

# North Star Nature Preserve 2025 Management Plan Update

## WORKING GROUP MEETING #3 NOTES

September 23, 2025 | 10am - 2pm

### MEETING PURPOSE:

- Provide an update on how Desired Conditions connect to Conservation Values and Management Goals.
- Gather Working Group feedback on Management Goals and Actions to inform the Management Plan update.

### MEETING AGENDA:

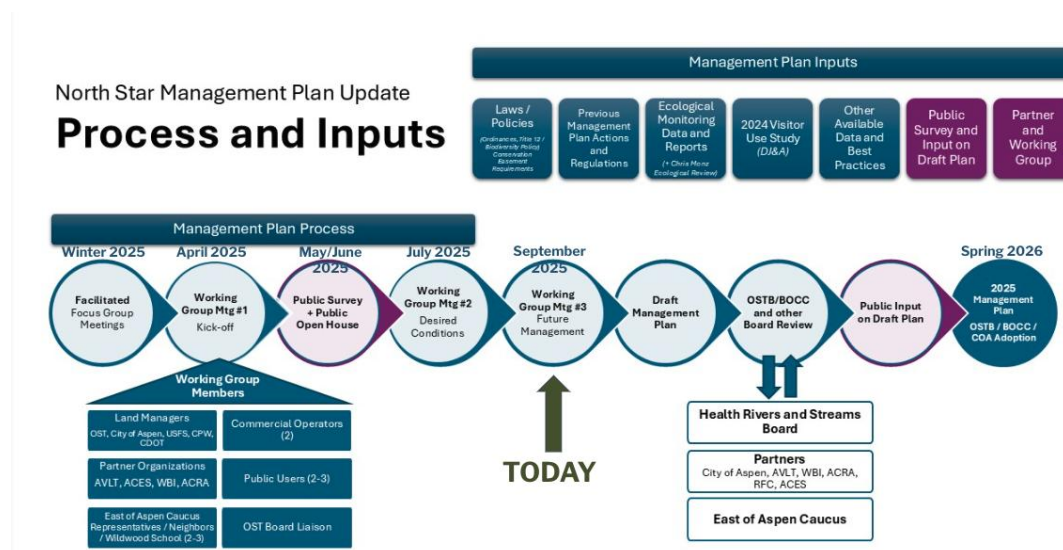
- Welcome and Introductions
- Process Update
- From Desired Conditions to Management Actions
- Prioritization Exercise
- Discussion on Management Goals and Actions
- Next Steps

### Welcome and Introductions:

Daniel Estes, CDR Associates, welcomed the group and reviewed the meeting agenda. The working group members introduced themselves (full attendance list included at the end of the notes) and expressed excitement to dive into the day's discussions.

### Process Update:

Jessie Young, Pitkin County OST, shared an updated project schedule via the graphic below.

