

# National Park Service Active Transportation Guidebook

*A Resource on Supporting Walking and Bicycling for  
National Parks and their Partners*

Webinar 1: Building Safe Active Transportation Infrastructure  
October 31, 2018 (1p ET)

Webinar II: Programs, Partnerships, and Technologies for Active  
Transportation

November 5, 2018 (2p ET)



*Grand Canyon National Park (NPS)*



# Webinar Series Speakers



Krista Sherwood  
NPS Conservation &  
Outdoor Recreation  
Programs



Jessica Baas  
U.S. Department of  
Transportation Volpe Center



Tim Young  
Wyoming Pathways



Lauren McKean, NPS Cape Cod  
National Seashore



Richard Menicke  
Glacier National Park



Morgan Lommele  
People for Bikes



# Speaker Introduction



Krista Sherwood  
National Park Service  
Conservation & Outdoor Recreation Programs





# Webinar Overview

- Guidebook Overview
- Case Studies:
  1. Success of the Grand Teton Pathways System
  2. Implementing the Outer Cape Bicycle and Pedestrian Master Plan
- Q&A
- Learn More



*Crater Lake National Park (NPS)*





# Webinar logistics

- Participants are in listen only mode.
- Enter question through chat pod at any time. There will also be an opportunity to ask questions over the phone.
- The webinar is being recorded.

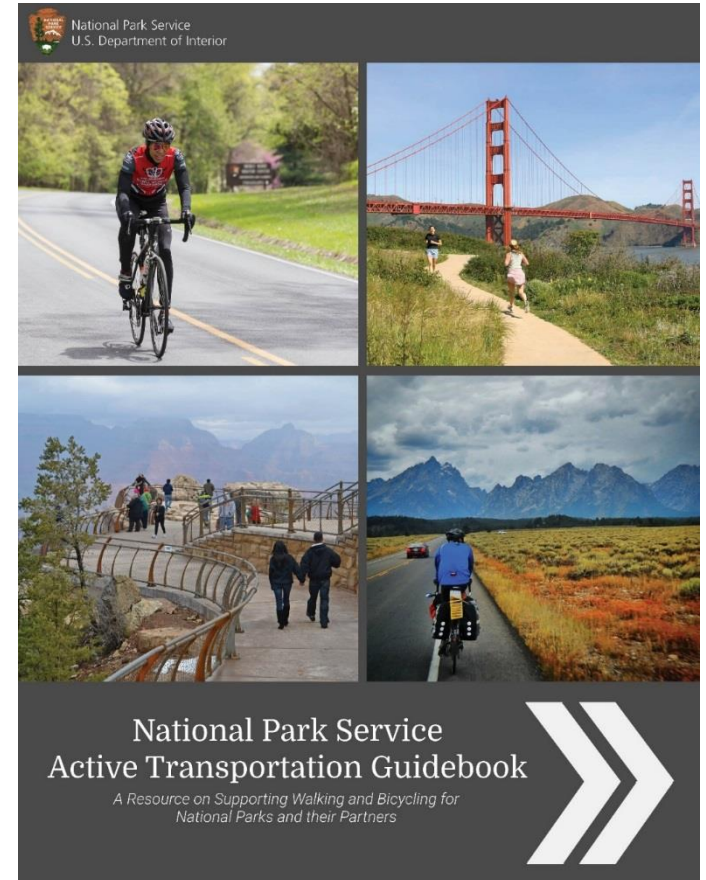


# Active Transportation Guidebook

This Guidebook is intended to assist and inspire parks and their partners to identify and pursue opportunities that enhance active transportation to and within national parks.

## Topics Include:

- Policies
- Infrastructure
- Safety
- Programs
- Events
- Sharing & Rental Systems
- Employee Programs
- Trends & Technology





# Active Transportation Guidebook

**This Guidebook was developed collaboratively with support from the following partners:**

- NPS Transportation Branch
- NPS Rivers, Trails, & Conservation Assistance Program
- NPS Denver Service Center
- Volpe National Transportation Systems Center
- Federal Highway Administration
  - Office of Federal Lands Highway
  - Office of Planning, Environment, and Realty
- Adventure Cycling Association
- Centers for Disease Control and Prevention
- Open Streets Project
- PeopleForBikes
- And Others





# Active Transportation Helps Parks and Communities Overcome Challenges through:

- Management of Vehicle Congestion
- Promoting Resource Preservation
- Accommodating Increased Visitation by Providing Alternatives to Driving



*Glacier National Park (Volpe Center)*



# Benefits of Active Transportation in Parks

- Resource Protection
- Visitor Experience
- Equitable Access
- Public Health
- Congestion Relief
- Economic and Social Benefits



*Denali National Park (NPS)*



# Role of Partnerships

- Promoting awareness and excitement
- Collaborating on planning products, programs, and projects
- Pursuing and securing funding
- Improving bicycling and pedestrian infrastructure in gateway communities
- Receiving diverse and useful input
- Encouraging continuous engagement and participation by the community



