

APPENDIX A

(OUTREACH MEETINGS)

St. Vrain Creek Master Plan Meeting Summary – Boulder County Parks and Open Space and City of Longmont

Date: July 21, 2014

Location: Boulder County Parks and Open Space, Longmont, CO

Purpose: This summary is to document the meeting conducted with Boulder County Parks and Open Space (BCPOS) and the City of Longmont to discuss joint issues, opportunities and challenges that exist between Lyons and Longmont as pertaining to their jurisdictions for preparing the watershed's master plan.

AREAS OF IMPORTANCE AND KEY ISSUES

The following input was provided to highlight what is important to be understood while developing alternatives for the St. Vrain Creek Watershed Master Plan.

Boulder County Parks and Open Space

- Detention of flood waters is not an approved use of open space land. It would be worth noting the City of Longmont has not requested detention and felt it may be unnecessary/not feasible.
- The County is open to analyzing spillways as a possible control/release mechanism to deal with breaches; avoid concrete design. If infrastructure is created it could become jurisdictional.
- Boulder County is in the process of hiring engineering consultants for rehabilitation of Lake 4 (with SVLHWCD) and Pella Crossing/Marlatt including making the ponds more resilient in future floods.
- The master plan should integrate or recognize all designs that are currently in progress on Boulder County lands.

Heron Lake Area – Relief Channel Project

- Boulder County issued an RFP to deal with issues in that area.
- Based on CDOT, 1800 CFS – 100y (per CH2M estimate)
- The western city limits experienced flooding due to the Heron Lake gravel pond.
 - Flooding occurred east of 75th Ave.
 - Boulder County, Longmont and the Golden Mine Co. all own land in the project area.
- There is a continuing concern and need to identify a final resolution for Hepp's Ponds; the master plan should address this. It has been understood that the property owner wants to re-establish the original channel, but is open to overflow into a west pond. Baker has data on the flood impact; Dave Jula will talk to Hepp.
- It will be important to identify what future failures could look like in order to determine the proper need (or not) to mitigate.
- Longmont and Boulder County have a trail planned from Golden to Pella ponds; there could be needs for banking or an additional channel. Future flood impact could be from Lake McIntosh drainage or the St. Vrain

City of Longmont

- An RFP is being issued in August for the 100 year channel design work through the City of Longmont. The new channel is anticipated to be able to handle 34% increased capacity based on 100 year flows. The City will share the plans with Boulder County when they are ready.
- The channel will be along the St. Vrain from just east of Airport Rd starting at Lykens Gulch east to the waste water treatment plan. The RFP will be for preliminary design and planning to get to final design. It will be approximately 7-10 year to implement it. The channel will be approximately 300 to 400 feet wide with a planning area of about ½ mile wide thru city limits. There are plans to pursue additional funding through CDBG, FEMA grants
- Longmont: rethink pond structure failure – guide back toward river channel vs. down the natural pond linkage.
- Pond berms need to be raised on the east and south sides of Marlatt

Hygiene Road Area Cut

- This area and the Hepp's pond needs to be a master plan focus area.
- The Master Planning effort will need to determine what to do about Breach 7A; where does it come back to the river and how do the bridges need to be redesigned through that area.
- Baker Field assessments – geomorph (this week), eco (last week complete) – will inform channel alignment; aerial topo before and after flood;

Other Issues

- There is a need to look at upstream water diversions and how redesigning the creek works in concert with those diversion structures.
- There is a need to understand what opportunities are feasible in Apple Valley and what will occur with Longmont's pipes/water delivery system through that area.
- South St. Vrain water diversions need to be identified.
- Boulder County has found mice in the corridor in areas they haven't been before. This will be noted in the Master Plan as something to acknowledge for the implementation of projects.
- Western Mobile (land only) (Breach 1) – part POS ownership, CEMEX owns some land, plant and has rights to mine other parts; CEMEX may build berm around the plant (Dunn) [Jula will talk to CEMEX]
- There is an IGA between Boulder County and Longmont regarding funding contribution, plan coordination and cooperation; check the current IGA for possible opportunities.

St. Vrain Reach 1

- Replace County Line Rd / Weld CR 1
- An IGA was recently signed for POS/Longmont to jointly decide on the Peschel property; Longmont's RFP to look at it is about a month out.
- The master plan goal may be to leave a natural flow, maintain riparian, integrate Boulder County road/bridge design plans.
- Longmont wants to preserve riparian habitat (eagles roost).
- Longmont and Boulder County need to further address flows down the old channel bed versus using Spring Gulch.

Conclusion and Next Steps

- Boulder County and Longmont need to continue to communicate and share information. They need to regroup once the alternatives analysis is ready. They will share CDBG unmet needs plans between Longmont and Boulder County.
- Boulder County Open Space does not see detention as a feasible option on its lands, but is open to flood mitigation options such as spillways and to stay with the current river alignment. The City of Longmont is in agreement.
- Follow up is needed with owners of the Hepp property to see what can be done.
- Baker follow up with the CEMEX plant.
- In the alternatives analysis Baker is conducting, it will address the Airport Rd. Bike Path and identify upstream water diversions.

MEETING ATTENDEES

	Name	Affiliation
1.	Ernst Strenge	Boulder County Parks and Open Space
2.	Ron Stewart	BC POS, Director
3.	Doug Dunn	BC POS, Water Resources
4.	Andrea Meneghel	CDR Associates
5.	Diane Malone	Boulder County
6.	Dave Jula	Michael Baker Jr., Inc.
7.	Nick Wolfrum	City of Longmont, Public Works
8.	Kim Shugar	City of Longmont
9.	David Hollingsworth	City of Longmont
10.	Larry Wyeno	City of Longmont
11.	Dale Rademacher	City of Longmont, Public Works Director
12.	Ken Huson	City of Longmont
13.	Julie McKay	Boulder County
14.	Brad Schol	City of Longmont

St. Vrain Creek Master Plan Meeting Summary – Boulder County Parks and Open Space and City of Longmont

Date: August 13, 2014

Location: Boulder County Parks and Open Space, Longmont, CO

Purpose: This summary is to document the meeting conducted with Boulder County Parks and Open Space (BCPOS) and the City of Longmont to discuss joint issues, opportunities and challenges that exist in Reach 1 (East of Longmont to the Confluence with Boulder Creek) for preparing the watershed's master plan.

SUMMARY

Dave Jula, Michael Baker Inc., summarized the meeting in the following way:

We discussed four alternatives (listed below) that will be summarized in the alternatives analysis report. Graphics will be prepared for Alternative 1 and 2 while Alternatives 3 and 4 will be addressed in the narrative only. The group consensus is to proceed with recommending Alternative 1, which entails keeping the channel in the current post-flood location and incorporating some minor channel stabilization projects.

1. Keep the channel in the current alignment and implement some minor channel stabilization projects
2. Split flow channel with full stream restoration incorporating natural channel design
3. Restore and stabilize the channel to the pre-flood alignment
4. Full stream restoration along the post-flood alignment incorporating natural channel design

MEETING ATTENDEES

	Name	Affiliation
1.	Karen Martinez	Boulder County POS, Water Resources
2.	Diane Malone	Boulder County
3.	Tim Schafer	Boulder County
4.	David Hirt	Boulder County Parks and Open Space
5.	Ernst Strenge	Boulder County Parks and Open Space
6.	Brad Schol	City of Longmont
7.	David Hollingsworth	City of Longmont
8.	Jim Krick	City of Longmont
9.	Ken Huson	City of Longmont
10.	Kim Shugar	City of Longmont
11.	Nick Wolfrum	City of Longmont, Public Works

12.	Dave Jula	Michael Baker Jr., Inc.
13.	Lucas Babbitt	Michael Baker Jr., Inc.

St. Vrain Creek Master Plan Meeting Summary – Town of Lyons Staff, Flood Recovery Task Force and Ecology Board

Date: August 19, 2014

Location: Lyons Town Hall

This summary is to document a meeting which took place with Town of Lyons staff and the Lyons Ecology Board regarding the alternatives analysis of the St. Vrain Creek watershed as it pertained to preparing alternative concepts for the master plan that addressed issues in Lyons. The input received informs the project team and the following notes summarize key points from the discussion that was had.

AREAS OF IMPORTANCE RELATED TO THE MASTER PLAN

The following input was provided to highlight key areas that are important to be understood from the data that is available at this point, or to be reflected in the alternatives that are being developed for the master plan.

Topics of Importance: The Town and Ecology Board indicated that the following topics or issues were important to be addressed in the master plan. These are listed in no particular order.

- Integrate projects that have received grant funding.
- Work with private land owners towards project implementation.
- Include volunteerism as part of the rebuilding process.
- Address run-off and storm water drainage; differentiate between intermediate mitigation strategies and long-term solutions.
- Identify and address strategies and needs regarding low-flows.
- Address irrigation needs, including consideration of raw river water irrigation in parks.
- Address how native species will be used for re-vegetation and recovery efforts.
- Definition should be provided to inform what land-use opportunities exist for the investment of grants.
- The alternative channel alignments need to be seen and understood. There is a significant need to understand this for Apple Valley.
- Identify how the upstream/downstream phasing of implementing projects and improvements should work.
- Town staff needs to understand what information is available for the decision making related to timing the prioritization of projects.
- Identify storm water run-off strategies for bridges and underpasses associated with trails.

Other Comments and Issue Areas

Alternative Land Uses: Identify alternative uses for the land in places where there are opportunities or could be potentially affected by property owners participating in the buyout program. The attendees discussed the privacy issues associated with potential buyouts and agreed that non-descript references to potential changes in land use would be appropriate.

South St. Vrain: Identify options for channel design through sections of the South St. Vrain and what can be expected through Boulder County Open Space sections. Identifying options through this section are needed to plan where the land, road and creek will be. The project team is scheduled to walk this section of the creek with property owners and some St. Vrain Creek Coalition members on August 27th at 10:30 a.m.

Identify Trail Systems in the Alternatives: There's a major arterial trail system all the way through town. Trails need to be identified with underpasses. Identify the necessary capacities needed for future flood events. Identify the connections to other facilities such as CDOT's, the St. Vrain Greenway or a future Lyons to Boulder trail.

Private Property Issues: Identify opportunities that exist for creating better aesthetics as you enter town from the southeast. The southwest quadrant of U. S. 36/Hwy. 66 is owned by the George family. They should be contacted about what's possible at their property regarding aesthetics and other issues such as trail connections.

Grant Information: Julie McKay, Boulder County, will send Nathan Werner, S20 Engineering & Design, grant information to share with the Flood Recovery Task Force.

MEETING ATTENDEES

	Name	Affiliation
1.	Andrea Meneghel	CDR Associates
2.	Diane Malone	Boulder County
3.	Jeff Crane	Colorado Water Conservation Board
4.	David Jula	Michael Baker Jr., Inc.
5.	Nathan Werner	S20 Design and Engineering
6.	Julie McKay	Boulder County
7.	Monica	Town of Lyons Ecology Board
8.	Lucas Babbitt	Michael Baker Jr., Inc.
9.	Dave Cosgrove	Town of Lyons, Parks Director
10.	Don Moore	Colorado Office of Emergency Management
11.	Steve Sims	Town of Lyons Ecology Board
12.	Sally Collins	Town of Lyons Task Force Volunteer & Resident

St. Vrain Creek Master Plan Meeting Summary – Stakeholder Discussion about Fishing the St. Vrain

Date: August 27, 2014

Location: Lyons Town Hall

This summary is to document a meeting which took place with stakeholders to discuss how the master plan understands and addresses issues within the watershed related to fish habitat and fishing the St. Vrain. The input received informs the project team as it prepares the alternatives analysis for the master plan and the following notes summarize key points from the discussion that was had.

ISSUES ADDRESSED

The following issues were addressed and discussed amongst the group to understand how they would be reflected in the alternatives that are being developed for the master plan. These are listed in no particular order.

- Preserving the wild and scenic nature of the St. Vrain
- Habitat impacts and restoration
- Ecological assessment results and input from the biologists present
- Water quality and the effects of run off, barriers and gravel pits
- Species and insect life
- Stream flows – seasonal flows
- Natural channel design
- Diversion structures and fish passage
- Lyons Project Development Guides
- Volunteerism

Discussion Points, Feedback and Input

Impacts to Fish Habitat

- It was stated that from a fisherman's perspective, from Mile Marker 25, and above the confluence of the South and Middle St. Vrain, the river appears to be ok. Downstream of that confluence the river is "essentially sterile". The watershed's riparian zone has been heavily impacted; there is no stream side vegetation to provide good habitat and all the woody debris has been removed.
- Colorado Parks and Wildlife stated that where post-flood channelization has occurred as a result of road improvements there have been big drops in fish population. The Big Thompson watershed did not experience these changes where similar projects occurred. When the channel is re-created and habitat elements such as rocks and woody materials are removed, it reduces safety zones for fish.
- When considering improvements for fish habitat what is good for one species may not necessarily be good for another species, so a strategic approach will be required when implementing projects.

Water Quality: It was noted that from a fisherman’s perspective water quality seems to have been impacted. In past years, the river has been full of stone flies that aren’t as plentiful this year. Lower reaches of the South St. Vrain has historically been clean and healthy.

Fish Populations: Fishermen noted that overall, the fishing has been poor as populations of cutthroats, brown trout and rainbow trout have decreased. The South St. Vrain was a good stretch to fish before. According to a recent Colorado Parks and Wildlife survey, pre-flood there were 2200 fish per mile through that section; post-flood there are 1100 fish/mile.

Fish Passage: Colorado Parks and Wildlife is analyzing fish movement throughout the St. Vrain to understand what changes have occurred. Fish passage has been impacted by damage to ditches and diversion structures. Fishermen felt that any fish passage that gets restored or considered will be an improvement from current conditions.

Federal Agency Approaches:

- The National Parks Service has been understood to be taking an approach of leaving the river where it is throughout its lands.
- The U.S. Forest Service is focusing efforts on identifying needs and improving infrastructure.

Oil and Gas Facilities: It was suggested that oil and gas facilities are identified in the master plan and addressed if they are anticipated to lie in the re-mapped 100 year flood plain. If they are in the flood plain, it was suggested they be moved out.

On-Going Coordination: This meeting was the first time the fishing community and agencies came together through the master plan process to discuss fishing issues in the St. Vrain watershed. It was noted that these individuals, groups and agency representatives should continue to meet beyond the master plan process to focus on solutions that can improve fish habitat along the St. Vrain. The following points of input were also provided:

- Rocky Mountain Flycasters was awarded a grant to assess needs and implement a re-vegetation program for Boulder Creek, the St. Vrain and Big Thompson.
- Wildlands Restoration Volunteers will be active in attempting to coordinate volunteer restoration efforts across watersheds and looks to continue to keep those that attended the meeting involved.

MEETING ATTENDEES

	Name	Affiliation
1.	Andrea Meneghel	CDR Associates
2.	Julie McKay	Boulder County
3.	Ken Kehmeier	Colorado Parks and Wildlife
4.	David Jula	Michael Baker Jr., Inc.
5.	Nathan Werner	S20 Design and Engineering
6.	Tim Shafer	Boulder County Parks and Open Space
7.	Mike Clark	Local Fisherman, South Creek Ltd.

8.	Sean Cronin	St. Vrain Left Hand Water Conservancy District
9.	Mac Kobza	Boulder County Parks and Open Space
10.	Don Moore	Colorado Office of Emergency Management
11.	Sue Suskiewich	Local Resident and Property Owner
12.	Ken Huson	City of Longmont
13.	Reed Farr	Town of Lyons
14.	Ernst Streng	Boulder County Parks and Open Space
15.	Ed Self	Wildlands Restoration Volunteers
16.	Carl Chambers	U.S. Forest Service
17.	Barb Luneau	St. Vrain Anglers/Trout Unlimited
18.	Dan Wolford	St. Vrain Anglers/Trout Unlimited
19.	Scott Shipley	S20 Design and Engineering
20.	Dick Shinton	Laughing Grizzly Fly Shop
21.	John Rhodes	St. Vrain Anglers/Trout Unlimited
22.	Eric Wilkinson	St. Vrain Anglers/Trout Unlimited
23.	Dan Cenderelli	U.S. Forest Service

St. Vrain Creek Master Plan Meeting Summary – South St. Vrain Property Owners

Date: August 27, 2014

Location: Old St. Vrain Road at the washed out bridge below the Andesite Mine

This summary is to document a meeting which took place with South St. Vrain property owners to discuss how the master plan understands and addresses issues within the watershed related to the stretch of river near their properties. The project team met with the property owners at the top of Old St. Vrain Road and walked along the river to discuss the issues that are important to them. The input received informs the project team as it prepared the alternatives analysis for the master plan and the following notes summarize key points from the discussion that was had.

ISSUES ADDRESSED

The following issues were addressed and discussed amongst the group to understand how they would be reflected in the alternatives that are being developed for the master plan. The group started upstream and walked downstream.

Location 1: Washed out bridge at the top of Old St. Vrain Road, below the Andesite Mine: The washed out bridge acted as a barrier which trapped lots of debris and sent water in various directions creating damage. Property owners would like to be engaged in a discussion about the bridge's replacement. No conclusion was reached during this discussion regarding property owners preferences for replacing the bridge.

Location 2: Near a former ditch diversion structure downstream from the washed out bridge:

- There used to be a head gate at this location. One property owner stated that when this ditch diversion/head gate failed it directed water towards his property and increased their flood risk. Direction is needed about what will be done to this structure and how it will be reflected on FEMA mapping. What is determined about replacing or not replacing this structure will affect how people re-build and the associated costs.
- There is an existing need for additional debris removal throughout this area; specifically near this location.
- Mitigation should take into account the amount of debris that is still present in this location and the damage it could do if water levels were to rise high enough to carry it downstream.

Location 3: Split, braided area of the St. Vrain:

- This was an area where the creek flooded the road. Property owners felt it was important to show some flood mitigation that protects the road from the creek.
- Property owner Ron Gosnell provided perspective on impacts experienced downstream due to the result of what the creek did in this area.
- On-going coordination is needed to address how the road and creek interact through this stretch. Property owners expressed the need for additional coordination with Boulder County to identify solutions. They felt it was important to continue to work together with Parks and Open Space for

additional planning that can determine specific strategies and mitigations to address the flooding that occurred due to the breach in this area.

Location 4: 300 yards south of Southledge Ditch head-gate: Property owners expressed concern that the river is not in a channel upstream and that was cause for it to overtop the road at this location.

Location 5: Southledge Ditch head-gate; part of the Hall property: It was suggested that in this location the Longmont ditch diversion be addressed to determine if it should be retrofit for fish passage.

Location 6: Bridge at Old St. Vrain Road and State Highway 7: This bridge did not have the capacity to allow debris to pass underneath it. It created a barrier that trapped debris. Damage and flooding was experienced by the properties directly downstream. It was suggested this bridge be identified for improvements to increase capacity.

Discussion Points and Additional Feedback for On-going Coordination

There is a need for on-going coordination between Boulder County Parks and Open Space and the South St. Vrain property owners to discuss ways to address the issues that property owners experienced along this section of the St. Vrain. The property owners expressed a willingness to continue working with Boulder County to identify projects that can occur and that they can participate in to aid the creek recovery effort throughout this stretch of the St. Vrain. They asked for follow up regarding what the best way is to interact with Boulder County Parks and Open Space to identify what actions can be taken and when.

MEETING ATTENDEES

	Name	Affiliation
1.	Julie McKay	Boulder County CCPI
2.	Bryan Harding	Boulder County Land Use
3.	Doug T.	Boulder County Parks and Open Space
4.	Ernst Strenge	Boulder County Parks and Open Space
5.	Jeff Moline	Boulder County Parks and Open Space
6.	Mac Kobza	Boulder County Parks and Open Space
7.	Dan DeLenage	Boulder County Transportation
8.	Andrea Meneghel	CDR Associates
9.	Sally Collins	Lyons Flood Recovery Task Force
10.	David Jula	Michael Baker Jr., Inc.
11.	Nathan Werner	S20 Design and Engineering
12.	Bonnie Richards	South St. Vrain Property Owner & Resident
13.	Dave Sutak	South St. Vrain Property Owner & Resident
14.	Elaine Readman	South St. Vrain Property Owner & Resident
15.	Gail Olsen	South St. Vrain Property Owner & Resident
16.	Gary Gorman	South St. Vrain Property Owner & Resident
17.	Jim Goudelock	South St. Vrain Property Owner & Resident

18.	Kelly Hoyt	South St. Vrain Property Owner & Resident
19.	Larry Quinn	South St. Vrain Property Owner & Resident
20.	Ron Gosnell	South St. Vrain Property Owner & Resident
21.	Ron Readman	South St. Vrain Property Owner & Resident
22.	Sam Miller	South St. Vrain Property Owner & Resident
23.	Wanda Griest	South St. Vrain Property Owner & Resident
24.	Connie Sullivan	Town of Lyons

St. Vrain Creek Master Plan Meeting Summary – In-stream Recreational Use/ Kayak Community

Date: August 28, 2014

Location: Lyons Fire Station, Lyons, CO

This summary is to document a meeting which took place with in-stream recreational users providing input from the perspective of the kayak community. The meeting was held to discuss how the master plan understands and addresses issues important to this group. The input received informed the project team as it prepared the alternatives analysis for the master plan and the following notes summarize key points from the discussion that was had.

ISSUES ADDRESSED

The following issues were addressed and discussed amongst the group

In-stream Safety Issues

- In-stream river safety is a critical issue that needs to be addressed. Short and long term solutions are needed. Dams are hazardous to anyone that would fall in the river because of exposed concrete and rebar.
- There are natural and man-made hazards all along the river.
 - Highland Dam and Supply ditch are hazards that are dangerous for all river users.
 - From the Andesite Mine to the confluence there are many hazards along the South St. Vrain
 - Most diversions are dangerous right now.

Emergency Response and Recreational Access

- Access points are needed for emergency responders; don't preclude ways to cross river and provide access points, roads, routes or passages.
- Emergency responders
 - Need walk in access.
 - Need foot bridges and areas that allow for easy river crossings.
 - Permanent anchor point structures on both banks that aren't trees to set up ready-made high-lines for river rescues.
- From the confluence down, multi-use accesses with paths increases opportunities for emergency response access to the river, recreational accesses and can support future town events or other opportunities.

River/In-Stream Improvements

- Make it a paddle through experience to the Confluence
- Reconstruct drop structures
- Other in-stream structures are needed such as round boulders to enhance habitat
- Rehabilitate and re-stabilize stream banks throughout
- Re-vegetation is needed throughout

- Location specific improvements that are needed include:
 - A stepped series of drops downstream of Highlands ditch is desired
 - Restore boulders and near Shelly's Cottages where it's been narrowed
 - Supply Ditch needs to be addressed
 - Highland dam ditch is a safety issue that also prevents fish passage; navigability improvements and flood mitigation are needed for it to provide relief that allows water to pass.

Whitewater Parks, Features and Infrastructure

- Whitewater parks are important to the Town but the focus needs to be on rebuilding areas with more water such as Black Bear
- Put facilities and accesses at popular locations
- Whitewater parks need grouted walls
- World class freestyle and slalom training facilities will attract experts to come back
- Build to future technology (don't preclude) innovation
- World class slalom/freestyle facilities can highlight different features and different flows.
- Spread out features. Lyons is heavy in features in some areas, light in others, move stuff from Meadow Park further down towards the Black Bear hole area.
- Look to put in infrastructure such as bathrooms and accesses to support areas.

Time Frames for Needed Improvements

- Time in-stream recreational improvements with other mitigation efforts
- Short-term fixes are needed now such as:
 - Lower McConnell hazard mitigation project
 - Need something for Lyons Outdoor Games
 - Next Year: Fix Black Bear and A-hole

McConnell Ponds

- Should be redesigned to consider multiple purposes such as
 - 1) Flood mitigation;
 - 2) Recreational use;
 - 3) Event usage;
 - 4) Buffer residents from increased use or people that will be attracted to them
 - 5) Easier access to US 36 and to Town
- Involve users and residents in further discussions.

On-Going Coordination and Future Planning: Ultimately, channel location needs to be identified first and then a real understanding can be developed about priorities and projects. On-going coordination should take place once the master plan identifies recommended alignment.

Other Input Regarding Multiple Benefits, Community Impacts and Future Opportunities

- Recognize opportunities for multi-use river access points and pull outs with appeal to all river users.
- Recognize the Lyons/Longmont trail and parallel river passage
- Identify the potential outside of parks; identify what's possible with private properties?

- Prioritize long-term recovery efforts but take opportunities to create amenities, and take advantage of opportunities to combine projects with multiple benefits for fish habitat, recreation and the local economy.
- There are opportunities to create world class river features for kayaking that also serve as great river habitat for fish. There can also be kid play areas integrated in or near the river.
- There's a huge opportunity to create an incredible community resource that can economically benefit the town and future generations.
- Bohn Park has potential to become a multi-purpose area.

Individual Comments

Matt Booth, Resident and Kayaker – as submitted via email

- South St. Vrain
 - History of one of the best class V whitewater runs in the state that hosted an annual creek race that drew competitors from around the world to participate.
 - Recreate a natural river bed
 - Remove hazards left by flood and by road construction
 - Create a deep navigable channel that allows kayaking at low flows such as 90 cfs
 - Replace or recreate features that were lost due to flooding and road structure harvesting to create a world class run as well as create a thriving ecosystem and wildlife habitat
 - Create river access that could be used for kayak parking and day trip us
 - I can personally give input on all hazards, drop/feature placement, channel depth and placement, river access points and areas of river to focus reclamation.
- In town river areas
 - Kayak features should be coupled with other aspects of multi-use visitors. An example would be South Main Street in Buena Vista. They have incorporated climbing wall feature parks next to river play features. Another multi-use that should be considered is slack line. The overhead cost is low and brings a similar visitor that is one of Lyons target audience for long term sustainability.
 - New features that sets Lyons apart in the world of kayaking and innovation. Examples would be pneumatic adjustable play features so the features would have optimal performance at all flows and would be a show case feature for kayak parks to be a way to increase town revenue through events and day use visitors. Rapid Blocks is another example of this type of innovation that should be considered when planning the play feature design
- McConnell Ponds
 - The ponds should be designed and placed with multi-use, revenue generation and flood mitigation all at the top of mind. This should be done while mitigating any safety or quality of life issue to the residents on the ponds.
 - The ponds have had an increase use for kayaking, Stand Up Paddling and outdoor event competition such as the Lyons Outdoor Games.
 - The ponds placement to the North and having the river to the south should be considered. This could address many of the issues and needs listed above.

- Access to the ponds and parking could be off 36 and reduce impact on local residents by visitors as well as reduce safety concerns.
- Highland Ditch dam needs:
 - Safety for all recreationists
 - Fish passage
 - Navigability
 - Flood retention some way for dam to be fully opened in times of extreme flooding to protect McConnell homes
 - Aesthetic improvements
- Other areas in need of improvements or recovery
 - Supply Ditch rock debris pile and rear removal
 - Rebar and pipes throughout Old South St Vrain Road

Team Colorado

- Important to design whole experience as a progression
- Pond is important (one that thaws)
- Spectrum of experiences across spectrum of flows
- Safety a primary need : Highland dam, supply ditch
 - safe and multifunctional
 - for highland: navigable/park solution with fish habitat connectivity
- Improve and maintain access
- In key areas such as black bear area connect trails, put-ins and parks cohesively

Russ Huff, Lyons Kids Kayak Club

- Lyons’ recreational opportunities, especially for youth, is the natural environment because the Town doesn’t have a rec center.
- As kayakers, kids progress from McConnell Ponds to North St. Vrain to South St. Vrain. Half of the US national team is from Lyons. South St. Vrain allows lots of these paddlers to train year round. The environment/setting to do this on a year round basis where the water flows like this is really unique. The river is a community asset.

MEETING ATTENDEES

	Name	Affiliation
1.	Andrea Meneghel	CDR Associates
2.	Arn Hayden	Kayaker
3.	Matt Booth	Kayaker
4.	Teegan	Kayaker, US Team
5.	Unidentified	Lyons Fire Department
6.	Walt Davidovitch	Lyons Fire Department, Deputy Fire Chief
7.	Russ Huff	Lyons Kids Kayak Club

8.	David Jula	Michael Baker Jr., Inc.
9.	Don Moore	Office of Emergency Management
10.	Magnus Carlson	Parent of competitive kayaker
11.	Amy Johnson	Resident
12.	Christine Clark	Resident
13.	Scott Young	Resident and Kayaker
14.	Nathan Werner	S20 Design and Engineering
15.	Scott Shipley	S20 Design and Engineering
16.	Nate Lorde	Team Colorado
17.	John Putnam	Team Colorado Whitewater
18.	Jim Blankenship	Town of Lyons
19.	Resident	Town of Lyons

APPENDIX A
PROJECT CORRESPONDENCE
(PROGRESS MEETINGS)

St. Vrain Creek Coalition Kick-off for the St. Vrain Creek Watershed Master Plan

Meeting Summary

Date: May 12, 2014

Location: Boulder County Flood Recovery Center, Boulder

WELCOME, INTRODUCTIONS AND PROJECT OVERVIEW

Andrea Meneghel, CDR Associates, opened the meeting and facilitated a round of introductions. Dave Jula, Michael Baker Jr. Inc. (Baker) reviewed the meeting agenda and provided an overview of the approach for developing the St. Vrain Creek Watershed Master Plan. Dave reviewed the project scope including: a) team roles and responsibilities, b) deliverables, c) the project schedule and d) the project budget.

Comments and Key Points

- Boulder County indicated it would be helpful for the master plan to focus on what projects could be identified and prioritized for the more populated areas to deliver the biggest benefit to the most people. Also, it would be helpful to identify the projects that are more likely to be easily implemented quickly.
- Baker anticipates having a “draft” master plan by July 31 and a “final” version by September 30, 2014.
- In response to a Coalition member’s question about what areas the master plan can focus on, Dave Jula explained that while it will be a high-level study to create a vision for the St. Vrain creek, there will be opportunities to focus on specific areas within segments of the creek where more detail is needed about the long-term planning for that segment of creek. The project team will interview St. Vrain Creek Coalition members to identify where those areas are and what issues exist in those locations.

ST. VRAIN CREEK COALITION (SVCC) COORDINATION

Andrea Meneghel reviewed what the purpose of the St. Vrain Creek Coalition is and led a discussion about how the project team will work with the Coalition and how Coalition members will work with each other. He spoke about creating a set of Operating Protocols that the SVCC could abide by and asked for SVCC input.

Comments and Key Points

- Julie McKay, Boulder County Creek Planning Initiative, stated to the Coalition members that while the County is the contracting agency with the consultant team, scope decisions can be discussed as a group at SVCC meetings.
- Baker will establish a share-point site for transferring information between the project team, SVCC and public. That site will also serve as the project’s public website.
- It was requested that schedule and budget updates be provided as a standing item at SVCC meetings.

- It was stated that in order to stay on schedule, the project team is to provide the SVCC with time to review materials and set clear deadlines for when responses are needed.

PUBLIC ENGAGEMENT

The SVCC was presented with a conceptual framework for where the public will be involved in the master planning process. The SVCC was asked to provide input on how to best proactively engage their constituencies at those key points and throughout the process.

Comments and Key Points

- SVCC members suggested providing contact information and a web address to the public as soon as possible and including that in the first communication to the public.
- Boulder County is in the process of creating a postcard that will be mailed to property owners to inform them that the St. Vrain master plan process is beginning. They suggested the project team create information that then can be linked to by each of the jurisdictions rather than duplicate efforts.
- Information can be sent to SVCC members and then they will redistribute the information through their established communication networks.
- Provide the media with basic facts, key points of the master plan and let them know who to communicate with as points of contact.
- Communicate that the study is starting and how people can get involved as soon as possible. Hold community workshops to show people what is happening related to the master plan and invite them to get started in the planning process.
- The following input was provided regarding about kick-off community meetings in the watershed:
 - Allow elected officials in attendance to speak and address their residents as they choose.
 - Provide a consultant team overview to introduce yourselves and your role in creating the master plan.
 - Clarify that the master plan process creates a transition from short-term mitigation to a long-term planning process for the creek.
 - Allow Boulder County to update the public on what has taken place to date in terms of flood recovery; also include updates about what has occurred in Lyons and Longmont. Tailor each meeting to reflect what is important to that community and allow representatives of that community to speak at those meetings.
 - Explain what the purpose of the master plan is, what data is being collected, and that the purpose of the meetings is to introduce the master plan process to the public.
 - Organize key questions for the public to respond to or identify what you need to learn from participants that will attend the meetings. Let people know how they can contact the project team.
 - It would be good to hold a kick off meeting in Lyons and one in Longmont.
- The following updates were provided by SVCC members:
 - Lyons is already producing email blasts to inform its citizens that the master plan is beginning and that there will be public meetings.
 - The Natural Resources Conservation Service and the St. Vrain Left Hand Water Conservation District have been good with communications to the public. Take advantage of communicating to their networks.
 - The Little Thompson Coalition has been posting periodic updates on their website that have been informative. The website is: <http://www.ltwrc.org/index.html>

ST. VRAIN CREEK COALITION INTERVIEWS

The project team will be holding interviews next week with Coalition members to inform the study and identify needs, opportunities and challenges that should be addressed through the master plan. The project team will also collect input from members to further define effective stakeholder engagement strategies and opportunities; not only for reaching community members but also to understand their perspectives on how the SVCC needs to work together.

Comments and Key Points

It was discussed that the following questions will be valuable to ask Coalition members during the interviews to help define the study:

- What specific problem needs an identified solution from your perspective?
- What data is needed to fill in the gaps? What will still exist as a “gap”?
- What data can you provide?
- What other studies taking place?
- What existing meetings do you have that we should attend?
- What specific groups should we meet with and where?
- What communication channels do you already have established with your residents that we can capitalize on?
- What do you suggest in order for us to be proactive about public outreach?

NEXT STEPS & ACTION ITEMS

1. The project team will be scheduling interviews with SVCC members for the week of May 19.
2. Baker is collecting data, existing plans and studies. The best way for SVCC members to provide information is to send relevant materials directly to Baker.

MEETING ATTENDEES

	Name	Affiliation
1.	David Bell	Boulder County
2.	Denise Grimm	Boulder County
3.	Diane Malone	Boulder County
4.	Ernst Strenge	Boulder County
5.	Julie McKay	Boulder County
6.	Stacey Proctor	Boulder County
7.	Andrea Meneghel	CDR Associates
8.	Brad Schol	City of Longmont
9.	Jeff Crane	Colorado Water Conservation Board
10.	David Jula	Michael Baker Jr., Inc.
11.	Enessa Janes	Michael Baker Jr., Inc.
12.	Barb Brunk	Property Owner
13.	Jim Blankenship	Town of Lyons
14.	Reed Farr	Town of Lyons

St. Vrain Creek Coalition Progress Meeting Summary – Meeting #2

Date: May 28, 2014

Location: Boulder County Parks and Open Space, Longmont

WELCOME, INTRODUCTIONS AND UPDATES

Andrea Meneghel, CDR Associates, opened the meeting by facilitating a round of introductions and reviewing the meeting agenda.

Updates

Lyons to Estes Park Multi-Use Path: Chris Boespflug, Colorado Department of Transportation (CDOT), updated the St. Vrain Creek Coalition (SVCC) about a multi-use path funded by a GOCO grant that the Governor has tasked CDOT to evaluate for implementation. The objective is to implement it within 12 months and it will go from Lyons to Estes Park.

Chris recommended that SVCC members should participate in that multi-agency planning process to discuss how to integrate that effort with master planning for the St. Vrain. There will be weekly meetings occurring on Tuesdays and Chris will ask for input from the SVCC members about who they believe should be involved from their respective entities. It was also suggested that a representative from Michael Baker Jr. Inc. (Baker) be involved as well; the master plan scope and budget provides funding for involvement and coordination with other parallel studies. The U.S. Forest Service (USFS) identified that there are challenges with the multi-use path initiative and looks forward to being involved in the discussions

Colorado Water Conservation Board (CWCB) Grant: Julie McKay, Boulder County, discussed a CWCB grant submittal opportunity with the group. Julie asked the Coalition if members would like to identify a site specific project that the Coalition can submit as a group. Call for projects is June 4, 2014 and the grant application deadline is July 1, 2014. Bridgette McCarthy, Boulder County, will send the grant information to SVCC members and will schedule a meeting to discuss the Coalition's response.

Boulder County Neighborhood Outreach: Boulder County is sending a postcard to residents throughout the county to inform them of creek recovery meetings that the County is hosting to discuss private property issues and to inform residents that the St. Vrain Master Plan (SVMP) process is beginning. Boulder County will keep the SVCC updated regarding input that comes from those neighborhood meetings that is pertinent to the SVMP.

ST. VRAIN MASTER PLAN STATUS UPDATES

Dave Jula, Michael Baker Jr. Inc. (Baker) provided updates on the following master plan activities.

Existing Plans: The master planning process is using data from previous plans that already exist. The project team assumed 12 plans would be collected and that would provide sufficient data to support the goals of the master plan. Through the assistance of SVCC members and other stakeholders, the project team has collected 25 plans to date and is compiling those in a “plan rollup” document to manage the large amount of data.

Data Collection: In addition to existing plans, the project team is also collecting existing technical data. Thus far, GIS and engineering data has been collected. The data collected includes engineering data that the Colorado Water Conservation Board (CWCB) developed for Lyons and CH2MHill developed for Longmont for 100-year channel stabilization.

Field Work: Field assessments are being conducted to develop existing conditions maps. Challenges have emerged in the field assessments caused by high water levels due to spring runoff. The high water prevents the field crew from observing critical channel components for the field assessments. The field crew is seeking the lowest flows throughout the corridor to address this challenge.

Deliverables: Baker will produce an existing studies review and data summary for Boulder County’s review the week of June 2, 2014. Boulder County has an internal team that will review the data and will provide comment. Boulder County asked to also be provided with a clear deadline for when their comments had to be submitted by; Baker will provide a review schedule.

Interviews with SVCC Members: The project team has been interviewing SVCC members and has met with the Town of Lyons, CDOT, St. Vrain Left Hand Water Conservancy District (SVLHWCD), the City of Longmont, Boulder County and the United States Forest Service (USFS). Key themes were shared with SVCC members at the meeting. Summaries of the interviews will be developed and provided to SVCC members for review before being posted on the website.

PUBLIC ENGAGEMENT UPDATE

Andrea Meneghel presented the Coalition with an update about public involvement activities and the proposed approach for the June Community Meetings.

Public Meetings: One of the key messages shared by SVCC members during the interviews was the importance of engaging with the property owners and the general public during the master plan process. Two public meetings will be held to announce that the master planning process is underway. One meeting will be held in Lyons on Monday, June 16; another will be held Thursday, June 19 in Longmont. The objectives of the public meetings will be to (1) announce the initiation of the master planning process; (2) describe what issues will be

addressed as part of the master plan; and (3) inform the public on how they can be involved in the process.

The SVCC provided the following input about the public meetings:

- Be clear that the meetings are for all residents throughout the St. Vrain watershed and not only focused on Longmont or Lyons because that's where they are being hosted. Unincorporated Boulder County residents need to know this.
- Identify what specific topics will be covered at the public meetings as part of any pre-meeting communications to help manage expectations of attendees.
- Elected officials in attendance should be given a moment at the meetings to address the attendees. The SVCC should craft a joint-message for elected officials to deliver.
- It is important to inform people about who the SVCC is and the constituencies that member parties represent.
- Emphasize that the master plan is the next phase of Boulder County's Comprehensive Creek Planning Initiative and that this is a transition point to begin focusing on the long-term sustainability of the entire St. Vrain watershed.
- Clarify what issues the master plan is addressing so that individual homeowners know that this is about a long-term vision for the creek and that some of the current issues they are dealing with are being addressed through different processes to avoid confusion.
- The St. Vrain Master Plan Request for Proposals (RFP) organized the key themes that are important to address for long-term creek recovery; please communicate those topics as key focus areas for the master plan.
- Inform people of the public process by highlighting when meetings will take place next to involve them, what those meetings will address and how their input will inform master plan decisions.

Public Website: A website is being set up as part of the master planning process. The website will be interactive. It was discussed that website functions will/should include:

- A description of the Coalition.
- An event calendar.
- Announcements and communications of key developments.
- The ability for users to submit a comment and join a mailing list.
- An interactive map that will allow users to identify issues throughout the watershed.

Information Cards: Information cards are being created to inform residents how to contact the project team and either provide input or obtain information. The cards will include the project's website address, email address, project team hotline and a QR code that can be scanned with smart phones to directly connect people to the website. Information cards will be provided to the SVCC at the next meeting and will be handed out to the public at the community meetings.

Public Process: It was requested that the project team provide a detailed overview of the public process at the next meeting that describes specific steps where the public is expected to be involved to inform the plan.

ST. VRAIN CREEK COALITION COORDINATION

Purpose of SVCC Meetings: The SVCC discussed that the purpose of their meetings is to 1) provide technical review of master plan activities and alternatives; 2) coordinate amongst local government agency activities along the St. Vrain for master plan purposes; 3) participate in joint decision-making; and 4) ensure public input is incorporated into the master plan.

- SVCC meetings will be held bi-weekly, alternating between meetings being conducted over Phone/WebEx and in-person. The members requested that the meetings be scheduled for 1.5 to 2 hours as needed.

Coalition Membership: The SVCC stated that agencies such as Colorado Division of Parks and Wildlife, FEMA, US Army Corps of Engineers, Weld County and other agencies that were listed in the RFP should be invited to attend the meetings or informed about the master plan process. Baker will reach out to its contacts at those agencies and extend invitations.

SVCC Operating Guidelines: Prior to the meeting, the SVCC received Draft Operating Guidelines and was asked for comment. The members asked for additional time to review the draft protocols and submit feedback. The following operational issues were discussed:

- The SVCC discussed how to communicate with the public, other agencies and the media. The SVCC agreed that the project team can lead drafting communications and provide content to the SVCC for review. Direct jurisdiction-related questions should be answered by whatever agency is responsible for the issue. All members are expected to only speak on behalf of their respective agency and will alert the coalition prior to speaking on behalf of the group.
- Regarding which agency is hosting the public meetings, it was decided that the SVCC is the host and materials should include the logos of all members. Media advisories for the public meetings should be sent to each agency's Public Information Office for review and distribution.
- Jurisdiction-specific plans and alternatives should go to those affected parties for review first before going to the rest of the group.

PUBLIC COMMENTS

The group set aside time to take public comment. One member of the public commented (via phone) requesting to be put on email list about meetings and master plan updates.

NEXT STEPS & ACTION ITEMS

1. The USFS requested a copy of the field data form that Baker is using for data collection.
2. Baker will produce an existing studies review and data summary for Boulder County's review the week of June 2, 2014. Boulder County will conduct an internal review of data spreadsheet

3. The project team will provide an overview of the public process at the next meeting that describes specific steps where the public is expected to be involved.
4. Stacey Proctor, Boulder County, will create a list of existing meetings and send to Andrea Meneghel, CDR Associates, in order to coordinate master plan activities with other meetings.
5. Boulder County will communicate that the master plan is starting and public meetings are happening at their upcoming flood recovery outreach meetings.
6. CDR will email SVCC members the May 28, 2014 SVCC PowerPoint presentation
7. SVCC members will review the proposed Operating Protocols and submit written comments by May 30, 2014
8. Bridgette McCarthy, Boulder County, will send the CWCB grant information to SVCC members and will schedule a meeting to discuss the Coalition's response.
9. The next SVCC meeting will occur on Wednesday, June 11, 2014

MEETING ATTENDEES

	Name	Affiliation
1.	Bridgette McCarthy	Boulder County
2.	David Bell	Boulder County
3.	Diane Malone	Boulder County
4.	Julie McKay	Boulder County
5.	Stacey Proctor	Boulder County
6.	Andrea Meneghel	CDR Associates
7.	Jeffrey Range	CDR Associates
8.	Brad Schol	City of Longmont
9.	Ken Huson	City of Longmont
10.	Chris Boespflug	Colorado Department of Transportation
11.	David Jula	Michael Baker Jr., Inc.
12.	Nathan Werner	S20 Design and Engineering
13.	Jim Blankenship	Town of Lyons
14.	Dan Cenderelli	U.S. Forest Service
Participating by Phone		
15.	Greg Koch	Anderson Engineering
16.	Jamis Darrow	Anderson Engineering
17.	Ernst Strenge	Boulder County
18.	Barb Brunk	Property Owner
19.	Sean Cronin	St. Vrain Left Hand Water Conservancy District

St. Vrain Creek Coalition Meeting Summary – Meeting #3

Date: June 11, 2014

Location: City of Longmont Public Works Classroom, Longmont, CO

WELCOME, INTRODUCTIONS AND UPDATES

Andrea Meneghel, CDR Associates, opened the meeting by facilitating a round of introductions and reviewing the meeting agenda.

Updates: There were no updates from Coalition members.

ST. VRAIN MASTER PLAN STATUS UPDATES

Dave Jula, Michael Baker Jr. Inc. (Baker) provided updates on the following master plan activities.

Data Collection

City of Longmont Channel Design: CH2MHill provided the project team with a 100-year channel design that was developed for the City of Longmont. Baker obtained the data and will incorporate it into the master plan.

Hydrology/Hydraulics:

- The St. Vrain Creek Coalition (SVCC) needs to make a decision on whether to use newly developed discharge data from CDOT/CWCB or regulatory discharge data from previous studies for the watershed's profile. It needs to come to a decision very quickly regarding the discharge data to use and what levels to design to. To begin considering this decision, the SVCC discussed the geographic area and type of data that currently exists to decide if the data's quality and quantity is sufficient to establish a water profile as part of the floodplain management component of the master plan. Baker has seven studies from which to use data to establish a new water profile.
- Dave Jula proposed the following sources be utilized to develop a water surface profile for the master plan:
 - Pre-flood thalweg (lowest point in the channel) determined by pre-flood LiDAR collected in 2012.
 - Post-flood LiDAR collected by FEMA/USGS for post-flood thalweg.
 - Water surface elevations from regulatory source when available and other sources (i.e. CWCB Recovery Mapping) to fill gaps.
- Because the master plan does not have comprehensive current data and is not a regulatory document, the water profile of the master plan will not be authoritative towards property owners. The group agreed that data conclusions, including the water profile, should be labeled Regulatory and "Best Available Data", respectively. The group expressed support for focusing on the pre-flood thalweg but before Boulder County can approve this recommendation, they need to review and discuss the details of the recommended approach internally and report back to the project team and Coalition.

- The group further discussed the master plan's floodplain, acknowledging that this plan will not include information typical in master plans. As a result, a component of this plan will be to include the 100-year FEMA floodplain where data is available and identify where data gaps exist. Dave indicated that FEMA mapping, modeling and updated information may not be available for several years and there is an immediate need to document what existing data is available, identify gaps and make a proposal about the floodplain this master plan is using.
- Anderson Consulting Engineers is taking the lead on geomorphology, which will support recommendations on creek alignment. Baker showed sample mapping where pre- and post-LiDAR data will inform this effort by showing areas of aggradation and degradation within floodplain.
- Jeff Crane, CWCB, stated that he has cross section information available for Apple Valley that he can provide and is interested in incorporating the LiDAR set for that segment.
- It was concluded that in some segments the master plan has very good data available, but in other areas it will have to be documented that quality data does not exist and the focus will have to be on identifying broadly supported alternatives.

Existing Plans: The project team has received approximately 40 planning documents which will inform the master plan.

Field Work: The master plan field work includes a stream analysis. Due to spring runoff, the water level remains high (i.e., comparable to the levels of a two-year event) and has prevented the stream analysis thus far. The project team is monitoring the water levels and hopes to begin the stream analysis as soon as possible.

Interviews with SVCC Members: Since the last meeting the project team interviewed the Colorado Water Conservation Board (CWCB). The interview with the final SVCC member, Natural Resources Conservation Services (NRCS), is scheduled for June 18, 2014. Summaries of the interviews will be developed and provided to SVCC members for review before being posted on the website.

PRE-SCREEN ALTERNATIVES ANALYSIS

Dave Jula presented the pre-screen alternatives analysis using a matrix that identified and prioritized key issues to be addressed by Reach. The information was organized based on input received through the SVCC interviews. Alternative solutions to address the issues were categorized as either probable, requiring additional evaluation or not applicable/having limited potential. Feedback is needed from Coalition members about which alternatives should be further refined and presented to the public for input. It is expected that Coalition members provide input regarding where the focus needs to be within their jurisdictional boundaries. However, it was noted that the issues that were identified for the watershed weren't exclusive and inter-related to each other in addition to influencing upstream/downstream conditions throughout the watershed. The Coalition requested time to review the pre-screen alternatives analysis and will send Baker comments and feedback. The target for review and providing comments is one week from this meeting.

PUBLIC ENGAGEMENT

Andrea Meneghel presented the Coalition with an update about the following public involvement activities.

Community Meetings Outreach: Outreach activities conducted to-date included but were not limited to:

- The project website going live
- Media advisories being sent to the Public Information Officers in Boulder County, Lyons, and Longmont for distribution through their communication channels.
- Providing SVCC members and others with a community meetings flyer to distribute through their respective channels and email lists.
- Email communications being sent to the project list serve.
- Launching the project team phone line which received phone calls from the public.
- Attending Boulder County Flood Recovery meetings to listen to community concerns and inform attendees of the master plan kick-off.

Public Presentation: The SVCC was presented the framework of the public presentation for their input. Coalition members provided the following comments:

- It will be important to manage the property owner expectations for the master plan and the SVCC encouraged tailoring the approach to listen very closely to what issues are important to people by asking ‘what do you view as the problem that we need to address with you?’
- Do not revisit issues or areas where progress has been made through local efforts. It is more important to focus on what the master plan can help communities accomplish to get people engaged in how they can be involved throughout this process.
- A key message to emphasize is that the master plan will be a collection of candidate projects that will then be funding dependent
- Make the distinction that the information being presented is what is known so far and there is considerable more work to do with property owners and the Coalition to refine alternatives. People should understand everything presented to them is preliminary and nothing will be set in stone. They will have ample opportunities to provide input on conceptual options and alternatives.
- Terminology should be easy to understand; simplify complex concepts and technical language.
- A member of the public stated that the community meetings’ approach and presentation was very well organized and seemed to make a lot of sense. From a resident’s perspective it was informative and she supported the direction the project team was headed in.

Public Website: The website is live. It will be continually refined throughout the study. A suggestion was made to highlight the important issues from the geomorphology data and provide that information on a pdf available on the website. It was also suggested the website include a links page to other resource pages for private property owners.

Information Cards: Information cards were made available to SVCC members for distribution to residents and stakeholders. The cards have Project information such as the email address, website, QR code and the project team phone number. Cards were given to SVCC members to distribute to their constituencies.

Public Process: The group was presented with a graphic outlining the public process. The public process includes two sets of watershed-wide community meetings and two issue-based, community workshops for each Reach. The first small group meeting will present draft alternatives for public consideration and feedback. The second small group meeting will present refined alternatives based on public input from the first workshop. There will be ample opportunities for community members to provide input at SVCC meetings and through the multiple channels for the public to communicate with the project team and engage in the process.

ST. VRAIN CREEK COALITION COORDINATION

Lyons Stream Recovery Task Force: Nathan Werner, S2O Design and Engineering, stated that the Lyons Flood Recovery Task Force wanted to make sure that the master plan was not starting flood recovery activities over, but acknowledging and including the work that had already been accomplished. Nathan assured the task force that Lyons' Project Development Goals and Recovery Plan will be recognized and included in the master plan.

Coalition Membership: The SVCC stated that agencies such as Colorado Division of Parks and Wildlife, FEMA, US Army Corps of Engineers, Weld County and other agencies that were listed in the RFP should be invited to attend the meetings or informed about the master plan process. SVCC members suggested the following individual be contacted:

- Jim Blankenship, Town of Lyons, suggested Baker contact John McCafferty with FEMA.
- Ken Huson, City of Longmont, suggested Baker contact the FEMA offices in the Longmont Civic Center.
- Sean Cronin, SVLHWCD, suggested Baker contact Roger Jones, FEMA's Head of Public Assistance.
- Kyle Downing is the USACE representative for Lyons.
- Boulder County will send Dave Jula its roster of FEMA contacts.
- It was suggested the Division of Parks and Wildlife be contacted.
- Other agencies to be contacted were listed in the RFP.

PUBLIC COMMENTS

One private property owner was in attendance and she participated throughout the meeting by providing input and asking questions.

NEXT STEPS & ACTION ITEMS

- Kick off community meetings will occur in Lyons on Monday, June 16, 2014 and in Longmont on Thursday, June 19, 2014
- The next SVCC meeting will occur on Wednesday, June 25, 2014 at 10:00am – 11:30pm, conducted via phone/WebEx. It could possibly be in-person depending on the availability of the Longmont Public Works Classroom again.
- The Project Team will continue with field assessments.
- Julie McKay, Boulder County, will review the Project Team's recommendation for the Hydrology Profile with Boulder County and respond to Dave Jula.
- Jeff Crane, CWCB, will provide Baker with supplemental surveyed cross section information in areas that he's collected it in his post-flood efforts.
- SVCC members will review the pre-screen alternatives analysis matrix following the meeting and send their feedback to Baker.
- Technical terminology on the pre-screen alternatives analysis matrix should be simplified.
- SVCC members will provide Baker with contact information for the agency contacts listed in the above section.

MEETING ATTENDEES

	Name	Affiliation
1.	Bridgette McCarthy	Boulder County
2.	Bryan Harding	Boulder County
3.	Denise Grimm	Boulder County
4.	Diane Malone	Boulder County
5.	Ernst Strenge	Boulder County
6.	Julie McKay	Boulder County
7.	Stacey Proctor	Boulder County
8.	Andrea Meneghel	CDR Associates
9.	Jeffrey Range	CDR Associates
10.	Ken Huson	City of Longmont
11.	Jeff Crane	Colorado Water Conservation Board
12.	David Jula	Michael Baker Jr., Inc.
13.	Barb Brunk	Property Owner
14.	Nathan Werner	S20 Design and Engineering
15.	Sean Cronin	St. Vrain Left Hand Water Conservancy District
16.	Jim Blankenship	Town of Lyons
17.	Reed Farr	Town of Lyons
18.	Dan Cenderelli	U.S. Forest Service

St. Vrain Creek Coalition Meeting Summary – Meeting #4

Date: June 25, 2014

Location: City of Longmont Public Works Classroom, Longmont, CO

ST. VRAIN MASTER PLAN STATUS UPDATES

Dave Jula, Michael Baker Jr. Inc. (Baker) provided updates on the following master plan activities.

Hydrology/Hydraulics:

- The St. Vrain Creek Coalition (SVCC) needs to make a decision on whether to use newly developed discharge data from CDOT/CWCB or regulatory discharge data from previous studies for the watershed's profile. It needs to come to a decision very quickly regarding the discharge data to use and what levels to design to. This issue was discussed with the SVCC at the last meeting.
- Dave Jula proposed to use CDOT/CWCB's discharges for structure sizing but regulatory flows for any floodplain depictions. No SVCC members expressed concern with this approach but did not affirm agreement.
- Thuy Patton, CWCB, stated it would be helpful to see a map from Baker regarding where there is existing and missing flood hazard data.
- Baker is working on a cost estimate to incorporate the Town of Lyons' modeling through town to Highland Ditch into the master plan scope. Assuming it can be added to the scope, it would likely be included as an addendum to the master plan due to time constraints.

Sites for Hydraulic Analysis: The SVCC needs to determine use of supplemental hydraulic analysis budget in scope. The Coalition discussed the following sites to be considered: Riverside/Raymond, Apple Valley, St. Malo and the area downstream of Longmont.

- The area between Longmont and Lyons is being funded for a mapping update by CWCB.
- The St. Malo area is outside of the master plan's study area. The non-profit that owns the property attended one of the community meetings with their engineering consultant (AMEC) to ask the area be considered in the master plan. The Coalition agreed there are issues such as stabilization that need to be addressed in that area that affect the watershed. However, because it is outside of the study area the master plan should recognize it as something that could impact the watershed but classify it as an "unmet need" that needs further analysis and mitigation work. Dave will check with the U.S. Forest Service to see if it has a plan for the area and will report back to the group.
- Baker will put together options about each of the possible sites for hydraulic analysis and ask the SVCC which site it would like to support receiving the analysis.

Existing Plans: Baker will be making the Existing Plans Roll Up available to SVCC members within the next two weeks.

Field Work: Field crews are performing assessments. The work is projected to be done this week.

Interviews with SVCC Members: Interviews are complete; summaries have been distributed and are being reviewed by individuals for posting to the website.

Pre-Screen Alternatives Analysis: Comments have been received from Boulder County, Lyons and the St. Vrain Left Hand Water Conservancy District. Baker is currently revising the pre-screen alternatives based on feedback. It was noted that Dickens Park in Longmont was misspelled. Baker will follow up with the respective entities if there are conflicting comments per any of the Reaches.

PUBLIC ENGAGEMENT

Andrea Meneghel, CDR Associates, debriefed the Coalition about the Community Meetings that occurred in Lyons and Longmont the previous week. The Coalition agreed that the topics presented on the presentation slides captured the key topics accurately. The Town of Lyons added that specific comments and concerns were provided about issues along the South St. Vrain and Longmont Dam Road and that before going back out to the public the project team should determine how to address many of the private property issues. Prior to going to the Community Workshops in August, the City of Longmont said it will be helpful to know who signed up for those specific Reach-focused meetings. The City of Longmont re-iterated that flood mitigation seemed to be the main concern amongst its citizens in attendance.

PUBLIC COMMENTS

Community Meetings: A private property owner in attendance had attended the community meetings and stated that they were very well organized and very informative. She commended the project team for a job well done.

Volunteerism and the St. Vrain Master Plan: Ed Self, Wildlands Restoration Volunteers, asked the Coalition to consider the role of volunteerism within the St. Vrain watershed and the inclusion of volunteer efforts to be documented in the master plan. Ed explained the public can be involved in actions such as fixing trails, restorative river work, grant writing, participating in funding efforts or by helping to generate media attention for the St. Vrain. He asked if a long-term volunteer engagement plan can be included as part of the master plan. Ed presented an approach to how such content can be organized. Dave Jula responded that it was a good suggestion and such content could be included in the implementation section of the master plan.

