Gore Valley Trail • Vail, CO

Interpretive Plan

Final Draft • December 2018

CONSERVATION BY DESIGN

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Background

ABOUT GORE VALLEY TRAIL

The Gore Valley Trail is a paved 12-mile trail located in the heart of Vail, CO. Open to pedestrians and cyclists, this multi-use trail consists of a combination of trail, bike lanes, and residential streets. The trail parallels Gore Creek as it passes through open space, parks and recreation facilities, and Vail's core village areas, and connects to other trail systems on the east and west ends. The trail is a high-profile travel way in a busy resort town. Major destination/activity centers along the trail include Ford Park and the Nordic Center.

In 2012, Gore Creek was listed as an impaired waterway by the Colorado Department of Health and the Environment due to declining macroinvertebrate populations. According to the 2015 Gore Creek Strategic Action Plan, the nature of the impairment is caused by three known causes of degradation:

- Pollutants from land use activities, commonly called urban runoff;

- Drainage from impervious surfaces; and

- The loss of riparian and streamside vegetation (which provides a filtering and erosion control effect).

Gore Valley Trail connects to Gore Pass east of Vail

Background

Lionshead Village

Public Library

Vail Village

Ford Park

Pond

Donovan Park
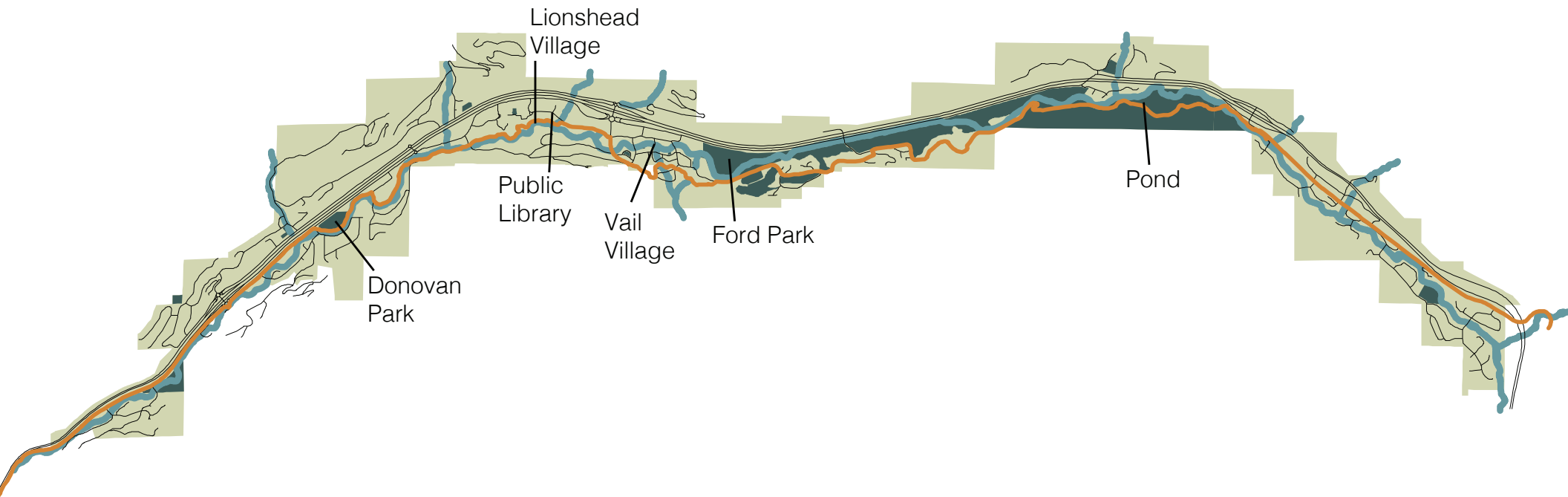
Background

What is a Macroinvertebrate?
Macroinvertebrates are organisms that live underwater in our rivers and creeks. They lack a backbone, can be seen by the naked eye, and are food for our native and sport fish. We learn a lot about the health of our creek by monitoring the numbers and types of macroinvertebrates who live in it.

Why Do They Matter?
Some macroinvertebrates need good water quality—like high dissolved oxygen levels and clear waters—to survive. If we find these types of organisms, we know our creek is healthy.
Other organisms aren't sensitive to pollution levels. If we find these pollution-tolerant species, we know our creek's water quality might be in trouble.

ABOUT THE PROJECT

In response to the water quality impairment listing, the Town of Vail initiated Restore the Gore, an education campaign designed to raise awareness and foster community engagement to restore Gore Creek. The town has developed educational programming, advertisements and videos, and hosted events to spread the message in the community that all residents and guests need to work together to restore Gore Creek. Now, the Town of Vail is working to expand its education efforts by implementing interpretation along the high traffic Gore Valley Trail.

The Town of Vail commissioned the consulting firm Conservation By Design, Inc. (CBD) to conduct an interpretive planning process and develop recommendations that will guide the implementation of interpretation along the trail.

Background

WHO WILL USE THIS PLAN?

Town of Vail staff, partners and contractors will refer to this plan, use it and adapt it as conditions evolve and specific interpretive projects are funded and get underway.

The plan provides guidelines for the writers, interpreters, landscape architects, exhibit developers, graphic designers, interactive designers and exhibit fabricators who are responsible for its implementation.
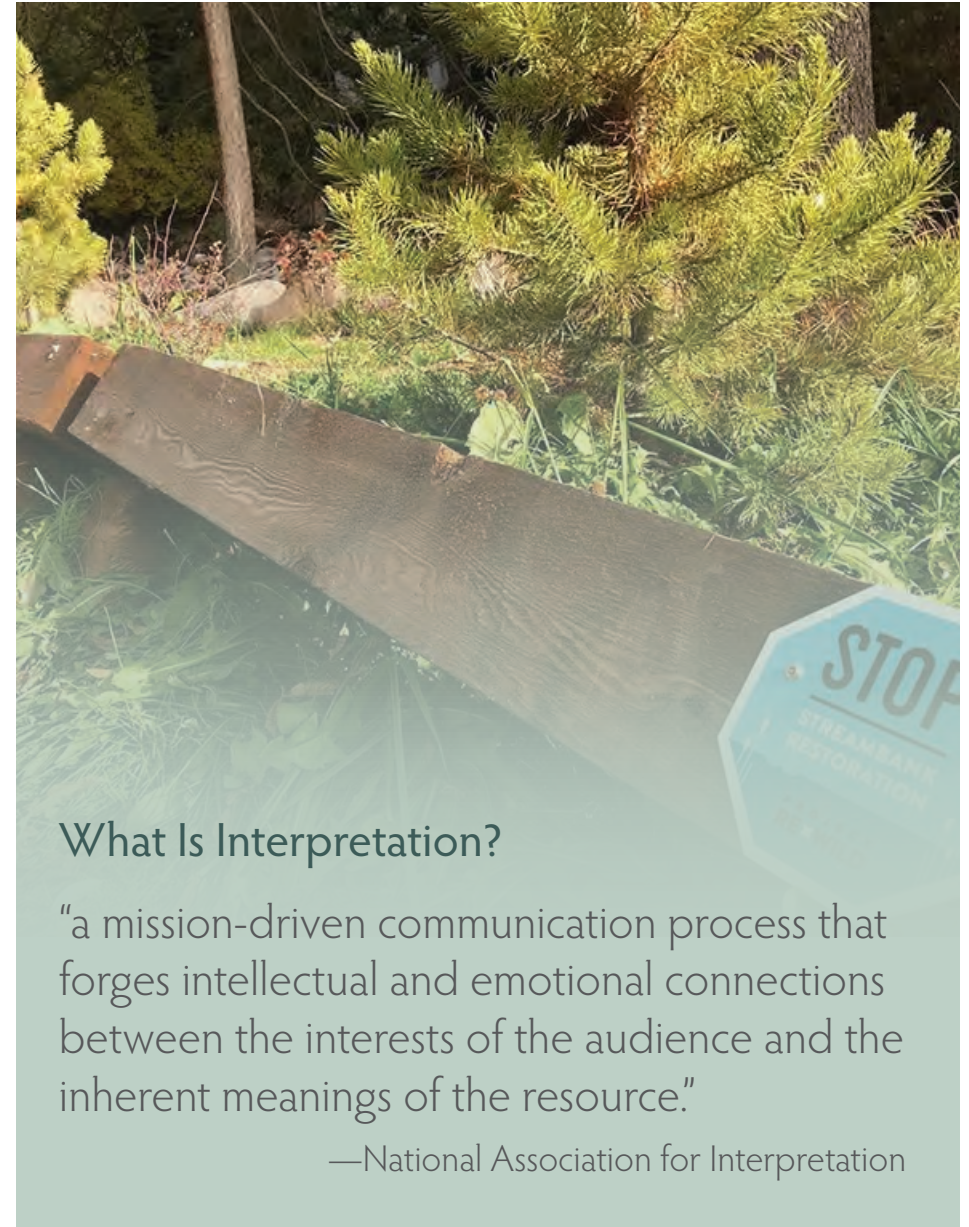
What Is Interpretation?