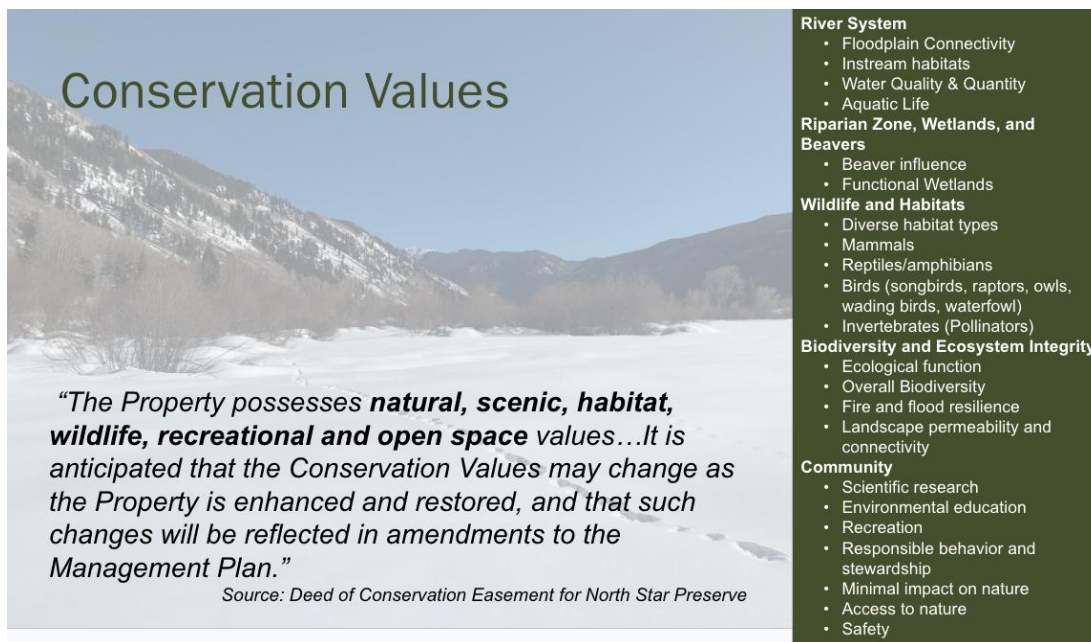


## From Desired Conditions to Management Actions:

Daniel Estes reviewed the main topics and outcomes from the previous two Working Group meetings.

- **Meeting 1:**
  - Participants shared photos of what was important about North Star
  - Recounted special experiences and the natural world at North Star
  - Discussion about desired conditions where you highlighted things like: tranquility, access to water, ecosystem services, importance of riparian habitat, and appropriate visitor use levels
- **Meeting 2:**
  - Presentations provided on current ecological knowledge, scientific studies, and ecological enhancements/protections and history of adaptive management actions through time
  - Participants reviewed survey results from the public survey that occurred over the spring/early summer
  - When discussing ecological values, some of the important issues that arose were: hydrology of the site, biodiversity, experience, and habitat
  - Participants reviewed the draft desired conditions statements and provided feedback

**Conservation Values:** Liza Mitchell, Pitkin County OST, reviewed the Conservation Values, noting the current meeting's forthcoming discussion would be organized using the Conservation Values as categories.



**Conservation Values**

*“The Property possesses **natural, scenic, habitat, wildlife, recreational and open space** values...It is anticipated that the Conservation Values may change as the Property is enhanced and restored, and that such changes will be reflected in amendments to the Management Plan.”*

*Source: Deed of Conservation Easement for North Star Preserve*

- River System**
  - Floodplain Connectivity
  - Instream habitats
  - Water Quality & Quantity
  - Aquatic Life
- Riparian Zone, Wetlands, and Beavers**
  - Beaver influence
  - Functional Wetlands
- Wildlife and Habitats**
  - Diverse habitat types
  - Mammals
  - Reptiles/amphibians
  - Birds (songbirds, raptors, owls, wading birds, waterfowl)
  - Invertebrates (Pollinators)
- Biodiversity and Ecosystem Integrity**
  - Ecological function
  - Overall Biodiversity
  - Fire and flood resilience
  - Landscape permeability and connectivity
- Community**
  - Scientific research
  - Environmental education
  - Recreation
  - Responsible behavior and stewardship
  - Minimal impact on nature
  - Access to nature
  - Safety

**Management Plan Update Structure:** Carly O’Connell, Pitkin County OST, then reviewed the structure of the Plan update. She described a layered structure in which the conservation values inform the desired conditions statements, which in turn inform the regulations, policies, management goals, and management actions.

## Conservation Values and the Plan Update

**Conservation Values:** The significant biological, ecological, social, or cultural resources of an area, often used to guide conservation planning and prioritize actions.

**Desired conditions statements:** Aspirational statements that outline the resource conditions, visitor experiences, and facilities that an agency aims to achieve. They describe the future conditions without addressing how to maintain or achieve those conditions, focusing instead on what the conservation values will look, feel, sound, and function like.

**Regulations:** Authoritative rules created and enforced by OST and partners.

**Policies:** High-level principles that provide a framework for decision-making, ensuring consistency and alignment with conservation values.