UPDATES AND ACTION ITEMS

Updates:

- A bond initiative passed in the City of Longmont to fund a flood mitigation project (i.e. 100-year channel).

- The Town of Lyons has applied for a CWCB grant to fund improvements at Meadow Park.
- Planet Bluegrass in Lyons is in the process of conducting significant renovations and restoration work along the North St. Vrain.

Action Items

- Baker will provide a map as requested by Thuy Patton, CWCB, regarding where there is existing and missing flood hazard data and set up call with Thuy to discuss.
- Baker will report back to the SVCC regarding the data and information it receives about the St. Malo site from AMEC.
- Baker will put together options about each of the possible sites for hydraulic analysis and ask the SVCC which site it would like to support receiving the analysis.

MEETING MATERIALS

- June 25, 2014 SVCC Meeting Agenda
- June 25, 2014 SVCC Meeting – PowerPoint Presentation; available on the project website: <http://tiny.cc/stvraincreek>

MEETING ATTENDEES

	Name	Affiliation
1.	Derek	Anglers (phone)
2.	Bridgette McCarthy	Boulder County
3.	Diane Malone	Boulder County
4.	Ernst Strenge	Boulder County
5.	Stacey Proctor	Boulder County
6.	Andrea Meneghel	CDR Associates
7.	Jeffrey Range	CDR Associates
8.	Brad Schol	City of Longmont
9.	Ken Huson	City of Longmont
10.	Chris Boespflug	Colorado Department of Transportation
11.	Chris Sturm	Colorado Water Conservation Board (phone)
12.	Thuy Patton	Colorado Water Conservation Board (phone)
13.	Staff	Congressman Cory Gardner's Office Greeley (phone)
14.	David Jula	Michael Baker Jr., Inc. (phone)
15.	Barb Brunk	Property Owner
16.	Christie Haas	Property Owner (phone)
17.	Nathan Werner	S20 Design and Engineering
18.	Scott Shipley	S20 Design and Engineering
19.	Reed Farr	Town of Lyons
20.	Boyd Byelich	U. S. Natural Resources Conservation Service
21.	Ed Self	Wildlands Restoration Volunteers

St. Vrain Creek Coalition Meeting Summary – Meeting #5

Date: July 9, 2014

Location: Boulder County Parks and Open Space, Longmont, CO

ST. VRAIN MASTER PLAN STATUS UPDATES

Dave Jula, Michael Baker Jr. Inc. (Baker) provided updates on the following master plan activities.

Project Schedule Update:

- The field work and existing plan collection and analysis is complete. Due to high water during spring runoff geomorphology field work was delayed one month. Because of this delay in data collection other master plan project activities are delayed. Mr. Jula proposed to the St. Vrain Creek Coalition (SVCC) that the completion of the final master plan be adjusted to October 30.
- St. Vrain Creek Coalition (SVCC) members expressed no concern regarding the schedule change and discussed how it would affect other activities. Jeff Crane, Colorado Water Conservation Board (CWCB), stated that as long as the SVCC stays in close coordination with each other regarding funding opportunities and the progress of the master plan, a 30 day delay would not affect funding and grant opportunities.
- Julie McKay, Boulder County, asked how the schedule change would impact public engagement activities. Based on the current schedule, this shift would create a gap in planned public activities. The group discussed the importance of maintaining consistent engagement with the public. Stacy Proctor, Boulder County, asked if community workshops could still occur in August prior to the completion of the draft alternatives. Mr. Jula stated that it would be possible to develop a list of preliminary options to show members of the public. The group requested that the project team develop a proposal for public involvement activities in response to the schedule shift. The Project Team will develop a proposal that the SVCC will need to respond to regarding the priorities to coordinate around in their respective communities for engaging residents and property owners.
- Mr. Jula proposed making a public announcement of the schedule change and posting the new schedule graphic on the project website.
- Boulder County requested deadlines and dates to be specified for when to expect a draft of the master plan with defined dates for the expected review process and other key activities.

Project Budget Review: Currently the project is 30% complete and has used 30% of the budget.

Hydrology – Resolution on CDOT/CWCB Discharge Proposal: The group confirmed that it is appropriate to use the CDOT/CWCB discharges for structure sizing and regulatory flows for floodplain depictions.

Existing Plans:

- The project team has received approximately 40 planning documents which will inform the master plan; these have been combined into an Existing Plan Roll-Up. The Existing Plan Roll-Up is a spreadsheet that catalogues the data from the 40 existing plans the project team received.
- The SVCC requested a column be inserted in the Existing Plan Roll-Up that contains a citation or location information for each plan. Mr. Jula will insert the citations and distribute the Roll-Up to SVCC members.

- Additional comments and feedback on the Existing Plans Roll Up have been requested by the end of next week.

Supplemental Hydraulic Analysis: The St. Vrain Master Plan project budget contains \$40,000 for supplemental hydraulic analysis in areas where current hydraulic data is missing. Since the field work is now completed, the project team has identified four areas where hydraulic data gaps exist. Preliminary estimates indicate that the \$40,000 can cover the modelling for approximately one of the four identified areas. The SVCC discussed which area they would like to focus on.

- Four option areas that were considered are the Raymond/Riverside area, Apple Valley, the area from Hwy 36 to Hygiene Road (where Longmont's modeling starts) and the area downstream of Longmont to Weld County. Other areas discussed included Longmont Dam Road and the South St. Vrain.
- The group concluded that the areas where more modeling was needed for making better decisions were the Raymond/Riverside area and the area between Longmont and Lyons. This would provide consistent modeling from Longmont through Lyons and eliminate a gap in the data. Hydraulic analysis for these areas does not preclude conducting additional modeling for other segments if the opportunities arise.
- In the other areas considered, identifying the channel alignment first is a more critical priority; once alignments and creek locations are identified, then the capacity can be understood.
- Baker will provide refined cost estimates and look for efficiencies that may make modelling both areas feasible. The new cost estimates will be completed and sent to the SVCC. Upon receiving this information, the SVCC will have one week to review the proposal and provide feedback.

The St. Malo Area: St. Malo is a church on Hwy 7 between Estes Park and Aspen Park. A representative from St. Malo attended the Longmont community meeting to discuss impacts in that area from the flood. St. Malo is located on a tributary to the St. Vrain watershed, but lies outside of the geographically defined master plan study area. However, what occurs near St. Malo can impact the study area because it drains into Button Rock Reservoir. It was noted that what is occurring in this area can have broader downstream impacts in addition to the direct impacts posed to the Peak to Peak Highway. The SVCC discussed how address issues in this area, and other areas that are connected to, but not part of the master plan's study area. The group decided areas such as St. Malo should be identified in the master plan as an 'area of concern' or 'identified need' that requires additional study in a process beyond the master plan. Baker will follow up with St. Malo to notify them of the SVCC's approach to address those issues through the master plan.

Pre-Screen Alternatives Analysis: Lucas Babbitt, Baker, provided the SVCC with updates of the pre-screen alternatives analysis. The pre-screen alternatives analysis had been sent out for SVCC review and response. The project team revised the analysis to include SVCC feedback. The group requested more time to review the revised version. Baker will re-distribute the revised version and the SVCC will have one week to provide final comments so that this can be finalized for the master plan.

Field Assessments and Geomorphology: Mr. Jula presented the group with an update of the project's field work and geomorphology. The field assessments have been completed and documentation is being finalized this week. Project Team member, Anderson Consulting, is working on the geomorphology and will submit the findings the week of July 14.

- An SVCC member stated that it would be helpful to begin having conversations with property owners around alignment once the geomorphology work is complete. Mr. Jula confirmed this data is needed to have those conversations and once it is collected, those conversations around alignment are possible.
- An SVCC member stated that the completion of the geomorphology could be an opportunity for public engagement by creating press release that includes some type of educational information about geomorphology.

Draft Master Plan: Mr. Jula presented a draft framework of the master plan to the group and will distribute this to them for review and feedback. The SVCC also requested to see a sample of an existing master plan; Baker will provide a link to an example.

PUBLIC ENGAGEMENT

Andrea Meneghel and Jeffrey Range, CDR Associates, presented the Coalition with an update about the current public involvement activities and public input submitted to the Project Team through the website, email address and project hotline.

- Baker will be attending a Boulder County Resiliency meeting in Longmont as requested by an SVCC member to discuss and consider how long-term resiliency planning and the master plan coincide.
- In reference to a comment received from Mr. Quinn advocating for specific elements to be included as an alternative for the S. St. Vrain, the SVCC indicated that many of the points he raised are included in Lyons' Project Development Guides and that residents should be informed that this is an integrated process which acknowledges what Lyons has already captured, defined and produced throughout its recovery process.
- Once the geomorphology data is known, conversations should occur with property owners around creek alignments.
- A public communication that communicates the following would be of value.
 - The project schedule has been delayed a month.
 - An educational piece about geomorphology and why it is important to property owners.
 - Next steps and activities that the Project Team is taking to prepare the master plan.
- An SVCC member asked if Baker can report on the number of website visits and comments received on the interactive maps.

ST. VRAIN CREEK COALITION COORDINATION

The SVCC stated that the Colorado Division of Parks and Wildlife, FEMA, US Army Corps of Engineers and Weld County should be invited to attend the meetings or informed about the master plan process. Mr. Jula has been reaching out to these agencies. He requested SVCC assistance to provide additional

contacts. It was confirmed Roger Jones, FEMA, should be contacted; Dave was given his contact information. Diana Aungst, Weld County's Dept. of Planning, is receiving information about the master plan. It was confirmed Kyle Downing is the USACE representative that has been working with Lyons.

PUBLIC COMMENTS

Public Involvement and Channel Alignment: A resident from Longmont expressed appreciation for the efforts of the SVCC and the group's commitment to including the public in the process. She asked when the creek channel alignment will be identified in Reach 1 and how the public will be involved in that decision-making process. Mr. Jula stated that a decision has not yet been made and that channel alignment will be part of the draft alternatives that will be presented to the public with pros and cons of different options. The Project Team will bring the draft alternatives analysis to the public to ask them for their feedback.

Volunteerism: Ed Self, Wildlands Restoration Volunteers, proposed incorporating a section into the master plan about community engagement to implement projects. He proposed setting up a task force that examines how to systematically include volunteers in master plan projects. The task force could be made of representatives from each geographic Reach, members of the SVCC, as well as from special-interest groups like Trout Unlimited. The task force would make a set of recommendations on issues including:

- When can volunteers be used
- What kind of projects can use volunteers
- How can volunteers create cost efficiencies
- Can volunteers assist in pursuing project funding

The group supported the idea of including volunteers in implementation activities. Mr. Self proposed that further discussion occur between him and the SVCC regarding guidelines on how a task force could be incorporated into the master planning process and what deliverables the SVCC would want. The Coalition was supportive of a task force being convened to address this. Ed agreed to provide additional information at a future meeting in August about scope and deliverables.

NEXT STEPS & ACTION ITEMS

- The project team will develop and circulate a proposal for public involvement activities in response to the master plan schedule shift
- Baker will complete the following actions:
 - Send SVCC members the new schedule graphic for their review
 - Insert a citations column in the Existing Plan Roll-Up and send SVCC members the Existing Plan Roll-Up for final review and feedback
 - Send the revised pre-screen alternatives analysis to the SVCC
 - Send SVCC members the Draft Master Plan outline
 - Send SVCC members a link to a sample master plan

- The SVCC will submit comments on the pre-screen alternatives analysis, Existing Plan Roll Up and draft Table of Contents by July 16.
- Lyons will provide Baker with FEMA Project Worksheets and Kyle Downing's, USACE, contact information.
- SVCC members will further consider the incorporation of a Volunteers Task Force into the master planning process. The SVCC and Ed Self, Wildlands Restoration Volunteers, will further discuss guidelines and deliverables.

MEETING ATTENDEES

	Name	Affiliation
1.	Denise Grimm (Phone)	Boulder County
2.	Diane Malone	Boulder County
3.	Ernst Strenge	Boulder County
4.	Julie McKay	Boulder County
5.	Stacey Proctor	Boulder County
6.	Andrea Meneghel	CDR Associates
7.	Jeffrey Range	CDR Associates
8.	Brad Schol	City of Longmont
9.	Ken Huson	City of Longmont
10.	Jeff Crane	Colorado Water Conservation Board
11.	Thuy Patton (Phone)	Colorado Water Conservation Board
12.	Terri Betancourt (Phone)	Longmont Resident
13.	David Jula	Michael Baker Jr., Inc.
14.	Lucas Babbitt	Michael Baker Jr., Inc.
15.	Boyd Byelich	Natural Resource Conservation Service
16.	Gary Coffey	Public Attendee
17.	Nell Coffey	Public Attendee
18.	Nathan Werner	S20 Design and Engineering
19.	Sean Cronin	St. Vrain Left Hand Water Conservancy District
20.	Jim Blankenship	Town of Lyons
21.	Reed Farr (Phone)	Town of Lyons
22.	Dan Cenderelli	U.S. Forest Service
23.	Ed Self	Wildlands Restoration Volunteers

St. Vrain Creek Coalition Status Update Summary

Date: July 23, 2014

Location: Online web-conference and conference call

ST. VRAIN MASTER PLAN STATUS UPDATES

Dave Jula, Michael Baker Jr. Inc. (Baker) provided updates on the following master plan activities.

Project Scope, Schedule, and Budget: The project schedule has been extended by one month. Dave reviewed the status of the budget as related to the schedule change; the study continues to be on pace to be within budget.

Existing Plans Roll Up: At the July 9 SVCC meeting, it was requested a column be inserted to the Existing Plan Roll Up report that contains a citation or location information for each plan. Dave confirmed that the final draft of the Existing Plan Roll-Up will include the newly added citation content. Boulder County requested more time to review the document and stated they would submit comments to Baker by July 24, 2014. No other parties asked for more time to comment; after receiving Boulder County's comments the document will be finalized for the project record.

Field Assessments and Geomorphology: Field Assessments conducted by Walsh Environmental are now complete. Walsh is finalizing the organization of the data and will give Baker the final report on July 24, 2014. Anderson Consulting completed geomorphology analysis and submitted results to Baker. The geomorphology will assist informing channel alignment.

Supplemental Hydraulic Analysis:

- The St. Vrain Master Plan project budget contains \$40,000 for supplemental hydraulics in areas where current hydraulic data is missing. At the July 9, 2014 SVCC meeting the group discussed which area they would like to apply this funding to for further analysis. The SVCC identified two areas that could benefit from additional analysis and requested that the Baker determine if the budget can support conducting supplemental hydraulic analysis at both Hygiene Road and in the Raymond-Riverside area.
- Dave Jula reported that survey for the Raymond/Riverside area would cost approximately the entire \$40,000. However, it was discovered that CWCB obtained recent survey of structures and cross sections in the Hygiene Road reach that could be used to extend Longmont's model upstream. Baker proposed converting the \$40,000 survey to labor to perform hydraulics in this reach and some crossing sizing "reports" that would inform replacement of private structures.
- Boulder County stated it appreciated the attempt to accommodate both needs and would talk to the county's floodplain management staff on feasibility of proposed approach.

Public Engagement

- CDR Associates provided the SVCC with updates of public comments that were received since the last meeting. Baker is meeting with Apple Valley residents to discuss some issues that were raised about the water table and flood plain through that area.

- When the SVCC approved extending the project by one month there were requests to modify the public engagement plan to ensure residents and property owners stay involved and informed. CDR developed a proposal for public engagement activities in July and August.
- Andrea Meneghel, CDR Associates, reviewed the proposed approach with the SVCC and requested its input on the proposed activities. Julie McKay, Boulder County, emphasized the importance for the public to engage in the process before the recommendations of the plan are developed; she added that it is important for Coalition members to identify the most important meetings and outreach methods they feel would respond to their community needs. CDR requested the following input from the SVCC:
 - Which of the proposed outreach activities will be the most impactful and should be prioritized to be immediately implemented?
 - Are the correct groups and issues identified for potential small group meetings? And, which should be the top priorities?
- SVCC members will review the proposal and provide input by Thursday, July 24. Once it is determined who the SVCC sees as the key groups to immediately engage Baker will determine a timeframe for having relevant data to present to the identified groups.
- It was stated that an opportunity exists to engage property owners along Longmont Dam Road to address the following issues: 1) Road alignment; 2) stream restoration; 3) private access restoration; and 4) how the road's permanent design can support repairs to the creek.

Lyons Flood Recovery Task Force:

- Nathan Werner, S2O Design, stated that property owners along Longmont Dam Road have expressed that stream restoration near Longmont Dam Road is a priority and that rip rap along creek banks is not desired.
- The Lyons Flood Recovery Task Force is considering hiring a natural resources director and is looking into where funding for such a position can be obtained.

OTHER ITEMS

St. Vrain Creek Coalition Updates and Coordination: A Flood Recovery Symposium brought together several coalitions and agencies from different watersheds throughout the state. Several SVCC members attended and reported back on the following key points:

- The Colorado Water Conservation Board and Department of Local Affairs spoke on the importance of the long-term management of watersheds throughout the state and the structure for groups participating in those initiatives. Boulder County's expressed a desire that the SVCC continue to work together beyond the master planning process. If other members agree, it will be important to begin planning and coordinating now.
- A Coalition member expressed that one of the main observations that was expressed is that because there are many different Coalitions that have formed throughout the state in the wake of the September 2013 floods, it is important to remain flexible to meet the specific and unique needs identified in each of the watersheds; each watershed experiences its own issues and has very different groups of stakeholders.

Public Comments: There were no public comments or questions

NEXT STEPS & ACTION ITEMS

- Alternatives will be developed for the master plan's reaches in August.
- Boulder County will submit comments on the Existing Plan Roll-Up to Baker by July 24, 2014, and then the document will be finalized.
- Walsh Environmental will submit to Baker the final field assessment report on July 24, 2014
- SVCC members will review the public engagement proposal and provide input to CDR Associates by 3:00 pm on Thursday, July 24, 2014

MEETING ATTENDEES

	Name	Affiliation
1.	Denise Grimm	Boulder County
2.	Diane Malone	Boulder County
3.	Julie McKay	Boulder County
4.	Stacey Proctor	Boulder County
5.	Andrea Meneghel	CDR Associates
6.	Jeffrey Range	CDR Associates
7.	Ken Huson	City of Longmont
8.	Jeff Crane	Colorado Water Conservation Board
9.	Enessa Janes	Michael Baker Jr., Inc.
10.	David Jula	Michael Baker Jr., Inc.
11.	Scott Shipley	S20 Design and Engineering
12.	Nathan Werner	S20 Design and Engineering
13.	Sean Cronin	St. Vrain Left Hand Water Conservancy District
14.	Jim Blankenship	Town of Lyons
15.	Reed Farr	Town of Lyons

St. Vrain Creek Coalition Status Update Summary – Meeting #7

Date: August 6, 2014

Location: Boulder County Parks and Open Space, Longmont, CO

ST. VRAIN MASTER PLAN STATUS UPDATES

Dave Jula, Michael Baker Jr. Inc. (Baker), provided updates on the following master plan activities.

Supplemental Hydraulic Analysis: At the July 23, 2014 meeting the SVCC discussed potential areas where supplemental hydraulic analysis can be done. In follow up, the project team requested verification from the Coalition that existing CWCB structure survey and post flood LiDAR will be used to extend Longmont's updated St. Vrain model from Hygiene Road to US36. In addition, example structure sizing calculations and procedure to prove no adverse impact will be provided for the Riverside/Raymond area related to private crossings. The Coalition accepted the recommendation

- In context of providing residents and property owners with more information for making long-term decisions, Jeff Crane, Colorado Water Conservation Board (CWCB), indicated that Apple Valley residents need a better sense of what answers can be obtained from the master plan once it will be completed. Apple Valley residents have a need for information in order to make decisions related to long-term reconstruction activities and whether to participate in the property buy-out program. Dave responded that the additional hydrology analysis would not provide this information; however, Julie McKay, Boulder County, encouraged those residents to be in close communications with the Boulder County Flood Rebuilding and Permit Information Center to receive up-to-date information that can help them make decisions about their specific properties. Dave added that additional LiDAR analysis (performed by USACE) is planned for collection in the fall and that data will serve as the basis for future flood hazard analysis.
- It was emphasized that Apple Valley residents need to know the location of the stream through that area. Baker informed the group that the results of the alternatives analysis will be able to provide information. Results will be screened with individual Coalition members as needed and presented to the public as soon as available at the end of August.

Alternatives Analysis Update: Baker is currently in the process of producing drafts of the results of the analysis done on the St. Vrain and what possible alternatives or options can be within each Reach or study segment of the stream. Dave presented a spreadsheet detailing factors that are being identified for ranking purposes as criteria that will be used for refining the alternative concepts based on importance to stakeholders.

- The Coalition emphasized the need to ask for public input before decisions are made. To do so, the alternatives and ranking system must be presented to the public in a way that is easily understood online and in person. Property owners that are directly affected with key decisions within the alternatives must be contacted directly for feedback.
- Property owners and other stakeholders must be informed in a clear way through communications and the project website what the analysis shows/concludes, what choices need

to be made and how they can inform those choices. This process needs to be clarified and explained on the website; doing so now ahead of the release of this information would be helpful.

- The Town of Lyons stated that it would be helpful to see any preliminary information as soon as it is available regarding the alternatives analysis. Dave Jula responded that the alternatives analysis and proposed improvements need to be designed through a Reach-specific upstream process and the project team is meeting with City of Longmont and Boulder County to begin identifying what Reach 1 can look like and will work its way up from there.

PUBLIC ENGAGEMENT

Meetings Held/Attended:

- Baker attended a Boulder County Flood Resiliency meeting in Longmont.
- Baker held a meeting with Apple Valley residents to discuss major issues in that area.

Project Website:

- It was noted that the website needs more, clear information on the ongoing master planning process and about activities that are taking place. Larry Quinn, S. St. Vrain resident, suggested a graphic showing the steps and how each action feeds into the next for developing the master plan.
- The website should also include/provide a clear message that residents, property owners and stakeholder groups will be able to provide input on the conceptual alternatives when the analysis is complete and they will be presented to the public. There will be choices that the public will inform so that an understanding can be determined for identifying solutions that are supported.
- CDR Associates will revise website content.

Upcoming Public Engagement Activities

- A Reach 1 meeting has been scheduled with Longmont and Boulder County, the two largest landowners in that Reach, to discuss channel alignment and determining how to best engage other property owners in that Reach.
- A Reach 3 meeting will be set up to engage private property owners.
- Coordination with the Town of Lyons to identify the immediate needs in their community for engaging and interacting with property owners and key stakeholder groups for Reaches 4 & 5.
- Coordination with Larry Quinn, South St. Vrain resident, to organize a neighborhood meeting for residents along the South St. Vrain. Ernst Strenge, Boulder County Parks and Open Space volunteered to attend this meeting as well.
- A Fish Habitat, Ecology, and Related Issues Meeting with key stakeholder groups such as Trout Unlimited, local fishermen and associated or interested agencies.
- A meeting will be set up to discuss in-stream recreational/whitewater issues through Lyons as they require a focused conversation separate from other recreational features like parks, trails and paths that will be addressed at the community workshops as part of the alternatives analysis.

- It was suggested to meet with stakeholders such as ditch companies before working through alternatives and issues to seek coordinated solutions that are acceptable to those with water rights.

Lyons Flood Recovery Task Force: Scott Shipley, S2O Design and Engineering (S2O), discussed how the task force is mapping existing grants and where they apply along the creek to better identify and prioritize gaps in funding

Public Comments: There were no public comments or questions. Attendees participated throughout the meeting and had their questions answered.

ST. VRAIN CREEK COALITION COORDINATION

CWCB Stream Restoration and Debris Removal Grants:

- Julie McKay provided an update about the CWCB grants awarded last week. Boulder County had ten funded projects, four of which are on the Saint Vrain. These projects will be identified in the Master Plan. Julie McKay, Boulder County, requested a follow up discussion with Jeff Crane, CWCB, to better understand the selection process.
- Stacey Proctor, Boulder County, announced a press release will be issued announcing these projects and that she will be requesting Coalition members review it beforehand.

CDBG-DR Round II Funding: Julie McKay discussed the next round of project funding with the group and stated a longer discussion will need to take place soon to identify priority projects for CDBG funding. Project will need to be identified soon for applications to be written and submitted in November.

St. Vrain Creek Coalition Updates and Coordination:

- Sean Cronin, St. Vrain Left Hand Water Conservancy District, suggested a map should be created of where grant funding has been applied and for what projects. This is something that may be helpful to develop and incorporate into the master plan.
- Jeff Crane, CWCB, requested a list of contacts or key stakeholders be developed to identify who may be interested in participating on more of a citizen-based coalition in the future.

NEXT STEPS & ACTION ITEMS

- The Master Plan's Draft Alternatives will now be referred to differently to make it clear that it is simply the preliminary results of the analysis collected to this point. The goal is to avoid the misunderstanding that decisions may have been made.
- The Colorado Fly Casters have requested an opportunity to speak to the Coalition about a bank stabilization and re-vegetation grant they were awarded that is to be applied through various watersheds/creek corridors. They will attend the next meeting.
- CDR Associates will set up dates and location for specific meetings and work with Coalition members regarding outreach specific to their communities and residents.
- Dave Jula agreed that the team will create a graphic of the master plan process for the website.

MEETING ATTENDEES

	Name	Affiliation
1.	Denise Grimm (Phone)	Boulder County
2.	Diane Malone	Boulder County
3.	Ernst Strenge	Boulder County
4.	Jeff Moline	Boulder County
5.	Julie McKay	Boulder County
6.	Stacey Proctor	Boulder County
7.	Andrea Meneghel	CDR Associates
8.	Jeffrey Range	CDR Associates
9.	Lieschen Gargano	CDR Associates
10.	Ken Huson	City of Longmont
11.	Jeff Crane	Colorado Water Conservation Board
12.	David Jula	Michael Baker Jr., Inc.
13.	Boyd Beylich	Natural Resource Conservation Service
14.	Barb Brunk	Property Owner
15.	Scott Shipley	S20 Design and Engineering
16.	Larry Quinn	South St. Vrain Resident
17.	Sean Cronin	St. Vrain Left Hand Water Conservancy District
18.	Jim Blankenship	Town of Lyons
19.	Reed Farr	Town of Lyons

St. Vrain Creek Coalition Status Update Summary

Date: August 20, 2014

Location: Online web-conference and conference call

ST. VRAIN MASTER PLAN STATUS UPDATES

Dave Jula, Michael Baker Jr. Inc. (Baker) provided updates on the following master plan activities.

Project Scope, Schedule, and Budget: Baker and Boulder County updated the project schedule and milestones. Baker will manage the schedule and provide an updated version to SVCC members.

Supplemental Hydraulic Analysis:

- Anderson Consulting is working on modelling Reach 3. Their modelling will tie into Longmont's model.
- The breach upstream of CEMEX requires some surveying.
- Raymond/Riverside crossings and property accesses will be analyzed.
- Identified flood hazards will be in the exhibits section of the final master plan, not the Alternatives Analysis.
- Prepare for how results from the hydraulic analysis can be communicated to the public and how that data informs updated floodplain mapping.
- This information should be coordinated with Boulder County, Town of Lyons and City of Longmont flood recovery maps.

Alternatives Update

- Dave Jula reviewed the Alternatives Matrix Evaluation Criteria; it will be sent to the Coalition for feedback. It was agreed that all reaches will utilize the same list of criteria and those that aren't pertinent to that reach will be designated as N/A.
- Baker is working its way upstream for defining and displaying the alternatives analysis results. Dave provided an example of the Reach 1 alternative based on analysis results.

Public Engagement

- CDR Associates provided the SVCC with updates of meetings that have been scheduled with local stakeholders as well as the community workshops.
- CDR Associates revised the St. Vrain Master Plan website based on input provided at the last meeting and developed content for a Frequently Asked Questions document available on the website that provides key information regarding the master plan. CDR will send the FAQ's document and updated schedule to the SVCC.
- Stacey Proctor, Boulder County, provided an update regarding the Boulder County Flood Recovery Expo. Attendees that signed up for St. Vrain Master Plan updates have been shared with the project team and have been added to the mailing list.

OTHER ITEMS AND COMMENTS

Master Plan Format and Content: The master plan should include user-friendly non-technical terminology and simplify the language where possible. A glossary of terms will be included in the master plan.

CDBG Funding: Boulder County is working through the funding application process and will coordinate the Coalition for that effort.

Property Ownership on Mapping Exhibits: Julie McKay, Boulder County, requested that property ownership be shown on all map exhibits. Dave Jula confirmed baker would look into doing so, but cautioned that maps may not be as readable due to crowding.

Public Comments:

- Susan Suskiewich expressed interest in attending the upcoming meeting in Lyons to discuss fishing issues. She also asked about the process for when property owners will be able to review the alternatives analysis and provide comment. It was explained that comment can be provided directly to the project team at any time through the website or by calling the hotline. It was also communicated that the community workshops are occurring in mid-September, but if she would like a small group meeting for her neighbors that the project team is available. She will follow up with CDR Associates.

NEXT STEPS & ACTION ITEMS

- The alternatives analysis is being prepared for release at the end of August.
- The supplemental hydraulics analysis will be conducted.
- The draft master plan is being developed.

Scheduled Meetings

- 8/27 Key Stakeholder Meeting: Fish Habitat, Use and Related Issues
- 8/27 South St. Vrain Property Owners
- 8/28 In-Stream Recreational Use Through Lyons
- 9/15 Reach 1 & 2 Community Workshops
- 9/18 Reach 4 & 5 Community Workshop
- 9/22 Reach 6 & 7 Community Workshop
- 9/24 Reach 3 Community Workshop

MEETING PARTICIPANTS

	Name	Affiliation
1.	Nancy McIntyre	
2.	Diane Malone	Boulder County
3.	Julie McKay	Boulder County

4.	Stacey Proctor	Boulder County
5.	Andrea Meneghel	CDR Associates
6.	Ken Huson	City of Longmont
7.	Brandon Krueger	FEMA
8.	Sue Suskiewich	Longmont Dam Road Property Owner
9.	David Jula	Michael Baker Jr., Inc.
10.	Lucas Babbitt	Michael Baker Jr., Inc.
11.	Joni Burr	Natural Resources Conservation Service
12.	Nathan Werner	S20 Design and Engineering
13.	Sean Cronin	St. Vrain Left Hand Water Conservancy District

St. Vrain Creek Coalition Meeting Summary

Date: September 3, 2014

Location: Boulder County Parks and Open Space, Longmont, CO

ST. VRAIN CREEK COALITION COORDINATION AND UPDATES

Julie McKay, Boulder County, provided an overview of efforts being coordinated across the multiple watersheds Boulder County is creating master plans for and discussed post-master plan activities. She provided a presentation that summarizes key points; that presentation can be found on the St. Vrain Master Plan website at <http://tiny.cc/stvraincreek>. Boulder County's presentation was distributed to the Coalition members for re-distribution to their respective entities.

To find information about what is being accomplished in the various watersheds across Boulder County, please visit <http://www.bouldercounty.org/flood/property/pages/creeks.aspx>

This discussion was an opportunity to further define the St. Vrain Creek Coalition's purpose for future efforts. Currently the Coalition is focused on completing the master plan and identifying projects that can be proposed for funding.

The Colorado Water Conservation Board (CWCB) supports using watershed coalitions to collaboratively identify and fund projects through.

Projects on Public/Private Lands:

- Boulder County sought to determine its appropriate role for coordinating efforts for identify projects on public or private lands.
- There has been a wide range of project ideas proposed by many stakeholders that have been involved thus far in the recovery of the St. Vrain.
- Future projects will be identified in the master plan and further defined through on-going Coalition efforts.
- Boulder County seeks to help stakeholders in the watershed pursue grant/funding opportunities for recovery projects; this includes identifying ways in which private property owners can participate along with agencies and local governments.
- Boulder County is interested in supporting a participatory process through the Coalition structure to work closely with neighborhoods and land owners.

Other Local Government Efforts:

- There is also another regional local governments group that is working with State agencies to look at coalition recommendations for projects to be funded through Community Development Block Grants. This group includes Town of Lyons, City of Longmont, Boulder County, Jamestown, the City of Lafayette and others.

- Boulder County will coordinate with the Town of Lyons and City of Longmont to present the master plan to their respective town, city and county managers through a joint study session. They will determine the best method for adopting the master plan and how to best participate in the future Coalition efforts.
- It is anticipated there will be CWCB funding available for future watershed coordination efforts and staff.

SVCC Input and Comments

- Agricultural property owners and ditch companies should be engaged as part of the on-going Coalition effort outside of the master planning process. These stakeholders should be part of the coordinated effort to pursue the next round of state funding.
- It is very important that future Coalition efforts be focused on “creek recovery efforts related to the flood”. There was some concern expressed that if the purpose isn’t clear and focused, the Coalition could become distracted and begin to deal with unrelated watershed-wide issues. Keeping a very specific focus on flood recovery efforts will allow the Coalition to maximize its efforts for seeking future funding which should be defined as one of the highest priorities of the group.
- Coalition members agreed it will be helpful to have more conversations about the on-going future efforts and make-up of the group.
- It was suggested that an outcome of the master planning process could be that the SVCC continue to work on a recommendation for its next steps about who is included, its purpose and what they seek to accomplish.
- Julie McKay will set up follow up meetings in the coming weeks to continue the discussion amongst the current Coalition members and others identified through the Community Workshops that would like to be involved.
- Members of the public will have the opportunity to sign up for participating in the Coalition if they are interested. Boulder County will staff and host a table at each of the upcoming Community Workshops to inform and recruit people for this effort.

ALTERNATIVES ANALYSIS REPORT

Dave Jula and Lucas Babbitt, Michael Baker Jr. Inc., presented and reviewed the draft alternatives analysis results. The objective was to present the SVCC with a high-level overview to understand if there were any glaring errors, inconsistencies or objections to releasing the report to the broader public within a few days.

- The SVCC provided input to the Baker team on various refinements that they suggested should be made before issuing the report.
- Coalition members will have until 9/26 to conduct more detailed technical review and provide Baker with input on the alternatives analysis prior to it being adopted into the Draft Master Plan. The Coalition was given until the end of the day to provide additional comments.

- Baker collected comments for revisions that needed to be made prior to public release, will revise the Draft Alternatives Analysis Report accordingly and release the report on either Friday, September 5 or Monday, September 8.
- The Draft Alternatives Analysis Report can be found: https://projects.mbakercorp.com/stvraincreekmp/Public%20Documents/Master%20Plan%20Documents/2014_09_05%20St.%20Vrain%20Creek%20Alternatives%20Analysis%20Report_DRAFT.pdf

NEXT STEPS & ACTION ITEMS

- Julie McKay, Boulder County, is revising the presentation on the future of the Coalition and will have it distributed to SVCC members and posted on the St. Vrain Master Plan website.
- Julie McKay, Boulder County, will schedule another meeting with Coalition members to discuss the future of the group. She will also schedule another meeting subsequent to that conversation inviting a broader group of stakeholders to discuss the Coalition’s future and understand how property owners, county residents and other stakeholders would like to participate in future efforts focused on creek recovery within the watershed.
- The Baker team will address SVCC comments about edits that need to occur to the Draft Alternatives Analysis report prior to its public release.
- The Draft Alternatives Analysis Report will be released to the public on Friday 9/5 or Monday 9/8, depending on how quickly the project team can address SVCC comments.
- Comment period and technical review of the Draft Alternatives Analysis Report will be open to the SVCC until 9/26; public comments are due 10/3.
- The project team will be preparing for the Community Workshops beginning the Week of 9/15.

MEETING PARTICIPANTS

	Name	Affiliation
1.	David Batts (Phone)	Lyons Flood Recovery Task Force and Ecology Board
2.	Reed Farr	Town of Lyons
3.	Brad Schol	City of Longmont
4.	Bridgette McCarthy	Boulder County
5.	Mike Thomas	Boulder County
6.	Jeff Crane	Colorado Water Conservation Board
7.	Ernst Strenge	Boulder County
8.	Diane Malone	Boulder County
9.	Julie McKay	Boulder County
10.	Bryan Harding	Boulder County
11.	Barb Brunk	Public Participant
12.	Scott Shipley	S20 Design and Engineering
13.	Sally Collins	Lyons Flood recovery Task Force
14.	Dan Cenderelli	U.S. Forest Service

15.	Andrea Meneghel	CDR Associates
16.	Ken Huson	City of Longmont
17.	David Jula	Michael Baker Jr., Inc.
18.	Lucas Babbitt	Michael Baker Jr., Inc.
19.	Nathan Werner	S20 Design and Engineering
20.	Sean Cronin	St. Vrain Left Hand Water Conservancy District

St. Vrain Creek Coalition Meeting Summary

Date: October 15, 2014 **Location:** City of Longmont Public Works, Longmont, CO

ST. VRAIN CREEK COALITION COORDINATION AND UPDATES

Lucas Babbitt, Michael Baker Jr. Inc. (Baker), reviewed the project schedule and budget.

Project Schedule: The project schedule had been revised to propose the following dates.

- Reach Costs – Week of 10/31
- Draft St. Vrain Master Plan – 11/6/14
- Final St. Vrain Master Plan – 11/20/14
- Final Public Meeting – Week of 11/20/14

Cost Estimates

- Julie McKay, Boulder County, requested project-related cost estimates. Lucas Babbitt, Baker, stated “planning level” costs will be developed for each Reach based on conceptual designs.
- It was suggested that a disclaimer be added to the master plan that costs further evolve once you get into actual project design phase.
- Dan Cenderelli, U.S. Forest Service, mentioned that it should also be understood costs analysis and conceptual design are also subject to further evaluation and could change based on National Environmental Policy Act studies that could be required for implementation within the watershed. It was noted that a contingency for permitting cost will be provided as a part of the overall cost estimate for each reach. This contingency could possibly be used for future NEPA studies.

ALTERNATIVES ANALYSIS REPORT

Lucas Babbitt, Michael Baker Jr. Inc., presented and reviewed the draft alternatives analysis results. Lucas briefed the St. Vrain Creek Coalition (SVCC) on Baker’s activities to work through the comments received on the alternatives analysis and posed a series of questions to the SVCC for further discussion.

St. Vrain Master Plan:

- Boulder County expressed the following:
 - An updated revision will describe how SVCC comments and input has been incorporated. Include an explanation about how it has been responsive to input collected and show how that input has influenced recommendations.
 - Costs are important.
 - There is a need to have more information that backs up the recommendations.
 - The deadlines for delivering the master plan need to be met.
- It was suggested hard copies of the Draft Master Plan are placed in public places and communicated that the public can review it at those locations.

- An explanation should be included that states that the alignments go through further definition and design that will involve property owners. Indicate there will be processes for next steps.
- There will be next steps and ways for stakeholders to become involved further and there will be more detailed technical analysis conducted.
- An SVCC member clarified that what has been identified thus far in the alternatives analysis report has general support; but there needs to be more information for the SVCC to be in full support of what will ultimately be implemented throughout the watershed.

Reach 3 – Flood Control Alternative:

- The analysis should show all alternatives that have been considered and that flood control had been evaluated.
- Follow up work will further define what alternatives need. Site specific revisions will be developed based on needs.
- Lucas Babbitt will follow up with the City of Longmont and Boulder County. A meeting has been scheduled to further coordinate efforts for this reach.

Addressing Comments That Change Alternatives:

- SVCC direction was to provide explanation why some comments received don't make sense for changing alternatives.
- Show you've considered input and explain what the response is.

State Highway 7 (SH 7) Coordination

- There are opportunities to have conversations with the Colorado Department of Transportation about solutions that should be had about future repairs to SH 7.

Channel Alignment Questions

- The St. Vrain Master Plan defines preliminary and conceptual channel alignments. Additional detail will be provided in the final phase, but will require further evaluation as subsequent design phases commence. This needs to be clear throughout the master plan.
- Easements and right of way needs will be further defined as additional design and detailed analysis is conducted.
- These points need to be included in the following areas of the master plan:
 - Elaborate on this in the Introduction and Executive Summary.
 - Note on all maps.
- There needs to be a "planning recommendation" for moving forward with an alignment that can be expected.
- A framework for making further decisions should be clarified. It should be explained what kind of additional data is needed for which decisions.

Alternatives Scoring & Weighting

- It was suggested to clarify that alternatives were not weighted.
- The draft alternatives report wasn't clear on how scoring was determined where criteria for alternatives received the scores of 1 or 2. It wasn't clear what a score represented or how it was determined to receive that score.
- It was suggested the scoring determinations be explained or clarified in the Draft Master Plan. Boulder County suggested more narrative be added about the justifications.
- A rationale should be included for specific reach recommendations.

PUBLIC ENGAGEMENT

Andrea Meneghel, CDR Associates, debriefed the St. Vrain Watershed Community Workshops and what was heard from the public with the SVCC. The input that was collected has been summarized and will be posted on the website. The summary of public input will also be included as an appendix in the St. Vrain Master Plan.

Comments and Input

As a response to the input obtained, SVCC had the following comments:

- In Reach 1 options will be further evaluated.
- In Reaches 2 and 3 there will be a variety of restoration and recovery projects occurring in many areas around the recommended channel alignments.
- In Reaches 4a and 4b more analysis and additional studies are needed. For purposes of the master plan, these areas should be identified as needing to bring stakeholders together for much more concentrated design efforts. There is Colorado Water Conservation Board funding available for additional design work to occur that will need more public input.
- Overall, project types will need to identify who needs to be involved per the multiple benefits that a project has. The Draft Master Plan will be a tool that identifies the key areas where projects are needed and where the collaboration needs to occur.
- Plans for McConnell Ponds are consistent with how the public commented. A Town of Lyons analysis memo for McConnell Ponds is being developed to reflect the input received to date.
- Because no direct comments were provided on Reach 5, SVCC members will provide input based on conversations they've had and what they heard at public meetings.
- CDOT is planning to improve SH 7 and will rely on information being documented in the St. Vrain Master Plan.
- Julie McKay requested that a "Recommendation to Transportation Agencies" be included in the master plan.
- While debris removal was an issue throughout the watershed, those woody materials shouldn't be taken out where it can be used for recovery and mitigation. The natural materials should be utilized for structures and other mitigation devices/features.

MEETING PARTICIPANTS

	Name	Affiliation
1.	Diane Malone	Boulder County
2.	Ernst Strenge	Boulder County
3.	Julie McKay	Boulder County
4.	Stacey Proctor	Boulder County
5.	Andrea Meneghel	CDR Associates
6.	Ken Huson	City of Longmont
7.	Attendee	Federal Emergency Management Agency
8.	David Jula (Phone)	Michael Baker Jr., Inc.
9.	Lucas Babbitt	Michael Baker Jr., Inc.
10.	Don Moore	Office of Emergency Management
11.	Barb Brunk	Public Participant
12.	Nathan Werner	S20 Design and Engineering
13.	Scott Shipley	S20 Design and Engineering
14.	Larry Quinn	South St. Vrain Property Owner
15.	Jim Blankenship	Town of Lyons
16.	Reed Farr	Town of Lyons
17.	Dan Cenderelli	U.S. Forest Service
18.	Joni Burr	U.S. Natural Resources Conservation Services

APPENDIX A
PROJECT CORRESPONDENCE
(PUBLIC MEETINGS)

St. Vrain Creek Watershed Master Plan Kick-off Community Meetings

June 16, 2014 - Rogers Hall, Lyons, CO

June 19, 2014 - Boulder County Fairgrounds, Longmont, CO

ST. VRAIN CREEK WATERSHED MASTER PLAN KICK-OFF COMMUNITY MEETINGS

The purpose of the St. Vrain Creek Watershed Master Plan Kick-off Community Meetings was to announce the beginning of the master planning process, to inform the public on what flood recovery issues will be addressed by the master plan and to let the public know how they can provide input. The meetings were intended to attract individuals from all reaches of the watershed.

Format: Opening open house discussions with the St. Vrain Creek Coalition (SVCC) members; Project Team presentation followed by a large group discussion and question and answer session; neighborhood-based small group break out discussions and opportunity for attendees to sign up for Reach-specific meetings.

SUMMARY OF PUBLIC INPUT

Key Messages throughout the Watershed: General points of emphasis and messages heard at both meetings includes the following:

- The most important elements for the St. Vrain's recovery are to address solutions for rebuilding bridges and dams to withstand future floods.
- Identifying flood mitigation and safety features to reduce risk were critical throughout the watershed.
- Identifying the St. Vrain's channel alignment is one of the most important outcomes that the master plan can provide for creek recovery and the decisions private property owners need to make.
- Participants sought information about what the master plan will resolve, what answers or guiding recommendations it will provide and what specific information/data will be produced.

Key issues – Lyons Meeting: Participants at the Lyons meeting focused on the following:

- Identifying the channel alignment is a key project goal.
- Promote natural channel design throughout the watershed where possible.
- Significant emphasis on the importance of habitat restoration and re-vegetation.
- There is a critical need for identifying infrastructure improvements and safety features.
- There is a critical need to address bridge and dam repairs and capacities.
- Identification of solutions related to Open Space properties.
- The St. Vrain is an important asset to the Town of Lyons from a recreational, economic and cultural perspective; it needs to be restored to promote and maintain these aspects for the community.

- Site-specific solutions and recommendations were suggested to be developed for Red Gulch, the Andesite Quarry area and McConnell Ponds.

Key issues – Longmont Meeting: Participants at the Longmont meeting focused on the following:

- Flood mitigation strategies and needed infrastructure must be identified to reduce the risk of future flooding.
- Natural channel design was supported to the greatest extent possible.
- Habitat restoration, re-vegetation and promoting strategies that lead to a healthy watershed are important.
- Bank stabilization is needed throughout the watershed. Areas where that needs to happen need to be identified and the appropriate mitigations/improvements recommendations are needed.
- Recreation throughout the St. Vrain corridor is important to be taken into consideration as solutions are developed.

Other points of public input provided during the project initiation phase: Public input provided to the project team through the website, email address, hotline and in one-on-one interactions with residents throughout the watershed included the following key themes:

- Identifying the channel alignment throughout the Lyons reaches is paramount for determining other priorities, choices and allowing for private property owners to make recovery-related decisions. This is also a very important issue to address for project prioritization of the local government agencies and associated community groups such as the volunteer-based Lyons Flood Recovery Task Force for identifying infrastructure improvement projects being developed for grant opportunities.
- Many contacts continually expressed their support for the goals, objectives and proposed projects documented in the Lyons Recovery Action Plan's Project Development Guides.
- Property owners and residents continually provided information about the impacts experienced to their specific properties.
- South St. Vrain residents were engaged throughout the process and interacted with the project team on several occasions to highlight the impacts experienced during the flood and provided ideas about potential solutions to mitigate storm flows, bridge capacities and detention strategies.
- Apple Valley residents were engaged throughout the process, provided information about impacts throughout their area and sought information for understanding where the creek channel and flood plain will be. They continually expressed the importance of obtaining this information for informing their rebuilding and recovery decisions.
- North St. Vrain residents placed significant importance on identifying the permanent channel and road alignments for making informed decisions regarding their permanent private property repairs.

- In-stream safety concerns regarding recreational use through Lyons were expressed by members of the kayak community.
- Creek stabilization solutions are needed throughout the Raymond/Riverside area.
- Property owners and residents throughout the watershed suggested identifying where new opportunities exist for alternative land uses that could lead to future recreational, economic or other community benefits
- Throughout the planning process numerous citizens, private property owners and representatives from key stakeholder or advocacy groups expressed interest in being part of the on-going effort to participate in a “grassroots” coalition that is focused on promoting the long-term sustainability of the St. Vrain and problem solving around key issues. Representatives from Boulder County, the Colorado Water Conservation Board and various organizations are committed to continuing to meet after the master planning process is complete. On-going collaboration efforts will begin to be conceptualized and supported during the development of the master plan. The project team is identifying key contacts and champions that have emerged through the public engagement process, informing those people of the opportunity to continue to participate and helping coordinating agencies to stay in communication with these contacts. Boulder County and CWCB will coordinate with each other and the project team to identify how the Coalition will be organized, who is interested in participating, what the roles of agencies and participants should be and what the key focus and purpose of the group is to be.

LYONS MEETING - LARGE GROUP DISCUSSION QUESTIONS

Following the presentation, the Project Team responded to the following questions which were asked by the audience and had a large group discussion about these issues:

Alternatives

- How will flood mitigation be incorporated into the master plan?
- How will alternatives address mudslides and erosion be addressed?
- What will be done to address rebuilding bridges and at what capacities?
- What will be done to restore riverbanks?
- What are the plans for addressing safety hazards such as damaged dams located in in-stream whitewater recreation areas?
- How will the master plan address habitat restoration and wildlife passage?
- Are irrigation diversions being considered?
- How will strategies such as water flow/regional detention be addressed in the master plan?
- What kind of event is being planned for? Will solutions be developed to address a 100-year flood?

Master Plan Information

- When are St. Vrain Creek Coalition meetings? What is their purpose and what will they focus on?

- How is the Boulder County Parks and Open Space involved in the master plan?
- Will funding sources for private property rebuilding be identified in the master plan?

St. Vrain Creek Channel Alignment

- Where will the creek channel be aligned?
- Who makes the decision on channel alignment?
- What will the channel alignment be at McConnell Bridge?

Data and Information

- What is the accuracy of drawings and data used for planning? We've seen multiple versions of plans and want to know where to go for the most accurate information?
- Is the master plan using current data and conditions? Or only forecasting for future conditions?

Study Timeline and Timeframes for Other Information

- What is the timeframe for completing the master plan? And how far out does it look regarding a planning horizon, 10 years, 20 years, 30 years?
- When will a base floodplain be established?
- What is the timeline for determining a channel alignment?
- What is the timeline for re-paving Riverside Road?

Site Specific

- What will be the location of McConnell Ponds?
- Can you provide information on the Andesite mine and its feasibility study?
- What will happen with Red Gulch and its drainages?

General Information

- How many CFS of water were there during the flood?
- What is the difference between a floodway and a floodplain?
- What is the status of the private property buy-out program?
- How will you address debris on public land? Will it be removed or remain? Is it permissible to remove debris from public space?
- How will wells be restored?

LYONS MEETING - REACH-SPECIFIC SMALL GROUP TABLES FOR ADDITIONAL DISCUSSION, INPUT AND TO IDENTIFY INTEREST IN ON-GOING INVOLVEMENT

Following the presentation and large group discussion, attendees broke into small groups that were organized by Reach. The purpose of the small group tables was to (1) sign individuals up for upcoming Reach-specific community workshops, (2) identify which issues were most important for each Reach, (3) answer any outstanding questions participants had, or (4) collect additional input that participants wanted to provide. Key issues of interest and points of input identified by Reach included the following:

Reach 1 & 2:

- Improve safety near broken or damaged dams.
- Use natural river stone in future projects.
- Rebuild bike paths.
- Interested in discussing the inclusion of a water park.
- Exposed pipes across St. Vrain and Left Hand at Boston are dangerous.

Reach 3

- No comments were received for Reach 3

Reach 4 & 5 Many of these topics were mentioned multiple times.

Specific Geographic Locations of Interest

- | | |
|---|--|
| <ul style="list-style-type: none"> • Boulder County Open Space • Solutions proposed for Apple Valley • Meadow Park • The October Hole • Permanent repairs on 2nd Ave. Bridge • River restoration at confluence of North and South St. Vrain by Bohn Park | <ul style="list-style-type: none"> • Looking at the how the river is constricted on the sharp curve on the North St. Vrain • McConnell Ponds were mentioned numerous times. • Andesite Mine • Arc Bridge • Red Gulch • Flint Gulch |
|---|--|

Key Issues or Topics of Interest

- | | |
|--|---|
| <ul style="list-style-type: none"> • Channel location and the alignment of the creek • Remapping the floodplain • Riparian restoration • Safety regarding dams and rebar • Debris and debris removal • Safety of residents • Repairing bridges and the related capacities | <ul style="list-style-type: none"> • How the river relates to the surrounding community • Bank stabilization • Recreation • New alternatives regarding zoning or land use • Access to irrigation and what will occur regarding ditch diversions • Flood response/evacuation |
|--|---|

Data or Information Needed

- How the FEMA buy-out program impacts the floodway/floodplain
- Permanently rebuilding the roads and the proposed elevation.

- Establishing or understanding a new water table
- Property rebuilding and permitting; address or define rules for septic tanks
- Understand what high water levels will do

Strategies, Suggestions and Additional Input

- Promote natural channel design as much as possible; leave natural river rock in the habitat
- Include measures in the master plan to address extreme weather related to climate change
- Address damage to concrete structures
- Address safety hazards due to sediment movement and new creek bed elevations

Reach 6 & 7

- Creek channel alignment and elevation
- Bridges, dams and culverts
- Restore private property accesses
- Flood mitigation and stream restoration
- Buy-out program

LONGMONT MEETING - LARGE GROUP DISCUSSION

Following the presentation, the Project Team responded to the following questions which were asked by the audience and had a large group discussion about these issues:

What Elements Will Be Considered for Developing Alternatives

- How will you determine how the channel will be realigned and where will that alignment be?
- Are retention/detention ponds possible solutions for flood mitigations?
- How will in-stream river safety be addressed? How will overall community safety be addressed?
- Will the master plan establish debris mitigation measures?
- Will the master plan consider water quality and river cleanliness?
- What will be done to address erosion?
- How will the master plan consider dams and ditches?

Master Plan Information

- What are the different components of the master plan document?
- Will the master plan include a section on volunteers and volunteerism?
- What is the vision for the funding of master plan projects?
- How will decision making include private property owners?
- How will the project team coordinate with what's being done to repair transportation infrastructure?

Site Specific

- Was Button Rock Reservoir at risk of failure?

