Defining our Niche: Science + Community

Dear Friends of Left Hand Watershed Center,

This past year has been full of exciting growth and change, and with this growth a new name: Left Hand Watershed Center. We are thrilled to be getting back to our roots as a science-based organization and are continuing to grow a robust set of programs that are designed to meet the needs of our watershed and our community. While these programs allow us to continue our work assessing, protecting, and restoring Left Hand Watershed, they are also designed to help us grow our partnerships and activities in other watersheds. Our new name reflects this merging of the old and the new, and better encompasses our growing activities in the realms of place-based watershed science, restoration, stewardship, and education. We have some exciting updates in this report:

- Are you wondering how the watershed is recovering six years after a devastating 2013 flood? Our Status of the Watershed section describes how we are making significant progress toward improving watershed health and resiliency using an adaptive management approach.

- With so much restoration happening in the Front Range, what practices are most effective to meet our goals and What if Restoration Could Save the World? Learn more about novel new restoration techniques we are using build a resilient future in Left Hand.

- Integrating Science + Community is our niche. To meet the needs and interests of our community, we have developed a new Community Science Plan, along with a new data collection App called “My Watershed” and our Catch The Hatch community science project.

Thank you to all of our partners and supporters over the past year. As we continue to grow our organization and expand our programs and initiatives, we need your continued support more than ever. Please consider investing in tomorrow’s river by donating today.

Thank you!

Christopher Smith
President, Board of Directors

Jessie Olson, Executive Director
Who We Are

Established in 2005, we have strong roots in our community and we are led by a diverse board of enthusiastic stakeholders. We value science and community, and embrace these values to implement on-the-ground projects. While we maintain our roots in Left Hand Creek Watershed, we strive to apply our locally-developed tools regionally for the benefit of all Front Range watersheds and communities.

History of Left Hand Watershed Center

1999 - Task force formed to explore alternatives to superfund listing.
2001 - EPA identifies mine sites in need of clean up.
2002 - Task force and Boulder County recommends a permanent watershed group.
2007 - Participates in RiverWatch and starts a water quality monitoring program.
2011-2013 - Collaborates with Colorado Rural Water Association and Left Hand Water District on the District’s source water protection plan.
2013 - A devastating flood impacts Left Hand Creek and nine other watersheds in the Front Range.
2014 - Lefthand Watershed Oversight Group, and many other stakeholders, participate in a Boulder County led effort to develop the post-flood Left Hand Watershed Master Plan.
2015 - Lefthand Watershed Oversight Group manages implementation of the 2014 Master Plan; expands the board; and hires its first full-time Executive Director.
2016 - Raised nine million dollars in funding to implement flood recovery projects, expands staff to include a full-time Project Manager.
2017 - Implements 11 flood recovery river restoration projects, publishes a Regional Stream Stewardship Handbook, and a 5-year strategic plan.
2018 - Starts eight new restoration Left Hand Canyon; Starts Fish Passage and Feasibility Study; Starts Community Science Program and releases “My Watershed” mobile app.
2019 - Board decides to expand services to other watersheds, changes name to Left Hand Watershed Center and updates mission.

OUR ORGANIZATIONAL GOALS

- Assess watershed health using science-based adaptive management.
- Bring together diverse community members with competing values to develop on-the-ground solutions through open communication and cooperation.
- Build community-wide stewardship ethic rooted in watershed science and place-based, participatory learning.
- Plan and implement on-the-ground projects that advance watershed restoration practices.

OUR MISSION STATEMENT

In 2019, our board voted to update our mission statement to reflect our expanded geography and services. The Left Hand Watershed Center’s new mission statement is: to assess, protect, and restore Left Hand Watershed and serve as a resource for other watersheds using a collaborative, science-based approach.
How Are We Recovering?

Six years after the devastating 2013 flood, we are making significant progress toward improving watershed health and resiliency. After completing more than 11 restoration projects in 2017, the Watershed Center is tracking watershed health annually and implementing on-the-ground projects as needed to maintain our trajectory towards resilience. Each year, we collect data to monitor and assess the state of the watershed using an adaptive management approach.

Why an adaptive management approach?

We use adaptive management to track watershed health and resilience because it offers the flexibility necessary to manage complex and changing ecosystems by monitoring results, comparing them with expectations, and adjusting based on what is learned. Using adaptive management, we define our goals effectively, track progress toward our goals quantitatively, and adjust management or monitoring actions iteratively.

To learn more, download a copy of our Adaptive Management plan available on our website: www.watershed.center.
What if Restoration Could Save the World?

This rendering depicts one potential future condition of our multi-thread channel restoration site, many years following restoration.