**Management Goals:** Broad goals, or desired outcomes, aligned with the conservation values.

- **Management Actions:** Specific management activities to achieve the goals.
  - **Indicators:** Specific resource or experiential attributes that can be assessed and tracked over time to evaluate change in condition.
  - **Thresholds:** The minimum acceptable condition for each indicator that takes into consideration the qualitative descriptions of the desired conditions, data on existing conditions, relevant research studies, staff management experience, and public preferences.
  - **Proposed Steps and Response Options:** Specific, actionable, and adaptable steps taken to implement the action and the response options when thresholds are exceeded and more action is warranted.



- River System**
  - Floodplain Connectivity
  - Instream habitats
  - Water Quality & Quantity
  - Aquatic Life
- Riparian Zone, Wetlands, and Beavers**
  - Biodiversity hotspot
  - Beaver influence
  - Functional Wetlands
- Wildlife and their Habitats**
  - Diverse habitat types
  - Mammals
  - Reptiles/Amphibians
  - Birds (Songbirds, raptors, owls, wading birds, waterfowl)
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- Biodiversity and Ecosystem Integrity**
  - Ecological function
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- Community**
  - Environmental education
  - Scientific research
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  - Responsible behavior and stewardship
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### Discussion Prioritization Exercise:

Participants next engaged in a prioritization exercise to determine which goals and actions within the draft plan were most important to discuss, given the limited time available. Each participant received 5 votes to be distributed across the different categories. Results of the exercise are as follows:

Conservation Value	Stars
Community	33
Riparian Areas, Wetlands, and Beavers	14
River System (Hydrology/Geomorphology)	8
Biodiversity and Ecosystem Integrity	7
Wildlife Habitat	7
Policies	3

## Discussion on Management Goals and Actions:

The group used the remainder of the time to systematically work through each of the Conservation Value categories, discussing the most important issues, clarifying questions, and sharing ideas on how to enhance the draft plan. The questions the group was asked to consider throughout the discussion included:

- *What are the tradeoffs associated with this goal and/or action?*
- *What do you support about the management goal and/or its associated actions?*
- *Does this goal align with the interests of the groups/agencies you represent?*
- *What changes would you suggest?*
- *Is anything missing from this list?*

The following notes represent the main takeaways from the discussion. The compiled list of action items and agreements from the discussion can be found at the end of this document.

**Note:** *Not all goals and actions from the draft Management Plan are referenced below; rather, the goals and actions are referenced that elicited the most discussion. For the full list of goals and actions, see the draft actions in the pre-meeting materials.*

## Discussion Themes and Takeaways

### VALUE: RIVER SYSTEM (Hydrology/Geomorphology)

**Goal 1: Meet the needs of diverse aquatic and terrestrial species and contribute to the overall health and resilience of the stream ecosystem through instream habitat complexity.**

- Clarification of plan's **fallen tree/woody debris policy**, including when and how debris is managed.
- Importance of considering **ecological benefits** (habitat, stream function) and **river user safety**.
- Concern about potential hazards from woody debris and the need for clear, safe passage for river users at all skill levels.
- Interest in understanding the **hydrological impacts** of debris removal.
- Suggestion to consider **alternative management strategies**, such as directing users to exit points when hazards exist.
- Recognition that tree falls are a **natural and relatively infrequent occurrence** in the river system.
- Observation that the **extent of willow vegetation is increasing** over time.

**AGREEMENT:** Ensure that fallen trees/woody debris management prioritizes both ecological benefits and user safety.

**ACTION:** Ensure that the associated policy adequately communicates the process for woody debris removal, including criteria for intervention and safety considerations.

**Goal 2: Allow the river system to operate in a dynamic state appropriate for an unconfined floodplain river reach in this region. Maintain floodplain connectivity as natural channel meander occurs via streambank erosion and sediment deposition processes.**

- Desire for **clarity on thresholds for intervention** – when and under what conditions action would be taken.
- Distinction was made between **active interventions** (e.g., machinery, structural changes) and **passive approaches** (allowing natural processes to continue).
- Recognition that **interventions may be necessary if the channel ceases to function dynamically**.
- Commitment to **ongoing monitoring and incorporation of best practices** to guide when and how interventions occur.
- Limited interest in heavy-handed or intensive interventions, reflecting past management philosophy (e.g., 2020 plan).
- Emphasis on a **long-term, steady management approach**, not short-term fixes.
- Agreement that best practices should be **amended into the plan as appropriate**, rather than waiting indefinitely or avoiding action altogether.

