CWCB Grant Application
Rogers Park Environmental Sign-age

Executive Summary

A project to rehabilitate four-tenths of a mile of Middle Boulder Creek in Boulder Canyon, Colorado was completed in the spring and summer of 2009. This area is popularly known as Rogers Park. The project was completed as a large partnership of organizations, of which CWCB was one, and was led by members of Boulder Flycasters, BFC, a chapter of the national organization, Trout Unlimited. As a final phase of this project, Boulder Flycasters wishes to design, build, and install six signs to provide education about what was accomplished, steam entomology, fish habitat, local wildlife, stream protection, and project contributors.

BFC commissioned a study to help define the project scope, high level design, and required budget. This study was completed in the summer of 2009. As a follow-up to the study, the budget was modified to reduce the size of the signs and incorporate volunteer effort. The budget was reduced from $17.1K to $12.2K. The project has $7.2K currently available and therefore needs an additional $5K. (These numbers do not include the cost of the study which was $1.5K and was paid for by BFC.)

BFC is requesting that the Colorado Water Conservation Board assist us once again on this final phase of our project. It is desired that this project be completed before the summer of 2010. It should be noted that usage of this area by the general public as well as trout anglers, has increased dramatically since the in-stream project work was completed.

The land where the signs will be installed is owned by the Colorado Dept. of Transportation. Though a General Use Permit is required, preliminary verbal permission for sign installation has been received.

Project Scope

The second and final phase of the Rogers Park project requires the design, construction, and installation of six signs that will provide the general public and anglers with education about this area and encourage them to respect and protect the area. The project area includes two parking areas, one on each end of the project stream section. This project will incorporate four signs at the down-stream area and two signs at the up-stream end. The two up-stream signs will be duplicates of two of the down-stream signs. The theme of these sign sets will be:

- Angler Ethics – Responsible "Leave No Trace" conduct in fishing waters and the value of "Catch and Release" angling practices;
- Saving the Creek – the Middle Boulder Creek Habitat Enhancement Project – before/after and rationale.

The two additional down-stream sign themes will be:

- Know Your Trout Stream – fish species, physical elements of a healthy trout stream, the food web supporting a fishery
- Wetland Wonders – the values of riparian wetlands, plants to know at Rogers Park, wildlife inhabitants

One or more of the above signs will acknowledge project partners.

As the project moves into the design stage, sign content may change slightly, however these general themes have been accepted by Boulder Flycasters, the leader of this project. The signs are expected to be 30 inches by 20 inches by ½ inch thick. They will be back-mounted onto a steel plate and attached to two powder coated aluminum posts. The sign warranty is 10 years. The sign posts will be installed with concrete foundations for long term durability.

Project Partnerships

Phase one of this project would not have been possible without the generosity of many partners. The original project budget was $235K which included significant volunteer labor. A federal grant known as Fishing is Fun in the amount of $129K was key to assuring the project was viable. Additional contributions were: CWCB ($30K), Boulder County Parks and Open Space ($20K), Trout & Salmon Foundation ($4K), Colorado Trout Unlimited ($1K), BFC ($33K), Private BFC Donations ($6.6K). Non-monetary contributions were made by Colorado Dept. of Transportation, Boulder County, and over 100 local and BFC volunteers.

Boulder County maintains a program to award County projects deserving of special recognition. The County Commissioners award a ***"Pinnacle Award"*** to exceptional projects completed in five categories. One of those categories is projects completed with partners outside of County government. Boulder Flycasters was honored to accept the ***"Pinnacle Award"*** in this category for 2009. All three County Commissioners, along with the Director of Parks and Open Space, visited Rogers Park as part of their decision process.

Partners for phase two of the project will include: Fishing is Fun ($7.2K), Boulder County Parks and Open Space, Boulder Flycasters, Colorado Dept. of Transportation, and one or two additional players.

Funding Plan

Cash requirements to meet the budget shown below are $12,200. BFC has access to $7,200 from the original Fishing is Fun Grant. Access to these funds is available until 12/31/2010 when that grant expires. Several options exist for additional funding without using significant BFC funds. If this grant request for $5K is approved by CWCB, this project will be fully funded. BFC stands ready to provide up to $2000. of contingency funds in the event of a budget over-run. (It should be noted that the BFC treasury contributed over $33K in cash to fund phase one of this effort. Individual members of BFC contributed an additional $6.6K.)

Project Budget

The budget as proposed by the project study consultants is as follows:

Milestone	Description	Cost
Project Study	Define project scope, budget, sign content, construction approach	$1,500.*
Content	Text: Research, writing and editing Original illustrations & schematic design Photographs: Research and acquisition	$6,600
Design	Graphic Design, proofs to client, final design (Pro Bono graphic design, by Bob Bush**)	$0.00
Panel Production	Six 30" x 20" x 1/2" (horizontal) RFP panels, proofs, final fabrication (10 year warranty)	$1,315
Exhibit Bases Production & Shipping		$1,990
Installation: Panels and posts	Installation by BF volunteers, possibly with Boulder County's assistance*** (Some materials needed, i.e. concrete)	$0.00
Project Coordination	Client communication; Contractor management; Quality control; Installation location advice; Pickup and delivery of panels	$2,250
Total:		$13,655.****

* Study was commissioned and paid for by BFC.

** Bob Bush is a member of BFC and is a professional graphic artist. Other expertise is available within BFC. Value estimated at $1,750.

*** Preliminary discussions with Boulder County Parks and Open Space have been initiated and are encouraging. A decision is expected by 2/26/2010. Materials will be provided by BFC. Value estimated at $1,200.

**** A 15% ($2000.) project contingency has been budgeted by BFC and is available if needed.

Summary

Boulder Flycasters is extremely proud of the results achieved thus far at Rogers Park. The addition of environmental sign-age in the area will make this area a significant show place at a location easily accessible by a significant recreation and nature oriented community. An area such as this, carrying the sign-age themes, does not currently exist anywhere nearby. A copy of the above referenced study is attached as Appendix A. The revised budget is attached as Appendix B. (These are separate .pdf files.)

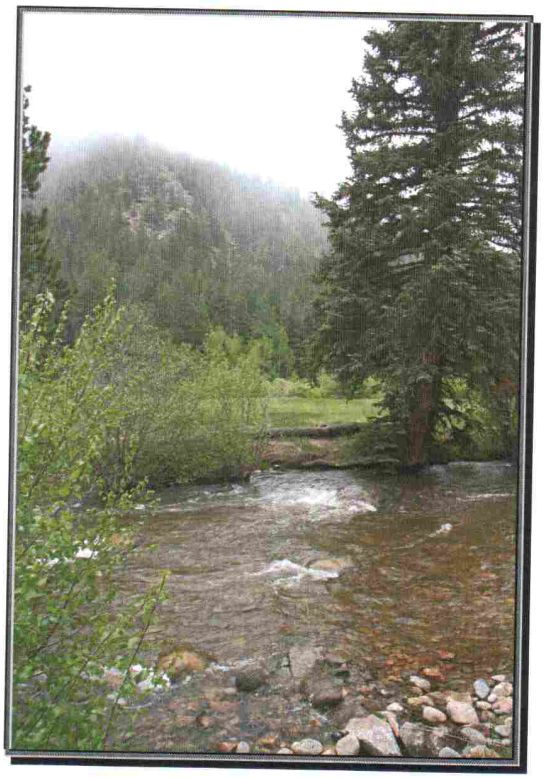
FINAL REPORT

INTERPRETIVE PLAN
AND
SITE ENHANCEMENTS

ROGERS PARK
BOULDER CREEK
BOULDER COUNTY, COLORADO

Submitted to
Boulder Flycasters

JULY 21, 2009



BALLANTINE
Environmental Resources, Inc.

