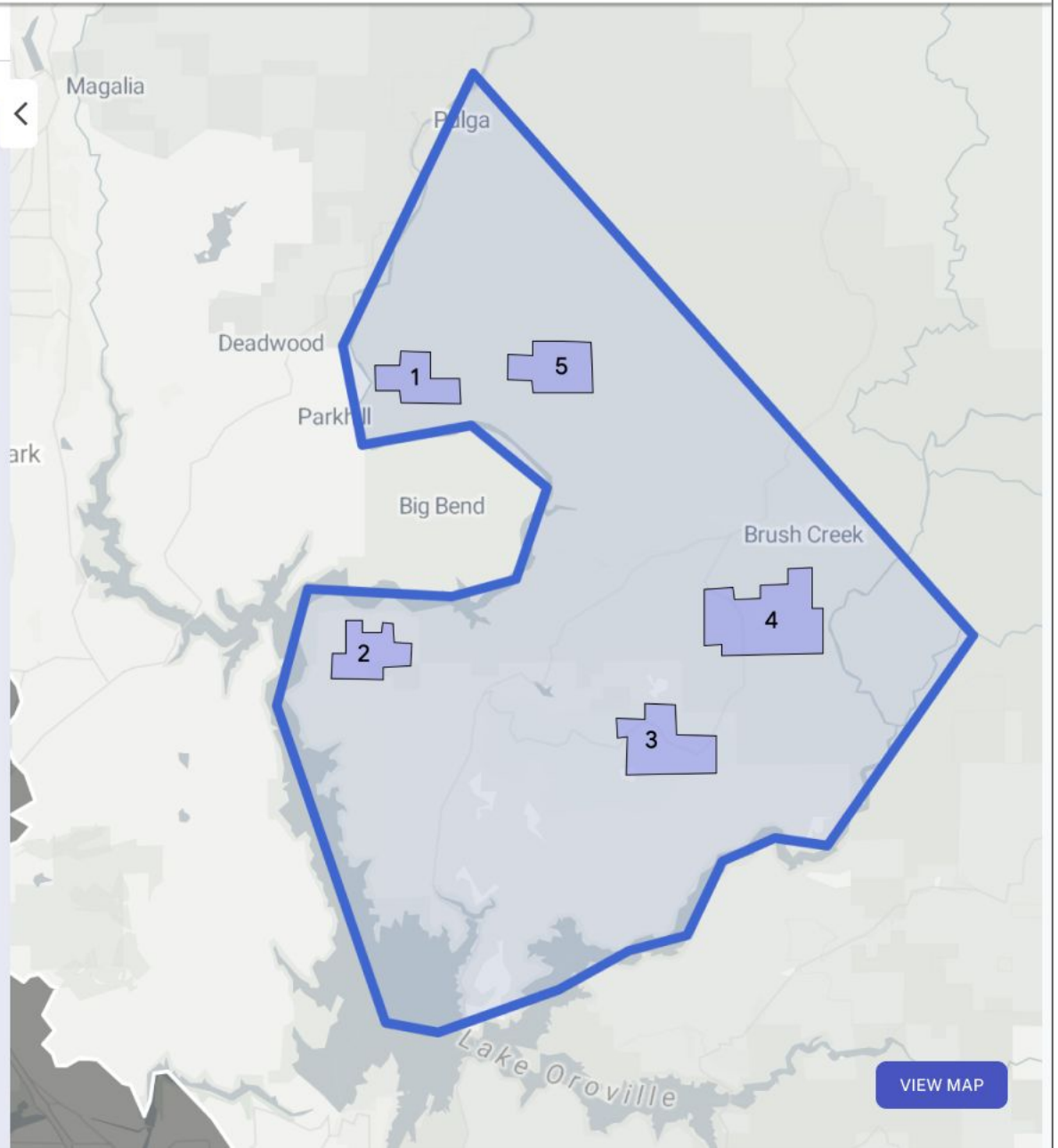
PROJECT AREAS

	Acres	% Total	Est Cost	Score
1	1200	8%	$225K	**0.86**
2	800	5%	$175K	**0.75**
3	700	4%	$100K	**0.73**
4	2000	15%	$300K	**0.72**
5	500	4%	$100K	**0.55**
	5200	36%	$800,000	