LONGMONT MEETING - REACH-SPECIFIC SMALL GROUP TABLES FOR ADDITIONAL DISCUSSION, INPUT AND TO IDENTIFY INTEREST IN ON-GOING INVOLVEMENT

Following the presentation and large group discussion, attendees broke into small groups that were organized by Reach. The purpose of the small group tables was to (1) sign individuals up for upcoming Reach-specific community workshops, (2) identify which issues were most important for each Reach, (3) answer any outstanding questions participants had, or (4) collect additional input that participants wanted to provide. Key issues of interest and points of input identified by Reach included the following:

Reach 1 & 2:

- No comments were received for Reaches 1 & 2

Reach 3

- Promote natural channel design
- Habitat Restoration
- Fish passage
- Diversions and safety measures
- Flow metering, low flows and how levels will be determined
- Restoration of open space
- Flood mitigation

Reach 4 & 5

- Creek alignment
- Natural channel design
- Bank stabilization
- Debris mitigation and removal
- Diversions
- Habitat restoration
- Recreation
- McConnell Ponds restoration

Reach 6 & 7

- Recreation
- Natural channel design
- Habitat restoration
- Bank stabilization



Saint Vrain Creek

Watershed Master Planning



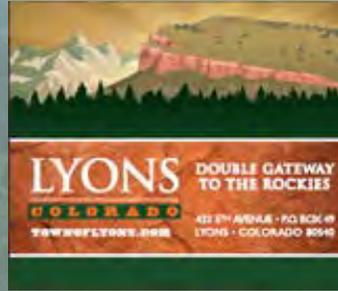
**St. Vrain Creek Coalition
Community Meeting
Lyons, CO
6/16/14**



Community Meeting Purpose

- ◆ **Begin involving you in the process to develop a master plan for long-term creek recovery.**
- ◆ **Identify what creek recovery issues will be addressed by the master plan.**
- ◆ **Identify where you can be involved in the planning process this summer/fall.**

St. Vrain Creek Coalition Members



Flood Recovery

Ongoing Recovery/Community Engagement/Site Specific Local Planning



**Emergency
Response**



**Imminent Threat
Assessment and
Mitigation**



**Long-Term Vision
for Watershed**

**St. Vrain
Watershed
Master Plan**

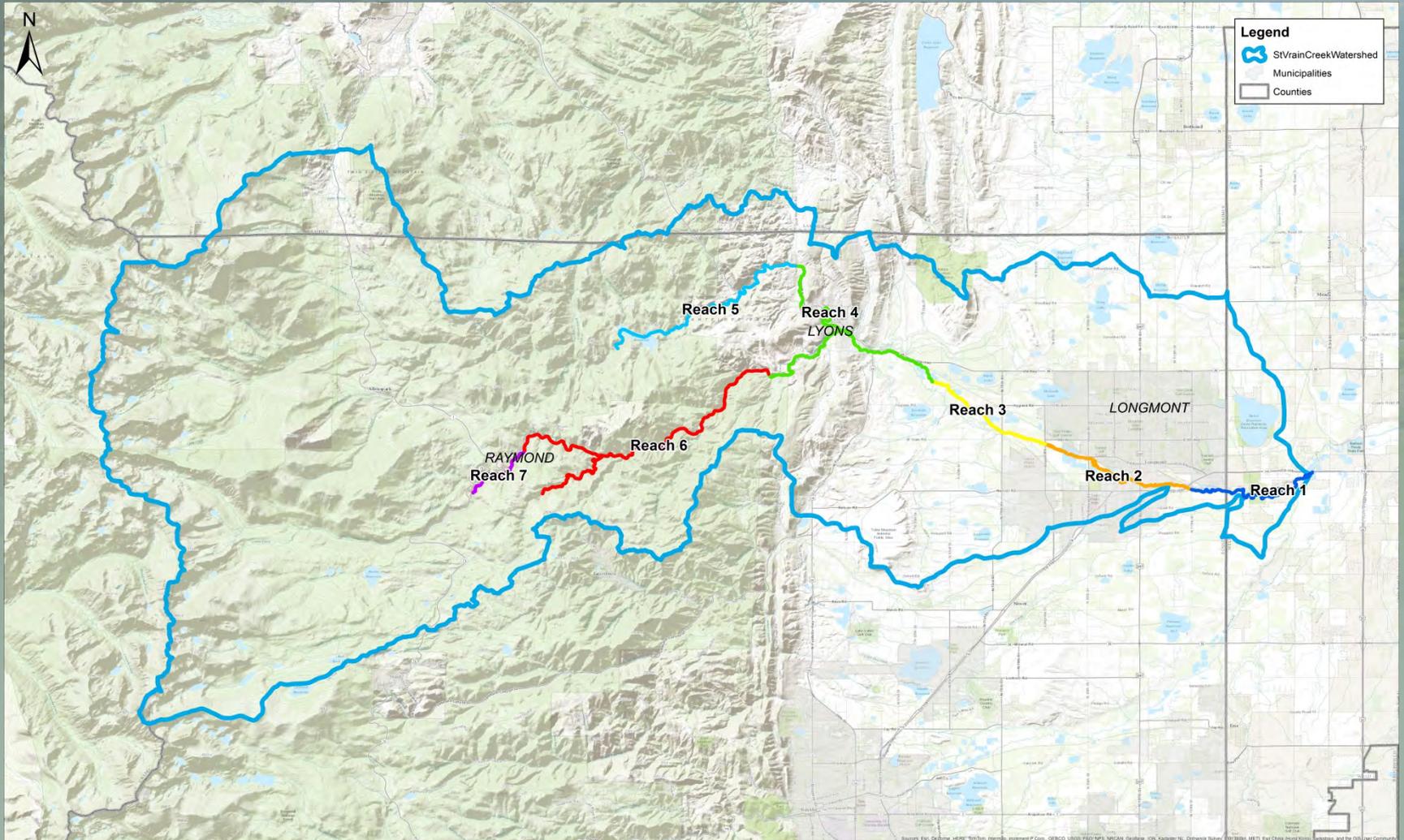


**Future Creek
Projects**

**Funding
and
Implementation**

Watershed Study Area

💧 546 sq. miles, ~54 miles of creek



St. Vrain Master Plan

The St. Vrain Master Plan will:

- ◆ **Establish a Long-Term, Holistic Vision for a Sustainable Watershed**
- ◆ **Involve public, property owners and local decision makers**
- ◆ **Watershed-wide Field Assessment of Post-Flood Conditions**
- ◆ **Identify Flood Hazards and where Data Gaps exist**
- ◆ **Identify Projects throughout Watershed that meet Long-Term Recovery needs**

St. Vrain Master Plan

The St. Vrain Master Plan will not:

- ◆ Change Local Policies and Procedures related to Project Implementation**
- ◆ Override Existing Management Plans**
- ◆ Be Implemented until Project Funding becomes available**
- ◆ Update FEMA Maps and affect Flood Insurance**

Project Themes

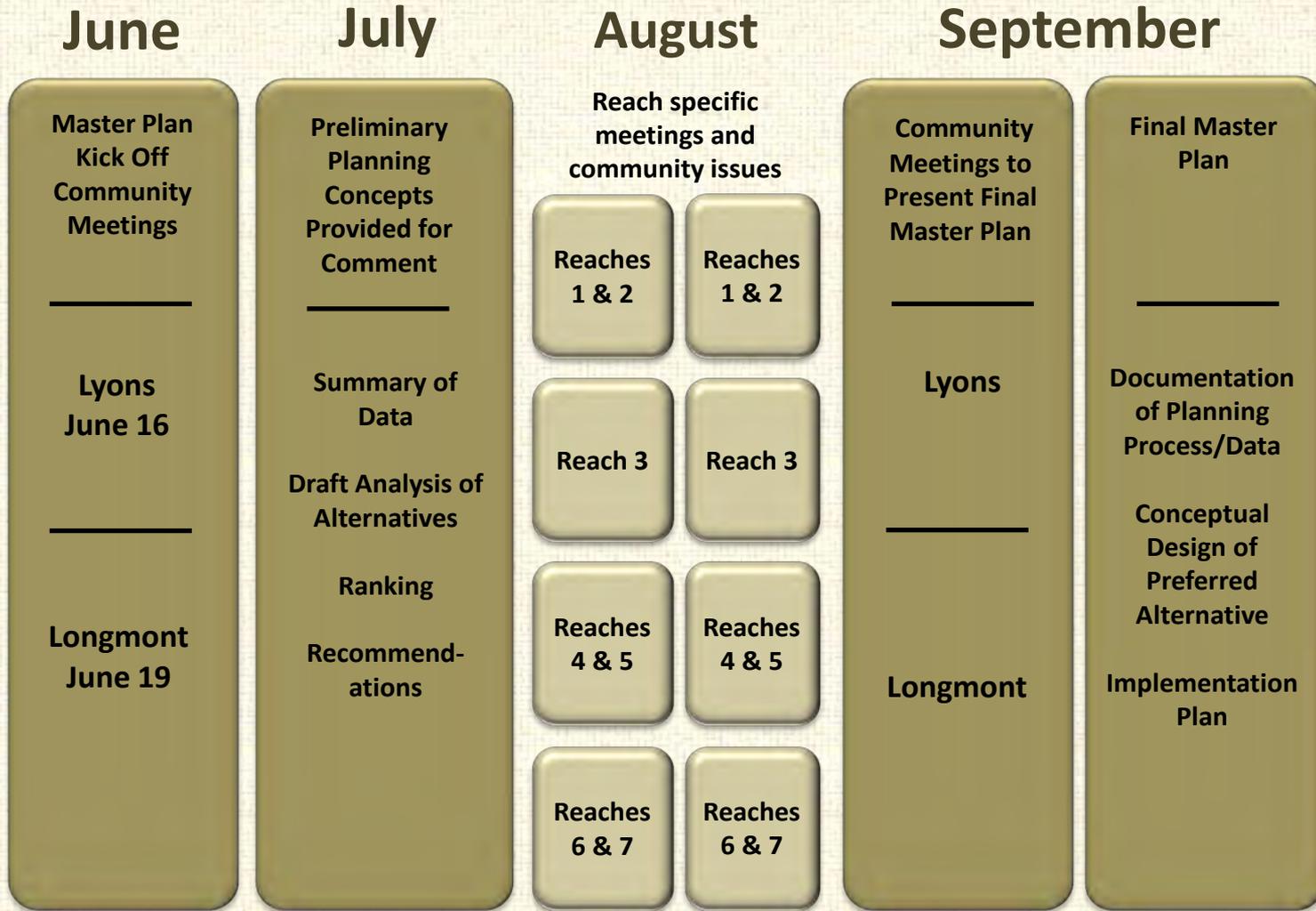
- 💧 **Stream Hydrology and Stability**
- 💧 **Community Recovery and Resiliency**
- 💧 **Flood Mitigation and Hazard Risk Reduction**
- 💧 **Physical and Structural Protection**
- 💧 **Recreation**
- 💧 **Biological and Environmental**

Public Process

Post Flood Activities

SVCC MEETINGS, WEBSITE COMMENTS, EMAIL, PHONE CALLS

DATA COLLECTION



Data Collection

- St. Vrain Creek Coalition Interviews

- Public input is critical

- Pre- and Post-Flood LiDAR topographic data

- Changes since Post-Flood was flown

- Draft Hydrology

- CWCB/CDOT

- Hydraulic Modeling

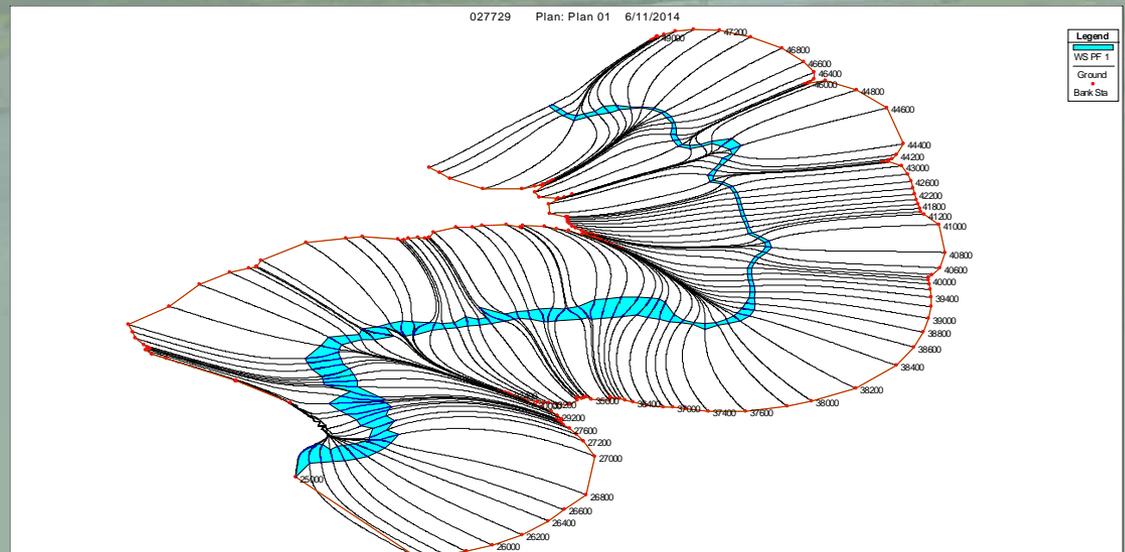
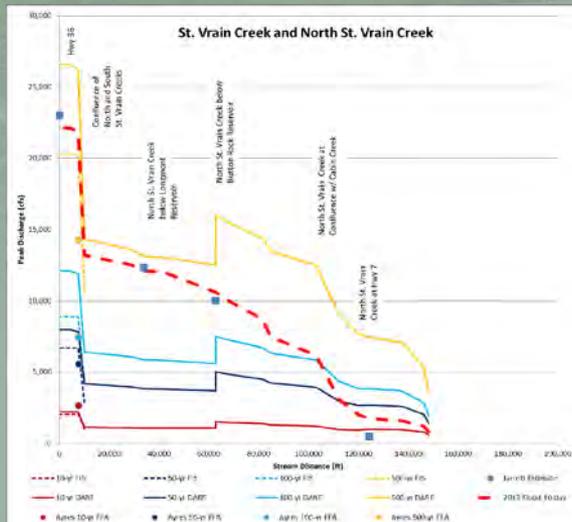
- 7 sources ranging from 1972 USACE study to Post-Flood Recovery Mapping

- GIS Layers

- Pre- and Post-Flood Aerials

- NRCS sites

- Irrigation Diversion Inventory



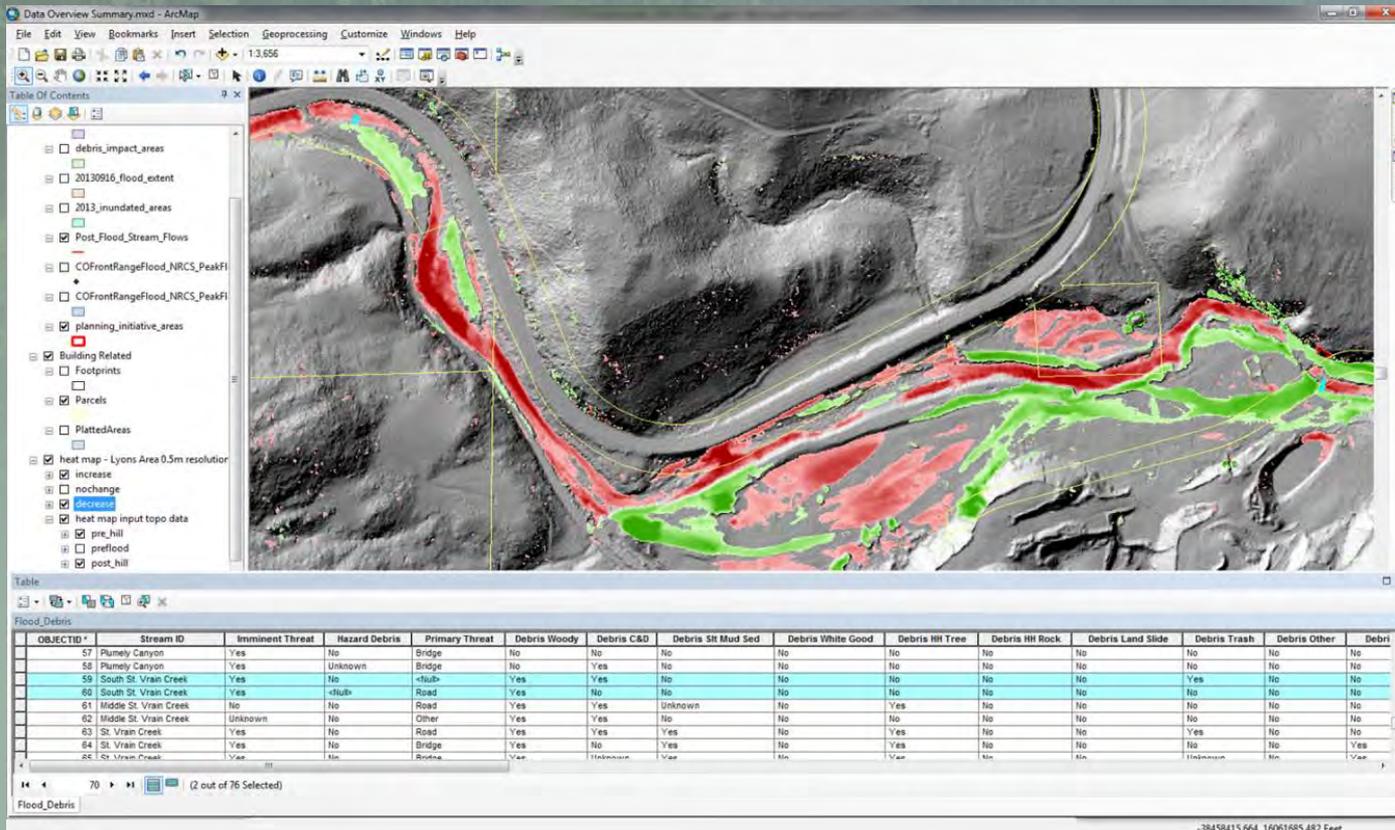
Existing Plans

Almost 40 Plans collected and evaluated to date:

- ◆ Recovery Action Plan - Colorado Floods of 2013
- ◆ St. Vrain Creek Riparian Corridor Protection Plan
- ◆ St. Vrain Creek Greenway Master Plan - East Corridor Update
- ◆ Parks, Recreation, and Trails Master Plan
- ◆ Sustainable River Corridor Action Plan
- ◆ Boulder County Comprehensive Plan (2nd Edition)
- ◆ St. Vrain Trail Master Plan (Boulder County Parks & Open Space and ERO Resources 2004)
- ◆ City of Longmont St. Vrain Blueprint planning study (current)
- ◆ North Foothills Open space Management Plan
- ◆ Boulder County Natural Hazard Mitigation Plan (DRAFT)
- ◆ Boulder County Multi-Hazard Mitigation Plan
- ◆ St. Vrain Creek Corridor Open Space Management Plan
- ◆ Pella Crossing and Mariatt Open Space Recreation and Visitor Use Plan
- ◆ "East County Line Road Bridge and Road Rehabilitation: Preliminary (30%/FIR) Hydraulic Design", December 30, 2013. (Anderson study 1)
- ◆ "East County Line Road Bridge and Road Rehabilitation: Preliminary (30%/FIR) Hydraulic Design", December 30, 2013. (Anderson study 2)
- ◆ St. Vrain Creek Greenway Master Plan: East Corridor Update (City of Longmont and Design Workshop 2001) - Parts 1 and 2
- ◆ Post-Flood Analysis of Minor Storm Risks in St. Vrain Creek through Longmont (DRAFT)
- ◆ Sandstone Ranch GEI Reclamation Plan
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- ◆ Ramey Homestead Property - Rapid Environmental Site Assessment
- ◆ Changes in range-wide distribution of plains topminnow *Fundulus sciadicus*
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- ◆ Survey of Critical Biological Resources in Boulder County, Colorado (Colorado Natural Heritage Program 2007-2008, 2009)
- ◆ Figure 5: Mining Areas
- ◆ Habitat Conservation for Birds of Prey on Western Mobile Boulder Inc. Lyons Property – 1997
- ◆ Habitat Use by Breeding Birds on Western Mobile Inc. Lyons Property
- ◆ Conservation Handbook on the Preble's meadow jumping mouse (2000)
- ◆ Third Year Survey for Preble's Meadow Jumping Mouse in Colorado (1997)
- ◆ Hall Ranch Meadows Natural Resource Assessment

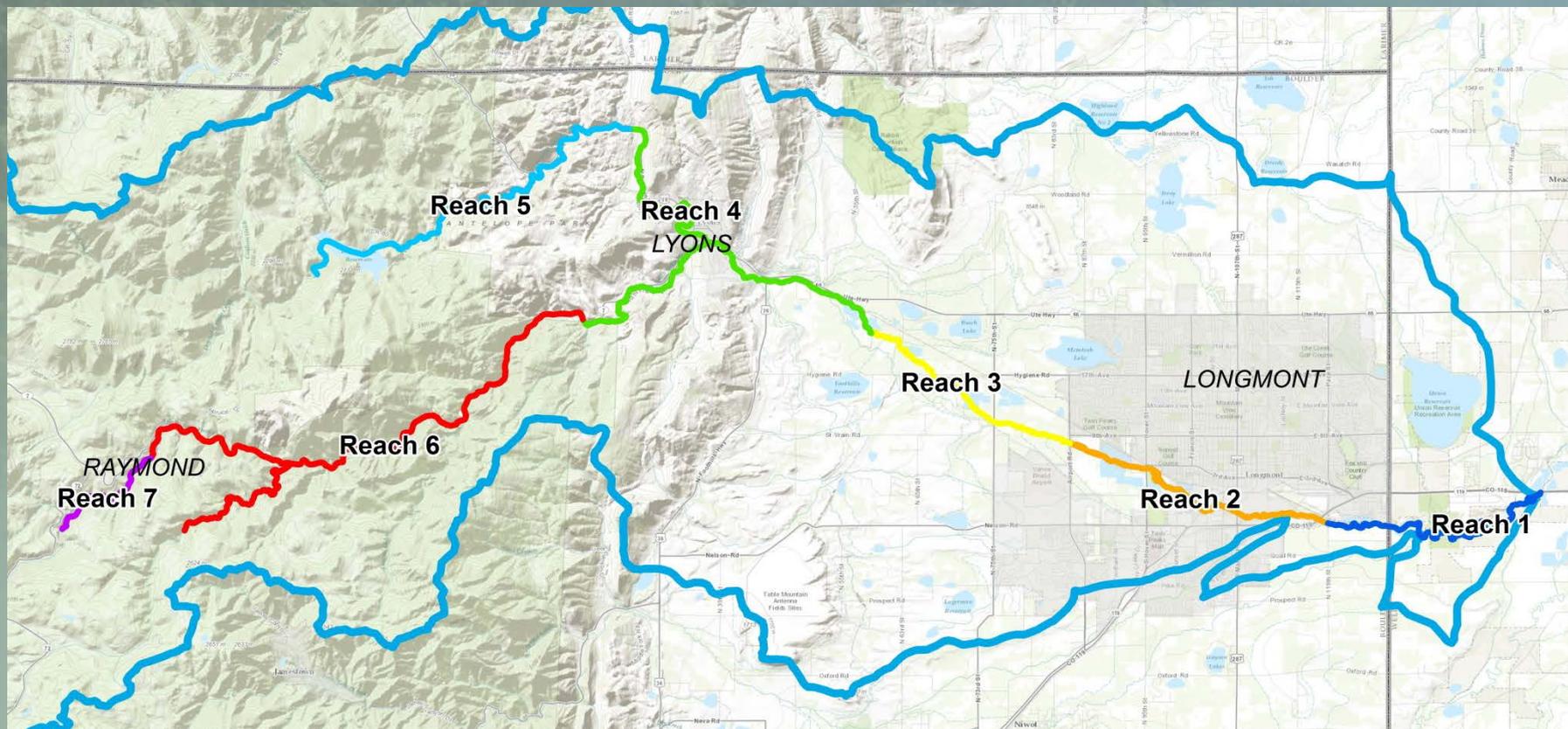
Field Assessments/Geomorphology

- 💧 Eco/Bio and Risk Assessments delayed due to spring runoff, but ready to mobilize
- 💧 Utilizing Pre- and Post-LiDAR in GIS



Reaches

7 reaches with common characteristics/interests



Reaches 1 & 2 – Longmont to Confluence

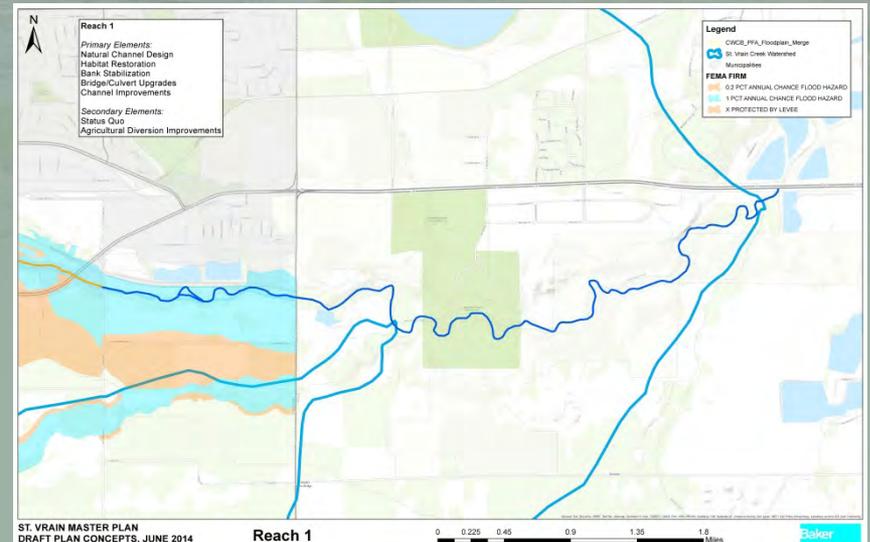
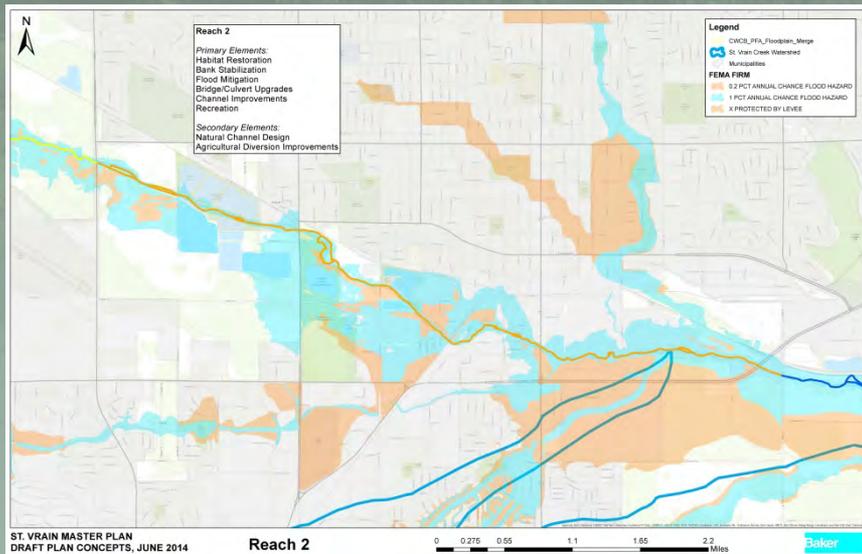
Primary Elements:

- Natural Channel Design
- Habitat Restoration
- Bank Stabilization
- Flood Mitigation
- Bridge/Culvert Upgrades

Channel Improvements

Secondary Elements:

- Status Quo
- Agricultural Diversion Improvements
- Recreation



Reach 3 – Between Lyons & Longmont

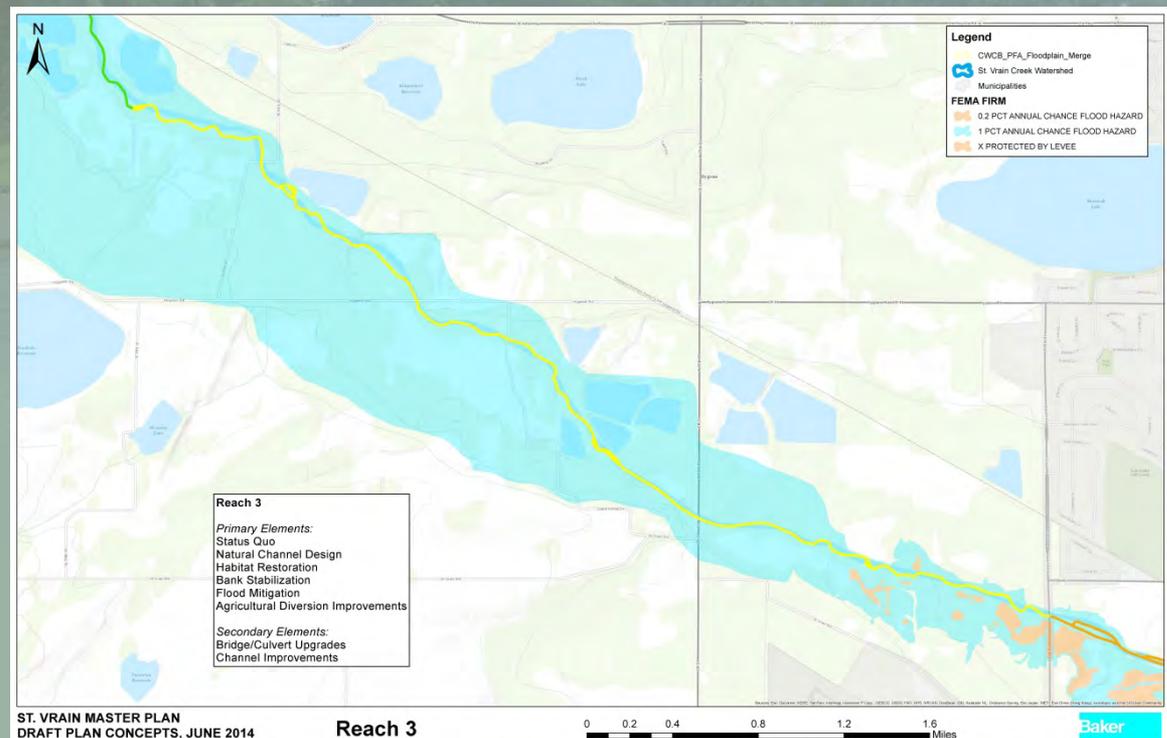
Primary Elements:

- Status Quo
- Natural Channel Design
- Habitat Restoration
- Bank Stabilization
- Flood Mitigation

Agricultural Diversion Improvements

Secondary Elements:

- Bridge/Culvert Upgrades
- Channel Improvements



Reaches 4 & 5

East of Lyons, Lyons, Apple Valley, North St. Vrain

Primary Elements:

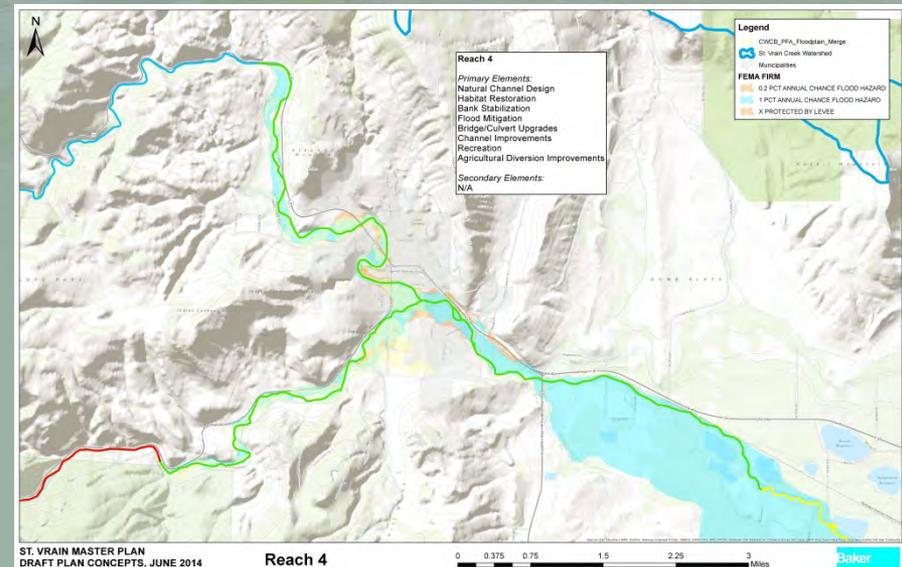
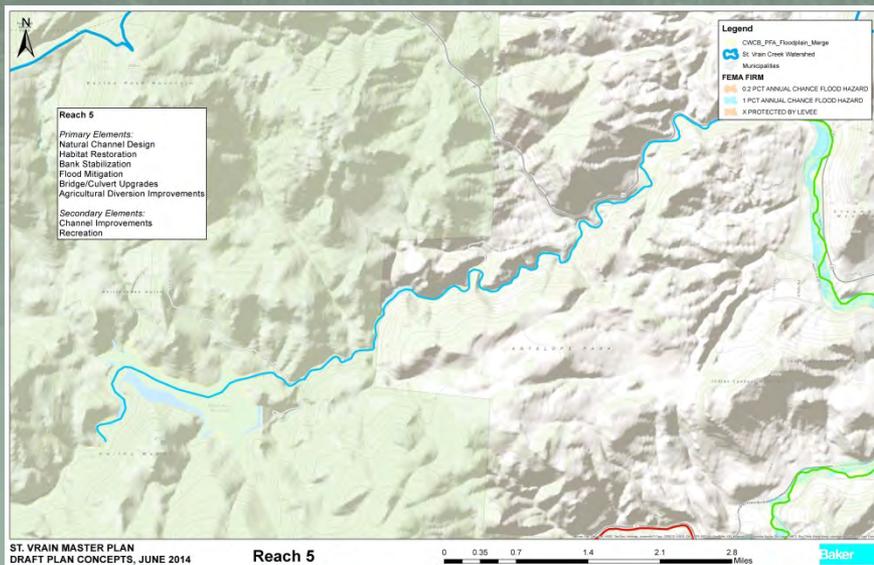
- Natural Channel Design
- Habitat Restoration
- Bank Stabilization
- Flood Mitigation
- Bridge/Culvert Upgrades

Channel Improvements

- Recreation
- Agricultural Diversion Improvements

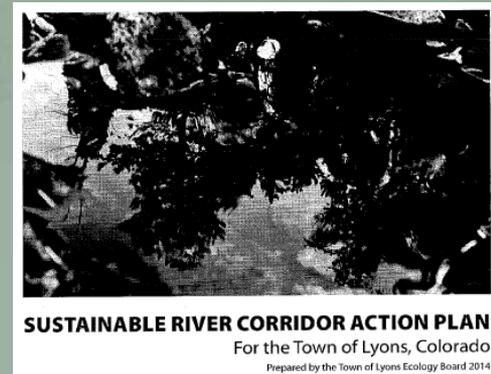
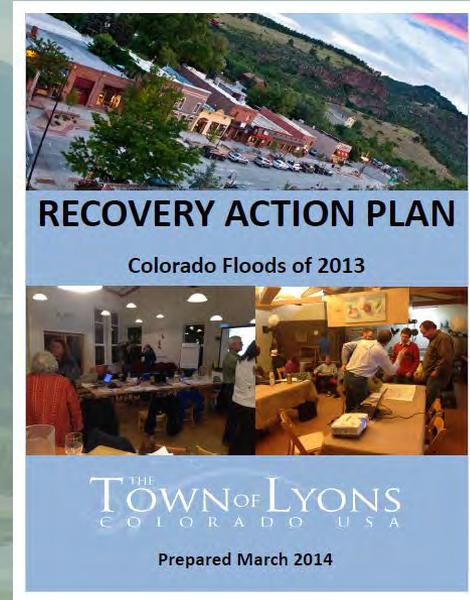
Secondary Elements:

- N/A



Lyons Activities to Date

- ◆ Lyons Recovery Action Plan (LRAP)
 - ◆ Project Development Guides (PDGs)
- ◆ Lyons Ecology Board Sustainable River Corridor Action Plan
- ◆ Hot Spots
 - ◆ Apple Valley
 - ◆ Bohn Park
 - ◆ Meadow Park
 - ◆ McConnell Ponds
 - ◆ 2nd Avenue



Reaches 6 & 7

South St. Vrain, Raymond/Riverside

◆ *Primary Elements:*

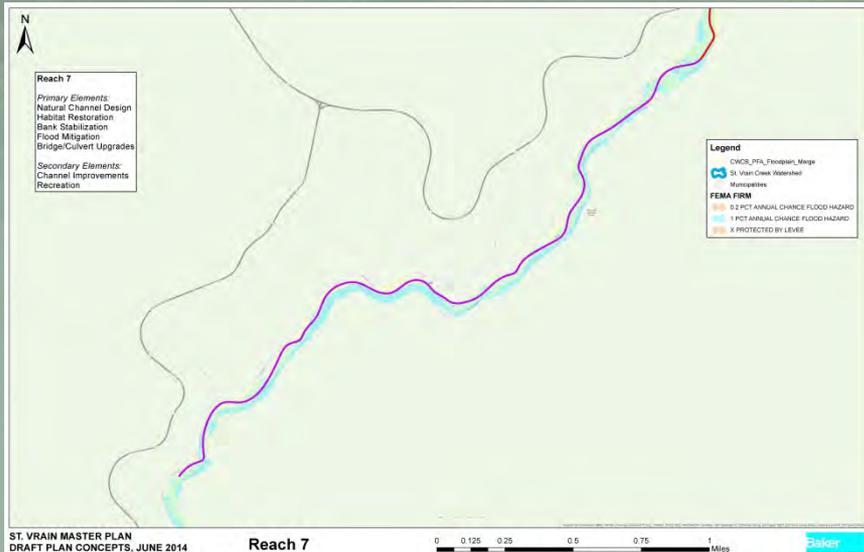
- ◆ Status Quo
- ◆ Natural Channel Design
- ◆ Habitat Restoration
- ◆ Bank Stabilization
- ◆ Bridge/Culvert Upgrades

◆ Channel Improvements

◆ Recreation

◆ *Secondary Elements:*

◆ Agricultural Diversion Improvements



Public Engagement

We want to meet with you – July & August

How to Stay Connected

- ◆ **Sign up to receive information about the Community Workshops.**
- ◆ **St. Vrain Creek Coalition Meetings Open to the Public – Every Other Wednesday morning at 10:00 a.m.**
- ◆ **Contact the Project Team if you need to speak to someone:
720-407-4786**
- ◆ **Email us: StVrainMasterPlan@Projects.MBakerCorp.com**
- ◆ **Visit the website: <http://tiny.cc/StVrainCreek>**

Project Website

The screenshot shows a web browser window displaying the ArcGIS St. Vrain Watershed Master Plan. The browser's address bar shows the URL <http://www.arcgi...>. The page title is "ArcGIS - St. Vrain Watershed Master Plan" and includes a "Sign In" link. The navigation menu includes "Details" and "Edit". A search bar is labeled "Find address or place".

The main content area features a map of the St. Vrain Watershed. A yellow dot on the map indicates a location, and a "PublicComments" popup window is open over it. The popup displays the following information:

PublicComments	
Id	123 Lyons Way
Comments	Major Stream Bank Erosion
ContctInfo	Joe Lyons 303-123-4567

The map also shows a scale bar from 0 to 2 miles and the Esri logo. The desktop background is a landscape image, and the taskbar shows the time as 11:16 AM on 6/16/2014.

Community Discussion

A scenic landscape photograph of a wide river valley. The foreground shows a wide, shallow river with a sandy and rocky bed, surrounded by green grassy banks. In the middle ground, there are dense green forests covering the valley floor. The background features a range of mountains, some with patches of snow or light-colored rock, under a clear sky. The overall scene is a natural, mountainous landscape.

What additional questions do you have about the St. Vrain Master Plan?

Community Discussion

What else should we be thinking about for the St. Vrain Master Plan?

Next Steps

- ◆ **Complete Field Assessments**
- ◆ **Draft Plan for Public Review/Input**
- ◆ **Continue Public Involvement**
- ◆ **Deliver a long-term solution that provides multiple benefits to the watershed and its inhabitants.**

We need you to stay involved throughout this process.

**Please sign up on lists
here tonight.**

Speak to our project team and Coalition members about what to expect and let us know about what's important to you



Saint Vrain Creek

Watershed Master Planning



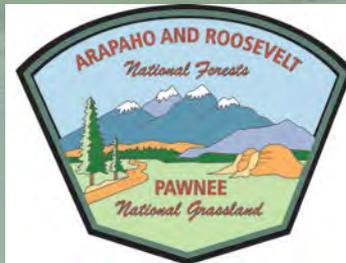
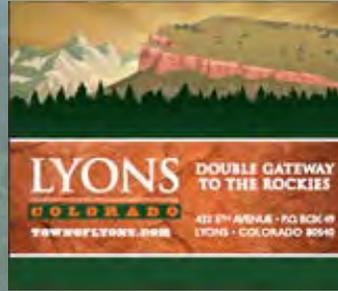
**St. Vrain Creek Coalition
Community Meeting
Longmont, CO
6/19/14**



Community Meeting Purpose

- ◆ **Begin involving you in the process to develop a master plan for long-term creek recovery.**
- ◆ **Identify what creek recovery issues will be addressed by the master plan.**
- ◆ **Identify where you can be involved in the planning process this summer/fall.**

St. Vrain Creek Coalition Members



Flood Recovery

Ongoing Recovery/Community Engagement/Site Specific Local Planning



**Emergency
Response**



**Imminent Threat
Assessment and
Mitigation**



**Long-Term Vision
for Watershed**

**St. Vrain
Watershed
Master Plan**

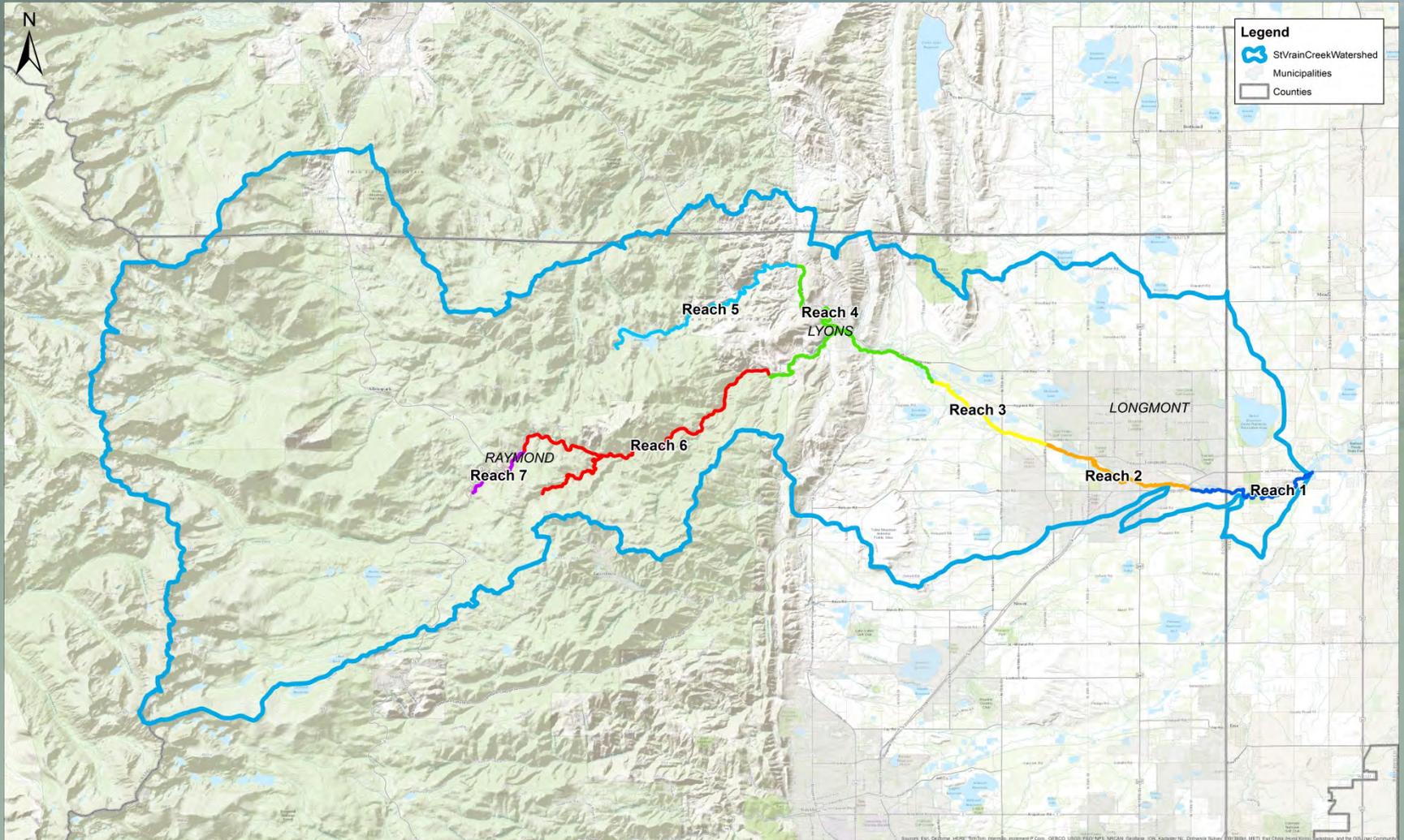


**Future Creek
Projects**

**Funding
and
Implementation**

Watershed Study Area

💧 546 sq. miles, ~54 miles of creek



St. Vrain Master Plan

The St. Vrain Master Plan will:

- ◆ **Establish a Long-Term, Holistic Vision for a Sustainable Watershed**
- ◆ **Involve public, property owners and local decision makers**
- ◆ **Watershed-wide Field Assessment of Post-Flood Conditions**
- ◆ **Identify Flood Hazards and where Data Gaps exist**
- ◆ **Identify Projects throughout Watershed that meet Long-Term Recovery needs (i.e. stream alignment, bridge/culver upgrades, detention, etc.)**

St. Vrain Master Plan

The St. Vrain Master Plan will not:

- ◆ Change Local Policies and Procedures related to Project Implementation**
- ◆ Override Existing Management Plans**
- ◆ Be Implemented until Project Funding becomes available (no funding is guaranteed at this time)**
- ◆ Update FEMA Maps and affect Flood Insurance**

Project Themes

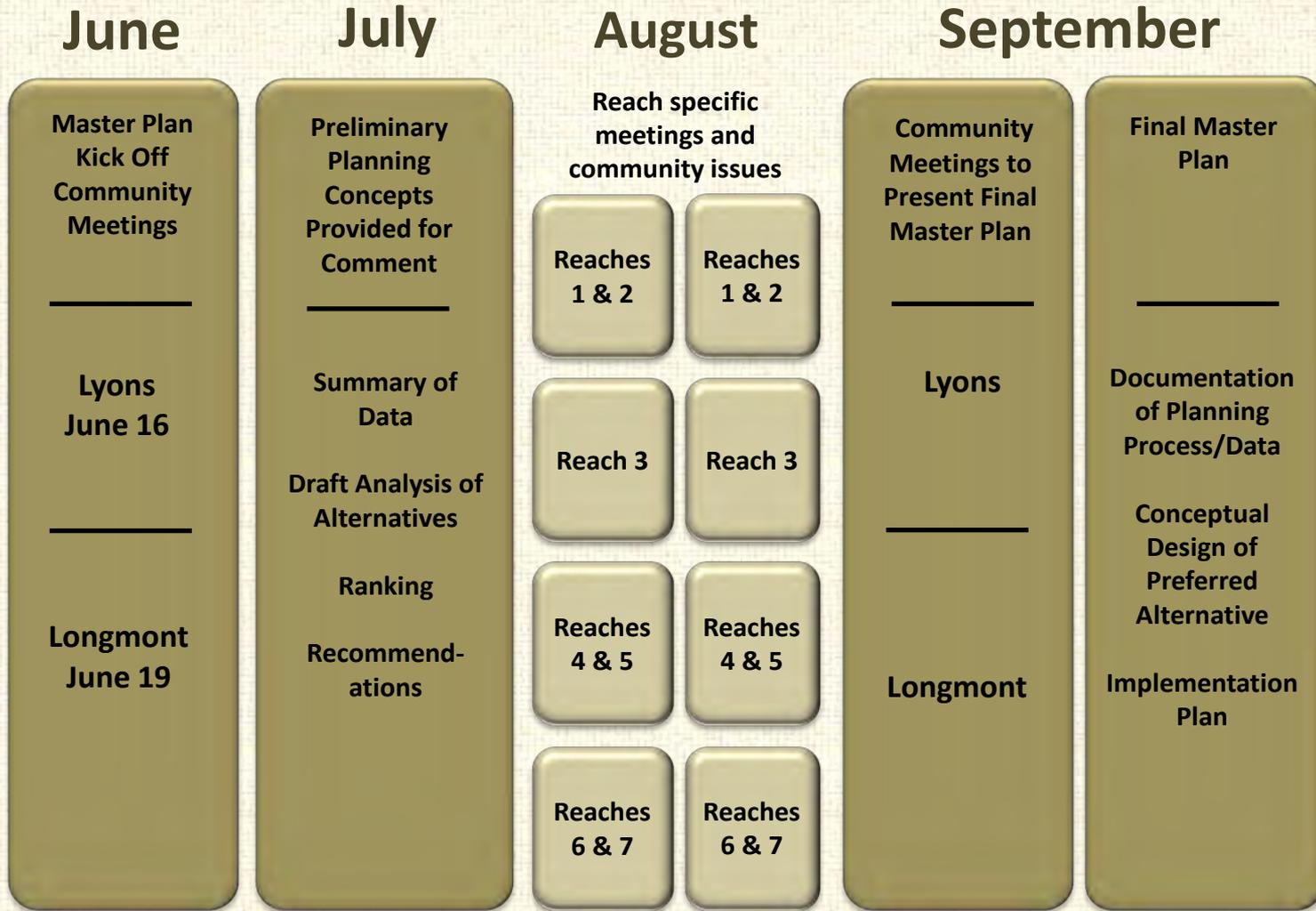
- 💧 **Stream Hydrology and Stability**
- 💧 **Community Recovery and Resiliency**
- 💧 **Flood Mitigation and Hazard Risk Reduction**
- 💧 **Physical and Structural Protection**
- 💧 **Recreation**
- 💧 **Biological and Environmental**

Public Process

Post Flood Activities

SVCC MEETINGS, WEBSITE COMMENTS, EMAIL, PHONE CALLS

DATA COLLECTION



Data Collection

- St. Vrain Creek Coalition Interviews

- Public input is critical

- Pre- and Post-Flood LiDAR topographic data

- Changes since Post-Flood was flown

- Draft Hydrology

- CWCB/CDOT

- Hydraulic Modeling

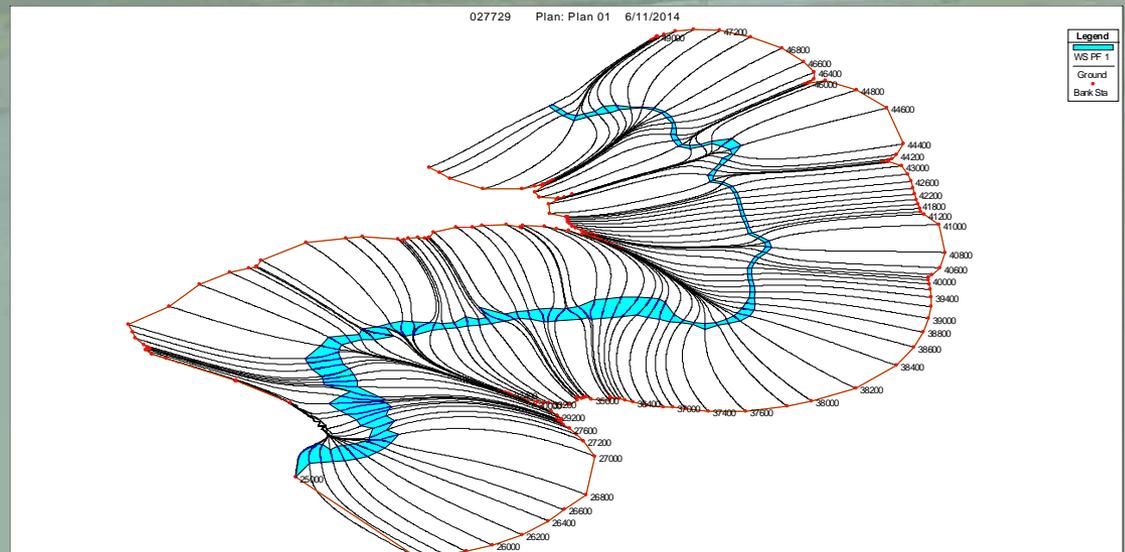
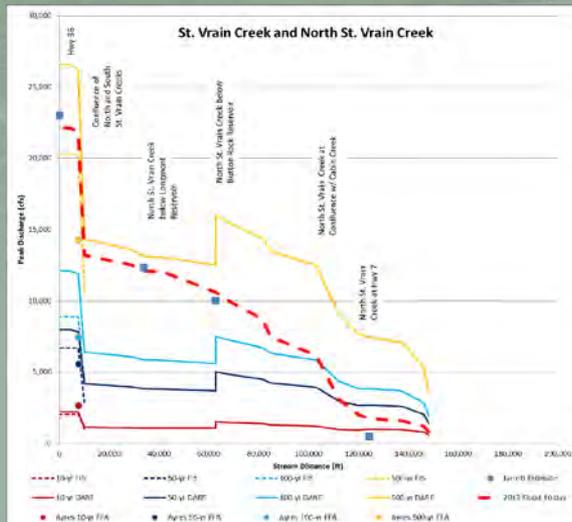
- 7 sources ranging from 1972 USACE study to Post-Flood Recovery Mapping

- GIS Layers

- Pre- and Post-Flood Aerials

- NRCS sites

- Irrigation Diversion Inventory



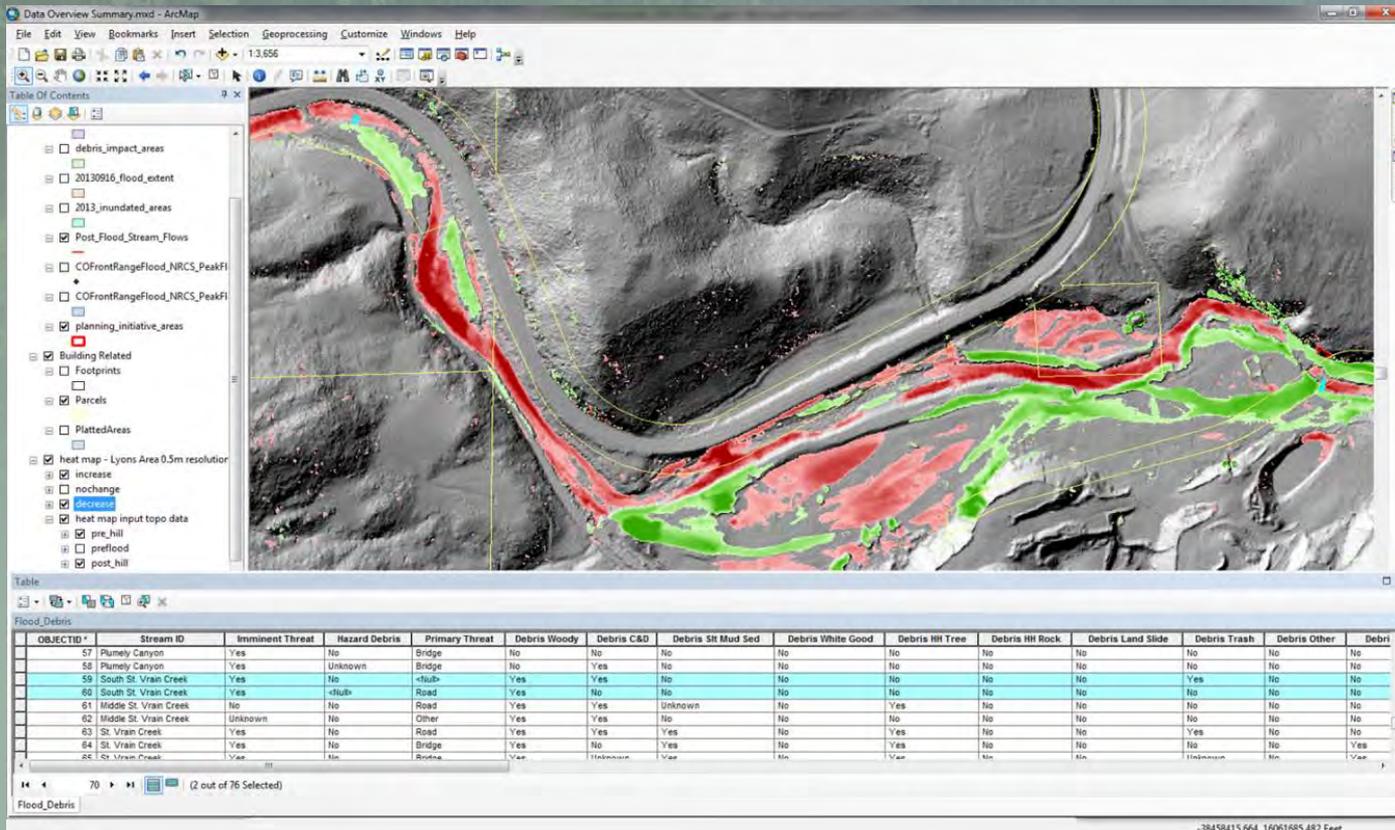
Existing Plans

Almost 40 Plans collected and evaluated to date:

- ◆ Recovery Action Plan - Colorado Floods of 2013
- ◆ St. Vrain Creek Riparian Corridor Protection Plan
- ◆ St. Vrain Creek Greenway Master Plan - East Corridor Update
- ◆ Parks, Recreation, and Trails Master Plan
- ◆ Sustainable River Corridor Action Plan
- ◆ Boulder County Comprehensive Plan (2nd Edition)
- ◆ St. Vrain Trail Master Plan (Boulder County Parks & Open Space and ERO Resources 2004)
- ◆ City of Longmont St. Vrain Blueprint planning study (current)
- ◆ North Foothills Open space Management Plan
- ◆ Boulder County Natural Hazard Mitigation Plan (DRAFT)
- ◆ Boulder County Multi-Hazard Mitigation Plan
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- ◆ Keyes Property Rapid Assessment Report
- ◆ Resource Assessment Report: Custode Property
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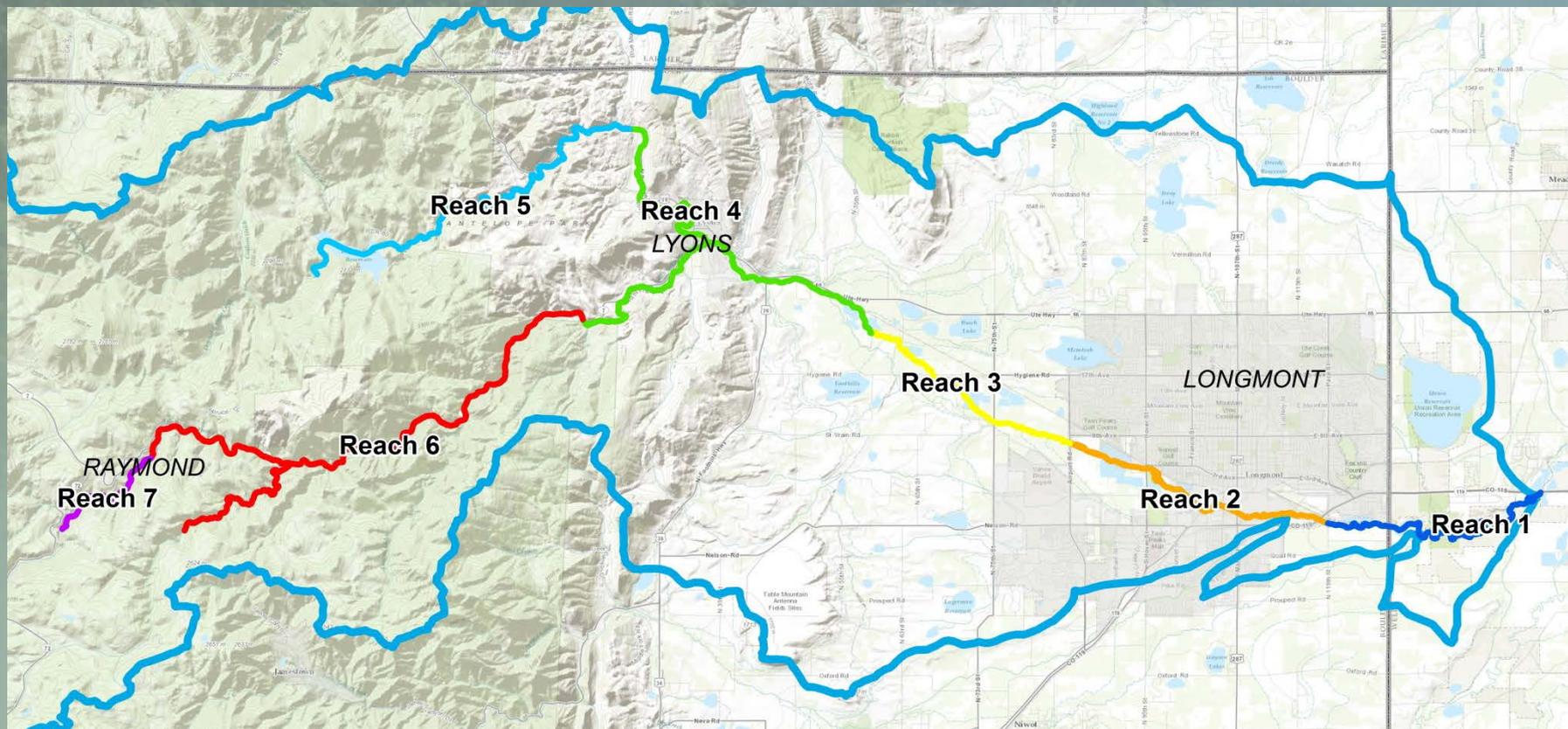
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Reaches