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1. INTRODUCTION

In May 2009, Boulder Flycasters and Ecological Resource Consultants, Inc. completed the construction phase of the Middle Boulder Creek Restoration project, adjacent to Rogers Park in upper Boulder Canyon of Boulder County, Colorado. The 2,000 linear feet project is located in the Colorado Department of Transportation (CDOT) right-of-way, generally running from the upper edge of Highway 119 to the center of Boulder Creek. The park offers access to the creek and opportunities for education.

Boulder Flycasters have done a remarkable job of restoration. The next phase – riparian enhancement and stream bank stabilization – is planned for mid-summer of 2009. The enhanced creek will benefit the local fishery and adjacent riparian habitat. More people will come to Rogers Park to fish, learn about the project, and enjoy the environment. Now is the time for planning education programs, interpretive facilities, improvements for visitors, and management programs.

Land ownership, access, and the narrow right of way are limiting factors for planning improvements. First, CDOT is the primary regulatory agency governing the park. Improvement plans – especially access and parking – must be coordinated with and approved by CDOT. Also, CDOT activity may impact the park and creek (example: spillage of snow-melting chemicals into the right-of-way or creek).

Access is limited to two, steep-sloped dirt roads adjoining curves on Highway 119. Future park improvements will invite visitors. Thus, access safety should be improved or controlled through coordination with CDOT. Third, Rogers Park is a linear facility. Visitor use is concentrated in several areas adjacent to Boulder Creek. Education and management will be needed to protect the park and the visitor experience.

This document builds on information in the summary interpretive program we submitted to Boulder Flycasters on June 22, 2009. This Final Report inculcates Flycasters comments, and describes in detail:

- Existing site conditions (not including the creek enhancement project area).
- The recommended interpretive plan for Rogers Park, including the storyline for exhibits, optimum exhibit locations, the cost estimate, projected timing to complete exhibits, and best practices for interpretive design and fabrication.

- Potential funding sources for future interpretive facilities and other park improvements.
- Recommended structural improvements and the CDOT role in public safety at Rogers Park.
- Action steps to improve the park, enhance the visitor experience, and assure public safety.

2. EXISTING SITE CONDITIONS

In July of 2009, Ballantine Environmental Resources completed investigations of Rogers Park. We conducted two onsite studies, research, and interviews (Boulder Flycasters, CDOT, Boulder County planning staff, park visitors). We focused on present site conditions – especially those needing improvement.

Access

The dirt roads accessing Boulder Canyon Drive (Highway 119) are extremely dangerous. Each empties out on a blind curve, on which cars often travel downhill faster than the speed limit. This potential liability could constrain funding. Further, CDOT has expressed serious concern about increased visitor use of the park access roads because this increases the potential for serious accidents on the highway. Currently, there are no road signs on Highway 119 warning drivers to slow for cars turning into or exiting the park entry roads; nor does the park have signs reminding drivers to use caution when entering the highway.

Parking

The unpaved parking areas at the base of the roads are rutted and sometimes covered with water in high-use areas (turnarounds, curves). Recently, we observed deep water in these areas. The two automobile access areas should be filled and graded. Stormwater runoff should be filtered through pervious material before draining into the creek.

Visitor Pathways

Rogers Park provides no designated pathways at this time. Visitors simply make their own way, following the shortest path to the creek. Developing simple trails to the interpretive exhibits, the classroom, and water access will save groundcover and riparian vegetation. Trails should be constructed according to ADA standards and Boulder County best management practices, including grading, compacting, and surface cover

with granite fines or other easily maintained natural material. The trails will require occasional litter pickup and raking.

Litter

Broken concrete picnic tables litter the lower parking area. Both access areas lack containers for litter and during our site visits, had litter in the parking areas.

Current Maintenance

At this time neither CDOT nor the Boulder Flycatchers maintains Rogers Park on a regular schedule. Site maintenance is necessary – to sustain public support and respect for the park, and keep waste out of the creek environment. Through grants or other agreements, the broken picnic tables should be removed, and a regular volunteer clean up implemented. The interpretive exhibits will also reinforce "Leave No Trace" ethics for visitors. The exhibit panels will require little maintenance (see "Exhibit Plan" below).

3. INTERPRETIVE PLAN FOR ROGERS PARK

Objectives

- Inform the public about Rogers Park and the Middle Boulder Creek Habitat Enhancement Project.
- Help visitors appreciate their benefit from the project (*e.g.*, recreation, habitat improvement, enhanced water quality).
- Create interpretive exhibits for a diversity of visitors, encourage them to learn more, and inspire them to get involved in angling and fishery conservation.
- Encourage ethical conservation-based fishing practices.
- Portray valuable aquatic and riparian habitat.
- Credit grantors and other funders that made possible the creek restoration and the interpretive facilities.
- Design and install superior quality, highly durable, graphically appealing exhibits.

Best Interpretation Practices

- The central theme – restoration, nature, and recreation – should underlie each exhibit.
- Overall: the exhibits should adhere to the principles of Universal Design followed by government agencies, museums, and interpretive centers. These principles promote design of products and environments to be usable for all people, to the greatest extent possible, without the need for adaptation and specialized design.
- Install exhibits where they are accessible to all visitors, including disabled persons and children. Ground under exhibits should be compact and level for wheelchairs. The height and angle of exhibits will be consistent with ADA (American Disabilities Act) standards.
- Exhibit designs will be consistent for easy recognition.
- Text will be relevant to maintain visitor interest. The text and captions should be concise and descriptive.
- Exhibits will describe what visitors can experience and enjoy at Rogers Park.
- Illustrations, photographs, and other graphics will be accurate yet appealing to hold visitor attention.
- Exhibits will be in color. But the panel background should not be white (difficult recognition for visually impaired persons).
- Exhibits will encourage people to get involved in conservation of Boulder Creek and fisheries.

Exhibit Storyline and Location

We propose **six wayside interpretive exhibits** in Rogers Park. The attached map locates each exhibit. Duplicate panels on "Angler Ethics" and "Saving the Creek" should be placed in the upper and lower access points. The unifying theme will be the restoration project: how it helps conserve the Middle Boulder Creek fishery, recreation, and aquatic habitat. Proposed subjects:

- **Angler Ethics** – Responsible "Leave No Trace" conduct in fishing waters (2 each).
- **Saving the Creek** – the Middle Boulder Creek Habitat Enhancement Project (2 each).
- **Know Your Trout Stream** (fish species, physical elements of a healthy trout stream, the food web supporting a fishery).
- **Wetland Wonders** (the values of riparian wetlands, plants to know at Rogers Park, wildlife inhabitants).

Note: We have replaced "Natural and Human history of Boulder Creek" recommended in the summary. This subject is too general for a single wayside exhibit. The creek geography and human use can be included as background information in the other panels.