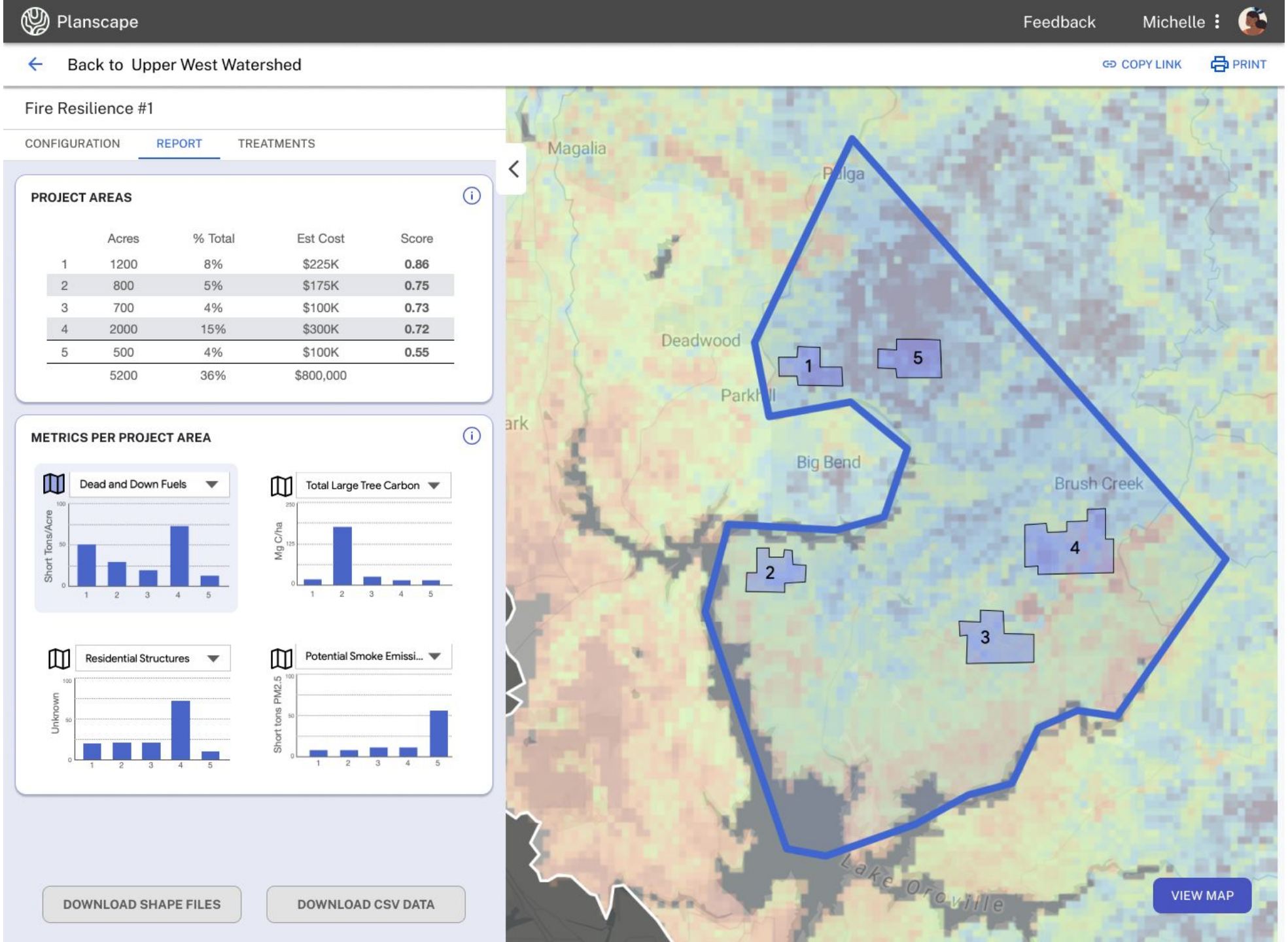
METRICS PER PROJECT AREA



DOWNLOAD SHAPE FILES | DOWNLOAD CSV DATA



4 View Outcomes



Planscape Feedback Michelle

Planning Areas COPY LINK PRINT

Upper West Watershed

126,345 acres

2 scenarios

Region: Sierra Nevada

Creator: [Name], [Department]
Created: 10/15/2022
Last activity: 2h ago

Notes

Type notes here. Notes are visible based on the visibility settings for this plan.

Change visibility settings

Anyone with this link can view

VISIBLE TO OTHERS

Scenarios

NEW SCENARIO

Filter Filter

Name	Areas	Acres	Treated	Cost	Status	Last Run
Carbon reduction 1	6	10,421	34%	$100K-150K	Running	10/22/2022 1:14pm
WUI Analysis	4	3,124	23%	$34K-44K	Done	10/22/2022 1:14pm
Total Carbon #2	12	367	65%	$213K-334K	Done	10/22/2022 1:14pm
Total Carbon #1	5	876	33%	$24K-44K	Done	10/22/2022 1:14pm

Rows per page: 5 1–1 of 1

DELETE DUPLICATE VIEW

Each Planning Area can contain a list of many scenarios

6 All your Plans in one place

Planscape

Feedback Michelle

Planning Areas

NEW PLANNING AREA

Filter Filter table

Name	Date Last Modified	Total Acres	# of Scenarios	TBA	Region
Deer Creek Resilience	May 22, 2020, 2:34:55 PM	6,000	6	???	Sierra Nevada
Upper West Watershed	May 22, 2020, 2:34:55 PM	18,000	8	???	Sierra Nevada
Del Rio Lower Watershed	May 22, 2020, 2:34:55 PM	13,000	0	???	Sierra Nevada
South Camanche Shore	May 22, 2020, 2:34:55 PM	5,000	1	???	Sierra Nevada
Gold Hill Southwest	May 22, 2020, 2:34:55 PM	1,500	2	???	Sierra Nevada
			$12,345		

