



# **Watershed Recreation Management Plan – Community Workshop #2**

**July 13, 2022**





# Agenda

- Introduction
- Public Engagement
- Data Driven Planning
- Visitor Survey Data Collection
- Workshop Goals & Objectives
- Public Comment



# Initial Public Scoping Phase

- Partnered with Golden Gate National Parks Conservancy (GGNPC) to facilitate two public scoping meetings
- Outreached to 57 community groups to encourage participation
- Had 227 community members participate in the two public meetings
  - May 21<sup>st</sup> guest speakers presented on foundational concepts
  - June 25<sup>th</sup> facilitated breakout sessions to solicit community input
- Developed Summary Memo to capture community input and process

[www.marinwater.org/WatershedRecPlan](http://www.marinwater.org/WatershedRecPlan)



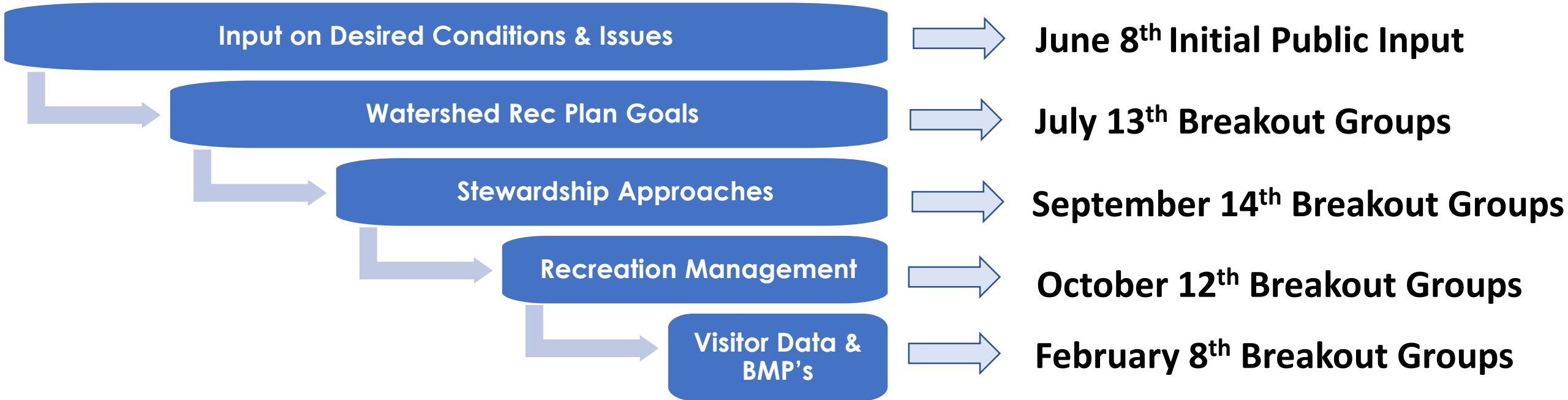
# Public Outreach

- Access 4 Bikes
- Afro Outdoors
- Audubon Canyon Ranch
- Bay Area Ridge Trail Council
- Brown Girl Surf
- California Alpine Club
- California Mountain Biking Coalition
- California Native Plant Society
- California State Parks
- Canal Alliance
- California Conservation Corps North Bay
- Coast Miwok of Marin County
- Cross country high schools teams in Marin
- Dipsea Race Foundation
- E-Bike Access
- Friends of Mt. Tam
- Golden Gate National Parks Conservancy
- Golden Gate National Recreational Area
- Grassroots Ecology
- High School Mountain Bike Teams
- Huckleberry Community Center
- Latino Outdoors
- MALT
- Marin Audubon
- Marin Chapter of the Sierra Club
- Marin Conservation League
- Marin County Bicycle Coalition
- Marin County Parks and Open Space
- Marin Env Housing Collaborative
- Marin Horse Council
- Marin Stables and Trails
- Mikes Bikes
- Mt Play Association
- Multicultural Center of Marin
- Muwekema Ohlone Tribe of SF
- Northern California Society of Botanical Artists
- River Otter Ecology
- San Anselmo Open Space Committee
- San Geronimo Valley Planning Association
- Sausalito Women's Club
- Save the Redwoods League
- Slide Ranch
- SPAWN
- Stinson Beach County Water District
- Student Conservation Association
- Tam Valley Community Services District
- Tamalpais Conservation Club
- The Baywood Artists
- The Meadow Club
- The New Wheel Electric Bikes
- Together Bay Area
- Trout in the Classroom
- West Point Inn
- Yes to Nature
- Youth Outside
- Friends of Corte Madera Creek

\* Direct consultation with Federated Indians of Graton Rancheria



# Public Input & Engagement





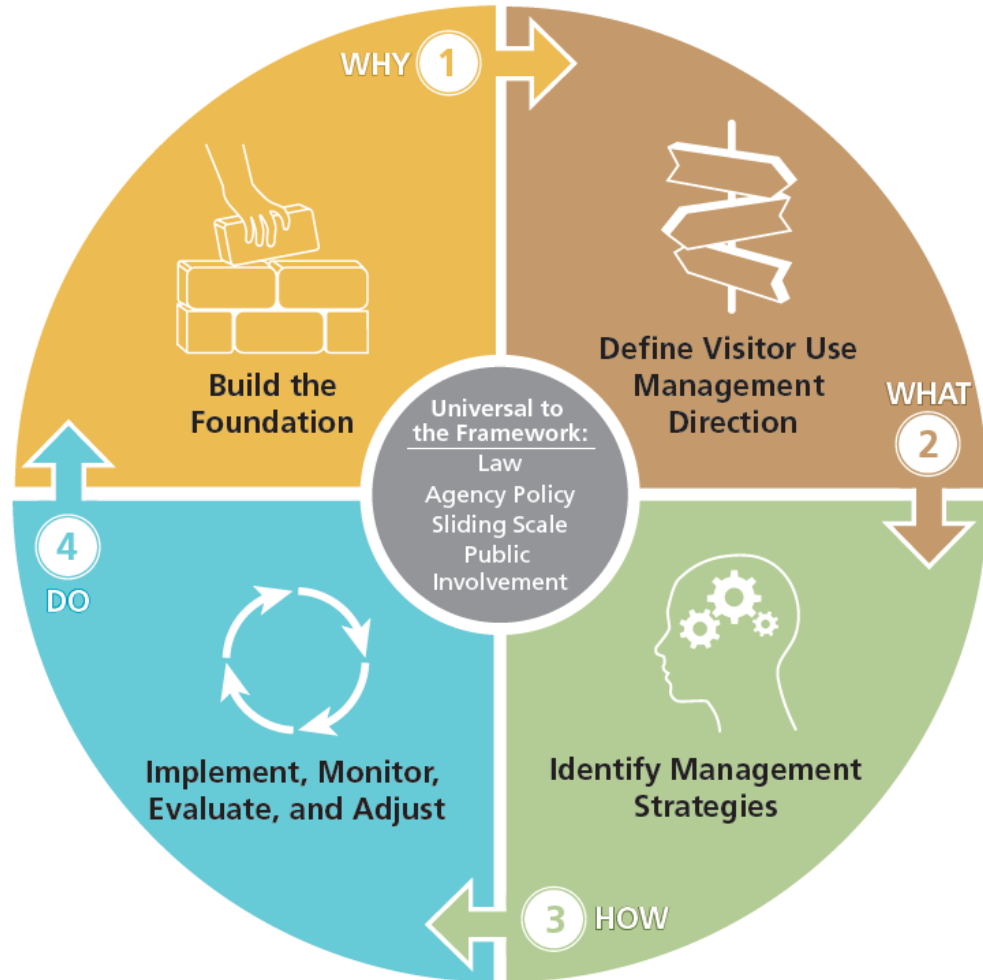


# Data Driven Planning



# Recreation Planning is a Data- Driven, Science- Informed Process

Figure 1. Overview of the Visitor Use Management Framework



# Basic Visitor Use Management Framework

- **Build the Foundation (Why):** What is the purpose and/or need? What issues are we facing? What issues can this plan address? What data and information do we have? What do we need?
- **Define Visitor Use Management Direction (What):** What are our desired conditions?
- **Identify Management Strategies (How):** What strategies can we use to achieve our desired conditions?
- **Implement, Monitor, Evaluate, and Adjust (Do):** Implement management actions and adjust them based on monitoring data.



