



**MARIN
WATER**

Watershed Recreation Management Planning Update

June 15, 2023



Agenda

➤ **Community Workshops**

- Introduction + Project overview + Issues
- Data collection + Visitor surveys + Areas of Interests
- Stewardship + Outreach programs
- Watershed Facilities + Multi-benefit solutions
- Visitor Management Strategies + Zones

➤ **Watershed Visitor Census Survey Data**

- Intercept Survey Data
- StravaMetro Data
- Eco-Counter Data

➤ **Next Steps**



Helen Mark Trail Bridge

Planning Objective

Evaluate current patterns of watershed visitation while collecting community input on current conditions and future desired conditions.

Consider opportunities for continuing to support safe, inclusive access with an emphasis on protecting the watershed's unique biodiversity, habitat, and water quality.



Workshop #1 Input

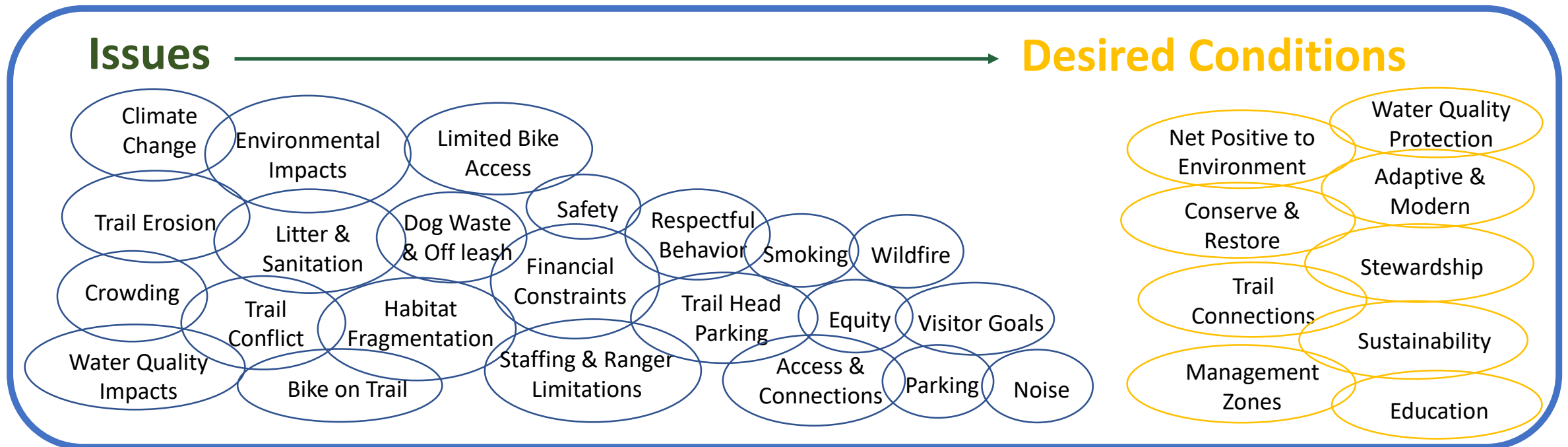
Public Input helped frame issues + identify potential improvements:

- Physical, Environmental, and Operational Improvements
- Institutional Constraints
- Environmental Protection and Restoration
- Trends and Patterns of Use
- Visitor management is key to natural resources protection
- Visitors have varying goals
 - Not all visitor goals are in alignment
 - Conflicts arise when various visitors feel excluded or can't meet their goals
- Long history of competing views

Workshop #1

Issues & Desired Conditions

- What issues are we facing?
- What desired conditions do you want to see and how do they align with the District's primary mission?
- How might these desired conditions resolve issues that you perceive?



Workshop #2 Takeaways

Identifying Areas of Interest - A

Support community-based stewardship to reduce visitor impacts, protect water quality and restore natural resources to support biodiversity

- Work with diverse community groups to expand watershed stewardship programs that engage visitors as active stewards through trail maintenance, litter abatement, invasive plant management, restoration, community science and visitor outreach.
- Sustainable stewardship of the watershed begins with maintaining existing visitor amenities, while protecting and restoring natural resources.

Workshop #2 Takeaways

Identifying Areas of Interest - B

Maintain a sustainable network of roads and trails that supports various visitors' goals while restoring and preserving the watersheds ecological function

- Consider updates to roads and trails with focus on a net positive environmental impact.
- Potentially modify trails and roads to spread visitors out, address points of congestion and reduce environmental impacts associated with the existing roads and trails network.
- Evaluate visitor management zones approach to protect sensitive natural resources and facilitate visitor access.

Workshop #2 Takeaways

Identifying Areas of Interest - C

Adaptively manage the current Roads and Trail Management Plan to respond to changing environmental and visitor conditions

- Complete watershed census surveys every 10 years to inform periodic updates to trails, service roads, parking, and other visitor management systems and facilities.
- Update Roads and Trail Plan with new trail classification and project restore approach that supports visitor access and watershed restoration.
- Adaptively manage visitor services (parking, signs, maps, stewardship activities, enforcement, etc.) to address changes in patterns of visitation.

Workshop #3 Stewardship

Key Takeaways

Education and Community Science

- Standardize trail head signage with regulations and maps
- Support programs that connect with under-served groups
- Expand outreach around responsible recreation + “Slow and Say Hello” programs
- Collaboration with One Tam
- Watershed interpretation activities to connect with visitors (especially youth)

Restoration + Trail/Road Stewardship

- Update project restore approach to balance closure with multi-use access
- Expand trail stewardship and habitat restoration volunteer events
- Visitor outreach programs and monitoring of visitation

Watershed Ambassador

- Expand watershed ambassador program to enhance visitor outreach
- Continue watershed litter abatement program developed during COVID
- Connect visitors to the watershed to educate them about drinking water, biodiversity, and responsible recreation

Workshop #4 Facilities

Key Takeaways

- Support for trail maintenance stewardship programs
- Support for Watershed Ambassador program
- Adaptive management approach and modern trail planning
 - Updates to project restore work plan and restoration priorities
 - Review of trail classification to support multi use access and bike trails
- Enhance Watershed Interpretation
 - Review of outreach programs and enforcement approach
 - Watershed trail signage and updated watershed trail map