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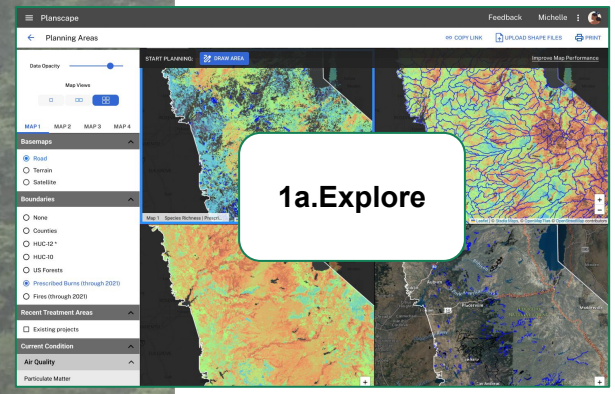
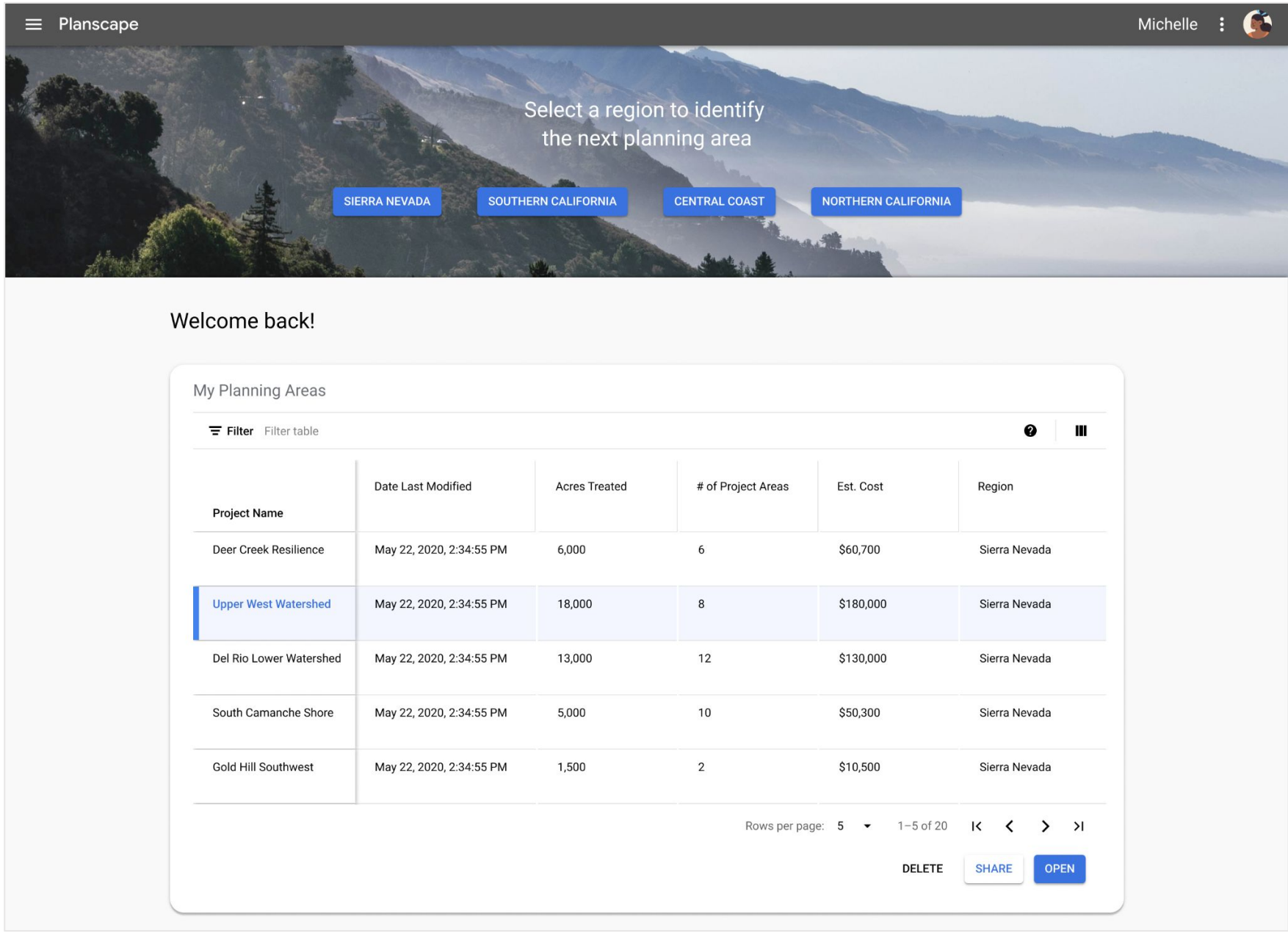
DELETE DUPLICATE SEE MAP SCENARIOS