Figure 1. Overview of the Visitor Use Management Framework

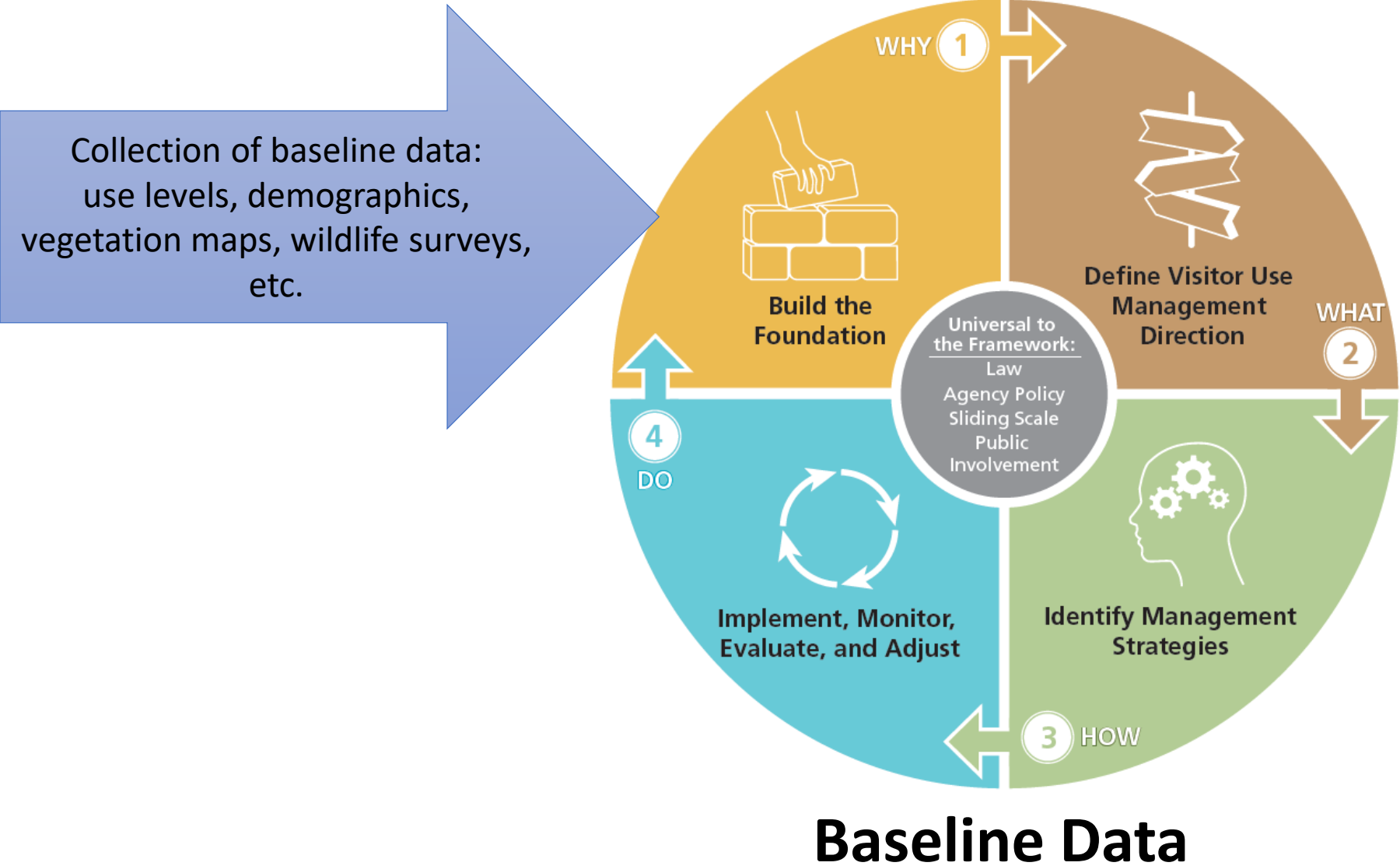
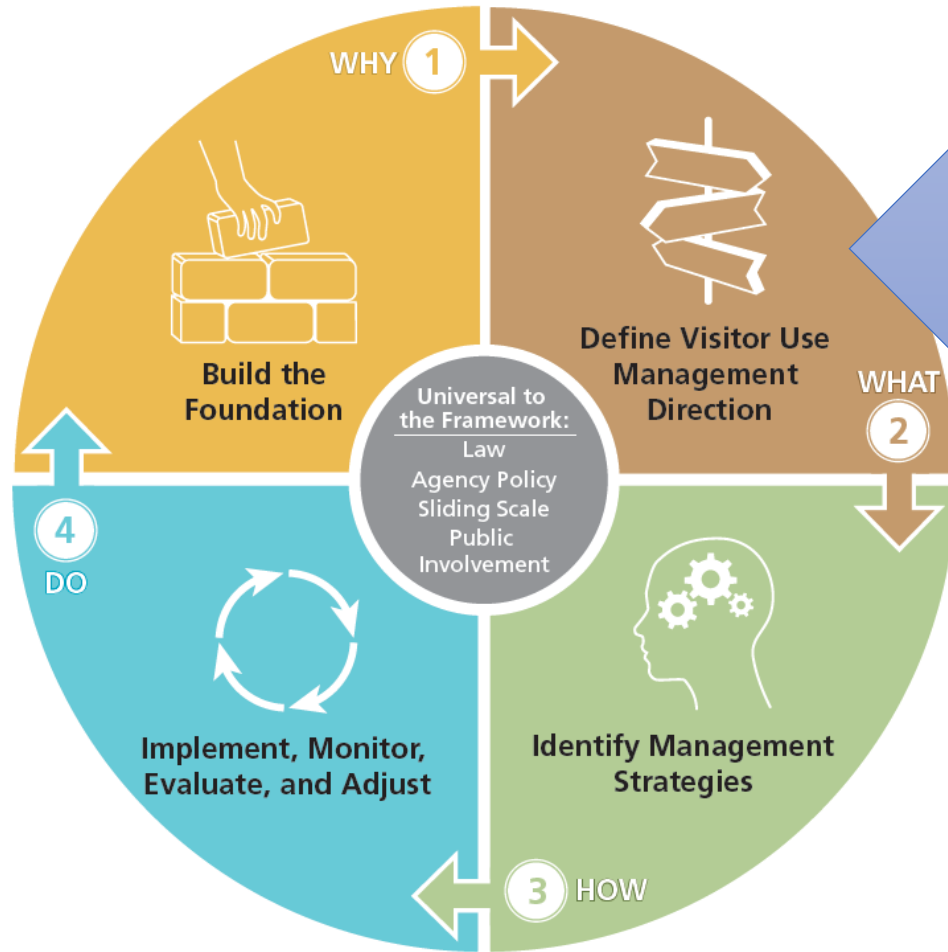


Figure 1. Overview of the Visitor Use Management Framework



Data on visitor perceptions, perceptions of conflict, current resource conditions, etc.  
→ inform desired conditions