"a mission-driven communication process that forges intellectual and emotional connections between the interests of the audience and the inherent meanings of the resource."

—National Association for Interpretation

Our Process

The project began in June 2018 with review of background information. Representing the consulting team, certified interpretive planner and exhibit developer Melanie Pierson conducted a site visit in July 2018. During the site visit, she facilitated two interpretive messaging workshops with stakeholders, and spent time assessing the trail and other relevant interpretation in the area.

This document captures the analysis undertaken during the planning process, and findings related to interpretation and the visitor experience. It considers the significance of the creek and restoration program, along with trail use patterns to provide a roadmap for cost-effective, visitor-relevant and theme-driven interpretation that adds value to the quality of the visitor experience in Vail.

The process of interpretive planning holds the visitor experience central, considering the following questions:

- Why do visitors use the Gore Valley Trail?

- Can they find the trail?

- Where/how can trail users get information about Gore Creek and its key messages?

- What are those key messages?

- Can trail users find their way around?

- What will trail users want to do, feel, learn and experience during their visit? What do stakeholders hope that trail users will do, feel, learn and experience?

- How can the Town of Vail accomplish the interpretive goals identified herein in the most cost-effective manner, considering long-term costs, visitor trends, and sustainable values?

About the Visitors

Effective interpretation is enjoyable and relevant to visitors' lives. In order to provide experiences that are enjoyed by our trail users, we must first understand their needs, expectations, knowledge base and values. For the purposes of this interpretive planning process, "trail user" or "visitor" refers to all categories of people who utilize Gore Valley Trail, including residents, employees and guests visiting Vail.

WHO VISITS THE TRAIL?

While an official count of trail users has not yet been conducted, project stakeholders categorized the following types of trail users:

Residents (full-time and part-time)
Often consisting of family groups, these trail users are often seen picnicking, walking, riding bikes, fishing, and relaxing or playing creekside. Dogs and strollers are common sights on the trail. Residents often use the trail as a commuting and/or fitness route but tend to avoid it during heavy tourist times. Employees of various establishments often visit the trail during workday breaks, and many locals include the trail as a "must-see" experience with out-of-town family and friends. The Gore Valley Trail also provides access to the Vail Pass east of Vail. Anecdotal evidence provided by project stakeholders suggests that part-time residents are less likely than full-time residents to speak English as a first language and are often retirees.

Guests
Guests from out of town often use the trail in family groups but are less likely to have dogs with them or speak English as a first language. These non-residents don't fully understand what the trail has to offer, and often utilize their smartphone to get information or find their way. Many guests also stop in to the public library to ask for information. These trail users may have a fear of getting lost while on the trail. Traveling the Gore Valley Trail is a popular way to experience Vail. Many guests rent bicycles or Segways during their time in Vail. Stakeholders described the following seasonal trends in visitation to Vail: a larger ratio of families in summer, retirees in spring and fall, and younger active sports enthusiasts in winter.

Project stakeholders further generalized trail users as highly educated with a higher socioeconomic status, and likely to be athletic or have some connection to the outdoors. Based upon their interactions with trail users (whether residents or guests), some stakeholders described trail users as being generally unaware of the concepts of drought, watersheds, water quality, and water law and use in the West.

About the Visitors

SUMMER TOURISM

Tourism is the primary driver of Vail's economy, and while much of the industry is based on winter sports, summer visitation has seen an increase in recent years with the opening of Epic Discovery, an on-mountain adventure experience at the top of Vail Mountain. Summertime events and festivals add to the draw.

A report[1] summarizing 2017 summer guests and tourism trends notes that more than a third of survey respondents were first-time visitors to Vail. For repeat summer visitors, Colorado residents usually visit annually and typically only in summer. Out-of-state visitors (including international) often tend to be repeat summer visitors, as well.

The desire for a recreation and leisure vacation experience was the primary motivation for the trip, while Millennials (age 18-34) were more likely than other age groups to visit Vail to attend a special event, such as a festival or concert. Respondents participating in the 2017 intercept survey cited rest and relaxation and time spent in nature as the top two experiences in Vail (49% and 37%, respectively)—both an increase over the previous year.

VAIL DEMOGRAPHICS

According to U.S. Census data, the town of Vail has an estimated population of 5,483 in 2017, a 3.4% increase since 2010. Nearly 13% of residents are under 18 years old, while an equal number are 65 or older. The median value of homes in Vail is $556,600—more than double the median value of homes across Colorado. The majority of those homes (62.8%) are owner occupied.

In general, the Vail population is educated and middle class. Nearly all of Vail's residents over the age of 25 had a high school diploma (91%), while nearly two-thirds have earned a bachelor's degree or higher (59.1%). The per capita income in 2016 was $45,764—more than a third higher than per capita income across Colorado.

See the Appendix for demographic statistics.

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1 "Vail Summer Intercept Survey 2017 Results", prepared by RRC Associates, Boulder, CO.

About the Visitors

VISITOR NEEDS AND EXPECTATIONS

When planning and designing visitor experiences, it is important to remember that visitors need to know where they are and what's expected of them. As psychologist Abraham Maslow outlined in 1954, people need to have their basic needs met—food, water, safety, and security—before they can attend to personal growth or take in new information.

Restrooms, wayfinding and orientation, and etiquette information all play into creating an environment where visitors are relaxed and able to receive information. Visitors need to feel welcome, comfortable, and clear about how they should interact with the site. Any facilities that are open to the public must be well maintained, sanitary, and safe.

TARGET AUDIENCES FOR INTERPRETATION

The most effective interpretive products are those that are tailored for a specific audience. Although the trail will offer interpretation to all trail users, several groups have been identified by stakeholders as important audiences to target. Interpretive media should be shaped to address their interests and needs.

Local Residents
These repeat, local trail users would benefit from interpretation that compels them to have greater appreciation for Gore Creek, know that it is a fragile ecosystem and to think of the creek when making day-to-decisions that might affect it. Locals would also benefit from changing and/or user-contribution components.

Guests
These visiting trail users would benefit from interpretation that emphasizes the importance of healthy waterways in general and inspires them to act to protect waterways no matter where they are—in Vail or their own community.

The Gore Valley Trail is most used during the summer season. While some sections are plowed in winter, trail-side exhibits will be designed for use in summer.

Why Interpret?

Interpretation is purposeful and mission-based. It offers experience-based learning opportunities that increase awareness, build personal connections with a place and its resources, and foster stewardship behaviors.

Information alone, however, doesn't inspire these changes. Merely understanding a topic isn't enough. To be effective, new information must spark insights and connections that are directly relevant to a trail user's life, interests and values. Interpretation addresses both the intellectual and emotional realms of the visitor.

WHAT INTERPRETIVE GOALS AND OBJECTIVES DO

Interpretive goals and objectives provide guidelines for developing interpretive products and services. They also provide metrics with which to evaluate their effectiveness. They address both the values guiding the interpretation, and the impacts that interpretation can have on targeted audiences.

Interpretive Goals and Objectives

Interpretive goals and objectives are statements that articulate the intended purposes and objectives of interpretive activities. Goals encompass what management wants interpretation to do for a site, its visitors, and the community. Goals should guide the planning process from the outset. Objectives describe the specific desired changes we wish to inspire in our visitors. Objectives, therefore, should describe visitor behavior and be expressed in measurable terms.

Goals:
- State what it is you expect interpretation to do for the organization
- May be short-term or long-term
- Are stated using terms like "enhance understanding," "increase awareness," and "foster stewardship"—generally not easy to measure.