*Top: Acadia National Park (Volpe Center)  
Bottom: Shenandoah National Park (NPS)*





# Speaker Introduction



Jessica Baas

U.S. Department of Transportation Volpe Center



# Guidebook Chapters

1. Legal and Policy Framework
2. Planning and Elements of Project Development
3. Infrastructure and Multimodal Connectivity
4. Bicyclist and Pedestrian Safety
5. Partnerships and Funding
6. Visitor Activities and Programs
7. Open Streets Opportunities
8. Bicycle Sharing and Rental Systems
9. Employee Programs and Park Operational Uses
10. Innovative Technologies and Emerging Trends



# Guidebook Chapters

1. Legal and Policy Framework
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# Chapter 1: Legal and Policy Framework

- Policies:
  - NPS Management Policies
  - NPS Bike Rule
  - Superintendent's Compendium (park-specific)
- Transportation funding:
  - Federal Lands Transportation Program (FLTP)
  - Federal Lands Access Program (FLAP) for partnerships with states, counties, and local entities
- Federal policies apply to any project receiving federal funding.
- State and local policies on walking and bicycling may also affect active transportation to and within parks.



*Shenandoah National Park (NPS)*



## Chapter 2: Planning and Elements of Project Development

- Considering pedestrian and bicycling issues alongside transportation enhancement projects.
- Major plans that influence parks:
  - NPS National Long Range Transportation Plan
  - NPS region-specific plans
  - Foundation Documents and General Management Plans (park-specific)
  - Partner planning documents (state and region)
- Feasibility studies and inventories of existing conditions and programs can be used to identify projects.



*National Mall (M. Gersema)*



# Chapter 3: Infrastructure and Multimodal Connectivity

- Pedestrian infrastructure (e.g., sidewalks, trails, pedestrian refuge islands)
- Bicycle infrastructure (e.g., signage for shared lanes, bike lanes, bike parking)
- Multiuse trails
- Intersections and crossings
- Signage
- Connections to other modes



Photos (clockwise from top left): Connect Historic Boston (Volpe Center); San Antonio Missions National Historical Park (NPS); Bryce Canyon National Park (Volpe Center); Glacier National Park (S. Snow)





# Chapter 4: Bicyclist and Pedestrian Safety

- Parks can improve safety for active transportation users through the 4 E's:
  - Engineering
  - Education
  - Enforcement
  - Emergency response



*Grand Teton National Park (NPS)  
Natchez Trace Parkway (NPS)*



A person wearing a red and white helmet and a brown jacket is riding a motorized bicycle on a paved road that curves through a desert landscape. The road is bordered by large, light-colored rocks. In the background, there are green trees and a vast canyon under a cloudy sky. A yellow diamond-shaped sign with the word "SLOW" is visible on the right side of the road.