7 reaches with common characteristics/interests



Reaches 1 & 2 – Longmont to Confluence

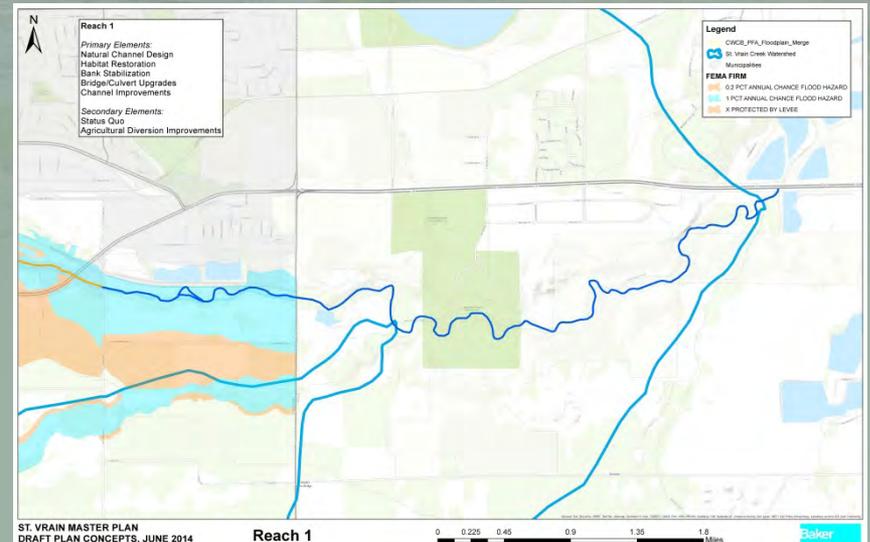
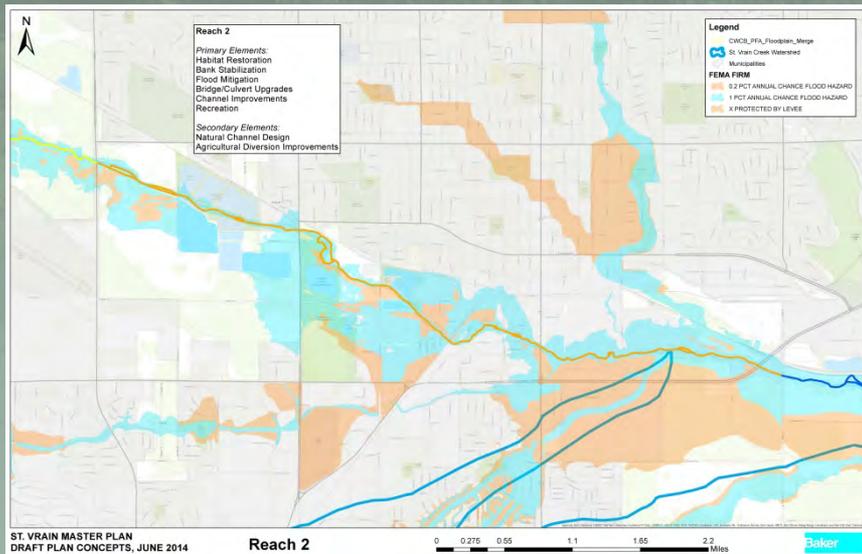
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- Bank Stabilization
- Flood Mitigation
- Bridge/Culvert Upgrades

Channel Improvements

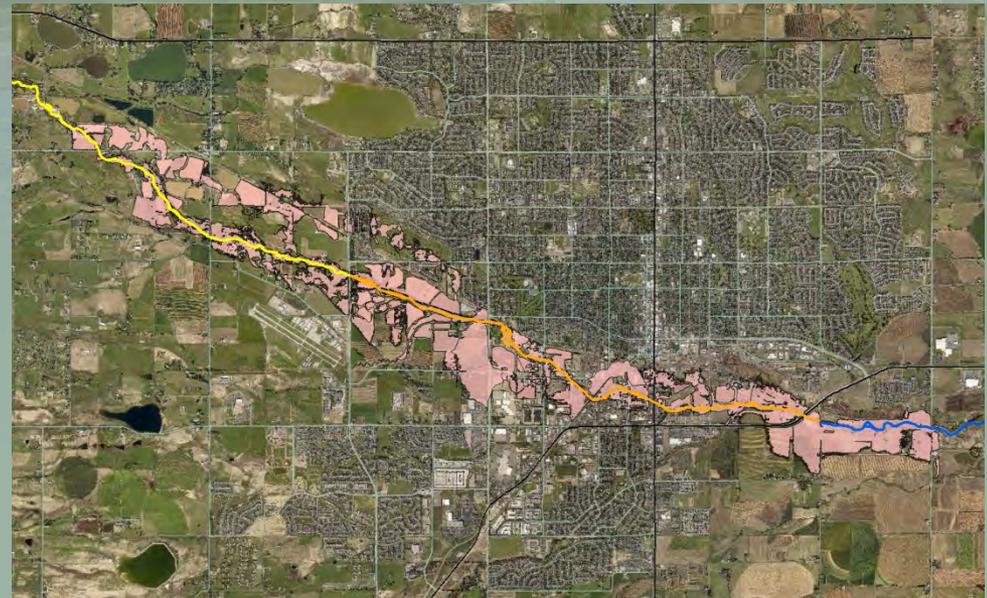
Secondary Elements:

- Status Quo
- Agricultural Diversion Improvements
- Recreation



Longmont Activities to Date

- 🔹 **Post-flood Neighborhood Meetings**
 - 🔹 **Engaged 500-600 residents**
- 🔹 **St. Vrain Blueprint**
- 🔹 **100-year channel conceptual design**



Reach 3 – Between Lyons & Longmont

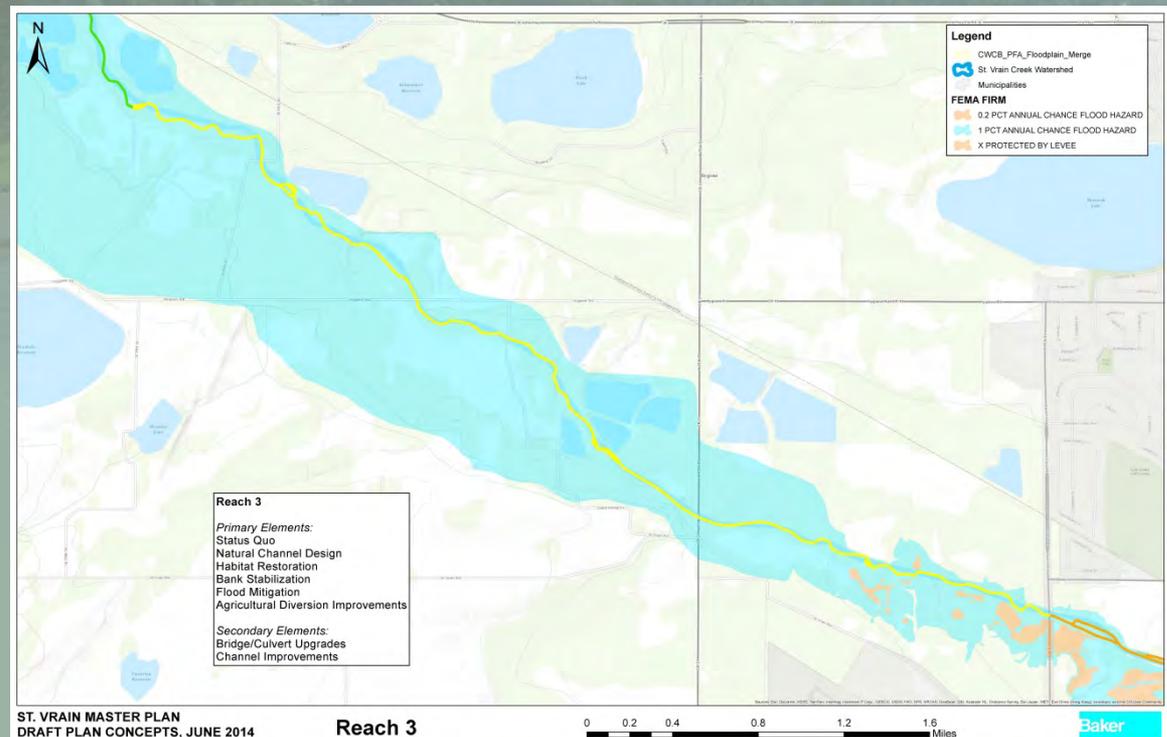
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- Flood Mitigation

Agricultural Diversion Improvements

Secondary Elements:

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- Channel Improvements



Reaches 4 & 5

Lyons, Apple Valley, N. St. Vrain, S. St. Vrain

Primary Elements:

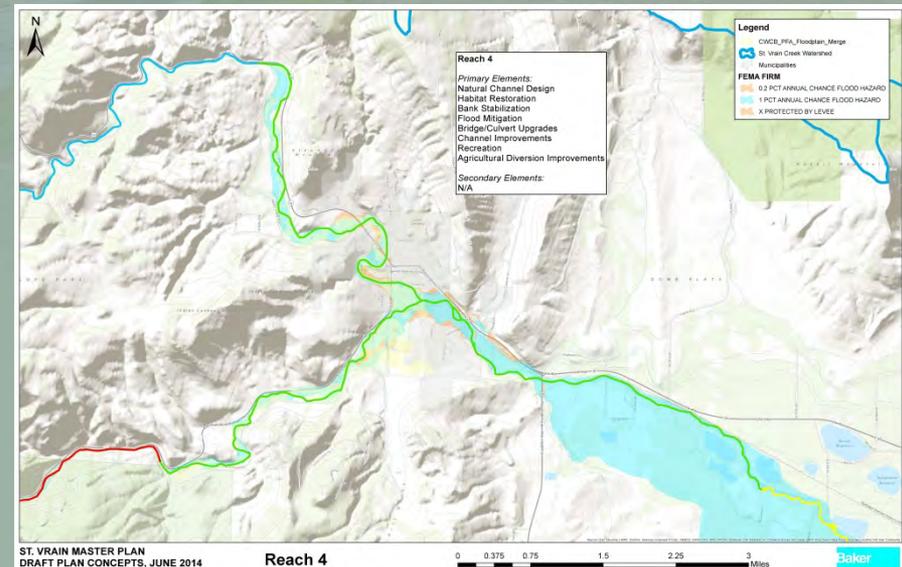
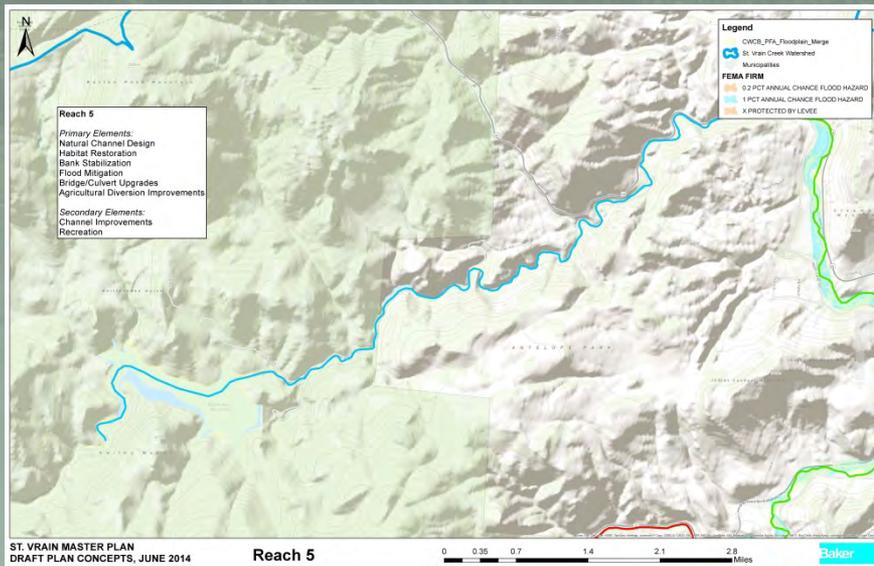
- Natural Channel Design
- Habitat Restoration
- Bank Stabilization
- Flood Mitigation
- Bridge/Culvert Upgrades

Channel Improvements

- Recreation
- Agricultural Diversion Improvements

Secondary Elements:

- N/A



Reaches 6 & 7

South St. Vrain, Raymond/Riverside

◆ *Primary Elements:*

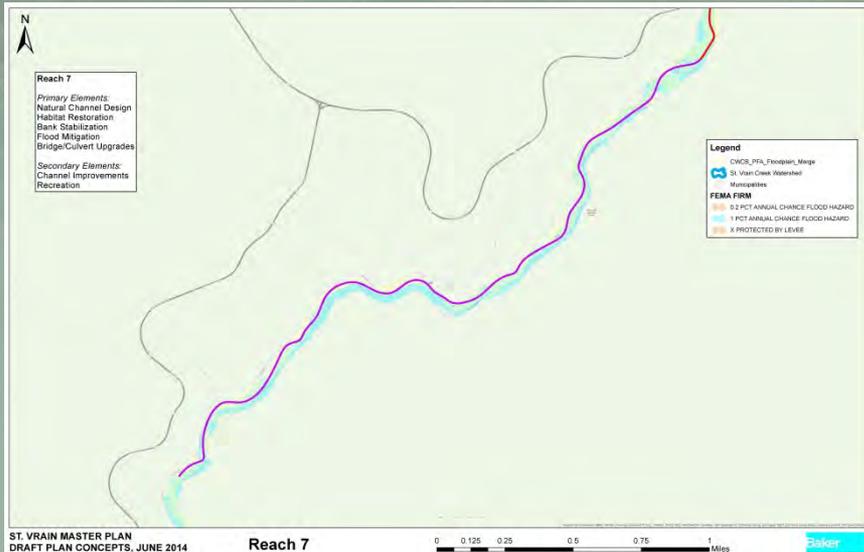
- ◆ Status Quo
- ◆ Natural Channel Design
- ◆ Habitat Restoration
- ◆ Bank Stabilization
- ◆ Bridge/Culvert Upgrades

◆ Channel Improvements

◆ Recreation

◆ *Secondary Elements:*

◆ Agricultural Diversion Improvements



Public Engagement

We want to meet with you – July & August

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On the left side, there is an "Add Features" section with a "PublicComments" heading and a yellow dot icon. Below this is a "Public Comments" list, which is currently empty. At the bottom of this section are logos for "UMCO" and "PSCO".

The central map displays a topographic view of the watershed area, with a green line representing a stream and a yellow dot marking a specific location. A "PublicComments" popup window is open over the yellow dot, displaying the following information:

PublicComments	
Id	123 Lyons Way
Comments	Major Stream Bank Erosion
ContctInfo	Joe Lyons 303-123-4567

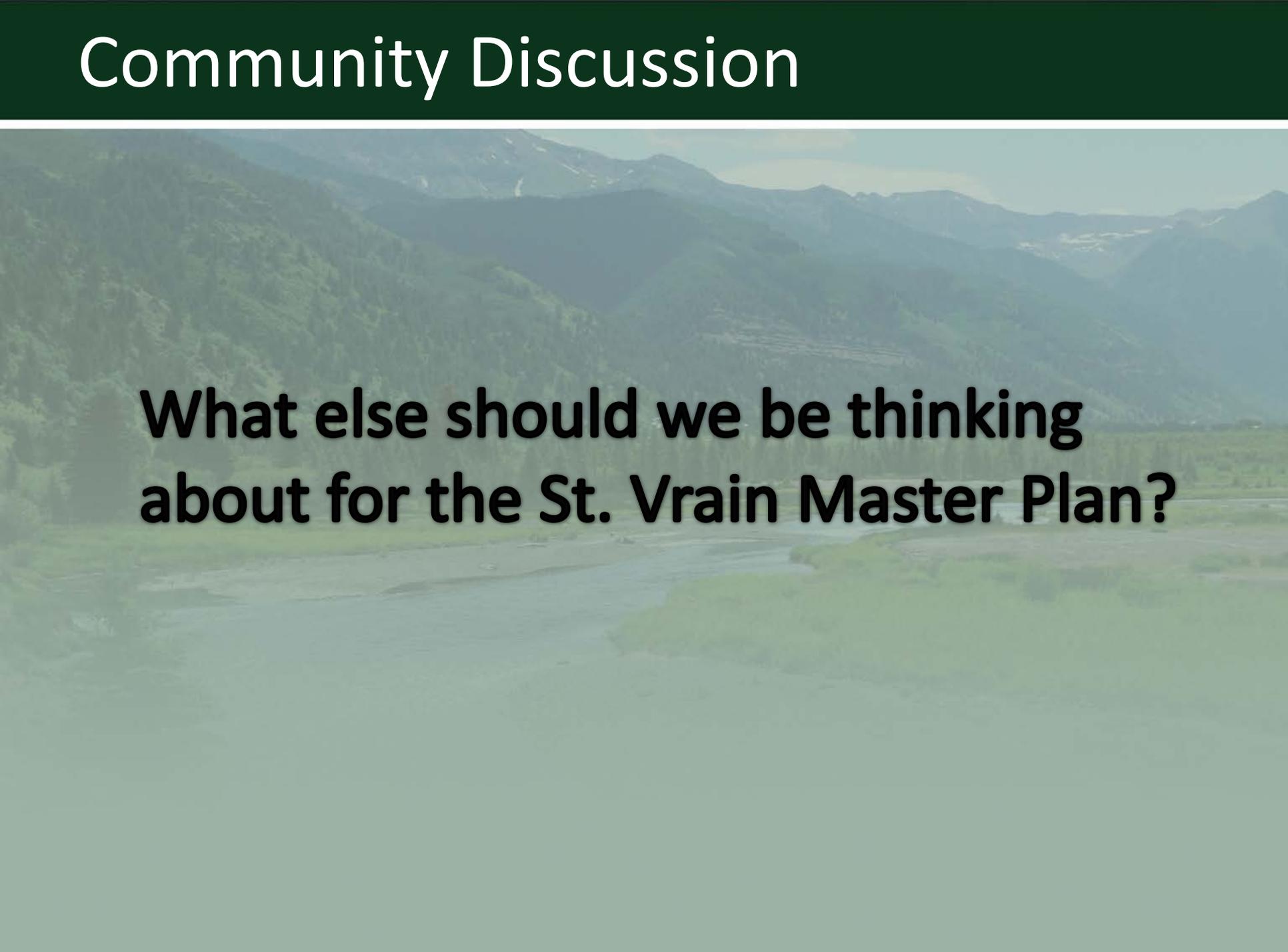
The map includes a scale bar from 0 to 2 miles and the Esri logo. The bottom of the page contains links for "Esri.com", "Help", "Terms of Use", "Privacy", and "Contact Esri", along with a "Report Abuse" link. The system tray on the right shows the time as 11:16 AM on 6/16/2014.

Community Discussion

A scenic landscape photograph of a wide river valley. The foreground shows a wide, shallow river with a sandy and rocky bed, surrounded by green grassy banks. In the middle ground, there are dense green forests covering the slopes of the mountains. The background features a range of mountains with some snow patches, under a clear blue sky. The overall scene is a natural, mountainous landscape.

What additional questions do you have about the St. Vrain Master Plan?

Community Discussion

A scenic landscape of a river valley with mountains in the background. The foreground shows a wide, shallow river with a sandy and rocky bed. The middle ground is a lush green valley with dense forests. The background features a range of mountains under a clear sky.

What else should we be thinking about for the St. Vrain Master Plan?

Next Steps

- ◆ **Complete Field Assessments**
- ◆ **Draft Plan for Public Review/Input**
- ◆ **Continue Public Involvement**
- ◆ **Deliver a long-term solution that provides multiple benefits to the watershed and its inhabitants.**

We need you to stay involved throughout this process.

**Please sign up on lists
here tonight.**

Speak to our project team and Coalition members about what to expect and let us know about what's important to you

**Public Comments – Project Kick Off to Release of Draft Alternatives
June to September 2014**

Date	Method	Comment/Questions
6/10/2014	Phone	Can't attend public meetings for health reasons, wants information mailed to her
6/10/2014	Phone	Public Meeting Inquiry
6/10/2014	Phone	1. Can't attend public meetings for health reasons 2. Wants to support the MP process, but doesn't know how, since can't attend meetings in person
6/10/2014	Email	Detailed comments from a property owner: "The county open space includes the short reach just upstream of the Old South Road Bridge. This bridge was replaced several years ago and has sufficient capacity for a large flood, but the channel overflows to the east well before this capacity is reached." "In addition, Boulder County Open Space now owns the old Andesite quarry at the end of the South St. Vrain Canyon. As recommended by the Lyons stream recovery group, it would appear that these old pits could be an excellent candidate for stormwater detention during flood periods. This alternative should receive full attention in the plan."
6/12/2014	Email	Contact information change request
6/11/2014	Phone	1. Can't attend meetings due to disability 2. Concerned about liability of others on her property; doesn't want trespassing on property
6/11/2014	Phone	1. Pile of debris from construction on US 36, wants it removed 2. What happens to flood damaged buildings? 3. What will road alignment be?
6/17/2014	Email	Request for public meeting presentation slides
6/20/2014	Phone	Request for presentation slides
6/20/2014	Phone	Has information to share regarding the Airport Road bridge over St. Vrain
6/26/2014	Phone	Property owner wondering when temporary structures will be going in on Hwy7 and should she wait to put in a temporary bridge that will just need to be removed later.
7/4/2014	Email	Contact information change request
7/7/2014	Email	Request for public meeting presentation slides
7/9/2014	Email	Property owner with questions about preliminary design plans concerning ponds near her property.
7/15/2014	Email	Property owner with buyout questions
7/17/2014	Email	Water table has risen into property owner's crawl space.
7/19/2014	Email	Property owner expressing concerns about stream channel depth
7/23/2014	Phone	Question about water quality in Lyons: Is water safe to drink?
7/25/2014	Phone	Property owner is considering moving to Longmont near Hygiene on Nelson Road. In order to help is decision he wants to know if the floodplain in that area will change.
7/25/2014	Email	Property owner concerns: 1. Misdirected channel continues to attack and erode the Riverside bank above a shared bridge; 2. Channel filled with migrated boulders continues eroding the bank at 3133 (3 feet already washed away) 3. Dislocated and stuffed channel continues flooding at 3145 (a well exposed).
N/A	Interactive Website Comment	"The post-flood replacement low-head dam is a very serious safety hazard for boaters, swimmers and tubers and could have easily been avoided."
N/A	Interactive Website Comment	The October Hole area was a critical late and early season training and teaching area for dozens of emerging and experienced boaters, training and coaching there. Post-flood work has removed boulders and introduced safety hazards.
N/A	Interactive Website Comment	The reconstruction of the diversion structure below Black Bear and A Holes left debris, including rebar that poses a severe safety hazard to boaters and tubers. This should be addressed ASAP as a life safety issue.
N/A	Interactive Website Comment	A large amount of sediment flood deposits have in-filled the channel and cause diversion of stream onto large part of private parcel. Dredging and some realignment of stream is needed
7/25/2014	Email	Property owners with permit questions about a fence on the borders of their property
7/28/2014	Email	Property owner questions about channel realignment and permits; wants the river moved back to its pre-flood location
7/30/2014	Email	Request for progress update

7/31/2014	Email	Comments from the Team Colorado Whitewater Racing Club regarding the Saint Vrain River Master Plan and Planning Process
8/4/2014	Email	Property owner question about inspections and permitting.
8/6/2014	Email	Request for progress update
8/8/2014	Phone	Looking for contact information for how to get soil sample reports.
8/8/2014	Email	Contact info change request
8/12/2014	Email	Contact info change request
8/12/2014	Email	Property owner request to return the river to its original channel between Stone Mountain Lodge and just before the River Church.
8/13/2014	Phone	The river is currently cutting her property in half and she would like it moved to its previous location. Her daughter has also sent us an email to the same effect.
8/15/2014	Email	"I would advocate that that a portion of the South Saint Vrain canyon needs significant instream rehabilitation."
8/20/2014	Email	Contact info change request
8/21/2014	Phone	Saw the email and was not sure which Community workshop to attend.
8/21/2014	Phone	Case manager and wanted to know the best way to get his clients communication information for the SVMP.
8/22/2014	Email	Meeting presentation slides request
8/24/2014	Email	Request for information/data concerning newly purchased property
8/27/2014	Email	"I now have standing water in my yard and house when river is high and engineered raised above the ground septic system had to be abandoned. These new ground table water level issues were not there until the bank was "stabilized". There is also concern about the bend in the new river bed being an issue where the river may jump the river bank in another flood or high waters, and make a new river bed going through my house and the three houses east of me."
8/28/2014	Email	Comments from Kayak community
8/28/2014	Email	1. What hydraulic model will be used to simulate the water flows between County Rd. 1 and the Boulder Creek confluence in the future for water resource planning and management? 2. What impact will the current and future river course have on the City of Longmont's Greenway bike path between Country Rd. 1 and Sandstone Ranch?
8/29/2014	Email	Property owner concerns: "There has been some exigent work done through the valley upstream from us. We have some concerns that the river now has more energy directed at our banks and through our property. There also used to be a grade structure just upstream from our property which used to serve to slow the water down through our area. I believe it would serve many of us through the area to put back some kind of grade structure above us."
9/4/2014	Email	Request for meeting information
9/8/2014	Email	Request for Master Plan document
9/10/2014	Phone	Requested mailed hard copy of Draft Master Plan
9/11/2014	Email	"I understand that flooding is a natural phenomenon, and I do not expect any agency to run out and restore the river to its pre flood state. What is not natural and I believe does justify mitigation is the quick and dirty road fixes that were necessary to get things open, but very detrimental to the character of the river."
9/12/2014	Email	Request from fisherman about recreation improvements: 1. Public access for fishing and all types of recreational boating, both in terms of wade fishing access and boat ramps 2. Improvement and restoration of fish and wildlife habitat 3. Removal of dangerous and man-made hazards for boaters 4. Removal of structures that can result in fish and wildlife mortality
9/15/2014	Email	Property owner question about permitting
9/15/2014	Email	Requesting information on how to participate in planning process
9/16/2014	Email	Property owner with culvert-related concerns:
9/17/2014	Email	Property owner comments about converting damaged lots to open space
9/17/2014	Email	Property owner preference to have the river moved back to its original location
9/17/2014	Email	Request for assistance with electronic Master Plan document
9/19/2014	Email	Contact information change request
9/21/2014	Email	Property owner questions about draft alternatives
9/21/2014	Email	Property owner support of alternative 2, replacing the ponds back to their pre flood location.
9/22/2014	Email	Property owner comments to the St Vrain Creek Watershed Alternatives Analysis Report 17 September 2104
9/22/2014	Email	Three page comment submission for Draft Alternatives Analysis Report
9/23/2014	Email	"I have a client who lives along the St. Vrain river in Lyons, they are in "Reach 6" of the St. Vrain Watershed Master Plan. They have been advised by the NRCS to secure the river banks with GEO Textiles. Would this be advisable work to be done, it looks as if a master watershed plan is in the works for the area?"
9/24/2014	Email	Comments regarding the addresses of private bridge crossings in our immediate area that were lost in the flood and that will need to be replaced so that they could be included on the master plan.
9/25/2014	Email and hard Copy	Property owner comments about creek alignment preferences
9/26/2014	Email	Property owner suggestions for Reach 4, specifically in the section from the confluence of the St Vrain to the Black Bear Hole and from the Black Bear Hole to the October Hole and the Highland ditch diversion structure.

St. Vrain Master Plan – Draft Alternatives Analysis Report Community Workshops Public Input Summary

The St. Vrain Creek Coalition (SVCC) held four Community Workshops in September 2014 to share information and collect input about channel alignment alternatives for the St. Vrain Creek with residents and other stakeholders throughout the watershed. The Community Workshops were held on the following dates:

- September 15, 2014 at the Boulder County Fairgrounds, Longmont, CO
- September 18, 2014 at Lyons High School, Lyons, CO
- September 22, 2014 at Wild Basin Lodge, Allenspark, CO
- September 24, 2014 at Boulder County Parks and Open Space, Longmont, CO

Community Workshop Format: The Community Workshops allowed the public to review alternatives and provide input on the study's findings and recommendations for draft channel alignments of the creek. Each workshop was focused on a different reach of the St. Vrain to allow for a focused discussion with residents from those areas. A presentation was provided to give an overview of the master plan and how alternatives were developed. Following the presentation, the public was able to directly interact and provide input around breakout stations facilitated by SVCC members, as well as members of the consultant project team.

Public Comment Submission: Public input was obtained to help the consultant team and the SVCC to refine the alternatives to be advanced and incorporated into the Draft St. Vrain Creek Watershed Master Plan. The public was encouraged to provide comments and feedback by submitting written comment forms or by speaking to a SVCC/project team member, who recorded public input on a series of maps that were displayed. For those that did not attend the workshops, comments were submitted by email or mail from when the report was published on September 8, 2014 to when the comment period concluded on October 3, 2014.

Attendance and Comments: There were approximately 140 people that attended the Community Workshops and approximately 130 comments submitted on comment forms or by email. Approximately 50 comments were submitted on maps.

Summary: The input summarized on the following pages captures input provided on the comment forms or emailed to the project team. Comments provided on maps were reviewed and taken into consideration by consultant team members for further refinement of channel alignment alternatives.

A full list of the public comments is available as part of the St. Vrain Master Plan.

Reach 1 – East of Longmont to the Confluence with Boulder Creek

Comments provided on Reach 1 were primarily submitted at the Community Workshop held for this Reach. Approximately half a dozen comments were received from private property owners in this reach. Comments mostly addressed which alignment, of the two alternatives, property owners preferred in addition to pointing out mitigation and infrastructure improvements that they felt were needed.

Channel Alignment

- Private property owners (4) attending the Community Workshop expressed a preference for Alternative 1 – Split Channel.
- They support returning the channel to its original alignment with split flows for habitat preservation and new channels in areas to convey water during high flows.

Flood Mitigation

- Address mosquito habitat per which alignment is advanced.
- Suggestion for new berms to guide excess water through the open space ponds.
- Return water to the Fetter's pond to restore wildlife habitat.

Infrastructure Improvements and Suggestions for Future Projects

- The N. 119th St. Bridge should be rebuilt to withstand 100 year flows.
- Removal of debris, gravel and other deposits is needed throughout this Reach. Property owners providing comment identified areas along their properties.
- Identify future gravel mining reclamation to be developed by City of Longmont.

Reach 2 – St. Vrain in the City of Longmont

The majority of residents within this reach live in the City of Longmont borders. Longmont residents approved a bond to begin channelization work for the creek. A property owner had emailed a comment to the project team stating the following:

Channel Alignment: The property owner providing comment stated the recommended channel alignment alternative was acceptable.

Private Property, Infrastructure Improvements and Suggestions for Future Projects: Several restoration and recovery projects had been noted on the private property. Comments consisted of the following:

- The ponds, access roads, overflow pipes and embankments have been damaged and need restoration in the area around Golden Ponds.

- Removal of debris, gravel and other deposits is needed throughout this Reach. Property owners providing comment identified areas along their properties.
- Maintain capacities and functions of diversion structures and ditches throughout the Golden property.
- Restore the capacity of water storage reservoirs and evaluate the impacts of moving the embankments.
- Restore Bouns Ditch Diversion.
- Identify future gravel mining reclamation to be developed by City of Longmont.

Reach 3 – Between Longmont and Lyons; Airport Road to Hwy. 66

Private property owners of large parcels within this reach submitted comment by email. Their comments were primarily focused on their properties along the St. Vrain and consisted of the following input:

Channel Alignment: Property owners providing comment stated the recommended channel alignment alternative, restoration with site specific projects, was acceptable.

Private Property, General Infrastructure Improvements and Suggestions for Future Projects

Several restoration and recovery projects had been noted on private properties by those providing comment. Those comments consisted of the following:

- Property owners identified the need and support for projects throughout this reach that focus on habitat restoration and riparian re-vegetation.
- Removal of debris, gravel and other deposits is needed throughout this Reach. Property owners providing comment identified areas along their properties.
- Stabilize and widen the channel to enhance capacity where the St. Vrain passes under Hygiene Road; the bridge needs replacement and should have the capacity to withstand a 100 year event.
- Ponds on portions of the Hepp property are in need of restoration.
- Evaluate and mitigate impacts to downstream properties if water goes into the property and channel under Airport Road.
- Additional site specific projects need to be further identified in the master plan for specific recovery and restoration projects aimed to stabilize the creek for 100 year flows.
- Identify future gravel mining reclamation to be developed by City of Longmont.
- Identify the Niwot Ditch diversion structure (Alt. 2, Map 1 of 6)
- Identify shared head gates and diversion dams (Alt. 2, Map 1 of 6)

Reach 4a – North St. Vrain and Apple Valley

Public safety, flood hazard risk reduction and flood mitigation were the main concerns of those commenting within this reach of the St. Vrain. There was mixed reaction to the alignment alternatives. Those commenting also had requests for additional information such as elevations of the creek, identification of the flood plain and what will be done about exposed water lines and their elevations. Suggestions for future restoration efforts were also provided.

Channel Alignment:

- Comments provided supporting the creek being restored to its pre-flood channel, as well as those supporting leaving it where it is currently, were almost equal in number.
- Channel alignment preferences were mostly based on what is believed to be safer for specific properties through Apple Valley.

Comments in support of Alternative 1, returning the creek to its pre-flood channel, included the following points:

- Properties that have been impacted by new channels are looking to restore what they had and desire access to original land.
- Restoring the creek to the pre-flood alignment, while digging the channel deeper and wider, will restore flows to take the water lines out of jeopardy and allow properties to access their original land that has been bisected by new channels.
- The current alignment allows water to flow faster than it previously had and seems to expose property owners to new risks.
- Water quality is perceived to be impacted due to new channels being established.

Comments in support of Alternative 2, leaving it as is with infrastructure improvements, included the following points:

- The previous alignment of the creek jeopardized public safety and put private properties at risk. To restore the previous alignment exposes property owners to the same impacts they had experienced during the flood.
- Split flow alignment is perceived to have improved fish habitat, is better for flood conveyance, and seems better for public safety because of the distributed flows between the lower and upper channels.
- It is perceived to allow the rebuilding process to begin quicker, with less work required to restore the channel and thus less cost.
- Believed to have less impact on how a future floodplain will be defined and impact on the defining the water table.
- Some re-vegetation and other recovery work has begun within the context of the split-flow alternative.
- Preserve the islands created; they serve both recreational and ecological functions.
- Better aesthetics, with easier accesses.

Concerns and Comments Regarding Current Impacts

- Public safety throughout Apple Valley continues to be a concern of residents.
- Concerns were expressed about elevations of the creek, the current water table and the elevation of City of Longmont water lines throughout Apple Valley.
- Temporary repairs raised the water table, properties that had not previously experienced flooding, now have standing water in basements.
- The new water table is preventing some property owners from being able to repair their homes.
- Some existing short term flood mitigations such as berms have not been functional and property owners are still experiencing flooding during high flows. High flows cause water to leave the current riverbanks.
- River bank erosion is still occurring.
- Loose debris continues to wash downstream.

Suggestions for Future Projects: Those commenting expressed support for the following.

- Efforts focused on natural channel design.
- Restore boulders to the creek.
- Re-vegetation is needed throughout this reach.

Reach 4b – South St. Vrain below Hall Ranch

A few comments were received by property owners on the alternatives presented in the Draft Alternatives Analysis Report. One property owner within this reach that has been actively involved in the study provided detailed comment on the overall report and the alternatives proposed for this reach. His input along with that provided by others is summarized in this section. Most comments on the South St. Vrain in Reach 4b were provided by kayak community about the recreational elements of the creek; those comments have been summarized in a later section.

Channel Alignment

- One respondent provided the suggestion that channel alignment follow the principles of those described in the Draft Alternatives Analysis Report for Alternative 2; to leave the channel as-is with restoration/infrastructure improvements occurring where needed to prevent homes from being threatened by future flooding.
- Returning the river to its pre-flood alignment should also include restoring the pre-flood conveyance capacity and/or upstream detention to compensate for reductions.
- A property owner that had met with Boulder County and the project team throughout the study submitted a series of questions about the alignment alternatives and mitigations for Reach 4b. His comments encouraged Boulder County to continue to evaluate potential flood mitigation alternatives for this reach and to be open to continuing to engage property owners for seeking solutions.

- The study characterizes the post-flood channel as “mostly stable”; it was expressed that this does not capture the major changes and loss of conveyance in this reach.

Comments Regarding Additional Alternatives

- It was stated that the combination of attenuation and existing conveyance capacity from the Andesite mine to the town is not mentioned and should be considered. South St. Vrain flood attenuation was expressed as being important, as the South St. Vrain was a major source of flooding to Bohn Park and the town wastewater treatment plant.
- A property owner suggested evaluation take place to determine if detention should be recommended as flood mitigation for this area. His inquired if the use of the Andesite Mine area is viable for detention or if other detention options are feasible for this section of the South St. Vrain.
- It was suggested an effort should be made to consider a series of retention structures in combination with raising short sections of Hwy 7 as part of a mitigation alternative.
- Clarify how new CDOT/CWCB modeling methodologies are going to be applied to the St. Vrain. This is a general issue and not necessarily specific to this reach.

Suggestions for Future Infrastructure Needs, Improvements and Projects

- Ensure that the existing Old South St. Vrain Road Bridge, as well as a replacement bridge for the one that had been destroyed, has the capacity to handle future flood flows.
- A recommendation for bank protection and fill/re-vegetation south of Old South St. Vrain Road Bridge should be considered. Commenter questioned the rationale for not recommending it past that point.
- Identify the needs for irrigation diversion points.
- Planned or future open space accesses should be identified.
- Identify future land reclamation planning for the Andesite mine and correlate that to this planning.

Recreational Elements: Many comments were provided by recreational users of the South St. Vrain. Those comments are summarized in a later section. Those comments supported the preservation of recreational uses of the St. Vrain throughout this reach. The following points were made.

- Preserve access to Hall Ranch for mountain biking;
- Restore boulders throughout this section for improving fish habitat and for kayaking purposes.
- Improve safety throughout the South St. Vrain by the removal of debris and other hazards posing risk to in-stream users or others that could fall in the river.
- Trails along the South St. Vrain from the Town of Lyons to Old South St. Vrain Road are shown on private property; putting a trail along Hwy 7 right-of-way seems like more of an

implementable option. Proposed trails should be consistent with the Town of Lyons Park and Open Space plans.

Reach 4c – Town of Lyons and East of Town

Flood plain improvements, conveyance, mitigations and risk reduction were all seen as criteria that should be prioritized for this reach. Comments primarily focused on the McConnell Ponds and McConnell Bridge. While comments addressed the recreational benefits of McConnell Ponds, the importance of addressing the ecological needs of the area as well as putting public safety first was emphasized when addressing channel alignment.

Channel Alignment

- Almost all of those submitting comments clearly expressed their support for Alternative 2, Restoring McConnell Ponds on River Right; the pre-flood location.
- Alternative 2 was seen as the option that promoted a greater degree of public safety and less risk to homes.
- Alternative 1 was seen as putting the river closer to Cobblestone Ct. /McConnell Dr./Lyons Valley Park, exposing the neighborhood to potential risk from future flood damage. Residents of that neighborhood felt that alternative was less safe and expressed strong objections to it being considered.
- There was no support for further removing trees to move the ponds closer to U.S. 36. The existing trees provide buffer between the neighborhood and the road in addition to supporting existing ecology and wildlife habitat.
- A member of the public that served on the Lyons Flood Recovery Task Force felt that Alternative 1 was inconsistent with the Lyons Project Development Guides and the greater community input.

McConnell Ponds: Comments directly addressing McConnell Ponds included the following points.

- Take flood mitigation and aesthetic benefits into account for adjacent property owners when evaluating improvements to the ponds for recreational purposes.
- Allow the river to flow into ponds to increase water flow through ponds that can support habitat while providing flood mitigation. The ponds were seen as an important mitigation feature that prevented water from flowing further south damaging homes.
- While significant support was expressed for leaving the ponds open to kayaking, fishing, bird watching and other recreational uses, several people providing input preferred doing so while protecting the ponds as a low impact, serene and scenic area for wildlife refuge.
- Preserve the ponds as an ecological resource. Restore the ponds to pre-flood conditions to protect riparian habitat versus eliminating habitat by placing the ponds adjacent to the highway.
- Strong support was expressed for preserving and adding more trees between highway and around the ponds for aesthetic reasons, for riparian habitat and as a buffer from highway.

- Restoration of vegetation is needed.
- Improve trails around the ponds and connect to other trail systems. If infrastructure were to be implemented, some providing comment expressed a preference for recreational amenities such as trails, accesses, parking, picnic benches to be located on the highway side of the ponds rather than abut up to existing private property on the west side.
- Concern expressed with the thought of the ponds being a location for additional festivals.

McConnell Bridge

- Design the ponds and bridge in a way that the ponds can help take overflow sparing the bridge from damage and allowing the ponds to act as a mitigation tool routing excess water away from bridge and neighborhood.
- Support expressed for rebuilding it to a capacity able to withstand a similar event and letting large objects clear underneath.
- Residents supported the bridge being rebuilt; “a bridge is needed, not a “BRoad”.

Highland Ditch Diversion: It was stated that the Highlands Ditch Diversion is currently a serious safety hazard that needs to be repaired. It was suggested that when repaired it should be designed to serve fish passage and safe for in-stream recreational use.

General Comments for this Reach

- List the carrying capacity for this reach/section.
- Restoration of trails is needed.
- Restoration of vegetation is needed.

Reach 5 – North St. Vrain; Longmont Dam Road/Buttonrock Reservoir

No comments were submitted on comment forms or by email specifically addressing Reach 5 at the Community Workshops or during the comment period for the Draft Alternatives Analysis Report.

In absence of submitted public comments, some members of the St. Vrain Creek Coalition provided the following input as what members of the public had expressed to them in conversations that took place at the Community Workshops:

- At the intersection of the road and Hwy 36, the channel needs to go back into the post-flood channel.
- The stream needs reconstruction that will reinstitute a natural morphology, re-vegetate the riparian corridor and add complexity and aquatic habitat back into the channel. This extends from the beginning of the NRCS project to Hwy 36, maybe close to a mile.
- Riprap rock that was used for NRCS and Boulder County projects for temporary repairs is exposed throughout the creek in this reach creating in-stream hazards. Members of the public expressed a desire to see riprap minimized in road rebuilding projects.

- The river has been scoured of large rocks when the roads had been rebuilt; this has resulted in a loss of fish habitat.
- Support was expressed for:
 - Natural channel design
 - Restoring access points
 - Stream restoration included in the rebuilding of Longmont Dam Road.

Reach 6 – St. Vrain above Hall Ranch

Residents within this reach commented that recovery work such as dredging of the creek is still needed. Some properties are still experiencing flooding during certain flows. No comment was submitted on the proposed channel alignments, rather on the following impacts and mitigations shown.

- Recovery work is still needed to dredge the creek as some properties are still experiencing flooding during certain flows.
- Residents providing comment confirmed that bank protection is needed where shown on the maps in the report.

Reach 7 – Raymond/Riverside, Middle St. Vrain

Residents did not comment on the proposed channel alignments for this Reach. Neither support, nor concern was expressed. Comments and feedback provided was focused on property access, specific flood mitigations and information regarding future improvements.

Current Needs and Impacts

- Flood mitigation such as dredging is still needed throughout this section.
- Culverts (upstream of 2585 Riverside Dr.) are blocking up during spring run-off and causing flooding to downstream properties as well as diverting water onto the road.
- Residents are interested in acquiring more information about proposed projects and specific solutions throughout this reach. When projects are being identified there will be a need for additional outreach.

Accesses to Properties

- Bridges and accesses to properties still needed to be restored; neither creek alignment was perceived as prohibiting this action.
- A list of addresses was submitted that require private bridge crossings that were lost in the flood and need to be replaced – 12 addresses provided. Please show these crossings in the final master plan.

Suggested Projects and Funding Recommendation to the St. Vrain Creek Coalition: It was suggested the SVCC should recommend in the master plan that federal funds becoming available such as Colorado's Community Development Block Grants be used to 1) assist property owners in this reach to rebuild bridges; and 2) redesign or eliminate culverts to better handle water flows and hazardous debris.

Kayak Community

The kayak community submitted approximately 60 comments to express the value of the St. Vrain as a recreational resource and as a local community asset for the Town of Lyons. Almost all comments provided emphasized the economic contribution each individual made to the Town of Lyons as a result of kayaking the St. Vrain and visiting businesses in Lyons as part of that experience. Commenters strongly supported restoring the St. Vrain to previous conditions and capitalizing on opportunities to improve sections for additional recreational uses. It was recognized that public safety and flood mitigation are of primary importance; commenters supported balancing safety, flood hazard mitigation with ecological and recreational improvements. More details about the comments provided by this user groups are described below.

Demographics of Commenters, Value of St. Vrain Whitewater and Local Economics

- Comments were provided by Lyons residents and those that frequently visited from around the Boulder/Denver/Front Range area, further regions of the state and out-of-state visitors.
- Comments were provided from those ranging in age from teens to 60+ years old.
- Almost all of those providing comments related their visits to the St. Vrain to some type of economic contribution to Town of Lyons businesses. Commenters stated that since the flood their visits have declined due to the impacts the river has experienced.
- The St. Vrain is unique in that it can be kayaked year round. Flows and river features accommodate kayakers throughout the year and suit many different skill levels from beginners to world-class competitors.

Support Expressed for the Following Actions, Elements and Future Efforts

- All comments provided by this user group supported restoring the whitewater recreational elements of the St. Vrain to the pre-flood conditions.
- Capitalize on the synergies that can exist when restoring creek between whitewater design, enhancements for native and recreational fisheries, permanent road repairs, necessary irrigation diversions and features for other recreational uses.
- Safe river accesses and parking are important; these elements should respect the private land owner interests around the sites when being planned.
- River accesses should adequately protect the river bank and be designed for multiple uses.

- New structures constructed for future flood control should take recreational usage and boat/fish passage into account.
- Road construction after the flood created new hazards. Road projects have impacted the quality of paddling in the South St. Vrain; some areas have become non-navigable because of road repairs. These sections should be addressed and restored to pre-flood conditions.

Infrastructure Improvements and Suggestions for Future Projects

- Many comments advocated for redevelopment efforts to take the recreational aspects of the St. Vrain into account as projects are identified. Provide improvements for multiple uses that consider the following elements:
 - Safe accesses
 - Adjacent pedestrian and bike trails along the river, into town and tying into other trail systems
 - Vehicle pull-outs along roads
 - Public facilities such as parking, shelters, bathrooms or picnic areas where feasible.
 - Adjacent parks
 - Safe put ins/take outs
- There is a need to stabilize river banks throughout the North and South St. Vrain.
- Boulders have been moved creating hazards; boulders need to be replaced within creek.
- There is a need for debris removal throughout the St. Vrain reaches in and around Lyons.
- Support expressed for projects aimed to rehabilitate the ecosystem and to re-introduce riparian vegetation.
- New features and improvements should take fish and boat passage into account.
- Whitewater parks need to be rebuilt; consider use of new technologies when designing whitewater parks. Consider features for all ability levels, including the addition of a slalom course.

Hazard Mitigations and Improved Safety is Needed: Overall, sections of the North St. Vrain and through the Town of Lyons are more hazardous than they were pre-flood. Safety is seen as an issue not only for in-stream recreational users but for anyone that falls in the river.

- There is a lack of safe river accesses; pull-outs have been removed.
- Many indicated that North St. Vrain and South St. Vrain road rehabilitation projects have negatively impacted the river and created hazards; specific areas that have been impacted include below Buttonrock Reservoir and near Shelley's Cottages.
- The South St. Vrain has been severely impacted and is no longer navigable in sections.
- The Highland Ditch diversion and Supply Ditch currently need to be repaired and are present safety hazards to in-stream users or anyone that could fall in the river.

Channel Alignments: Those that commented did not indicate a preference for channel alignments proposed in the Draft Alternatives Analysis Report, but made the following suggestions in regards to channel alignments.

- Re-channelize the sections that have become braided throughout.
- Channelization is needed in areas of the North St. Vrain

Fly Fishing Community

The local chapter of Trout Unlimited, the St. Vrain Anglers, submitted comment indicating its support for restoring the river's natural habitat to improve water quality and vegetation. The chapter indicated its willingness to continue to be involved in on-going restoration efforts. The St. Vrain Anglers included that:

- The ecological health of the river is important to consider throughout all recovery efforts.
- Natural channel design will aid in the river repairing itself as riparian flora and fauna heal.
- Improve the biological function of the river system.
- Address the long-term recovery of the riparian habitat.
- Develop a natural river channel that incorporates the stream hydrology.
- Trout Unlimited is interested in continued interaction and involvement throughout the recovery process and is interested in being involved through project implementation.

St. Vrain Master Plan – Draft Alternatives Analysis Report Public Comments Table and General Responses

A summary of the public input is included in the following table.

This introduction to the public comments serves the following purposes:

- 1) Explains the context in which public comments are being considered for planning purposes.
- 2) Explains how comments have been collected and categorized.
- 3) Provides general responses on topical areas to show that the input has been acknowledged and what the overall response is.

Public Input and Next Steps:

- Channel alignments, infrastructure repairs and other flood recovery needs identified in the St. Vrain Master Plan are conceptual in nature and provide a general overview for the future vision of the creek; more detailed planning and design will occur that uses the input collected here for informing what will ultimately, and specifically, be implemented throughout the watershed.
- Through future project identification, funding, design and implementation efforts, the input provided here should continue to be considered for informative purposes.
- Ways to further involve property owners, residents and other stakeholders should be identified and occur where applicable as additional planning and design is conducted.

Public Input Submission:

- The comments included in the following table were provided on comment forms at Community Workshops or emailed to the project team during the review period for the Draft Alternatives Analysis Report for the St. Vrain Master Plan.
- Comments were also provided on maps at Community Workshops; those comments were reviewed and taken into consideration by consultant team members for refinement of the channel alignment alternatives.
- In addition to the input provided here by the public, government agency members of the St. Vrain Creek Coalition also submitted input and feedback on the channel alignment alternatives. The following table only documents the input provided by members of the public.

Please see the specific sections of the master plan addressing each reach of the St. Vrain to see how input was considered for the recommended alternatives being proposed.

Public Input Categories: Comments received were all reviewed and categorized with the following issue-area descriptors. In many cases comments addressed multiple topics. Comments received addressed the following categories:

- | | | |
|------------------------------|----------------------------|------------------------------|
| • Channel Alignment | • Local Plans and Policies | • Operations and Maintenance |
| • Flood Mitigation | • Public Safety | • Agriculture and Irrigation |
| • Flood Conveyance | • Property Impact | • Right of Way |
| • Environmental Restoration | • Current Impact | • Aesthetics |
| • Fish Habitat | • Recreation | • Ongoing Involvement |
| • Habitat (General/Riparian) | • Transportation | • Project |
| • Land Use | • Access | |

General Responses to Main Topics and Categories

Channel Alignment: The preferred alternatives within each of the reaches for channel alignment presented in the master plan are “conceptual designs”. The St. Vrain Master Plan has presented feasible alignment alternatives that will need to be further evaluated for more detailed planning and design. The preferred alternatives being recommended provide general direction for moving forward and identifying projects.

Public input should be taken into consideration for further channel alignment refinement; especially where specific improvements impact or effect private property. Further design refinement will look at site specific needs, issues and adjustments needed to address property impacts by coordinating with property owners regarding current and future projects.

The proposed channel alignments present long-term solutions to meet the current needs for addressing creek stability; further design refinements will continue to occur through future design processes.

Flood Mitigation and Conveyance: Input provided regarding flood mitigation and conveyance strategies has been reviewed and included to the extent practical based on the scope of the preferred alternative for each reach and the data that is available today.

Natural Channel Design, Environmental Restoration, Fish Habitat and General Habitat-related Comments:

- Natural channel design is being recommended throughout the watershed to be incorporated and considered for future projects.
- Specific strategies and actions for environmental restoration efforts will be further addressed in future phases of project definition and concept designs. To date, the St. Vrain Master Plan has acknowledged and documented that this includes, but is not limited to, the replacement of woody materials to create natural drop structures, replacement of boulders to improve fish habitat, general re-vegetation of the riparian habitat and stabilization of creek banks to prevent on-going erosion in addition to other issues that have been noted.
- Comments that have addressed environmental restoration efforts or issues have been categorized and will be included in the appendix of the St. Vrain Master Plan to be referenced in on-going restoration activities and project development.

Current Impacts and Property Impacts: Comments were submitted about current impacts residents, property owners or stakeholders are still experiencing as a result of the flood. These issues have been identified and will be informative for referencing during project implementation phases. Impacted property owners and stakeholders are encouraged to stay involved with the ongoing planning processes to address many of these impacts. Project implementation processes should include outreach and coordination tasks for further coordination with the parties affected.

Agriculture and Irrigation: Comments indicating the repair and restoration of agriculture and irrigation infrastructure have been noted. Further coordination should occur with the St. Vrain Left Hand Water Conservancy District and the owners of these facilities.

Transportation Improvements, Impacts and Needs; Including Access: These issues have been noted and identified. As projects are being implemented the comments provided as part of the master plan process have been identified and should be taken into consideration by the government agencies responsible for further developing projects to address road repairs, accesses and other impacts to transportation infrastructure and the surrounding environment.

Recreation: Many comments and stakeholder input was provided by in-stream recreational users, specifically kayakers. Comments were also provided about trail connections and other recreational activities that occur in the St. Vrain watershed. These comments have been acknowledged and documented. Recreational uses of the St. Vrain should be considered and incorporated into future project decisions. The continued involvement of stakeholders focused on recreational use is encouraged and future project planning should aim to continue to involve and consider the perspectives provided by this unique user-group of stakeholders.

Suggested and/or Identified Projects: Current, future or suggested projects have been identified and considered as conceptual designs have evolved and will continue to be addressed as designs progress.

On-going and Future Stakeholder Coordination: It is recommended as an outcome of the St. Vrain Master Plan outreach process that on-going coordination should continue to occur through future phases of project identification, conceptualization, development, design and implementation.

Public Comments on Draft Alternatives Analysis Report Reach 1			
Date	Method	Comment	Category
9/15/2018	Comment Sheet	Alternative 2, Reach 1 - What about mosquito habitat if the creek is not realigned to historic channel?	Environmental Restoration
9/15/2018	Comment Sheet	With a strong preference for Alt. 1 on reach 1, an idea split flow for habitat sustainment would keep H2O in the old channel year round, with the new/South Channel conveying water only in high flows.	Channel Alignment; Flood Mitigation; Flood Conveyance
9/15/2018	Comment Sheet	We would like water to follow its original river channel - 100% of normal flow preservation of veg, trees. Alternative 2 is not our choice.	Channel Alignment
9/15/2018	Comment Sheet	We want the water E. of the County line Road to go 100% into the old channel with a new overflow berm to take excess water out through the open space ponds.	Channel Alignment; Flood Mitigation
10/3/2014	Email	Alternate 1 as this would benefit the trees and wildlife in this area by putting the river back to its original state. There is a pond located on our property that historically has had water in it that benefited the wildlife tremendously but since the flood and the river moving farther and dropping in elevation our pond is all but dried up now. Restoring the river back to its original state would possibly fill the pond located on our property and be of great benefit for the wildlife here as it was in the past before the flood.	Channel Alignment; Flood Mitigation; Personal Property Impact; Environmental Restoration
10/3/2014	Email from Barb Brunk	Comments on attached maps and copied in reaches 1-3.	Channel Alignment; Personal Property Impact; Environmental Restoration; Projects; Flood Conveyance
*Comments are reproduced as submitted with minimal to no editing to maintain original integrity. ** [?] denotes an illegible word in a hand written comment that has been transcribed.			