Workshop #5 Visitor Management

Key Takeaways

Watershed zoning strategy to protect sensitive resources while prioritizing user experience and facility improvements

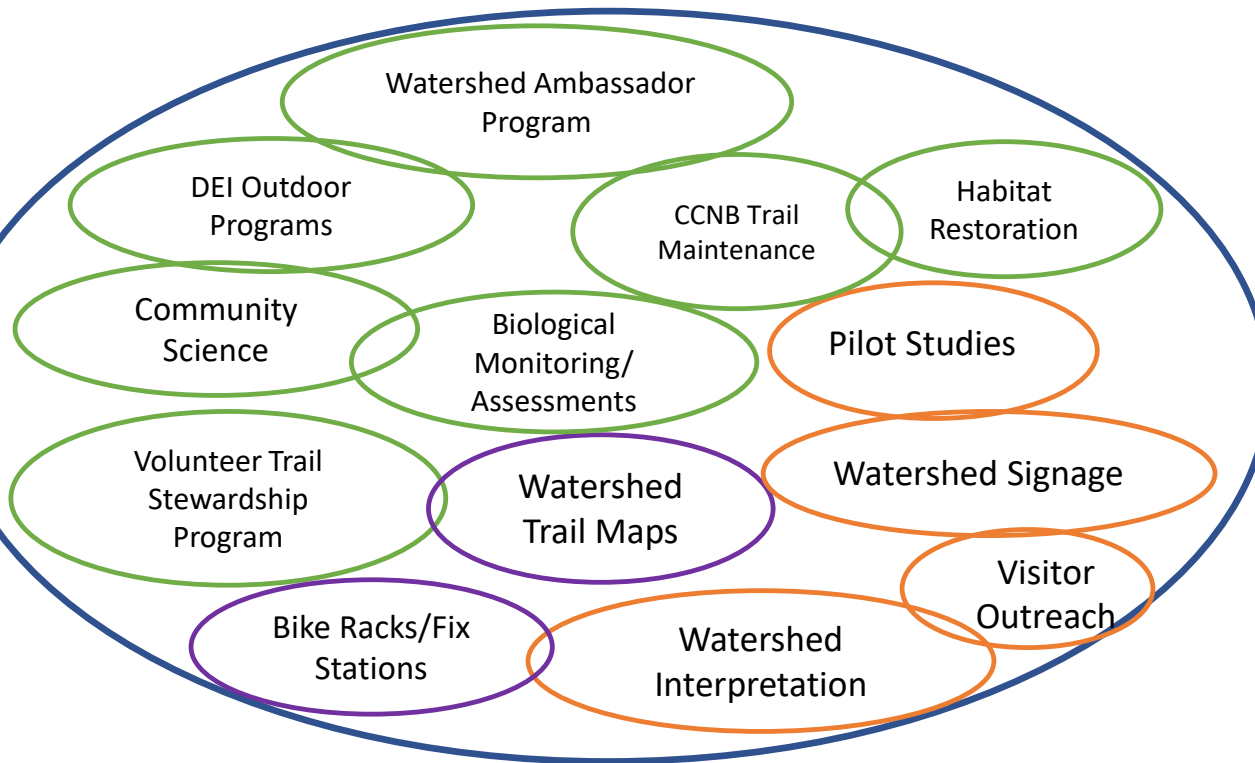
Social/Recreation	<ul style="list-style-type: none">Access/ Inclusivity/ ADAHiking/ Walking trailsMountain biking trail experienceNature immersion/ SolitudeEquestrian Routes
Ecological/Watershed	<ul style="list-style-type: none">Biodiversity and ecosystem healthEnvironmental educationErosion/ Trail maintenanceWildfire MitigationWater Quality ProtectionSensitive Habitat Protection
Managerial	<ul style="list-style-type: none">Habitat RestorationWatershed AmbassadorTrail ClassificationsResponsible RecreationTrail safety considerationsTrail head signageTrails stewardship