# Case Studies

*Grand Canyon National Park (NPS)*



# Speaker Introduction

Case Study: Success of the Grand Teton Pathways System



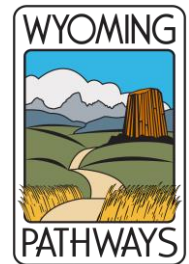
Tim Young, Wyoming Pathways



# Grand Teton National Park

Success of the Grand Teton Pathways System

Enhanced Visitor Experience – Improved Transportation Options





# Jackson Hole - Gateway Community Partner



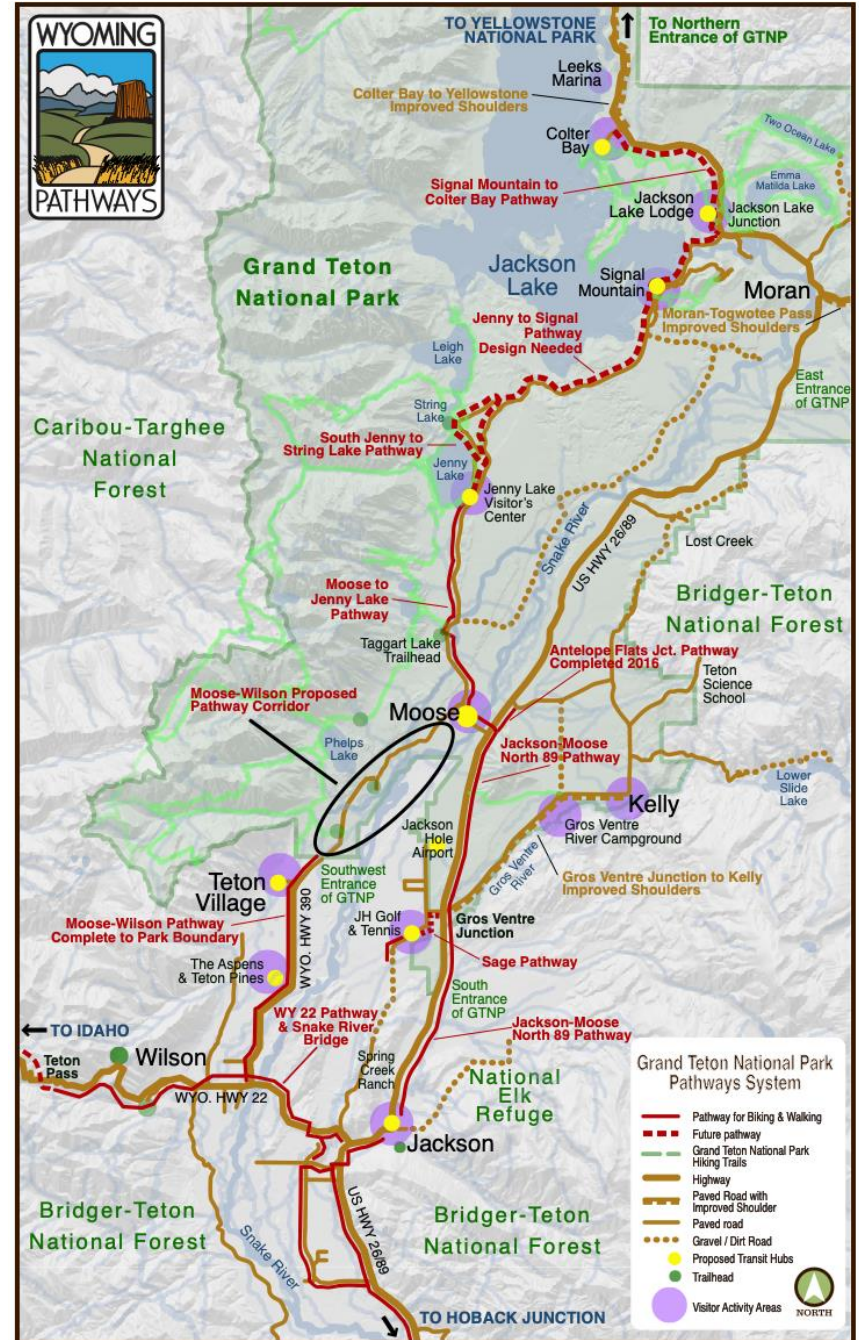
## Today Jackson Hole Transportation

- ◆ 25,000 residents + 4.5 million Visitors/year
- ◆ Gold level Bicycle Friendly Community
- ◆ 70 Miles of Pathways - more coming!
- ◆ Wyoming's largest Transit System
- ◆ Jackson Complete Streets Policy
- ◆ Economic, Livability Benefits Demonstrated

“**A national model** for visitor access with roadways safe for people and wildlife, a quality pathway system for bicycling and walking, pedestrian friendly activity areas, and an inviting transit system.”

# Active Transportation Vision Grand Teton National Park & Jackson Hole Community

- ◆ Over 100 miles of combined Pathways Systems
- ◆ Robust Regional Transit System Partnership Local/State/Federal
- ◆ Safe Functional Roadways
- ◆ Walkable Activity/Town Centers
- ◆ Healthy Park Resources
- ◆ Healthy Visitors, Experiences
- ◆ Healthy Gateway Community





# Grand Teton National Park - Turning Tragedy into Trails

## 50 Year Pathway Timeline

- ◆ Community support for safe bicycling dates back to late 1960's
- ◆ GRTE 1976 Master Plan "Provide new modes and paths of visitor access..."
- ◆ 1978 GRTE Bicycle Plan – good plan but never implemented.
- ◆ 1991 Jackson Community Pathways tart
- ◆ 1996 Teton County offers NPS partner help
- ◆ **1999 Gabriella Axelrad, cyclist fatality**
- ◆ 2000 NPS Park Transportation Study starts
- ◆ **2001 Jeff Pool, second GRTE bicyclist fatality**
- ◆ 2002 Park EIS begins
- ◆ 2004 Senator Thomas 1<sup>st</sup> Appropriation \$4m
- ◆ 2007 ROD 42-mile park pathway system
- ◆ 2008 First Pathway Construction starts
- ◆ Park Pathways – Instant Visitor Success!
- ◆ The path to pathways included:



# Bike Fatalities, Annual Memorial Rides raised awareness and public support – U.S. Senator Craig Thomas & Senator John Barrasso Champion Pathways Secured \$14 million federal appropriations for Grand Teton Pathways

FIFTH  
**GABRIELLA  
MEMORIAL**

GRAND TETON NATIONAL PARK



ANNUAL  
**AXELRAD  
BICYCLE RIDE**

SUNDAY, JULY 25, 2004

please attend this special event!  
**your participation is critical.**

**you're invited:** The family of Gabriella Axelrad invites you to join them in a bicycle ride in her memory on the fifth anniversary of her bicycling death in Grand Teton National Park. Memorial ride participants will bicycle together past the site of Gabriella's death and gather nearby at Jenny Lake where they will discuss how future similar incidents may be prevented through the construction of safe bicycling facilities and motorist awareness.