**AGREEMENT:** Management will prioritize a long-term, process-based perspective, with interventions guided by geomorphological monitoring, thresholds, and best practices.

**ACTION:** OST will continue to monitor the system and incorporate current best practices into decision-making and plan updates.

**Goal 4: Keep water quantity in the Roaring Fork River as close to natural, undiverted levels as possible. The hydrograph (seasonal streamflow) mimics that of a natural stream system even under diverted conditions.**

- Broad **support for the goal**, with recognition of its ecological importance.
- Interest in **exploring opportunities to secure additional water for North Star**, including potential strategies for water acquisition.
- Acknowledgment of the role of **upstream water management**, particularly at Grizzly Reservoir and Upper Independence Pass.
- Interest in encouraging the **Twin Lakes Canal Company to manage releases** in ways that better support the health of North Star.
- Exploration of whether water could be **stored and released as a simulated flood event** to mimic natural seasonal flows.
- Recognition that flows of approximately **200 cfs represent an overbanking flowstate** for the property.
- Recognition that this goal includes **significant political and legal challenges** and is nevertheless worthy of including.

**ACTION:** Explore opportunities to secure additional water and work with upstream water managers, including Twin Lakes Canal Company and continue to pursue the feasibility of simulated flood releases to mimic natural peak flows.

## **VALUE: WILDLIFE**

**Goal 1: Maintain diverse habitat types (aspen forests, riparian areas, wetlands, open water, meadows, and shrublands) in good condition across the Preserve, hosting native plant communities and local fauna.**

- Consideration of how **recreation quantity and intensity may impact sensitive species**, as well as heron activity.
- Some interest in the possibility of **reintroducing other species** (e.g. Wyoming Ground Squirrel).
- Support for adaptive management action stating that heron nesting activity will be studied (including its relationship to human activity) if such activity is documented at North Star.

**Goal 2: Provide habitats for diverse wildlife species, including songbirds, raptors, waterfowl, wading birds, herpetofauna, and large and small mammals.**

- General support expressed the goal.
- Request from East of Aspen Caucus representatives to make sure indicator species include some species that are sensitive to human presence, with moose and herons of particular interest.
- Recognition that monitoring to date has emphasized species that are indicators for **broad ecological conditions and specific habitat types**.
- Emphasis on the importance of tracking **long-term population trends** and thresholds.
- Questions about opportunities for monitoring or supporting **additional species** (e.g., snakes, chorus frogs, boreal toads). Observations noted a historical decline in frogs, attributed more to the impacts of private property than to Preserve management.
- Interest in potential collaboration with the **Denver Zoo on Boreal toads**; CPW has indicated this is not a current priority, though the species is present at North Star.
- Recognition from CPW that **species absences may reflect landscape realities**, and that reintroduction efforts may be ineffective.

**Potential Action: Monitor and assess the status of avian species occurring at North Star.**

- Support for this action, with interest in ensuring that monitoring includes **species sensitive to recreation impacts**.
- Acknowledgement that past monitoring does include metrics that look at sensitive and non-sensitive bird species.

**Potential Action: Monitor and assess status of terrestrial wildlife species occurring at North Star.**

- Support for this action, with additional interest in monitoring amphibians and reptiles (e.g., frogs, snakes).
- Recognition that **habitat conditions and human activity** influence species presence and viability.
- Acknowledgment that amphibians and reptiles are already included in terrestrial wildlife surveys.

**VALUE: BIODIVERSITY & ECOSYSTEM INTEGRITY**

**Goal 2: Control invasive species to the greatest extent possible with the least environmental impact.**

- Concern about the potential introduction of **aquatic nuisance species** (e.g., zebra mussels) into the Roaring Fork River.
- Request to incorporate **education about invasive species** into the site's educational goals, with CPW identified as a potential partner for program development and outreach.
- Interest in using **more active, action-oriented language** (e.g., enhance, expand, increase) throughout the plan to emphasize proactive management.
- Interest in seeing OST prioritize weed control on protecting areas with little invasive weed species present currently as more important than mitigation after establishment.