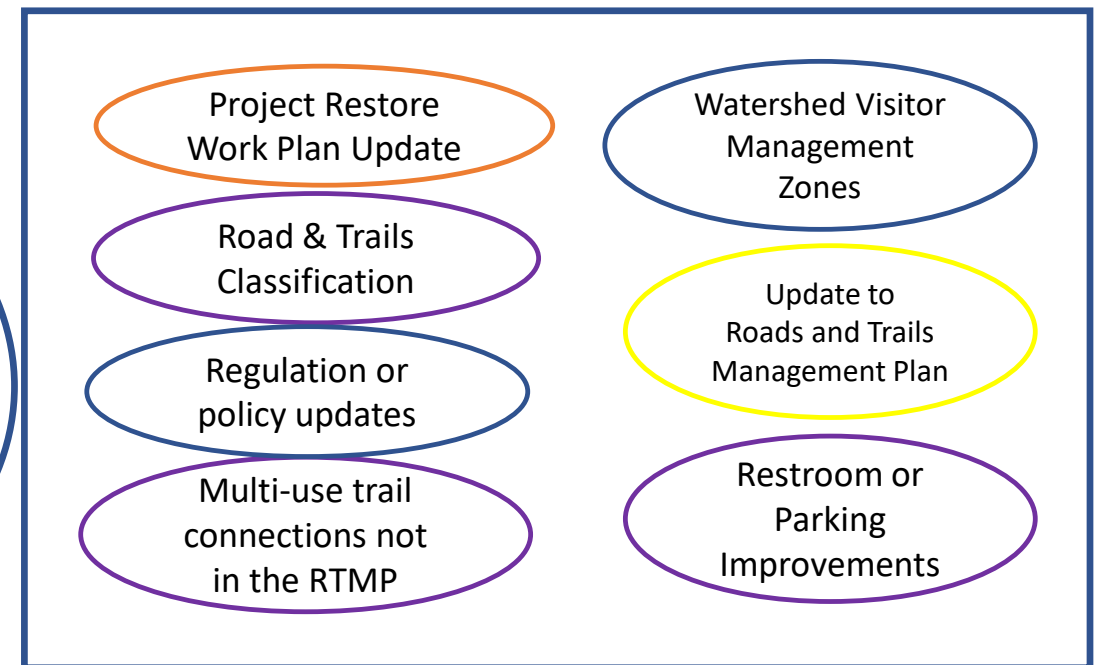
Workshop #6 Adaptive Management

Key Takeaways

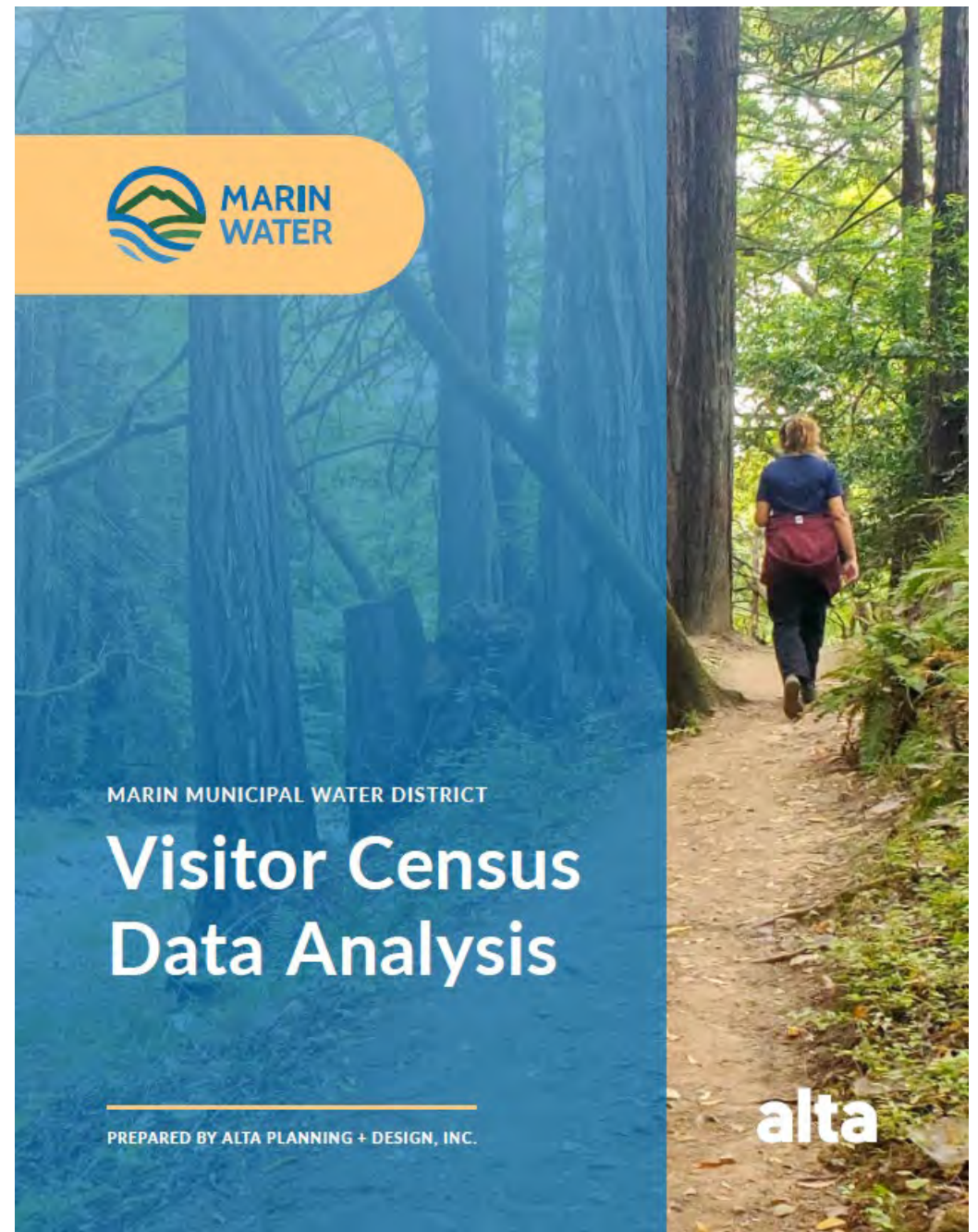
Examples of Near Term Takeaways



Takeaways Requiring More Analysis



Watershed Visitor Census Survey Data Analysis



Watershed Visitor Census Survey

Intercept Surveys

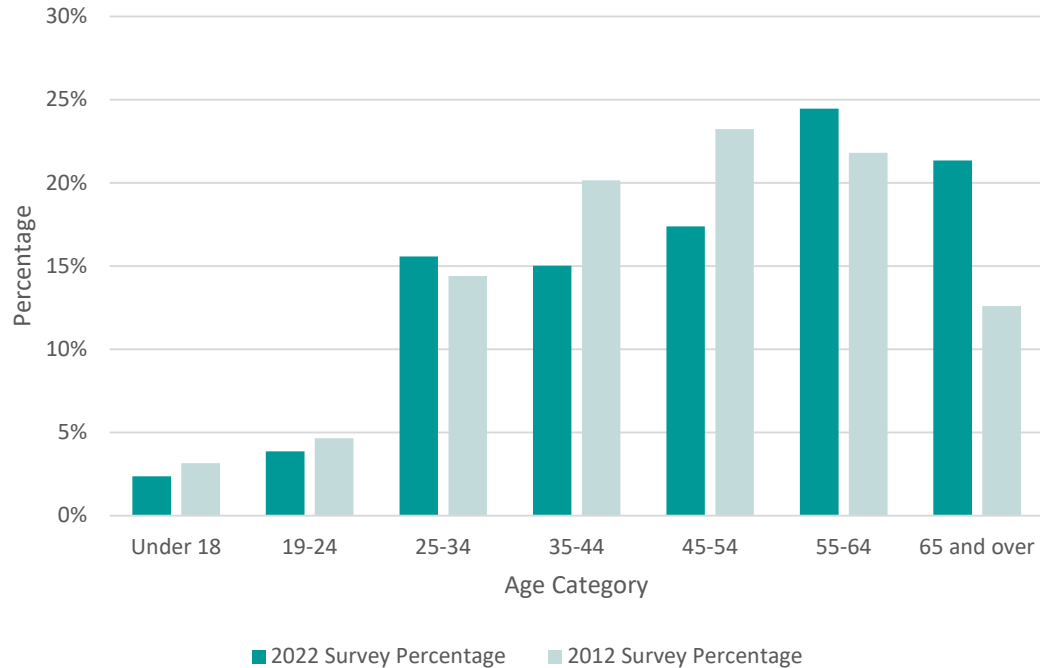