**meeting location:** Moose Visitor Center to check in between 10:30 and 11:30 a.m. to receive Ride details. The ride will begin at 12 noon from the String Lake parking area (8 miles round trip). Please remember to bring your helmet. The National Park entrance fee will be waived for Ride participants. Riders will receive a complimentary t-shirt. Lunch will be provided.

**rsvp:** Call National Parks Conservation Association at 733-4680 or Friends of Pathways at 733-4534

**Your participation in this ride will help to strengthen the national effort to provide safe bicycling facilities in our national parks. Please come and show your support.**



Gabri was just 13 years old when she was struck and killed by a speeding car while bicycling with her family in Grand Teton National Park in July 1999. Gabri, who lived in Los Angeles, was an avid cyclist and accomplished dancer. She had cycled in France, Italy, the Canadian Rockies, the Pacific Northwest and California. She was loved for her kindness, wit and style and is missed more than can be imagined.

CRAIG THOMAS  
WYOMING



UNITED STATES SENATE  
WASHINGTON, D.C. 20510

July 25, 2004

Gabriella Axelrad Family  
Fifth Annual Memorial Bike Ride  
Grand Teton National Park

Congratulations...

as you gather again this year to celebrate the life of Gabri and to continue your work to bring about some lasting good from her death. Susan and I are sorry we cannot join you but we'd already made other commitments in the state.

Certainly, nothing can bring back our loved ones and nothing can fill the void left by their untimely passing from our lives. However, your efforts here each year do so much good for a worthy cause and is one, I imagine, Gabri would have led herself. We also hope your time here helps you to feel closer to Gabri and to relish your happy memories, when all of you enjoyed this magical place together.

You began this annual bike ride with a definite agenda in mind, but I suspect you have found it becoming much more than you originally intended. Healing comes in different ways and this place would be where the spirits of the Park, Gabri and yours can come together. Most of all, so many lives are going to be enhanced by your efforts. Gabri would be proud of you!

Again, congratulations and best wishes for continued success! Have a wonderful day and God bless.

Best regards,

Craig Thomas  
United States Senator



# U.S. Senator John Barrasso Supports Park Pathways





# Moose to Jenny Lake Construction Starts in 2008





# Teton County Constructed North 89 Pathway along National Elk Refuge in 2010-2012



## Funding Sources:

- Federal Stimulus Grants
- Local Voter-Approved Sales Tax Ballot
- Teton County led Design, Construction
- \$6 million/6 miles with bridge and underpass

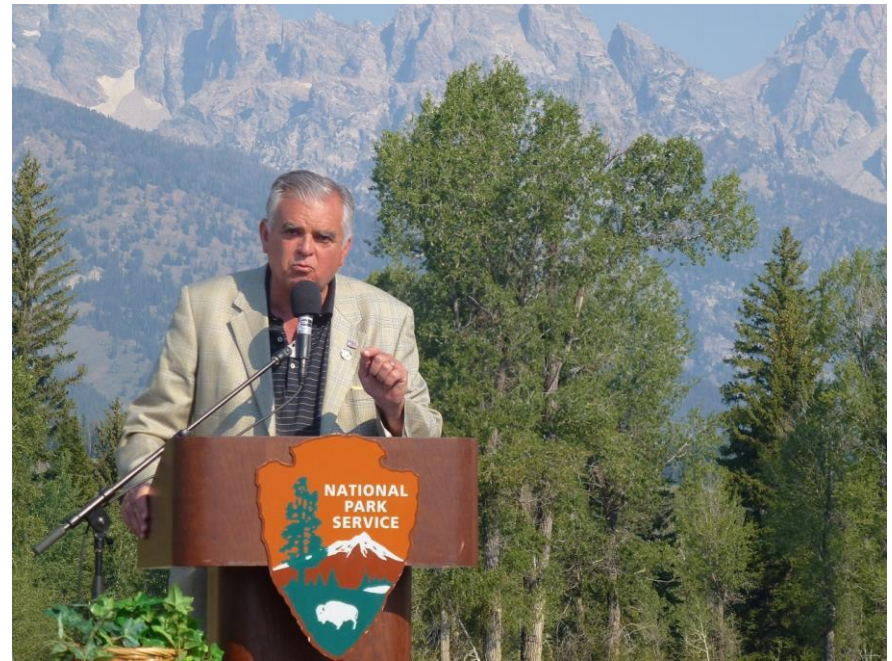


# Teton County to Grand Teton Connection 2011-2012





August 2012 – U.S. Secretary Ray LaHood presents an America's Great Outdoors Award to Grand Teton National Park for the North 89 Pathway from Town of Jackson to Moose



“We are doing this for these guys and future generations”  
Secretary LaHood, with three of his grandkids

# In 2016 GRTE Superintendent David Vela Opens Antelope Flats Pathway, adds connection to the quieter east side of park





# Progress to date: 21 Miles Federal Lands Pathways

- ◆ 2008 First 8-mile GRTE Pathway
- ◆ 2011 Teton County adds 6-mile Elk Refuge N. 89 Pathway
- ◆ 2012 National Park adds 6-miles
- ◆ 2016 GRTE adds 1.2-miles to Antelope Flats
- ◆ Today - Jackson to Jenny Lake!