Table 1. Specifications for Interpretive Exhibits in Rogers Park

Element:	Description:
Number of exhibits	Six total (with four topics, two of which are repeated, as described above).
Exhibit panel size	36" wide X 24" X 1/8" thick. Option: for a ½"thick panel, the panel could be back-mounted, possibly reducing the cost of the exhibit frame/bases.
Panel material	*Rhino* Fused Polycarbonate (RFP) exterior-grade, graphic panels. RFP panels are printed at 1200 DPI with solvent UV stable ink, and then embedded with proprietary resin with pressure and heat between custom milled, UV-stable polycarbonate sheets. This state-of-the-art material is the strongest and most cost-effective material available for interpretive exhibits. In addition, the panels are fabricated with up to 5/8 recycled materials.
Panel Warranty	*Rhino* panels are backed by a 10-year warranty against de-lamination, fading/discoloring, and material degradation. This warranty is more comprehensive than other products on the market.
Imagery	Photographs, original illustrations, and other graphics.
Text	Concise, descriptive, and accurate to hold visitor interest.
Exhibit frames and bases	National Park Service quality wayside, 2-post, cantilever welded aluminum frames, panel backing, and two posts each. Powder-coat color: black (custom color: additional cost per frame). All exhibit frames and bases will be mounted in concrete footings.
Location	Exhibits should face the subjects they interpret, and not obscure natural views. Locate exhibits near parking areas so that visitors do not have to search to find them.

Project Budget

Ballantine Environmental Resources, Inc. will be honored to design and develop the interpretive exhibits, and coordinate production and installation. The following cost estimate can be used in grant applications. These costs are applicable for 120 days.

Table 2. Cost Estimate for Rogers Park Interpretive Exhibits

DESCRIPTION	TOTAL
Content Text: Research, writing, and editing. Original illustrations. Photographs: Research and acquisition.	**$6,600.00**
Design Graphic design, proofs to client, final design	**$1,750.00**
Panel Production Six RFP panels, proofs, final fabrication	**$1,465.00**
Exhibit Fames and Bases Production	**$3,240.00**
Installation: Panels, frames and bases 4 panels at lower access; 2 panels at upper access Location to be determined with Boulder Flycasters	**$1,200.00**
Project Coordination Client communication Contractor management Quality control Installation observation	**$2,850.00**
TOTAL	**$17,105.00**

Timing

Once this Interpretive Plan is accepted and funding is obtained, the estimated time for completion is 180 days + additional time for comments and/or approvals from Boulder Flycatchers and CDOT.

Future Phases. This proposal describes work limited to content, design, production, installation, and coordination of the six exhibits described herein. Table 2 delineates our six-step process for developing exhibits, which we would replicate in a future phase of work. Ballantine Environmental Resources will be ready to efficiently create additional exhibits at Rogers Park or other facilities.

CDOT Support for Exhibits. On three occasions we discussed these proposed exhibits with CDOT (Bob Hays). Mr. Hays expressed the agency's support for exhibits. He asked that exhibits be located so that they do not block public access or maintenance.

4. OUTDOOR CLASSROOM

Boulder Flycasters have planned for experiential learning sites at the park. The "outdoor classroom" concept will be effective for small visitor groups. The lower access area is the best site for the classroom because highway access is safer, and this site has more room for gatherings. Elements to include in the classroom:

- An improved parking and unloading area.
- A central staging area for group orientation and instruction. This should be close to the parking lot.
- Several "pocket" areas for small group activities, such as art and creative writing.
- A trail linking the staging area and nearby pocket areas.
- Visitors should bring their own informal seating, such as folding camp chairs (option: Boulder Flycasters could provide chairs). This solution will improve the "classroom" experience and protect the creek bank, native groundcover, etc.
- Per ADA standards, the staging site and trails should be compacted and surfaced with a material for wheelchairs. The surface should also withstand occasional coverage by high water.

Examples of activities for the Outdoor Lab:

- Casting and angling instruction.
- "Know your fish" demonstration.
- Nature photography.
- Creative writing.
- Scavenger hunt.
- Conservation/public service (best for scouts, volunteers).

5. SAFETY

Top Priority: Highway Signs. In researching how to improve safety on the access roads, and of CDOT installing hazard road signs ("blind" or "hidden" drive), we noted a contradiction between the Boulder Flycasters group and CDOT regarding the desired level of visitation in Roger's Park. While the agency supports educational programs in

the park, Mr. Hays said CDOT wants both accesses to remain "informal" for safety reasons.

CDOT is very concerned with the safety of the access roads at both locations to Rogers Park. According to Mr. Hays, CDOT would consider providing warning signs (such as "hidden" or "blind" drive) at the lower, main access on Highway 119. But the agency considers the upper access *extremely* dangerous. The upper access is not eligible for any road signs, as it does not meet CDOT safety requirements for such signs. If an accident or accidents should occur at the upper access, CDOT may permanently close the upper access road, Mr. Hays said.

Finally, Boulder Flycatchers should consider installing CDOT-approved "Stop" or "Caution" signs on the park-side of the access roads. This would encourage drivers to have a clear view both ways before entering the highway.

Supervision. Currently the park is unsupervised. This situation invites vandalism and litter. If interpretive exhibits, signs, and outdoor classroom facilities were installed, they could be targets. Our proposed exhibits are very sturdy and can be cleaned (even if spray painted). However, we encourage Boulder Flycasters to discuss how to watch over the park improvements.

Creek Safety. Although Middle Boulder Creek appears shallow, it is subject to flash flooding and in spring, heavy flows and strong currents. The interpretive exhibits will provide safety tips for visitors. However, Boulder Flycasters should offer creek safety tips in a printed handout, or install CDOT-approved signs at stream access points, including the upper access. In addition, the Flycasters should offer a tour to the Boulder County Sheriff Department, EMS, and firefighters in order to identify possible emergency needs.

6. FUNDING

We met with Boulder County Parks and Open Space (Bridgette McCarthy, Grant Coordinator, and Pascal Fried, Outreach Coordinator) and representatives from Boulder Flycasters. The group discussed the feasibility of acquiring funds for interpretive elements and related site improvements. We also conducted our own research for these needs.

Funding Sources:

- **GOCO (Great Outdoors Colorado) Local Government Mini-Grant.** Boulder Flycasters could fund the interpretive exhibits through a GOCO Local Government Mini-Grant. Boulder County would apply for the grant and disperse funds. Applications are due August 26, 2009. The budget in this report should assist a description of the interpretive exhibit project for the grant application. The exhibits have high educational value for the public and therefore are a good candidate for this grant.
- **Fishing is Fun Grant.** Ms. McCarthy recommended a Colorado Division of Wildlife's *Fishing is Fun* Grant for parking lot improvements, and removal of existing picnic tables. The "Fishing Site Improvement" grant funds "restrooms, angler trails, fishing piers, parking lots, and other angler amenities." The next round of applications will be available in fall, 2009.
- **Embrace A Stream Grant.** Another funding source for the interpretive panels could be the Embrace-A-Stream Grant Program (EAS) at the National Office of Trout Unlimited. This grant requires four key criteria: conservation impact, strengthening TU impact, public education and outreach, and technical merit. Although Trout Unlimited did provide a Gomolchuk Grant for the Boulder Creek Restoration Project, the EAS grant would be appropriate to the educational portion of the project.

7. CONCLUSION

Rogers Park has great potential for public use and enjoyment. The creek restoration project is a monumental effort and noteworthy conservation success. It deserves to be seen and the public should have the opportunity to learn more about the value of Boulder Creek, fisheries, and the mission of Boulder Flycasters. This final report specifies the next steps needed to interpret the park and make it more accessible. To carry out the next phase, Boulder Flycasters should again cooperate with state and local governments, grantors, conservation groups, interpretive specialists, the media, and the public.