**Potential Action: Monitor and manage Aquatic Nuisance Species (ANS) if concern or likelihood of presence in the Upper Roaring Fork arises.**

- General support for this action, with recognition of mussel threats and agreement that monitoring and readiness are important.

**ACTION:** Incorporate invasive species education into site programming in partnership with CPW.

**Goal 3: Protect and support the overall biodiversity of plants and animals.**

- Strong agreement with the overall goal.
- Interest in using **stronger, action-oriented verbs** rather than passive phrasing.
- Importance of explicitly acknowledging both **protection and enhancement** of biodiversity, with emphasis on prioritizing protection first.
- Recognition of the **riparian corridor as one of the most ecologically significant areas** to highlight within the plan.
- Recognition that the West Side provides the best protection of biodiversity and benefit to wildlife and closure of that side is paramount
- General support for **minimizing disturbance** that could compromise biodiversity.

**Potential Action: Monitor overall native plant biodiversity.**

- Broad support for this action, with interest in ensuring monitoring is paired with proactive protection and prevention strategies.

**AGREEMENT:** Protecting existing biodiversity is the highest priority, with enhancement as a secondary goal.

**ACTION:** Strengthen goal language with proactive verbs (e.g., protect, enhance, prevent).

**Goal 4: Maintain and enhance landscape permeability for animal movement across North Star, preserving and improving migratory corridors.**

- Interest in supplementing current monitoring methods by adding **game cameras and counters** rather than relying primarily on vehicle-wildlife collision data.
- Recognition that, although the Preserve is only **200 acres**, it plays a critical role in connectivity with **surrounding protected lands**.
- Acknowledgment that **small acreage can still hold high ecological value**, particularly as a keystone property within the broader landscape.

- Suggestions for using **signage** and other tools to support wildlife movement and reduce conflicts in the highway corridor.
- Interest in considering **acute or seasonal wildlife needs** and using existing **partnerships** to strengthen connectivity and management.

**ACTION:** Monitor movement of wildlife more intentionally to inform adaptive management, for example temporary signage during peak migratory periods.

## VALUE: RIPARIAN

**Goal 1: Promote the recovery of riparian areas toward a more naturalized state, characterized by increasing habitat complexity that supports local biodiversity.**

- Noted as an important goal by the working group

**Goal 2: Preserve wetlands to ensure the provision of ecosystem services and habitat for diverse flora and fauna.**

- Noted as an important goal by the working group
- Fen restoration project was commended alongside interest in acting on other similar opportunities if they exist

**Goal 3: Beavers are present and effective as ecosystem engineers, influencing the river channel, hydrology, wetlands, and vegetation in a natural, dynamic way.**

- Agreement that the verb “**support**” **feels too low of a goal**; interest in stronger language emphasizing a **more robust beaver population and healthy beaver complexes**.
- Recognition of the existing **Beaver Complex** and its ecological importance.
- Exploration of the **relationship between flows and beaver presence**, with acknowledgment that they are not mutually exclusive.
- Acknowledgment that **some manipulation or intervention may be necessary** in the future, particularly if the river becomes so incised that side channels or braided areas are cut off.
- Interest in ensuring language reflects **support for natural beaver complexes**.
- Recognition of **changing legal and management contexts** over the past few years regarding beaver-related work.

**AGREEMENT:** Management should emphasize fostering robust, natural beaver complexes.

**ACTION:** Strengthen language in the plan to emphasize robust beaver populations rather than use of the word “support.”

**ACTION:** Explore opportunities to secure seasonal high flows to sustain beaver habitat.

## VALUE: COMMUNITY

**Goal 1: Serve as a living classroom, fostering and facilitating scientific research, community connection, and environmental education.**

- Support for the goal, with recognition of **potential inconsistencies** (e.g., group-size limits vs. broader education values).
- Interest in **exploring partnerships to expand educational opportunities**, including potential integration of guides on the river.
- Need to **separate river use programs from terrestrial educational programming** for clarity.