Figure 1: Visitor Age Comparison Between 2022 & 2012 Survey

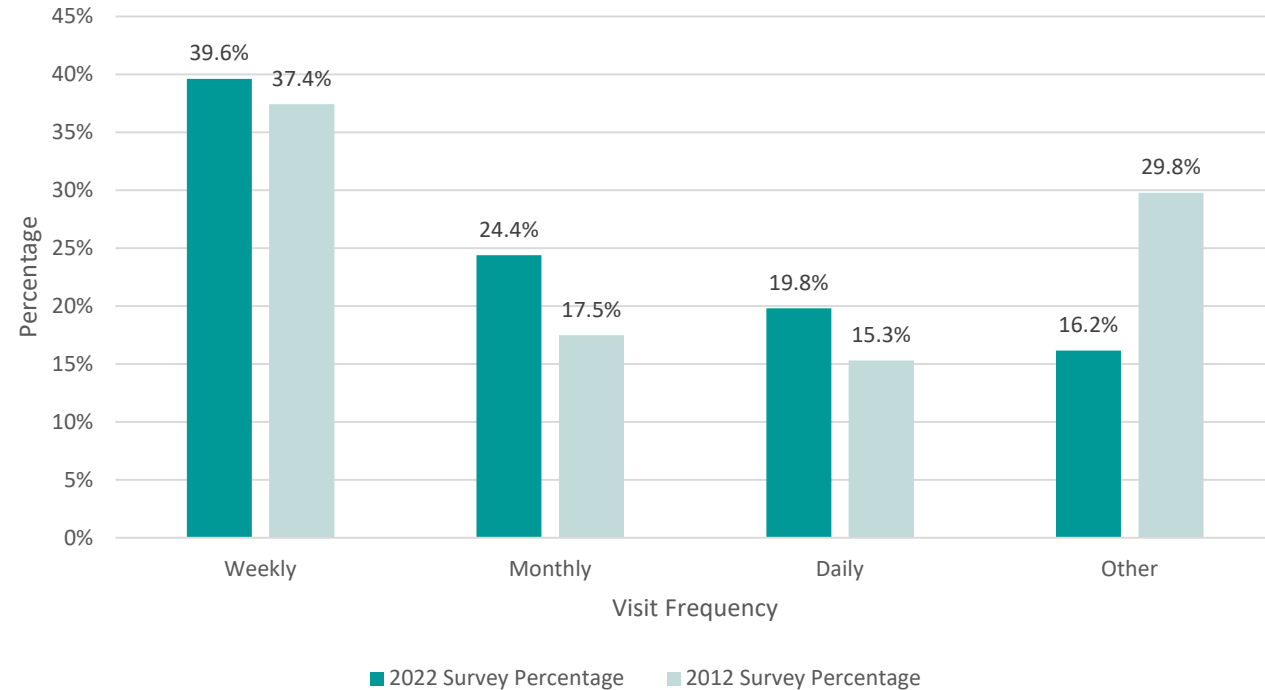


Figure 2: Visitor Frequency Comparison Between 2022 and 2012 Survey

Watershed Visitor Census Survey

Intercept Surveys

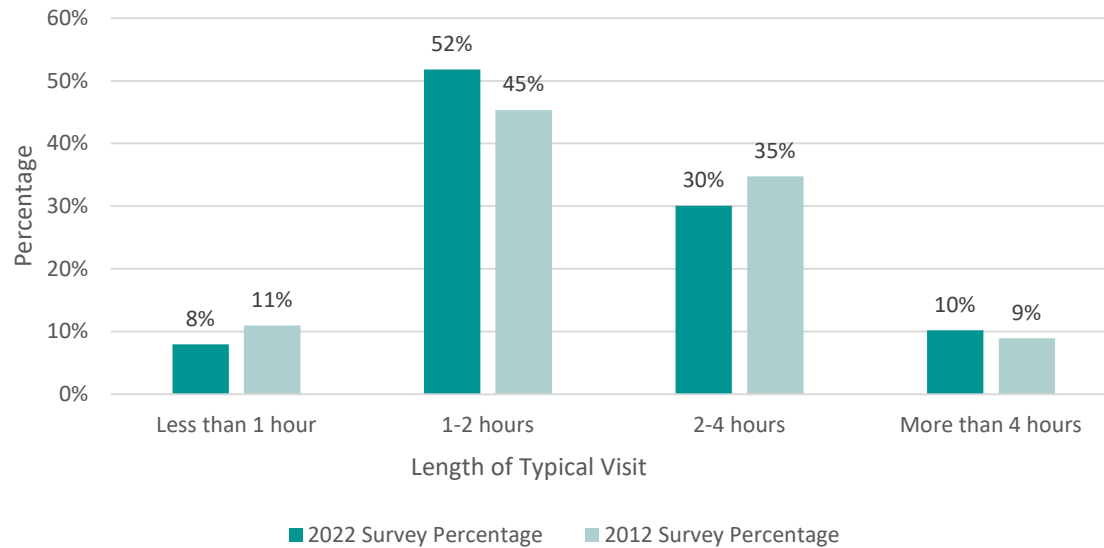


Figure 3: Comparison of Typical Length of Visit

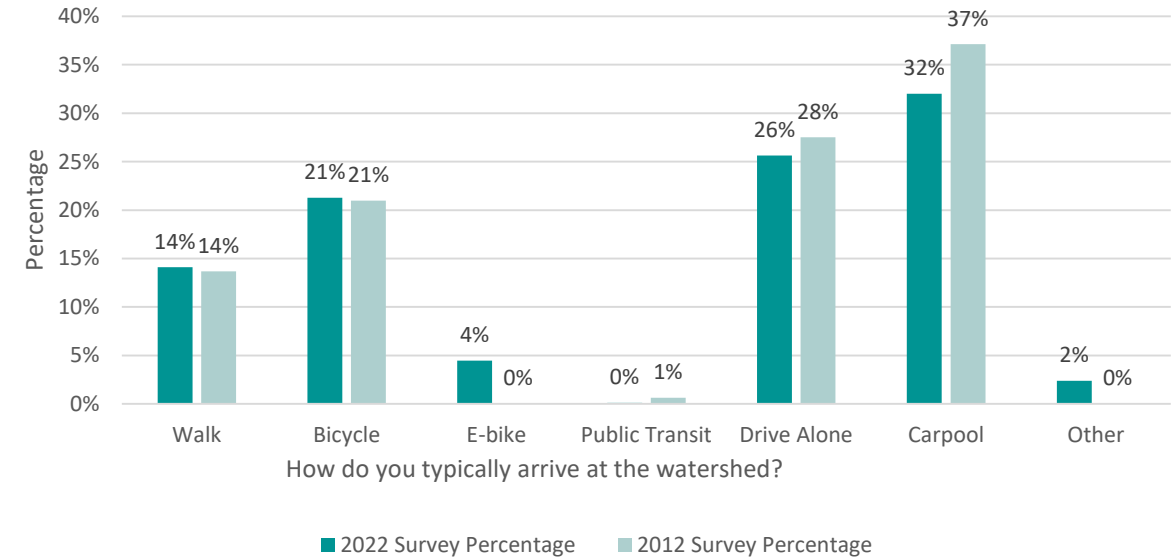