Public Comments on Draft Alternatives Analysis Report Reach 2			
Date	Method	Comment	Category
10/3/2014	Email from Barb Brunk	Comments on attached maps and copied in reaches 1-3.	Channel Alignment; Personal Property Impact; Environmental Restoration; Projects; Flood Conveyance; Land Use
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Public Comments on Draft Alternatives Analysis Report Reach 3			
Date	Method	Comment	Category
10/3/2014	Email from Barb Brunk	(Comment 1 of 2) As owners of a portion of Reach 3 of the St. Vrain Creek Watershed master Plan we have the following comments on the Draft Alternative Analysis. Our property is shown on the maps labeled Reach 3 map 3 of 6. Our comments are illustrated on the attached map (alternative 2 of this portion of the corridor). We prefer Alternative 2 as included in the draft analysis with several additions and clarifications. We Request that you add the following site specific information to the plans. • Restore Creek to pre-flood alignment remove debris deposited by the flood and enhance aquatic habitat as part of the restoration. • Stabilize and protect the eastern side of the Creek to keep 100 year flows from breaching the embankment and flowing through the reclaimed gravel ponds toward existing residential neighborhoods to the east. • Restore the pond on the eastern portion our property that was breached by the flood water. Widen the connection to the existing pond to the east. Excavate material deposited by the flood and use it to restore a portion of the pre-flood pond. Balance cut and fill on-site restoration of upland areas, pond embankments and farm access roads.	Projects; Flood Mitigation; Environmental Restoration; Flood Conveyance; Land Use
Continued	Email from Barb Brunk	(Comment 2 of 2) Use material excavated as part of the eastern pond restoration to restore upland areas and create wetland a bench at the western end of the pond. The goal is to enhance the riparian corridor and add stability to the creek bank through this reach of the creek. • Cooperate to repair breach of our southern pond, adjacent to Hygiene Road. Restore the farm access along the top of the repaired embankment and install an emergency spill to direct overflow back under Hygiene Road to the Creek to the South. • Restore the pond on the western portion of our property. Use material deposited by the flood to restore the western creek side embankment and create	Projects; Flood Mitigation; Environmental Restoration; Flood Conveyance; Land Use; Transportation

		appropriate hydrology for a wetland bench to enhanced riparian habitat along the northern embankment. • At the intersection of St. Vrain Creek and Hygiene Road, remove obstructions, stabilize channel, widen the channel to enhance capacity and replace the bridge with a crossing that has capacity to carry the 100 year event under Hygiene Road.	
10/3/2014	Email from Barb Brunk	Comments on attached maps and copied in reaches 1-3.	Channel Alignment; Personal Property Impact; Environmental Restoration; Projects; Flood Conveyance; Land Use

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Public Comments on Draft Alternatives Analysis Report Reach 4a			
Date	Method	Comment	Category
9/11/2014	Email	<p>My name is Dave Frank. I am 45 and have been paddling the Saint Vrains for 20 years. I understand that flooding is a natural phenomenon, and I do not expect any agency to run out and restore the river to its pre flood state. What is not natural and I believe does justify mitigation is the quick and dirty road fixes that were necessary to get things open, but very detrimental to the character of the river.</p> <p>SSV in particular suffered from road construction at the narrows as well as above and below. Road crews "stole" big boulders to shore up the road, at the detriment to the river. The channel they left at Narrows proper is no longer viable for the most part. I've not driven up the road by shelley's but I've heard road crews weren't friendly to the river bed there either.</p> <p>It seems appropriate that as crews do road work without the big pressure to reopen, they could spend a little more time and care to ensure that the rivers remain runnable to whitewater crafts.</p> <p>Many of the pull-offs have been removed, making access and scouting more difficult. People will need to scout the bigger rapids, and providing pullouts near them will make it safer for users and other drivers in the canyon. This is an opportunity to make this better, when presently it is worse.</p> <p>Better access to the areas near button rock seems like an obvious and easy thing to work for at this point.</p> <p>I have attended LOG all years prior to this year, and frequently spend money on food, beer and or gas when recreating on the local rivers. The SSV was a goto destination for class V paddlers; it presently is not.</p> <p>Thanks for considering the river when making road constructions decisions.</p> <p>President D&D Builders, Inc.</p>	Transportation; Recreation; Natural Channel Design; Flood Mitigation; Environmental Restoration; Current Impact; Public Safety; Access
9/17/2014	Email	<p>To the Planners: I cannot make the meeting so thank you for having this email access to make comments. I live on Apple Valley Rd, address 1782. The river used to run at the base of my property, which is sloped so the house is not in the flood zone and suffered no damage from the Flood. After looking at the proposed river re-routing, I have to say that I am neutral about it. I understand there are 3 lots that lie across the old river bed just south of us that are not non-buildable due to being low in the flood zone. I AM in favor of these lots being converted to open space/park land. I didn't see this issue addressed in the Plan (maybe I missed it) so I want to mention it. If that is better achieved by re-routing the river back to its original course, then so be it. I have some reservation about the public being able to come closer to us if the original river course is restored but that is less of a concern to me than having the open space established. So, whatever river route serves to protect the area from further bad flooding and to establish the open space is fine with me. Thank you, Leah Treadwell 512-656-2662 Thank you for the information about the County contact. He will be able to answer my questions I bet. You guys have been doing a great job. I appreciate the email updates in particular. Leah.</p>	Channel Alignment; Property Impact; Land Use
9/17/2014	Email	<p>To Whom It May Concern, I saw that there will be some workshops regarding the final river location for the North St. Vrain River on Thursday the 18th for Lyons area. I can't make it to the meeting that night but I would like it to be known that I would recommend that the river be pushed back to its original location near the Boland property (I am not sure how else to explain this area). This would help families in this area get their land to a useable point where they may be able to move forward. Thanks for your time and consideration.</p> <p>Thanks, Jason Christiansen Apple Valley Road Resident</p>	Channel Alignment
9/18/2014	Comment Sheet	Please put the river back - it dissects our property into two pieces of 1 acre and 1.5 acres. Water currently runs way too fast.	Channel Alignment
9/18/2014	Comment Sheet	The south corner of our property it is still washing away because of how the river is.	Environmental Restoration; Property Impact
9/18/2014	Comment Sheet	Reach 4a channel re alignment alternative 1 looks like a cowboy design. Is it based on science? Is there a HEC-RAS model? What peak flow is considered? In my opinion, the design needs to comfortably flow at 1500 CFS	Channel Alignment; Flood Conveyance

Public Comments on Draft Alternatives Analysis Report Reach 4a			
Date	Method	Comment	Category
9/18/2014	Comment Sheet	My version of Table 10.3• #1 realign, #2 as is• Natural channel – the river hopped the berm and carved a new natural channel• Recreation – tube and kayak people enjoyed the “Island” and the left/right choice• Fish Habitat – Page 304 of PDF table 4 says spit plan is preferred• Flood conveyance, Flood mitigation, the flood plane is 2ft lower when infrastructure is relocated• Environmental restoration its all moon scape• Aesthetics – everybody loves the island• OP & maintenance• I am installing a conforming pedestrian bridge on the island to allow year round access and 911 public safety access. • Policy and plans – the stated policies all benefit the town of Lyons and this site is outside the town limits.	Flood Conveyance; Channel Alignment; Natural Channel Design; Recreation; Flood Mitigation; Environmental Restoration; Aesthetics
9/18/2014	Comment Sheet	During the NRCS bank stabilization last spring, the design was compromised by negligence on the part of Longmont, Boulder County and city of Lyons, as these folks failed to find the water pipes (infrastructure) that was in the job site. The end design has the river water level 2ft higher than the original design. This compromises the safety of my life and property by raising the flood plain and flood waters at my house by 2ft. This liability for Longmont/Bo County and Town of Lyons can be mitigated by lowering the infrastructure to the correct height using realignment alternative 2.	Flood Mitigation; Environmental Restoration; Project; Current Impacts; Public Safety; Flood Conveyance
9/18/2014	Comment Sheet	The alternative 1 realignment is not safe. Prior to the flood, a 24" berm with tree and bush growth (mature) existed where alternative 1 is suggesting to put a berm/bank protection. This worked very poorly during the flood and was swept away/overwhelmed before the river even started to flood on 11 Sept. 2013. This approach does not work.	Channel Alignment; Flood Mitigation; Environmental Restoration
9/18/2014	Comment Sheet	Very good plans so far, looking forward to more detail. Glad to hear you are working with the Highland dam owners to make that structure more fish and recreation friendly.	Fish Habitat; Recreation
9/18/2014	Comment Sheet	1. reestablish boulders at the corner of shelley's cottages. This is upstream of the river. These are the large round boulders that were put in the bank.	Project; Environmental Restoration; Natural Channel Design
9/18/2014	Comment Sheet	(Comment 1 of 2) The old channel behind my house was compromised Wednesday 11 September around 2:30am. That section was a berm, with structured integrity made up of boulders, cottonwood tress with mature root systems and other stable flora. As previously stated above, that was breached early in the food event. To put that section back in place, even with modern engineering is again putting me and my neighbors in harms way in a major flood event. The river has proven that it wants to be in the new channel, that is a "actual fact!"	Channel Alignment; Property Impact; Flood Mitigation; Environmental Restoration; Public Safety
9/18/2014	Comment Sheet	(Comment 2 of 2) The next point concerns "Safety" to leave the river in the new channel increases the safety factor exponentially. It eliminates the sharp turn, the channel widens, [?] the water a widening factor to the mouth. Also the existing two channel scenario gives the river [?] to flow, and is more probable it will stay with its banks. (wider and more [?] not an abrupt turn as you propose. 3. Longmont failed to give [?] to the general contractors at the start of won mitigation project (NRCS) this spring. The [?] of this oversight caused the contractors to raise the elevation of river bottom 29". The solution is to return lower Longmont and Lyons water lines and leave the new design in place. A [?] I reconsidered a LEC-RAS study to support my suggestion of letting the river split and maintain flow in new channel. I also suggest the [?] factor toward Longmont water would be eliminated if the lowered they water line.	Public Safety; Channel Alignment; Flood Mitigation
9/18/2014	Comment Sheet	Gave comments at the post-flood meeting the County held. Never this specifically because first time seeing it. Reach 4a Alt 1 comment box "channel moved back to pre-flood alignment by property owner" (4th box on the left): This is my property if we have done a great deal of restoration focusing on aquatic and terrestrial habitat; J hooks, root wads, v weirs, boulder clusters, drill seed native Colorado grasses and planted over 200 trees and willows (90% success rate this fall). I would like to propose that keeping the river in its pre flood channel, the current location, will be cheaper and effective management. I would like to obtain an HEC/RAS of existing site to improve flood plain and capacity as well as maximize aquatic and terrestrial habitat.	Channel Alignment; Property Impact; Flood Mitigation; Environmental Restoration; Fish Habitat
9/18/2014	Comment Sheet	NRCS recommended grading the mayes property to help for future floods. It would help folks downstream to spread out water. Who will pay for this? (especially since mayes property is in buyout program? Revegetation - NRCS recommended planting willow trees above root wads and along banks. Debris removal from Casey property?	Property Impact; Project; Flood Mitigation;
9/22/2014	Email	(Comment 1 of 8) Good morning,As the owner of 556 Apple Valley Road, I would like to add my comments to last week's draft plan meeting.With regard to the Channel Realignment proposed for reach 4a, the chosen Alternative 1 has serious safety issues for life and property and the decision should be revisited.The previous owner of 556 Apple Valley told me that the rain event of 1995 caused the North St Vrain river, running in the old channel, to leave it's channel and flood an area near the river. Subsequently a berm of large sandstone rip rap and river cobble was constructed on the south side of the river bank. The berm was about 2 feet in height and ran almost the full length depicted in the Draft Plan on page 57 of the pdf file. When I bought the house in 1999 the berm was stable with some vegetative growth through it. Under my care and watering the growth matured and trees were added until the 2013 flood event. Very early in the flood event the berm caused water to backup upstream and flow around the south side of the berm, inundating several homes. And using a berm to force water to make a 90 degree turn doesn't work, as I watched it fail soon after the homes were inundated Wednesday afternoon 11 Sept, 2014.	Public Safety; Property Impact; Environmental Restoration; Flood Conveyance; Flood Mitigation

Public Comments on Draft Alternatives Analysis Report Reach 4a			
Date	Method	Comment	Category
Continued	Email	(Comment 2 of 8)The NRCS sponsored reconstruction of the river in the spring of 2014 is a much better solution and is designated Alternative 2 in the Draft Report. This engineered design holds the channel at constant elevation while the river is in the turn, which allows the river to turn safely without excess energy. This design has a built in flood plain that is the island between the two channels. This ability to bend under stress and flood the island rather than break and loose the berm is a major advantage of Alternative 2 and increases public safety. Sadly, Boulder County, The Town of Lyons and The City of Longmont failed to identify their infrastructure before construction began on the NRCS plan. This lead to unexpected heavy equipment touring through 24 and 12 inch water pipes in the construction zone. This major surprise and the need to finish the project before spring runoff resulted in deviations from the original plans. The result is that the river bed had to be constructed two feet higher resulting in local flooding this summer and undesirable changes to the local Apple Valley flood plain. Having the flood plain two feet higher than planned results in a loss of safety to life and property, increased chance of flooding, and liability for Boulder County, The City of Lyons, and The City of Longmont.The following is a list of comments to Table 10.3 Relative Benefit Analysis	Channel Alignment; Flood Mitigation; Flood Conveyance
Continued	Email	(Comment 3 of 8) Natural Channel RestorationA natural channel design is one by which the natural characteristics of a stream are restored. The old channel represents an unnatural channel as established by our pioneering forefathers in a previous century. The current channel is one that is in the middle of the MVP, as shown in Figure 13 of the Draft report on page 421. Being in the middle of an MVP is more stable than expecting the river to exist on the edge of the MVP as provided in alternate 1. The letter from Dave Julia of Anderson Consulting Engineers, contained in the Draft Report pdf page 372, states "Consequently, it is recommended that in most instances along Middle St Vrain Creek, North St Vrain Creek and South St Vrain Creek that the channel be left in the current (post flood) alignment."I had the vivid opportunity to watch the river move from a normal September flow to the extreme flood stage where my house was swept away. During that three day period, I watched the river occupy every possible reach and course in that valley. It finally settled where it is and matured to cut a deep channel. To burn diesel fuel and try and return it to it's original low stability state on the edge of the MVP has a low probability of success. With the added rain rates and frequency predicted due to the increased warmth of the atmosphere begs for a solution that is stable and that can handle larger than expected flows.In the NRCS effort, the bank and river structure were rehabilitated as much as possible with local natural materials. Local tree root balls left over from the flood were used to protect the bank. Native grasses were replanted on the banks and island.	Flood Conveyance; Channel Alignment; Natural Channel Design; Flood Mitigation; Environmental Restoration;
Continued	Email	(Comment 4 of 8) RecreationHaving the two channels provides twice as many places for the tubers and kayaks to go, twice as much riverbank for fishing and birding while being within a mile from the town of Lyons. The island is providing unique structure that attracts diversity. For example the upstream point of the island seems to attract flocks of all types of birds. The shallow pools of the south channel are home to several types of minnows and small fish this summer.Fish HabitatHaving two channels provides twice as many opportunities for habitat. The shallows and root balls of the south channel are providing homes to small fry that I have never seen in the old north channel. The larger flow capacity, the deeper holes in the new south channel of the current design made the spring run off less crazy and kinder to the fish population.On page 308 of the Draft Plan, the recommendation from the ecological survey concerning area NSV03 is to maintain new and historic channels as undeveloped floodplain supporting the As-Is choice.Flood ConveyanceThis spring we had a peak flow of about 650cfs is rather average or a little below average historically. The new design handled this flow with ease, at about 4fps, confirming that it was capable of easily handling the 25 year flood design criteria of 980cfs, with bank height and root ball height providing good coverage up to at least twice this flow.	Flood Conveyance; Channel Alignment; Recreation; Environmental Restoration; Fish Habitat
Continued	Email	(Comment 5 of 8) Thus, Alternative 2, the NRCS plan, achieves the desired goal of natural channel restoration both in location and restoration technique without spending the large sums of money and diesel fuel that would be required to implement Alternative 1.In the previous times with the old north channel and the berm, on average years we had about 6 to 12 inches of bank free board at peak runoff. On peak years the bank would break even or overflow to the bank a wee bit, and on several occasions we had bank erosion as stream velocities were approaching 10fps.In summary, the new design has margin, old design didn't.Flood MitigationDuring the flood event I watched the existing berm, similar to what is proposed in Alternative 1, cause water to deflect to the south and cause additional flooding in 3 houses.Alternative 2 enhances flood mitigation by using the two channels to slow the flow of water and proving a controlled floodplain area using the island and it's shores. This helps limit the destructive energy of water and makes the channel less sensitive to trash and debris.Environmental restorationAlternative 2, the As-Is solution, has already completed seeding with Colorado natural grass species on all banks and the island. Willow trees have been planted on the banks at 556 and 558 Apple Valley. Willow bushes have been planted at 488, 556 and 558 Apple Valley on the banks. Additional plantings and seedings are scheduled for this fall.	Channel Alignment; Flood Mitigation; Environmental Restoration; Flood Conveyance

Public Comments on Draft Alternatives Analysis Report Reach 4a			
Date	Method	Comment	Category
Continued	Email	(Comment 6 of 8) Alternative 1 has yet to start, is going to burn 6 dinosaurs of diesel fuel to move the dirt and is years away. Public Safety Public use of these lands will require public safety sooner or later. For that and many other reasons, a pedestrian bridge is planned between 556 Apple Valley mainland and the island. My plan is to construct a bridge that is well above high water, to carry pedestrian loads (90lbs/sq ft) and have approaches that function year round. With a bridge of this capability in place, the safety and usefulness of the island will enhance Boulder County and the Town of Lyons. Aesthetics Everybody that visits Apple Valley like the island. Doesn't matter if you come by car, or kayak, or tube or hike or bike ... everybody is charmed by the island. The Egret likes it. The fish like it. And right now a medium sized black bear is eating the wild apples on the island and leaving his mark every day. An island is not the norm in Colorado, and it never fails to make folks smile. In contrast, Alternative 1 is hidden from Apple Valley road and highway 36 in this stretch, and is less accessible to the public. With a shoreline that is less friendly to hiking, and with less shoreline, Alternative 1 brings fewer opportunities to enjoy the beauty and it is more difficult to access.	Channel Alignment; Aesthetics; Public Safety
Continued	Email	(Comment 7 of 8) The plan for the island is more trees, more flowers, and some native grasses. Alternative 2 also provides a shallow place in the south channel where one can slow down and appreciate Steamboat Mountain, or a chance to regroup or get out, a valuable public safety option given the cold waters of the St Vrain. Right of Way I'll guess that the only measure the Apple Valley coalition would agree on would be the need to lower the infrastructure at the two river crossings in order to fully mitigate the safety and liability issues faced by The City of Longmont, Boulder County and the Town of Lyons. Ops and Maintenance Prior to the flood there were several telephone and fiber lines in about the area of the new channel. These are now relocated to pole mount on Apple Valley road. In the area of the island there is no AC power or cable TV transmission underground or over ground. The only utilities present are the two water companies, Longmont and Lyons and they have hidden their pipes really well. Agriculture and Irrigation Under Alternative 2, I have about an acre less of property to water ... it has been turned into river bed for the south channel, and the rest is rocks and beach and nothing that grows grass. I used to have a lush green lawn in this area ... and it was well watered thanks to the St Vrain water program. I will estimate that the island will use or get very little water, and thus save the agriculture people about 1 acre foot of water every year due to the change from lawn and fruit trees to a more natural landscape.	Environmental Restoration; Property Impact; Right of Way; Operations and Maintenance; Agriculture and Irrigation
Continued	Email	(Comment 8 of 8) Thus alternative 2 saves a large quantity of water. Local Policies I don't vote in Lyons election matters. Apple Valley is as much boulder County as it is Lyons, yet Lyons policies dominate. We here at the Apple Valley Association feel that we are not being well represented and would like to express our vote for Alternative 2, the As-Is solution. Summary In summary the option with the least risk, liability and cost is Alternative 2, the As-Is with Infrastructure improvements plan. Alternative 2 requires the water infrastructure located at the east and west ends of the island to be lowered in the area of the water crossing. This will lower the water table / floodplain in the local area approximately two feet. Thus, -improved public safety-lower floodplain-less liability-better aesthetics with easier access-improved bank free board upstream of project-lower water table will dry out basements and save electricity on sump pumps-increased effectivity of island floodplain area-can properly design the water flow split between upper and lower channels-improved fish habitat With the majority of Alternative 2 work already done, and no funding in sight for Alternative 1, the clear choice is Alternative 2 so that we can start to rebuild.	Flood Conveyance; Channel Alignment; Public Safety; Flood Conveyance; Aesthetics; Fish Habitat
9/24/2014	Email	(Comment 1 of 2) As owners of approximately 9 acres, address 18424 N. St. Vrain Dr., Lyons, CO 80540, as depicted on Map 3/3, Reach 4a, we would submit the following comments: 1. The present river course seems to follow nature's path and rules, ie, "the path of least resistance", etc, etc. We have aerial photos, pre and post flood, that I obtained from Boulder County Land Use. If you study and compare these, you can see the same "contour" depiction of the water's course in the pre flood vegetation shades, ie, light shades due sandy/less fertile soil from previous river deposits--very interesting. 2. The "old river" course made close to a 90 degree turn to the west, along the north boundary of the Girl Scout Camp, then another 90 degree turn to the south, bordering the western edge of our property. This worked fine under normal/controlled situations. In the mid 1990s there was an incident when the flow rate reached a level where evacuation was ordered by local officials and bank damage occurred. It seems obvious now to us that the two 90 degree turns are not wise. 3. Our main concern and observation now/post flood, is that if the river was to be "put back" to its pre flood alignment, our home, structures, and property would be in jeopardy. Referencing the photography/map 3/3, I think that with the instability of new earthwork, any abnormally high flow would fail to negotiate the first 90 degree westward turn and flow southwesterly as it did recently, and to a greater and unimpeded degree, directly to our home.	Channel Alignment; Property Impact; Public Safety
Continued	Email	(Comment 2 of 2) 4. We have spent a lot of time, energy, and resources to ensure a safe and unimpeded channel for the river to flow through our property. We also had to build our own bridge to access our home. We built the bridge to the highest standards to assure unimpeded flow. 5. As you may surmise, our opinion is that the river channel as depicted on map 3/3 from the first 90 degree turn to where it rejoins its original course remain where nature put it. The old channel is now an enormous sand bar, depths of probably 5-8 feet.	Flood Mitigation; Channel Alignment; Property Impact

Public Comments on Draft Alternatives Analysis Report Reach 4a			
Date	Method	Comment	Category
9/30/2014	Email	Am hopeful to move the Saint Vrain creek back to its original bed from the girl scout camp to past Steve Flowers property. As the water is flowing fast and the creek is not in a river bed. When the water is high it flows under the man made rock bedding and up to the road. Anything that is burred hazard is being exposed to the creek and the water of Longmont. Wild life will be further from the road preventing automobile accidents. Peoples who have been directly effective will start to heal mentally and physical due to stress. (PTSD). There is lots of iron in the water staining rocks. Moving it back will eliminate unknown substances in the water hidden. I know property line prior to flood were extended into the river and that is ok with me. Rocks are still moving fast in the creek down stream.	Channel Alignment; Environmental Restoration; Current Impact
9/30/2014	Mail	Attached is a typed Comment form.	Channel Alignment; Property Impact; Project; Flood Mitigation; Flood Conveyance; Access
10/1/2014	Mail	Our property and homesite on the bank of the North St. Vrain in Apple Valley. Just upstream from us there was an NRCS project where they stabilized the banks in the post flood channel. At the end of the new channel at 418 Apple Valey (welke's) They encountered the city of Longmont water line "18"" If the channel is to remain there this water line must be lowered!! I would also like to see a grande control structure just up stream from our porperty to slow water down. I also belive that many of the root wads are too dangerous!! for recreational users from the woodded bridge down through Apple Valley. I would request that public safety take a higher priorty considering all the recreation. Thank you.	Public Safety; Channel Alignment; Flood Mitigation; Flood Conveyance; Property Impact
10/3/2014	Email	Hello- We are emailing on behalf of Cheron Boland 18468 N.St. Vrain Hwy in Lyons. We are in full support of moving the river back to it's original channel. Please let us know how we can further assist in this process. Scott and Holli Stetson	Channel Alignment; Property Impact; On-going Involvement
10/3/2014	Email	1.Eroded banks on the North St. Vrain below Buttonrock Dam should not be targeted for 'repair' if the purpose is to prevent sediment from entering the creek. Buttonrock rock is a far larger contributor of sediment to North St. Vrain Creek. The creek turns muddy from runoff off Buttonrock Road whenever it rains. 2.What is the rationale (pros/cons) for re-establishing floodplain benches? Is it just to engineer sinuosity into the channel?3. Rather than re-establishing floodplain benches, wouldn't a better alternative within channeled areas be to keep them as seasonal channels and wetlands? 4. Reach 4B between Old South St. Vrain Road and the Quarry has spread water over multiple channels, creating a wild (and beautiful) wetland. It used to be a cow pasture (ugh). The area that is Boulder County open space should be left as it is now.5. This document in general seems to have a prejudice against the post-flood, somewhat unstable conditions, in favor of what things looked like before the flood. For one example, it presumes to know what is a 'natural flow regime', as if that is not what the flood created. Stream 'restoration' is fine where infrastructure or homes could be threatened, or in the middle of Lyons town proper, but elsewhere the motto should be to leave nature alone.[Editor's Note: <i>Comment included in Reaches 4a and 4b</i>]	Environmental Restoration; Project; Flood Conveyance; Flood Mitigation; Channel Alignment
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Public Comments on Draft Alternatives Analysis Report Reach 4b			
Date	Method	Comment	Category
9/22/2014	Comment Sheet	Any proposed actions that would preclude recreation access to the Hall II property in the future would be unacceptable, this property was bought with recreation in mind...	Recreation
9/22/2014	Comment Sheet	Place large random boulders throughout this section for fishing and kayaking	Recreation; Environmental Restoration; Project
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Public Comments on Draft Alternatives Analysis Report Reach 4c			
Date	Method	Comment	Category
9/12/2014	Email	<p>My name is Pete Johnson, I am 35 years old and reside in Denver. I have lived in the Front Range for nearly twenty years and I am an avid fly fishermen. I recently bought a fishing raft and in the last few years I have become increasingly active in boating activities. Throughout my time in Colorado, I have visited Lyons and the surrounding area several times each summer to fish the St. Vrain. I would like to see the St. Vrain Master Plan and the restoration efforts focus on the following aspects:</p> <ul style="list-style-type: none"> - Public access for fishing and all types of recreational boating, both in terms of wade fishing access and boat ramps - Improvement and restoration of fish and wildlife habitat - Removal of dangerous and man-made hazards for boaters - Removal of structures that can result in fish and wildlife mortality <p>Whenever I am in the Lyons area, I always stop in at South Creek LTD, a world-renowned rod shop and local treasure, as well as other local shops, restaurants, gas stations, etc. Fishing and river recreation are integral parts of the Lyons community and economy, and the river should be restored in a manner that will promote a healthy fishery and an easily accessed river corridor, which will in turn revitalize and maintain all of the aspects of the area that make it a special place to visit and recreate.</p> <p>Thank you for considering my opinion. Sincerely, Pete</p> <p>Pete Johnson PC Johnson Attorney at Law, LLC</p>	Fish Habitat; Recreation; Access; Environmental Restoration; Project; Public Safety
9/18/2014	Comment Sheet	The McConnel ponds should be restored in their pre flood position. Because the site is open and made for recreation. Moving the ponds by the highway will destroy the wooded riparian corridor. Place the ponds back where they were (with an inlet set at an elevation to allow the river to flow into the ponds in a major flood event). Would protect the existing bridge on McConnel. If the existing bridge can handle a 50 year flood then the hardened inlet could be set at the 25 year flood elevation to provide capacity for the large flood, take the pressure of the existing bridge and still keep water off the highway. The new bridge on McConnell would need the capacity to carry the major flood.	Flood Mitigation; Channel Alignment; Environmental Restoration; Flood Conveyance; Transportation
9/18/2014	Comment Sheet	The bridge upstream of planet blugrass was designed to have a bridge underpass please include to provide better flow conditions and to private access to Apple Valley.	Flood Mitigation; Flood Conveyance; Transportation; Property Impact; Access
9/18/2014	Comment Sheet	I appreciate all the effort that has been made to take everyone's input into consideration. The Highland diversion dam structure presents a serious safety issue and I appreciate your work on making mitigation plans. Rather than having a death trap, please continue your efforts to transform this structure such that it serves for fish habitat and fish passage and such that recreational canoe and kayak training can proceed. This is a resource that can benefit the youth of our community for generation to come. The economic benefit to the community by reestablishing outstanding white water training must be taken into consideration. [?] Lyons Outdoor game and championship space could economically benefit the community.	Fish Habitat; Public Safety; Recreation; Agriculture & Irrigation; Local Plans and Policies
9/18/2014	Comment Sheet	Would like to know the carrying capacity of the river at reach 4c and how we could expand it to reduce flood risk. Thanks so much for all your help and hard work.	Flood Mitigation; Flood Conveyance;
9/21/2014	Email	<p>(Comment 1 of 4)</p> <p>Hello, My name is Jane Bravard. I attended the meeting at Lyons High School on September 18th. I have been integrally involved in the community process of planning since the flood of last year. I was the primary author (with a lot of input) of the ponds PDG that was generated out of the Streams group. That process involved a great deal of community input, as well as many hours of hard work. Needless to say, it was distressing to me to learn that the Master Plan draft contains Alternative 1 for Reach 4c, to restore the McConnell ponds on river left. This alternative was explored in our PDG, and this is the conclusion we came to at that time: From an economic standpoint, this is a poor idea. The town has limited funding, and has already made a substantial investment to move the river back to its original channel. In addition, a lot of temporary work has been done on the river banks which could become permanent.</p> <p>While it could be argued that moving the river would increase the amount of land available to spectators for watersport events in and around the restored ponds, exchanging the locations of the river and ponds is more likely to reduce the ponds to mere "park and fish" status, stripping them of most of their ecological and economic value. This use of the land closest to residential neighborhoods would have a seriously detrimental effect on the overall Lyons economy, since it would siphon visitors away from our downtown profit center. Exchanging the positions of the ponds and river in the McConnell area would be ecologically irresponsible and economically wasteful.</p>	Environmental Restoration; Channel Alignment; Flood Mitigation; Flood Conveyance; Land Use; Property Impact

Public Comments on Draft Alternatives Analysis Report Reach 4c			
Date	Method	Comment	Category
9/21/2014	Email	<p>(Comment 2 of 4) Locating a wildlife area adjacent to a busy highway, with its inevitable air and noise pollution, would endanger the well-being of all of the wildlife species involved. This would likely result in the loss of funding sources whose primary goal is to promote wildlife and protect the environment.</p> <p>In addition, many trees, which are currently protecting the river from erosion, would have to be removed to accommodate the roadside location of the ponds, at very considerable expense. The benefits these trees provide for the river in its pre-flood location could not be duplicated in a new location adjacent to the McConnell neighborhood within any reasonable time frame, if ever. Certainly, such an attempt would add major expense to the project.</p> <p>Because of the many detrimental ecological and economic effects that would result from exchanging the river and ponds locations, this idea should be rejected as diametrically opposed to the goals and intentions of the Lyons Comprehensive Plan.</p> <p>You maintain the notion that you will be respectful of the PDG's, and attempt to integrate those ideas in your plan. If that is the case, Alternative # 1 should be off of the table for consideration. The community of Lyons has spoken, and this is not a scenario they would embrace. We have an important natural buffer to an entire neighborhood in the form of an established riparian corridor. It serves multiple functions, including mitigation of noise and light pollution. It draws many species of birds to the area. Abandoning the corridor would certainly harm the trees, and removing any of them to accommodate a pond would be extremely irresponsible, especially when Alternative #2 leaves plenty of room for the river and ponds.</p>	Environmental Restoration; Fish Habitat; Channel Alignment; Flood Mitigation
9/21/2014	Email	<p>(Comment 3 of 4) The consensus was also to restore the ponds with as much water as possible; to make them bigger and better, and to allow the west pond to flow under a free standing bridge into the eastern pond, allowing full access to both.</p> <p>Aside from these objections, there are safety concerns which need to be addressed. The river's natural inclination is to flow south, towards the LVP neighborhood. The ponds acted as an important mitigation device and buffer during the flood, and our homes were left untouched during a 500 year event. During that time, the ponds lacked any intentional built in mitigation system such as spillways, etc. The point is that the entire system could be engineered to make sure that overflow from the river would flow into the ponds and make us even safer. Can the same be said for Alternative 1? To place the river much closer to our homes seems wildly irresponsible. In a similar event, there is no guarantee that our homes would be untouched, as the river would have nowhere to go but further toward the neighborhood.</p> <p>It seems as if several people in positions of power in Lyons have an agenda and are embracing Alternative 1. Is their idea of public safety to protect Hwy 66, while leaving our homes vulnerable? To place Jim Blankenship, who clearly has a bias in favor of Alternative 1, at the discussion table for Reach 4c in the meeting was akin to the wolf guarding the hen house. It was very disappointing to hear him answering questions and misleading people with an obvious agenda in mind.</p> <p>Finally, when we purchased our home in Lyons, we did not sign up for riverfront property, and think that this would present a serious degradation of our property values. Everyone I have spoken to on Cobblestone Ct. feels this way.</p>	Channel Alignment; Public Safety; Flood Mitigation; Flood Conveyance
9/21/2014	Email	<p>(Comment 4 of 4) We urge you to choose the better alternative; in fact the one you are recommending, which is Alternative #2. Attached are a couple of photos pre-flood of our beautiful ponds. I sincerely hope you can understand what a beautiful asset they were for our town, and how great our desire is to have them restored in a similar manner.</p>	Channel Alignment; Environmental Restoration; Flood Mitigation
9/21/2014	Email	<p>My name is Lee Macik, I live at 314 McConnell Dr and wanted to give my input that I'm in support of alternative 2, replacing the ponds back to their pre flood location.</p> <p>Thank you Lee</p>	Channel Alignment
9/26/2014	Email	<p>(Comment 1 of 3) Dear St Vrain Coalition Task Force Thank you for allowing public comment and thank you for listening to disparate and impassioned suggestions.</p> <p>I would like to suggest some ideas for Reach 4, specifically in the section from the confluence of the St Vrain to the Black Bear Hole and from the Black Bear Hole to the October Hole and the Highland ditch diversion structure.</p> <p>Generally, as you are doing flood mitigation work and stabilizing the course of the St Vrain, I encourage you to be ready to make simple improvements that would enhance the recreational potential for the St Vrain. Specifically, the placement of rounded boulders</p>	Projects; Recreation; Public Safety

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Date	Method	Comment	Category
		<p>that create eddies would be super. Creating eddies for putting in at strategic places and taking out at strategic places would be good. Also, eddies create features for kayak and canoe instruction. The placement of boulders could also create wave type features that would enhance recreation. These features are especially strategic above the Black Bear Hole and in the area of the October and November Hole.</p> <p>I also encourage you to plan for and construct poles for hanging slalom gates along side of the St Vrain between the confluence and the Black Bear Hole as well as in the area of the October and November Hole. These poles could also serve the fire department as anchors during swift water rescue training and scenarios. The ability to conveniently set up, take down, and manipulate gate wires and gates would enhance the economic quotient of recreation in these areas.</p>	
9/26/2014	Email	<p>(Comment 2 of 3) The ability to train with the coaching that team Colorado Whitewater Racing provides the community and the ability to have events will support economic prosperity for the town of Lyons. The more flexible this infrastructure, the easier to avoid conflict with fishing.</p> <p>I would like to note that many kayakers and canoeists are also fishermen and hunters.</p> <p>It is critical that the diversion structure at the supply ditch below the Black Bear Hole be made safe. Children (and adults) in and out of kayaks and canoes play at the Black Bear Hole. Please eliminate the danger posed by the haphazard "construction" of this feature.</p> <p>The Highland Ditch Diversion Dam must also be worked on so that it no longer poses a lethal hazard to recreational users of all types of the St Vrain. While work is being done to mitigate this danger and do flood mitigation work and work that supports good fish habitat, The elevation/descent in this area could be harnessed to create excellent white water.</p> <p>One of the goals of the work on the St Vrain through Meadow Park, above and below the Black Bear Hole and above and below the October Hole and November Hole should be to provide year round training venues for youth and adults of Lyons and Boulder County. These venues should offer a variety of water conditions "from mild to wild" according to the flows available at different seasons of the year. Please take advantage of elevation drop where it exists in order to create a variety of features that are fun and safe for recreation in general and for play boating, slalom and downriver instruction, competition and training.</p>	Recreation; Project; Agriculture & Irrigation; Public Safety; Natural Channel Design
9/26/2014	Email	<p>(Comment 3 of 3) The location of the McConnell Ponds should be such that the river corridor has as many recreational features as possible and so that the property owners in the area have protection from floods and the same property value or better than before the floods. Ideally the recreational use of the ponds should not impact the aesthetics of the property owners.</p> <p>I am grateful for the opportunity to make comments.</p> <p>All Best Wishes</p> <p>Nate Lord English Dept. Chair Varsity Coach Canoe Kayak Team President Team Colorado Whitewater Racing</p>	Channel Alignment; Flood Mitigation; Flood Conveyance
9/29/2014	Mailed Comment Sheet	We prefer a low impact area without grills, picnic tables, swings, monkey bars etc. I prefer no parking lot to the area this should be a wild life refuge and natrual reserve for peace and quiet. Improving trails around the pond is a good idea. They can connect to other Lyons trails and onto the trail behind (Above) the high school and into picture rock and other Lyons trails for a truly complete enjoyable trail system. I suggest leaving the ponds open to kayaks and fishing and bird watching. We need more trees between teh highway and ponds. I prefer the river bed in its pre flood location.	Environmental Restoration; Aesthetics; Channel Alignment; Recreation; Land Use
9/29/2014	Mailed Comment Sheet	Passive - low impact area - small trail - open space around ponds - not picnic - no parking lot - wildlife and bird sanctuary. Ponds for kayak and canoes, fishing, paddle boards - low impact - more trees - river could be moved closer to McConell.	Environmental Restoration; Land Use; Recreation; Channel Alignment
9/30/2014		<p>I would like to provide the below comments in support of keeping the river and pond in place.</p> <p>1. Placing town attractions with parking outside of downtown.allows people to enjoy Lyons and perhaps pay minimal parking fees but does very little to stimulate the real economy and generate sales tax dollars. We should encourage visitors to park downtown or at</p>	Project; Channel Alignment; Local Policies and Plans

Public Comments on Draft Alternatives Analysis Report Reach 4c			
Date	Method	Comment	Category
		<p>least force them to drive through downtown. Making it convenient to park, play, and leave will not be good for the small business that live and die on downtown traffic. Without a solid sales tax base we will never reach economic stability.</p> <p>2. We should follow the advice of the St. Vrain master planning committee? They are well respected and came to there decision by looking at many complex variables.</p> <p>3. Why destroy an existing thriving river ecology? The existing trees that survived the flood will protect us from future floods and provide habitat.</p> <p>Thank you David</p>	
10/1/2014	Email	<p>(Comment 1 of 5) Folks: Thanks for all the exhaustive work on the master plan draft! Here is some input regarding Reach 4C (St. Vrain passing through Lyons near Lyons Valley Park). These comments are from myself, my wife, Mindy and my sister-in-law, Ruth Boehner, who lives next door to us on Cobblestone Court.</p> <p>1. We strongly favor Alternative 2, Restore McConnell Ponds on River Right, as described in Section 10.3.3 Reach 4C of the master plan draft.</p> <p>2. We oppose disruption of, and particularly any destruction of, the trees and riparian habitat that remain along the pre-flood course of the St. Vrain along CO 66 / US 36, between the Black Bear Inn and the McConnell Bridge. Please preserve this area as much as possible, with reasonable restoration of the pre-flood trails through the woods.</p> <p>3. We vigorously oppose allowing the St. Vrain to take a course any closer to our Cobblestone Court / McConnell / Lyons Valley Park neighborhood. It seems that some in the Town of Lyons government favor such an approach on the grounds of "public safety". In the master plan draft, Table 10.8 identifies Alternative 1 as superior to Alternative 2 on the same grounds.</p>	Channel Alignment; Environmental Restoration; Recreation; Public Safety; Local Policies and Plans
10/1/2014	Email	<p>(Comment 2 of 5) We would strongly contend that moving the course of the river closer to our homes, through the pre-flood location of the ponds, cannot possibly improve the safety of our neighborhood. Our experience during the 2013 flood leaves us with no doubts that such a course change would make future flood damage to our houses more likely, not less so. Endangering people's homes is inherently inimical to and diametrically opposed to genuine public safety. It should be possible to engineer the pre-flood course of the St. Vrain in a way the minimizes risk to both our homes and CO 66 / US 36. To use the term "public safety" to justify increasing risk to our homes is a contradiction in terms.</p> <p>4. We like the idea of restoring the ponds in a way that increases water flow through them to enhance freshness, while providing improved flood mitigation facility. The ponds were a marvelous ecological habitat before the flood, and wise restoration could make them even more so for the future.</p> <p>5. An understandable concern has been raised regarding the ability of the surviving McConnell bridge to withstand anything beyond the scope of a 10-year flood event. This should not be taken to indicate that the river should necessarily be re-routed through the "abyss" where the ponds were previously located. Instead, the restored ponds and the pre-flood river course should be engineered so that, in the event of a flood that would be too much for the existing McConnell bridge, the ponds would act even more effectively in a flood mitigation capacity,</p>	Channel Alignment; Public Safety; Flood Conveyance; Environmental Restoration; Habitat; Transportation; Access; Flood Mitigation
10/1/2014	Email	<p>(Comment 3 of 5) temporarily routing the excess water around the bridge. For example, perhaps spillways could be implemented at strategic points upstream of the surviving McConnell bridge to allow excess flow to bypass the bridge temporarily, through the ponds.</p> <p>6. With regard to the suggestion that Alternative 1 could draw additional tourism to the community: there has already been a previous plan considered that would have very substantially altered much of Reach 4C, especially near the ponds, for very similar purposes. Although this plan had certain attractive features (e.g., improvements to existing trails), it was strongly opposed by the community, precisely because it would have effectively converted Reach 4C into a mini theme park. We do not want this now, any more than we did before the flood. We do not want Reach 4C to turn into yet another Boulder County park space. We see its chief value and function in terms of local use and ecological preservation, and not as any sort of tourist magnet. It should certainly not be thought of as a revenue generator for the Town of Lyons Parks and Recreation Department. Under absolutely no circumstances should anyone think of any portion of Reach 4C is a potential location for additional festivals, with their insufferable noise levels, traffic, etc.</p> <p>7. As mentioned in the community meeting at Lyons Middle-Senior High School, we are all ready for the McConnell "broad" to be history.</p>	Projects; Recreation; Flood Conveyance; Environmental Restoration; Channel Alignment; Land Use; Local Policies and Plans; Transportation;

Public Comments on Draft Alternatives Analysis Report Reach 4c			
Date	Method	Comment	Category
10/1/2014	Email	<p>(Comment 4 of 5) A serious bridge is needed in this location with enough opening(s) underneath to allow even large objects (e.g., large dumpsters such as are used for recycling and collecting major construction trash) to float harmlessly beneath the bridge during significant flood events when the ponds are operating in flood mitigation mode (see #4 above). This bridge has to be built regardless of which ponds restoration alternative is eventually chosen, so the necessity of building it should not be interpreted to be a reason for selecting Alternative #1, for example.</p> <p>8. Some of our neighbors have been in touch with officials at the Army Corps of Engineers regarding permit requirements that the Town would have to adhere to when changing the course of the river, apparently in any way. This specifically refers to a contemplated possible course change when the permit for the temporary berm now directing the St. Vrain into its pre-flood course expires. I believe these neighbors have included this information in their comments, so we won't go into specifics here, except to note that some in Town of Lyons government seem to believe that no permit would be necessary to allow the St. Vrain to pass closer to our homes, through the former ponds location. The Town needs to be disabused of this evidently false notion, as well as any thought of simply ignoring the permit requirements. According to the Corps of Engineers person our neighbor spoke with, small towns often attempt to bypass such requirements. The Town of Lyons needs to understand, sooner rather than later, that such action would be highly improper.</p>	Flood Conveyance; Flood Mitigation; Transportation; Local Policies and Plans; Channel Alignment; Project
10/1/2014	Email	<p>(Comment 5 of 5) 9. Restoration of the ponds under Alternative 2 should avoid locating paths, trails, picnic tables, grills, etc. adjacent to any of the private back yards that back up to the former ponds locations (i.e., on the west side) on Cobblestone Court or on McConnell. Instead, locate all such amenities on the east / highway side of the ponds, to avoid disruption of private property.</p>	Channel Alignment; Right of Way; Recreation; Land Use; Property Impacts
10/1/2014	Email	<p>I just wanted to state my opinion that the ponds should be returned to the original location. I feel that removing what little vegetation that we have left after the flood to move the ponds closer to the highway is ridiculous. Leave the river near the highway, return the ponds to their home. Sherry Laurienti</p>	Channel Alignment; Environmental Restoration
10/1/2014	Email	<p>(Comment 1 of 2) The scores in favor of Alternative 2 were 24-16 (relative benefit analysis) and 13-7 (relative cost analysis). In the case of the relative benefit analysis the only two areas favoring alternative 1 were Public Safety and Flood Conveyance. The town of Lyons seems bent on overruling your recommendation and all the obvious benefits (recreation, wildlife, aesthetics, fish habitat, Environment, Agricultural/Irrigation, natural channel restoration) in order to move the river to "where it wants to go". I am hearing strong overtures from town officials that the "pubic safety" concerns trump everything else. Is it possible that the "safety" of Highway 66 and of the McConnell bridge (built without the Army Corps blessing or permitting process) are more important to the town than the safety of our homes? Would not the safety and security of our neighborhoods in 4C be better served by your recommendation? What If a spillway were built to force excess water into one continuous pond flowing under the proposed single span bridge and over another spillway to the south and back into the river channel? Would that not protect our homes from flood even better than the original McConnell ponds protected them during the flood? Perhaps the town of Lyons forgets that no home south of the ponds in Reach 4C suffered any water damage to its structure during the flood.</p>	Public Safety; Channel Alignment; Flood Conveyance; Local Policies and Plans; Environmental Restoration; Transportation
10/1/2014	Email	<p>(Comment 2 of 2) Is it fair to homeowners for the town to consider moving so many homes nearer the river and very possibly into the flood plain when a viable recommended alternative exists? In addition to the benefits listed in your scoring, please consider the loss of pond size and trees were the river moved south. Lyons has lost enough trees. Ignoring the natural river channel in favor of moving the river would cost us a significant amount of real estate, thereby making the ponds significantly smaller. My strong opinion, which is shared by most of my neighbors on Cobblestone Court, is that giving up all of the above benefits PLUS the huge loss of pond size and trees, while moving the river nearer our homes cannot possibly be in the interests of "our" Public Safety. I am frankly surprised that the Baker Corporation has not made a stronger recommendation for Alternative 2, given all the above factors. Your very luke-warm recommendation might allow the town of Lyons to overrule logic in this matter. Please know that my neighbors and I will voice our objections very strongly should the town seek a permit to move the river from its pre-flood location.</p>	Channel Alignment; Environmental Restoration; Habitat; Public Safety; Flood Mitigation
10/2/2014	Phone	<ul style="list-style-type: none"> • Her and the other homeowners in the area want the McConnell ponds restored on river right (pre-flood location) • Trees on river left provide great "buffer" from light coming in from gas station – doesn't want them removed • She thinks that public safety should be scored the same for both Alternatives 	Flood Conveyance; Channel Alignment; Habitat; Environmental Restoration; Public Safety

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Date	Method	Comment	Category
		<p>• Asked the team to clarify what flood conveyance means in this reach. She thought it meant flood conveyance of water through the ponds. Her comment was that “none of the homeowners saw a drop of water in their homes” and, therefore, don’t want river closer to their homes by moving the ponds to river left.</p> <p>[Editors Note: These comments are notes taken over the phone by Project Team Member Lucas Babbitt, Michael Baker Corp.]</p>	
10/3/2014	Email	<p>I strongly support the current recommendation in the draft Master Plan in support of Alternative 2 to place the ponds in the pre-flood location and not to the north along Hwy 36. This promotes all desirable aspects mentioned in the draft including flood mitigation, flood safety, public safety, recreation and preservation of habitat that is still intact post flood. There has been abundant wildlife in the small parcel of trees that would have to be removed to accommodate placing the ponds north of their preflood location. Even Moose! These habitat also provide important view shed protect form Hwy 36 as it traverses town. I also encourage a strong recreational aspect with access for all town residents with improved parking and trailheads someplace near the McConnell bridge as well as reestablishing and improving the connectivity that previously existed from Bohn Park along the old clarifier.</p> <p>Attached is a picture of a Moose along section 4C taken 9/26/14 whom proceeded to spend the day in the stand of existing habitat directly adjacent to Hwy 36 that would presumably be destroyed if Alternative 1 of reach 4C were implemented.</p> <p>I attempted to add this to the online ESRI map but was not successful, I am happy for this comment and my identity to be made public.</p>	Channel Alignment; Flood Mitigation; Public Safety; Recreation; Habitat; Environmental Restoration; Land Use
10/3/2014	Email	<p>As a 10 year resident of Lyons I would like to both thank and commend the Board and its partners for the quality of work that has been put into preparing the ‘St. Vrain Creek Watershed Alternatives Analysis Report’. It is quite comprehensive and very well thought out. I’d like to take the opportunity to voice my opinion for Section 10.3.3 Reach 4C...McConnell Ponds. I really hope that with whatever option is chosen everything will be done to preserve the trees that still remain between the Highway and the neighborhood. In addition to providing a wonderful riparian environment that helped attract and protect wildlife the mature trees and undergrowth provided a much needed buffer from the constant traffic and motorcycle noise that comes through town. I fear that any plan to move the ponds to a new location would compromise the quality afforded by the tree buffer and the serenity and views from the walking paths and homes would be compromised.</p>	Environmental Restoration; Channel Alignment
<p>*Comments are reproduced as submitted with minimal to no editing to maintain original integrity. ** [?] denotes an illegible word in a hand written comment that has been transcribed.</p>			

Public Comments on Draft Alternatives Analysis Report Reach 5			
Date	Method	Comment	Category
10/3/2014	Email	<p>[Editor's Note: Comment in both Reaches 4b and 5]</p> <p>1. Eroded banks on the North St. Vrain below Buttonrock Dam should not be targeted for ‘repair’ if the purpose is to prevent sediment from entering the creek. Buttonrock rock is a far larger contributor of sediment to North St. Vrain Creek. The creek turns muddy from runoff off Buttonrock Road whenever it rains.</p>	Environmental Restoration; Flood Mitigation;
<p>*Comments are reproduced as submitted with minimal to no editing to maintain original integrity. ** [?] denotes an illegible word in a hand written comment that has been transcribed.</p>			

Public Comments on Draft Alternatives Analysis Report Reach 6			
Date	Method	Comment	Category
9/22/2014	Comment sheets	Mike and pat need dredging of the creek channel behind the house. Prior to the flood, there was about 3.5' of elevation change between creek and river. The flood destroyed a wall behind the property, and creek and yard are now at the same level. Property remains susceptible to continued flooding with out dredging. They live in Reach 6 on map 9 of 9 in the draft alternatives hear the note that says "establish bank protection" and spoke with Bryan Harding about their needs.	Property Impact; Flood Conveyance; Flood Mitigation; Environmental Restoration
*Comments are reproduced as submitted with minimal to no editing to maintain original integrity. ** [?] denotes an illegible word in a hand written comment that has been transcribed.			

Public Comments on Draft Alternatives Analysis Report Reach 7			
Date	Method	Comment	Category
9/15/2014	Email	I read through the report and didn't see anything about 2345 Riverside Dr. in Raymond. The NRCS completed a block wall on our property. We still need a private bridge for vehicle access, Boulder County refuses to give a permit for that work. They say they do not know where the flood plain is, where the county road is and where the river is or how the river has changed. I was hoping you would talk a little more about the area up river from the Raymond Store. Fred L. Elliott	Property Impact; Project; Access; Transportation
9/16/2014	Email	Thank you much for your information. It appears from gross visual appearance that most of the creek from about highway marker 26 down to Lyons has the most flood caused alignments. Near our cabin which is 55 Riverside at about 65 Riverside had the most realignment due to the flood. The residents (Jane Ashmore) at that cabin may want to give you some input. I will send this e-mail to her. Also if I could have the site where I can find the information of the St. Vrain master Plan it would be most appreciated. we are in Reach 6-7. Raymond/Riverside. Thank you, Jeanne Turnage	Property Impact
9/16/2014	Email	(Comment 1 of 2)Hello to all,Thanks to everyone for your continued efforts to help Boulder County recover from the September 2013 floods. It's been a long year for us all, with much progress achieved and still more to come. I know that none of you signed up for this unanticipated catastrophe when you accepted your positions, but your steadfast efforts to make the best decisions for all involved are to be commended and are greatly appreciated. As the public meetings on the St. Vrain Creek Watershed Master Plan get underway, I would like to make sure that the comments in this email are included in the public record. My husband, Mark Franzen, and I own property at 2585 Riverside Drive. As I communicated last spring and early summer, the culverts upstream of our property blocked up during spring runoff, causing significant water to flow onto our property, which destroyed flood mitigation work that had just been completed by private contractors. If you need me to resend emails from last spring concerning this issue, please let me know and I will be glad to do so. We have identified two locations where culverts that are causing problems during high water periods, including the September 2013 floods and 2014 spring runoff, are located, although there could be others. They are at the access points for property addresses 2629-2633 Riverside Drive and 2931 Riverside Drive. When these culverts block up, the water is diverted over the public road and onto downstream properties. Recently, my husband and I noticed that new culverts had been installed at 21956 on Highway 7, just downstream of the Raymond/Riverside turnoff. We were quite surprised to see that culverts were being used for access to the house at this address, given the problems that occurred with the September 2013 flood. Was this access approved by Boulder County? Following are our comments on the St. Vrain Creek Watershed Master Plan for the public record:1) The Master Plan should recognize that structures, including but not limited to, culverts can become clogged during high water flow and cause significant damage to downstream properties, public roads, and the river channel.2) The Master Plan should recommend rebuilding structures that are currently using culverts with designs that will more effectively accommodate stream flows to avoid blockage of the stream and subsequent public and private property damage. 3) The Master Plan should recognize the feasibility of mitigation efforts that are available to property owners and recommend options that are realistic and doable. For example, it is not realistic to assume that homeowners will be able to clear obstructions from culverts, especially during significant runoff, without potentially endangering themselves. Swiftly flowing water, large objects moving down the river that block culverts, unstable river banks, and changing stream bottoms are all potentially dangerous situations that clearly jeopardize the safety of anyone without the proper equipment and skills. Last spring, the highest water levels occurred after dark, making mitigation of blocked structures even more difficult. In addition, property owners typically do not own heavy equipment or have ready access to it, and by the time Boulder County or private contractors can bring in equipment and personnel to assist, significant damage will likely have already occurred. 4) The Master Plan should recommend that Federal funds now becoming available, such as CDBG, etc., should be used to assist property owners who	Project; Current Impact; Transportation; Flood Conveyance; Flood Mitigation; Property Impact

Public Comments on Draft Alternatives Analysis Report Reach 7			
Date	Method	Comment	Category
		need to rebuild existing bridges, eliminating culverts and replacing them with approved designs that will more effectively promote safe water flow and better withstand future floods. In some cases, this will involve helping property owners replace existing bridges with culverts, which may have been permitted a number of years ago, but have proved hazardous to both public and private property with the September 2013 floods. Thank you for your attention. Please let me know if you need additional information. Sincerely, Shere Kahn and Mark Franzen	
9/16/2014	Email	(Comment 2 of 2) Objects moving down the river that block culverts, unstable river banks, and changing stream bottoms are all potentially dangerous situations that clearly jeopardize the safety of anyone without the proper equipment and skills. Last spring, the highest water levels occurred after dark, making mitigation of blocked structures even more difficult. In addition, property owners typically do not own heavy equipment or have ready access to it, and by the time Boulder County or private contractors can bring in equipment and personnel to assist, significant damage will likely have already occurred. 4) The Master Plan should recommend that Federal funds now becoming available, such as CDBG, etc., should be used to assist property owners who need to rebuild existing bridges, eliminating culverts and replacing them with approved designs that will more effectively promote safe water flow and better withstand future floods. In some cases, this will involve helping property owners replace existing bridges with culverts, which may have been permitted a number of years ago, but have proved hazardous to both public and private property with the September 2013 floods. Thank you for your attention. Please let me know if you need additional information. Sincerely, Shere Kahn and Mark Franzen	Flood Mitigation; Project; Public Safety; Flood Conveyance; Property Impact; On-Going Involvement
9/22/2014	Comment Sheet	Attached photo and notes in channel 7 near the note that says "Coordinate channel improvements with private crossing replacement. 1. Dredging needs to be done at this location. Was some dredging done by private property owner on 9/22? 2. Stream did carve new secondary channel at this location. 3. Probably misplotted and should be over slightly. 4. No private crossing at the location noted.	Property Impact; Flood Mitigation; Flood Conveyance; Environmental Restoration; Access
9/22/2014	Comment Sheet	We need our private bridge listed on your master plan 2345 Riverside Drive in Raymond. We share this bridge with the Clark family at 2347 and 2349 we do not want to put in culverts. We had a good bridge and want to rebuild it.	Property Impact; Access; Transportation
9/24/2014	Email	We attended the workshop held at Wild Basin on September 22nd and spoke with Lucas Babbitt. He suggested that we send comments regarding the addresses of private bridge crossings in our immediate area that were lost in the flood and that will need to be replaced so that they could be included on the master plan. The addresses of bridges that were lost and will require replacement along Riverside Drive in our immediate area include: 22912251227122212345, 2347, and 2349 (all share one bridge) 2467249124952763 We hope that these can be shown on an updated master plan for the project. Let us know if you have any additional questions. Don and Sharan Clark	Property Impact; Access; Transportation
9/29/2014	Mail	At the meeting last Monday we noted that it is extremely difficult to identify the actual location of proposed projects in Reach 7 on the maps provided. The scale is too large and very few identifying landmarks (houses bridges etc.) are shown. Perhaps the proposed projects could be associated with nearby addresses so we could tell where you are proposing. Overall the Plan looks great!	Projects; Channel Alignment
*Comments are reproduced as submitted with minimal to no editing to maintain original integrity. ** [?] denotes an illegible word in a hand written comment that has been transcribed.			