**Potential Action: Facilitate and support educational programming partnerships.**

- Support for expanding partnerships, with **emphasis on ensuring alignment with recreation management** practices.

**Goal 2: Allow visitor access for low-impact, peaceful, nature-based experiences compatible with ecological integrity and maintain the long-term protection of biodiversity, natural processes, and landscape connectivity. Ensure visitors understand the value of the preserve and how to take care of it.**

- Emphasis on distinguishing between **disturbance events vs. ecological impacts**, and on understanding timing, frequency, and consistency of disturbances.
- Recognition that total use may contribute to a **“fun park” atmosphere**, perceived as diminishing wildlife protection and user/neighbor experience.

**Goal 3: Ensure the volume, type, and distribution of recreational and river use remain within a realistic, manageable, and predictable range, allowing wildlife to adapt and thrive and utilize the river corridor during times with minimal (recreational) disturbance by tracking key indicators and adjusting management strategies as conditions change.**

**Potential Action: Monitor river use, including river use season duration, peak season, daily river use, and commercial use.**

- Broad concern about **river use intensity**, particularly during peak days.
  - Questions about whether management should focus on **peak days versus total seasonal use**.
  - Recognition that **access capacity issues** (e.g., parking, take-out) contribute to conflicts.
- Interest in tracking not only volume but also **spatial extent and best practices** of use.
- Recognition that **management judgment** will be needed to interpret data and set appropriate targets.
- Support for exploring **adaptive tools**, such as shoulder season, voluntary and/or temporary closures, to relieve pressure during sensitive periods and peak-use days.

**Potential Action: Monitor crowding on the river and the quality of visitors’ experiences.**

- General support for this action, with interest in **using parking capacity and congestion** at access points as measurable indicators.

- Support for a **systematic and objective approach** to monitoring and evaluating recreation impacts (e.g., surveys, trend analysis).
- Broader acknowledgment that outdoor recreation management challenges are widespread, not unique to North Star.

**Potential Action: Concentrate and regulate visitor use so that activity stays within designated areas and predictable timeframes – reducing the spread of recreational disturbances into sensitive habitats while avoiding unsafe or overly crowded conditions.**

- Seen as **central to many of the group’s concerns**, advancing both wildlife needs (concentrating use) while addressing community concerns (reducing congestion on peak days).
- CPW noted that wildlife impacts do not change significantly between 100 to 300 users, as animals have already been disturbed.
- Agreement that dusk to dawn is a key ecological protection.

**AGREEMENT:** Educational programming should be strengthened through partnerships while aligning with recreation management.

**AGREEMENT:** Peak day congestion presents both ecological and community concerns.

**ACTION:** Develop objective monitoring tools (e.g., surveys, trend analysis) to assess the impacts of recreation.

**ACTION:** Explore adaptive tools such as shoulder season closures .

**Next Steps & Wrap Up:**

Jessie Young closed the meeting by reiterating the next steps in the process, which include OST Staff further developing the draft management plan by reviewing and implementing changes from the Working Group meeting and developing a new iteration of the plan for board review and public comment. The final plan is anticipated for spring 2026.

**Attendance List:**

- |   |  |
|---|--|
| Chris Lane, ACES                        | Wayne Ives, OSTB                                   |
| Eliza Voss, ACRA                        | Heather Tattersall Lewin, Roaring Fork Conservancy |
| Jonathan Rose, AVL T                    | Kevin Warner, USFS                                 |
| John Spiess, COA                        | Tom Cardamone, WBI                                 |
| Shelly Braudis, COA                     | Morgan Boyles, Wildwood Road Association           |
| Evan Cree, Commercial Operator          | Tina Person, Wildwood School                       |
| Lange Adams, Commercial Operator        |  |
| Andre Wille, McFarland Lane             |  |
| Sallie Bernard, North Star Preserve HOA |  |

*OST*

Jessie Young, OST

Liza Mitchell, OST

Carly O'Connell, OST

Jami McMannes, OST

*Consultants*

Steve Lawson, DJ&A

Daniel Estes, CDR