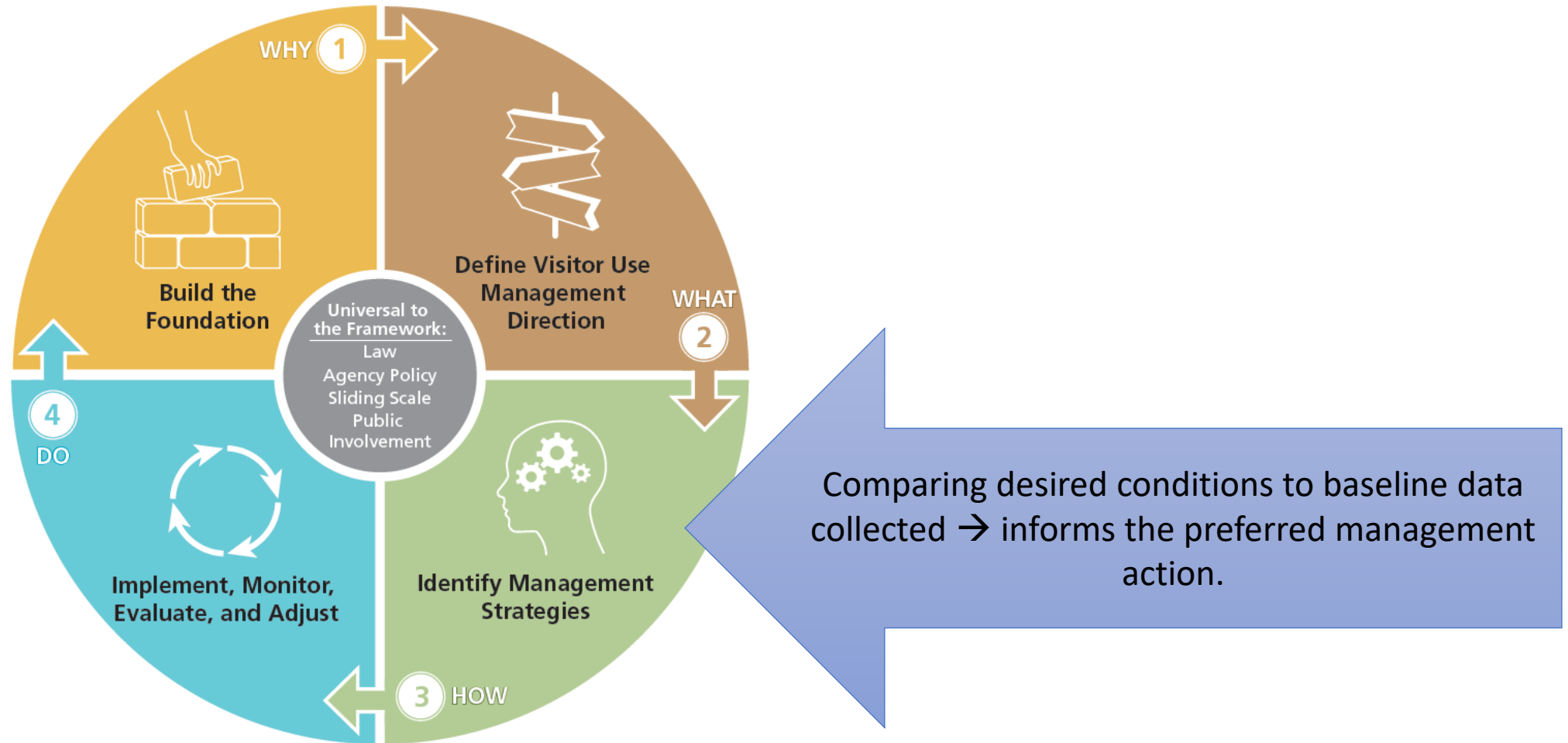
Baseline conditions and desired conditions → inform the selection of indicators of social or ecological resource conditions used in monitoring

(ex: # of social trails, water quality, encounters, trail width, etc.)

## Desired Conditions & Indicators

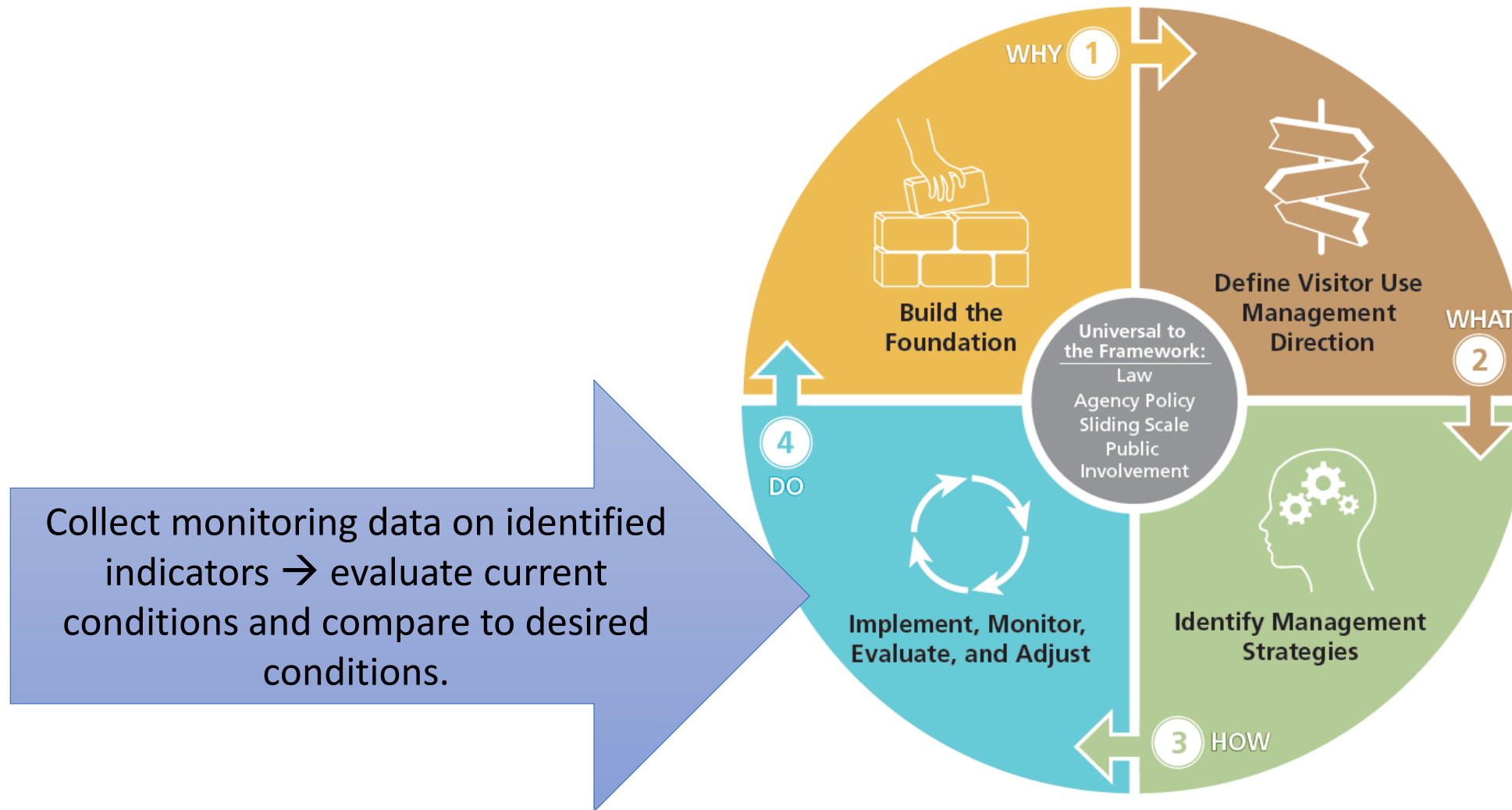


Figure 1. Overview of the Visitor Use Management Framework



## Data Comparisons to Inform Management Actions

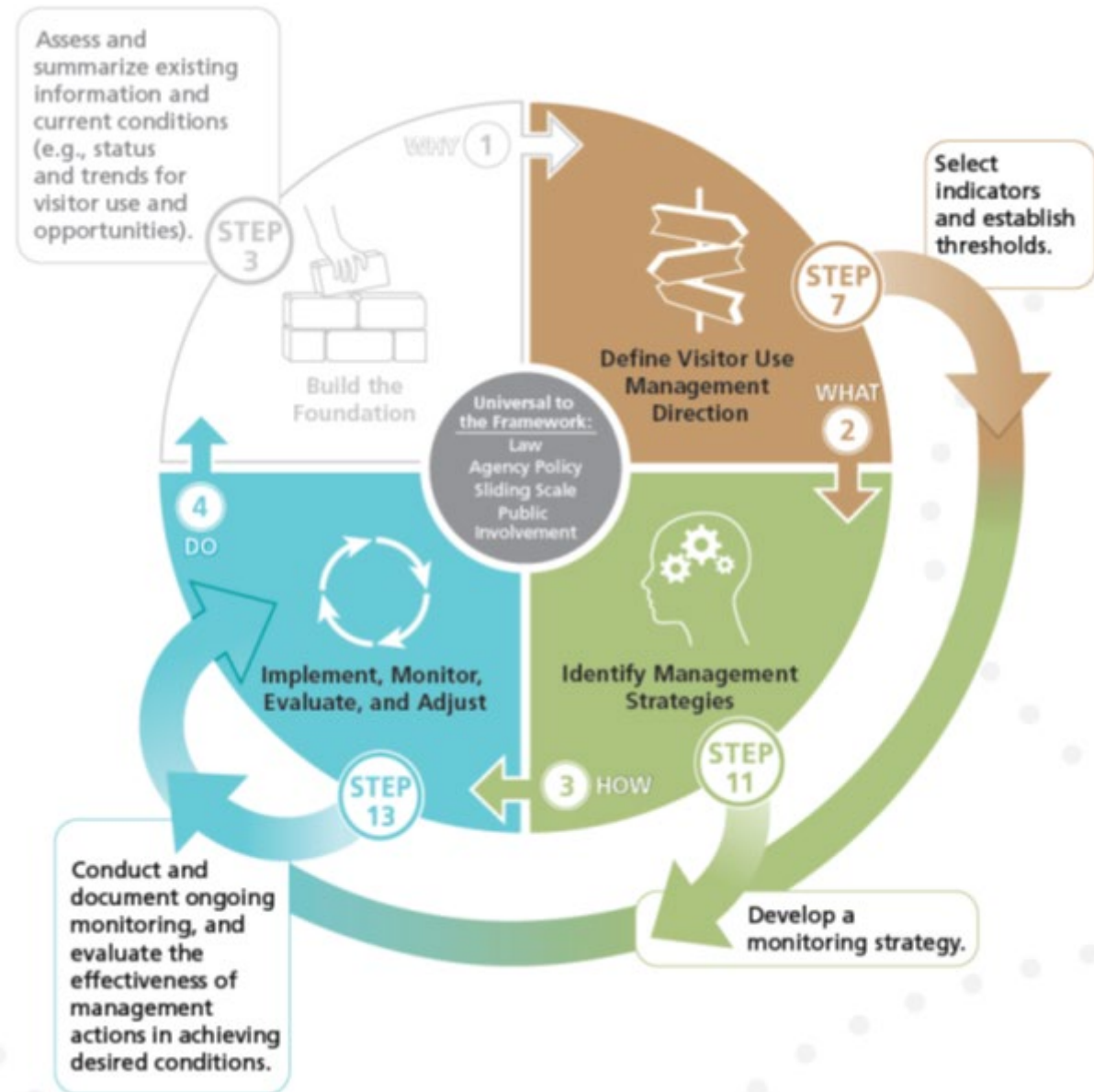
Figure 1. Overview of the Visitor Use Management Framework