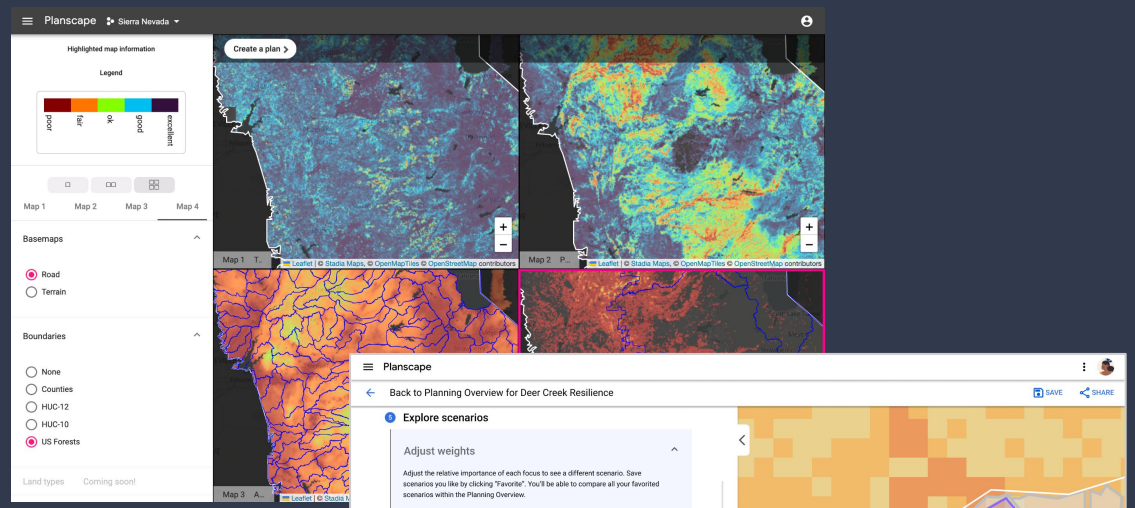
This is the home page when users first login to Planscape



7 Plan with an account or browse as a guest



What makes it unique



1. **Open source and free** to users
2. **Builds on existing** science and tools
3. **Governed** by Federal & State partnership
4. **Focus on landscape scale solutions** for regional planners
5. **Flexible to extend** to other areas and add new data layers over time
6. **Incorporates climate change** constraints
7. **Collaboration** and sharing capabilities
8. Utilizes Task Force **Regional Resource Kits**