Objectives:
- Are stated in specific and measurable (either qualitatively or quantitatively) terms describing visitor behavior or performance
- Provide details about how goals will be accomplished
- Lay the groundwork for accurate and meaningful evaluation of interpretive experiences

Why Interpret?

INTERPRETIVE GOALS AND OBJECTIVES FOR GORE VALLEY TRAIL

To ensure interpretation serves the interests of trail users and project partners, trail stakeholders conceptualized the following goals for interpretation and the visitor experience in July 2018.

To chart progress toward these goals, specific visitor objectives have also been developed. At minimum, these metrics can and should guide content development and design and keep project management on track. Success upon installation, as evidenced by these metrics, can be determined through evaluation. Evaluation strategies might include observation and visitor surveys (whether stand-alone or as part of the town-wide survey conducted annually).

Visitor objectives are more specific than goals and, to the extent possible, are measurable. They spell out what we want visitors to know, feel and do as a result of visiting the Gore Valley Trail. Objectives provide details about how goals will be accomplished and can be developed to a variety of levels. Here, we emphasize qualitative objectives, revealing intangible values.

INTERPRETIVE GOAL 1: Increase public knowledge of and appreciation for Gore Creek and why it is important.

> Objective A: Trail users will understand that Gore Creek is part of the Colorado River watershed.
>
> Objective B: Trail users will understand that riparian ecosystems—and the plants and animals that live within them—exist in a fragile state of balance.

INTERPRETIVE GOAL 2: Develop understanding of threats to water quality on Gore Creek and strengthen support for its protection and restoration.

> Objective A: Trail users will understand that humans and the environment are interconnected, and that there are impacts on Gore Creek from living and visiting in this valley.
>
> Objective B: Trail users will be able to cite at least one threat to water quality in Gore Valley.
>
> Objective C: More than half of trail users will express support for Gore Creek restoration efforts.
>
> Objective D: Trail users will understand that access or activities may sometimes be restricted as a means of protecting Gore Creek.
>
> Objective E: Trail users will understand that a partnership of organizations are working together to monitor and restore Gore Creek.

Why Interpret?

INTERPRETIVE GOALS AND OBJECTIVES FOR GORE VALLEY TRAIL

INTERPRETIVE GOAL 3: Foster a sense of individual and shared responsibility for the health of Gore Creek with residents and guests, resulting in an increased sense of stewardship.

Objective A: Trail users will feel compelled to act to protect water quality in Vail and their own community and know at least one thing they can do to make a difference.

Objective B: Trail users will understand that their lifestyles, actions and values have impacts on the natural world.

Objective C: Trail users will feel an increased intellectual or emotional connection to Gore Creek and will demonstrate that connection by becoming a repeat visitor and/or participating in a follow-up activity in person or online[1].

Objective D: Trail users will feel like they are participating in protecting Gore Creek and will stay on the trail and out of closed areas.

Objective E: Residents will feel an increased sense of pride in their community and creek.

Objective F: Trail users will express a desire to return to Gore Creek.

INTERPRETIVE GOAL 4: Maintain a range of communication methods in order to appeal to visitors with varying learning styles.

Objective A: Trail users will have the opportunity to engage in hands-on, dynamic interactive experiences in a natural environment.

Objective B: Trail users will have the opportunity to interact with high quality interpretive products that utilize consistent messaging and graphic styles.

Objective C: Repeat trail users will notice and seek out changing interpretive content.

Objective D: Interpretive structures will be designed to harmonize with the surrounding natural environment.

Objective E: Interpretation along the trail should be designed as a non-linear experience.

KEY TERMS

Riparian—relating to wetlands adjacent to rivers and streams.

Watershed—an area or region drained by a river, river system, or other body of water.

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1 In-person follow-up activities might include participation in creek-based recreation, restoration and/or stewardship activities, and participation in other natural heritage interpretation opportunities. Online follow-up activities might include visiting a website for additional information, participating in an electronic survey, making a pledge to take action, or signing up to receive additional information, for example.

Interpretive Themes & Storylines

Interpretation is thematic. It tells one powerful, compelling story using a multitude of smaller illustrative stories. Themes are like the plot to the movie, or the moral of the story. That one central story should be compelling, relevant, and reveal the uniqueness and significance of the site. It should also be memorable. Social science research shows that information organized around a central theme gets more attention, keeps visitors focused, and creates messages that stay in the mind (and heart) long after a visit is over.

This theme structure creates the framework for the interpretive messages. As the project evolves and develops, storylines will be fleshed out and added to, but should support the hierarchy of messaging established herein.

The following theme statements are for internal administrative and communications planning use and are not intended as marketing slogans or exhibit content as shown. Further refinement, editing, and crafting of text for the visitor is a later process that occurs during the development of specific interpretive products and programs.

CENTRAL THEME

Gore Creek is home to a dynamic and diverse web of life that includes and is impacted by you.

Interpretive Themes & Storylines

SUB-THEMES AND STORYLINES

1. We all depend on this water.

    a. Gore Creek supports plants and animals, large and small.

       i. Biodiversity reflects the health of our landscapes and waterways.

       ii. Animals have basic survival needs, just like people.

       iii. Plants provide food, shelter and shade.

    b. Water is essential for human survival.

       i. Gore Creek is part of the headwaters of the Colorado River, an important water source for 40 million people.

       ii. Gore Creek recharges the aquifer that serves as Vail's drinking water supply.

       iii. Gore Creek is an important part of the character that attracts people to Vail.

2. A healthy creek requires active care.

    a. We impact the creek by being here.

    b. We monitor creek health.

    c. We work together to minimize the risks to creek health.

       i. We reduce our use of pollutants and interrupt pollutants' path before entering the creek.

       ii. We use permeable surfaces that allow stormwater to soak into the ground.

       iii. We promote riparian and streamside vegetation that stabilizes streambanks, prevents erosion and filters stormwater and runoff before it enters the creek.

       iv. We stay on the trail and respect area closures to protect restoration efforts and progress.

    d. Your actions make a difference in your community.

Existing Interpretation

Throughout the sites surveyed in and around the Gore Valley Trail, where interpretation exists, products generally focus on individual plant and animal species (as in, "Who lives here?"). Details are provided below.

ALONG THE TRAIL

The trail is both a travel way and a destination in itself. Trail users can be seen accessing the creek, walking, picnicking, jogging, cycling, and generally enjoying the trailside environment. The trail provides connection between a number of significant destinations, including the villages of Vail and Lionshead, and several public parks and attractions. The trail crosses the creek many times via bridges.

To the west, **Donovan Park** features soccer fields and playgrounds, and hosts weddings at the pavilion. This location is a popular spot where locals park and get on the free shuttle bus to other Vail locations.

The section of trail between **Hotel Talisa** and the creek is popular among hotel guests, and features access to the western-most ski lift up the front side of Vail Mountain.

Just upstream from the **wastewater treatment plant** (west of the Lionshead gondola) is a section of creek that sees a lot of spawning brown trout in the fall. There is an excess of social trails accessing the creek here, which the Town of Vail plans to restrict creek access to. Work will include hardening a designated access point and revegetating the streambank. The nearby foot bridge receives a lot of skier traffic.

At the **welcome center in Lionshead Village**, an interior exhibit interprets animals that rely on Gore Creek and appeals to visitors to help protect its water quality.

Across the trail from the **public library** lies a high use picnic area, as well as an existing revegetation project where a small sign identifies riparian habitat and the actions

BROWN TROUT OFTEN SPAWN JUST UPSTREAM OF THE WASTEWATER TREATMENT PLANT

AN INTERIOR EXHIBIT AT THE LIONSHEAD VILLAGE WELCOME CENTER INTERPRETS ANIMALS THAT RELY ON GORE CREEK

Existing Interpretation

that homeowners should avoid. Inside the library, a display case features seasonally changing exhibits.

In **Vail Village**, the popular Whitewater Park is a high traffic focal point on Gore Creek. Here, paddlers compete in a series of racing events held each spring runoff season. Metal silhouettes of paddlers and skiers are attached to the bridge railing. An adjacent promenade features grass and hardened creek access in the village, and a pocket park on Mill Creek features several creekside benches. At the covered bridge, a visible storm drain empties into the creek.