# Benefits?

## Enhanced Visitor Experience Vibrant Gateway Community

- Improve Safety for everyone
- Improve Health - Visitors & Residents
- Enhance Access and Accessibility
- Protect Air Quality
- Promote Energy Conservation
- Quality Interpretive Opportunities
- Low impact and easy to manage



# Economic Benefits of People-Powered Modes

**University of Wyoming  
Economic Impact Study:  
Jackson Hole Trails Project**  
Study Results were impressive

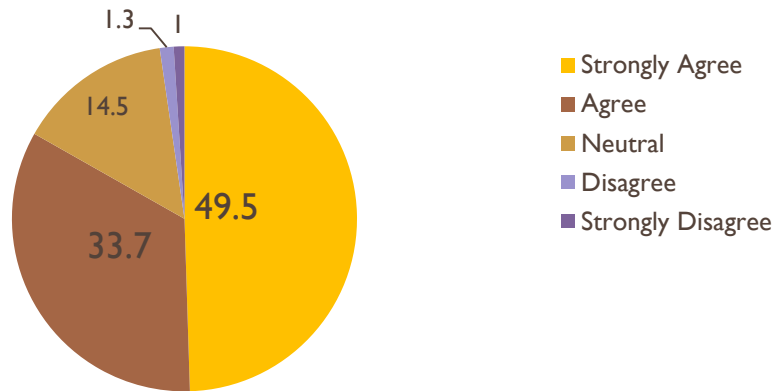


## **Total Expenditures and Economic Impacts Figure 4.18**

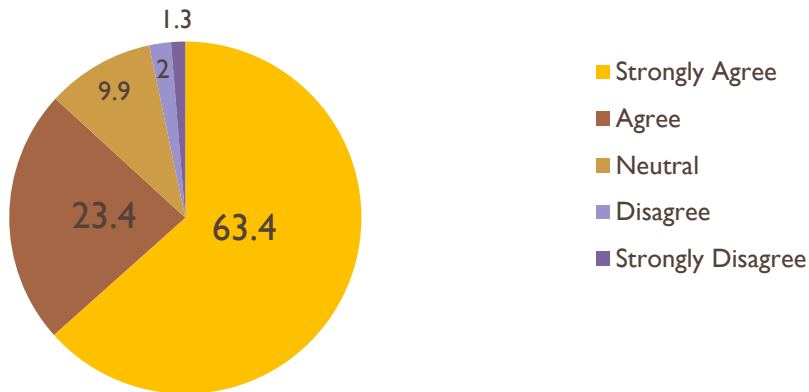
<b>Source</b>	<b>Dollar Amount</b>
Estimated Local Trail User Expenditures	\$784,255
Estimated Non-Local Trail User Expenditures	\$17,712,240
<b>TOTAL</b>	<b>\$18,496,495</b>
County Specific & General Purpose Tax, 2%	\$369,930
State of Wyoming Sales Tax, 4%	\$739,860
Employee Wages & Salaries	\$3,598,045

# Tourism, Quality of Life Benefits of Human-Powered Modes

**Well Maintained Trail Systems are Important to my Decisions for Travel Destinations [Figure 4.8]**



**Well maintained trail systems are important to my quality of life at my residence [Figure 4.9]**



**University of Wyoming  
Economic Impact Study:  
Jackson Hole Trails Project**



# What about Pathways and Wildlife?

## Grand Teton National Park Pathway & Wildlife Studies Summary:

- Negligible impacts from pathways and use; no serious problems.
- Unlike motor vehicles, no wildlife has been killed by bicycles.

“...Overall, results suggest the pathway did not affect how elk utilize the area or reduce opportunity of visitors to view elk”

“...Overall results did not demonstrate alterations in ungulate distribution”





## Pathway User Study: Analysis of Nonmotorized Use in Grand Teton Park:

“Conclusion...The one major suggestion given by almost everyone riding the pathway – Extend the shared use pathway. **People love the pathway and want it to go farther.** People want to get out of the car. People want to feel Grand Teton National Park. On a bicycle it blows in your face, it can be smelled, it is seen unobstructed, and the slower pace allows time for it all to soak in.”