Next Steps

Planscape application

- Freely available
- Beta access to pre-release features

Regional Resource Kit data

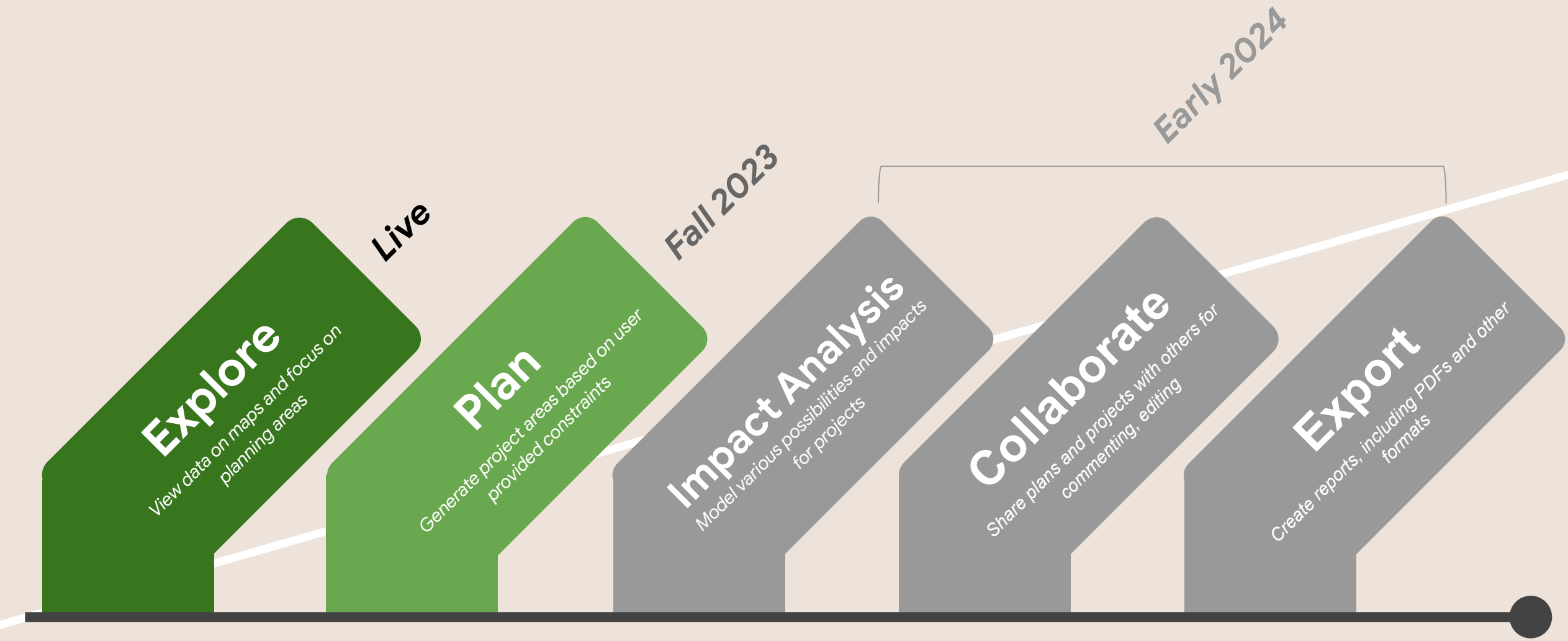
- Transparent
- Free

Access to the **science components** for **custom analysis**

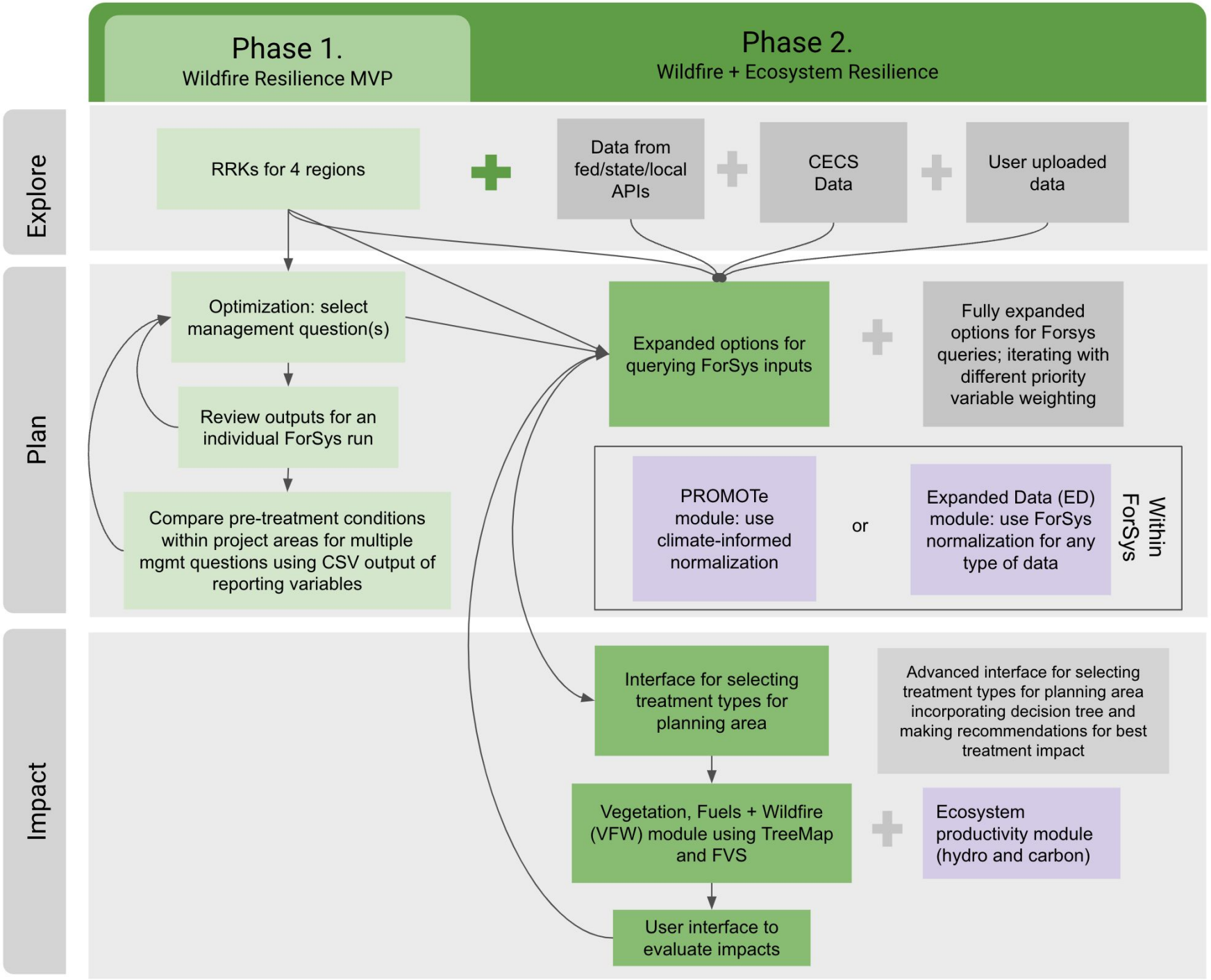
- ForSys
- FVS
- Treemap
- PROMOTe
- …

Planscape cooperative team members available for **professional services support**