## Adaptive Management

## Science-informed, data-driven, adaptive management!

Using **baseline data**, **indicators** and **thresholds**, and **monitoring protocols** to evaluate the effectiveness of **management actions** to achieve manager-developed **desired conditions**



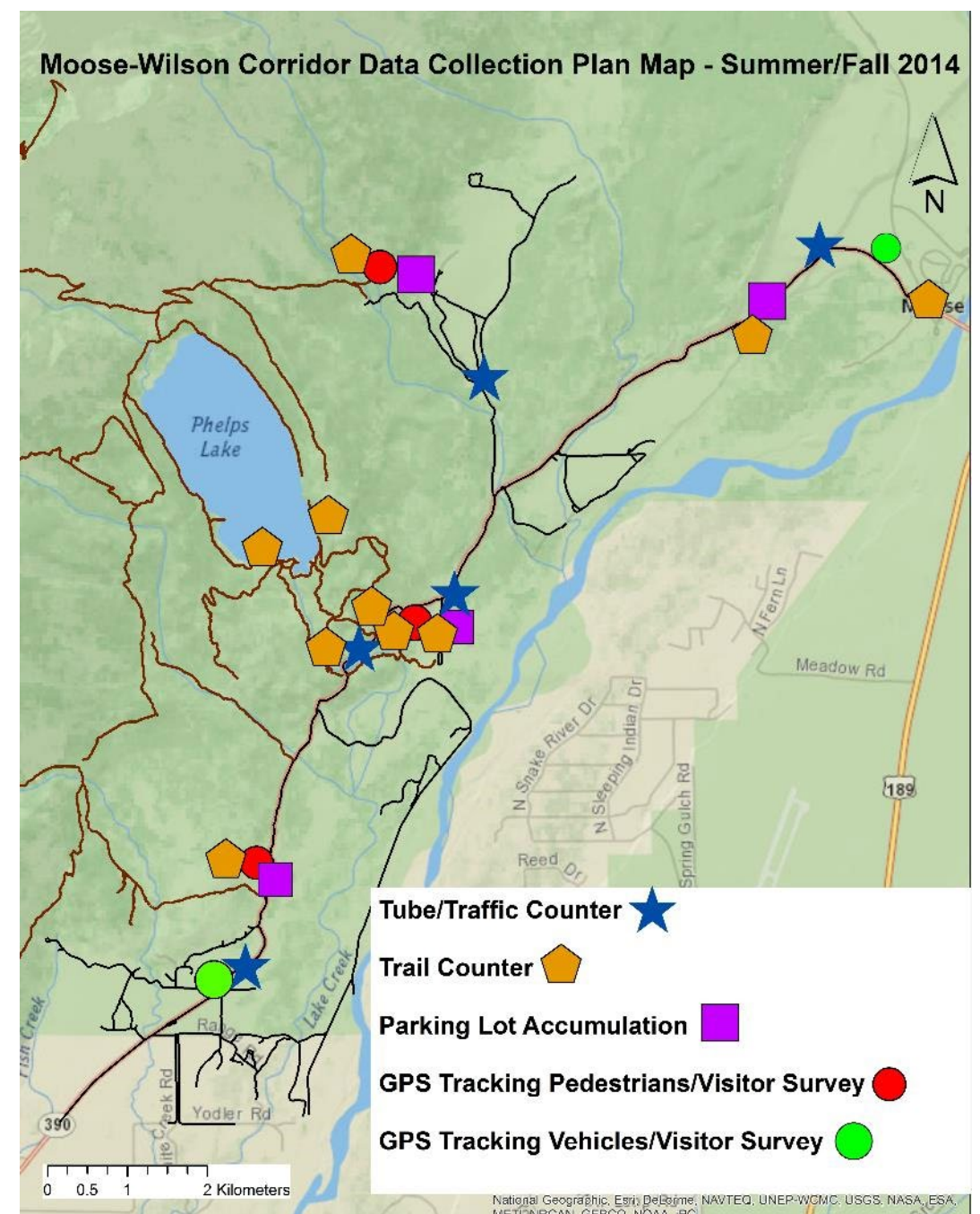


# **Examples of Data-Driven Recreation Management Plans**

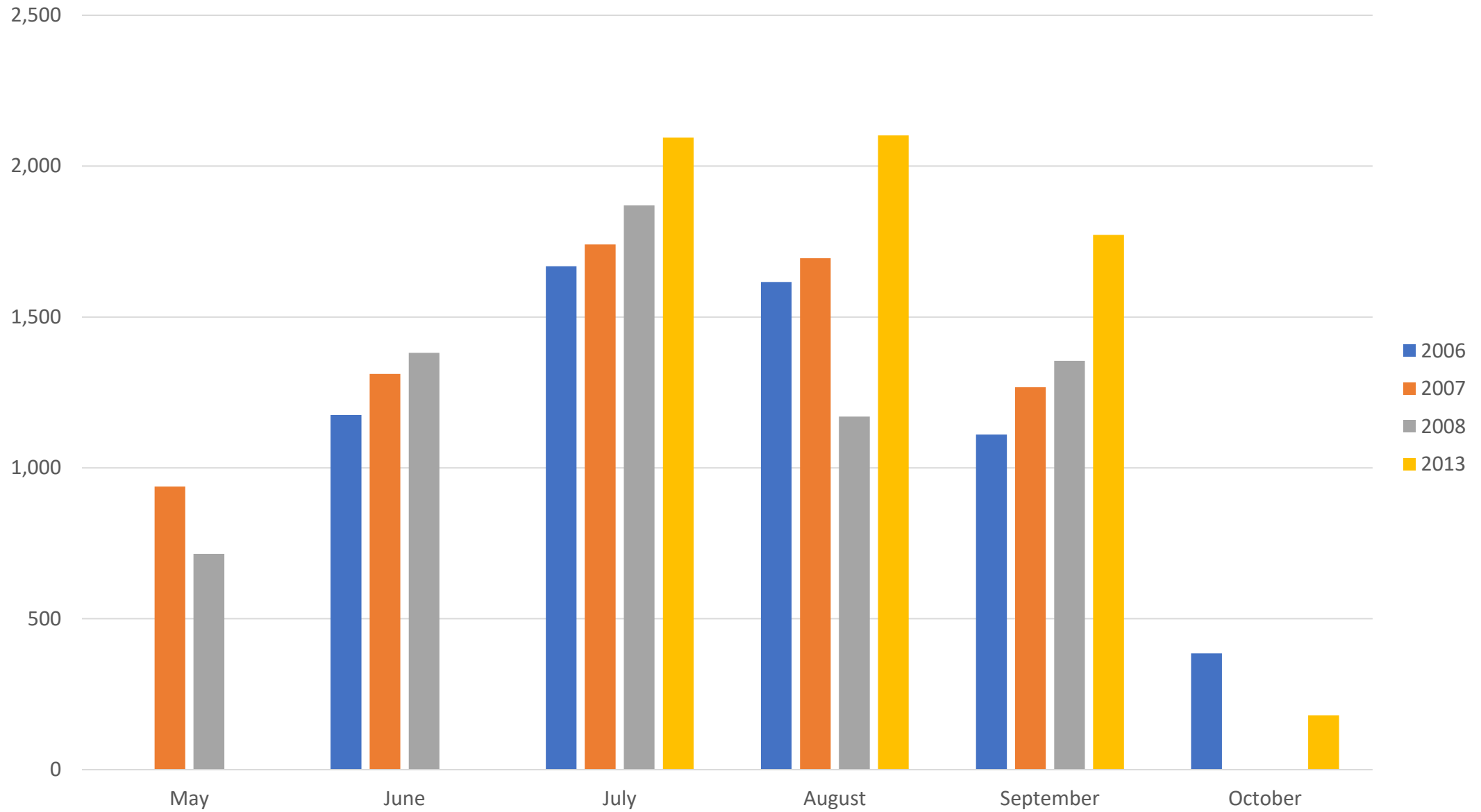
# Grand Teton National Park

## Moose-Wilson Corridor Comprehensive Plan

Comprehensive visitor use, experience, and ecological assessment to inform management decisions