Ford Park features a number of creekside visitor attractions, including the Betty Ford Alpine Gardens and education center, Ford Amphitheater, Nature Center, playground and a variety of athletic fields and courts. The Back to Nature trail invites children to play and interact near the creekside, where a series of interpretive panels discuss the impacts of mountain pine beetles, plant and animal species found in

Gore Creek, wetlands and riparian areas, and macroinvertebrates. The panels invite readers to think about how they can keep Gore Creek clean. As of summer 2018, the **education center** features an interactive riparian exhibit that invites visitors to build a beaver dam outside. Inside, exhibits sponsored by various community groups feature interpretation regarding riparian areas and associated species, Vail history, and alpine ecology. One display features a microscope with a viewing monitor to allow close-up viewing of macroinvertebrates collected in Gore Creek. A virtual reality rafting exhibit was also in development during the site visit.

At the **nature center**, trailside signage highlights riparian wildlife species. Inside the building, exhibits feature taxidermy mounts with labels. Charming yet outdated exhibits highlight the food web and shelter needs of various species, get specific on beaver facts, clarify the difference between different bear species, and introduce the various types of trees seen

Upstream from Vail Village, a highly visible storm drain empties into Gore Creek

Macroinvertebrates can be examined through the microscope at the Betty Ford Alpine Gardens Education Center

Existing Interpretation

in Vail. Additional interior exhibits discuss composting and recycling.

Upstream, near the **east end of the golf course**, a number of benches provide a place to rest and take in views of a pond. The pond, popular with dog walkers, is home to beaver activity and the boreal toad (listed as endangered by the state of Colorado). In spite of these features, etiquette signage is currently not available.

Throughout high traffic locations along the trail, commissioned illustrations encourage visitors to refrain from dumping anything down the storm drains, as they flow directly to Gore Creek. Additionally, signage located at revegetation projects warns trail users to keep out of these sensitive sites.

IN VAIL

At the top of Vail Mountain, accessed via the Eagle Bahn gondola, visitors learn about regional wildlife species in the Nature Discovery Center, where they can also sign up for hikes and guided tours year-round.

Open during summer, Epic Discovery features zip lines, tubing, rope courses, a mountain coaster and other mountaintop adventure experiences. An associated short family-friendly walking trail features interactive exhibits that identify landmarks and interpret forest ecology and individual plant and animal species.

The Town of Vail provides a mobile app for visitors, featuring information about shopping, dining, parking, road conditions, and events, along with a "Find My Friend" feature. Heritage information is not currently addressed.

ANALYSIS

As described previously, existing interpretation surveyed throughout Vail focuses in on individual plant and animal species. This project could help bring cohesion to the visitor experience by focusing on interpretation of larger concepts that tie together the individual species and emphasize the similarities to humans' basic needs.

At Epic Discovery, exhibits focus on regional plant and animal species

This interactive exhibit interprets a mule deer's keen sense of hearing

A Vision for the Visitor Experience

In order to chart a road map for interpretation along the Gore Valley Trail, we must first define the optimal visitor experience.

While themes focus on what targeted audiences will learn as a result of interpretation along the tail, the visitor experience narrative explores what audiences will do.

We envision a high-functioning, fully developed interpretive program as follows:

Overall Niche

Gore Valley Trail is an essential element in the Vail experience and teems with activity. It is the high traffic spine of the community that connects individual sites and emphasizes the role of water as the foundation of all life, weaving together the stories of all species. Visitors approach the trail and its interpretation in a non-linear fashion, accessing different parts of the overall message individually and at different times.

Locations and content of interpretive installations are incorporated into the town's mobile app, while visitors who view the installations along the trail are made aware of the town's mobile app.
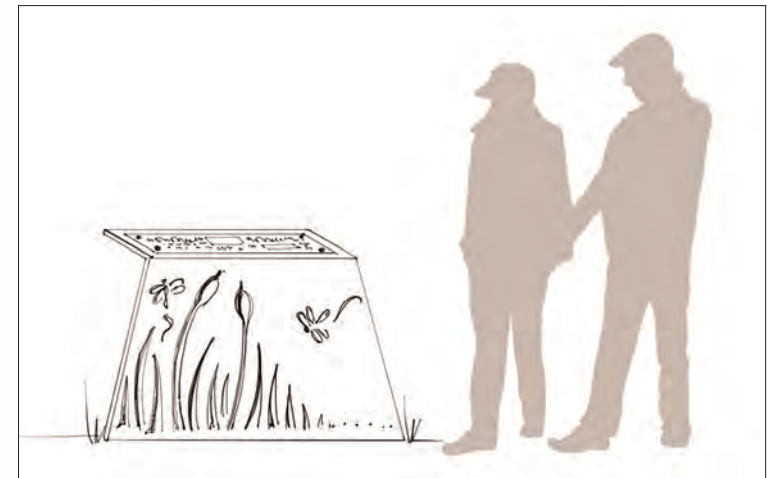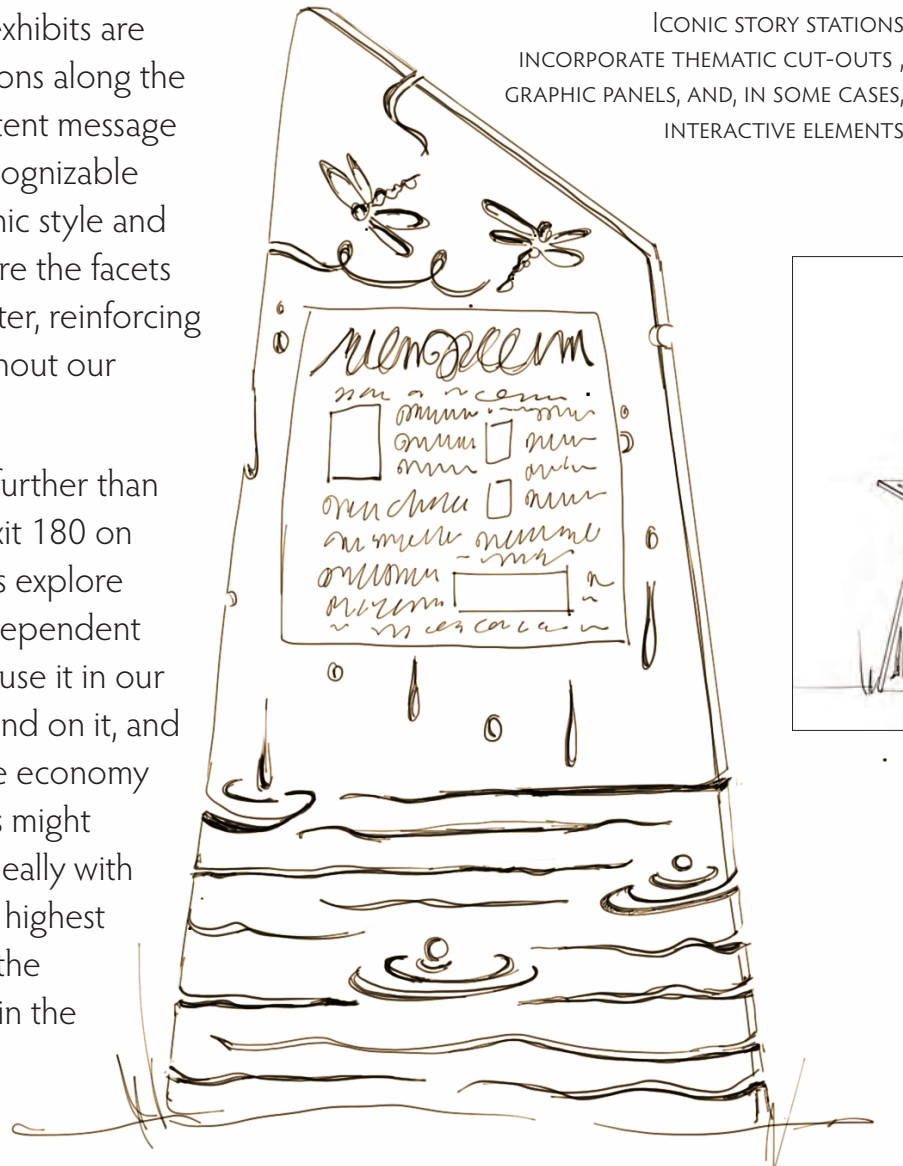

" eventually, all things run into one, and a river runs through it."

