Cacapon Resort State Park, WV
Signature Trail Project
THANK YOU

WEST VIRGINIA state parks
IMBA’s mission:
Create, enhance and protect great places to ride mountain bikes.

For 30 years, IMBA has been at the forefront of access, education and trail development for mountain bikes. IMBA has helped with the creation of 100,000 miles of trails and built relationships with land management agencies.

For the next 30 years, IMBA is focused on More Trails Close to Home. We believe everyone should have a chance to ride and reap the benefits of mountain biking near where they live.
IMBA Trail Solutions

The Trail Solutions program provides a full range of trail development services. Having accumulated a wealth of knowledge and experience, TS has become a leader in the trail development industry, including the creation of globally recognized guidelines for the development of sustainable and enjoyable singletrack trails.

TRAIL ACCELERATOR GRANT

To grow the quantity and quality of mountain bike trail communities, we need to accelerate the pace of trail building. Trail Accelerator grants provide a jump-start to communities that have the interest and political support to develop trail systems but need assistance to get projects up and running. A Trail Accelerator grant offers awardees professional trail planning and consultation services to launch their trail development efforts, which can often leverage additional investment from local, regional, and national partners.
Steve Kasacek, IMBA Trail Solutions
Project Manager
Steve.kasacek@imba.com
# LIFE CYCLE

## Planning
- Vision
- Goals and objectives
- Community benefits and land management cohesion
- Action plan

## Design
- Real world feasibility
- Compliance
- Procurement
- Quality Control

## Construction
- Moving dirt
- Bringing vision to life
- After action – programming, stewardship
WHY ARE WE HERE?
OUTDOOR PARTICIPANT TRENDS

Changes in participant trends

The pandemic has attracted more diverse outdoor participants, and there is an opportunity to increase the diversity of the outdoor participant base long term. Compared to those who participated in outdoor activities in 2019, new participants are:

- More likely to be female: 58% vs. 49%
- Younger: average age is 45 vs. 54
- Slightly more ethnically diverse: 66% white vs. 71%
- More likely to live in urban areas: 36% vs. 29%
- In a slightly lower income bracket: 41% with income of $100K+ vs. 46%

Recreational activity and COVID-19

- Walking during free leisure time: 66%
- Bicycling outside: 65%
- Fishing (of any kind): 62%
- Running/jogging outside: 61%
- Birdwatching: 47%

COMMUNITY ECONOMIC BENEFITS OF TRAILS

THE OUTDOOR RECREATION ECONOMY GENERATES:

$887 BILLION
IN CONSUMER SPENDING ANNUALLY

7.6 MILLION
AMERICAN JOBS

$65.3 BILLION
IN FEDERAL TAX REVENUE

$59.2 BILLION
IN STATE AND LOCAL TAX REVENUE

A Powerful Economic Sector

ANNUAL CONSUMER SPENDING*

EDUCATION

GASOLINE AND FUELS

HOUSEHOOLD UTILITIES

MOTOR VEHICLES AND PARTS

PHARMACEUTICALS

FINANCIAL SERVICES AND INSURANCE

OUTDOOR RECREATION

REAL ESTATE

HOSPITAL CARE

$278B

$304B

$313B

$465B

$466B

$887B

$921B

$931B

$964B

* Bureau of Economic Analysis, Personal Consumption Expenditures by Type of Product

https://outdoorindustry.org/advocacy
COMMUNITY HEALTH BENEFITS

For every dollar invested in building trails, nearly three dollars in medical cost savings may be achieved.  


Being in nature can:
- Reduce stress
- Calms anxiety
- Lead to a lower risk of depression

https://news.stanford.edu/2015/06/30/hiking-mental-health-063015/
COMMUNITY GROWTH

• Conduit to nature and public lands
• Enhanced Quality of Life creating more vibrant and livable communities
• Attraction and retention of professionals
• Attraction of outdoor-related businesses and industries
• Supports tourism destination development
• Supports increased property value
USERS, EXPERIENCE, AND LAND MANAGERS
Traditional activity-based outdoor recreation management evolved to outcomes-focused management:

“...an approach to recreation management that centers on the positive outcomes gained from engaging in recreational experiences.”
LAND MANAGER OBJECTIVES

- Forestry/Timber Management
- Wildlife Habitat
- Scenic Value
- Watershed Protection
- Recreation
THE RANGE OF TRAIL USERS

Runner

Dog walkers

Birders

Hikers

Mountain

Adaptive Mountain Bikers
UNDERSTANDING USER OBJECTIVES

• Hikers: efficiency, nature, escape
• Runners: exercise, challenge, solitude
• Equestrians: loops, solitude, escape
• Climbers: efficiency, destination
• Mountain bikers: exercise, challenge, playfulness
• Backcountry skiers: efficiency, risk, destination
SUSTAINABLE TRAILS
SUSTAINABLE TRAILS

Sustainable trails allow users to enjoy a natural area with minimal impact to the ecosystem while meeting management objectives now and into the future.