Average Daily Vehicle Traffic on the Moose-Wilson Road Across Time





# What are the motivations of visitors?

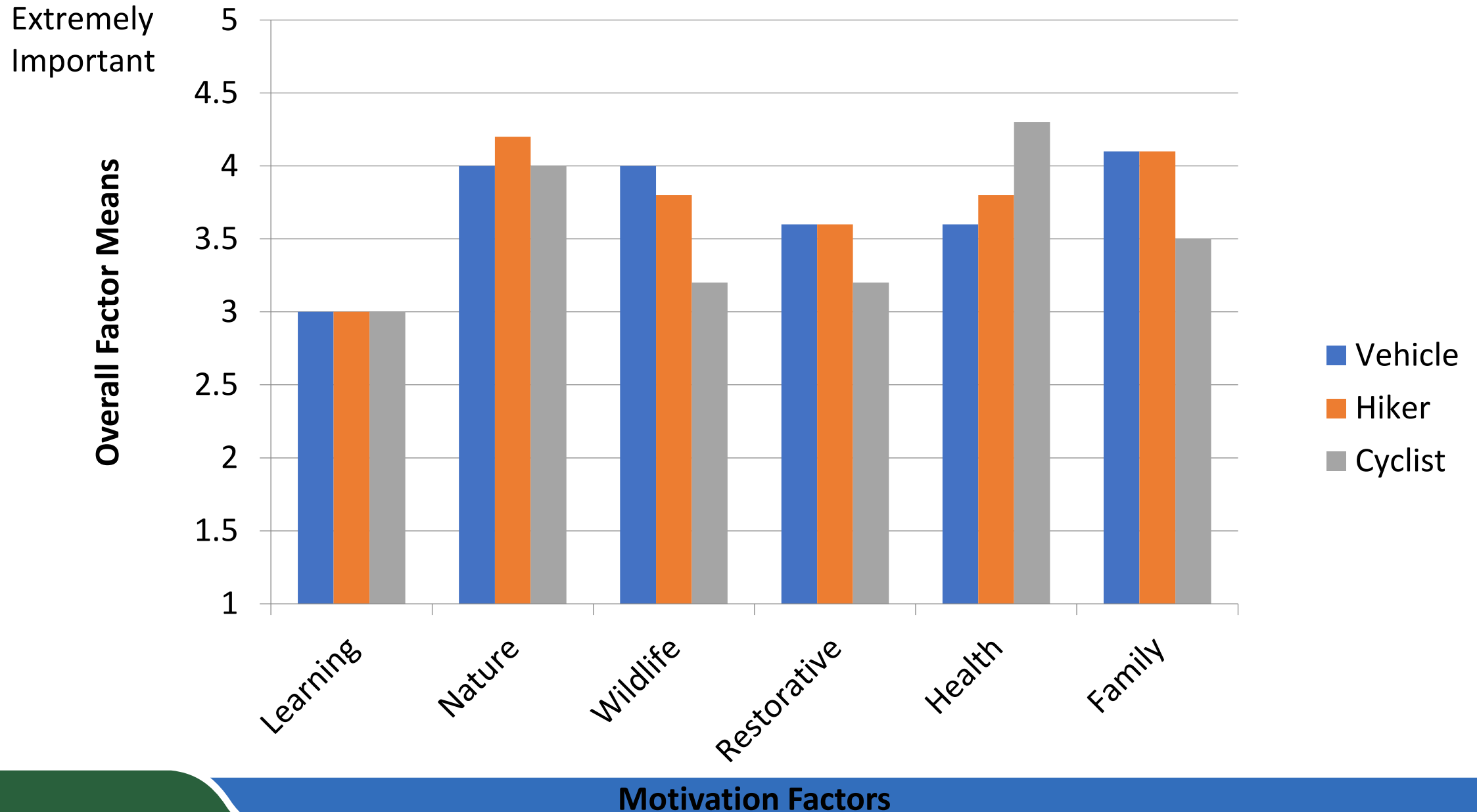
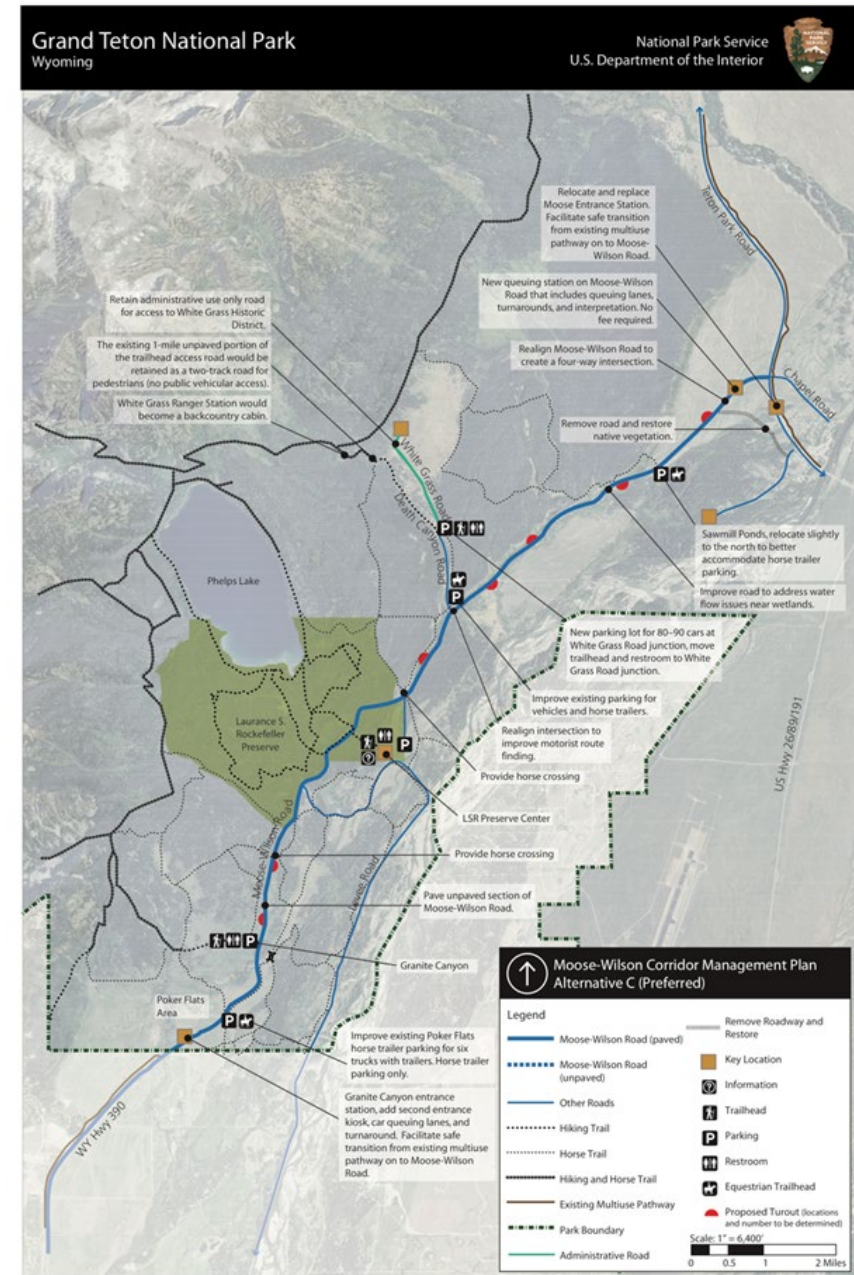