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9/22/2014	Email	I try to get out to the South Saint Vrain any time it's running at a reasonable level - up until the floods last summer it was one of my favorite after-work options, and even after the floods it remains a fun option. I also try to get on the North Saint Vrain a couple of times a year, which usually involves an early morning food and fuel stop in Lyons before the big day. I also volunteer for the Lyons Outdoor Games when I can. I'd like to see things like parking and access for recreational use and operating gauges so that we can keep track of the flows.	Recreation; Access; Operations & Management
9/22/2014	Email	The South Saint Vrain and North Saint Vrain offer some of the best front range creaking there is. Shellies offered a great stepping stone for young boaters to get the feel of being in a low volume creek. I personally started creaking on shellies and eventually stepped up to SSV. I spent 3-4 days a week this past summer on SSV, rediscovering a river after the September Floods. I can't think of how many times I have bought gas at the small station just across from McConnell St. on the way up. I would like to see the wood removed and the river narrowed in some places, seeing as it isn't meant to be very wide. SSV offered and will hopefully continue to offer boaters from Lyons, Boulder and even Fort Collins a great creek run that isn't too far away.	Recreation; Environmental Restoration

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9/22/2014	Email	To Whom it may concern,My name is Bridger Steele. I am 29 years old and I am an avid kayaker from Littleton, CO. The redevelopment of the St Vrain river drainages is a very important issue for me. I have visited Lyons many times every summer for the past 7 years, kayaking stretches on both the north and south saint vrain. I have frequented the playpark many times, and the South Saint Vrain used to be my favorite class 5 stretch of river on the entire front range. In addition to recreating around Lyons, I have also frequented several local food, drink, and gas establishments including Oscar Blues, the Barking Dog Cafe, and Diamond Shamrock, to name a few.The 2013 floods caused a great deal of damage to the stretches of river that I love, and I would love to see them redeveloped successfully. Most importantly, I would like to see hazards removed from the stream beds to improve safety. My other concern would be to restore the stream beds to their prior state to improve the whitewater recreation quality of the rivers. This work would include replacing some of the natural boulders and rocks to the stream bed that were removed during road reconstruction, and also trying to re-channelize the stream in areas where it has braided out significantly. Lyons is a fantastic town, and the whitewater recreation options and the LOG festival are the primary reasons I have been visiting the town several times a summer, year after year. I would love to see the rivers returned to their former glory, both for my own sake, and for the sake of benefiting the city of Lyons.Best Regards,Bridger Steele	Recreation; Project; Environmental Restoration; Natural Channel Design
9/22/2014	Email	Sarah DentoniFort CollinsAge: old, I have paddled for 24 years. That makes me old.Favorite playpark, check.Favorite fall activity, visit the October Hole and go to Oscar Blues afterward.Favorite run, Shelly's and Apple Valley.Please make the Saint Vrain friendly, fun, accessible, and challenging.Although the Saint Vrain was a little aggressive last fall, we need to respect and honor the river.Thank you,SarahD	Recreation; Access;
9/22/2014	Email	To Whom It May Concern,My name is Eric Gricus, I live in Louisville and have been coming to the St Vrain river stretches for the last 20 years to kayak and enjoy the restaurants and shops in Lyons. My wife would go shopping while I enjoyed the river and we would meet up for lunch/dinner afterwards at a spot in Lyons. After the tragic floods last year, I think Lyons has the chance to rebuild parts of the St Vrain river that would attract whitewater enthusiasts and fishermen from all over. The town sections could use the latest in whitewater park technology to build safe, fun enjoyable features for river users. This would attract people from all along the front range who like me, probably stay and spend a few dollars in Lyons. This rebuilding would also provide the perfect opportunity to remove old and unsafe parts of old infrastructure, like the diversion dam downstream from the location of the old October Hole. Upstream from the town the St. Vrain has been seriously impacted by the flooding and the road rebuilding. Boulder have been moved and road stabilization has created hazards that should be addressed. I also very concerned with the lack of safe river access for both boaters and fisherman on these heavily traveled roads. Thank-you for your time. Best,Eric	Recreation; Environmental Restoration; Local Policies and Plans; Flood Conveyance; Natural Channel Design; Access
9/22/2014	Email	Saint Vrain River PlannersMy name is Rich and I live in Longmont. I am 46 years old. I primarily use the Saint Vrain river corridor through the town of Lyons. I am a beginner at white water kayaking and have run the section of the Saint Vrain through the town of Lyons. I have been aspiring to run the upper sections of the river but after the 2013 flooding I have had to stay away due to the in-river hazards that have damaged runs such as Shelly's Cabins and others. I love to spend weekends in the town of Lyons hanging out at Oscar Blues, Smokin Daves BBQ, Julies Thai kitchen, The Fork, and others. I would like to see some general river clean up above, through, and below the town of Lyons (even extending to Longmont) such that it might be possible to do extended floats above Lyons again. It would be even more awesome if a Lyons to Longmont float were possible.Thanks for listeningRich Maddox, Longmont Resident	Recreation; Public Safety
9/22/2014	Email	I am writing to provide feedback on the St. Vrain master plan. I would like to see the South / North / and St. Vrain creeks restored to enhanced recreational and ecosystem attributes that were damaged by the flood and flood recovery projects. Road reconstruction projects were necessary to get residents and communities connected back together and CDOT did an admirable job getting the roads built in a short time frame. Unfortunately the road construction had massive negative impacts on river recreation when the creek beds were mined for fill rock material to build temporary roads and boulders were broken in pieces to get heavy machinery in the creeks.South Saint Vrain was one of the best expert kayak runs in the state prior to the road repair work. The flood itself was not the main damaging component, it was the construction after the flood. Several portions of the creek are not dangerous and unrunnable in kayaks due to construction activities in the road channel. I would advocate the efforts be made to work with in stream rehabilitation experts and the paddling community to restore the creekbed to a state similar to its pre flood construction natural state.Issues to be addressed should be...-Putting boulders back in the creekbed.-Removing unsafe logs and debris-Reworking the channel to widen it in tight spots where the road has encroached on the river and rechanneling the river where rocks have been hauled out of the the channel to make road fill. The Saint Vrain ecosystem is used by many recreational users and is a gem for kayaker, fisherman, hikers, road bikers, and tourists. Please take steps to rehabilitate one of the most beautiful creeks in Colorado.	Recreation; Environmental Restoration; Flood Conveyance; Natural Channel Design; Transportation; Current Impact; Public Safety; Project; Flood Mitigation
9/22/2014	Email	My name is Dave Frank. I am 45 and have been paddling the Saint Vrains for 20 years.I understand that flooding is a natural phenomenon, and I do not expect any agency to run out and restore the river to its pre flood state. What is not natural and I believe does justify mitigation is the quick and dirty road fixes that were necessary to get things open, but very detrimental to the character of	Recreation; Transportation; Environmental Restoration; Natural Channel Design; Access

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		the river.SSV in particular suffered from road construction at the narrows as well as above and below. Road crews "stole" big boulders to shore up the road, at the detriment to the river. The channel they left at Narrows proper is no longer viable for the most part.I've not driven up the road by shelley's but I've heard road crews weren't friendly to the river bed there either.It seems appropriate that as crews do road work without the big pressure to reopen, they could spend a little more time and care to ensure that the rivers remain runnable to whitewater crafts.Many of the pull-offs have been removed, making access and scouting more difficult. People will need to scout the bigger rapids, and providing pullouts near them will make it safer for users and other drivers in the canyon. This is an opportunity to make this better, when presently it is worse.Better access to the areas near button rock seems like an obvious and easy thing to work for at this point.I have attended LOG all years prior to this year, and frequently spend money on food, beer and or gas when recreating on the local rivers. The SSV was a goto destination for class V paddlers; it presently is not.Thanks for considering the river when making road constructions decisions.	
9/22/2014	Email	My name is Paul Kelly and I live in Denver, CO. In the past, the St Vrain has served as my shoulder season go to for play boating in the former whitewater park. It was my warm up to the season in May and my whitewater Fix in August when I needed to get out of the City and enjoy the river. I also know many people who came to Lyons specifically for the upper canyon kayak stretches, not to mention the strong force that would venture down from Fort Collins During the Games. Heck I'm even getting married at planet bluegrass along the river next year so I'd say I have a voice in this one :)The floods were devastating to this area no doubt, but as an avid kayaker who introduces around 300 new people to the sport each year, I do think there is an opportunity to turn this into a positive. Now, not only do we have the opportunity to improve upon the whitewater park, but we have a chance to reinvigorate the streambed (including the upper sections) of the river into something to be enjoyed by kayakers and fishermen alike. As it stand right now, there are sharp, unnatural sections that used to be awesome, are barely runnable. When deciding on where to go for a weekend trip this past summer, I didn't even consider the St Vrain drainage. With some Improvements to these sections specifically for kayakers, I would definitely head to Lyons on weekends, or after work to kayak, grab a beer, eat a burger and spend some time around town. A boof/challenge course would be amazing and would bring in boaters from across the country, though I'd be happy to see just any sort of improvement to make this a destination again. I'm excited to see that Boulder County is investing this much time into one of it's most precious resources. I just hope that when planning for improvements you do not overlook the amazing outdoor possibilities of considering those who enjoy the rivers the most.	Recreation; Project; Natural Channel Design
9/22/2014	Email	Lyons and the St. Vrains is where I cut my teeth both in climbing and kayaking. We've been enjoying the canyon since well before the camping ban. I originally moved to NW Longmont to be closer to the Vrain, it's important the river is responsibly redeveloped, in hopes that my son can enjoy the same experiences I have. As far as spending money, I usually stop and say hi to Brian who owns a local liquor store and post kayaking/climbing trips are always celebrated at Oscar Blue's. LOG is an event I look forward to every year! Enjoy your day!	Recreation
9/22/2014	Email	My name is Forest Greenough (forestgreenough@hotmail.com), I am 38, a professor at CSU, and live in Fort Collins. I would like to add my voice as a white water enthusiast how important it is for the city of Lyons to work to restore the great recreational opportunities the St. Vrain river offered before the floods of September 2013.I am an avid kayaker, and would take many trips to Lyons in the past every season to use the whitewater play features in town. Early season my group would frequent the A-hole and Black Bear hole features several times a week, and in the late season the O-hole downstream. Additionally, I used to run SSV before the flood, but now find it a run I stay away from due to changes from the flood and the road repair since. There are many of us in the region who used to enjoy coming to Lyons to spend a day kayaking and mountain biking at Hall Ranch, but I have not been back since the floods due to damage the river sustained. I would urge the powers that be to consider how important the St. Vrain is to the area, as I would love to be able to come back and spend money and time in your town again. Please consider restoring SSV to a more "boatable" and "natural" class V run, as in its current state it is essentially a ditch left over from the hasty highway repair. Additionally, I would love to see the whitewater play features and surrounding river channels restored so they are great features again. Taking these steps and advertising the improvements will bring people back to the area guaranteed. I used to spend a lot of time and money down there, and hope to again!	Recreation; Natural Channel Design
9/22/2014	Email	(Comment 1 of 2) As a Boulder County resident and longtime white water paddler of the North Saint Vrain river, I encourage the restoration of both the North and South Saint Vrain rivers for all the folks that enjoy fishing and running these rivers. Our team of paddlers from around the county, state and out of state come to Lyons every year to paddle these stretches of river. Besides the beautiful rivers we paddle, we enjoy coming into the town of Lyons and spending time at the restaurants, bars and businesses supporting the local economy. We really like the town of Lyons and their appreciation for the outdoor lifestyle. We also enjoy	Recreation; Environmental Restoration; Natural Channel Design

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		attending the LOG festival and the associated paddling events. It was great to see how everyone came together this spring to make NSV paddlable this year, even with all of the construction. We paddled NSV at 250cfs up to 460cfs from below Buttonrock Reservoir through Shelly's Cottages, through Apple Valley and the town play park to the October Hole many times. Before the flood, NSV was paddlable down to 250cfs and we did get down this year at that level. However, it would be nice to see NSV improved to the pre-flood 250cfs minimum and 80cfs minimum in the Lyons play park. From my memory of running the river at the 250cfs level, here are my thoughts: From the put-in below Buttonrock to the first road crossing, the creek has improved. There is one spot, 30 yards above the county rd. 80 crossing that does not have a clear channel that could be improved. From the county rd. 80 road crossing to Shelly's Cottages the stream is in pretty good shape. Below Shelly's rapid to the big boulders after the left hand turn, the stream has lost some character (rocks/eddys) in spots and there is at least one section that the stream could be more channelized to make it deeper at 250cfs. With that said, there are a couple spots that seems better than pre-flood.	
9/22/2014	Email	(Comment 2 of 2) After the left hand turn with the big boulders, the banks of the stream still have a lot of flood junk and the stream could use more rocks/eddys to restore it to pre-flood quality. After the old diversion dam, the stream has become shallow in spots. Channelization in this area would be helpful. After the Apple Valley bridge the stream has become braided and has created shallow paddling through riprap, a little channelization would help. With the work in Apple Valley, overall it seems better than before the flood, even though the riprap rocks are sharp. As a river runner, the town play park seems more interesting, but I am sure from a beginner, play boater, play park perspective, it needs a lot of work to bring it back to pre-flood quality. Any in stream enhancements, in the areas mentioned, would be great for paddling and fishing habitat. Channelization in some spots, along with Boulder garden type enhancements would benefit the overall experience, a more natural creek bed and improved fish habitat. In terms of the South Saint Vrain, it would be nice to see new river access from below the class V section to town. This appears to be an easier section for paddlers and even tubers that was never available to us pre-flood? I can't really comment on the Class V section as this is over my ability. However, I know the paddlers of this section would like to see it improved to pre-flood quality. I hope the rivers get the funding and attention that they deserve to make them even better than before the flood. Please encourage responsible restoration of these rivers. I know it is important to everyone that uses them and to the local Lyons economy.	Recreation; Project; Channel Alignment; Flood Mitigation; Environmental Restoration; Fish Habitat;
9/22/2014	Email	My Name is Joshua Serna I am 27, I live in Denver and I love kayaking the front range rivers. I have paddled the the St. Vrain white water park in Lyons a bunch of times over the last few years. Lyons is such a great community and I really enjoy supporting the local coffee shops and restaurants when I make the short journey up from Denver. The Barking Dog is one of the best coffee shops around in my humble opinion. I would absolutely love to see the white water park re-built!! It is such a great place to kayak and bring the whitewater community together for events such as the Lyons Outdoor Games - Bring them Back please! Please let me know how else I can help! Save the St Vrain!	Ongoing Involvement; Recreation; Project
9/22/2014	Email	I spent years living in Denver, and would oftentimes make the drive to Lyons to spend time on and around the St. Vrain River. A stop at the Oskar Blues was always a highlight for our group of paddlers. It is unlikely we would have made the drive without the whitewater recreational opportunity for kayakers. Although I no longer live in the area, and I currently have diminished direct-use values associated with the Saint Vrain, it is important to me that the river is restored with aesthetics, whitewater recreation and, most importantly, safety in mind. The prospect of a safe (free of dangerous and non-navigable features), and versatile (fun and exciting whitewater features in addition to ponds for rolling practice and learning grounds for novices) Saint Vrain river is an exciting one. Restoration with these important aspects in mind will produce both direct-use values for those living in close proximity, and existence and bequest values for those living a far. Thanks for your consideration. Regards, Chris	Recreation; Environmental Restoration; Access; Public Safety;
9/22/2014	Email	Hi. Thanks for taking the time to read this. I have been kayaking for several years now and have always enjoyed kayaking on the Saint Vrain. Lyons is a great place for paddlers, two great watersheds and good people. Each year I looked forward to attending the Lyons Outdoor Games and surfing the October hole late season when nothing else is running. Stopping by Oscar Blues and the other local eateries was always relaxing after a great day in Lyons. Please redevelop the Saint Vrain with outdoor recreation in mind.	Recreation
9/22/2014	Email	(Comment 1 of 2) The recovery of the St. Vrain corridor in and near Lyons is of vital importance to me and my family. I learned how to whitewater canoe below the October Hole and watched my son learn and become accomplished at the sports of whitewater slalom and whitewater downriver racing on the river. We have spent countless hours in Lyons paddling for health, for fun, and to develop youth into healthy, well-rounded adults capable of solving complex problems, managing risk, working in teams and appreciating the natural world. Along the way, we have knit community with fellow boaters, fisherfolk, tubers and the broader Lyons and Boulder County areas. I also fish and watch wildlife, and have found that the activities go well together. The whitewater features are great places to find fish and a	Recreation; Public Safety; Fish Habitat

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		<p>whole range of riparian species.</p> <p>Because the current conditions for boating in Lyons are not safe (especially at the Highlands Ditch Dam and the Supply Irrigation Ditch diversion structure), I have been to Lyons only a few times this year (as compared to dozens of times by this time last year). This means I have been shopping less at Lyons stores and eating less in Lyons restaurants, a trend I would like to reverse.</p> <p>Recovery of the St. Vrain for boating is essential, because it has had the best, close-in variety of river difficulty (beginner to expert), water availability and amenities like slalom gates on the Front Range. As a paddler, as a parent and as a co-founder of Team Colorado Whitewater Racing Club, I urge the stakeholders in the Master Plan process to seize the opportunity to make the St. Vrain corridor better than it was, so that it will have better riparian heath and recreational value. This should include:</p>	
9/22/2014	Email	(Comment 2 of 2) Immediate action to address the safety hazards at Highlands Ditch Dam and Supply Irrigation Ditch. Turning these lemons into lemonade by using the height of these man-made features to provide recreational features and fish passage. This could include a good drop at Supply Irrigation and a series of pool-drops on the downstream side of Highlands Ditch Dam. Replacing and improving in-stream structure with boulders, etc. Integrating the river corridor with (1) riparian vegetation, (2) park features and hardscape at strategic put-in, park, play and take-out spots, (3) slalom and freestyle training and competition facilities, such as permanent slalom gate masts, and (4) pedestrian and bike paths along with river and to downtown Lyons. Providing good connectivity and removing barriers to allow longer runs, more variety, more dispersed use and better continuous fish habitat.	Recreation; Public Safety; Access; Agriculture & Irrigation; Fish Habitat; Natural Channel Design; Environmental Restoration
9/22/2014	Email	(Comment 1 of 2) I'm Rob Allen, I'm 36 and currently live in Longmont. I'm writing in support of a development plan to restore and improve the recreational opportunities along our beloved North and South Saint Vrain. I started enjoying the Vrain in the 2004 when I was 26 and just learning kayaking. At first, I would enjoy the easily accessible play holes such as the Bear hole as well as easier stretches such as Apple Valley. As I progressed, I've spent time on the South Saint Vrain as well as the harder stretches above Apple Valley. I've started a family and my recreational time is more limited, I typically do most of my kayaking in the Vrain as a result. Over the years, my love for the Vrain brings me to Lyons time and time again. Not only do I kayak there, but I enjoy climbing and biking there as well. I spend time listening to music, having dinner and beers at different restaurants such as the Fork and Oscar Blues. I'll stop by various other restaurants as well, I've probably eaten at them all. I often bring friends and extended family to Lyons for the Outdoor games or to enjoy some tubing in Meadow park. Everyone seems to love the recreational opportunities and small town charm. Although it has nothing to do with recreation, my wife is a wedding photographer and some of her favorite venues are the Planet Bluegrass and the Lyon's Farmette. We often refer people there if they haven't selected a venue. After the flood, I'm sure there are plenty of problems to solve, but these present opportunities to ensure Lyons' continued symbiotic relationship with outdoor enthusiasts including kayakers.	Recreation
9/22/2014	Email	(Comment 2 of 2) Some of the improvements I think are important are as follows: 1) ensure the river is cleared of obstructions and hazardous debris such as sharp metal, downed trees, etc. This seems to have been done or is in process on many stretches, but some places could use some help. 2) Renew access to the Buttonrock reservoir road, rebuild parking opportunities for kayakers along the Shelley's cottages section, and to remove many of the footbridges that do not permit a kayaker to pass safely underneath. 3) Continue to improve the riverbed along the South Vrain to allow creeking along the Narrows, perhaps clean / improve the upper and lower sections which could increase the allure for intermediate boaters. 4) remove the barrier along highway 7, it makes this stretch less enjoyable to drive. I actually take this road to Indian Peaks Wilderness, Estes, Camp Dick, and often Eldora and Nederland. 5) improve / rebuild the play park at Meadow Park for kayakers and tubers. 6) rebuild the October Hole, this keeps kayakers coming to Lyons long after the water has dried up all along the Front Range. Thanks for your time.	Recreation; Projects; Environmental Restoration; Access; Flood Mitigation; Flood Conveyance;
9/22/2014	Email	I have enjoyed kayaking Shelley's Cottages and Apple Valley and playing in the Black Bear and A-holes over the last 12 years. The play features in the park above Black Bear was a lot of fun and a great place to bring friends beginning in the sport. When the October hole was in play in the fall I would drive to Lyons several days a week. While in Lyons, I purchased plants at the Nursery after kayaking. I've eaten at many of the restaurants in town such as Oskar Blues and Smokin Daves. Also, I have purchased gas on these trips. I also would drop by and purchase cherry preserves, picked up sandwiches at the cool grocery downtown, ice cream at the shop and have bought beers from the liquor store. I made a point of purchasing all my Christmas presents in Lyons after the flood last year to help show support for a town I have grown to love. I have been a spectator during the Lyons Outdoors games at the rodeo events, but I have especially enjoyed the class V creek race on the South Saint Vrain. I hope the someday that South Saint Vrain can be restored. I understand the hasty restoration of the road for Highway 7 caused the Narrows to be choked from the road stabilization. I really am disappointed that river bed was stripped of the large boulders and eddies that gave the river its natural character. I have admired the emphasis on kayaking that Lyons local Scott Shipley and others brought and the development of youth in the sport of	Recreation; Transportation; Flood Mitigation; Natural Channel Design; Environmental Restoration

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		kayaking. It is necessary to restore and improve the features to of the Saint Vrain to support these efforts. It is essential to remove dangerous and non-navigable features and take the opportunity to improve the whitewater features. Please consider the needs for the training ponds for year round training and take the opportunity to make the ponds more accessible by moving to the northside on river Left.This past summer, I only made the trip a couple of times with all the necessary road construction happening in Apple Valley that made it difficult to access the river, but I will be coming back.Thank you for all your efforts.	
9/22/2014	Email	I am writting this on behalf of the St. Vrain river system. My name is Mike Catura. I am a 45 year old kayaker who lives in Golden, Co. I was deeply sadden by the floods that brought so much damage to the greater Lyons area last Sept. I have always greatly enjoyed my time kayaking on the North and South St. Vrain rivers. It is great to be able to come up to Lyons in Oct. and kayak when there is nothing else on the front range to kayak. After a day of paddling we always grab a bite to eat and a beer or two in Lyons and fill up on gas before we head home. My family and I have really enjoyed coming up to the Lyons outdoor games. Right now you have a unique opportunity to help restore the North and South St. Vrain rivers and turn the greater Lyons area into a world class kayaking destination that will attract kayakers from all over Colorado and the country. The South St. Vrain is in need of major restoration to return it to being one of the best class V runs in the state. It has a lack of good access, there are many new hazzards that make it unsafe, it has a braided river channel that is too shallow to navigate and the river has been stripped of many of it's large boulders and eddies. I have many fond memories of learning to kayak on the Shellys and Apple Valley run's on North St. Vrain. I hope that these can be restored and improved upon so I can bring my kids up there to learn to kayak as I did. I would also like to see the play park and play features in Lyons improved. There are many new technologies that have recently come about that can make a great play park in Lyons into one of the best anywhere. Lyons has one of the best, if not the best whitewater park design companies, S2O designs. Why not get together with them to help create a truly amazing whitewater mecca in the Lyons area. You could have the 1st class V whitewater park in the country on the South St. Vrain, one of the best whitewater play parks in town and a great beginner section on the North St. Vrain. I look foward to all of the improvements to the St. Vrain river systems, being able to come kayak with my family, eat out, have a few beers and then do some fishing!	Recreation; Environmental Restoration
9/22/2014	Email	As a whitewater kayaker, I have been a frequent recreational user of the St. Vrain rivers for many years. Due to both the high quality of the man made features in the play parks (especially below the confluence, i.e. adjacent to the Black Bear Inn and below the diversion (October Hole)) and the relatively long season, I frequently visit these parks throughout the spring and early summer. They offer kayaking opportunities that are not available in the immediate Boulder area. The South Saint Vrain offers a stretch of whitewater that I and many others consider one of the better stretches of whitewater on the Front Range and certainly in the Denver metro area. Additionally, the North Saint Vrain above Buttonrock has some of the highest quality wilderness class V whitewater in the state.Between these 3 stretches of whitewater, it is not uncommon for me to visit the Lyons area 30 or more times per year. I am often able to combine these visits with dining in town or enjoying other aspects of the area. Additionally, I visit almost every year to help out, participate, and/or spectate in the Lyons Games. Last year, due to the destruction from the floods, I only visited 1 time for whitewater recreation. I would most like to see restoration done to the commonly run whitewater section of the South Saint Vrain. This includes moving rocks to remove hazards or unboatable features caused by damage created by restoring the adjacent highway. Additionally, it is necessary to shore up the river banks to keep them stable from continued trees and debris further damaging the riverbed and making them safe for access to and from the river. The man made features in the whitewater park have also been badly damaged or destroyed. Reconstructing the existing features below the Confluence and recreating an "October hole" that benefits from water diversions in the fall would greatly increase and restore the whitewater recreational experience here. Finally, for the North St. Vrain above Buttonrock to be a reasonable run, I would like to see access restored to Button rock reservoir for kayakers passing through. Thank you for your consideration.	Recreation; Project; Access; Flood Mitigation; Environmental Restoration
9/22/2014	Email	I kayak on several stretches of the forks of the St. Vrain (or at least, I did before the flood). Mostly I paddle the "narrows" section of the South Saint Vrain, but I also spend a good amount of time in the two whitewater parks in the town of Lyons. Obviously I come in to town to use both of these stretches immediately before and during the Lyons outdoor games, but I also come over to paddle these sections at other parts of the year, specifically the shoulder seasons (early spring and late fall) where not many other creeks in colorado have water. I make it a habit to eat at Oskar Blues or that mexican restaurant across from the lower whitewater park just about every time I paddle near there. I really hope that there will be at least one feature in the whitewater park that will be really world class quality at both high and low flows, so that I can continue to train for freestyle before the main season starts, and have a good time competing in Lyons in the middle of the season. I also hope to be able to explore the other forks of the Saint Vrain river.	Recreation
9/22/2014	Email	My name is Pete Bellande, a 37 year old kayaker who resides in Denver. Over the years, I have driven up to Lyons to creekboat the South St. Vrain, to playboat in the summer and also to get some (very rare for the front range) late season boating in at October Hole. I have also volunteered several times at the Lyons Outdoor Games.	Recreation

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		<p>During these trips, I quite often stop for a bite to eat (and a beer) at Oscar Blues or a coffee downtown. My time kayaking in and around Lyons has made me realize how charming your town is and I have returned with visiting parents to look at antiques and dine as well as come for several Planet Bluegrass festivals.</p> <p>Kayaking is what introduced me to your great little town and it is my hope that, when you are allocating dollars to the much needed redevelopment, that you do so in a way that will encourage all of us front range boaters to keep coming back.</p>	
9/22/2014	Email	<p>I have visited Lyons and the various reaches and forks of the St. Vrain River well over 100 times in the past decade , almost exclusively to kayak. The South Saint Vrain and North Saint Vrain have provided countless days of incredible creek boating experiences. The North Saint Vrain wilderness section from Hwy 7 to Button Rock Preserve is one of the most beautiful stretches of river in the region. At least once a year I have come to paddle what we call the California section and always stop in town on my way to get a "California Sandwich" from the local grocery. We usually spend our post paddling time recounting the days adventure at Oskar Blues. The I've attended almost every Lyons games in some capacity, competing, running safety, photographing or just taking my kids for a fun day out! I know a number of professional paddlers who have come from out of state every year to compete and stay and party in Lyons. It is a great festival centered around a great river and whitewater playpark. I also teach kids and adult kayak lessons including swiftwater rescue, all of which I have utilized the whitewater features around Lyons to teach in. I would like to express my hope that the whitewater features in and around Lyons are re-built, that dangerous and non-navigable features are removed from the river bed, and that a significant amount of thought is also put into improving the South Saint Vrain in the Canyon, as road stabilization has dramatically reduced the quality of the paddling along that stretch.</p>	Recreation; Public Safety; Project; Environmental Restoration; Transportation; Current Impact
9/22/2014	Email	<p>My son, Max Karlsson, is the 2014 overall world cup champion and the 2014 European champion in K1JM freestyle. Being able to train on the St Vrain in Lyons is one of the reasons he has been able to achieve this level of success. The beauty of training freestyle on the St Vrain is that different features are in at different flows from May to October. During very high flows early in the season, a feature in Meadow Park comes in, while at more seasonal flows during the summer the features at the Black Bear Hole comes in. In the fall, with the help of water from Carter Lake, the October Hole is available. With the restoration of St Vrain, I would not only like to the St Vrain to be restored to it former self, but improved such that the October Hole becomes a world class freestyle feature along with the features at Black Bear and Meadow Park. We have attended Lyons Outdoor Games since 2008, and ever since Max started competing in 2009 family and friends have also started to attend. Before the flood Max trained 5 days a week in Lyons, which made Lyons the place where we would spend most of our time away from home in Erie, CO. Hence, a large portion of our disposal income is spent in Lyons.</p>	Recreation
9/22/2014	Email	<p>My name is Cindy Fornstrom, I live in Englewood, CO, and I'm in my mid-forties. I would like to express my opinion about the St. Vrain reclamation process. My husband and I used to kayak the St. Vrain before the flood. For the past 10 years or so, we spent time at the playpark, on the Shelly's Cottages section, the Apple Valley section, and the Proving Grounds section. Every time we made it up to Lyons, we always hit Oscar Blues or other places to eat/drink beer after boating. However, because the river is unsafe and non-navigable because of road construction and other hazards, we didn't make it up to Lyons once this year.</p> <p>During your reclamation process, please consider repairing and/or replacing structures that would make these sections of river navigable for kayaking. Utilizing the help of whitewater design engineers would be the best option, as they understand how to best utilize the rivers' natural features, while implementing new and efficient technology.</p> <p>Thanks for your time and consideration and thank you so much for asking for opinions from the boating community. Lyons is a special place.</p>	Recreation; Public Safety; Transportation; Current Impact; Natural Channel Design
9/22/2014	Email	<p>Greetings, my name is Ken Wealty, and as a 44 year old kayaker from Golden, Co, I have some concerns about future work impacting South Saint Vrain creek. Prior to the floods, SSV was one of my favorite creek runs and of such high quality that it hosted an annual race attracting the world's best paddlers. Now, it is forever changed by the floods and the rebuilding of Highway 7. While rebuilding the highway was a top priority at the time, now is time to restore SSV to a more natural river channel with eddies and less constriction. As it is now, many drops are runnable during spring runoff individually, but there is no stopping between anything for long extended stretches, making it very dangerous should there be a problem with any single drop. If a fisherman were to fall in, it would be life threatening. Then again, the fishing will very poor with so few eddies. A professional whitewater engineering firm could greatly benefit the local community by restoring SSV to a more natural river. I've been to several Lyons Outdoor Games and always admired Lyons for being such an awesome town with a play park, a great creek run, and Oskar Blues! I hope work can be done to improve the kayaking in the area. There's just to much potential to squander it by not doing it right. Thanks, Ken Wealty.</p>	Recreation; Transportation; Public Safety; Natural Channel Design; Environmental Restoration
9/22/2014	Email	<p>In 2011 I was introduced to the sport of freestyle kayaking in Lyons, Colorado during the Lyons Outdoor Games. I've returned to</p>	Recreation; Environmental Restoration

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		<p>Lyons every year since to compete in the freestyle events at the Outdoor games, and to paddle the upper reaches of the St Vrain.</p> <p>Having traveled extensively to visit whitewater parks across North America, I can tell you that Lyons and the St Vrain had great variety in features making the river a key asset to my visits to Lyons. With excellent play holes, and good slalom courses, there was always something exciting on the river in Lyons. It would be sad if these features were not returned or improved after the flooding from last fall.</p> <p>Of particular concern would be restoration of the S St Vrain Narrows. This section has provided some of the most exciting, most accessible steep creek action along the front range.</p> <p>For the whitewater park in town, if I had the ability to make it happen I would create a number of different features suitable for kayaks and paddle boards at levels good for beginners to experts.</p>	
9/22/2014	Email	I really enjoyed kayaking the Saint Vrain River near Lyons in the summer. The class III section above Lyons was great as well as the play park in Lyons. A group of friends would meet up, kayak, and then go to dinner and drinks afterwards. I've been to the Lyons Outdoor Games in the past where I managed a Colorado Whitewater tent. I also took a playboating class and watched the competitions. It was so much fun! It would be awesome if the play park was restored with surf waves again (different types so all levels can play on them). Would love for the Lyons Outdoor Games to continue, too.	Recreation
9/22/2014	Email	I primarily used the Meadow Park section during the summer with my company Avid 4 Adventure. The redevelopment is important to me because I felt it was the best stretch of approachable beginner whitewater in Boulder County. Seeing this project move forward is huge to our company's mission of getting kids and their families Outside!! I hope that a similar character of rapids and features are able to be built. Thanks so much for spearheading this and don't hesitate to email if there is anything I can help with.	Recreation
9/22/2014	Email	<p>I am writing to express my strong support for kayaking on our St. Vrains.</p> <p>Whether it's the Outdoor Games, creek boating spring runoff, or late season play sessions, kayaking brings a yearly pilgrimage of boaters of all abilities to our St. Vrains and in doing so impart identity, stewardship and economic stimulus. As the planning, design and rebuilding process proceeds, please consider every opportunity to restore and enhance the river channels for what is a longstanding and important pastime for the community and region.</p> <p>Restore our unique steep creek reaches.</p> <p>Rebuild better play parks.</p> <p>Capitalize on the synergies that can exist between whitewater design and enhancements for native and recreational fisheries, permanent road repairs, necessary irrigation diversions, and overlap with other recreational pursuits.</p>	Recreation; Project; Environmental Restoration; Natural Channel Design; Fish Habitat; Transportation; Agriculture & Irrigation
9/22/2014	Email	As a whitewater enthusiast, I would like to see river restoration efforts in the Saint Vrain watershed include structures and features that will benefit whitewater recreation. This is a quality of life issue to me and will encourage me, and many I know, to visit the Town of Lyons and vicinity as I have in the past. Whitewater boating features will encourage others and myself to visit the area and contribute to the local economy. Thank you for your consideration of my views,	Recreation; Environmental Restoration; Natural Channel Design
9/22/2014	Email	I am aware that you are planning the reclamation of the areas around Lyons. As a older (67 year old) kayaker, I have often visited and stopped often at the play park and river in Lyons. The Saint Vrain River has always been central in our motivation for a stop and continues to be central in the way I think about Lyons. The reclamation of the river corridor will be crucial to my visits in the future. Please regard that river corridor with the reverence we do when considering the reclamation.	Recreation
9/22/2014	Email	(Comment 1 of 2)My name is Kraig Lund. I am 39 years old and currently reside in Lakeville, Minnesota. I previously lived in Longmont, CO for 12 years and was a heavy recreational user of the Saint Vrain watersheds. The North Saint Vrain from the Buttonrock dam down through the Apple Valley to Lyons was (and still is) one of my favorite rivers/creeks to paddle in all of Colorado. A typical day of paddling NSV with my crew consists of meeting up at the coffee shop in town for some fuel for the day, setting up a shuttle from Black Bear or October hole, and spending a nice long day paddling all the way down from above Shelly's Cottages. Usually we cap off the day with a good meal at Oscar's or Mariposa. In addition to doing river runs, I also spent a lot of time playing in my boat in the Meadow Park kayak course and the Black Bear/Oct. hole areas, and of course attending the Lyons Outdoor Games each year to watch the playboating and the creek race events. I made the trip from MN to CO this last summer to do some Front Range paddling (and plan on making at least one trip yearly). We paddled the North St. Vrain one day and it was saddening to see	Recreation; Natural Channel Design; Project

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		the damage caused by the flood first hand. Personally, I believe the actual river stretches above the Apple Valley bridge should be left alone. Adding any man-made structures or pool-drop type features would change the character of this wonderful stretch of river. Below the Apple Valley bridge it would be nice to see the Meadow whitewater park and Black Bear/October hole stretches restored to their previous whitewater configurations. If I had to prioritize my preferences for whitewater restoration it would be (1)Meadow, (2) Black Bear, (3) October.	
9/22/2014	Email	(Comment 2 of 2) Lyons is probably my favorite town in Colorado to visit, due to the paddling / mountain biking / hiking opportunities and the general vibe in the town. If I ever move back to CO, it is on the top of my short list of places to reside. I hope the town can recover fully from the flood, including restoring it's whitewater paddling jewels in the St. Vrain's.	Recreation
9/22/2014	Email	I am writing to offer some comments on the Master Planning conversation: I have run Shelley's Cottages a number of times and am interested the Apple Valley and play park sections because I hear they're great sections to lead trips for kayakers with class 2+ and 3 abilities. I know you have received an email from the club's cruise director, Leslie Tyson. I agree with her and am reiterating several of her points:• Safe river access and parking are important. This aspect should respect the private land owner interests around the site. River access should adequately protect the river bank. Vehicle traffic should be safe and have minimal impact on the highway traffic. Other user groups could use these accesses also. • Any old structures could be revised to provide safer boating opportunities. (City of Denver is reworking the Confluence area for this reason and in anticipation of drawing more users to the area.)• New structures required for future flood control could be constructed to be boater friendly and/or fishermen friendly. Ponds could be used for teaching purposes.• This is a prime opportunity to draw various recreational users to the Lyons area. Kayakers have a tendency to boat and then visit a local eateries. Festivals could also grow with this plan. Thank you for all your hard work.	Recreation; Access; Transportation; Flood Conveyance
9/22/2014	Email	Dear Folks, I have been an avid kayaker for more than 30 years, and have paddle both the North and South St Vrains many times. The confluence and the other sections in Lyons are true gems, that need to be restored to their original splendor. The old whitewater park created a wondrous playground for many local boaters, and their visits definitely helped the economy of the town. The Lyons games created a huge crowd which was a strong economic boon, and the general splendor of the river was enjoyed by everyone. Best, John Mattson www.danceonedge.com	Recreation; Environmental Restoration
9/22/2014	Email	(Comment 1 of 2)My name is Helen Johnson, I'm 40yo. For the last 5 years I lived in South Denver. Now I live in Broomfield. The St Vrain River is one of my favorite waters in the state. For the five years I have been a kayaker I have looked forward every spring to the St Vrain runoff and the Apple Valley kayak run in particular. Its overgrown, green-banked ripples and wave trains are delightful. Even though the run is close to the road and runs right through the community, kayaking it makes me feel like I've left behind the blacktop and entered a verdant tunnel far away from the rest of my life. I love it. It ends in my favorite playpark, hands down. I haven't run Shelley's Cottages yet, but I've run shuttle countless times for kayakers better than me who exit the river with huge grins from the challenge and steep whitecapped fun. Although the flood changed the nature of the river - scoured the green banks, changed the nature of the playpark and even changed the river's course, I can't wait to see what Apple Valley I looks like. (I didn't run it this year, but I walked the accessible banks and swam in the playpark). I look forward to playing in the holes again and learning new tricks. I've attended the Lyons Outdoor Games three times since joining the sport, and gotten to meet world class kayakers as well as people in my class who have become my paddling friends. I've been inspired to try my hand at playboating, and learned all manner of things about dirt biking too.	Recreation; Environmental Restoration
9/22/2014	Email	(Comment 2 of 2) Lyons is a delightful community. I've been coming to Lyons for years for various reasons - pinball, Oscar Blues music & food, hikes, camping, tubing and swimming in the st vrain with friends, and outdoor concerts. As the restaurant options broaden I've made Lyons a foodie destination (specifically, Lyons Fork). After a kayak run or a date in the park, I almost always stop in somewhere with friends for a beer and snack, or a full meal. I buy gas, water, sport drinks and munchies at the gas station and grocery. I grab coffee and head over to Lyons Classic to drown a couple quarters. Redevelopment of the river stretches are important to me. Being able to relax and recharge in my kayak on a river as beautiful as the St Vrain is one of the reasons I love to live on the front range.	Recreation
9/22/2014	Email	I have been paddling the rivers of Colorado for over 12 years. The St. Vrain holds fond memories of my early kayaking days as the stretch from Apple Valley Bridge to Meadow Park contains some of the best beginner water on the Front Range. As I progressed, the playboating aspects of the features near Meadow Park and downstream at the features continued to draw me to Lyons. Also, the upstream section, referred to as Shelly's Cottages, is an often paddled section for intermediate and advanced kayakers. While I write this letter from a personal level, I am the president of Colorado Whitewater. This not-for-profit organization of 500+ members organizes trips on the St. Vrain. It is a popular after work section as the distance from Denver and Boulder is not restrictive. The whitewater park provides drops to gain confidence, eddies to practice skills and deep pools for fine tuning a roll. The river community has come together in Lyons on many occasions. The annual Lyons Outdoor Games draws paddlers and other outdoor enthusiasts	Recreation

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		from near and far. The kayak rodeo events draw large crowds and are the crown jewel of the event. I saw the community rally together to raise funds to build the October Hole. The event at Oscar Blues in Lyons was packed with those contributing their personal funds to the river feature. Generally, the trip to Lyons for kayaking is topped off with a social outing to one of the outstanding restaurants. Tables are pushed together to accommodate the size of the groups that arrive. We celebrate our river adventures with food, drink and merriment. The redevelopment of the river is of high importance to the whitewater community. With the features lacking, the biggest reason for me and others to travel there is gone.	
9/22/2014	Email	I attended 2013 Lyons Outdoor Games as I wanted to watch my grandson compete in the junior freestyle event for the very first time. It became very apparent how important both the Lyons Outdoor Games as well as St Vrain and Lyons is to him. Especially as the St Vrain in Lyons was my grandson's primary training ground, prior to the flood, for both freestyle and slalom. I would love for the river to be restored, at a minimum, to its former glory.	Recreation
9/22/2014	Email	I work hard during the week; so that I can travel around Colorado on the weekends doing what I love, which is kayaking !!! When I do travel I spend money on grocery, gas, and camping. Without the opportunity to travel to different stretches of river each weekend, I would probably move back east. Kayaking is an extremely important part of the quality of life, and value of living in a mountain town. I hope the kayaking/ and recreational value is appropriately accounted for when managing the ST Vrains.	Recreation
9/22/2014	Email	My name is Max Karlsson I am seventeen years old and I live in Erie, Colorado. I believe that the redevelopment of the St. Vrain is essential. As current Jr. Freestyle Kayaking World Cup and European champion, this stretch of river has really helped with my development in not only my paddling but for fully appreciating the rivers' value. I had been training in the town of Lyons since the age of 12 for 6 days a week, every week. I would love to see the whole town section of the river re-done with beautiful, publicly-assessable parks along the river banks.	Recreation; Access
9/22/2014	Email	(Comment 1 of 2) My name is Greg McRae (44) and have been a Lyons resident since August of 2000. One of the main factors for my relocating to Lyons was the ready access to its many outdoor resources. Among those I enjoy most is kayaking the North and South St. Vrain rivers. Over the last 14 years, I have utilized Meadow Park, the Blackbear, "A", and October holes to kayak from April until late fall almost every year. And during these years I have watched Lyons evolve into an exciting active town while maintaining all of its special quaint traits. Last year before the flood I started paddling in the ponds in the LVP neighborhood off season as well. The ponds have also been instrumental in teaching our daughter the basic paddling skills she needed to safely step up and start paddling the slalom gates that were set up just below the October hole pre-flood. I have been delighted to get to know and watch the kids involved in kayaking flourish and grow with the local support of whitewater activities. Unfortunately this resource was destroyed and is greatly missed. I am in great favor of an opportunity to rebuild and improve these water features to not only offer visitors, locals, adults, kids, and families the whitewater recreational opportunities that have put Lyons on the map as a truly unique and special town, but to further establish Lyons as the incredible active community that can support great events such as the Lyons Outdoor Games in tandem with its renown music festivals. To me, Lyons is a very special place because of its artists, musicians, trails, people, and support of fishing and whitewater activities.	Recreation
9/22/2014	Email	(Comment 2 of 2) I continually meet river enthusiasts that make frequent drives from Ft. Collins, Longmont, Boulder and other surrounding areas to paddle the SSV, get a playboating workout in our local playholes, and to fish. I believe the rivers are a great commodity to utilize in order to be a destination location rather than a pass-through for Estes Park traffic. I believe our local businesses can only benefit as well. Unfortunately the river and pond features were destroyed by the 2013 flood. Yet this is a unique opportunity to rebuild our rivers with whitewater activities and healthy fishing habitats in mind, utilizing both new and tried and true designs.	Recreation; Fish Habitat
9/22/2014	Email	SV usage: Prior to the floods, the SSV was easily my favorite front range run - I probably made up to Lyons 6+ times a year to paddle SSV during good water years, and almost always stopped in at Oskar Blues for a beer and a burger afterwards, as well as buying gas, snacks, etc. As shallow and rocky as the river was, it was still an amazing run - if the time and effort was put into recreating/improving the run, it could really be a whitewater destination.	Recreation
9/22/2014	Email	I've been coming to Colorado each June to kayak for 15 years and until recently Lyons wasn't on the list of cities I visit. Then they built the play park and the Lyons Outdoor Games started up and now it's a fixture on my schedule. So sad about the flood, as these things happen, but I must admit it's the mix of play boating, creeking, biking, and the amazing town and it's people that keeps me coming back for a week each year. Without a play feature or safe creek to paddle it's likely the tour might decide Durango is another great option we haven't seen in awhile. That isn't to say the kayakers have a big impact on the economy, just that that play boating feature is what drew us there in the first place. I hope you plan for you community first, but consider the traveling kayakers from all over CO as well as those of us fortunate enough to make the trip across Kansas year after year.	Recreation
9/22/2014	Email	(Comment 1 of 2) My name is John Melrose, I currently live in Buena Vista, Colorado. I am a former home owner and employee of the cities of Arvada	Recreation

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		and Boulder. I am a 36 year old whitewater enthusiast and river professional. It is my understanding that the St. Vrain River is undergoing review through the St. Vrain Watershed Master Plan. With this email, it is my intention to show my desire for the St. Vrain river corridor continue to be a destination for whitewater recreationists. Without a doubt river corridors can foster economic growth within their communities by making whitewater opportunities available to the public. I personally have traveled (and spent money) in Colorado towns that have catered to whitewater activities. Specifically cities such as Boulder, Lyons, Golden, Denver, Pueblo, Canon City, Buena Vista, Salida, Gunnison, Glenwood Springs, Avon, Vail, and Durango will continue to get my 'stay-cation' tourist dollars because of the whitewater opportunities that exist in these locations. The Lyons Outdoor Games is a prime example of why the St. Vrain River should remain a whitewater destination, it will continue to attract a growing segment of the outdoorsy tourist market. In the past, some of the features in the town of Lyons have attracted kayakers and tubers in the 'off' season because the river was still an enjoyable experience when other river systems in the state were too low and failed to provide a valuable recreation experience. Whitewater enthusiasts are a unique bunch and will travel from far to seek out opportunities when options are limited, the St. Vrain could and should continue to capitalize on this rare chance. All sections of the St. Vrain can offer paddling opportunities, from expert to beginner.	
9/22/2014	Email	(Comment 2 of 2) The range in difficulty levels will be a big draw for paddles. Having the gradient to offer from Class I to Class V is a huge advantage. A destination were I can boat expert sections with my expert friends, but also provide the opportunity to recreate on beginner stretches with my less experienced friends will be an undeniable attraction. Please don't waste this chance! Thanks for your consideration.	Recreation
9/22/2014	Email	My name is Mark Billerbeck and I currently reside in Steamboat Springs. I used to live just outside Lyons on Highway 66 for several years. During that time I frequented the play park, Apple Valley/Shellies sections of the NSV, and recreated along all stretches of both the North and South St Vrain. Having the playpark and safe river beds made the experience enjoyable and provided the access to enjoy those resources. The Lyons Outdoor games are a solid event and I have made it back for a few of those since leaving as a destination event. Those activities always caused me to stop into Oscar Blues, pick up some mexican food and enjoying the downtown retailers. Please consider all the users and resources available when redeveloping the master plan after the floods. Having a plan to restore access, features, and the river to a usable state again should be a high priority. After such a devastating even to be able to get the chance to do it right and accommodate all is a great opportunity.	Recreation; Access;
9/22/2014	Email	I love the St. Vrain and used to kayak from Apple Valley down to the Black Bear Hole, I even purchased a play boat last fall with the intentions of using it specifically in the Black Bear hole. Unfortunately the floods have destroyed the Apple Valley run, now it looks more like a war zone and the Black Bear hole is no longer the friendly wave it used to be. I have no plans to run Apple Valley or try to surf the ugly Black Bear hole as it is now. I would love to see the river restored to pre-flood conditions so I can enjoy this area again, it's close to home and such a beautiful area to visit.	Recreation
9/22/2014	Email	As a Colorado resident of 17 years and a father of 3 sons the outdoors and all it has to offer are what have kept us here following the initial move driven by work. The job has come and gone the desire to stay in CO – eternal. What occurred last year was truly unbelievable and the impact it had on the region as a whole almost biblical in proportion. The recovery efforts have been equally impressive and something the population across the state are genuinely impressed with. To complete the recovery the water courses, that once were, and all that they offered to their stake holders need to be restored. To get so close to the finish and not bring the same attention to detail to the St Vrain would be a tragedy. I as Colorado resident, non-native but equally invested in the state would love to see it fully recovered.	Recreation
9/22/2014	Email	About 10 years ago I was at the bottom of the learning curve of whitewater kayaking. I was struggling to learn how to roll in moving water. The kayak parks in Golden and Boulder were intimidating. Then I discovered the features on the Saint Vrain in Lyons. They proved to be just what I needed: big enough to be challenging, but at the same time small enough to feel secure while attempting new skills in the kayak. This brought me and my groups of fellow learners to Lyons again and again for a few years. We would often gather in Lyons after work one or more times during the week in the late spring and summer. More often than not, we would follow up our time on the Saint Vrain with a meal at one of the restaurants in Lyons. As my skills evolved, I transitioned into the role of kayaking mentor. This means that 10 years on I'm still coming to Lyons with (new) friends to paddle and eat. It would be a wonderful boon to have these qualities of the river recreated.	Recreation
9/22/2014	Email	The purpose of this letter is to reach out to the Town of Lyons and express the importance of fixing the town's river play features. Myself, friends, and family use these features many times during the summer for recreational purposes. Before the flood, I drove to	Recreation

Public Comments on Draft Alternatives Analysis Report Kayak Community			
Date	Method	Comment	Category
		Lyons 15 days a year to kayak in the City's Play Parks. My favorite play features were the A-Hole and the October Hole. The A-Hole is badly in need of repairs, and the October Hole has to be rebuilt. I would also during those days have dinner at the very excellent restaurants in Lyons. I frequent the Oskar Blues Brewery; I also greatly appreciate their support for river causes over the years. A repair of these play holes are also greatly needed to support the Lyons Outdoor Games. As you know, people come from all over the state to see the best kayakers in the country compete, bringing business to the restaurants and hotels. If I can be of any help, please do not hesitate to call.	
9/22/2014	Email	My name is Scott Meininger. My wife and I live in Golden, CO and are both avid whitewater kayakers. Prior to the destruction of the North and South St. Vrain during last year's flood event, we were regular users of both creeks, including the whitewater features in Meadow Park. We are regular attendees of the Lyons Outdoor Games and will continue to be. We would love to see efforts to help restore these sections of creek to their previous glory.	Recreation
9/22/2014	Email	(Comment 1 of 2) I've paddled the lower North Saint Vrain Creek from a half mile above Shelley's Cottages in either my open whitewater canoe or my C-1 canoe since 1996 when the flow is at a good level. I've also gone to the Lyons play park several times to play and paddle the slalom course. Lyons is not far from where I live in Longmont and now that I've recently retired, I was hoping to go there more frequently since it's convenient. Sometimes I stop in Lyons for coffee and pastry, sometimes for lunch and sometimes I stop at a restaurant for dinner. I hope that a decision is made to improve the area from the present conditions to accommodate boaters. I have paddled that area several times this year since last year's flood and actually liked the run better. I do wish that the parking situation around Meadow Mountain Park was better and free, although I usually park near the Bear Inn play hole or just down river from there.	Recreation
9/22/2014	Email	(Comment 2 of 2) The St Vrain recreation (kayaking) opportunities are why we moved to Lyons. We have since moved into a larger home and had two children. We are very active in the community and certainly spend quite a bit of money locally every year. All of this is due to the pre flood condition of the rivers and what they offered our family. The creeks of SSV, the intermediate runs of NSV. The play features throughout including the October hole which allowed a very extended kayak season which was unique to Lyons. The floods and the road repairs have left each of these stretches altered to a level which makes them all but unrunnable in a kayak. The SSV is much too braided and wide in sections. There are many life threatening hazards that have been created by the flood and the recent road work, The channel is much too shallow and wide in areas and much too narrow and straight in others. It is devoid of large boulders on the river bed which created drops and eddies. These were a good place for fish to habitat and they were excellent features for kayaking. They also serve to slow the velocity of the water and reduce erosion. The same is true on the NSV from the Button rock reservoir County rd 80 down to town. We have lost many of our world class whitewater features that were man made and brought people from around the globe to Lyons. As you can see referenced in Clay Wright's email (professional kayaker) without our creek and world class whitewater features the pros likely will find no value in coming to support the town through events such as the Lyons Outdoor Games. It is imperative that we make more than just improvements to what is currently here. We have the unique opportunity to propel Lyons on the world stage in showcasing how through our innovation, dedication and motivation a kayak and outdoor recreation mecca.	Recreation; Transportation; Current Impact; Environmental Restoration; Fish Habitat
9/22/2014	Email	I also feel it is important to be forward thinking in the design and at the man made whitewater features utilize new technology as well as create multi purpose use for Coloradans of the new millennium. Focus on creating outdoor play areas which include a white water feature and climbing wall. Another that has a whitewater feature and a slack line set up.	Recreation
<p>*Comments are reproduced as submitted with minimal to no editing to maintain original integrity. ** [?] denotes an illegible word in a hand written comment that has been transcribed.</p>			

Public Comments on Draft Alternatives Analysis Report

General Comments

Date	Method	Comment	Category
9/29/2014	Email	<p>I am writing on behalf of the St. Vrain Anglers chapter of Troup Unlimited Board to provide feedback on the current draft of the St. Vrain Creek Watershed Alternatives Analysis Report and the general master planning process that we have participated over the last year.</p> <p>In reviewing the St. Vrain Creek Watershed Alternatives Analysis Report we as chapter leaders are encouraged by the process being used to develop the report and are pleased to see that the ecological health of the river is an important consideration in the planning process. Ultimately the river and riparian flora and fauna will heal themselves when suitable attention is paid towards providing a more natural river channel. The Planning process includes stated goals of: Improving the biological function of the river system; addressing the long term recovery of the riparian habitat; developing a natural river channel that incorporates the stream hydrology; providing a system that can be resilient to expected and unexpected flooding events.</p> <p>We are confident that these guiding principles will result in a healthy, biologically diverse, and robust river that will benefit the St. Vrain Creek stakeholder. We look forward to continued interaction with the planning process and ultimately stand ready to help restore our local watershed as detailed plans are developed and implemented. Thank you for your hard work and effort.</p>	Natural Channel Restoration; Fish Habitat; Environmental Restoration; Ongoing Involvement

*Comments are reproduced as submitted with minimal to no editing to maintain original integrity.

** [?] denotes an illegible word in a hand written comment that has been transcribed.

APPENDIX A
PROJECT CORRESPONDENCE
(SVCC INTERVIEWS)

ST. VRAIN CREEK COALITION INTERVIEW QUESTIONS

General/Overall

- What's your overarching vision for the St. Vrain and/or its tributaries within your "jurisdiction"?
- List your top 5 areas of concern along the St. Vrain (more can be added):
 - _____
 - _____
 - _____
 - _____
 - _____
- From your perspective where does it make sense to focus on key problem areas and what are they?
- Rank the following alternative factors by importance (1 to 3 - 3 being the highest level of importance)
 - Environment (i.e. riparian and ecosystem)
 - Flood Mitigation (property damage and life safety)
 - Public Safety
 - Recreation
 - Transportation (damage, accessibility, emergency access)
 - Public Acceptance
 - Aesthetics
 - Benefit/Cost Ratios
 - Total Costs
 - Permitting Requirements
 - ROW Acquisition/Easements
 - Operations and Maintenance
- What deliverables do you expect from the Master Plan?
- What are your expectations on deliverables from the master plan?
 - Level of design?
 - Plan and profile?
 - Floodplain modeling and mapping?
- What existing studies and plans are out there that we need to be aware of for the purposes of our study? Are there any additional studies/plans that aren't included in our inventory?
- Regarding the existing studies and plans we will be referencing as a part of this master plan, do you have any comments or concerns about the ones included in our inventory (see attached spreadsheet)?

Public Outreach

- What established communication channels do you have for providing information to residents? And vice-versa, where are they sending comments and questions to?
- What are your ideas for how we best proactively address the public?
- What existing meetings do you have scheduled that would be helpful for us to attend to provide information at?
- What do you think would be the best timing for our first public meeting? What about a location or format? What's worked well so far for engaging residents/constituents?
- How do we not duplicate other communication efforts that are going on so we don't confuse people but provide them with valuable information?
- How should specific groups such as property owners be involved?

SVCC Questions

- We are attempting to define the purpose of the study's steering committee, what do you feel this should be?
 - Our understanding is that it is intended to be a "technical review group" to answer strategic questions, monitor study timelines, progress, scope and to review information for distributing to the public. What do you think about that?
- From a procedural standpoint about how you work together and work with us, what do you need? What would be helpful? What questions do you have?
- What are your thoughts regarding the formation of a Coalition that is separate from the study's steering committee (SVCC), one that involves parties other than agencies? What other parties should be involved? What would its purpose be?
- What about how you address the public as a Coalition? What questions do you have?

What other key issues, or other important factors would be valuable for us to understand?



St. Vrain Creek Coalition Interview Summary – CDOT

Date: May 19, 2014

Location: CDOT Region 4, Boulder, CO

This summary is to document an interview conducted with the Colorado Department of Transportation (CDOT) as a member of the St. Vrain Creek Coalition (SVCC). The interview was conducted to record the ideas, issues, comments and concerns of CDOT in regards to the St. Vrain Creek for preparing the watershed's master plan. The input received informs the project team for the upcoming efforts. The following notes summarize the input that was provided to the project team by the interviewee.

OVERALL VISION AND KEY AREAS OF IMPORTANCE

The following input was provided to highlight what CDOT believes is important to be considered while developing the St. Vrain Creek Watershed Master Plan.

Current Focus and Activities:

- A guiding principle that CDOT is focused on while considering long-term planning for flood recovery is to ensure that future planning protects against the potential flooding of roads and does not prohibit the access to roads or access between communities.
- CDOT expressed concern about structures that collected debris during the floods. The debris build-up against these structures caused water to flow in unexpected ways that damaged roads downstream from these structures. Upstream improvements need to take into account what's downstream so that downstream infrastructure does not experience some of the same impacts that were caused by upstream debris backups.
- Once the permanent repairs are implemented, CDOT anticipates that a 100 year flood event will not over-top the roadways.
- Overall with its projects, CDOT does not look to encroach on any more on the creek; it will aim to move roads landward where feasible.