From 8 to 80, Grand Teton Pathways have proven a remarkable success for visitors, park employees, local community residents



# Recommendations and Lessons to Share: Beyond the Guidebook

## Better Training, Planning, Funding, Design and Construction

### National Park Service

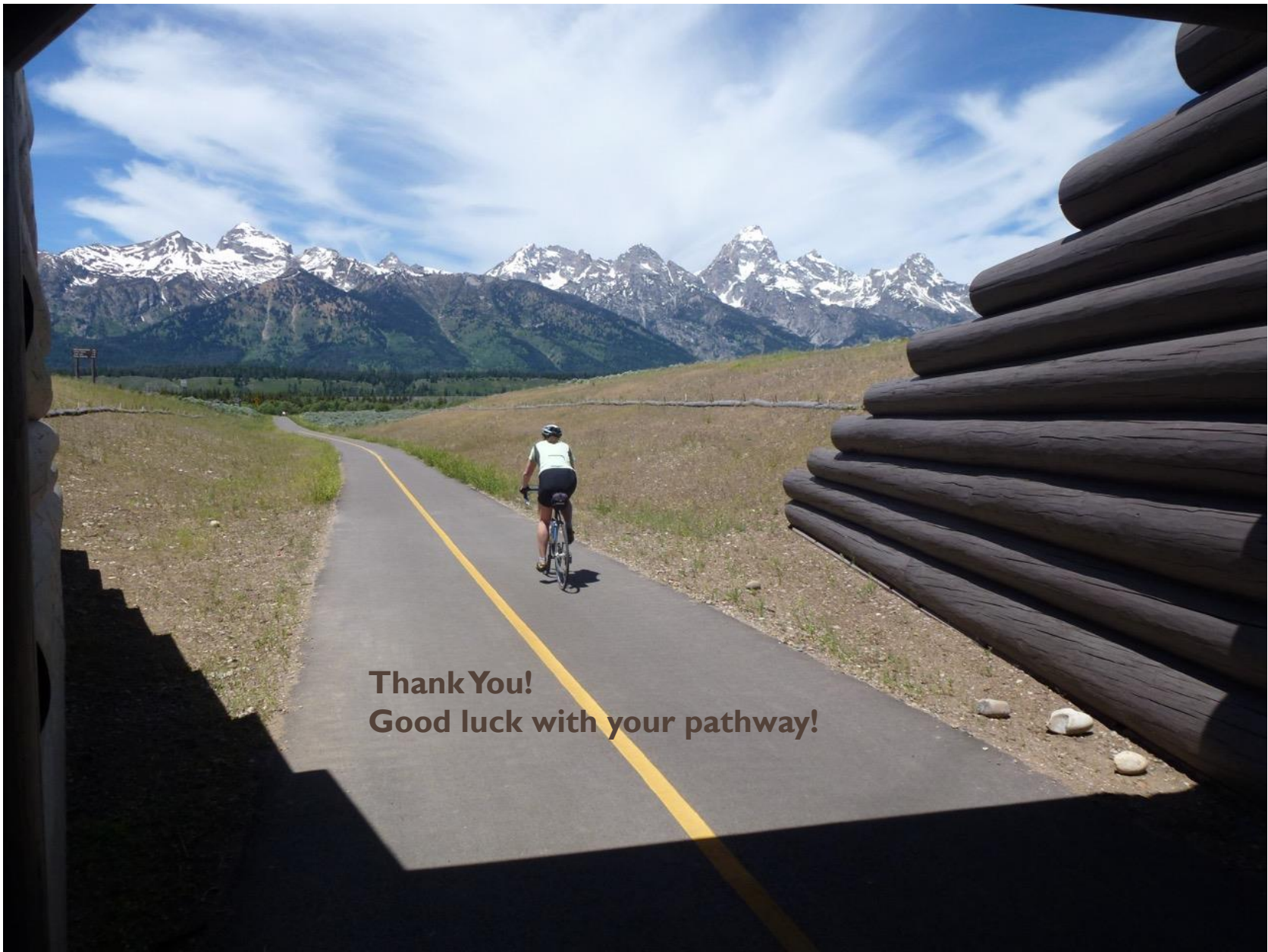
1. Provide regular training for NPS staff on *best practices for planning and project leadership* at individual Parks and NPS Regions.
2. Consider a *NPS Active Transportation set aside in the Federal Lands Highway Program*, so that there is more hope for bike/ped facilities to compete with Highways.
3. Leadership should set and communicate a *higher priority for Active Transportation*, as NPS Management Policy 9.2 clearly states.

### FHWA Federal Lands Highway Divisions

1. Provide *technical training for FHWA project design staff* on best practices in design.
2. Require *design staff to renew training* at regular intervals, 3-5 years.
3. Evaluate the *high cost of project design and delivery*, and consider methods to bring these down *while also improving design quality*.