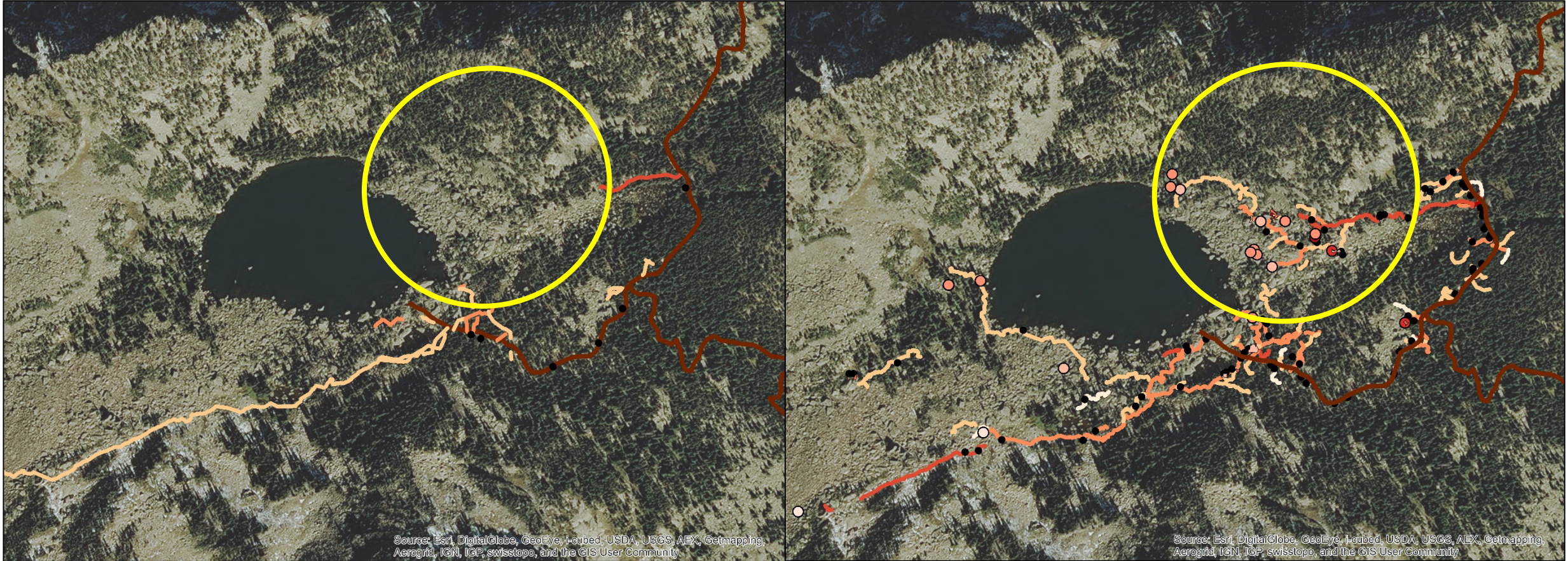
FIGURE1. VISITOR CAPACITY OF THE MOOSE-WILSON CORRIDOR: PEOPLE AND VEHICLES AT ONE TIME





# Rocky Mountain National Park, Lake Haiyaha

## Monitoring Resource Changes over Time



2008/2009

2015



# Community Science & Adaptive Management

- Restoration of social trails where appropriate
- Continued community science-led monitoring
- Uses tested data collection protocols

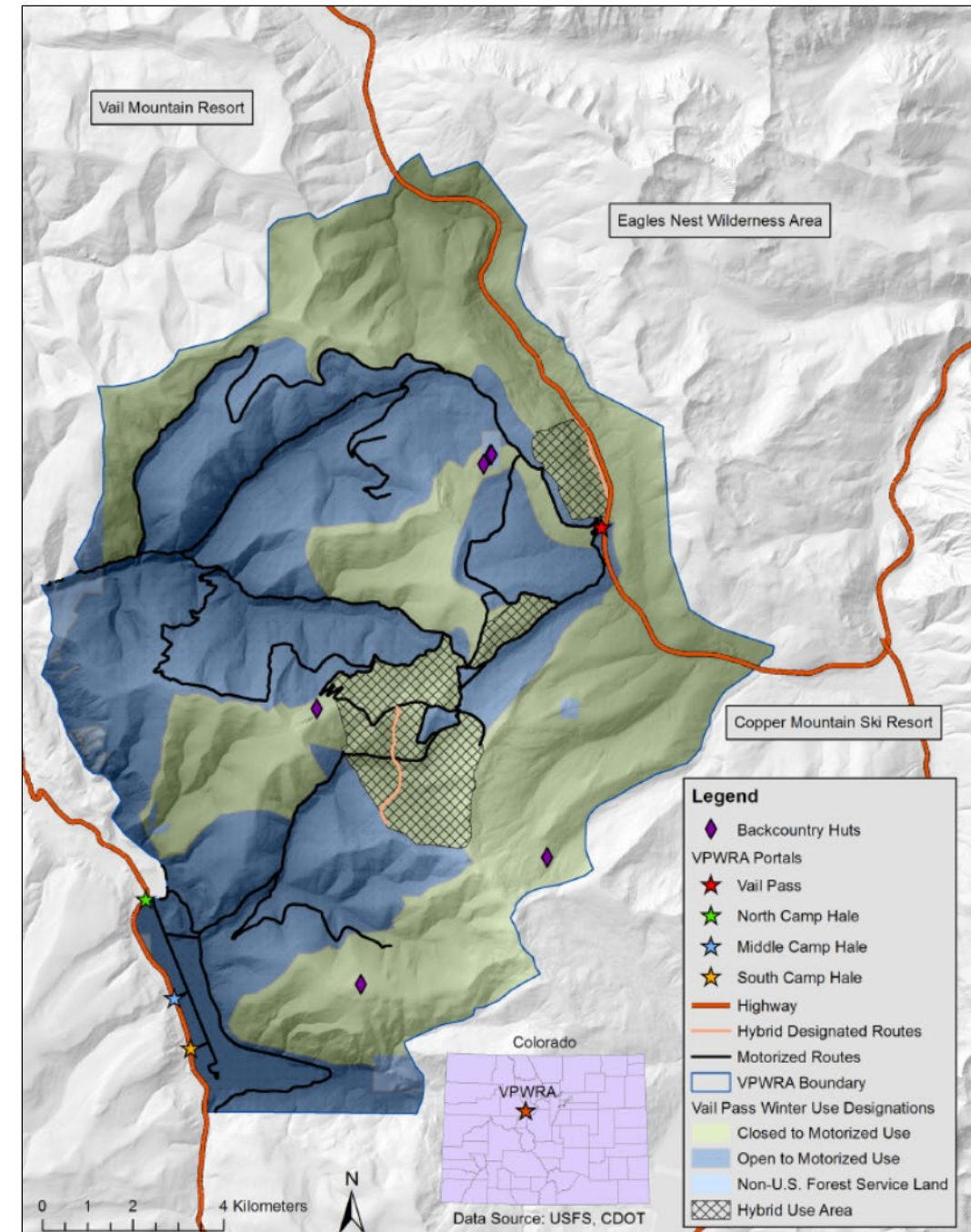




# Vail Pass Winter Recreation Area

## Effectiveness of Zoning to Reduce Conflict

- Previous studies identified conflict as an issue → fees & zoning solution during 2002 planning effort
- Used spatial data and surveys to evaluate the effectiveness of management decision





# **Combining Data for Resource Protections & Recreation Use**

# The Nature Reserve of Orange County

- Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) for the Central and Coastal Subregion of Orange County, California
- Target Species:
  - Coastal California Gnatcatcher
  - Coastal Cactus Wren
  - Orange-throated whiptrail
- Recreation use is high and multi-use (hiking & mountain biking)