—Norman Maclean, author
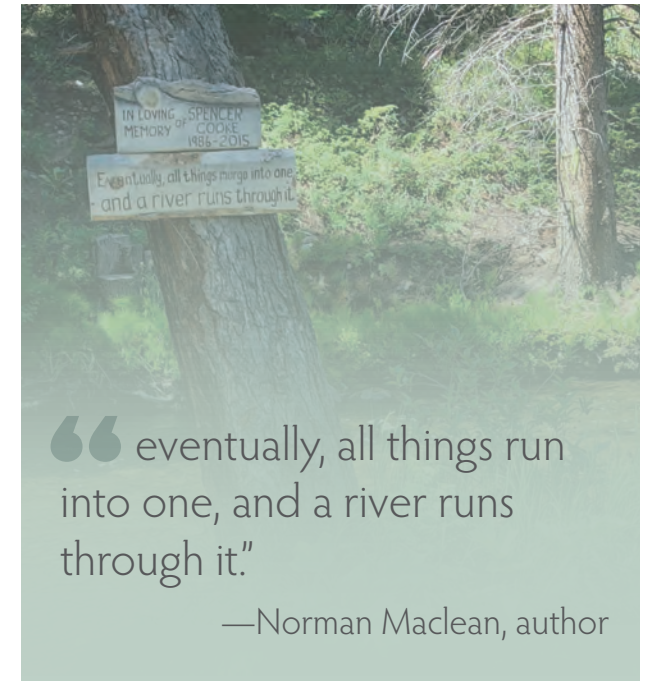
A Vision for the Visitor Experience

Water is Life Story Stations

These iconic story station exhibits are located at numerous locations along the trail and convey the consistent message that water is life. With a recognizable icon and a consistent graphic style and shape, these exhibits explore the facets of our relationship with water, reinforcing awareness of water throughout our visitors' lives.

In the upstream reach (no further than the East Vail interchange/exit 180 on Interstate 70), story stations explore the ways in which we are dependent on water—all the ways we use it in our lives, the animals that depend on it, and how it's so important to the economy in Vail. Interactive elements might include spotting scopes (ideally with magnification) fixed on the highest point in the watershed, or the beaver lodge constructed in the pond.

ICONIC STORY STATIONS INCORPORATE THEMATIC CUT-OUTS , GRAPHIC PANELS, AND, IN SOME CASES, INTERACTIVE ELEMENTS

LOW PROFILE STORY STATION OPTION

A Vision for the Visitor Experience

In the midstream sections, story stations interpret the necessity of good water quality for all, and how we gauge and monitor it. Interactive elements might include a stream gauge that depicts various flow levels, and a walkover watershed map in Ford Park or the Gore Creek Promenade that shows our position in the watershed and its significance.

A SPOTTING SCOPE DIRECTS THE EYE TO A STREAM GAUGE EMBEDDED IN THE STREAMBED. WE'LL EXPLORE OPTIONS FOR CUTTING THE MEASUREMENT GAUGE INTO A CUSTOM SHAPE (SUCH AS A FISH JUMPING - NOT PICTURED).
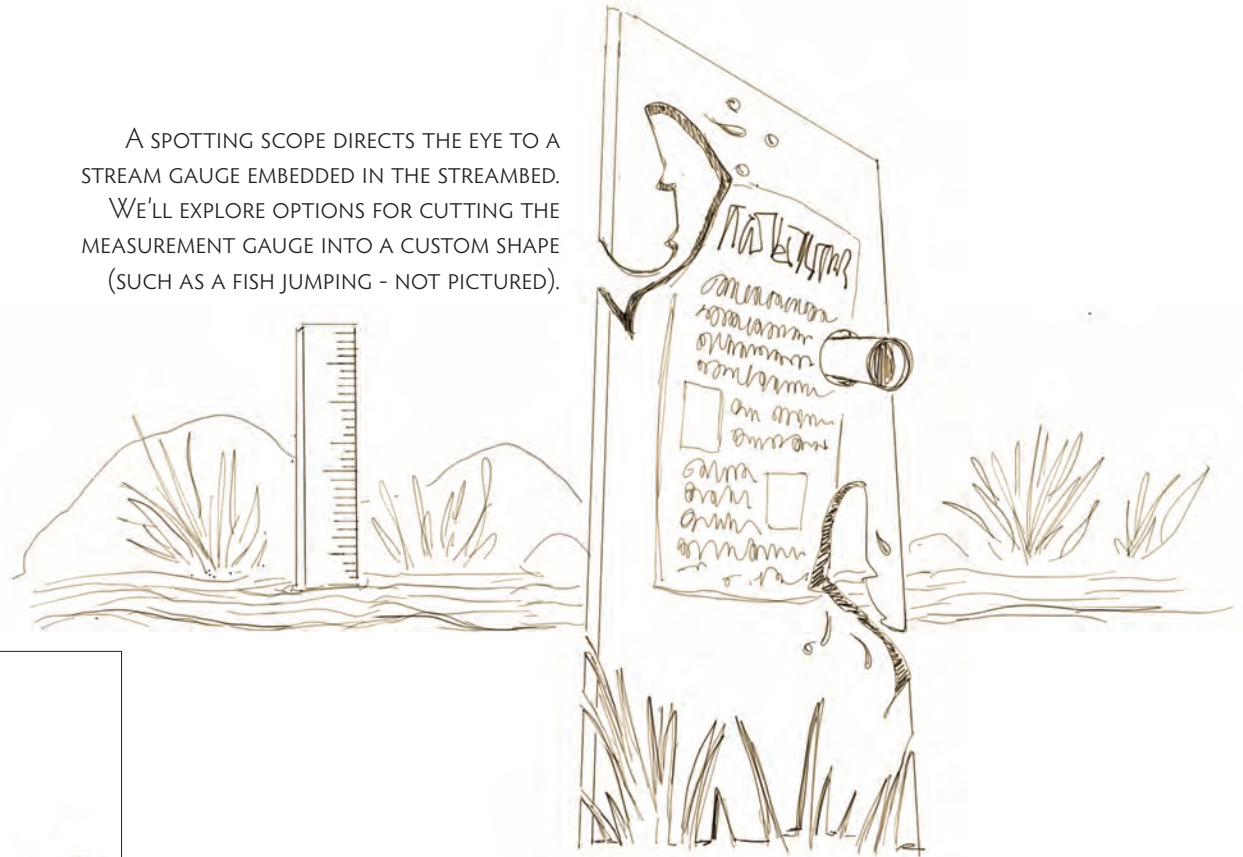
A WALKOVER MAP DESIGNED IN CONCRETE ALLOWS THE TRAIL USER TO VISUALIZE THE WATERSHED AND THEIR PLACE IN IT.

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A Vision for the Visitor Experience