There are many potential outcomes and trajectories for this site, depending on future environmental conditions, land use changes, and other factors. We hypothesize that increased complexity will lead to increased ecological benefits and resiliency under future conditions and we will track responses in partnership with University of Colorado-Boulder researchers. Renderings created by Jon Altschuld, Chinook Landscape Architecture.

Defining Restoration

Restoration is generally thought of as a way to return something to a former condition – fixing, mending, or rehabilitating – to make something work the way it once did. But what if we restore to the future? What if we fix, mend, or rehabilitate something so that it is better prepared to face conditions that are expected in the future, rather than conditions that exist today or existed in the past? This approach may be the best defense our watersheds have in the face of climate change.

At the Watershed Center, we fight the impacts of climate change every day by restoring to the future. We incorporate climate change impacts into the on-the-ground restoration projects that we implement today because it is the only way to make our watersheds resilient tomorrow, and long into the future.

How Are We Restoring to the Future?

In support of restoring to the future, we are implementing restoration of a “stage zero,” or multi-thread channel system in one section of Left Hand Creek, in order to provide the most resilience under future conditions. This approach aims to achieve optimal ecosystem benefits by restoring a dynamic multi-thread channel with a broad floodplain and complex habitats to support long-term resiliency. By incorporating physical complexity across the floodplain, we are providing diverse habitat that can support the river ecosystem under a range of potential climate change conditions. Further, we are integrating experimental designs, in partnership with University of Colorado at Boulder researchers, to quantify the ecological benefits achieved with multi-thread channel restoration in comparison to traditional single-thread channel restoration. Funding for this project is provided by Colorado Division of Local Affairs, Community Development Block Grant and the Colorado Water Conservation Board.
Thanks to funding from the Colorado Department of Local Affairs, Gates Family Foundation and Colorado Water Conservation Board, we worked with CitSci.org to develop a Community Science Plan and the My Watershed app. Our plan defines projects, tools, and guidelines for developing science-based community projects and helps us enact our vision to improve the stewardship ethic of our community for a healthy and resilient watershed. My Watershed is our community-powered data collection app that makes tracking observations and collecting data easy, fast, and accessible.

**The Plan in Action**
This year we implemented our first Community Science Pilot Project, titled “Catch the Hatch.” “Catch the Hatch” is a research-based project that tracks the timing of peak mayfly emergence in Front Range creeks as an indicator of watershed health. We are happy to report that we successfully caught the 2019 Pale Morning Dun mayfly hatch! More than 30 volunteers participated and contributed over 100 hours of data collection from June 15th through July 15th. We found that the late runoff delayed emergence this year and we look forward to tracking it in the future. While participating, volunteers tested and used our My Watershed app.

“In the end we will conserve only what we love; we will love only what we understand; and we will understand only what we are taught (Baba Dioum, Sengalese conservationist, in a paper in 1968).”

**Catch the Hatch By The Numbers**
- Total Creeks Sampled: 3
  (Boulder, Left Hand, St. Vrain)
- Total Volunteers: 31
- Total Site Visits: 71
- Total PMD Sightings: 14
- Total Observation Hours: 102
Extending Geography
We are extending our geography to the St. Vrain Basin and beyond to expand the reach of our adaptive management approach and better refine drivers, triggers, and actions for diverse watersheds. Our goal is to help advance science to inform the broader conversation about improving watershed health and restoration practices.

Consideration of Forests
We are expanding our adaptive management process to consider forests and bridge the forest-river divide for a truly holistic approach to adaptively managing watershed health. Our goal is to help achieve a shared understanding of desired future conditions among our community in order to develop the social knowledge and consensus needed for successful forest health projects.

Engaging Community
We are engaging our community in adaptive management through science by providing opportunities for place-based participatory learning as part of our Community Science Program. This includes partnering with local schools to integrate our adaptive management plan for K-8 curriculum and developing a “My Watershed” mobile app for community-driven data collection.