Three Lenses:

- **Environmental**
  - Environmentally sustainable trails mitigate damage caused by users and natural occurrences through design and implementation to established standards

- **Social**
  - Socially sustainable trails are designed and managed to enhance user experiences while minimizing conflict between individual users and user groups, allowing the system to be a positive community asset while reducing or eliminating the need for land manager intervention

- **Economic**
  - Economically sustainable trails consider both the initial investment and the availability of future resources to operate and maintain the system and surrounding infrastructure
POSITIVE TRAIL EXPERIENCES

Environmental, Economic, and Social Sustainability

• Reduce informal and unauthorized rails
• Fulfill management objectives
• Engage stakeholders in balance and positive trail management
DESCRIBING MOUNTAIN BIKING
MOUNTAIN BIKING – THE USER EXPERIENCE

Family and social time

Being in Nature

Challenge / Action
<table>
<thead>
<tr>
<th>Single Track Trails</th>
<th>Flow Trails</th>
<th>Tot Tracks / Bike Playground</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills Trails</td>
<td>Pump Track / Pump Parks</td>
<td>Dirt Jumps</td>
</tr>
<tr>
<td>Slope Style Trails</td>
<td>Bike Parks</td>
<td>Youth MTB Competition / NICA</td>
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</tbody>
</table>
PLANNING AND DESIGN
CACAPON RESORT STATE PARK – EXISTING CONDITIONS

• Almost 20 miles of existing mountain bike trails (30 if you include Sleepy Creek)

• Largely old CCC trails open to bikes or traditional “rake-and-ride” style volunteer built

• Focused on the central part of the park from Batt Picnic Shelter to Ziler Loop and south to the Nature Center

• Roughly 6,500 acres

• Almost 1,500 feet of usable elevation (2,390 to 900’)

• Ridge and valley geology created steep slopes, abundant sandstone, and good soil

• Intact forest with little to no invasive or undergrowth throughout most of the property
CACAPON RESORT STATE PARK – PLANNING

• Met with SP staff, Foundation stakeholders, and regional trails professionals

• SP allowed planning efforts on the southern 1,800 acres

• TS staff visited the site multiple times to gain an understanding of the landscape and current trail system

• TS identified missing trail experiences, unique opportunities based upon existing landscape, and major constraints to trail development

• Trailhead (parking) and access points were determined, park infrastructure integration was established, and trail zones were created
## Appendix A: Cacapon Master Plan Cost Opinion Table

<table>
<thead>
<tr>
<th>Zone</th>
<th>Segment</th>
<th>Type</th>
<th>Estimated Size</th>
<th>Design and Permitting</th>
<th>Construction</th>
<th>Signage</th>
<th>Total Subzone Costs</th>
<th>20% Contingency</th>
<th>Total Zone Costs</th>
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</thead>
<tbody>
<tr>
<td>Zone 4 - Climb</td>
<td>400</td>
<td>Shared-use</td>
<td>11380 linear feet</td>
<td>$10,000</td>
<td>$120,000</td>
<td>$60,000</td>
<td>$191,500</td>
<td>$38,300</td>
<td>$229,800</td>
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<tr>
<td></td>
<td>401</td>
<td>Shared-use</td>
<td>3370 linear feet</td>
<td>$10,000</td>
<td>$120,000</td>
<td>$60,000</td>
<td>$191,500</td>
<td>$38,300</td>
<td>$229,800</td>
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<tr>
<td>Zone 5 - Gravity</td>
<td>550</td>
<td>Gravity, bike-only</td>
<td>8490 linear feet</td>
<td>$15,000</td>
<td>$150,000</td>
<td>$55,000</td>
<td>$205,000</td>
<td>$41,000</td>
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<tr>
<td></td>
<td>551</td>
<td>Gravity, bike-only</td>
<td>5380 linear feet</td>
<td>$15,000</td>
<td>$150,000</td>
<td>$55,000</td>
<td>$205,000</td>
<td>$41,000</td>
<td>$246,000</td>
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<tr>
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<td>31800 linear feet</td>
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<td>$1,000</td>
<td>$511,000</td>
<td>$102,200</td>
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<td>7850 linear feet</td>
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<tr>
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<td>701</td>
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<td>41930 linear feet</td>
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<td>Totals</td>
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<td>N/A</td>
<td>34.5 miles</td>
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</tbody>
</table>
CACAPON RESORT STATE PARK – SIGNATURE TRAIL

• Foundation was awarded two RTP grants to construct a Signature Trail

• Zone 5 was identified as a gravity bike-only zone due to steep rocky slopes, shuttle/road access at the top, and trailhead access at the bottom

• Segment 550 and 551 were identified as the Signature Trail due to their long continuous descent (over 2 miles with 900’ of drop) and relative ease of build compared to other Zone 5 alignments

• Design efforts began simultaneously as planning was wrapping up
CACAPON RESORT STATE PARK – DESIGN
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CACAPON RESORT STATE PARK – FORCE ACCOUNT

• WV DOH recognized the complexity, difficulty, and uniqueness of the project

• Without many licensed contractors who have the technical expertise to execute a project of this scale and complexity it was determined a Force Account may be the best option for success

• Coupled with the Force Account implementation was an opportunity for creative partnerships; SP, Foundation, WV DOH, IMBA, and Appalachian Conservation Corps (ACC)

• Partnering with ACC not only provided manual labor for a challenging construction project, it allowed for an integrated workforce development opportunity through real world training

• A Force Account and the partnerships allowed for a relatively quick implementation,
NAME: CACAPON MTB TRAILS
STATE PROJECT #: U333-CAC/AP-2.00
FEDERAL CONSTRUCTION #: NRT-2019(238)D

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4 – NOTES (2)
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6 – EXISTING CONDITIONS (2)
7 – EXISTING CONDITIONS (3)
9 – SITE PLAN
9 – SITE PLAN (2)
10 – SITE PLAN (3)
11 – DETAILS
12 – DETAILS (2)
13 – DETAILS (3)
CACAPON RESORT STATE PARK – CONSTRUCTION
CACAPON RESORT STATE PARK – CONSTRUCTION
CACAPON RESORT STATE PARK – CONSTRUCTION
CACAPON RESORT STATE PARK – CONSTRUCTION
CACAPON RESORT STATE PARK – FLOW CHECK
QUESTIONS?
THANK YOU!