8. RECOMMENDATIONS

To achieve the goal of improving the park experience, we recommend:

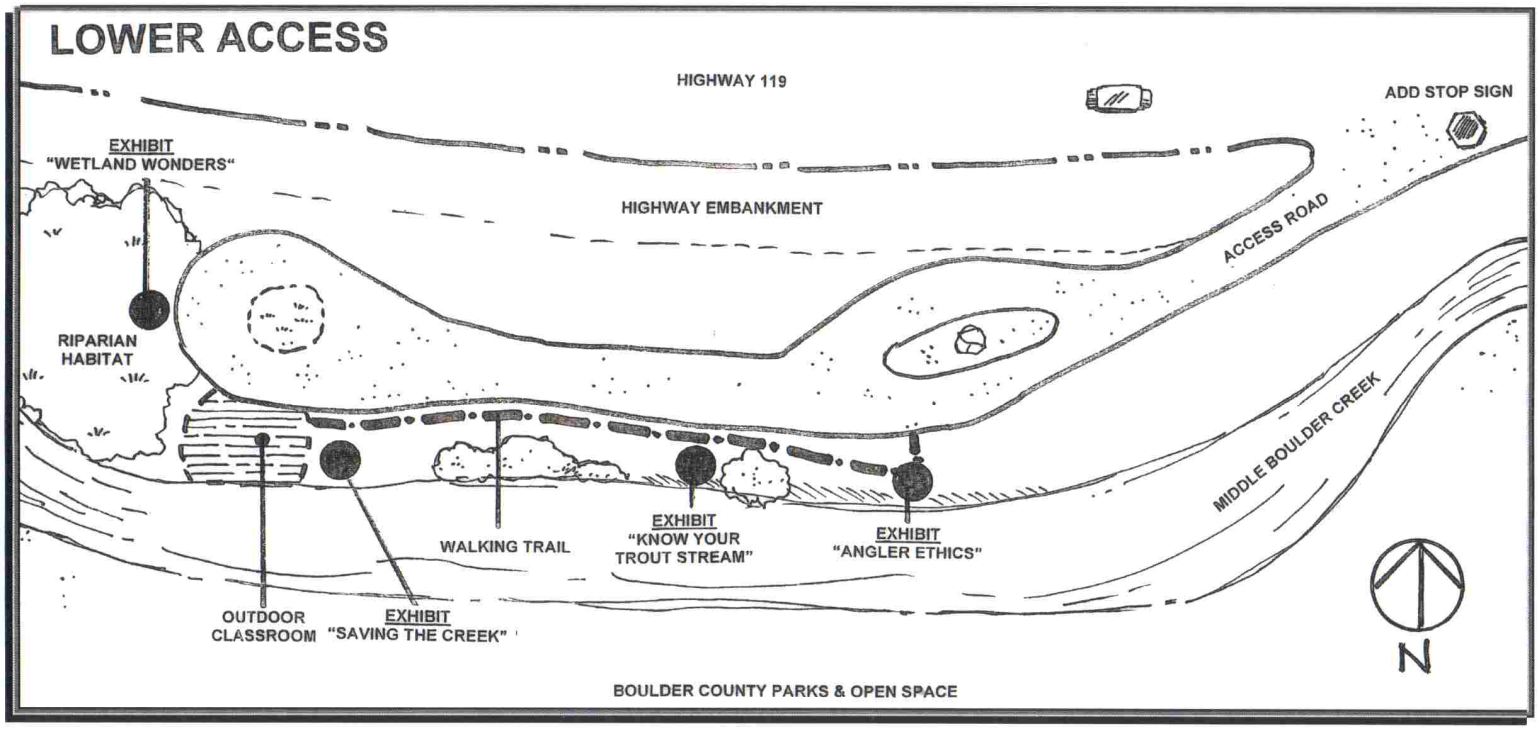
- **After completing creek restoration,** hold a "V.I.P" site visit to show the "finished project." Visitors should include CDOT, local government representatives, the media, Boulder Flycasters board members, and others. This activity would be a valuable showcase and could build support for the rest of the work to be done.
- **Continue to partner with CDOT.** The department has a vested interest in the site improvements and public safety.
- **Apply for a variety of grants** listed in this report. Diverse funding sources could cover the various projects, such as the Outdoor Lab and access improvement.
- **Education and interpretation are keys** for public support. Complete the Outdoor lab. Design, fabricate, and install the recommended interpretive exhibits. The attractive displays and activity areas will showcase the park upgrade and increase public awareness.
- **Improve access and safety**. Highway signs, grading the lower entrance road and parking lot, and removal of debris are a vital step to assure public use and reduce the danger of traffic accidents. Boulder Flycasters should negotiate with CDOT for assistance, as the park *is* CDOT property.
- **Avoid use of the upper access** for group activities. The driveway is extremely dangerous and the parking area is degraded. The site should remain a low-use alternative location.
- **Develop a long-term care program for Rogers Park.** If Boulder Flycasters can oversee an "Adopt Rogers Park" project, the sanctity of Middle Boulder Creek will be in good hands.

9. FIGURES

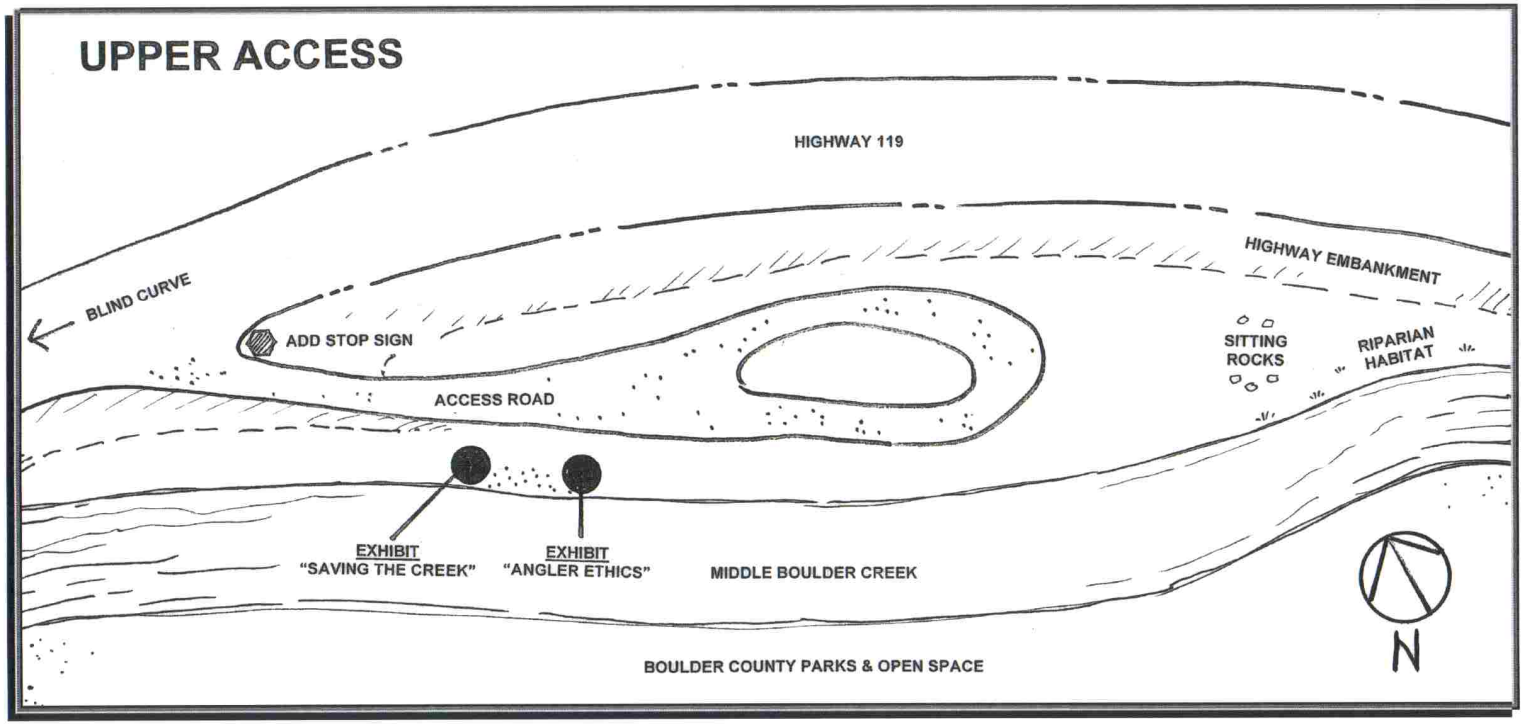
This section presents:

- Location maps showing exhibit sites and the outdoor classroom.
- Reference photographs from our site studies (May-July 2009).
- Samples of wayside panel designs by Ballantine Environmental Resources, Inc. We have designed and coordinated installation on many national, state, local, and non-profit lands and waters throughout the United States. Each site is unique and requires custom design. Thus, these designs do not necessarily indicate how the Rogers Park exhibits would appear.

RECOMMENDED LOCATIONS OF INTERPRETIVE EXHIBITS: LOWER ACCESS



RECOMMENDED LOCATIONS OF INTERPRETIVE EXHIBITS: UPPER ACCESS



BALLANTINE
Environmental Resources, Inc.

Connecting Nature and Human Nature

Project Proposal

Revised Cost Estimate

Date: February 5, 2010 Prices are good for 120 days
Prepared for: Roger Svendsen, Boulder Flycasters
Prepared by: Marianne Ballantine, Director of Business Operations

Note: To work with a deadline of July 1, 2010 for completion, this project should begin as soon as possible. We normally work within a 6 month time frame, but will put a rush on this job, as needed. Thank you for this opportunity to provide you with a cost estimate!

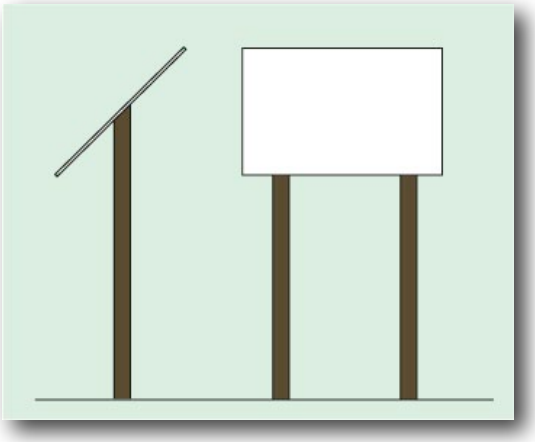
Description	Price:
Content Text: Research, writing and editing Original illustrations & schematic design Photographs: Research and acquisition	$6,600.00
Design Graphic Design, proofs to client, final design Pro Bono graphic design, by Bob Bush	$0.00
Panel Production (Note: reduced sizes) Six 30" x 20" x 1/2" (horizontal) RFP panels, proofs, final fabrication 10 year warranty	$1,315
Exhibit Bases Production & Shipping	$1,990.00
Installation: Panels and posts (Note: no frames & simpler posts) Installation by BF volunteers, possibly with Boulder County's help Some materials needed, i.e. concrete	$0.00
Project Coordination Client communication Contractor management Quality control Installation location advice Pickup and delivery of panels	$2,250.00
Total:	$12,155.00

Ballantine Environmental Resources, Inc.
4711 Ipswich Street, Boulder CO 80301
Phone: 303/530-1882 • Fax: 720/223-6297
E-Mail mb@toddballantine.com Website www.toddballantine.com

BALLANTINE
Environmental Resources, Inc.

Connecting Nature and Human Nature

Original Design in Cost Estimate
A traditional, National Park Service, 24" x 36" x 1/8"
interpretive panel with a frame and two powder coated, painted aluminum posts.



Recommended Panel for Revised Cost Estimate:
20" x 30" x 1/2" interpretive panel without a frame. Backmounted onto a steel plate, and attached to 2 powder coated, painted aluminum posts. These are

Ballantine Environmental Resources, Inc.
4711 Ipswich Street, Boulder CO 80301
Phone: 303/530-1882 • Fax: 720/223-6297
E-Mail mb@toddballantine.com Website www.toddballantine.com

Boulder Flycasters, a Trout Unlimited Chapter

Bill to Sev TAX
Multi Objective - Watershed

Ok to pay 5/24/10
(Chris Sturm)

(Tom B)
5/25/10

Invoice

Attention: Chris Sturm
Colorado Water Conservation Board
Department of Natural Resources
1313 Sherman Street, Room 721
Denver, CO 80203
Date 5/24/2010

PO Box 541
Boullder, CO 80302
T 303-442-3337
F 303-442-3337
markriley781@yahoo.com
www.boulderflycasters.org

PROJECT TITLE: Rogers Park on Middle Boulder Creek
PROJECT DESCRIPTION: Educational Sign-age at Rogers Park
REFERENCE: P.O. NUMBER: N/A
INVOICE NUMBER: 3
TERMS: 30 Days

Description	Quantity	Unit Price	Cost
Sign Content, Text, illustrations, graphics, and schematic layouts complete and sent to graphic design artist	1	$5,000.00	$5,000.00
		Subtotal	$5,000
		Tax	$0.00
		Total	**$5,000**

Thank you for your support of our educational sign-age for Rogers Park on Middle Boulder Creek.

Sincerely yours,

Tim D'Avis
Treasurer, Boulder Flycasters

Roger Svendsen
Rogers Park Project Manager

Invoice

PAID 4-29-10

BALLANTINE
Environmental Resources, Inc.

Connecting Nature and Human Nature

Project:
Rogers Park Exhibits

Bill To:
Boulder Flycasters P.O. Box 541 Boulder, CO 80306

Date	Invoice No.
04/22/10	BF.2010.2
Terms	**Due Date**
15 Days	05/07/10

Item	Description	Amount
Exhibit Production	Task 1 Content 100% complete. All text, illustratons, graphics, and schematic layouts sent to Bob Bush for graphic design.	6,600.00
Project Management	Project 50% complete.	1,125.00
	Total:	$7,725.00

We enjoy working with you!

Please Remit To:

Ballantine Environmental Resources, Inc.
4711 Ipswich Street
Boulder, CO 80301

Phone: 303-530-1882
Fax: 303-530-1883
Email: mb@toddballantine.com
Website: www.toddballantine.com

ROGERS PARK

Welcome to Rogers Park

Boulder Flycasters asks you to help preserve the restored Middle Boulder Creek and this landscape for generations to come.