# Intersection of Recreation Use with Sensitive Habitat

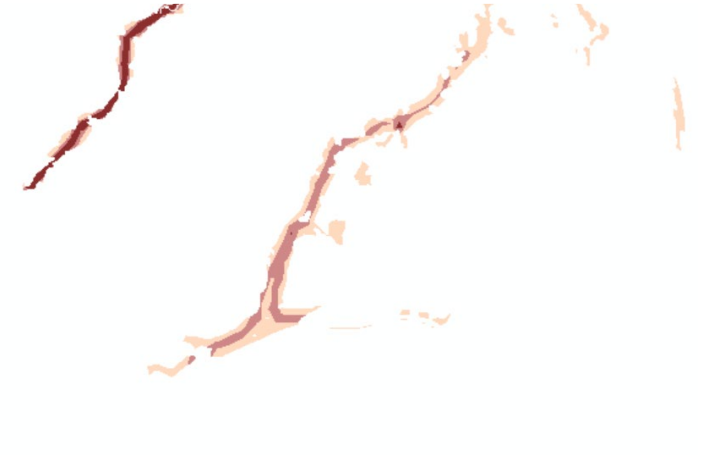
Visitor behavior & vegetation layer



Select only sensitive habitat categories



Intersect sensitive habitat with visitor use

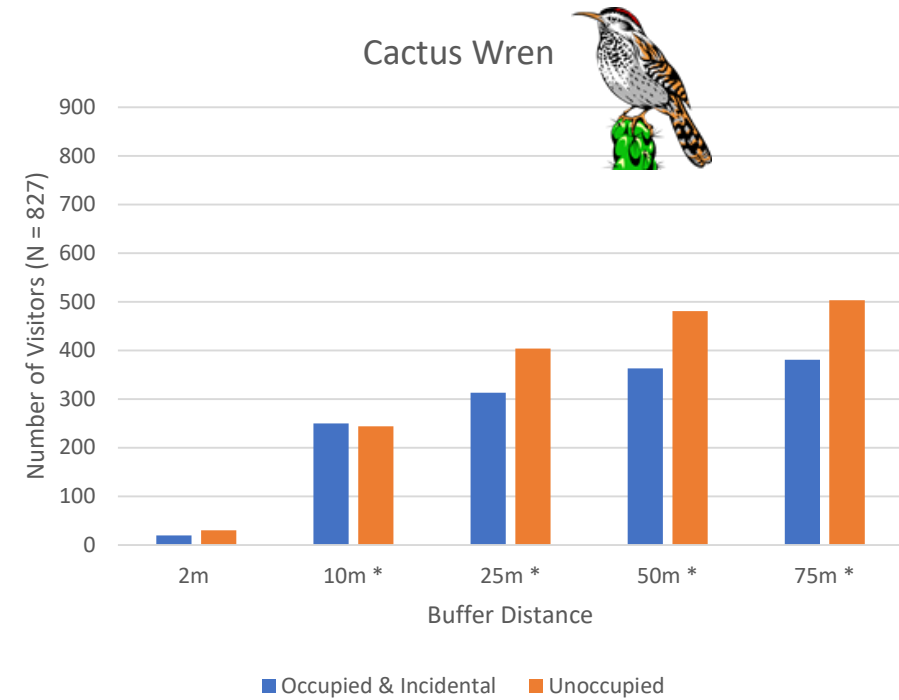
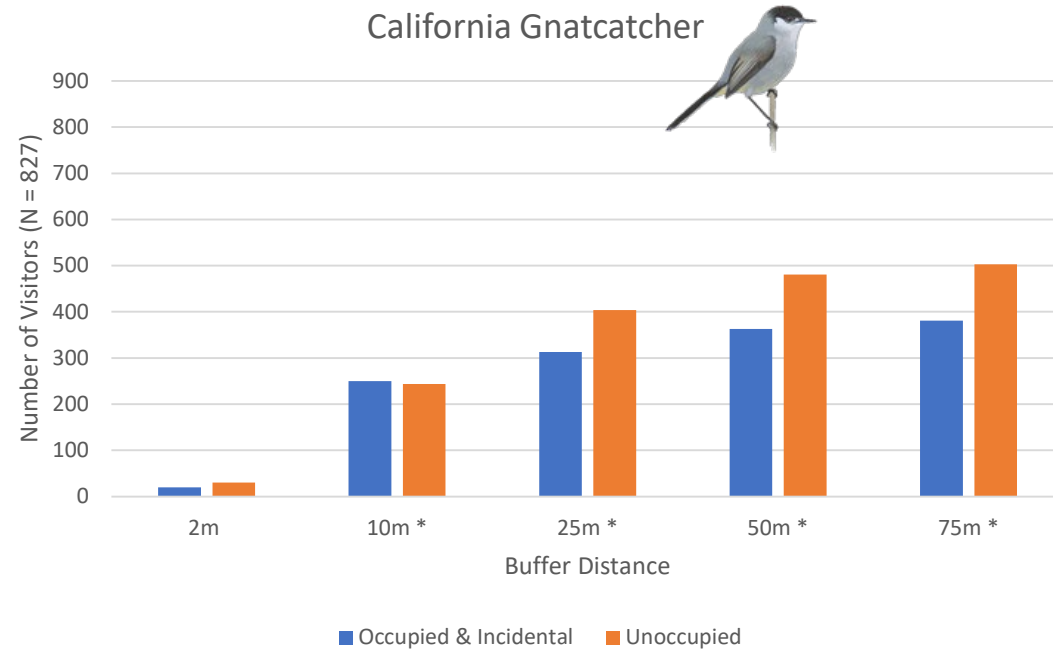


- California Maritime Chaparral Group
- Californian Coastal Sage Scrub Group
- Californian Seral Scrub Group
- Protected Oak Species
- Vegetation Restoration Zones





# Intersection of Visitor Use with Existing Bird Surveys/Monitoring







# Data Collection Methods



# Water Agency Interviews

## Peer Agencies

- East Bay Municipal Utility District
- Contra Costa Water District
- Casitas Municipal Water District

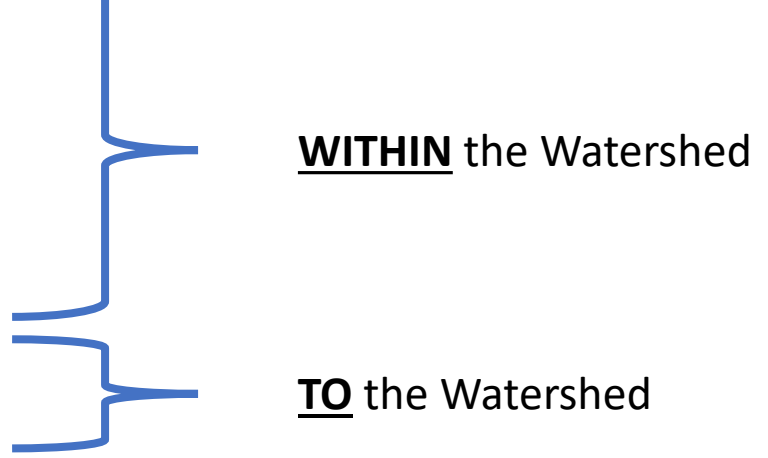
## Findings:

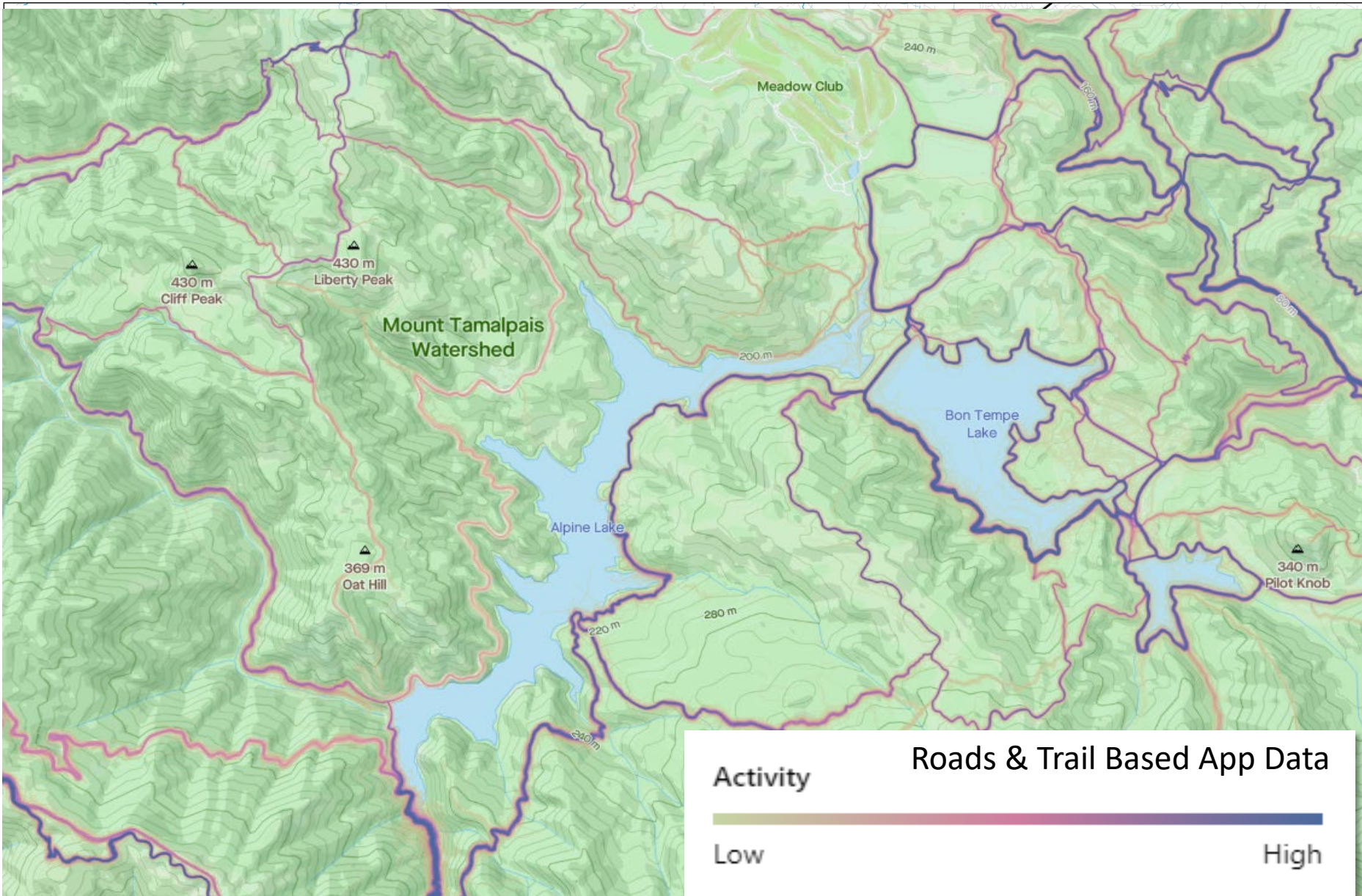
- MMWD is very unique among water districts
- Similar Goals – Provide quality water, protect natural resources **AND** provide recreation opportunities
- Recreation management approaches-trail permits, restrictions on types of use, protected areas with no public access, interpretive centers, signage, stewardship and volunteer programs, road and trail maintenance, designated recreation areas, and rangers.