Figure 4: Comparison of Typical Visitor Arrival

Watershed Visitor Census Survey

Intercept Surveys

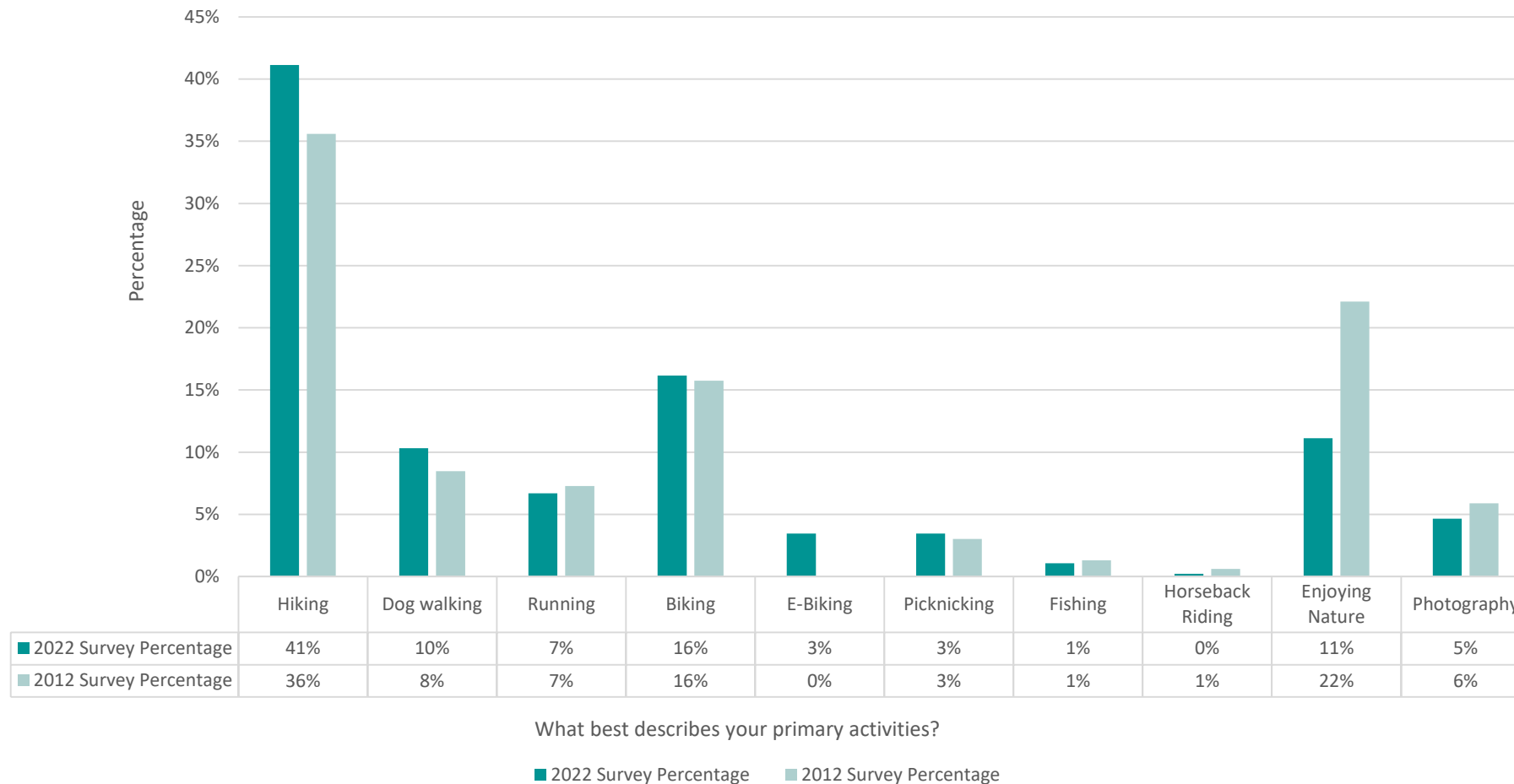


Figure 5: Comparison of Primary Visitor Activities

Watershed Visitor Census Survey

Intercept Surveys

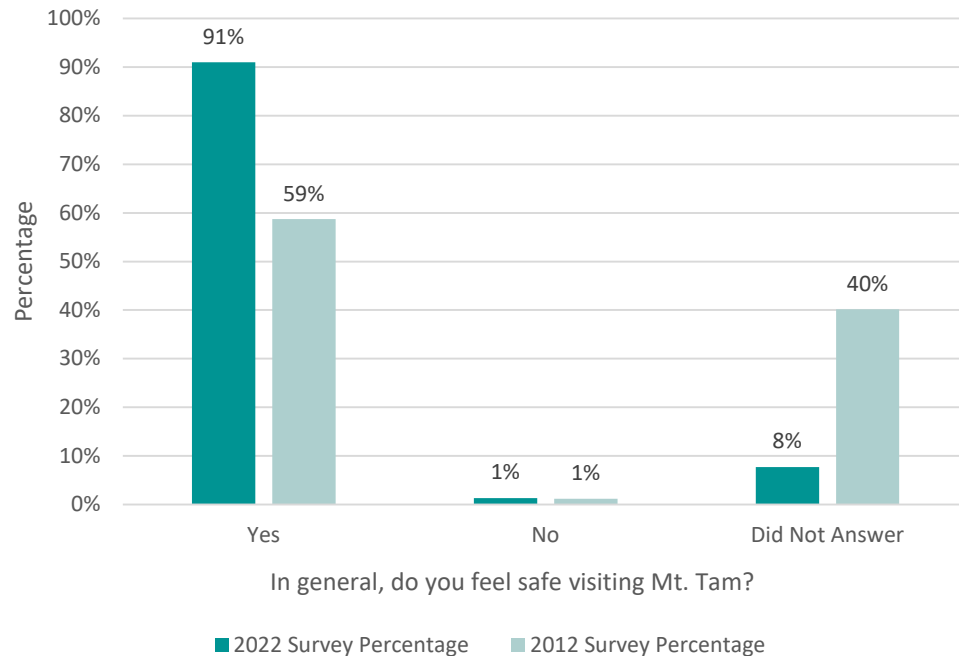


Figure 6: Comparison of Visitor Sense of Safety

Fire Road Conditions	2022 Survey	