Specific Projects occurring include:

- CDOT is beginning to move into creating permanent repairs for U.S. 36, U.S. 34 and State Highway 7. Permanent repairs will be completed to the roads in the order listed. All repairs will be complete between 2015 and 2017.
- U.S. 36 Phase 2 permanent repairs are anticipated to be complete by the end of October 2014. CDOT will be repairing just the damaged areas; this includes 3 miles of road. It will include a 36 foot cross section (12 ft. lanes in each direction; 6 ft. shoulders on each side) with a 10 ft. rock fall ditch.
- Construction on SH 7 will happen as early as next fall. It will include a 36 foot cross section (12 ft. lanes in each direction; 6 ft. shoulders on each side) with a 10 ft. rock fall ditch.

CDOT's intent is to not encroach on the creek so it may move the road landward where possible.

- The Federal Highway Administration and CDOT are addressing what kinds of bridges are needed at Hwy. 119 and I-25 to replace the temporary bridges.

Important Areas of Focus: CDOT listed the following as important for the master plan to address:

- Minimizing risk to the roadways
- Bridges
- Accesses
- Dams
- Not precluding permanent repairs on SH 7 within the footprint described above
- Irrigation diversion structures

Suggested St. Vrain Watershed Master Planning Outcomes: CDOT expressed that the following points were desired as overall outcomes from the master planning process:

- Increase awareness of residents on which agencies are responsible for which activities.
- Develop plans that do not negatively impact CDOT facilities.
- Make recommendations for needed improvements, prioritize alternatives and develop cost projections.
- It would be helpful to identify who will pay or could fund improvements so that CDOT can implement a project and know what recovery activities will be reimbursed by the Federal Highway Administration.

ST. VRAIN CREEK COALITION COORDINATION

CDOT stated that the following was important about working with other regional agencies as part of the St. Vrain Creek Coalition (SVCC):

- CDOT sees value in inter-agency cooperation and that there is an opportunity in getting all stakeholders in the same room. It can be helpful to discuss cross-jurisdictional perspectives to form consensus about alternatives for moving forward. CDOT experienced hearing differing agency perspectives regarding mitigation work so discussing those issues as a group ahead of time can be helpful. The SVCC's biggest opportunity is to identify the key questions the master plan must address, hear each other's concerns, inform each other and develop joint solutions for moving forward.
- While U.S. 36 improvements are set, the SVCC can provide input on improvements for SH 7.
- It is important for the U.S. Forest Service to be a part of the Coalition. CDOT has had to interact with Colorado Parks and Wildlife; it may be helpful to have them involved.
- It makes sense for Boulder County to take an active role as a leader within the SVCC because while agencies sometimes have different mandates or competing objectives, all of the issues geographically lie in Boulder County; thus it is the agency which is affected by all issues and has a stake.

OTHER COMMENTS

- The Governor has approved an \$8M GOCO grant to evaluate and implement a natural surface multi-use recreational path from Lyons to Estes Park. CDOT has been tasked to have a study done by September 2014.
- CDOT's communications to local residents have been mostly informational about their projects. Any communications that need to be rebroadcasted through its public information office can be sent to Amy Ford.

MEETING ATTENDEES

	Name	Affiliation
1.	Andrea Meneghel	CDR Associates
2.	Jeffrey Range	CDR Associates
3.	Chris Boespflug	Colorado Department of Transportation, R4
4.	David Jula	Michael Baker Jr., Inc.

St. Vrain Creek Coalition Interview Summary – St. Vrain Left Hand Water Conservancy District (SVLHWCD)

Date: May 19, 2014

Location: St. Vrain Left Hand Water Conservancy District, Longmont, CO

This summary is to document an interview conducted with the St. Vrain Left Hand Water Conservancy District (SVLHWCD) as a member of the St. Vrain Creek Coalition (SVCC). The interview was conducted to record the ideas, issues, comments and concerns of the SVLHWCD in regards to the St. Vrain Creek for preparing the watershed's master plan. The input received informs the project team for the upcoming efforts. The following notes summarize the input that was provided to the project team by the interviewee.

OVERALL VISION FOR THE ST. VRAIN WATERSHED

The following input was provided to highlight what the SVLHWCD believes is important to be considered while developing the St. Vrain Creek Watershed Master Plan.

- The St. Vrain Lefthand Water Conservancy District (SVLHWCD) expressed that it conceptually operates under the philosophy of "efficient water management". SVLHWCD hopes that this philosophy is acknowledged in the master plan and the creek is managed in a broad holistic way. This philosophy includes analyzing the different aspects of water within the watershed and all its uses such as for recreation, irrigation and environmental sustainability.
- A big goal for the master plan should be to define the values of the watershed in order to identify projects or project concepts that can attract funding.
- It is important that irrigation functions aren't adversely impacted.
- The long-term planning for the watershed needs to be informed by the individual property owners throughout the process.

AREAS OF IMPORTANCE AND KEY ISSUES

The following input was provided to highlight key areas that the SVLHWCD believed would be valuable for the master plan to address.

Areas of Importance:

- Identify if fish and boat passage can occur in some diversions. This was posed as more of a question to the project team to evaluate if the possibilities exist.
- The floods ripped through gravel pits in Reach 3 and added to the damage that was experienced in that Reach and Reach 2. The master plan should address what to do about the gravel pits and what effect or impact they had on the area and riparian habitat. Boulder County may be looking at these through a separate process, but it should be an issue the St. Vrain Creek Coalition (SVCC) discusses.

Suggested St. Vrain Watershed Master Planning Outcomes: SVLHWCD expressed that the following points were desired as overall outcomes from the master planning process:

- It would be beneficial if the master plan could outline a “playbook” for how the SVCC can go about identifying funding for long-term repairs and improvements. It could be a resource so that if a flood happens it describes what to do and what sources are available to coordinate around for funding. It could also establish the activities that need to occur to meet federal funding guidelines.
- Establish activities that meet community vision and values.
- Develop “data dictionary” that catalogues all groups and activities. This would include the activities, projects and processes being carried out in the watershed by federal, state and local agencies in addition to community groups and private interests.

Existing Plans and Studies: In addition to what Baker has already identified as being included in the master plan, the following was suggested as other existing plans and studies that should be recognized in the master plan:

- The SVLHWCD stated that overall the data inventory to date seemed adequate. Two additional resources that should be acknowledged are the plans that are being developed by the South Platte Basin Roundtable; a draft will be available in July. Also, the Governor issued an Executive Order to have the Colorado Water Conservation Board (CWCB) develop a “State Water Plan”; a draft is scheduled to be available by December.

PUBLIC ENGAGEMENT

Key Messages

- It will be important to communicate what the master plan is, what the process for developing it will be and how people can get involved. It will also be very important to explain what the master plan will include and what it won't include.
- There will be a need to educate people about the tradeoffs and needs that exist within the St. Vrain Watershed.
- Be clear about what the master plan will determine so that people can make informed decisions about their own properties.
- Being clear about what the master plan will determine cannot be stressed enough because the public has heightened expectations of what it can accomplish that may be beyond the scope of the plan.

Stakeholder Engagement Suggestions

- Inform the public that the master plan process is occurring as soon as possible.
- The SVLHWCD has a listserv it communicates to property owners and the public through; we can forward communications to our listserv when appropriate.
- SVLWC was instrumental in developing the Restoration and Recovery Team (R2T) for the Reach between Lyons and Longmont, which could be a model to build groups for each reach of the St. Vrain watershed that are manageable and are able to focus on issues specific to each reach. It brought together agencies and landowners within that Reach to discuss what could be done in that segment of the creek.
- The approach should be holistic to allow everyone to feel that they have a voice; this includes property owners that are directly affected. While they may be focused on their specific property, they should be involved so that they can weigh in on the vision for the entire watershed. Recreational users should also be involved and others that aren't personally impacted by decisions but can provide significant input. Determine when these groups can be involved and how.

- The first public meeting should be all about clarifying expectations.

ST. VRAIN CREEK COALITION COORDINATION

The SVLHWCD stated that the following was important about working with other regional agencies as part of the St. Vrain Creek Coalition (SVCC):

- The Coalition needs to find consensus about what it is attempting to define; whether that's creating the vision for the watershed or getting very detailed about structures such as bridges and dams.
- The Coalition, as it is formed currently consisting primarily of agencies, should be focused on technical review of alternatives, projects and decisions that are based on the data being collected.
- Meetings should be open to the public and allow for public comments and questions.
- The project team should check with Weld County to determine the level of desired involvement.

How the Coalition Represents Itself: The SVLHWCD felt that the SVCC needs to define how it represents itself and who the Coalition spokesperson is when a Coalition response is needed. It was stated that it would be beneficial if the SVCC spoke in one voice. If a view is being communicated, the person doing so should clarify whether they are doing so on behalf of the Coalition, their representative agency or as their own personal opinion.

MEETING ATTENDEES

	Name	Affiliation
1.	Andrea Meneghel	CDR Associates
2.	Jeffrey Range	CDR Associates
3.	David Jula	Michael Baker Jr., Inc.
4.	Sean Cronin	St. Vrain Left Hand Water Conservancy District

St. Vrain Creek Coalition Interview Summary – Town of Lyons

Date: May 19, 2014

Location: Lyons Town Hall

This summary is to document an interview conducted with the Town of Lyons as a member of the St. Vrain Creek Coalition (SVCC). The interview was conducted to record the ideas, issues, comments and concerns of the Town of Lyons in regards to the St. Vrain Creek for preparing the watershed's master plan. The input received informs the project team for the upcoming efforts. The following notes summarize input provided by the interviewees.

OVERALL VISION FOR THE ST. VRAIN

Throughout the post-flood recovery period, the Town of Lyons (Lyons) developed the Lyons Recovery Action Plan (LRAP), which identifies the how the Town's key goals and objectives can be achieved through Project Development Guides (PDG's). PDG's identify specific strategies for addressing the Town's needs and vision for recovering from the impacts of the floods.

- The LRAP includes immediate actions, costs and a timeframe associated with the PDG's and Lyons has begun a prioritization process to rank the PDG's in order of importance and what can be implemented.
- Lyons seeks to integrate LRAP objectives and applicable PDG's into the master plan for the St. Vrain. In order to identify where the overlap exists between the LRAP PDG's and the master plan objectives, it was suggested to begin by considering the creek and infrastructure-related PDG's.
- Lyons suggested that a first steps towards putting PDG actions into the master plan can be by considering the LRAP recommendations for effectiveness and viability or to consider whether alternative actions would better meet the Town's goals.
- The Town is presenting the final recovery plan at a town park concert on Thursday, June 12.
- University of Denver students are creating an executive summary of the LRAP. Reed Farr or Jim Blankenship will provide that to the project team.
- Dave Jula, Michael Baker Jr. Inc., consultant team project manager, explained that because the LRAP and PDG's have already been vetted through the public and reflect the desires of the residents of Lyons, the project team can take the next steps and evaluate PDG's that fit into the master plan's context for developing alternatives.

AREAS OF IMPORTANCE RELATED TO THE MASTER PLAN

The following input was provided to highlight key areas that the Town believed it would be valuable for the master plan to focus on.

General Themes of Importance: The Town indicated that the following topics or issues were important to be addressed in the master plan. These are listed in no particular order.

- Mitigation of flood risks to private property owners and the town area.
- Natural channel designs when possible.
- The alignment of the St. Vrain and information that aids the rebuilding process for private property owners.

- An understanding of what the hydraulics of St. Vrain will do; how the water will behave and where it is expected to go.
- Opportunities for recreation through town.
- Risks to bridges and hydraulic capacities.
- Needs and issues associated with dams in regards to infrastructure planning, hazard mitigation and recreational use.
- The connectivity between the creek and the downtown businesses, as well as how the creek affects connectivity between Lyons and other regional destinations beyond town limits.
- Multi-modal connectivity improvements along the creek for car/bike/pedestrians. This could help to identify what kind of bridges or paths can be implemented along the creek and where.
- Needs for streetscape vegetation and a secondary-piping watering infrastructure
- How communication and coordination among different entities can occur.

Providing additional input on prioritizing factors of importance for the plan: The Lyons Recovery Task Force will work with Scott Shipley, S20 Designs, to identify what is most important to Lyons for the master plan and that input will be provided directly to Dave Jula, Baker.

Specific Projects to be identified as occurring include:

- U.S. 36 Streetscape Project: Lyons has funds for a visual enhancement project being carried out by CDOT. It includes a plan for storm drainage, trail restoration and repair of the road's shoulders. It is in the design phase.
- Commercial Eastern Corridor (CEC): A section of land on both sides of Hwy 66 (from McConnell Drive East to Highland Drive). This identifies a potential commercial expansion zone that could be purchased and annexed by Lyons.

Desired Outcomes and Expectations: The Town of Lyons expressed that the following points were desired as overall outcomes or expectations from the master planning process:

- Options for regional detention to reduce peak flows.
- An understanding of what changes could occur throughout the Lyons-based reaches.
- An understanding of where the creek needs to be realigned and what that realignment could be.
- The master plan should highlight that the Flood Recovery Action Plan's first priority was a stream master plan and use terms that are consistent with the LRAP PDG's.

Existing Plans and Studies: In addition to what Baker has already identified as being included in the master plan, the following were suggested as other existing plans and studies that should be recognized in the master plan:

- Lyons Ecology Board Sustainable River Corridor Action Plan
- Boulder County parcel information on land use from the Town of Lyons website.
- Lyons Flood Recovery Task Force presentation to the Board of Trustees regarding the LRAP PDG's and prioritization of projects/objectives.

PUBLIC INVOLVEMENT AND STAKEHOLDER OUTREACH

Lyons Recovery Action Plan: The Lyons Recovery Action Plan was developed with approximately 30% community involvement. It is a good use of time to look at what was developed and prioritized in the LRAP

as it reflects the results of a successful public process where public input has been captured and documented.

Involved Stakeholder Groups: Public involvement in Lyons should include reaching out to groups such as:

- Key impacted groups such as the confluence group (regular meetings are Wednesdays from 5:00-7:00pm), Apple Valley residents and those that had attended Boulder County's flood recovery public meetings (Boulder County has the registration lists).
- Recreational users of the creek such as kayakers and fishermen
- Seasonal residents or frequent visitors

First Public Meeting: At the first public meeting an important message needs to be that the master plan is starting and the project team asks "what's important to you" to attendees. It will also be important to explain what the master plan seeks to accomplish, at what point in the flood recovery process it begins, the project schedule and what the project team will be doing. It was suggested that the first public meeting can be held after the Town's June 12 event.

Key Points and Suggested Outreach Strategies:

- Clearly identify with the Lyons Recovery Task Force the purpose of the master plan process and how it differs from other processes such as activities FEMA is conducting, such as 404/406 mitigation activities.
- Make information materials available in a central location like a project website and then let us know how our citizens can find them; provide links.
- Potential public meeting locations include Roger's Hall or Lyons Junior/Senior High School auditorium (when school is in session).
- Provide business/contact cards that can easily be distributed to people that want to connect with the master plan project team.
- It will be important to get the right people putting the right information onto your web-based interactive maps.

Utilize Existing Communication Channels:

- Provide information to the Lyons representatives on the St. Vrain Creek Coalition, members of S20 Designs that work with the Lyons Recovery Task Force and the Town communications coordinator. If a core group gets the information, they will be able to re-distribute it effectively. This will be more effective than risking confusing people by creating a new channel that distributes information to people that are already being over-communicated to with multiple messages.
- All communication should be synchronized or coordinated through a consistent Town of Lyons source. Jacque Watson is the Town staff that coordinates communication and will be the point of contact where public communications can be sent and re-distributed. The best way to go about communicating with Lyons residents is to send the information to Jacque for re-distribution.
- The following communication channels exist and can be utilized through coordination with the Town representatives:
 - Town of Lyons website and flood recovery webpage
 - Facebook
 - Lyons Happenings
 - Lyons Confluence
 - Town of Lyons

- The Chamber of Commerce
 - Lyons list serv/contact database
 - E-Blast to phones (i.e., approximately 1,200 numbers)
 - Inserts in utilities bills
 - Announcements in the Lyons Recorder
 - Flyers on local bulletin boards and at the post office
 - Seniors group weekly meetings
 - Coffee Shops
 - Festivals Announcements and websites; this includes Planet Bluegrass and the Outdoor Games.

ST. VRAIN CREEK COALITION COORDINATION

The Town of Lyons stated that the following was important about working with other regional agencies as part of the St. Vrain Creek Coalition:

- Communications with different entities is essential. Specifically it is important for us to know:
 - What Boulder County Parks and Open Space is planning?
 - What is Longmont planning from Button Rock Dam to U.S. 36? What have they done/or will be doing in advance for stabilization?
- There needs to be a standing item on the SVCC meeting agenda where the local agencies inform each other about their respective plans.

MEETING ATTENDEES

	Name	Affiliation
1.	Andrea Meneghel	CDR Associates
2.	Jeffrey Range	CDR Associates
3.	Jeff Crane	Colorado Water Conservation Board
4.	David Jula	Michael Baker Jr., Inc.
5.	Nathan Werner	S20 Design and Engineering
6.	Scott Shipley	S20 Design and Engineering
7.	Matt Betz	St. Vrain Left Hand Water Conservation District
8.	Jim Blankenship	Town of Lyons
9.	Reed Farr	Town of Lyons
10.	Victoria Simonsen	Town of Lyons
11.	David Batts	Town of Lyons Ecology Board
12.	Steve Sims	Town of Lyons Ecology Board
13.	Sally Collins	Town of Lyons Task Force Volunteer & Resident
14.	Connie Sullivan	Town of Lyons Trustees Liaison
15.	Matt Booth	Town of Lyons Volunteer, Resident and Kayaker
16.	Ben Johnson	U.S. Forest Service

St. Vrain Creek Coalition Interview Summary – Boulder County

Date: May 20, 2014

Location: Boulder County Land Use Department, Boulder, CO

This summary is to document an interview conducted with the Boulder County members of the St. Vrain Creek Coalition (SVCC). The interview was conducted to record the ideas, issues, comments and concerns of Boulder County regarding the St. Vrain Creek for preparing the watershed's master plan. The input received informs the project team for the upcoming efforts. The following notes summarize the input that was provided to the project team by the interviewees.

OVERALL VISION FOR THE ST. VRAIN WATERSHED

The following input was provided to highlight what Boulder County believes is important to be considered while developing the St. Vrain Creek Watershed Master Plan.

- The master plan is one tool to continue the recovery process. It is closely tied to residential rebuilding, restoring private accesses and other recovery related activities. The master plan should help to inform what occurs between creek recovery and permanent road design/rebuilding.
- The master plan will help to define what type of needs exist for identifying projects which can be implemented to safeguard against these types of events.

AREAS OF IMPORTANCE AND KEY ISSUES

The following input was provided to highlight key areas that the Boulder County believed would be valuable for the master plan to address.

Final Decision on the Creek's Alignment: It will be important to identify the final location of the creek based on the best information available. The County will need this information for numerous policy decisions including providing permits to private property owners. A key question to ask will be whether it needs to remain where it currently is, or should it go back to where it was. It was acknowledged that while the master plan will be able to identify proposed horizontal alignment of the creek channel, identifying its vertical alignment may be a challenge based on the information that will be available during this master plan process. It will be important to present community members with alternatives for the horizontal alignment and to identify what aspects regarding alignment have the most support. In some areas, there will need to be space allocated for septic tanks that had been swept away.

Parks and Open Space: It will be important for the master plan to identify mitigation and restoration objectives related to Open Space properties for avoiding impacts of future floods. The objective is to return Open Space areas and resources to what they were before the floods, but with mitigations making those properties more resilient to a future event. It is important to protect and restore species habitat on open space and to keep the visions, goals, objectives, and specific management directions of Open Space management plans intact.

Geographic Areas: Geographically, the following areas were mentioned as some of most impacted, needing to be addressed by the master plan:

- Apple Valley
- The area along Longmont Dam
- The area around Rocking River Resort
- The Raymond/Riverside Area
- The South St. Vrain from the quarry to old S. St. Vrain Road (Hall Meadows)
- Open Space parcels from Hwy. 36 to Airport Road.
- Areas in the flood plain near Hygiene.

Boulder County's Property Buy-Out Program: Instead of rebuilding, some property owners are participating in the FEMA buy-out program. This may create some sections of space where there had previously been private properties; it would be good to have recommendations for the most appropriate uses for such areas.

Existing Plans and Studies: In addition to what Baker has already identified as being included in the master plan, the following was suggested as other existing plans and studies that should be recognized:

- Boulder County has mapped damage to public crossings.
- Boulder County has conducted habitat studies.
- Boulder County has GIS data that documents debris clean up. Dave Watson can provide this information to Baker. Parks and Open Space has GIS data specific to open space properties, which Ernst Streng will provide to Baker.
- PowerPoint presentations documenting damage to all open space properties and transportation facilities exist; these can be obtained from Ernst Streng and Julie McKay respectively.
- The master plan project team should seek to understand current design levels for Boulder County bridges and roads; Mike Thomas, County Engineer, can provide this information.

PUBLIC ENGAGEMENT

The following input was provided to highlight key areas that the Boulder County believed would be valuable for the master plan to address.

Stakeholder Engagement Suggestions

- It is important to emphasize that developing a master plan for the St. Vrain is a community-driven process at its core. Property owners will need to see how they will be involved in developing the master plan. It will be important to explain what will happen, when and how residents can be involved. Identify what issues need to be discussed with the public and determine how to best include their input for decision making that needs to happen quickly.
- Define and differentiate what is happening as part of the master planning process as opposed to the individual property and flood recovery support functions of the Boulder County Flood Rebuilding and Permit Information Center (FRPIC).

- From a Parks and Open Space perspective, it will be valuable to engage the public regarding what is happening with those lands so that those downstream of those parcels are informed.
- Prioritize the activities that need to happen per critical study areas. Discuss those issues in focused forums with people that live in those areas.
- For the initial public meetings it will be important to learn what current issues property owners would like addressed in the master plan. Provide them with an opportunity to provide these topics to the team.

Existing Boulder County Communications Channels: Boulder County has several channels they currently use to communicate with the public. The master plan should seek to utilize these channels and develop new communication tools where needed. Current communication channels Boulder County is utilizing include:

- An email listserv exists for general flood-related information
- Neighborhood meetings will be taking place in June where people can be notified that the master plan process is beginning. Gary Sanfacon, Boulder County Flood recovery Manager, and his team have been in contact with many neighborhood groups; his team can re-broadcast information
- Boulder County Website
- Boulder County Flood Recovery Public Information Center (FRPIC)
- Stacey Proctor will be the Public Information Officer for the Boulder County Comprehensive Creek Planning Initiative and is considered a main point of contact.
- A postcard is being mailed in late May/early June that will inform residents of the St. Vrain Master Plan public meetings.

Additional Resources Needed from the Project Team:

- Immediately explain how people can get in touch with the project team; provide them with contact information about who to call.
- Create a project website and provide people with an avenue for providing comments and submitting information to the team. Think about how information from the website can be turned over at the project's conclusion.
- Create a system for tracking comments and feedback provided by the public.

ST. VRAIN CREEK COALITION COORDINATION

Boulder County stated that the following was important about working with other regional agencies as part of the St. Vrain Creek Coalition (SVCC):

- Boulder County sees itself in absolute partnership with the other members of the Coalition and has a similar role to every other member.
- The Coalition should serve as a technical working group that offers guidance and technical review for the development of alternatives and choices within the master plan.
- It will be important to engage CDOT and have it be an active member of the SVCC. Boulder County seeks to learn as much as possible about CDOT's plans within the watershed/study area and what CDOT expects for how the master plan informs their decisions.

MEETING ATTENDEES

	Name	Affiliation
1.	Diane Malone	Boulder County, CPI
2.	Julie McKay	Boulder County, CPI
3.	Stacey Proctor	Boulder County, CPI
4.	Bryan Harding	Boulder County, Land Use
5.	Denise Grimm	Boulder County, Land Use
6.	Ernst Streng	Boulder County, Parks and Open Space
7.	Andrea Meneghel	CDR Associates
8.	Jeffrey Range	CDR Associates
9.	David Jula	Michael Baker Jr., Inc.

St. Vrain Creek Coalition Interview Summary – City of Longmont

Date: May 21, 2014

Location: City of Longmont Public Works, Longmont, CO

This summary is to document an interview conducted with the City of Longmont as members of the St. Vrain Creek Coalition (SVCC). The interview was conducted to record the ideas, issues, comments and concerns of the City of Longmont regarding the St. Vrain Creek for preparing the watershed's master plan. The input received informs the project team for the upcoming efforts. The following notes summarize the input that was provided to the project team by the interviewees.

OVERALL VISION FOR THE ST. VRAIN WATERSHED

The following input was provided to highlight what the City of Longmont believes is important to be considered while developing the St. Vrain Creek Watershed Master Plan.

Flood Hazard Mitigation: Longmont is committed to putting the necessary flood hazard mitigations in place that are needed to prevent future floods. The following were issue areas:

- Large areas were flooded in Longmont from U.S. 36 to Hover Road, and from Ute Highway to Hygiene Road. Much of the flooding that occurred in Longmont was caused by flows entering gravel pit ponds upstream of the city and taking a new flow path through neighborhoods prior to rejoining the St. Vrain historic channel in the vicinity of Hover Street.
- A commercial parcel on the banks of the St. Vrain had a large stockpile of downed trees that were caught in the flood and jammed at the Boston Street Bridge causing significant flooding at Sunset and Boston Streets.
- Longmont was flooded and impacted by both the St. Vrain as well as Lefthand Creek.

Primary Objectives for the St. Vrain:

- Flood hazard mitigations.
- Completely containing the 100 year flood plain through Longmont.
- Restoring the St. Vrain as a recreational resource.

AREAS OF IMPORTANCE AND KEY ISSUES

The following input was provided to highlight key areas that the City of Longmont believed would be valuable for the master plan to address.

- Identify the appropriate data/strategies/projects for flood hazard mitigation.
- Identify how to best restore connectivity along the St. Vrain
- Improve safety by identifying needs for diversions
- Identify needs for stream restoration and for restoring fish habitats
- Improve bank stabilization.
- Restore the recreational elements of the St. Vrain such as greenway trails and take other elements into consideration such as what's being planned at Dickens Farm Park.

Desired Outcomes for the St. Vrain Watershed Master Plan:

- Support the process for constructing a completely contained 100-year flood plain.
- Identify what will happen to recreational trails.
- Address neighborhood impacts related to spring run-off; identify information about spring stream flows so that residents know what to expect.

Other Key Considerations:

- Longmont is putting out a vote for bond to build a 100-year channel on June 24.
- One contributing factor that increased flood impacts was a pile of logs that were swept up from land owned by Boulder County.
- Longmont does have LiDAR mapping, thought it has not been fully processed.

Discharge Flows: Longmont is at 50-60% design on the Main St. Bridge using the regulatory flows of ~ 10,000 cfs to size the new bridge. CDOT/CWCB Draft hydrology indicates 34% higher flows in Lyons and this could translate to an equivalent increase in 100-year design discharge in Longmont when the hydrology update for the Longmont area is completed. The City needs to understand what level to plan at, and if it will need to plan for ~13,000 cfs because of the CDOT/CWCB numbers.

100 Year Channel Design: The City is committed to identifying a 100 year channel design for the St. Vrain and pursuing funding for it. CH2M Hill has identified costs for the City and there will be a bond issue put to the ballot in mid-June for funding flood recovery efforts. *(Summary Postscript Note: The bond passed for \$20.5 million to begin funding reconstruction efforts.)*

Existing Plans and Studies: In addition to what Baker has already identified as being included in the master plan, the following was suggested as other existing plans and studies that should be recognized:

- Anderson Consulting Flood Damage Assessment
- CH2M Hill – 100 Year Flood Plan Modeling and Cost Estimate
- Dickens Farm Park Master Plan
- City of Longmont Riparian Habitat Study
- The City of Longmont's St. Vrain Blueprint

PUBLIC ENGAGEMENT

The following input was provided to highlight key areas that the City of Longmont believed would be valuable for the master plan process.

Key Groups: Residents and the general public can be classified as the following main groups:

- Neighborhood groups that have been impacted – these people live in the neighborhoods that were flooded and are mostly concerned about spring run-off. Longmont has a strong network of neighborhood leaders that meet periodically that are good conduits of information to these residents.
- Businesses that were impacted along the St. Vrain.
- Recreational users that have been engaged and are interested in when the recreational elements of the St. Vrain will be restored and other ways it can be improved.

- Property owners need to be engaged and know how their input will influence the planning process.

Kick-off Public Meeting and Subsequent Process: Mid-June is acceptable for a Longmont-based public meeting to kick off the master planning process and provide people with the “big picture” of what the master plan will accomplish. After the kick-off meeting to announce the master plan, public involvement should be organized thematically to address the issues of impacted neighborhoods/property owners, businesses and recreational users in separate forums.

Existing Communications Channels: The City of Longmont has several channels they currently use to communicate with the public. The master plan should seek to utilize these channels and develop new communication tools where needed. Current communication channels being utilized include:

- The City’s website; there is a link to a flood recovery page that lists all resources and where new information can be posted.
- Rigo Leal, City of Longmont Public Information Officer, should be kept informed as his team has effectively communicated important information to residents.
- Monday ads in the Longmont Times Call sponsored by the City that list events.
- The City of Longmont Facebook and Twitter pages.
- Flood-related list-serves and contact databases.
- Jon Clarke’s Neighborhood Leaders group.

Prior Post-Flood Public Involvement: Longmont has conducted post-flood neighborhood meetings reaching approximately 500 – 600 residents to discuss flood recovery. It will be advantageous to recognize what has been understood thus far or to capitalize upon reaching those that have been involved through this series of meetings. Key neighborhoods that have been involved include:

- Valley Greens
- Champion Greens
- Golden Ponds
- Bonn Farm
- South Moore Park
- Mobile homes parks

ST. VRAIN CREEK COALITION COORDINATION

The City of Longmont stated that the following about working with other regional agencies as part of the St. Vrain Creek Coalition (SVCC):

- Longmont is open to Weld County being involved in the SVCC.
- The SVCC can benefit from meeting agendas that help the group to have focused conversations and stay on topic.
- All needs of all members of the Coalition are equally important and it would be good for the SVCC meetings to spend time on those issues that affect all members so they can come up with regional solutions where pertinent.
- The appropriate tasks for the SVCC to be focused on should be those that need consensus around coordinated policy decisions and technical issues.

MEETING ATTENDEES

	Name	Affiliation
1.	Andrea Meneghel	CDR Associates
2.	Jeffrey Range	CDR Associates
3.	Larry Weidow	City of Longmont
4.	Brad Schol	City of Longmont, City Manager's Office
5.	Jon Clarke	City of Longmont, Community Neighborhood Resources
6.	David Hollingsworth	City of Longmont, Storm Water Drainage
7.	David Jula	Michael Baker Jr., Inc.

St. Vrain Creek Coalition Interview Summary – United States Forest Service

Date: May 27, 2014

Location: Conference Call

This summary is to document an interview conducted with the United States Forest Service (USFS) as members of the St. Vrain Creek Coalition (SVCC). The interview was conducted to record the ideas, issues, comments and concerns of the USFS regarding the St. Vrain Creek for preparing the watershed's master plan. The input received informs the project team for the upcoming efforts. The following notes summarize the input that was provided to the project team by the interviewees.

OVERALL VISION FOR THE ST. VRAIN WATERSHED

The USFS sees the St. Vrain Master Plan as an important tool for identifying specific projects that can be taken to legislators for funding. The USFS looks forward to being involved in master planning effort to coordinate with other agencies and provide input about how projects identified in the master plan pertain to national forest land management plans. The USFS supports identifying solutions for projects that utilize natural materials for channel design. Potential solutions should include looking at using site-specific materials to restore the natural structure; in some locations this could mean rock or wood where applicable. Some plantings are needed in riparian areas to restore vegetation. Overall, the USFS supports promoting a healthy floodplain and identifying the type of projects that help to achieve this goal in an environmentally sustainable way without negative impacts to national forest lands.

AREAS OF IMPORTANCE AND KEY ISSUES

The following input was provided to highlight key areas that the USFS believed would be valuable for the master plan to address.

National Forest Lands along State Highway 7: National forest land along State Highway 7 (SH 7) is the highest priority for USFS. It will be important to identify the channel alignment in that section and that a natural channel design approach is taken which uses local/native materials for stabilization activities. Emergency stabilization work that occurred in the SH 7 corridor degraded the channel and was not responsive to some federal regulations and requirements. Natural materials that were taken out of the channel could have been used for restoration work.

Button Rock Reservoir: There is national forest above Button Rock Reservoir; tributaries that are contributing water to it should be addressed.

Additional Regulatory Processes: It should be recognized that national forest lands are subject to the National Environmental Policy Act and further evaluation is required if anything were to affect USFS lands. Solutions identified through the master plan will still have to go

through the necessary regulatory processes; this includes a potential new creek channel or additional work on SH 7 if it encroaches on USFS lands.

Other Key Considerations:

- It will be beneficial to identify a) long-term projects, b) projects that can generate additional projects and c) projects that can be easily implemented.
- The proposed U.S. 36 Bikeway from Lyons to Estes Park will encroach into some national forest lands and will need to be further evaluated.

Existing Plans and Studies: The USFS has a list of projects that it is working on in the St. Vrain watershed this summer that it can provide to the Baker team.

PUBLIC ENGAGEMENT

The following input was provided by the USFS about public engagement in the St. Vrain watershed.

- USFS communicates with the public using multiple channels, such as email lists, newspaper and public radio announcements, and its website with flood-related information. The USFS periodically provides updates and information to the public about its flood restoration activities and projects.
- The USFS has held meetings with adjacent landowners, communities (Lyons and Jamestown) and with national forest land users; most people ask when the roads and trails will be permanently repaired. The master plan may want to include input from these groups.
- USFS is working with Boulder County's stakeholder engagement efforts, not in hosting or leading efforts, but in attending activities set up by Boulder County. USFS representatives attend the Town of Lyons Recovery Task Force meetings.

ST. VRAIN CREEK COALITION COORDINATION

The USFS stated that the following about working with other regional agencies as part of the St. Vrain Creek Coalition (SVCC):

- USFS will participate in SVCC meetings; the value USFS believes in participating in coalition meetings will be most valuable (1) to ensure all members are on the same page, (2) to ensure all members understand the process, (3) to provide technical input, and (4) to partner with other agencies.
- The USFS believes there will be specific opportunities for it to directly coordinate with National Resources Conservation Services (NRCS) through the master planning process.

OTHER COMMENTS

- There is a SH 7 pre-scoping meeting in Lyons on Friday, May 30 from 1:00 to 4:00 p.m.

MEETING ATTENDEES

	Name	Affiliation
1.	Andrea Meneghel	CDR Associates
2.	Jeffrey Range	CDR Associates
3.	David Jula	Michael Baker Jr., Inc.
4.	Dan Cenderelli	United States Forest Service
5.	Sylvia Clark	United States Forest Service

St. Vrain Creek Coalition Interview Summary – Colorado Water Conservation Board (CWCB)

Date: May 29, 2014

Location: Colorado Water Conservation Board, Denver, CO

This summary is to document an interview conducted with CWCB as a member of the St. Vrain Creek Coalition (SVCC). The interview was conducted to record the ideas, issues, comments and concerns of CWCB regarding the St. Vrain Creek for preparing the watershed's master plan. The input received informs the project team for the upcoming efforts. The following notes summarize the input that was provided to the project team by the interviewees.

OVERALL VISION FOR THE ST. VRAIN WATERSHED

The following input was provided to highlight what CWCB believes is important to be considered while developing the St. Vrain Creek Watershed Master Plan.

- CWCB seeks to understand the quality of existing floodplain mapping and utilize that understanding for flood risk mitigation activities where possible.
- The master planning process needs to reach a conclusion on watershed flows, which will include both design and regulatory components.
- Integrate CWCB's Risk Map Program into the master plan and vice versa, particularly around regulatory maps
- It is important to build trust with property and ditch owners to support the ability to credibly disseminate facts on flood recovery activities as they relate to water rights. It will be important to communicate what options and funding is available for projects; specifically related to the need for low flows in the St. Vrain to promote ecological recovery.
- Define a list of implementable projects that have support amongst stakeholders to then be submitted for possible funding opportunities.
- Build local coalitions that will survive beyond the end of this master plan so that local coalitions can continue to leverage resources and build collaborative projects.

AREAS OF IMPORTANCE AND KEY ISSUES

The following input was provided to highlight key areas that CWCB believed would be valuable for the master planning process.

Floodplain Mapping, Discharge Flows, Modeling and Analysis:

- It will be important to identify what floodplain mapping will be included in the master plan and where additional data will be produced.
- Flow studies and modeling will need to be consolidated and it will be important to identify where information exists and where it doesn't to inform FEMA/State Risk MAP activities in the watershed.
- More information is needed about what the Town of Lyons is planning to do with funding it is receiving for hydraulic modeling from FEMA.

- CWCB's Risk MAP Program has funded flood hazard analysis from Airport Road to Lyons that will be available to the public after the master planning process.

Geographic Areas of Importance and Issues:

- There are challenges that need to be addressed for Apple Valley. Most homes have been completely lost near 416-418 Apple Valley Road. The channel alignment needs to be identified, but there is infrastructure work that will need to be done in order to keep the channel where property owners have indicated they'd like it. Currently, CWCB has created a split flow in that area. The existing Longmont waterline needs to be lowered in this area in order to lower the base flow of the channel and subsequently the groundwater elevation at homes along this reach impacted by high groundwater.
- Owners of the Winery site on Hwy 36 (before Longmont Dam Road), have expressed interest in turning the site into a public kayak park.
- Impacts above Longmont Dam Road need to be addressed. The channel was scoured clean of all large boulders and needs habitat rehabilitation.
- The intersection of County Road 80 and U.S. 36 needs additional analysis. There is a temporary bridge there. A permanent and sustainable creek alignment needs to be identified for that area. Boulder County has expressed support for putting the creek back where it was in that section.
- The entire segment in the South St. Vrain/Hall Ranch area needs analysis done as part of the master plan, including where to locate two ditch diversion repairs. A sediment transport study is needed throughout the alluvial fan reach.
- There needs to be an objective ditch diversion assessment for the Niwot Ditch between Lyons and Longmont. CWCB has had some discussions with ditch companies regarding implementing a 12 ft. concrete dam. CWCB has not discussed this yet with the St. Vrain Left Hand Water Conservancy District.
- Determine how to address the areas between Lyons and Longmont and any gaps in available data in the interim.

Desired Outcomes for the St. Vrain Watershed Master Plan:

- CWCB expects that the master plan will 1) document the issues in the watershed and identify projects/solutions to address them; 2) prioritize projects; 3) develop a recommendation on how to move forward based on technical analysis; and 4) have a plan with a list of priorities in place that can be presented for federal/state funding sources to implement projects. Note: Other Coalitions have found that prioritizing projects have created problems for funding. CWCB would prefer a list of projects that are priorities but not ranked.
- Determine how to let people know if they are in the floodplain, or what the best information that can be provided to them to address this question is. There is resistance of giving the public a map that might change, however temporary, potentially altering information is better than no information. Information can assist informing individuals potentially involved in the Boulder County buy-out program.

Other Issues of Importance

- Develop a natural channel design in as many areas as possible; it is what many people have expressed support for, including the kayak community. Mitigation projects where

agencies have gone in and scoured all natural elements in the river have been caused negative reactions in the community.

- Residents and property owners need an understanding about what features, projects and mitigations are temporary, for how long and what the permanent solutions will be.

PUBLIC ENGAGEMENT

The following input was provided to highlight key areas that CWCB believed would be valuable for the master plan process.

Kick-off Public Meetings and Subsequent Process:

- Manage expectations at the kick off public meetings by explaining that the master plan is a documented list of issues and prioritization of projects. The master plan is not scoped to fix or repair anything, but to document needs and identify projects that will benefit the watershed. From this documentation of needs and projects the watershed will have a plan, which will be important for obtaining funding.
- The St. Vrain Creek Coalition needs to be at the kick off meetings to meet people and hear from the public.
- It will be important to involve property owners, make sure they are heard and are part of the process. This can be done by involving the neighborhood captains/volunteers that have emerged in Lyons and Longmont.
- Give people access to resources, for example ensure data and activity updates are available online.

CWCB's Post-Flood Involvement and Existing Communications Channels: Jeff Crane, CWCB, has regularly attended community meetings in Lyons and Longmont. He has also spent time developing relationships with landowners throughout Apple Valley and has been involved with the Lyons Flood Recovery Task Force. Through his personal contacts he can help to create connections for master plan activities and help to strategize how to best get people information.

Working with the Ditch Companies

- One of the biggest challenges will be to build trust with the ditch companies; currently there is concern about water rights. Ditch owners will need to know that there will be options generated to address issues, that funding will be sought and that they will have alternatives to choose from rather than a pre-determined outcome.
- People do not want activities that they perceive as impacting their water rights, because they are afraid they will lose the water rights. The idea that a structure can be built that maintains low flow, and provides optimal flow when needed, needs to be repeated over and over.
- When looking at infrastructure decisions that will affect ditch companies, think about how choices and alternatives correlate with water rights. It will be important to coordinate those alternatives with what the St. Vrain Left Hand Water District (SVLHWCD) believes is viable. As a member of the St. Vrain Creek Coalition, they can advocate on behalf of the ditch companies and help coordinate with them to obtain input. Use the SVLHWCD to help provide information to ditch companies and irrigation users.

MEETING ATTENDEES

	Name	Affiliation
1.	Andrea Meneghel	CDR Associates
2.	Jeffrey Range	CDR Associates
3.	Jeff Crane	CWCB/Crane Associates
4.	Thuy Patton	CWCB
5.	David Jula	Michael Baker Jr., Inc.

St. Vrain Creek Coalition Interview Summary – Boulder County Parks and Open Space

Date: June 4, 2014

Location: Boulder County Parks and Open Space, Longmont, CO

This summary is to document an interview/meeting conducted with Boulder County Parks and Open Space (BCPOS). The meeting was conducted to record the ideas, issues, comments and concerns of BCPOS regarding the St. Vrain Creek for preparing the watershed's master plan.

OVERALL VISION FOR THE ST. VRAIN WATERSHED

The following input was provided to highlight what BC POS believes is important to be considered while developing the St. Vrain Creek Watershed Master Plan.

Overall Goal of Boulder County Parks and Open Space: To continue managing county-owned open space properties for the purposes for which they were bought and as outlined in the adopted management plans and policies. This includes preserving and protecting the uniqueness of the St. Vrain as it is a stronghold of native fish diversity and rare habitat in the state in addition to being relatively natural in condition compared to other Front Range creeks.

Historical Characteristics of the St. Vrain:

- Multiple native fish species were first discovered in the St. Vrain going back to the late 1800's. Despite mining and ditch diversions and predatory fish stocking/intrusion from connected lakes, the habitat remains and has potential to be improved and restored to its historical prominence for statewide conservation.
- St. Vrain Creek Open Space management plan page 24: "According to the Colorado Division of Wildlife, the reach downstream of 75th Street supports the highest biodiversity of native minnow species in the South Platte basin of Colorado."
- The CWH #7 site description in the Comp Plan ERE - Primary Wildlife Habitat Values:
 - Vital Habitat – Rare Native Fish, Threatened Preble's Mouse, Bald Eagles, Golden Eagles and Herons.
 - Wildlife Concentration – Due to the amount of habitat created in and near the creek, the numbers of both rare and common native wildlife, from birds to mammals, is extremely abundant.
 - Unique Biodiversity – Due to the presence of rare habitat types, uncommon native species of wildlife are concentrated, such as Preble's meadow jumping mouse and Bald Eagle.
- Many rare species, vertebrate and invertebrate, depend on this creek. There are recent records of Northern Leopard frog in the SVC on POS.
- The Cylindrical Papershell was extirpated from the St. Vrain (like hornyhead chub), but with proper restoration it may be possible to restore its habitat and recover the species. Recovering extirpated species is a General Policy of the Boulder County Comp Plan.

Comments Regarding the Long-Term Vision of the St. Vrain for the Master Plan

- Many POS parcels were purchased in order to preserve the uniqueness of the St. Vrain.
- It will be important to include a conversation about the long-term stream flow ("minimum surface flow"); and to talk about the quality and quantity of water over time. In-Stream

Flow, in the amount needed to support life, must be a topic of central importance. Minimum Flows have been a long-held concept that does not support aquatic ecosystems or their species.

- Pursue natural stream restoration along as much of St. Vrain as possible. It is a very important corridor for wildlife diversity, water quality, and includes habitat for three federally threatened species. One mouse and two plants are USFWS listed. Also considered should be additional key species of special concern such as the Golden Eagle, Bald Eagle, Plains Top Minnow, Common Shiner, Iowa Darter, Stonecat, Great Blue Heron, Black Tailed Prairie Dog, American Beaver, and Preble's Meadow Jumping Mouse.
- The master plan should highlight the unique biodiversity in the St. Vrain corridor (see the Survey of Critical Biological Resources in Boulder County, 2009) It should also consider these Federal/State designations in the watershed:
 - Headwaters: Designated Colorado Critical Resource Waters (Army Corp of Engineers, 2012)
 - Foothills: North St. Vrain canyon, is a United States Forest Service Research Natural Area managed in a "pristine condition" (USFS, 2009), a "Wild Trout Water" designated by Colorado Parks and Wildlife (CPW, 2008), and Lake Chub habitat (*Couesius plumbeus*)—Colorado State Endangered species and Forest Service Species of Concern, only found in the South Fork of St. Vrain Creek (Bestgen et al. 1991; USFS, 2006).
 - Lower foothills to plains: CPW Tier 1 Aquatic Species Richness High Priority Watershed (4 watersheds; CPW, 2011). CPW Priority 1 for Native Fish and Trout Passage (CPW, 2014).
- There is a preference for no hard engineering within POS land. Instead, look at multi-stage channels, using large woody debris to promote fish habitat. BC POS supports "multi-objective structures" that highlight water movement rather than just fish passages. Good contacts to discuss this in more detail is Tim Shafer at Parks & Open Space; and Mac Kobza is a contact for native fish and bioengineering information at POS. Matt Kondratieff at Colorado Parks and Wildlife is a good contact too. .
- Orient planning designs towards benefitting small-bodied, backwater inhabiting NATIVE fishes rather than introduced game fish. This will be beneficial for future grant funding related to restoration.
- A conversation should occur to address future mining activity along the St. Vrain Corridor. Master Planning should consider the distance between pits and the creek to minimize hazards.
- BCPOS has approved management plans that show where and what type of recreation will be allowed within the St. Vrain corridor, including Hall Meadows. Recreation has been and will continue to be balanced with ecological goals.
- Boulder County is currently working on rehabilitation of the reservoirs (gravel pits) on POS properties impacted by the September flood and has Requests for Proposals out for conceptual designs of projects on Lake 4 and the reservoirs at Pella Crossing/Marlatt. BCPOS's goal is to return sites to their pre-existing condition with the potential to add some safeguards where necessary to minimize the potential of this type of flood damage from happening again.

AREAS OF IMPORTANCE AND KEY ISSUES

The following input was provided to highlight key areas that CWCB believed would be valuable for the master planning process.

Geographic Areas and Issues to Address:

- There were nine total breaches between Lyons and Longmont. Some breaches were approved by FEMA to receive emergency repairs and temporary improvements. These projects should be transitioned into long-term solutions.
- A second channel was opened up along the South St. Vrain through Hall Meadows to mitigate high flows during spring runoff; a “riffle” was included to channel water to that second channel.
- It will be important to consider floodplain connectivity and how actions could re-channelize the creek (major hazard and environmentally damaging action).
- It will be important to design fish passage at diversion structures with low vertical step height (i.e. 5 cm) and low velocity (i.e 64 cm/s) to accommodate the upstream movements of native fishes.

Parks and Open Space Management Plans: When BC POS sets plans and policies for the management of its parcels it goes through a very robust, lengthy and comprehensive process. It should be clarified that the Master Plan will not make decisions that change any BC POS plans or policies for its parcels.

Desired Outcomes for the St. Vrain Watershed Master Plan:

- It is important for BC POS to have a better understanding of exactly what will be addressed in master plan and what the tangible deliverables will be.
- It would be helpful to create a flow chart that outlines how the master plan fits into the grand scheme of federal, state and local land management processes in addition to project development. For example, identify what improvements the master plan will identify and then what happens to a project at the conclusion of the master plan – for instance, it will be in the design phase, and then where does it go?
- BC POS stated it will be important to define what is realistic to accomplish in the scope and time for the master plan. Perhaps it will be helpful to explain to the public that if the master plan doesn’t identify a specific project in a specific location, it can identify a suggested approach such as “this section needs additional evaluation to identify improvements”, identify the constraints that exist and the opportunities to work together.
- If an objective is to seek project funding from wildlife agencies, then addressing improvements for native species would be beneficial for orienting the master plan for those agencies.
- The master plan should consider a solution for envisioning elements or improvements that aren’t there yet, such as projects that may come from the Boulder County RFPs to address reservoirs on Open Space lands, projects from Lyons PDG’s or Improvements the City of Longmont is planning.

Existing Plans and Studies: In addition to what Baker has already identified as being included in the master plan, the following was suggested as other existing plans and studies that should be recognized:

- Ernst Strenge will provide additional maps and reports. A collection of information was received by the Baker team on 6/5/2014.

PUBLIC ENGAGEMENT

The following input was provided to highlight key areas that CWCB believed would be valuable for the master plan process.

- It will be important to define and manage expectations of what people think will come out of this master plan. Expectations must be met with practical and engineering limitations and communicated directly.
- Hall Meadows is scattering of private property and POS land. Boulder County will need to be at public meetings with these property owners to determine where the creek should go. There are homes on both sides of the valley and some disagreement about the permanent alignment.

MEETING MATERIALS AND ATTENDEES

Meeting Materials: Boulder County Parks and Open Space St. Vrain Creek Presentation, May 13, 2014

	Name	Affiliation
1.	Ernst Strenge	BC POS
2.	Ron Stewart	BC POS, Director
3.	Mary Olson	BC POS, Landscape Architect
4.	David Hirt	BC POS, Plant Ecology
5.	Doug Dunn	BC POS, Water Resources
6.	Karen Martinez	BC POS, Water Resources
7.	Mac Kobza	BC POS, Wildlife
8.	Andrea Meneghel	CDR Associates
9.	Enessa Janes	Michael Baker Jr., Inc.

St. Vrain Creek Coalition Interview Summary – Natural Resources Conservation Service (NRCS)

Date: June 19, 2014

Location: NRCS Office, Longmont, CO

This summary is to document an interview conducted with NRCS as a member of the St. Vrain Creek Coalition (SVCC). The interview was conducted to record the ideas, issues, comments and concerns of NRCS regarding the St. Vrain Creek for preparing the watershed's master plan. The input received informs the project team for the upcoming efforts. The following notes summarize the input that was provided to the project team by the interviewees.

OVERALL VISION FOR THE ST. VRAIN WATERSHED AND AREAS OF IMPORTANCE

The NRCS Boulder Valley and Longmont Conservation Districts have jurisdiction in the watershed and focus on local issues with emphasis on private property and irrigation improvements. The following input was provided to highlight what NRCS believes is important to be considered while developing the St. Vrain Creek Watershed Master Plan.

Areas of Importance and Key Issues: Throughout the master planning process NRCS will be most interested in providing input and participating in the technical review of issues related to irrigation, diversions, structures, sedimentation, erosion, water quality/quantity and the Emergency Watershed Program (EWP).

Geographic Areas of Importance and Issues: NRCS confirmed that data created during Phase I efforts (i.e. exigent sites) should cover their efforts to date. There is still a possibility that Phase II efforts under EWP will be funded and subsequent efforts would need to be coordinated at that time.

Desired Outcomes for the St. Vrain Watershed Master Plan: In addition to protection of property and irrigation infrastructure, NRCS has a strong desire to see re-vegetation and fish habitat re-established throughout the watershed.

Other Issues of Importance: NRCS explained that while they support ditch companies from a technical perspective, any safety or fish passage considerations related to diversion structures is the responsibility of the respective ditch companies.

PUBLIC ENGAGEMENT

The following input was provided to highlight key areas that NRCS believed would be valuable for the master plan process.

Existing Communications Channels: NRCS uses the following channels to communicate with people in the watershed. These channels can be utilized for re-distributing information to interested parties:

- NRCS Facebook page

- The NRCS list serv which includes approximately 300 people.
- A quarterly newsletter (~650 recipients); the next one will be issued in September.
- NRCS mostly relies on the State Office for communications.

Other Comments

- Brian Allmer from BARN Media and the CO AgNews Network should be added to your contact lists (barnmedia@yahoo.com). He may be a good source to help re-broadcast and communicate information.