**Thank You!  
Good luck with your pathway!**



**[tim@wyopath.org](mailto:tim@wyopath.org) and 307-413-8464**



# Speaker Introduction

Case Study: Implementing the Outer Cape Bicycle and Pedestrian Master Plan



Lauren McKean  
NPS Cape Cod National Seashore



# Outer Cape Bicycle and Pedestrian Master Plan

Developing an interconnected bicycle/pedestrian network with the towns & Cape Cod Commission



## Outer Cape Bicycle and Pedestrian Master Plan Final Report



PREPARED FOR NATIONAL PARK SERVICE  
BY CAPE COD COMMISSION

SEPTEMBER 2016  
UPDATED FEBRUARY 2017





A comprehensive plan to provide bike/ped connections between Provincetown, Truro, and Wellfleet and to destinations within each town and in the National Seashore.

Guided by a Steering Committee of Town reps, staffed by CCC & NPS

PUBLIC INPUT

Result: Recommended Primary /spine route plus a list of bike/ped projects in each town to implement



Goal 1: Provide a safe & enjoyable Cape experience for residents & visitors alike with a system of connected bicycle & pedestrian facilities.

Goal 2: Improve bicycle & pedestrian connections throughout the Outer Cape, to the National Seashore, and to public transportation.

Goal 3: Minimize and/or mitigate adverse cultural & environmental impacts of proposed improvements while seeking ways to realize positive cultural and environmental enhancements.

## Master Plan Goals





Goal 4: Capitalize on opportunities to coordinate with planned and ongoing projects.

Goal 5: Seek opportunities to enhance adjacent areas.

Goal 6: Maximize use of existing and future assets and funds to create a bicycle and pedestrian network.

# Master Plan Goals







# OTHER INPUT/MEETINGS

- Consulted with MassDOT
- Consulted with bike/ped committee in each town
- Met with staff members (DPW, police, conservation, etc.) in each town

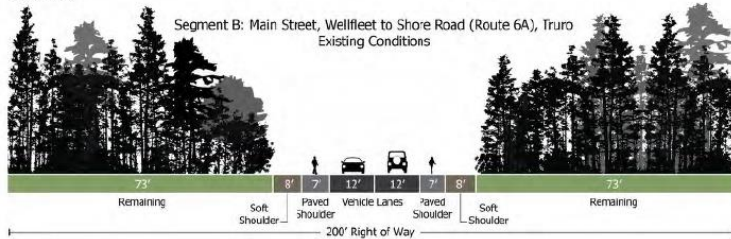


# Bike Plan Master Plan Primary Route

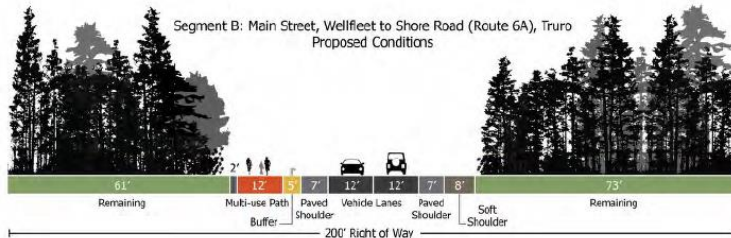


## Outer Cape Bicycle and Pedestrian Master Plan Route 6 Multi-use Path Design Concept

Segment B: Main Street, Wellfleet to Shore Road (Route 6A), Truro  
Existing Conditions



Segment B: Main Street, Wellfleet to Shore Road (Route 6A), Truro  
Proposed Conditions



- Use state DCR-owned former railroad bed from present terminus to Rt. 6 Wellfleet near Main St. intersection

- Develop fully separated, multi-use path along state DOT Route 6 corridor from Wellfleet Center to Herring Cove Beach

## Proposed Network - Outer Cape Bicycle and Pedestrian Plan







# Beginning implementation with interim primary route



Head of the Meadow Bicycle Path

CC National Seashore contracted Head of the Meadow Bicycle Path rehab & hardening Old King's Highway to connect to Truro Highlands area attractions fall 2018