	Count	Percentage
Great	468	44%
Good	424	40%
Fair	48	5%
Poor	14	1%
Didn't Answer	109	10%
Total	1063	100%

Trail Conditions	2022 Survey		2012 Survey	
	Count	Percentage	Total	Percentage
Great	472	44%	531	43%
Good	452	43%	583	47%
Fair	36	3%	55	4%
Poor	12	1%	9	1%
Didn't Answer	91	9%	59	5%
Total	1063	100%	1237	100%

Interactions with other visitors	2022 Survey		2012 Survey	
	Count	Percentage	Total	Percentage
Great	403	38%	389	32%
Good	487	46%	635	52%
Fair	68	6%	57	5%
Poor	12	1%	18	1%
Didn't Answer	93	9%	128	10%
Total	1063	100%	1227	100%

Watershed Visitor Census Survey

StravaMetro

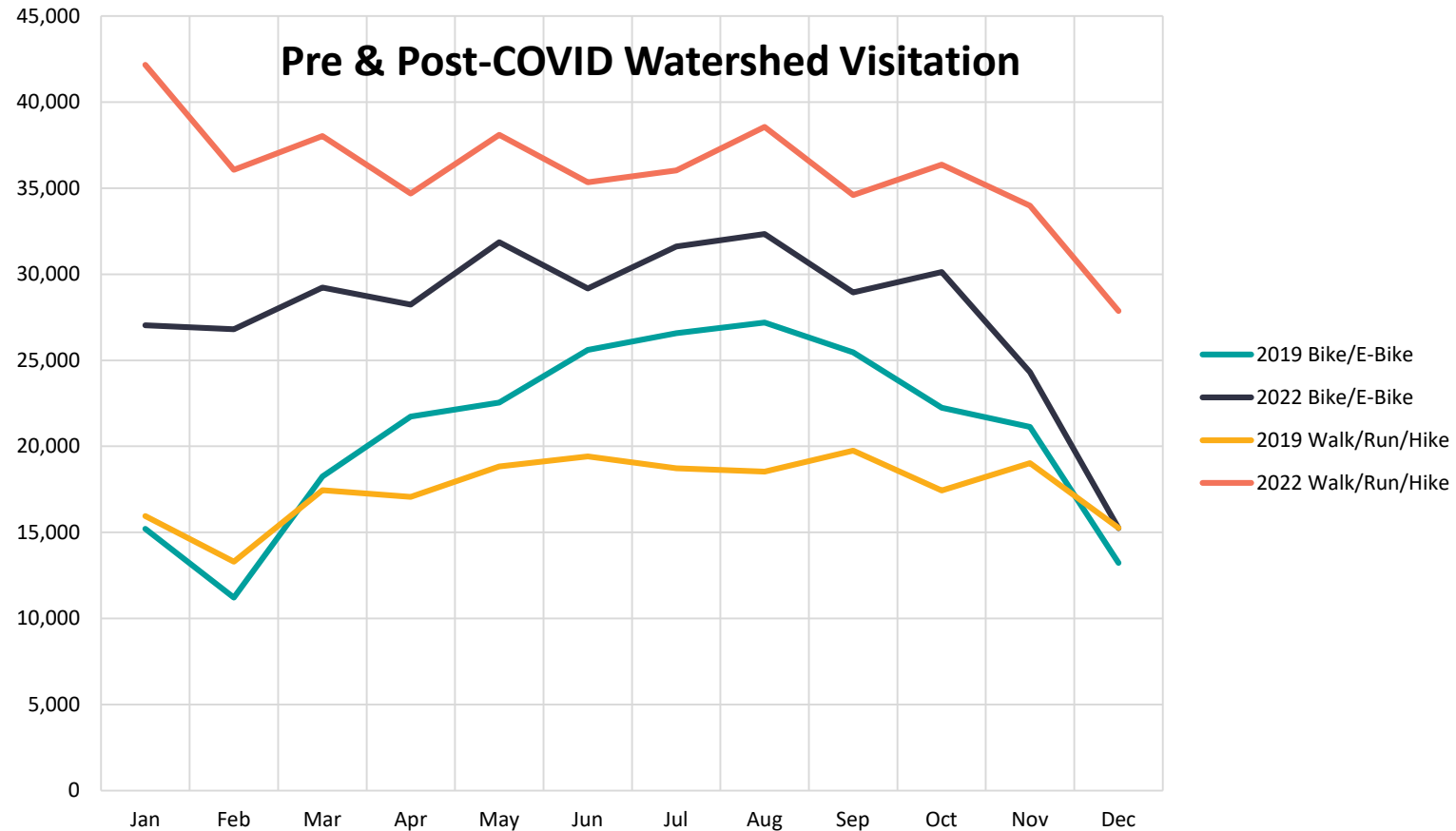
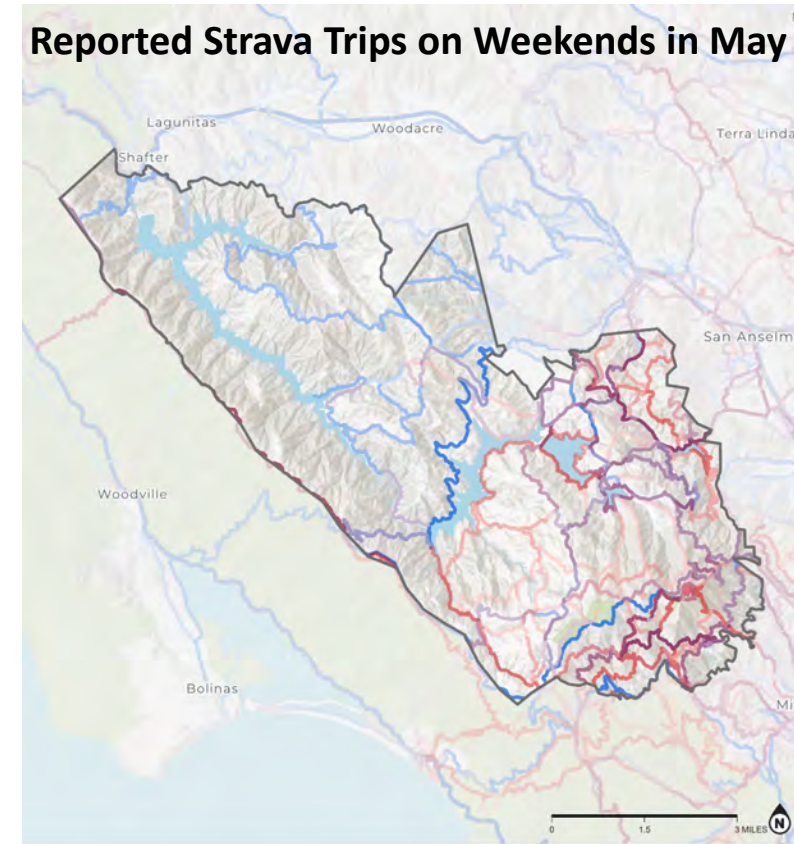
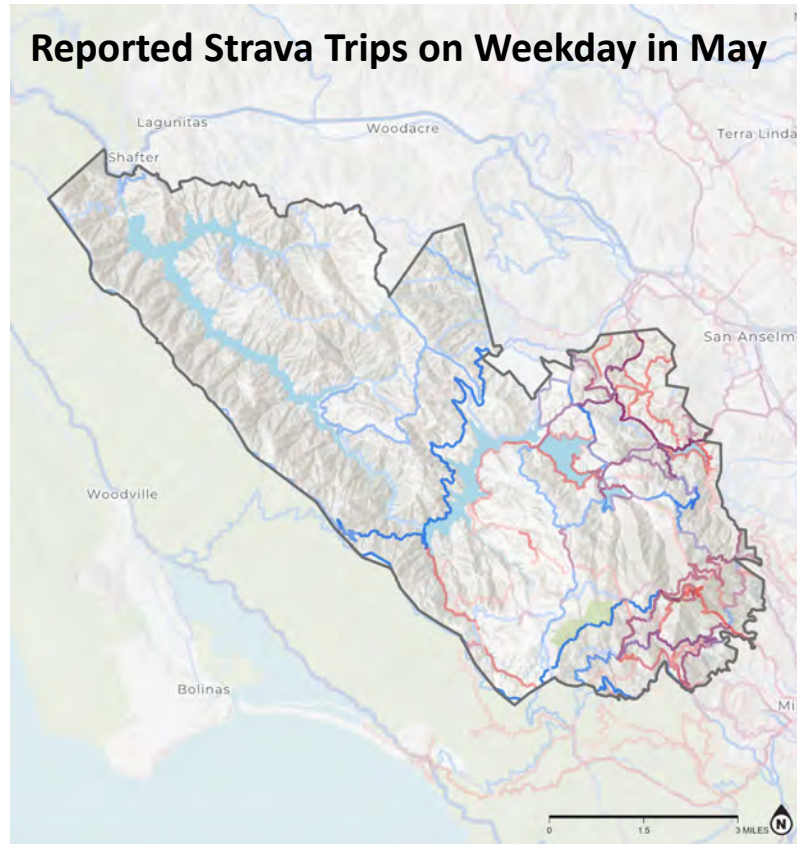