Five User Journeys & Timelines




Appendix

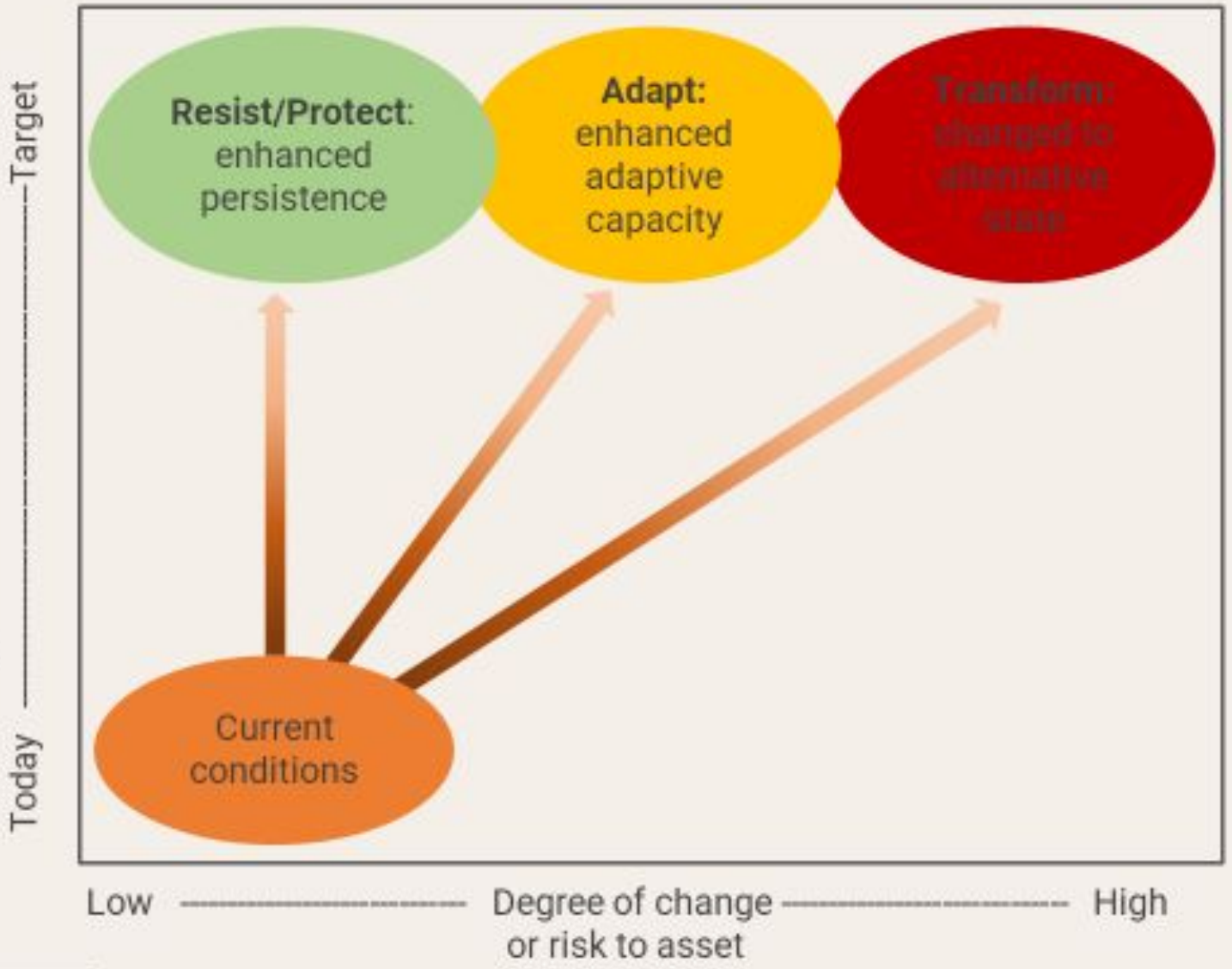

Phase 1.
Wildfire Resilience MVP
Phase 2.
Wildfire + Ecosystem Resilience
Explore
Plan
Impact
RRKs for 4 regions
Data from fed/state/local APIs
CECS Data
User uploaded data
Optimization: select management question(s)
Review outputs for an individual ForSys run
Compare pre-treatment conditions within project areas for multiple mgmt questions using CSV output of reporting variables
Expanded options for querying ForSys inputs
Fully expanded options for Forsys queries; iterating with different priority variable weighting
PROMOTe module: use climate-informed normalization
or
Expanded Data (ED) module: use ForSys normalization for any type of data
Within ForSys
Interface for selecting treatment types for planning area
Advanced interface for selecting treatment types for planning area incorporating decision tree and making recommendations for best treatment impact
Vegetation, Fuels + Wildfire (VFW) module using TreeMap and FVS
Ecosystem productivity module (hydro and carbon)
User interface to evaluate impacts

Tenets of landscape management

1. Ecosystems are the sum of many parts
2. Climate change is impacting resources and creating uncertainty in mgmt responses
3. Resilience is achieved across landscapes not within patches
4. Nature-based solutions work within the parameters of the biophysical environment