- **DO** *enjoy a picnic and carry all your trash with you when you leave.*
- **DO** *bag and carry away animal and human waste. These pollute Boulder Creek and harm fish.*
- **DO** *watch and photograph wildlife.* ***Don't*** *feed animals. Rogers Park is a rich natural habitat. The birds, mammals, and other wildlife have abundant natural food sources.*
- **DO** *stay on improved trails. This will protect valuable streamside plant life.*
- **DO** *avoid walking on the creek banks or climbing steep slopes by the highway. These actions cause erosion and harmful sedimentation in the creek.*
- **DO** *leave rocks and driftwood where they are. If you look for stream critters under rocks, replace the rocks where you found them.*
- **DO** *get involved in conserving Boulder's streams for fish and wildlife. For more information contact Boulder Flycasters at www.boulderflycasters.org.*

Boulder FLYCASTERS

Photography by Bob Bush

ROGERS PARK

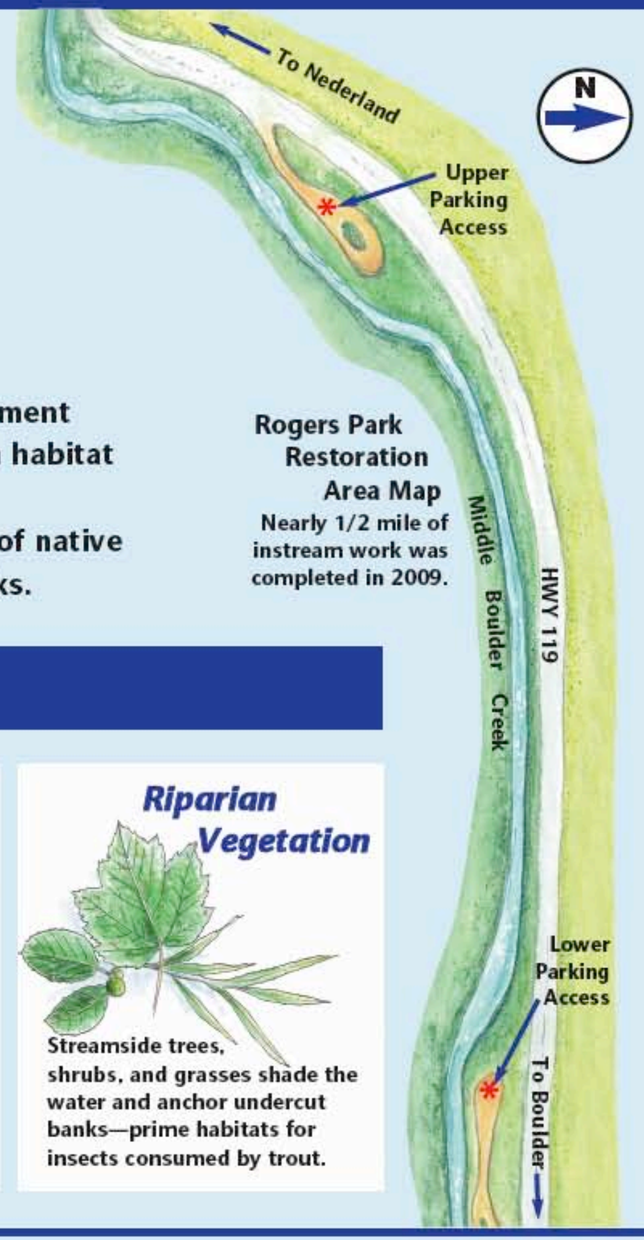
Saving the Creek

From 2006 - 2009 . . .

Boulder Flycasters, a chapter of Trout Unlimited, coordinated restoration of this section of Middle Boulder Creek at Rogers Park. The project restored the channel and trout habitat in 2,100 linear feet of streambed, and improved angler and visitor access. Decades of mining, sawmill operations, highway construction, and stormwater runoff had degraded the streambed and lowered the water quality.

Restoration for Flows and Fish

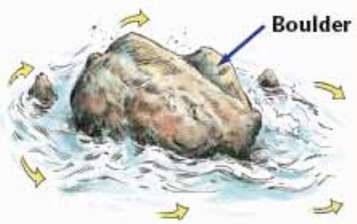
Contractors used large earthmoving equipment to reshape the creek bed and add instream habitat features for trout. Boulder Flycasters and community volunteers planted thousands of native shrubs and grass plugs on the stream banks.



Rogers Park Restoration Area Map
Nearly 1/2 mile of instream work was completed in 2009.

Can You Locate These Habitat Features?

Boulders



Large rocks slow stream flow and provide pockets of cool water where trout lie (hide) and hunt.

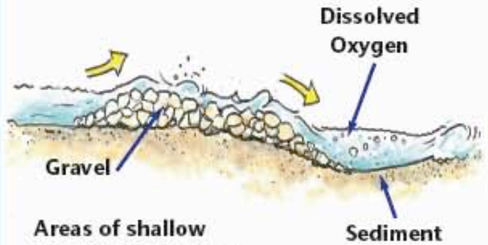
Drop and Pools

When the current flows, or "drops," over rocks, it forms pools and adds oxygen into the water. Here, trout feed on insects floating by.

Glides

Slower currents that flow beside riffles and rocks are favorite trout lies.

Riffles



Areas of shallow gravel help capture sediment and increase dissolved oxygen in the creek.

Riparian Vegetation

Streamside trees, shrubs, and grasses shade the water and anchor undercut banks—prime habitats for insects consumed by trout.

Illustrations by Todd Ballantine

With generous support of a Colorado Division of Wildlife Grant and from these other organizations, Boulder Flycasters was able to complete the project.

Boulder County · Fishing is Fun in Colorado · Sport Fish Restoration · Colorado Water Conservation Board State of Colorado 1876 1937 · Boulder Flycasters · DOT Department of Transportation · Trout and Salmon Foundation · Colorado Healthy Rivers Fund Water is Life, Keep it Clean! · 50 Years Trout Unlimited

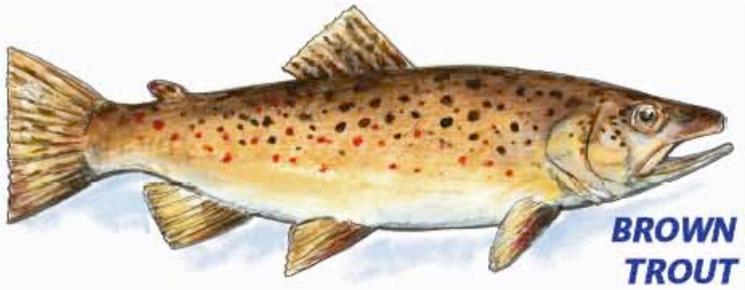
ROGERS PARK

What's Swimming in This Creek?

Take time to observe. The Middle Boulder Creek Restoration Project improved habitat for game fish, smaller fish, insects, and other wildlife in the aquatic food web.

Boulder FLY CASTERS

Game Fish

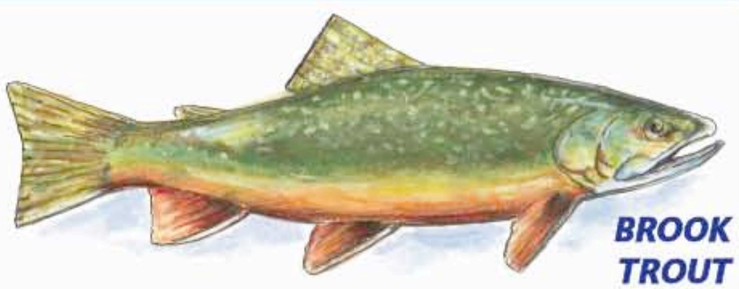


BROWN TROUT

Known by its speckled brown back and reddish brown spots, the Brown Trout is sly, difficult to catch, and found in the hardest to reach areas of the creek.

RAINBOW TROUT

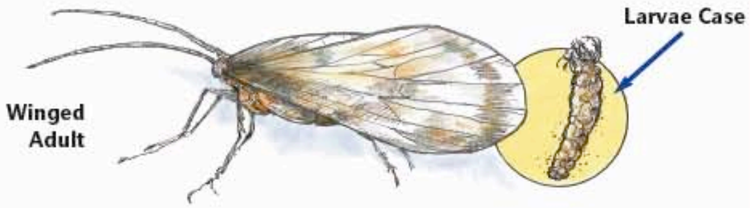
Pink-banded on its flanks and spotted on its back, the colorful Rainbow Trout prefers fast moving, churning, highly oxygenated water.