Figure 7: Strava reported trips in Marin County 2019 vs 2022

*This increase in reported Strava trips may not correspond with a directly proportional increase in total trips on the District but it is indicative of increasing visitation to the District since the COVID pandemic as identified through public comments and MMWD staff reporting.

Watershed Visitor Census Survey

StravaMetro



Watershed Visitor Census Survey

Eco-Counter Data

Average Daily Visitors (Eco-Counter Data)

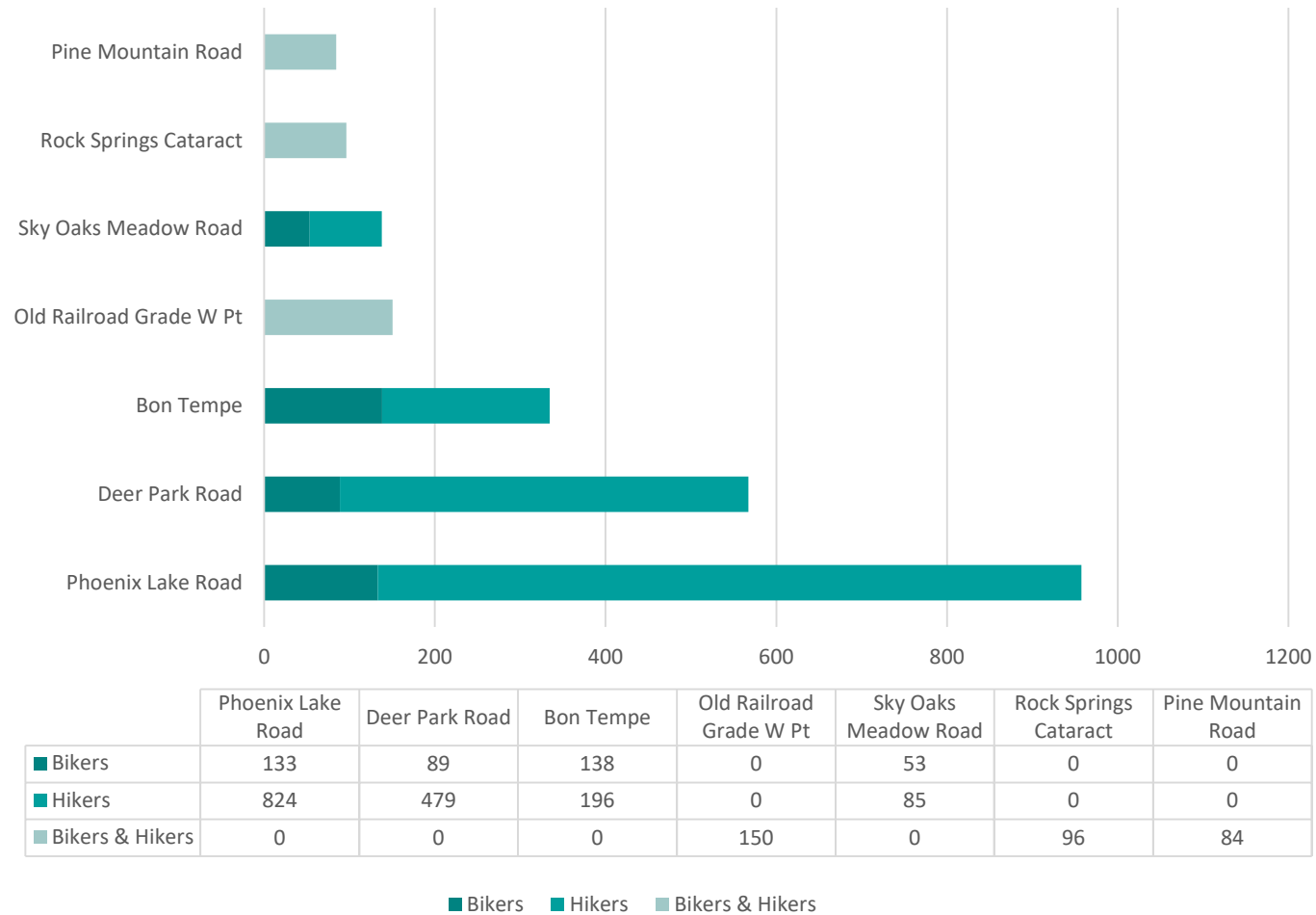


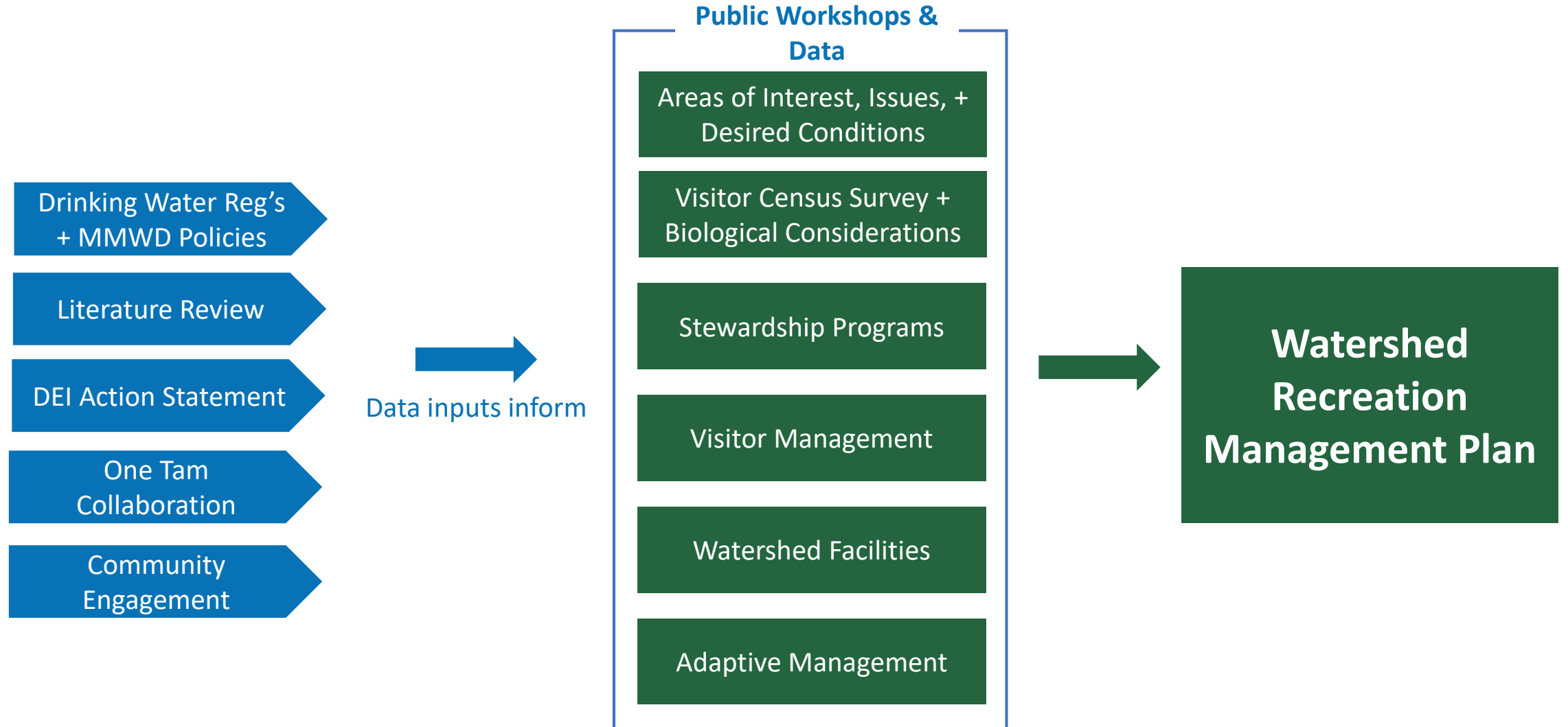
Figure 8: Eco-Counter Average Daily Visitor Volumes

Watershed Visitor Census Survey

Annual Watershed Visitation Estimates

Mode	2022		
	Low Range	Mid-Range	High Range
Pedestrians	1,728,055	1,904,884	2,081,714
Bicyclists	256,141	410,187	564,233
Total	1,984,196	2,315,071	2,645,947
Total percent increase from 2012 Estimate	9%	27.5%	46%

Next Steps



Watershed Recreation Planning Timeline

Fall 2023

Present Draft Recreation
Management Plan Feasibility
Study

Winter 2023

Watershed Recreation
Management Plan Feasibility
Study Concludes