# Visitor Survey Data Collection Process

Identifying usage patterns traveling within and to the watershed.

- Watershed Census Survey Update 2022
  - Eco-counters
  - Strava - Trail app data
  - Streetlight – Anonymous Cellphone GPS data
  - Online Survey for Ratepayers
- 
- The diagram uses blue brackets to group the list items. The first three items (Watershed Census Survey Update 2022, Eco-counters, and Strava - Trail app data) are grouped under the label WITHIN the Watershed. The last two items (Streetlight – Anonymous Cellphone GPS data and Online Survey for Ratepayers) are grouped under the label TO the Watershed.
- WITHIN the Watershed
- TO the Watershed

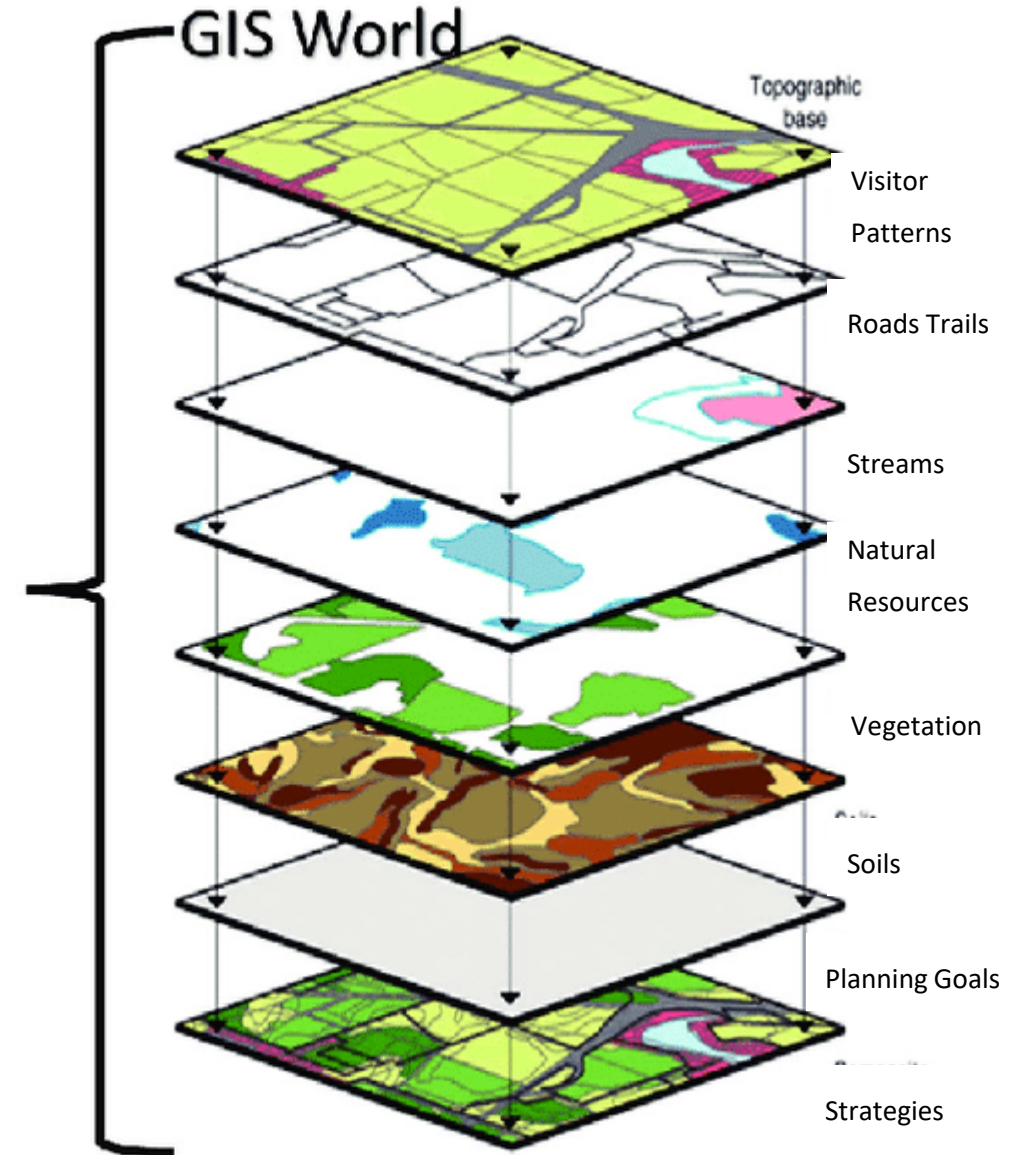




# Data Driven Planning



**Visitor Use Data-Trail & Road Network, Intercept Surveys, Trail Counters, Strava, Streetlight, etc.**



# Watershed Census Survey Volunteer Opportunities

- Collection from August 30 – October 1
  - Three Tuesdays – August 30, Sept 13, Sept 20
  - Three Thursdays – Sept 8, Sept 22, Sept 29
  - Three Saturdays – Sept 10, Sept, 17, Oct 1
- Sign Up to Volunteer (coming soon)

<https://www.marinwater.org/WatershedRecPlan>





# Working Session



# Ground Rules:



**Respect** competing views



**Make space** for alternative perspectives



**Recognize** differences



Acknowledge that **compromise will be essential**



# Working Session: Setting Goals

- Randomly assigned into groups of about 20 people
- Work on developing goals and objectives that the group can agree on
- Facilitated by Consultant or District Staff
- Facilitator to record goals and objectives as developed
- No maximum or minimum goals/objectives
- Select 1 or 2 to present goals/objectives in 2 minute summary at end

Discussion (25 minutes)

Reconvene (2 minute report outs)

# What is a 'goal'?

“The end toward which effort is directed” Merriam-Webster

“An achievable outcome that is broad and long-term”

# What is an 'objective'?

“The specific steps to be taken to achieve the stated goal”

“Defines measurable actions in the short term to achieve the overall goal”



# Sample Goals and Objectives

## Goal #1

1. Protect and, where possible, enhance the water quality and natural resources on the Watershed as part of any recreation project

## Objective #1

1. Modified trail facilities should offer a net benefit to the watershed in terms of water quality (erosion), environmental protection/restoration, and/or reduced user conflicts

## Objective #2

1. Review and adopt, as appropriate, nationwide 'best recreation management practices' including from other water districts

## Other potential goal topics

Reduce environmental impacts of visitors on Mt. Tamalpais

Data-driven monitoring (adaptive management)

Improve road and trail safety

Inclusive public involvement

Establish multi-use connection to alleviate congestion

Prioritize social trail closures in areas with sensitive natural resources

Trail stewardship programs to connect community to Mt. Tamalpais

Establish science based visitor management zones



# Notes





# Project Next Steps



# Project Timeline





# Thank You