BROOK TROUT

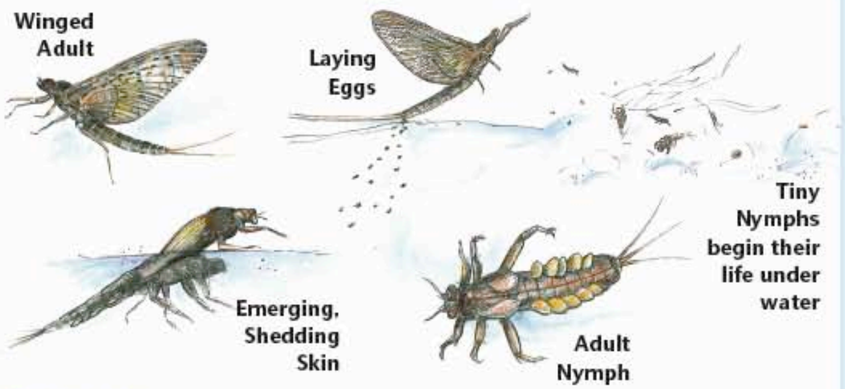
Technically a char, the Brookie is greenish-brown with a marbled pattern on its back and red dots with blue halos on its flanks. The presence of Brook Trout is an indicator of good water quality.

The hatch: Insects That Fish Eat



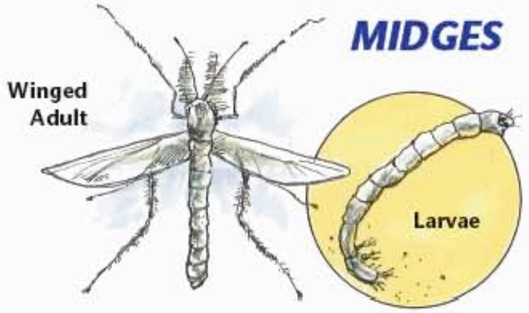
CADDISFLY

Moth-sized females lay eggs in the creek or on overhanging vegetation (rain washes eggs into the stream). Most larvae mature underwater in protective cases built with organic matter. The pupae swim to the surface and develop into short-lived winged adults.



MAYFLY

The mayfly typically lays eggs in riffled water. The hatched nymphs (larvae that look like adults, but lack wings) live underwater for one year. Then they rise to the surface, shed their skin, and develop wings. Adult mayflies form mating swarms over water and die soon after laying eggs.

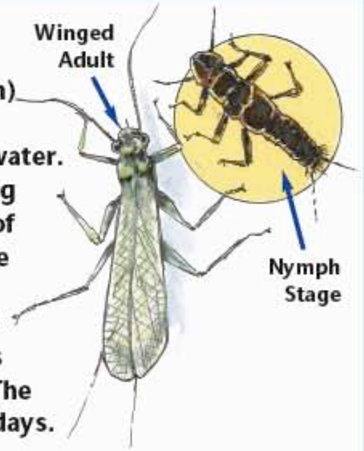


MIDGES

Often confused with mosquitoes, midges do not bite humans. In summer, mating swarms pulse above the creek. Females lay strings of eggs on the water surface. The reddish larvae live on the bottom and consume organic matter. The pupae float just below the creek surface. Adults do not eat and they die within one week.

STONEFLY

Large (up to 2" length) stoneflies lay their eggs in fast-moving water. The wingless, crawling nymphs spend most of their lives (up to three years) in the creek. Mature nymphs crawl ashore and emerge as long-winged adults. The adults live only 1-14 days.



Illustrations by Todd Ballantine Mayfly Illustrations by Ken Iwamasa

ROGERS PARK

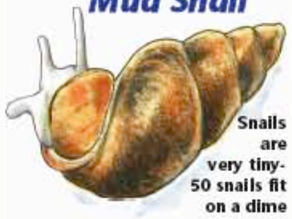
Angler Ethics

Boulder FLYCASTERS

Please fish responsibly in Middle Boulder Creek.

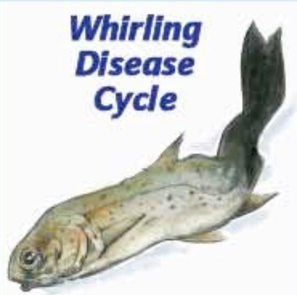
- Follow Colorado fishing regulations.
- Give other anglers undisturbed space.
- Avoid harassing fish.
- Do not alter the stream habitat.
- Remove snagged lines or lures.
- Do not introduce fish from other waters into this creek.
- Wash off footwear and gear before you enter and when you leave the creek. This reduces contamination of the creek with exotic species, parasites, or disease like those shown below.

New Zealand Mud Snail



AQUATIC HITCHHIKERS
Non-native New Zealand mud snails reproduce rapidly and displace native snails preferred by fish.

Whirling Disease Cycle



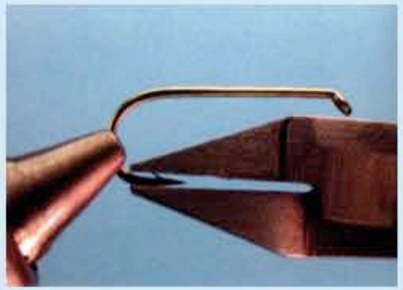
AN INFECTED TROUT
Parasitic spores cause whirling disease. They deform and often kill rainbow trout.

Illustrations by Todd Ballantine

Catch-and-release fishing is good conservation.

Boulder Flycasters recommends that all trout caught in Boulder Creek be immediately returned to the water. This method reduces fish exhaustion and injury, and sustains a viable trout fishery.

- **Only use artificial flies and lures in Boulder Creek. Fish that strike will be hooked less deeply than those taking organic or live bait.**



- **Use barbless hooks. They are easier to remove, reducing the time the fish is kept out of water.**

To de-barb a hook: Use either needle nose pliers or flat nosed pliers. Simply crimp the hook's barb down until it is flat to the hook. If you see light between the hook body and barb, crimp more!

- **Land your fish quickly. Land your catch by hand or with a knotless neoprene net.**
- **Handle with care. Be sure your hands are wet, or wear wet cloth gloves. Hold the fish horizontally and avoid placing fingers in gills, eyes, or the jaw.**
- **Unhook the fish. Hold the fish underwater. Use long nose pliers to carefully pull out the hook. If the hook is too deeply embedded, cut it off at the leader.**
- **Release quickly. Hold the fish in the water, facing the current. Once it begins to breathe and move, release the fish.**