Future Initiatives
## Financial Summary

### 2018 Revenue

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<tr>
<th>Source</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Grants</td>
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<tr>
<td>Donations (Unrestricted)</td>
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<td>Donations (Restricted)</td>
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<td>In Kind (Office Space)</td>
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### 2018 Expenses

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<th>Category</th>
<th>Amount</th>
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<td>Fundraising</td>
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<tr>
<td>In Kind (Office Space)</td>
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<tr>
<td><strong>Total Expenses</strong></td>
<td><strong>$1,081,678</strong></td>
</tr>
</tbody>
</table>

### Net Income

Net Income*                    | **$91,162**

*Includes multi-year grant income from Gates Family Foundation that was paid in advance.
Donors and Funding Partners

Grants
- Colorado Water Conservation Board (CWCB)
- Water Supply Reserve Fund Grant
- Watershed Restoration Grants
- Water Plan Grants
- Colorado Department of Local Affairs Community Development Block Grant for Disaster Recovery (CDBG-DR)

Gates Family Foundation
- Water Champion
  - $20,000+
  - Left Hand Water District* (since inception)

Colorado Department of Local Affairs
- Community Development Block Grant for Disaster Recovery (CDBG-DR)

Watershed Protector
- $10,000-$19,999
  - St. Vrain & Left Hand Conservancy District
  - City of Longmont

City of Longmont (2019)

River Partner
- $5,000-$9,999
  - Burns & McDonnell (2019)
  - CEMEX (2019)
  - Colorado Division of Reclamation Mining & Safety (2018, 2019)
  - Dewberry Engineers Inc. (2018)
  - St. Vrain & Left Hand Water Conservancy District (2018)

Bear
- $1,000-$2,499
  - Trout Unlimited - St. Vrain Anglers (2018)
  - Trout Unlimited - Boulder Flycasters (2018)
  - Keith and Rosemary Ames (2019)
  - Kim and Marty Mogli (2018)

Heron
- $500-$999
  - Stillwater Sciences (2019)
  - Flywater Inc. (2019)
  - Niwot Cultural Arts Association (2019)
  - Biohabitats (2019)
  - Greener Pastures Consulting (2019)
  - Colorado Riparian Association (2019)
  - Ryan Rudolph (2018)
  - Rick Kaupar (2018)
  - Mark Schueneman (2018)
  - Kathy Peterson (2018)
  - David Pestalozzi (2019)
  - 8 Strong Rule (2018)

Trout
- $200-$499
  - Gabriel and Julie Tuerk (2018)
  - Chris and Lily Smith (2018)
  - Lauren Parental (2018)
  - Jessie Clean and Brian Knacke (2018)
  - Watershed Science and Design (2018)

Steward
- $2,500-$4,999
  - Garney Construction (2018)
  - Dewberry Engineers Inc. (2018)
  - Boulder County (2018)
  - City of Longmont (2018)
  - St. Vrain Creek Coalition (2019)

Dragonfly
- $1-$199
  - Town of Jamestown (2019)
  - Kirk Jones (2018)
  - Avery Brewery (2018)
  - Cliff Watts (2018)
  - Margaret Henderson (2018)
  - David Friedman (2018)
  - Productive Computer Solutions, Inc. (2018)
  - Chuck and Hilary Oppermann (2018)
  - Lynn Buschow (2018)

Chris Owens (2018)
- Abos Pizza Niwot (2018)
- Tim Seastedt (2018)
- King Soopers (2018)
- Lefthand Brewery (2018)
- Community First Foundation (2018)
- Erika Shioya (2018)
- Wm-Brown Family (2018)
- Kim Lennberg (2018)
- Ken and Barbara Lenarcic (2018)
- Yano Sorkin (2018)
- Sean and Kim Cronin (2018)
- Rod and Marie Schone (2018)
- Sue Schauffler (2018)

Eagles Nest. Golden Eagles are known to nest in canyon walls along Left Hand Creek. The Alcestis, Summer 2019.
Board of Directors

Voting Board Members
Left Hand Water District
Landowner, Upper Left Hand
Landowner, Oxford Road
Landowner, City of Longmont
James Creek Watershed Initiative
Boulder County
Town of Jamestown
Landowner, Streamcrest
City of Longmont
Town of Ward
Landowner, Strath Street
St. Vrain and Left Hand Water Conservancy District
Left Hand Ditch Company

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Sue Schauffler, Vice-President
Chris Wiorek, Secretary
Kathy Peterson, Treasurer
Colleen Williams
Audrey Butler
Ken Lenarcic
Mark Schueneman
Monica Bortoloni
Pat Cypher
Chuck Oppermann
Sean Cronin
Terry Plummer

Ex-officio Board Members
U.S. Forest Service
Colorado Division of Reclamation and Mine Safety
Trout Unlimited, Boulder Flycasters Chapter
Landowner, Brigadoon Glen
Landowner, City of Longmont

Christopher Carroll
Erica Crosby
Gabriel Tuerk
Gregory Ames
Jim Bryant

Staff

Jessie Olsen
Yara Srokin
Glenn Patterson
Deb Hummel

Executive Director
Project Manager
Watershed Scientist
Project Coordinator
A view from above, pre-project conditions of one of our new Canyon restoration projects.
Jon Altschuld, June 2019