In the downstream section (no farther than Donovan Park), story stations explore how we care for the creek, and interpret our efforts to reduce pollutants and increase streamside vegetation. Interactive elements might include a filtration model.
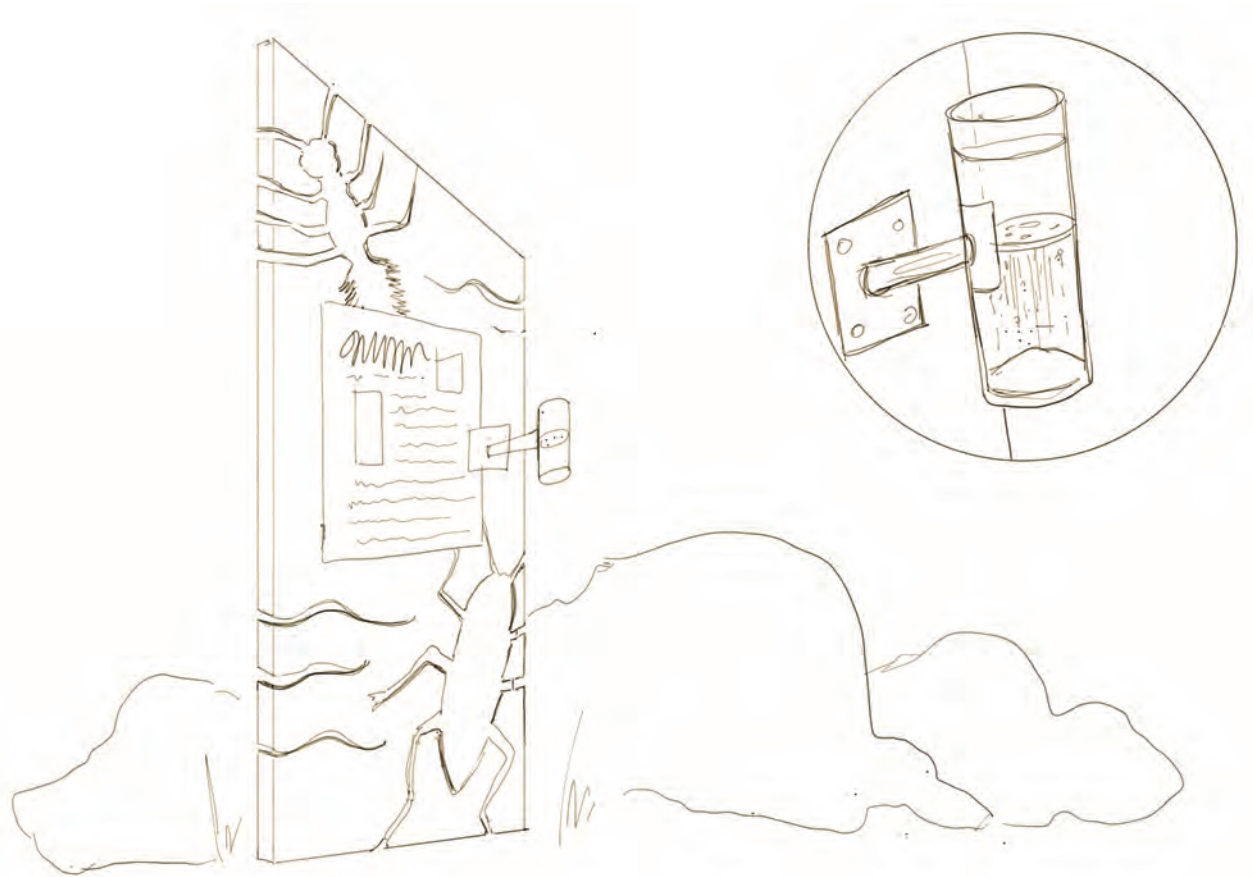
A LOW TECH INTERACTIVE ELEMENT HELPS VISITORS VISUALIZE THE CONCEPT OF WATER FILTRATION.

A Vision for the Visitor Experience

Thematic Site Infrastructure

Throughout the trail, at high profile traffic locations, custom cast storm drain grates[1] incorporate the themes and remind visitors to avoid polluting the creek. Cast tree grates and custom cut-out railings along the trail reinforce the interpretive themes and elevate the awareness of Gore Creek and Vail's commitment to achieving outstanding water quality.

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1 Any drain grates will be coordinated with the Town of Vail's roads department to ensure compliance with applicable engineering standards.
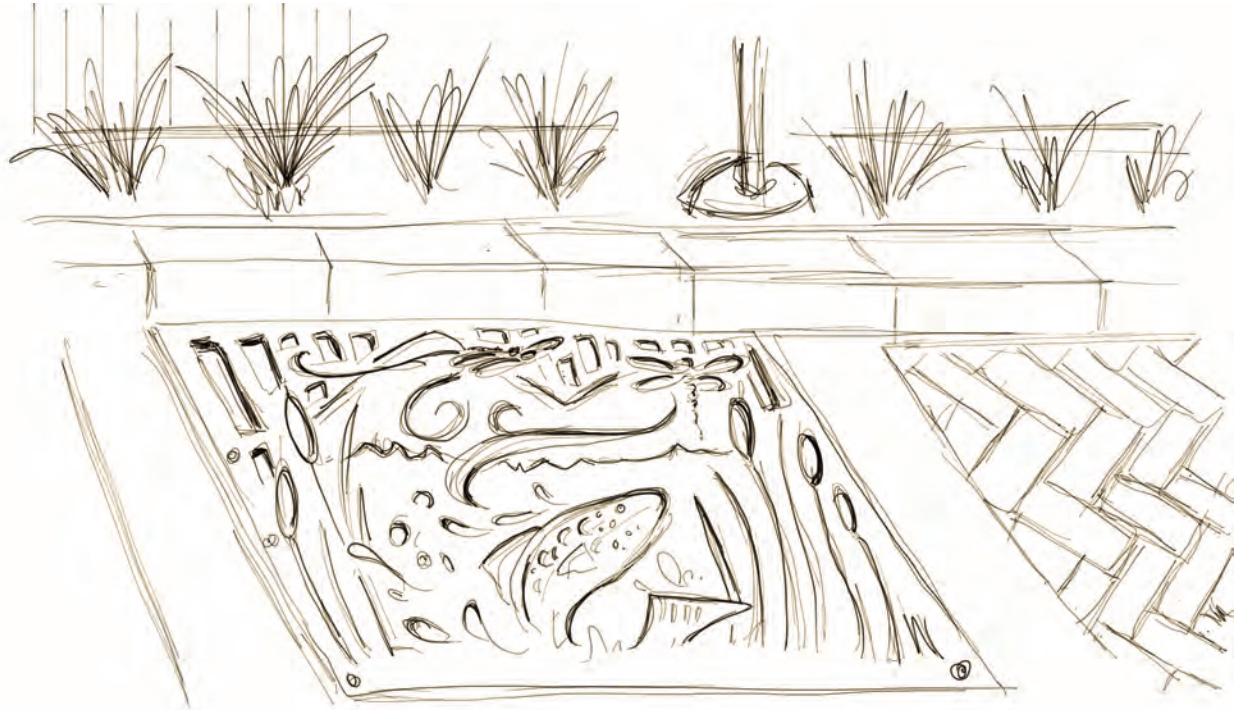
CONSIDER INSTALLING CUSTOM DRAIN GRATES TO MAKE WATERSHED AWARENESS A PERMANENT FIXTURE.

A Vision for the Visitor Experience

Picnic Areas

At least one location along the trail offers the opportunity for interpretive picnic tabletops. A series of thematic picnic tables located near the public library features interpretive tabletops highlighting the food web— "A Bug Buffet," for example.

Additional picnic tables located near the covered bridge in Vail Village provide another high profile opportunity.
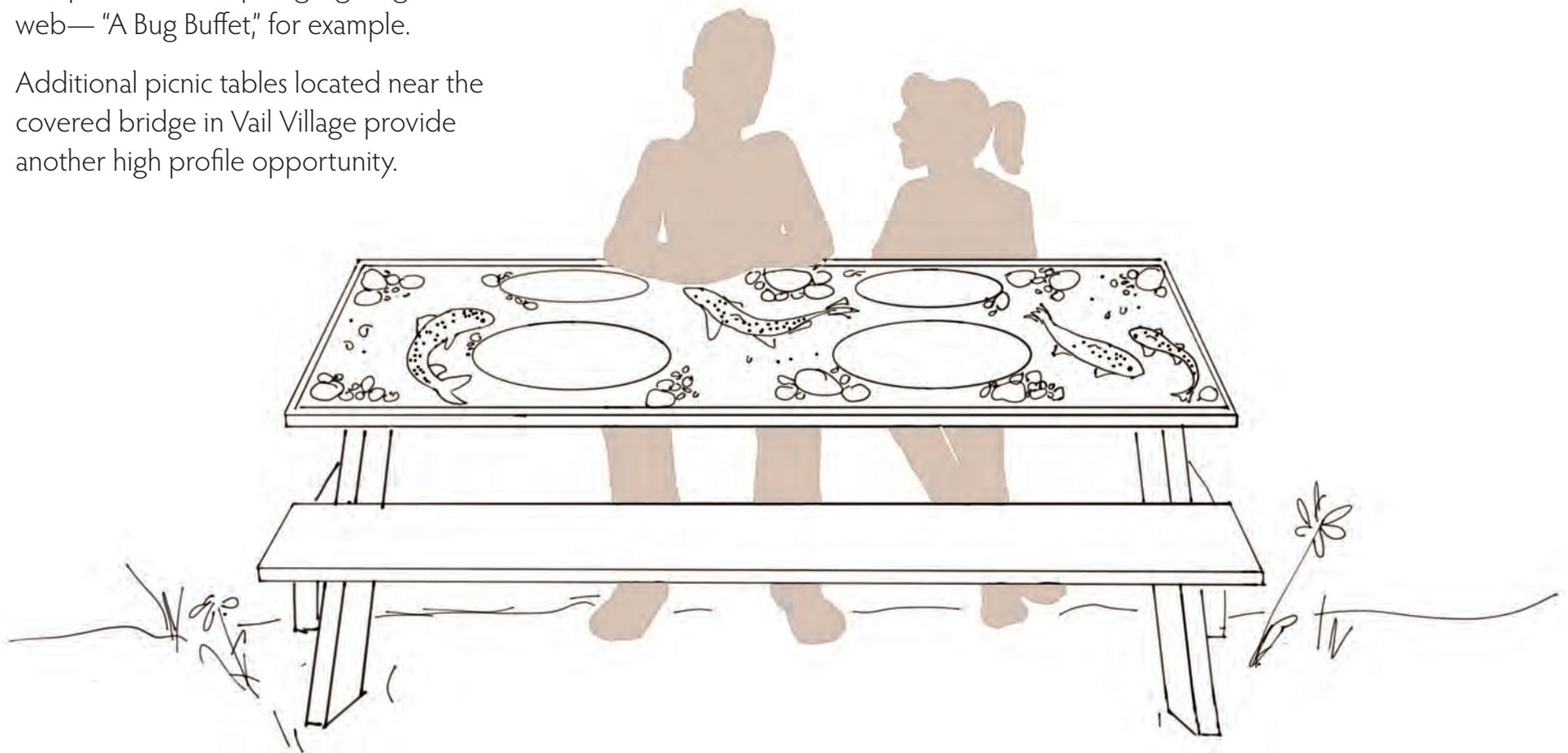
A Vision for the Visitor Experience