Pheasant Tail
A great nymph pattern for Boulder Creek

Parachute Adams
Perfect dry fly pattern for Boulder Creek

Elk Hair Caddis
Caddis dry pattern for Boulder Creek

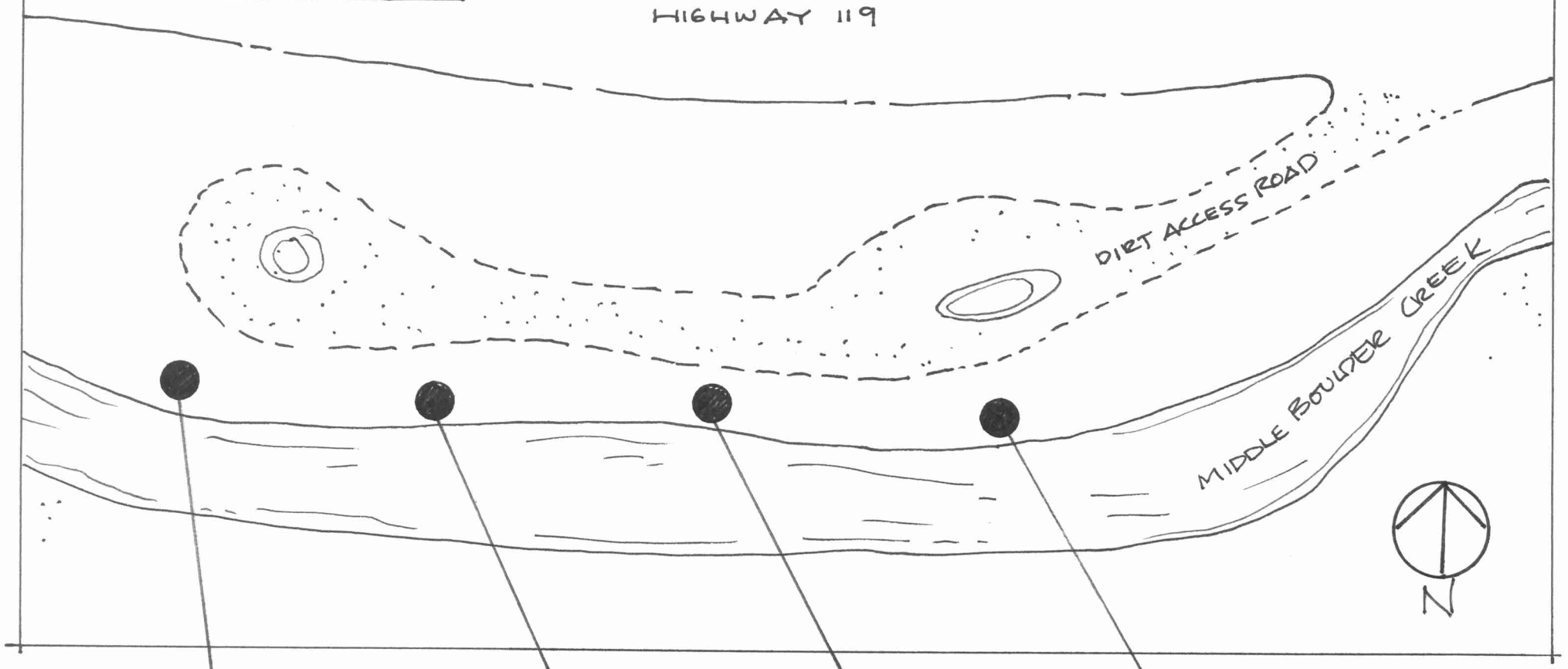
Black Beetle
Common terrestrial pattern found here

ROGERS PARK
INTERPRETIVE EXHIBIT LOCATIONS

BALLANTINE
Environmental Resources, Inc.

5/21/2010

LOWER ACCESS



"WELCOME TO ROGERS PARK"

"SAVING THE CREEK"

"WHAT'S SWIMMING IN THIS CREEK?"

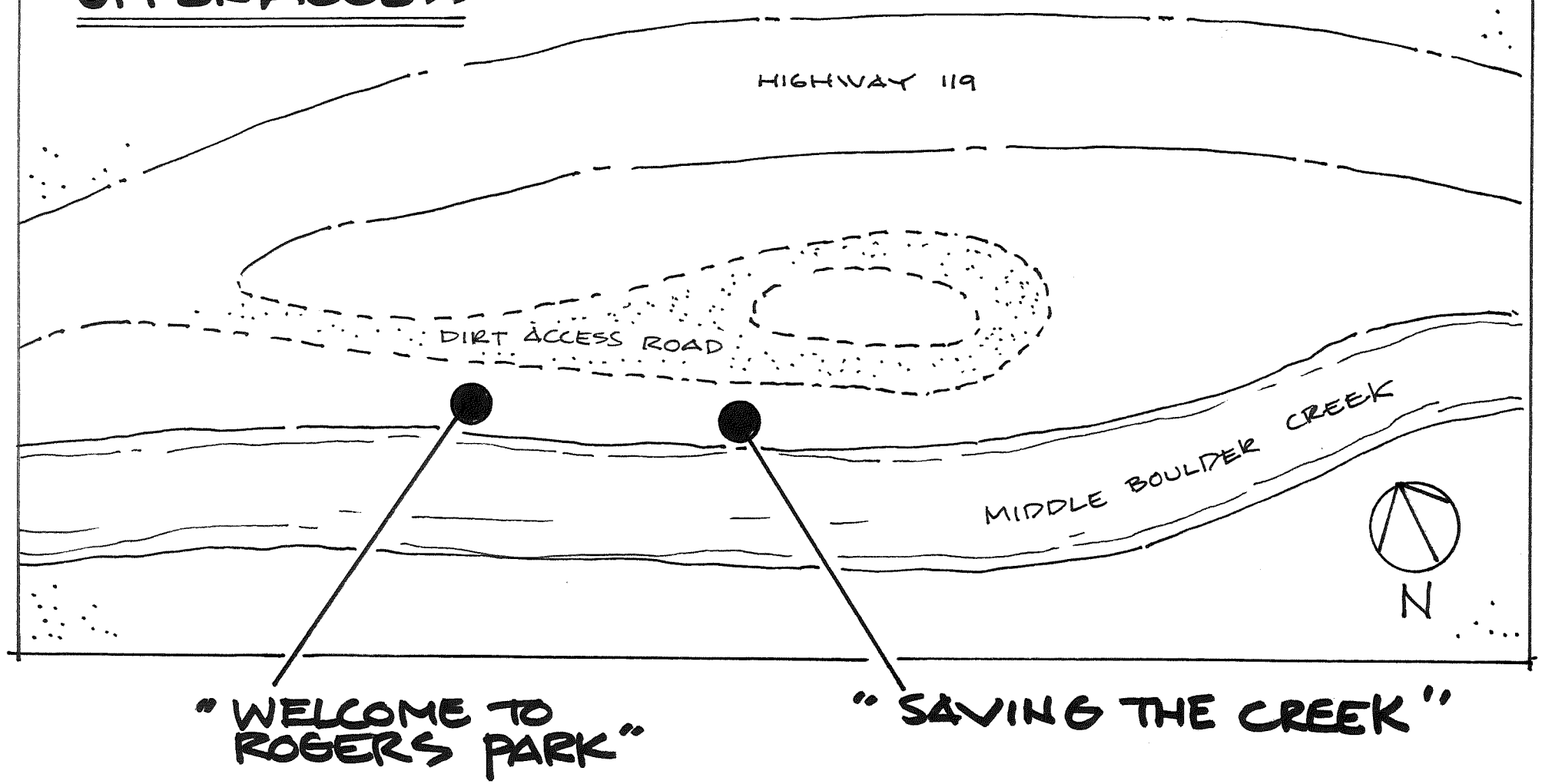
"ANGLER ETHICS"

ROGERS PARK
INTERPRETIVE EXHIBIT LOCATIONS

BALLANTINE
Environmental Resources, Inc.

5/21/2010

UPPER ACCESS



BOULDER FLYCASTERS
P. O. BOX 841
BOULDER, CO 80306

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DATE 4/28/10

PAY TO THE ORDER OF Ballantine Environmental Resources, Inc. $ 7,725.00

Seven thousand seven hundred twenty five + 00/100 DOLLARS

Wells Fargo

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