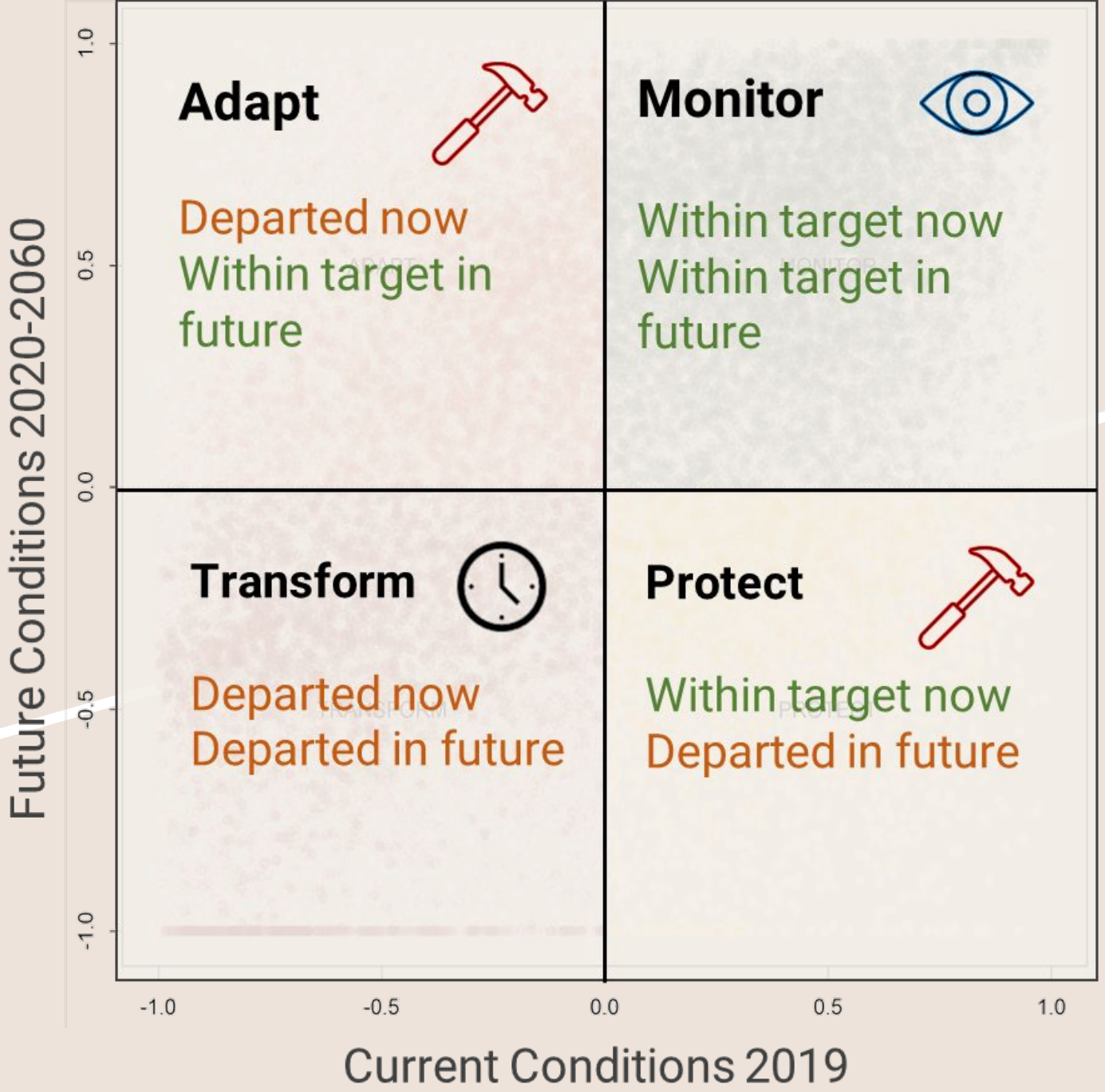
Strategies for Managing Change

- Mgmt. can achieve many goals
- Knowledge of **future conditions** could help direct strategic and tactical decision-making
- RESIST/PROTECT: maintain existing valued conditions
- ADAPT: increase resilience to future disturbances and climate
- TRANSFORM: facilitate development of alternative states (forest → shrubland)