Guided Programs

A number of guided programs enhance and make use of the interpretive installation areas. For example, residents and guests sign up for Creek Camp, a water-focused day camp that incorporates thematic play with guided interpretation. Other programs may involve outdoor art workshops— making prints of the cast storm drain and thematic tree grates for example—or sampling for macroinvertebrates as part of a fishing clinic.

Recommendations

VISITOR EXPERIENCE GUIDELINES

Interpretation along the Gore Valley Trail will:

Setting Expectations

- Offer orientation information that provides an overview of the trail. This may include the use of a small map key on each story station.

Theme Reinforcement

- Weave the central theme through all exhibits.

- Offer a mix of both personal and non-personal (exhibits, for example) media, allowing targeted audiences to freely choose the method and depth of their participation.

- Utilize media that can be easily changed or updated.

- Highlight the offerings of natural and cultural heritage partners, being careful not to duplicate efforts.

- Explain the difference between stormwater systems and sanitary sewers.

- Teach the concept of watersheds, and encourage trail users to consider where Gore Creek's water comes from and how downstream users are impacted by upstream decisions and actions.

Inspiration & Sharing

- Encourage visitors to participate in follow-up activities and share how they are appreciating and protecting Gore Creek.

DESIGN CRITERIA

The overall success of interpretation along the Gore Creek Trail depends upon successful execution of design criteria. For the trail, these criteria include exhibits that:

- Are designed for primary viewing during summer, but can withstand winter conditions.

- Utilize a consistent shape and material, and recycled/recyclable materials where possible[1].

- Are easily replaced and maintained.

- Are self-guided, encouraging self-awareness and personal reflection.

- Present a hierarchy of interpretation and information.

- Provide information on multiple sides.

- Are spaced out along the length of the trail, rather than clustered.

- Do not impose on traffic flow along the trail, nor obstruct views.

- Meet accessibility guidelines with any text appearing between 24-72" from grade.

- Feature friendly, engaging interpretive text written at a 6th-8th grade reading level. Avoid writing in a technical voice.

- Allow for content delivery in Spanish

1 Digital high pressure laminate (DHPL) signage material is composed of approximately 13% plastic resins and 87% paper. Recycled content varies. The majority of the paper content that composes the central "core" of a panel is sourced from suppliers who are third-party certified to the Sustainable Forestry Initiative Standard (SFI). The SFI is endorsed by the Programme for the Endorsement of Forest Certification (PERC). DHPL is a chemically inert material that does not emit harmful gasses. For this reason, the US National Park Service and the Canadian Conservation Institute advise that phenolic laminate is an ideal material in which to store or to accompany fragile, archival materials. Further, DHPL is an uncatalyzed product that "breathes" small amounts of moisture, reducing drying and yellowing and providing a long, useful life as reflected in manufacturers' 10-year limited warranty.

Recommendations

and possibly additional languages. Multilingual content can appear along with English content in exhibits, but will greatly reduce the amount of interpretive text. Exhibit developers and project partners must consider and decide whether multilingual content will appear physically on exhibits, or be available for visitors to access digitally.

• Include elements of interactivity. Possibilities to be explored for feasability and cost-effectiveness include: magnification, and measurement of stream flow and water temperature.

All interpretive products should rely primarily on images (photos or illustrations), engaging headings and short blocks of text. Text should generally not be more than 150 words per panel. Utilize the 3-30-3 rule (shown at right) for establishing message hierarchy on any interpretive product.

GENERAL PARAMETERS

Branding

Maintaining a professional appearance requires consistency—in the use of color, fonts, and logo elements. Adhere to any applicable design guidelines during the exhibit development process, and ensure their consistent application as interpretive media are created and updated.

Web Presence & Mobile Interpretation

In today's digital world, maintaining your on-line presence is just as important as your physical presence. Incorporate installation locations and interpretive content into the town's existing mobile app. Make sure all links are functional, and ensure downloadable resources have a consistent look and feel.

Let Visitors Talk Back

The most engaging interpretive experiences allow visitors the opportunity to respond to their experience. While this may already occur via social media channels, continue encouraging these

The 3-30-3 Rule of Interpretive Design

This rule applies to every written interpretive product, whether it is an exhibit, newsletter, or brochure.

3 SECONDS
major information is read (title, subtitle)

30 SECONDS
additional information is processed (introduction, photo, first paragraph)

3 MINUTES
detailed information is read (maps, phone numbers, captions)

An interpretive panel can be designed and written so that it contains three levels of text with each level conveying a feeling of the theme. This approach provides all visitors with an interpretive opportunity.

For example, a short title at the top of a sign might be the only text some visitors read, so it is important that the learning objectives for the site be met to some degree even at the 3-second timeframe.

Recommendations

types of posts to increase visibility of the campaign amongst supporters/social media followers and their peers.

Partners
Promote partnerships with complementary organizations and facilities by featuring their sites as highlighted destinations on interpretive exhibits, where appropriate.

Programs
Be open to ways to increase your visibility with new audiences. Consider partnering in existing program offerings or developing new offerings that include Gore Creek and the Gore Valley Trail as focal points.

When evaluating existing and new programs, ensure alignment with the interpretive goals, visitor objectives and interpretive themes presented in this plan.

Recommendations

MEDIA MATRIX						
The following table lists proposed interpretive elements for the Gore Valley Trail. The Town of Vail and their partners will work together to implement these recommendations. Phases will be implemented as funding and resources permit.						
PHASE	ITEM	APPROX COST	NOTES	QTY	GOALS	THEMES
PHASE I	Water is Life Story Stations

See the map of proposed story station locations on page 34. | Approximately $3,500-6K each (depending on interactive elements and single vs. double-sided) + delivery/installation | Location 1—East Vail highway exit UPRIGHT EXHIBIT
Content direction: Content will identify the location and significance of the source of Gore Creek. This location will introduce the idea that water picks up pollutants on its path downstream and highlight the stormwater filtration and riparian habitat improvement project installed at this location.
Possible interactive: Spotting scope directed at highest point in the watershed | 1 | 1, 2, 2c, 3d, 4 | 1bi, 1bii, 2a, 2ciii, 2civ |
| | | | Location 2—Beaver pond UPRIGHT EXHIBIT
Content direction: Content will address wetlands and ponds as important components of a healthy watershed and their role as habitat for keystone animals such as the beaver and endangered species like the boreal toad. Beavers' role in shaping the watershed will also be discussed, as will etiquette.
Possible interactive: Spotting scope directed at beaver pond | 1 | 1b, 2d, 3b, 3d, 3f, 4 | 1a (all), 1bii, 2ciii, 2civ |
| | | | Location 3—Ford Park before bridge to nature center in pedestrian cul-de-sac UPRIGHT EXHIBIT
Content direction: Content will highlight the diversity of species that rely on Gore Creek and will point to the nearby revegetation project as beneficial to this habitat. | 1 | 1b, 2e, 3d, 3e, 3f, 4 | 1a (all), 2ciii, 2civ |
| | | | Location 4—Ford Park before covered bridge to hotel complex, across from Alpine Gardens LOW PROFILE EXHIBIT
Content direction: Content will discuss the various ways we utilize groundwater and impact surface water. | 1 | 2a, 2b, 3a, 3b, 4 | 1b, 2a, 2d |