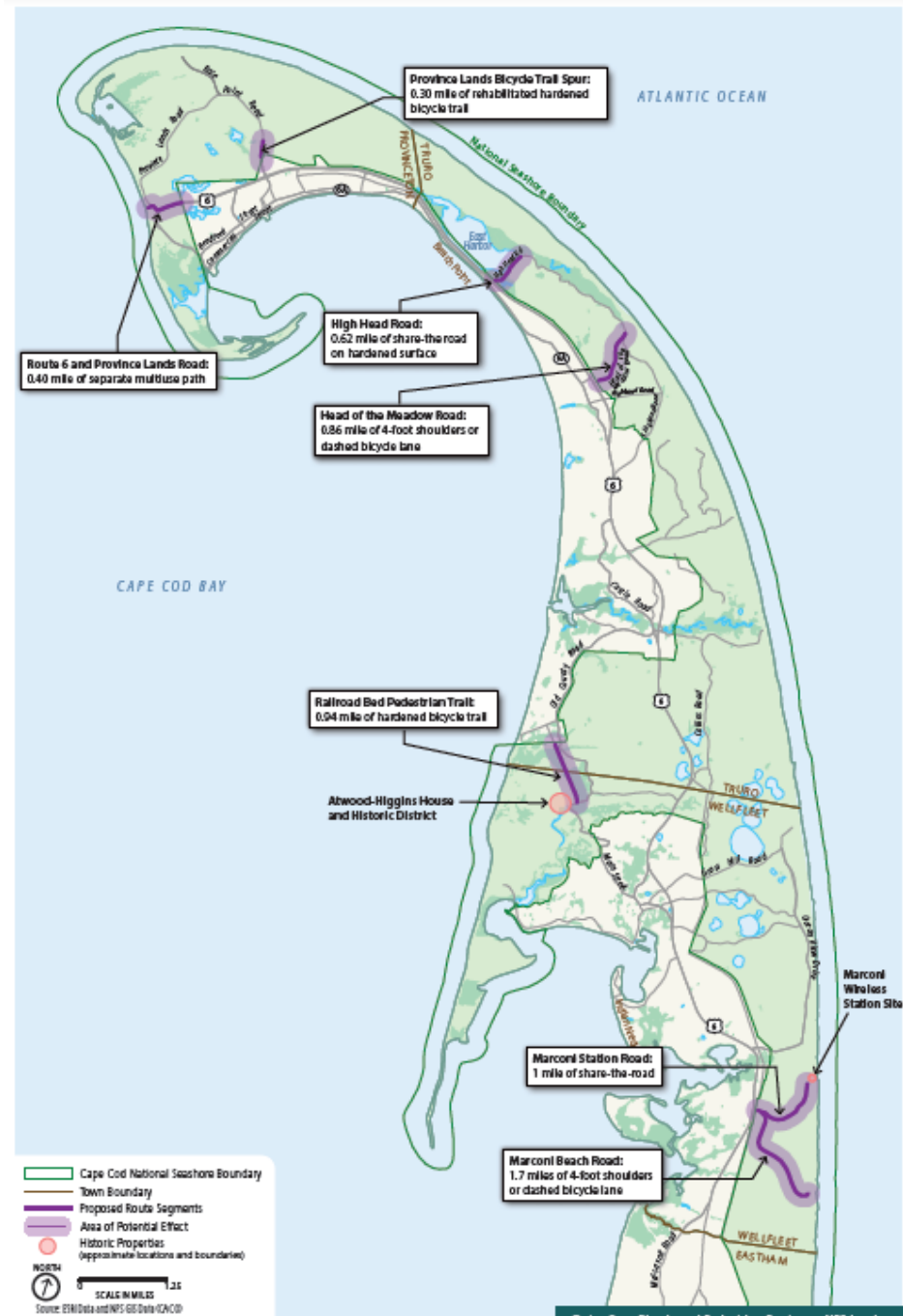


Hardened trail segment on Old King's Highway - 0.8 Miles Existing sand road between Head of the Meadow Road and Coast Guard Road



## Secondary Network on park land

- Signage, “sharrows”, and future shoulders along Marconi Beach Road from Route 6 to the beach (1.7 miles);
- “Share the Road” signage along Marconi Site Road (1 mile);
- Signage “sharrows”, and future shoulders along Head of the Meadow Road (0.9 mile);
- (interim primary route) Rehab and minor widening of the Head of the Meadow Bicycle Trail (1.9 miles); hardening of the Old King's Highway sand road connector between Head of the Meadow Road and Coast Guard Road (0.8 mile); stabilizing unpaved High Head Road (0.6 mile), as needed
- Rehabilitation of the existing Province Lands Bike Trail bike path from the NPS boundary at Race Point Road to Beech Forest (0.3 mile);
- Reuse and rehab of former 2-lane Route 6 roadbed at park boundary for a bicycle path to Herring Cove Beach (0.4 mile)





# ISSUES NEEDING FURTHER EVALUATION



1. Alternative Surface Treatments
2. Possible Route 6 Lane Diet
3. Challenging Areas –
  - Cahoon Hollow/Route 6 area in Wellfleet
  - South Pamet Road/Collins Road in Truro
4. Route 6 Crossings
5. Physical Constraints along Route 6



# Q&A



*Golden Gate National Recreation Area (NPS)*



# Learn More



*Yellowstone National Park (NPS)*





# Resources and Contacts

- Download the Guidebook:  
<https://www.nps.gov/subjects/transportation/bikeped.htm>
- Webinar Speakers:
  - Krista Sherwood: [Krista\\_Sherwood@nps.gov](mailto:Krista_Sherwood@nps.gov)
  - Jessica Baas: [Jessica.Baas@dot.gov](mailto:Jessica.Baas@dot.gov)
  - Tim Young: [tim@wyopath.org](mailto:tim@wyopath.org)
  - Lauren McKean: [lauren\\_mckean@nps.gov](mailto:lauren_mckean@nps.gov)
- NPS Regional Transportation Coordinators:  
[https://www.nps.gov/transportation/contact\\_us.html](https://www.nps.gov/transportation/contact_us.html)