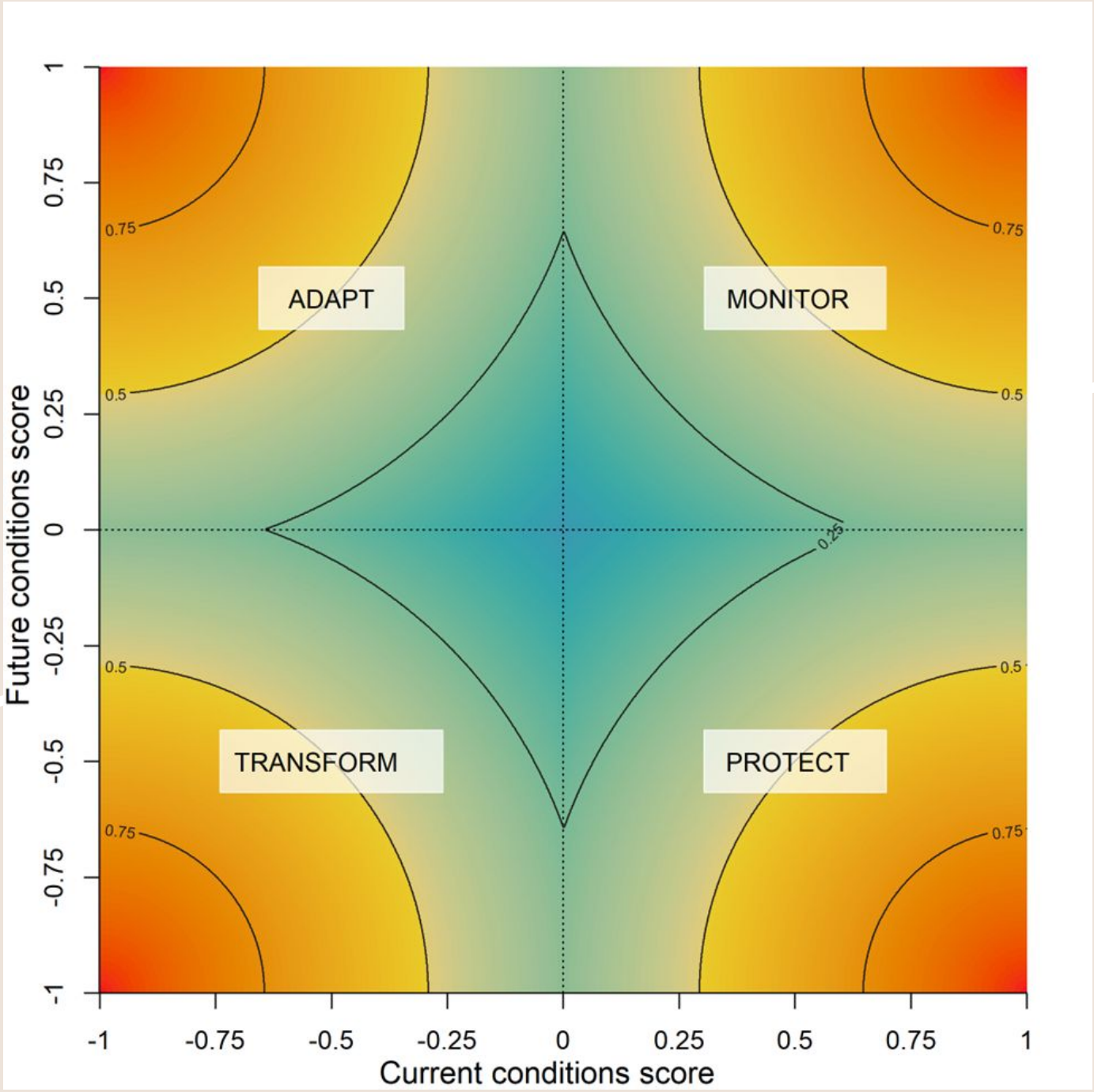
PROMOTe model of landscape management

What are the conditions today, and where are they headed under climate change?



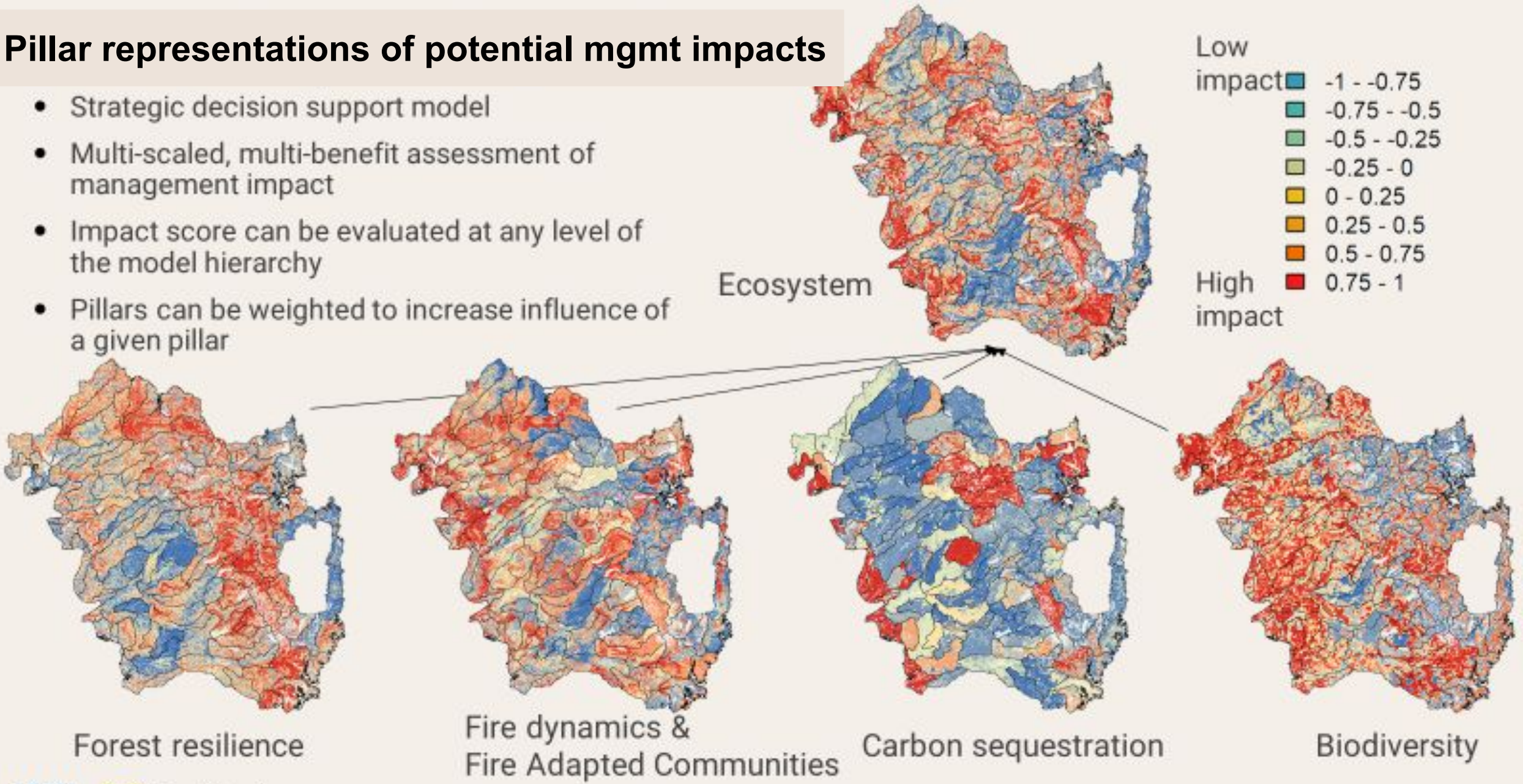
Many climate-informed mgmt frameworks lack quantitative methods

PROMOTe provides such a general methodology, linking strategic and tactical mgmt decisions



Pillar representations of potential mgmt impacts

- Strategic decision support model
- Multi-scaled, multi-benefit assessment of management impact
- Impact score can be evaluated at any level of the model hierarchy
- Pillars can be weighted to increase influence of a given pillar



USDA Forest Service
U.S. DEPARTMENT OF AGRICULTURE