Recommendations

MEDIA MATRIX						
The following table lists proposed interpretive elements for the Gore Valley Trail. The Town of Vail and their partners will work together to implement these recommendations. Phases will be implemented as funding and resources permit.						
PHASE	ITEM	APPROX COST	NOTES	QTY	GOALS	THEMES
PHASE I	Water is Life Story Stations See the map of proposed story station locations on page 34.	Approximately $3,500-6K each (depending on interactive elements and single vs. double-sided) + delivery/installation	Location 5—Ford Park near downstream entrance LOW PROFILE EXHIBIT Content direction: Content will discuss the role of trees (shade, roots, debris) in maintaining stream health. Possible interactive: Tactile element of tree roots	1	1b, 2b, 2c, 3e, 4	1aiii, 1biii, 2d
			Location 6—Between covered bridge to Vail Village and Ford Park, in sight of Mill Creek confluence UPRIGHT EXHIBIT Content direction: Content will address how Gore Creek is a dynamic system with seasonal and cyclical variations, and that native species are adapted to these fluctuations. Possible interactive: Spotting scope pointed at fish-shaped stream gauge installed in creek and/or digital gauge	1	1b, 2d, 3c, 4	1a, 2b
			Location 7—Gore Creek Promenade or Whitewater Park UPRIGHT EXHIBIT Content direction: Content provides an overview of the local and overall Colorado River watershed and invites trail users to find their place in it. Provokes trail users to think about where their water comes from. Possible interactive: Accompanies the walkover watershed map	1	1a, 3b, 3e, 4	1bi, 1bii, 1biii
			Location 8—Public Library UPRIGHT EXHIBIT Content direction: Content addresses that one of the ways we monitor water quality is by determining the diversity of aquatic species called macroinvertebrates. Accompanies the interpretive picnic tables.	1	1b, 2b, 3d, 4	1a (all), 2b

Recommendations

	MEDIA MATRIX						
	The following table lists proposed interpretive elements for the Gore Valley Trail. The Town of Vail and their partners will work together to implement these recommendations. Phases will be implemented as funding and resources permit.						
PHASE	**ITEM**	**APPROX COST**	**NOTES**	**QTY**	**GOALS**	**THEMES**
PHASE I	Water is Life Story Stations See the map of proposed story station locations on page 34.	Approximately $3,500-6K each (depending on interactive elements and single vs. double-sided) + delivery/installation	Location 9—Behind Lion Square Lodge west of skier bridge LOW PROFILE EXHIBIT Content here addresses the technical elements of a stream restoration project. Trail users will get important etiquette information and understand that staying on the access trail protects riparian vegetation.	1	2, 2c, 2d, 3d, 3e, 3f	2ci, 2cii, 2ciii, 2civ
			Location 10—Between wastewater treatment plant and skier bridge LOW PROFILE EXHIBIT Content direction: Content here addresses Gore Creek's status as a Gold Medal trout stream and how restoration activities protect that. Interpret the brown trout spawning run at this location. Possible interactive: tactile element featuring brown trout	1	1, 2c, 2d, 3b, 3d, 3e, 4	1a, 1bii, 1biii, 2d
			Location 11—Wastewater treatment plant outflow UPRIGHT EXHIBIT Content direction: Content addresses the effect of water treatment on water quality. Possible interactive: Filtration model	1	2a, 2b, 3a, 3b, 4	2ci, 2d
			Location 12—Donovan Park UPRIGHT EXHIBIT Content direction: Content addresses that caring for the creek benefit us all and that partners are working together for a healthy Gore Creek.	1	2c, 2d, 2e, 3, 4	2c (all), 2d
	Story Station Brochure/Rack Card	varies based on quality and quantity	Promotes the campaign and highlights the locations of exhibits along the trail	TBD	1, 2, 3, 4	Central theme, 1, 2

Recommendations

The following table lists proposed interpretive elements for the Gore Valley Trail. The Town of Vail and their partners will work together to implement these recommendations. Phases will be implemented as funding and resources permit.

PHASE	ITEM	APPROX COST	NOTES	QTY	GOALS	THEMES
PHASE II	Interpretive Picnic Tables	Approximately $3,500 each tabletop + delivery/installation	Location 1—Public Library Content will highlight aquatic and creek-focused food web ("A Bug Buffet," for example)	2	1b, 3e, 4	1aii, 1aiii
			Location 2—Vail Village Content will address elements of a healthy creek ("Anatomy of a Healthy Creek," for example).	2	2b, 2d, 3a, 3b	1a, 2d
	Concrete Walkover Watershed Map	$25K-$100K, depending on whether slab is existing and what approach would be used (sandblast and stain vs. detailed mosaic approach)	This interactive experience allows trail users to visualize the watershed and their place in it.	1	1a, 3, 4a, 4b, 4d, 4e	1bi, 1bii
PHASE III	Thematic Drain Grates	varies, depending on whether a custom or off-the-shelf product is used	These storm drain grates incorporate the interpretive themes and serve as a permanent reminder to trail users to avoid polluting the creek.	TBD	1b, 3a, 3b, 3d, 3e, 4b	2a, 2ci 2d,
	Programming	in-house	A number of guided programs enhance and make use of the interpretive installation areas. For example, residents and guests sign up for Creek Camp, a water-focused day camp that incorporates thematic play with guided interpretation. Other programs may involve outdoor art workshops— making prints of the cast storm drain and thematic tree grates for example—or sampling for macroinvertebrates as part of a fishing clinic.	TBD	varies	varies

Appendix A—Demographics

US CENSUS CATEGORIES	VAIL	COLORADO	UNITED STATES
POPULATION			
Population census 2010	5,305	5,029,196	308,758,105
Population, percent change—2010 to 2017	3.4%	11.5%	5.5%
Population estimates 2017	5,483	5,607,154	325,719,178
AGE & SEX			
Persons under 5 years old	1.6%	6.0%	6.1%
Persons under 18 years old	12.7%	22.5%	22.6%
Persons 65 years and over	12.7%	13.8%	15.6%
RACE AND HISPANIC ORIGIN			
White, alone	94.8%	87.3%	76.6%
Black or African American	1.3%	4.5%	13.4%
American Indian or Alaskan Native, alone	0.0%	1.6%	1.3%
Asian, alone	1.0%	3.4%	5.8%
Native Hawaiian and Other Pacific Islanders, alone	0.0%	0.2%	0.2%
Two or more races	2.6%	3.0%	2.7%
Hispanic or Latino	5.5%	21.5%	18.1%
White alone, not Hispanic or Latino	89.6%	68.3%	60.7%
POPULATION CHARACTERISTICS			
Veterans, 2012-2016	211	383,699	19,535,341
Foreign born persons, percent, 2012-2016	11.5%	9.8%	13.4%
HOUSING			
Owner-occupied housing unit rate 2012-2016	62.8%	64.4%	63.6%
Median value of owner-occupied housing units 2012-2016	$556,000	$264,600	$184,700
Median selected monthly owner costs with a mortgage, 2012-2016	$2,004	$1,585	$1,491
Median gross rent, 2012-2016	$746	$427	$949
FAMILIES & LIVING ARRANGEMENTS			
Households 2012-2016	2,279	2,051,616	117,716,237
Persons per household 2012-2016	2.35	2.56	2.64
Language other than English spoken at home, persons age 5+ years, 2012-2016	14.0%	17.0%	21.1%
EDUCATION			
High school graduate or higher, percent of persons 25+ 2012-2016	99.1%	91%	87%
Bachelor's degree or higher, percent of persons 25+, 2012-2016	59.1%	38.7%	30.3%
HEALTH			
With a disability under age 65, 2012-2016	2.5%	7.2%	8.6%
Persons without health insurance under age 65	11.4%	8.6%	10.1%
INCOME & POVERTY			
Median household income (in 2016 dollars), 2014-2016	$73,125	$62,520	$55,322
Persons in poverty	6.1%	11.0%	12.7%
GEOGRAPHY			
Population per square mile, 2010	1,135.7	48.5	87.4

Appendix B—Proposed Story Station Locations

Lionshead Village

Public Library

Vail Village

Ford Park

Pond

Donovan Park