MEETING ATTENDEES

	Name	Affiliation
1.	Andrea Meneghel	CDR Associates
2.	David Jula	Michael Baker Jr., Inc.
3.	Boyd Byelich	Natural Resources Conservation Service

APPENDIX A

(ST. VRAIN CREEK COALITION REVIEW COMMENTS)

St. Vrain Creek Coalition Review Comments

Table 1. Consolidated Coalition Comments: Draft Alternatives Analysis Report

Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
1			7-1		On "other restoration opportunities" include a third bullet to "repair St. Vrain Creek breach below Spring Gulch #2 confluence to return Spring Gulch flows to St. Vrain Creek pre-flood channel"	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1			7-1		Replace "post-food" with "post-flood"	Incorporated	
1		Table 7.1	7-2		Would suggest ranking maintenance as the split channel would rank better in this category than the minor stabilization option.	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1		Table 7.2	7-2		Alternative #1 and #2 are misplaced	Incorporated	
1		Table 7.2	7-2		Would suggest ranking Public Safety and Transportation.	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1		Alternatives			Would prefer to state that a more detailed site specific study be completed, with additional public input opportunities, to evaluate between these two alternatives.	Incorporated	
1	1	3			We should discuss need for flood culverts in lower SW gravel pit.	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1					Please continue to show both options on the final master plan and include a note that Longmont has initiated a RFQ process to hire a more detailed engineering study of this reach to determine between the two options.	Incorporated	*Main comment driving resolution of comments related to Reach 1 alternatives
1	1	1			No mention about repair to pond breach where east pond is flowing back into Boulder Creek. Realize this alternative proposes putting the creek back in old channel, but is there necessary repairs to this breach to keep pond intact?	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1	2			Peschel and Keyes	Alternative 2 is the preferred alternative as it present the least cost of construction and potentially has the most ecological benefits. If possible, a less constructed channel and a plan that allows the creek to "find its way" through the ponds are desired. Boulder County and Longmont will collaborate on this as part of our IGA for the Peschel property.	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1	2	1, 2, and 3		Peschel	The alternative shows 9 channel plugs in the existing channel "to reduce future avulsion risk". There are at least 2 issues with these 1) they will block flow from Spring Gulch which is intended to provide some water to the existing trees in the pre-flood channel and 2) plugs other than at the upstream split would seem to create more of an avulsion risk behind them. What is the real risk in letting water overflow into the old channel from the post-flood channel should that occur?	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1	2	1 and 2			Drop structures must not block fish passage.	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1	2	1			Care should be taken to insure that allowing the creek to flow through the ponds does not injure downstream water users.	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1	2	1			More details need to be provided where St. Vrain Creek flows into Boulder Creek. Boulder Creek from this point to its pre-flood confluence will experience a lot higher flow and may endanger the intact ponds to the east. May need additional protection along Boulder Creek.	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1	2	1			Instead of allowing the creek to continue to go through the 2 ponds, could we move the channel either to south of the ponds, back to the pre-flood channel (similar to alternative 1), or create a channel through, but separate from the ponds?	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1	2	2,3		Peschel	Why could the creek not stay in post flood alignment once it is to the east of private property? Staff thought this area, while perhaps with some instability, had good developing habitat and ability to create a stable channel on its own. With that, it should be noted that Peschel is jointly owned by Boulder County and Longmont and that we have an IGA to work together on determining the final alignment, which will ultimately be determined based on further environmental and engineering evaluation.	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1	2	2, 3		Peschel	A large portion of the area shown as "Fill and Revegetation" are wetlands that either have developed naturally or were part of the mine reclamation of the site. Filling these areas would result in a large loss of wetland habitat. It appears that the fill would also impact the floodplain. This area provides a great opportunity to allow the floodplain to open up and provide great wetland and riparian habitat.	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1	2	3		Peschel	Add protection around the north side of the private residence.	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1	1 or 2	4		Golden Farms, Peschel and Keyes North	How will the 100 year flood conveyance channel in Reach 2 impact the creek in Reach 1? Will these areas, including the county's Golden Farms, Keyes North, and jointly owned Peschel properties, receive higher sediment loads? It is unclear how the Longmont 100 year flood channel will impact flows, sediment deposition and channel migration in this stretch. The increased conveyance through Longmont is likely to have an effect on this area. Will the 100 Year Flood Channel connection between Reach 2 and Reach 1 require removal of some or all of the standing trees on the Golden Farms and Keyes North properties and channelization of the creek?	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1					On the Reach 1, Alt 2 maps, a new symbol including three parallel dark blue lines shows up on the plan. We didn't see this on any other plan and it's not called out in the legend. We need to be consistent with labels/symbols to avoid confusion.	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1					On Reach 1, Alt 1, Map 1, we are very confused about a couple things. The pre- and post- flood channel alignments are shown, but what are the current alignments? Are there still two channels? Likewise, what is the proposed channel alignment? If the pond is filled in, does that mean the proposed will be the pre-flood, or will there be a new channel through the filled pond? It will also be important to label the creek on the south side of the ponds (Boulder Creek?) so as not to cause additional confusion. Many who looked at this map thought it was another post-flood creek channel. This map is an example where road and area location names are needed (like all maps).	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1					On Reach 1, Alt 1, Map 3, we see a specific label that says "Re-route Dry Creek away from Peschel Property." While we're looking at the plan on a large scale, this is a very distinct label about a specific property. There are no specific call outs on other private properties, so we wonder if it might make sense to be a bit more generic in this label to be consistent and so as not to show favoritism toward specific properties (even though unintentional). See General note about removing resident names	Incorporated	Removed residents name

Table 1. Consolidated Coalition Comments: Draft Alternatives Analysis Report

Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
1			7 - 1	Peschel	First paragraph of 7.1 Overview states "...the stream is unstable and the connectivity is largely nonexistent". This statement is a bit misleading. From a site visit conducted on September 2 between BCPOS and Longmont Open Space staff, it appears that the channel is finding a new path and will stabilize over time. Assessment by POS and Longmont staff indicate new alignment is generally beneficial to habitat and creek, e.g. the creek is now connected to a floodplain, but was not in the pre-flood channel. The riparian areas of the pre-flood channel are of decadent growth, while the new channel allows new growth. The new channel may be less sinuous compared to pre-flood channel, but given channel instability, there is opportunity to align new channel to have more bends, etc. Trees in pre-flood channel may likely survive without water given their deep roots and mature age, while the new channel will allow growth of young trees thus increasing habitat complexity.	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1			7 - 1	Peschel	7.2 Assessment states the reach has "barriers to movement of fish and aquatic organisms". Where are the barriers to fish movement?	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
1					Delete 'meeting participants decided' (inconsistent with Reach 2 presentation of recommendation)	Incorporated	
1	2	4 of 4			- install bridge that will carry the 100-yr event and prevent overtop of N. 119th St - remove gravel deposited by the flood and restore historic drainage and irrigation return flow pattern in conjunction with restoration of the St. Vrain Greenway in this area - Future Gravel Mining and Reclamation: Property located within the LACP and will be developed in the City of Longmont in the future	Not Incorporated	Superseded by alternative direction (i.e. no preferred, addressed in ongoing Longmont project)
2			8-1		On objectives section include another bullet - recreation enhancements at key locations based on the St. Vrain Blueprint	Incorporated	
2			map views		Please extend the drainage improvement along Airport Road further north, to approximately the Denio and Taylor Mill Ditch. This will actually extend it north of the current mapping, which will be fine.	Incorporated	
2	1	2			We need to discuss if there is sufficient time to update to reflect the "Updated Master Plan for Dickens Farm Park" and the new location/plan for the Bonus Ditch Company structures that will now be located downstream of Martin St.	Not Incorporated	Superseded by ongoing Longmont project
2	1				Although BCPOS does not support this alternative, it would be very helpful if MBJ included a more substantial description of what a 100 year flood conveyance channel would require and what the resulting environmental impacts would be, including but not limited to large scale removal of vegetation, steep embankments, impact to flora/fauna/ecological corridor, negative impacts to aesthetics, etc., along with some visual representation of the channel. Has CH2MHill provided sections of this in their conceptual design for Longmont? If so, perhaps they could insert this into the alternatives for reach 3?	Not Incorporated	Superseded by ongoing Longmont project
2	1				Boulder County understands that Longmont will be analyzing the environmental factors along this reach of St. Vrain Creek during the preliminary and final design of the 100-year flood conveyance project. That analysis should reflect that there are native non-game fish populations within this reach of St. Vrain Creek, the highest historically, and pre-flood, being around Longmont's wastewater treatment plant. CPW has previously noted the significant importance of this area to rare and declining native fishes, and we would encourage Longmont to coordinate their plans with CPW on ways to minimize impacts, including providing appropriate in-stream habitat. In addition, the removal of riparian areas has a greater negative impact on the biodiversity and vitality of wildlife populations than perhaps any other habitat impact. We encourage Longmont to consider these environmental factors as they move forward and encourage the city to consider natural channel design and native fish passage and to preserve as much intact riparian habitat as possible throughout the reach in their design and implementation.	Not Incorporated	Superseded by ongoing Longmont project
2			3 - 1,		"A number of homes were flooded at the western edge of the reach..." Report states eastern edge.	Incorporated	
3			9-2		A blanket statement that Alternate# 2 is the preferred alternate is overly broad. There will need to elements of Alternative #1 constructed at a number of locations to prevent future flooding.	Incorporated	Resolved via 10/21/14 meeting between BCPOS and Longmont staff
3			9-2		Need additional assessments and design work to figure out what structures and improvements are actually needed.	Incorporated	See conceptual design in Chapter 7
3			maps		We need to show the "100 year flood channel" improvements on the north side of Hygiene Road until it is north of breach 7 on both alternatives. This would include showing the bridge replacement/capacity enhancements on both scenarios.	Incorporated	See conceptual design in Chapter 7
3			maps		We need to enhance, not fill in the breach from the Hepp pond.	Incorporated	Additional description in conceptual design to provide engineered embankment and costs reflect impervious core in embankment
3			maps		We need to address channel capacity at the Longmont Supply headgate.	Incorporated	See conceptual design in Chapter 7
3	1	1 - 4			This plan would be at odds with the natural open space values that the citizens of Boulder County chose to protect and preserve along the St. Vrain Creek corridor. It would be a waste of the open space tax dollars that have been spent throughout the corridor. This approach strongly contradicts the fundamental tenants of Open Space which the citizens of Boulder County have created and support. There would be significant and irreparable alterations to the stream and destroy miles of mature riparian habitat by removing thousands of trees. Valuable wildlife habitat, both in-stream and throughout the riparian, would be lost forever. The flood channel approach directly conflicts with BCPOS management plans and conservation easement agreements and attendant plans, mine reclamation plans, the County Comprehensive Plan (ERE), and a variety of other plans, policies and goals held by BCPOS. The US Fish and Wildlife Service and Boulder County have detailed assessments of the substantial and current presence of the threatened Preble's Meadow Jumping Mouse within the entirety of this reach, as well as the threatened Ute Ladies Tress. The Golden and Bald Eagle Protection Act is enforced as these raptors nest and feed within this corridor. The Federal Migratory Bird Treaty Act is enforced for a multitude of avian species, including nesting Herons, which occur within this riparian corridor. This reach serves as a last remaining habitat area for several State of Colorado threatened or special concern native fish species, in addition to those species of special concern listed by the Boulder County Comprehensive Plan (ERE). The Draft Colorado State Wildlife Action Plan describes transition zone streams, such as this reach, as among the most imperiled of aquatic habitats in Colorado. This is in addition to negating the floodplain benefits created by Open Space riparian habitat such as flood attenuation and water quality enhancement.	Incorporated	Additional narrative related to environmental and ecological importance throughout plan
3	1	1 - 4			It would be very helpful if MBJ included a more substantial description of what a 100 year flood conveyance channel would require and what the resulting environmental impacts would be, including but not limited to large scale removal of vegetation, steep embankments, impact to flora/fauna/ecological corridor, negative impacts to aesthetics, etc., along with some visual representation of the channel. Has CH2MHill provided sections of this in their conceptual design for Longmont? If so, perhaps they could insert this into the alternatives for reach 2?	Not Incorporated	Superseded by conceptual designs, but Recommendations Chapter emphasizes the multiple benefits of natural channel design
3	1	3			Text box pointing to pond embankment repairs is wrong. Repairs are on the opposite (NE) side of creek. There have been no repairs to the pond text box is currently pointing to. Alternative 2 Map 3 has it correctly.	Incorporated	

Table 1. Consolidated Coalition Comments: Draft Alternatives Analysis Report

Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
3	2	1 - 4			Alternative 2 is the preferred alternative because it preserves many of the values (habitat, floodplain, recreation...) that are found along the corridor today, protects open space, and is much more feasible from a cost, public support, environmental, and engineering perspective.	Incorporated	See conceptual design in Chapter 7
3	2				Analysis should reflect the fact that there is high native fishery within this reach of St. Vrain Creek. Information on the current and proposed ecological health and function needs to be added. Also, this work needs to be coordinate with CPW.	Incorporated	Didn't incorporate into the analysis, but mentioned in the report
3	2	1		option parcels	The Master Plan should give some consideration to how the transition from Reach 3 to Longmont City Limits occurs, especially at the bridge. If the Airport Rd Bridge is replaced, it must incorporate a multi-stage design to pass flows and all measures to minimize habitat impacts around the bridge must be enacted. This is the transitional zone for rare native fishes and may be the best remaining habitat in the St. Vrain Creek given the anticipated loss of habitat in Reach #2 by construction of the 100 Yr. flood channel. It is noted that Airport Rd Bridge is critical to pass water into the 100 Year Flood Channel, but it must be recognized and analyzed about how this conveyance will affect upstream water movements (Golden-Fredstrom or Gage creek areas). Will these areas be "drained" or lowered as the hydraulic differential tapers down into the Flood Channel at Airport Rd?	Incorporated	Addressed as much as possible at this conceptual level of the crossing improvements
3	2	1		option parcels	The post-flood Niwot Ditch diversion needs to be modified similar to its pre-flood condition. Currently it has a significantly larger footprint and backs up a large amount of water, creating a pond on the stream. The diversion is making it difficult to manage water use along the St Vrain, has altered the floodplain, and represents a potential public hazard. In addition, ponding of the creek causes severe ecological damage through silt-smothering of fish spawning ground, reduction of oxygen to support aquatic support life, simplification of the food web (hardy species only) and loss of native fish species, and other water quality impacts both up and down stream.	Not Incorporated	But it will be in final master plan
3	2	1		option parcels	Some bank stabilization is needed along the south bank from section line "A" to 200 feet downstream.	Incorporated	
3	2	1		option parcels and Golden-Fredstrom	Additional detail about both the Heron overflow channel and the channel with berm along Airport Rd. seems important (including showing where the outlet on Heron channel is located). Add to the two text boxes that these are part of Longmont's plans to reduce future flood risk.	Not Incorporated	Beyond scope of project
3	2	2		Pella Crossing	The big blue bubble covering Pella Crossing may over-emphasizes the role Pella has in the floodway planning. However, as we saw in the September 2013 flood, they have the potential to play a part in the flood dynamics and still need to be repaired. Therefore, BCPOS would like MBJ to represent repairs that are being considered with more specificity. This should include the Heron outlet, which is shown, and the Webster Pond and Sunset Pond dam repairs, which are not.	Incorporated	There wasn't a breach in Sunset Pond identified by BCPOS, nor is one visible on aerial imagery
3	2	3			There should be some good analysis of the Hygiene Rd. bridge especially in relationship to the ponds upstream and the headgate downstream. A little more detailed thought about potential restoration at Breach 7 and east into the pond area could set-up future projects better.	Incorporated	See conceptual design in Chapter 7
3	2	3			Revise box to state "Pond embankment at Breach 7 has been temporarily repaired adjacent to channel (i.e. temporary berm for a 5 year event). Permanent improvements are essential to further reduce risk of future breach."	Incorporated	See conceptual design in Chapter 7
3	2	3			A cross drainage structure with adequate capacity should be constructed under Hygiene Road in the area where the road was cut. This will help redirect any split flows.	Incorporated	
3	2	3			Bank stabilization is needed on the east side of St Vrain Creek immediately upstream of Hygiene Road.	Incorporated	
3	2	3			Reclaim or fill in Hepp 2 as a split flow floodplain/flood path.	Incorporated	Cross reference with Hepp comments (Barb and/or Longmont)
3	2	3			Unsure of the purpose of moving pond embankment on Hepp 1 to provide more capacity.	Not Incorporated	Superseded by conceptual designs
3	2	3		Gage	At the creek crossing at Crane Hollow Rd, it is important to limit any habitat impact in this area which may threaten water quality or standing vegetation. Any proposed bridge work must undergo detailed evaluation to minimize habitat impacts.	Not Incorporated	All projects to be implemented need to address local and environmental permitting
3	2	4		Western Mobile	Low water bridge should be analyzed for removal as impediment to flow and increasing sediment load. Area should be considered well connected to floodplain.	Incorporated	
3	2	4		Ramey, Braly, Western Mobile	Text box states "Realign channel to pre-flood alignment and optimize capacity where feasible." Channel has already been reestablished in its pre-flood alignment and hazardous debris has been removed to allow conveyance during spring runoff 2014. Map should state that. Also, "optimize" should be changed to "evaluate". Optimize could equal the 100 year flood conveyance channel, which as we've already stated is not feasible or desired.	Incorporated	"Evaluate" versus "optimize" consistently applied in conceptual designs
3	2	4		Ramey	Create permanent cross drainage structure under 61st and through Ramey in conjunction with outlet structure from A-Frame pond.	Not Incorporated	County has a FEMA PW. Operational hydraulics of ponds assumed to be taken care of by BCPOS.
3	2	4		Ramey	Establish sheet flow erosion protection at Ramey.	Not Incorporated	Erosion should be mitigated through embankment repair.
3	2	4 and 5		Western Mobile	Remove cross hatched area between Lake 2 and 3, this was not a pond breach.	Not Incorporated	This was a breach location. Post flood channel flows through this area.
3	2	4 and 5		Western Mobile and Braly	The big blue bubble may over emphasize the scope of the project(s) on Western Mobile and Braly. Instead, BCPOS would like MBJ to represent repairs that are being considered with a bit more specificity, i.e. ponds and ditches are being repaired, not necessarily the entire property. At least use a project boundary that aligns more closely with potential FEMA-funded and non-funded flood recovery projects rather than shading the entire property. Also, SVLHWCD should be represented as a partner in Lake 4 repair.	Incorporated	Incorporated as best as possible. Not calling out specific stakeholders, wouldn't be consistent with rest of plan.
3	2	5		Western Mobile	Add box to state "Pond embankment at Breach 2 has been temporarily repaired adjacent to channel (i.e. temporary berm for a 5 year event). Permanent improvements are essential to further reduce risk of future breach."	Incorporated	
3	2	5		Western Mobile	Rebuild diversion upstream of Longmont Supply Ditch to allow high flows down the split channel.	Incorporated	
3	2	5		Western Mobile	Call out need for 160' of bank stabilization upstream of Longmont Supply Ditch upper diversion structure.	Incorporated	
3	2	5		Western Mobile	Construct permanent breach repair at Breach 2. This breach repair could allow for some high flows to spill over and enter Lake 2 with an outlet at the downstream side. This would require erosion control such as a cut off wall.	Incorporated	

Table 1. Consolidated Coalition Comments: Draft Alternatives Analysis Report

Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
3	2	5		Western Mobile	Erosion Control or Drainage Protection and Design needed for long term protection of South Branch Ditch repair.	Incorporated	
3	2	5		Western Mobile	No icon for two Longmont Supply Ditch Diversion structures. Creek channel actually flows along the north path. Where they have the blue line is only a high water overflow channel (though probably historic creek alignment) from diversion structure.	Incorporated	
3	2	6		Western Mobile	Add box to state "Stream embankment at Breach 1 has been temporarily repaired adjacent to channel (i.e. temporary berm for a 5 year event). Permanent improvements are essential to further reduce risk of future breach."	Incorporated	
3	2	6		Western Mobile	Add: work with CEMEX to evaluate the value of floodplain fringe berm along the CEMEX plant access road.	Incorporated	
3	2	6		Western Mobile	Construct permanent breach closure at Breach 1 including regarding the area to provide a large floodplain with benches, as well as historic drainage to the southeast.	Incorporated	
3	2	6			Add: Evaluate 51st bridge replacement.	Not Incorporated	Per BC request. Added not to consider other crossing options.
3	2	6			Add: Evaluate alternative bridge location at Highland Drive.	Incorporated	
3	2	6			Call out need for bank work where creek eroding into Cemex Railroad tracks west of bridge.	Incorporated	
3	2	6			Encourage landowner to replace concrete rubble being placed in stream just upstream of US36. Encourage all landowners to use natural and environmentally friendly bank stabilization alternatives where necessary and appropriate.	Not Incorporated	Beyond scope, local issue
3					Elaborate on the alternatives analysis for why the study team is recommending Alt 2, why Alt 1 is not feasible	Not Incorporated	superseded by Master Plan
3					Reach 3, Alt 2, Map 4 – 'Realign Channel to pre-flood alignment and optimize capacity...' – already been done by POS	Incorporated	Reword note to indicate project has been completed.
3					In the Reach 3 area, the 100-Year Flood Control Channel is delineated in a red hatch pattern on the maps, but there is significant confusion about what this means or is. Please provide added explanation/definition for this delineation.	Incorporated	add a note that points to the boundary (red line) and says "limits of 100-year flood control channel"
3			6 - 3		Table 6.2: Under "Conveyance Improvements", note that the County removed approximately 20,000 cy of debris out of St Vrain Creek prior to April 1, 2014	Not Incorporated	Superseded by Master Plan
3			6 - 3		Table 6.2: Under Agricultural Diversions", the number should be 6. Also, add the potential to investigate fish passage.	Not Incorporated	Superseded by Master Plan
3				Western Mobile and private	The permanent repairs to Breaches 1, 2, and 7 are essential to the long-term recovery and resiliency of St. Vrain Creek. It is imperative that MBJ include these in the Master Plan. In addition, Breaches 3, 4, 5, 6, 8 and 9 also must be included and incorporated into the long-term plan for the creek. Additional details for these permanent repairs should be provided in the Master Plan, including appropriate next steps and opportunities and constraints.	Incorporated	Limited to narrative in Master Plan
3			9 - 1		First paragraph of 9.1 states, "St. Vrain Creek interacts with the existing sand/gravel mining sites and irrigation ponds". This is not entirely correct. Although some gravel ponds still interact with the creek (e.g. just upstream of Hygiene Road), others have been temporarily repaired (i.e. Breaches 1, 2, and 7) and no longer are connected to the creek. It should be noted that there are negative ecological impacts (e.g. native fisheries and aquatic insects) where the creek and ponds are still connected through predator introduction and impacts to water quality.	Incorporated	
3			9 - 1		Under 9.1, please provide more details about what happened during the flood. For example, most of the impacts at Lakes 3 and 4 and to the South Branch ditch were caused by the split flow that occurred at Breach 1. This is important information to know for any analysis.	Incorporated	
3			9 - 1		It must be noted in this section that large areas of riparian habitat is still intact and should be preserved for the ecological health of the creek.	Incorporated	
3			9 - 1	Western Mobile and private	Add more details about the emergency work that was completed, i.e. 3 temporary berms at Breaches 1, 2, and 7, and the requirement to make these "permanent" repairs. These repairs are essential to any long-term solutions.	Incorporated	
3			9 - 1		The last sentence of the second paragraph of 9.2 states "The primary recommendation from the geomorphic assessment is to return the channel to the pre-flood alignment." This was completed in winter 2014 and should be noted as such!	Not Incorporated	Done in June
3			9 - 1		Under 9.3, add "Permanent repairs of breaches", "Preserve existing habitats", "Protect native species", and "Be in compliance with existing planning documents and management plans"	Incorporated	
3	2 and 1	Maps 3 of 6			We prefer Alternative 2 as included in the draft analysis with several additions and clarifications. We request that you add the following site specific information to the plans: - Restore Creek to pre-flood alignment remove debris deposited by the flood and enhance aquatic habitat as part of the restoration. - Stabilize and protect the eastern side of the Creek to keep 100 year flows from breaching the embankment and flowing through the reclaimed gravel ponds toward existing residential neighborhoods to the east. - Restore the pond on the eastern portion our property that was breached by the flood water. Widen the connection to the existing pond to the east. Excavate material deposited by the flood and use it to restore a portion of the pre-flood pond. Balance cut and fill on-site to eliminate the need to haul material off-site. Use excavated material for on-site restoration of upland areas, pond embankments and farm access roads. - Use material excavated as part of the eastern pond restoration to restore upland areas and create wetland a bench at the western end of the pond. The goal is to enhance the riparian corridor and add stability to the Creek bank through this reach of the Creek. - Cooperate to repair breach of our southern pond, adjacent to Hygiene Road. Restore the farm access along the top of the repaired embankment and install an emergency spill to direct overflow back under Hygiene Road to the Creek to the south. - Restore the pond on the western portion of our property. Use material deposited by the flood to restore the western creek side embankment and create appropriate hydrology for a wetland bench to enhanced riparian habitat along the northern embankment. - At the intersection of St. Vrain Creek and Hygiene Road, remove obstructions, stabilize channel, widen the channel to enhance capacity and replace the bridge with a crossing that has capacity to carry the 100 year event under Hygiene Road.	Incorporated	Incorporated to the extent practical and within scope/level of detail of this mater plan. Did not recommend specific improvements within private property that do not impact creek function.

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Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
4					<ul style="list-style-type: none"> At Apple Valley we need to better address the situation with channel stability near Longmont's and Lyons pipelines. The North Saint Vrain Pipeline crosses six times under the post-flood alignment of the North Saint Vrain Creek near Apple Valley Road on Map 1 of 3 for Reach 4a. The map notes include "River put back in pre-flood channel for water line repairs then back in post flood channel during exigent work". We have discussed lowering the pipeline through the "NRCS exigent site" and selecting an alternative alignment for the pipeline. Further discussions on this section of the Creek, Longmont's North Pipeline and the Town of Lyons Pipeline need to occur. 	Incorporated	
4					The map notes also include "Undersized bridge – Potential Trail Underpass" at the State Highway 36 bridge. The North Pipeline was relocated in 2006 to accommodate the current bridge. The bottom section of the lowering can probably stay in place and extended to the northwest if the bridge is replaced.	Incorporated	
4			10-1 (10.3 Alternatives and Evaluation)		Reach 4 covers an area larger than the Town, even though much of those outlying areas are within the Lyons Planning Area as agreed upon with Boulder County. The LRAP and PDG's area a Town based effort, even though recommendations were made outside of the Town and even outside of the planning areas. It would be important to identify this to understand the basis of the LRAP and PDG's when reading the master plan. There may have been other efforts by those who live in the outlying areas, if so they should be acknowledge, or if there were none found, that should be noted	Incorporated	
4			Table 10.7		<p>In order to better understand the tables, the headings should refer to the creek as pre-flood river left and pre-flood river right. Much of this context will be in regard to the post-flood location of the creek, which is south.</p> <ul style="list-style-type: none"> Earthwork. Restoring ponds on pre-flood river left or right will require approximately the same efforts for earthwork. Extensive sediment covers the area of the pre-flood ponds such that there is 10' or more of overburden to remove just to get to creek levels. Once the temporary measures are removed, the creek will return to its post-flood location. That would open up the pre-flood channel to be incorporated into the ponds, thus reducing earthwork needed to establish the ponds in that area. Based on this information, the value for the earthwork in the table should be equal or perhaps favor the pre-flood creek left location. Bridges/Culverts. Placing the ponds at pre-flood creek left will utilize the remaining structure as connection for the ponds. A new bridge will be funded by FEMA for the conveyance at the south side of the ponds and will include stabilization of the post-flood creek upstream and downstream and at the new bridge abutments. In order for the conveyance to return to the remaining bridge, that bridge would have to be re-built to become a clear span to be effective in this flood plain. This comes at a great expense to the Town that is not fundable by outside sources at this time and funding is severely limited to non-existent to address the debris blockage and erosion/scour at the bridge approach and departure. Should the ponds return to pre-flood creek right, it may be possible to design a connection from the creek to the ponds and then back to the creek to utilize the new bridge funded by FEMA. This scenario seems unlikely from an elevation standpoint given the full conveyance would have to be accounted for through the ponds and under the new bridge. The Town again risks losing the funding of the new bridge if it's not built per the public assistance worksheet and mitigation. Based on these conditions, the post flood channel with the ponds at creek left are much more cost effective to the Town and the table should be reflective of this Hydraulic Structures. More clarification is needed with this. On the surface, it appears this one should favor the ponds located at river left. This is based on several factors including the new bridge at McConnell and the funding available for restoration of creek structures. Re-vegetation. More clarification is needed on this one. The entire area was scoured by the flood and re-vegetation is required everywhere under either condition. Either option of creek right of left for the ponds will be based on protection of remaining vegetation and restoration everywhere else. These appear to be equal items for the purposes of the table. Land/Property Acquisition. This item is the same for either scenario. Most of the land around the area is owned by the Town however there are a couple of other property owners in the area, including the Northern Colorado Water Conservancy District and the Supply Ditch Company. It appears this would be best to be N/A in the table or at least equal between the two scenarios. Utilities. More explanation is needed to favor restoring the ponds to creek right. The Town is replacing their utility infrastructure under either scenario, to a similar manner, unless the funding for a clear span is lost, at which time it will be more expensive to restore electric service at a great depth below this corridor to provide long term protection of that facility. On the surface, it appears the two scenarios are equal, and perhaps favor the ponds at creek left if deeper electrical systems are necessary due to loss of project funding. Maintenance. More explanation is needed regarding this topic and the scoring. It seems that long term maintenance may be higher by placing the creek to its pre-flood location and the ponds to the creek right. The existing remaining channel of the creek is highly eroded along it's edges, has no remaining habitat after dredging and restoring the creek to that location on a temporary basis post-flood has continued the erosion and will be a high maintenance area. The remaining bridge is also not well suited for creek conveyance and pre-flood bridge reports indicated extensive scour on a fairly new bridge and came at a high cost to the town for maintenance. New facilities will be designed to accommodate erosion and scour. If the ponds are restored creek right, there will be a heavy scour zone to turn the creek back toward the remaining bridge that will also require maintenance. The maintenance of the system seems to favor the ponds being on creek left. 	Incorporated	Incorporated to the best of our ability and within scope/level of detail of this mater plan. Several of these specific notes are beyond the level of detail associated with this plan.

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4			Table 10.8		<ul style="list-style-type: none"> - G31Addresses other reach objectives: More explanation is needed on this one as to one favors over the other. Both locations appear to reach the same objectives. - Natural Channel Restoration. More explanation is needed on this one too. Both the post-flood and pre-flood locations of the creek would need extensive restoration, with neither appearing to have an advantage over the other, other than the loss of a challenging meander in the creek. Both options appear to be equal at this time. - Recreation: More explanation is needed on this one as to one favors over the other. Both locations appear to reach the same objectives. In either case, there will be ponds for recreation, space for trails, creek drop structures re-established. The ponds being creek left may provide an opportunity for more whitewater structures that function later in the season through the implementation of flows from the St Vrain Supply Canal (this needs further investigation, but preliminary elevation data says it may be possible). - Fish Habitat: More explanation is needed on this one as to one favors over the other. Both locations appear to reach the same objectives. Provisions for fish habitat will be necessary under either scenario. There is no remaining significant habitat in the old creek channel as it had to be completely dredged of 7' off materials. - Flood Mitigation: More explanation is needed to justify the ponds restored to creek right is equal to those being restored creek left. These ponds had very little mitigation, only for the adjacent neighborhoods, and they were not maintained. Continued use of the ponds as mitigation for runoff from the neighborhoods will require an extensive maintenance plan and long term costs to the Town. It will be better for the Town to accommodate mitigation of the subdivision runoff separate from ponds, there are lots of contaminants in that runoff. Placing the ponds on creek left achieves the same storage element in the runoff basin, without the contribution of subdivision contaminated runoff. -Environmental Restoration. Either location will need to preserve existing vegetation and environmental considerations, along with designs for replacement vegetation and habitat. This item appears equal for either scenario. - Aesthetics. More explanation is needed on this one as to one favors over the other. Both locations appear to reach the same objectives. In either case, existing vegetation that remained should be protected and implemented into the design and restoration. - Permitting Requirements. More explanation is needed on this one. Placing the ponds to creek left may be less onerous from a permitting perspective. The Town currently carries a permit to temporarily place the creek in its pre-flood channel. Once that permit expires, the creek will return to its post flood location. The ponds were not originally permitted, so placing them anywhere will require permits. It appears the placement of the ponds to creek left may have an advantage over creek right as the permitting for creek right includes the relocation of the creek itself. - Right of Way Acquisition/Easements. As noted above, the conditions are the same for each scenario. This would perhaps best be reflected as N/A. - Operations and Maintenance. See comments above regarding maintenance in Table 10.7. - Agricultural/Irrigation. More explanation is needed. If the ponds are placed to creek left, the supply ditch intake would be integrated into the ponds, which according to the supply ditch is more favorable than along a bypass intake channel that currently exists. The other irrigation system affected is the St Vrain Supply Canal and there may be advantages to them too. Pre-flood, the NCWCD has issues with the whitewater structure causing operational issues with their canal therefore they will likely require a more extensive analysis of the situation post-flood under either scenario. This item does not seem to have a clear and more favorable scenario, and both seem to be less favorable. 	Incorporated	Incorporated to the best of our ability given data and budget limitations
4			10-3 (10.3.3 Reach 4c)		More information is needed to understand why placing the McConnell Ponds could be more expensive at river left than right (pre-flood). See discussions that follow:	Not Incorporated	Superseded by conceptual designs
4			10-1 (10.2 Assessment)		Consider discussions below regarding the creek at McConnell ponds when making recommendation on location of channel in that area. See comments on map markup regarding historic channels of the North and South St Vrain Creek that were filled by man made efforts and re-emerged during the flood event. These should be acknowledged and consideration given for long term recovery. This area is focused in the area upstream of the confluence.	Incorporated	Incorporated to the best of our ability.
4					Map 4b, Alt 1, Map 3 of 3 – remove unfeasible A-mine detention pond project annotation box	Not Incorporated	Superseded by conceptual designs
4			10-1		The flood waters breached the Town's Wastewater Treatment Plan, not the water treatment plant. There were broken water mains that suffered infiltration of flood water and that is what caused contamination in the potable water system. Suggest amending "flood destroyed the Town's electrical, sewage and potable water services" to "flood destroyed critical segments of the Town's electrical, sewage and potable water systems"	Incorporated	
5					At the west end of Apple Valley the damage done at Lyon's diversion structure and downstream on the pipeline needs to be addressed (this facility is now owned by Longmont). Need to remove comment on leaving channel in post-flood alignment and include note to restore south bank and include new "bank protection" symbol.	Incorporated	
5					At the start of Longmont Dam Road, the comment may be more appropriately stated as "preserve channel in modified post-flood alignment."	Incorporated	
5					At the east side of Button Rock Preserve please include a note "Repair and Replace Button Rock Preserve parking area and facilities"	Incorporated	
5					At the culvert immediately downstream of Longmont Reservoir, note should be modified to read "Crossing replacement repair ...".	Not Incorporated	Superseded by conceptual designs
5		not specified			Show alignment of outlet into north abutment.	Not Incorporated	Need additional information
5		not specified			Show culvert replacements at downstream end of spillway channel and at mid-point.	Not Incorporated	Need additional information
5			6 - 4		Table 6.2: Under "Recreation Improvements, note trails should consider and minimize environmental impacts to creek corridor.		
6					1) Clearly state that the alternatives analysis recommendations for the different reaches are based on rapid qualitative assessments of ecological and geomorphic attributes. As more comprehensive evaluations of the stream corridor and associated infrastructure are conducted, it is likely the alternatives analysis recommendations may be modified or new alternatives analysis recommendations developed.	Incorporated	Additional study required; State Route 7; transportation

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6					2) The geomorphic analyses do not quantify or document the length of infrastructure (roadway) damaged because of channel avulsion/shifting. The geomorphic analyses do not quantify or document segments of the channel that were put back into pre-flood alignments and locations following the flood. In Reach 6, sections of State Route 7 that were washed out and occupied by the channel during and immediately after the flood are likely the preferred location of the channel. Can the highway be relocated to reflect that understanding of channel dynamics during large floods?	Incorporated	Lengths not quantified, but bank protection is quantified based on the best info we have which could be used as a surrogate for quantifying length of roadway damage. Incorporated a note about evaluating the placement/alignment of HWY 7.
6					3) Although the alternatives analysis recommendations for Reach 6 indicate the stream channel is constrained by the canyon geometry and the highway and there are number of issues along this reach related to embankments along State Route 7, it does not specify what those issues are and how it alters stream, floodplain, and ecological characteristics and processes. I think it would be useful to state that the construction of State Route 7 and Riverside Drive constrict the narrow valley even further and has completely buried or partially buried narrow floodplains along the stream corridor, which in turn has altered stream, floodplain, and ecological characteristics and processes.	Incorporated	
6					4) The alternative analysis recommendations for Reach 6 to keep the channel in its post-flood alignment suggest that there is no need to evaluate or change the alignment of State Route 7 or consider relocating the channel in disconnected migration areas. In my opinion, there are opportunities to change the alignment and position of State Route 7 that improves the resiliency of the highway, channel and floodplain dynamics for a wide range of flows, riparian conditions, and aquatic habitat. There are numerous sections of the South Saint Vrain Creek (Canyon mouth to confluence of South Fork St. Vrain Creek and Middle Fork St. Vrain Creek) and Middle Fork South Saint Vrain Creek (confluence of South Fork St. Vrain Creek and Middle Fork St. Vrain Creek to the town of Raymond) in which the migration area of the channel is truncated or cutoff by State Route 7. These disconnected migration areas are documented in the Geomorphic Assessment Report, but are not considered or mentioned in the alternatives analysis recommendations for Reach 6.	Incorporated	Channel will actually be restored in post-flood alignment meaning that the opportunity exists to modify channel dimension, pattern, and profile compared to what exists in post-flood conditions. Addressed comment about coordinating with SH7 above. Outside of this SOW to recommend changes to road alignment. However, note will be made in report.
6				Custode	Large area of Bank Protection is indicated. Creek is impinged by S St. Vrain Rd and cliff. All efforts to minimize hard features and riprap will increase habitat value. In-stream structures such as drop structures with riffle/pool sequence will enhance fish habitat. Revegetate banks or encourage regeneration. At west side of this property is indicated "restore natural channel width and revegetate bank". Efforts should be made to maximize aquatic habitat structure.	Incorporated	
7					Clarify map annotations – what does 'Coordinate channel improvements with private crossing replacement' mean? Change language.	Incorporated	
7					Throughout the plan, we need to refer to Raymond AND Riverside or Raymond/Riverside, and not just Raymond. This is a very politically involved and vocal area, and we need both townsites to feel as though they've gotten our full attention.	Incorporated	
7					In reference to #3 above, it should be noted that Raymond and Riverside are not "towns" as they are not incorporated. Our Codes refer to them as "townsites" since they were platted as townsites, even though they are not incorporated today.	Incorporated	
7					On page 13-1, we should not be showing the image of the bridge unless it has been permitted. It appears to be in Raymond/Riverside where many unpermitted bridges have been built. Therefore, we don't want to appear endorse this bridge in the plan unless we've approved it. Perhaps a label would suffice here to explain whether it is a permitted or unpermitted structure.	Incorporated	
1 and 3			6 - 4		Table 6.2: Under "Recreation Improvements", add "Native and Game" as descriptors for the types of "Fish Habitat". These areas will not be managed for sport fisheries. Native fisheries probably should be moved up to "Stream Restoration"	Not Incorporated	Superseded by Master Plan
4a	1				BCPOS would encourage Lyons to look at the relationship between recreational-friendly infrastructure in the stream and fish and wildlife habitat needs. A reach-specific analysis may be required to determine if water quality and habitat could be supported with additional instream recreation. Downstream effects of multiple uses in this section of the creek must be considered.	Not Incorporated	Directed at Lyons
4a					On Reach 4a, Alternative 1, Map 1 around the middle of the page, there is a comment that says "bank improvements by owner." We would recommend either removing this label altogether, or showing that this was permitted or unpermitted work. Likewise, if we're going to call out this work done by the owner, we should be consistent in calling out all work done by owners. Of concern is that identifying work done by owners, especially if it wasn't permitted gives the impression that the County is ok with the work because it was called out on the plan. Additionally, it seems like this plan should consider the highest and best solutions for the creek, without being swayed by individual work that has been done, some of which may need to be undone based upon the preferred alternative.	Not Incorporated	Superseded by Master Plan
4a					On Reach 4a, Alt 1, Map 3, there is a comment that says "property owners want river back". While I know we want to show that we've been responsive to public comments and concerns, I worry that we either need to show ALL property owner comments or none in order to not appear to have a specific bias. As a for instance, in this location on the map, the property owner directly east and north of (and adjacent to) the property owners that "want the river back", does not necessarily want the river back in its original location because he already spent \$100k on a new bridge across the post-flood channel. His view is not represented here, though there is a label that says "bridge built post flood."	Not Incorporated	Superseded by Master Plan
4a					On all the Reach 4a maps, we should remove the spreadsheet label at the top right of the image that shows river access and channel re-establishment as "Not Urgent". I think any property owner in that area would absolutely disagree with this statement. Channel re-establishment is one of their absolute highest priorities. This label, though it may have come from another study, is extremely misleading.	Not Incorporated	Superseded by Master Plan

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4b		1			<p>The river trails from the town of Lyons to Old South Road on the map are entirely on private property on the south side and somewhat on private property on the north side of the creek. Putting a trail along HW7 ROW is the only real implementable option for this trail. In addition, even the Town's Park and Open Space plan did not try for a trail along the south side so it is not clear why it is proposed here.</p> <p>Why is proposed channel shown as relocated adjacent to HW7 just south of town? It also conflicts with proposed trail on north side.</p> <p>Old South Bridge was replaced by Boulder County years ago to reportedly convey the 100-year flood flows. However, we are not told that flood flows are increasing by a third and the creek breached upstream before 100-year flood flows reached bridge in any case. Where is the analysis of stream capacity relative to ensuring that the flood flows get to the bridge?</p> <p>Why is bank protection and/or fill/revegetation not considered from Old South Bridge to the south? It is not clear why limited to shown triangular area.</p> <p>Why is proposed channel shown near Old South Road at Section A rather than using pre-flood channel alignment?</p> <p>Where are the section drawings shown on the site plans?</p>	Not Incorporated	Resolved via phone conversation with Mr. Quinn on 10/14/14
4b		2			<p>Why is proposed channel alignment shown extending southward to post-flood channel near Dean and Elaine Readmond property instead of using the channel opened up in middle of valley by Boulder County after the flood? There are no logical reasons to move the channel near Old South Road anywhere if options are available. Like most aspects, it is not possible to ascertain the decision processes used in the setting of the proposed channel alignments. Needs of existing ditch diversions seem to be totally ignored. Why is the channel not restored to pre-flood location near Otto Ditch with use of bank stabilization? Please provide more detail on these decisions. The report is huge with supplemental info and extremely meager on rationales. The replacement or elimination of the bridge at end of Old South Road is not even mentioned.</p>	Incorporated	Incorporated as best as possible based on other needs within the channel and based on upstream and downstream conditions.
4b		3			<p>Wetland planting according to pre-determined thinking of the County Parks and Open Space department is shown for Andesite mine area, reinforcing that the thinking and potential use for detention was not given serious consideration. Are we really recommending fill along creek in this area or just revegetation? Where does Boulder County propose future access to this open space? Why is the land reclamation planning for the Andesite Mine not mentioned or discussed so that it could be correlated to the planning?</p>	Incorporated	Adding detention calculation backup to Appendix in final plan
4b					<p>At the S. St. Vrain Hall Meadows area we need to include an option of restoration of the area to pre-flood conditions and include a note to coordinate with the various stakeholders at that location. The option of leaving the creek in the post flood alignment at this location has not been discussed.</p>	Incorporated	Incorporated as best as possible based on other needs within the channel and based on upstream and downstream conditions.
4b		1			<p>The section of the South Pipeline from the diversion to the South Saint Vrain Creek crossing is shown on Map 1 of 3 for Reach 4b. The map proposes to keep the creek in the post-flood alignment and add bank protection. As part of the South Saint Vrain Pipeline flood repair, we are leaving much of the post flood channel in place; but, found that it would not be feasible to leave the entire post flood configuration while still protecting the new pipeline. Re-establishing the main channel and leaving parts of the post flood channel will increase the conveyance capacity of the channel to some degree but only for a short reach of the creek. We are installing the new pipeline at a lower grade so it may be possible to add a bench along the main channel to add conveyance capacity but keeping the entire post-flood channel would require major changes at the diversion and first quarter mile of the pipeline.</p>	Incorporated	Incorporated as best as possible based on other needs within the channel and based on upstream and downstream conditions.
4b					<p>As part of the design of the South Pipeline flood repairs, Dewberry Engineers ran their hydraulic model and found that no matter what changes are made at the diversion, it appears that the 100-year flows will overtop Old St. Vrain Road much further upstream than our diversion will influence. At the downstream end of this section of the South Pipeline, the master plan map proposes to evaluate the bridge capacity at County Road 84S (Old Saint Vrain Road). The planned replacement of the South Pipeline lowering at this bridge can probably stay and be extended to the south if the bridge is replaced. A note for this proposed replacement would be good.</p>	Incorporated	
4b					<p>Please reference to the Old South St. Vrain Bridge that is planned for replacement – it was washed out with the flood. It's located on Reach 4b, Map 3 of 3, upper right corner.</p>		
4b	1		10 - 3	Hall II and Hall Ranch / Meadows	<p>It should be noted in the description of the alternative that further site-specific studies, including environmental and engineering evaluations, will be required before a final alignment is established. The alignment shown in the alternative is conceptual.</p>	Incorporated	
4b	1		10-3		<p>Alternative 2 text states "Leaving this reach in post flood alignment and not implementing any additional channel improvements is a feasible solution according to the results of the geomorphic assessment, with the exception to the area." Should that read "to this area" - which area in particular?</p>	Not Incorporated	Superseded by Master Plan
4b	1	1			<p>Evaluate the vertical curve of the road at the Old South St Vrain Rd Bridge. The road should be lowered, or cross drainage installed, to improve floodplain connectivity.</p>	Not Incorporated	Will be addressed in county's permanent design
4b	1	1			<p>Resolve difference between Longmont planned stream realignment and proposed channel alignment</p>	Incorporated	Need to follow up with Longmont (Ken) to get latest plans
4b	1	1		Hall Ranch / Meadows	<p>Channel should not be moved away from the planned diversion structures. Whatever channel alignment is constructed needs to meet needs of South Ledge and Meadow Ditch, whether by realigning creek near diversions or providing a channel to connect to diversions. Any efforts to re-align creek to the ditch diversions must be made using geomorphology, and habitat restoration must be considered. This should be coordinated with the ditch companies. In addition, stream bank protection may be needed in the area of the Meadows and South Ledge ditches to protect the road and the diversion structures.</p>	Incorporated	
4b	1	2		Hall Ranch / Meadows	<p>Channel should be realigned on the eastern end to flow more through the center of the meadow, and to return to the current channel to maintain connection with the ditch diversions.</p>	Incorporated	Incorporated as best as possible based on other needs within the channel and based on upstream and downstream conditions.
4b	1	2			<p>Armoring needed along Old South St Vrain Rd in front of private residence.</p>	Incorporated	Incorporated as best as possible based on other needs within the channel and based on upstream and downstream conditions.
4b	1	2		Hall Ranch / Meadows	<p>Remove hard points (armored meadow) that were constructed following the 1969 flood. These are located at both ends of the meadow.</p>	Not Incorporated	Will be incidental to channel restoration within this area. Unable to identify all hard points based on available data.

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4b	1	2		Hall Ranch / Meadows	The ditch diversion should be labeled Matthews Ditch, not the Meadow ditch (mis-labeled)	Incorporated	
4b	1	2		Hall Ranch / Meadows	The Otto ditch is not at this location	Incorporated	Find proper location
4b	1	2		Hall Ranch / Meadows	The hard bend in the river should be removed, not armored	Incorporated	
4b	1	2		Hall Ranch / Meadows	It would be useful to have the western Old South St Vrain Bridge (an approved FEMA project) labeled and a note about ensuring that it is designed/reconstructed in concert with other planning for the area. Replace this bridge with adequate conveyance.	Incorporated	
4b	1	2		Hall Ranch / Meadows	MBJ's proposed alignment, on some sections in this reach, would run through existing stands of trees, which would impact habitat and require some additional analysis. Some areas of this reach have been significantly affected by placement of large boulder "deflectors" many years ago, as indicated in the prior Ayeres report, i.e. near Meadows Ditch. These were put in place to increase ag land in the floodway, but have affected the movement of the creek. Efforts should be made to analyze the effects of these structures on creek flows and removal if necessary.	Incorporated	Incorporated as best as possible based on other needs within the channel and based on upstream and downstream conditions.
4b	1	2			Log Cribs placed by CDOT should be assessed for effectiveness in placement outside of low-flow channel. They may become too dry and rot. CDOT should re-assess these locations for stabilization.	Incorporated	Note in Master Plan
4b	1	3		Hall II	Identify damage to road on Hall II and relationship to creek. Is channel being realigned to protect road or is this the ecologically preferred alternative? Perhaps the most ecologically preferred alternative for the creek channel in this area should guide whether or not and/or where the road is reconstructed (an approved FEMA project). Are there other alternatives such as a bridge? This will require further study and evaluation.	Incorporated	FEMA PW will replace to pre-flood
4b	1	3		Hall II	This area was recently surveyed and indicates a substantial amount of biological productivity and regeneration in the creek. Efforts which move the creek will have a multiple-year "resetting" effect on the habitat and fish, aquatic life, which must be considered in the plan of action.	Incorporated	Incorporated as best as possible based on other needs within the channel and based on upstream and downstream conditions.
4b	1	3		Hall II	The NRCS exigent site is heavily impacted by riprap. Re-alignment away from this location would improve aquatic habitat quality. The location where the creek eroded the roadway (where it turns, south of the NRCS site) is through a stand of trees which is reducing water temperatures, improving habitat and has a variety of small woody habitat features in the stream, all increasing the habitat quality of this section. Re-alignment away from this location will cause the loss of this stream quality habitat. A bridge structure must be analyzed if roadway is to be replaced, instead of re-introducing a solid road, in order to maintain habitat and water quality.	Incorporated	Evaluate in conceptual design
4b	1	3		Hall II	Michal Baker proposed re-alignment is to establish meanders through the middle of the mine area. This may be preferred based on geomorphology, but the current alignment passes under trees which reduces water temperature and increases water quality. In addition, the location of the channel through the mine area should consider potential future uses, which will be determined by BCPOS through a public process. Within this area, several side channels/backwater features are providing excellent fish and invertebrate habitat which would be lost from re-alignment. Significant bioengineering and tree/shrub planting will be required in the re-aligned sections. It is understood that the mine reclamation plan will influence any actions taken on this property. It is also apparent that the channel becomes much more linearized and impinged by the road as move west, and that existing utility lines in this section crossing through open space areas requiring trees to be cut down and banks to be hardened. It would be useful to align the utility poles along the road and not through the mine area, if possible. Some root wad stabilization was placed but it may be too high on the bank, and may need to be re-located lower into the low-flow channel to avoid rotting. There is some disconnection from the floodplain on the western side of this area, near the road, where improvements were made and should be graded to allow floodplain connectivity without removing the backwater and side channel features.	Incorporated	Evaluate in conceptual design
4b	2		10-3	Hall II and Hall Ranch / Meadows	POS disagrees that leaving the channel as is will take longer for vegetation to establish and look mature compared to realigning the channel. Any realignment, unless it is back into a vegetated corridor, will have to be planted and revegetated which will take just as long, and possibly longer to mature than the natural regeneration that is already occurring. A "surgical" approach may be called for. We could potentially leave some in post flood condition, while doing active restoration where necessary. It should be noted that the site is already re-developing (e.g. macro-invertebrates, fish, cottonwood regeneration, channel alignment, etc.)	Incorporated	Incorporated as best as possible based on other needs within the channel and based on upstream and downstream conditions.
4b			10 - 2 to 10 - 3	Hall II and Hall Ranch / Meadows	In addition to the cited concerns about lack of attenuation or significant effect to reduce downstream flood risk that a flood attenuation reservoir would create, it would also cause devastation to existing habitat and requires a detailed analysis of risk and benefit downstream through modelling, if continued for consideration. If the dam only achieves a "shaving" of flows, it must be determined how and when the flows will be shaved, as some amount of flushing flows are needed to remove sediments and maintain creek health. No mention of the cost benefit of the detention dams being a factor, nor the safety risks a dam would pose for downstream residents. Should be included in narrative.	Incorporated	
4b			10-3		Revise "Placing a dam at either location would inundate upstream infrastructure and would likely not provide enough peak flow attenuation to alleviate flooding within Lyons. Although, the 100 year flood flows from the South St. Vrain would be somewhat attenuated, flows from the North St. Vrain Creek would not be attenuated....."	Incorporated	
4c		2			What is the CDBG Stream Restoration Grant Concept mentioned and how is fill and reveg proposed in private property?	Incorporated	See Implementation section in Chapter 8
4c		2			The section of the South Pipeline crossing the North Saint Vrain Creek is shown on Map 2 of 3 for Reach 4c. The map proposes to evaluate the bridge capacity at State Highway 7 (5th Avenue). Again, the planned replacement of the lowering that was destroyed by the flood can probably stay in place and be extended north or south if the bridge is replaced. A note for this proposed replacement would be good.	Incorporated	
All					Show floodplain and floodway on all alternatives. This will help with the analysis of the alternatives.	Incorporated	Added for conceptual design maps. This was purposefully left off to avoid confusion or misapplication and clutter the maps.
All					For each of the proposed action items/infrastructure, provide a detailed description of what each consists of and justification for why it's needed, e.g. "Fill & Revegetation", "Floodplain Culvert", "Bank Protection", "Move Pond Embankment", etc. Do these include hard engineering, bioengineering, or combination of both?	Incorporated	Will provide detail on pond embankment stabilization for final plan.

Table 1. Consolidated Coalition Comments: Draft Alternatives Analysis Report

Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
All					Regarding the Relative Benefit Analyses, the "1 or 2" system is somewhat confusing. We know it should seem simple, but it's tough to keep track of whether 1 is good and 2 is bad, or vice versa. While it seems simple, it's not very user friendly. Most people missed the explanation of this system at the beginning of the map section. Also, as a general comment, some of the tables total up the numbers at the bottom, some do not. Likewise, none show a label that says "total." Consistency in the tables might help to clear up some of the confusion.	Not Incorporated	Superseded by conceptual designs
All					Legend for the reaches - the purple cross-hatch indicates bridge replacements. Instead of calling for an all-out replacement, the replacement capacity and impacts be evaluated prior to any final decisions on replacement.	Incorporated	"Evaluate" versus "optimize" consistently applied in conceptual designs
All			1 - 1		Add to the last sentence of fourth paragraph under 1.2 Project Scope to "This includes but is not limited to additional environmental and engineering studies; detailed engineering design, ..."	Incorporated	
All			4 - 1		The first paragraph should discuss the limitations to the data obtained and collected and the need for site-specific data collection and analysis.	Incorporated	
All			4 - 1		Under 4.2, it states they are "relying almost entirely on the existing best available engineering data". They need to be more clear about the constraints and issues of using this data in this first paragraph and the need for more site-specific data.	Incorporated	
All			6 - 1		How do we capture future land uses in the evaluation, particularly future mining? It seems there may be some opportunities with mineland reclamation that provide habitat and flood mitigation.	Not Incorporated	Beyond scope of project to address future conditions
All			6 - 1		Alternative Ranking Criteria should also include "Preservation of Existing Habitat" with a description that states something like "Does the alternative have a negative impact on in-stream, riparian, wetland, or other wildlife habitats?"	Not Incorporated	Superseded by conceptual designs
All					Having a quick cost analysis overview before each mapping section would be helpful (again, similar to the Little Thompson Plan). We realize there will be a cost analysis section later on the in the plan, but a quick summary before the maps for each reach would help to put the alternatives in perspective.	Incorporated	See conceptual design in Chapter 7
All					For each reach, describe pre-flood condition, e.g. Reach 1 consisted of reclaimed gravel ponds at the west end that provided wetland, upland, and open water habitat; former gravel mines yet to be reclaimed and active gravel mines in the middle; and two ponds that were mined at the east end near the confluence of Boulder Creek and St. Vrain Creek. This information will help with analysis.	Incorporated	
All					Remove all specific property owner names	Incorporated	
All					Use consistent language and detailed reasoning for Planning Recommendation, i.e. "The study recommendation is....based on...."	Incorporated	See conceptual design in Chapter 7
All					Make sure <u>all</u> local projects are documented / analyzed, e.g. Reach 3 POS, Reach 4 Lyons, consistently throughout plan	Incorporated	See conceptual design in Chapter 7
All					How will "Bank Protection" and "Fill and Revegetation" impact where flood waters move in the future throughout the various reaches? For example, within Reach 4 on Alternative 2 - Map 6, the location where split flow occurred during the Sept. '13 flood is shown to have both bank protection and areas filled. Will this water just impact different areas further downstream during the next flood? Shouldn't this area be left open to allow for this split flow to occur, just in a more controlled manner? Similar situations are shown on other alternatives.	Incorporated	Downstream and upstream impacts were considered in evaluating channel alignments.
Bridge					My recollection on my comments for the 61/63rd bridge over St Vrain Creek is that the capacity and resiliency be evaluated before the replacement of the bridge is evaluated. Also I think I said that for any change that is being proposed the impacts to the creek and properties and County infrastructure downstream be evaluated.	Incorporated	"Evaluate" versus "optimize" consistently applied in conceptual designs
select reaches					It should be noted that for BoCo Properties , the following Actions or Projects will likely be conducted on a case-by-case basis, pending additional site-level analysis and available funding: Bank Improvements: Bioengineering (toewood, log crib, root wad, re-vegetation, fiber matting and similar non-hardened measures); Natural channel design: Stream alignment based on geomorphology and NCD methodology; Habitat restoration: Tree planting, electric fence installation for grazing control, weed control, wetland planting and similar biological enhancement measures. Where possible, installation of sediment, low-flow or fish passage devices on water control structures, and in-stream habitat improvements such as fish-friendly drop-structures or log/rock veins, etc.; Monitoring: Aquatic macroinvertebrate biomonitoring, fish community assessment, water quality and benthic composition assessment, vegetation growth assessment, and wildlife and bird surveys.	Incorporated	Recommendations Chapter emphasizes the multiple benefits of natural channel design
					Replace / remove 'Authorization' paragraph – mention SVCC membership and roles right up front as replacement text. (Ok to mention that Boulder County was contracting agency.)	Incorporated	
					In the second paragraph, second sentence, there is a rogue sentence that reads "The St. Vrain Creek Coalition (SVCC) to guide the development of the SVMP." This should be revised or removed.	Incorporated	
					Scan / proofread - issues are minor, but they affect overall credibility.	Incorporated	
					It is not clear if the articulated themes are in priority order or carry equal weight. Recreation is certainly not as high a priority as some of the other themes.	Not Incorporated	Superseded by conceptual designs
					Can we add more details about the Sept '13 event, e.g. a figure with flood damage, flood extent, split flow pathways, etc. and emergency repairs completed to date (maybe set a cutoff date for repairs, like July 2014)?	Incorporated	See conceptual design in Chapter 7
					"Old gravel mining sites" would be more accurately described as either "reclaimed gravel mining sites", "mined, waiting for reclamation", "reclamation in progress", or "active gravel mining sites". Each of these occur along the creek corridor. Also "future mine sites" should be identified and incorporated into the plan. These future mines have the potential to be incorporated into the long-term goals and objectives for the creek, including providing habitat and flood mitigation.	Incorporated	Used "grave mining sites". Did not identify future gravel mining sites due to lack of data.

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Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
					We need MJB to help us use the plan to determine highest priority and next steps. How do we use the alternatives? How do we prioritize across reaches? Can we group projects by categories (e.g. create a scale of priority "Very Important", "Important", "Can Wait", etc.)? (presume this will be addressed in the Master Plan Draft)	Incorporated	See Prioritization and Implementation Chapter 8
					Use layman's terms over professional jargon, and while I think this plan did a pretty good job of not focusing on engineering lingo, it would be great to simplify the language wherever possible.	Incorporated	
					Starting in section 2.2 Planning Process, the narrative starts to include a bunch of acronyms such as the CCP, the SVCC and the SVMP. I wonder if we can minimize the acronyms since they all start to blend together. Instead of the St. Vrain Creek Coalition being known as the SVCC, perhaps we can just call it the Coalition? There are a lot of places where SVCC and SVMP are used in the same sentence and it starts to look like another language.	Incorporated	
					In Section 2.2 fourth paragraph, the Coalition is referred to as the St. Vrain Creek Coalition, the SVCC and the Coalition all in the same paragraph. I think we should pick one option and run with it.	Incorporated	
					Bullet lists. This will make it easier to read and help to highlight some of these key parts of the master plan. (e.g. under 2.1, second paragraph, bullet the core objectives and under 6.2, bullet the factors used to evaluate alternatives).	Incorporated	
					Correct - Boulder County Coalition members - Remove Diane, Denise, Stacey, Bridgette, Bryan	Incorporated	
					Who is Jon Clarke?	Incorporated	
					Would Weld County really consider itself a member of the Coalition?	Incorporated	
					Overall recommendation is to remove individual names and list agencies only (Acknowledgment of individuals can come elsewhere in document, i.e. appendix.	Incorporated	
					Plan discusses Raymond, but let's not forget Riverside (its politically important to show that this plan did not forget that area). In addition to residences damaged, in Raymond/Riverside, several were destroyed completely and many bridges were lost.	Incorporated	
					It is not clear if the new CDOT/CWCB modeling methodologies are going to be applied statewide or only to those watersheds affected by the 2013 floods. It appears that being flooded potentially causes major changes in regulatory flows while other watersheds remain regulated by previous studies and methodologies. This seems to indicate ongoing impacts to flooded regions.	Not Incorporated	Spoke to Mr. Quinn and explained the extent of CWCB/CDOT efforts
					Paragraph on floodplain mapping could be clearer. It is also not clear if post flood LIDAR mapping has been done as we were told earlier that it would not be ready for the planning.	Incorporated	
					Again, it appears that criteria are equal in weight and this is questionable. Recreation should not be on an equal par with other factors.	Not Incorporated	Superseded by conceptual designs
					Not clear why conveyance improvements only mentioned in Reach 4 near Cemex when there are other major deposition areas. Not clear why SS Vrain detention not mentioned for Reach 4. Regional trail connectivity for Reach 4 certainly not as important as floodplain improvements and conveyance.	Not Incorporated	Superseded by conceptual designs
					Since Lyons receives water supply from Longmont WTP, I am not sure how it breached the WTP. It breached the wastewater treatment plant WWTP. The water supply was contaminated by breaks in mains it would appear.	Incorporated	
					Returning the channel to pre-flood alignment should also include restoring at least the pre-flood conveyance capacity and/or upstream detention to compensate for any reductions.	Incorporated	
					This analysis is brief and dismissive. SS Vrain flood attenuation is important to both county and town residents and was major source of flooding to Bohn Park and the town WWTP. In addition, the combination of attenuation and existing conveyance capacity from Andesite to the town is not even mentioned. Flooding comes from several branches in the watershed and the entire basin may not experience flooding. In addition, it is not clear if the increased flood flows are being used in the calculations, and the entire derivation should be presented. A series of retention structures could be considered. The constraint of HW7 could be mitigated by raising short sections if there was a reasonable effort to study the alternative. It appears that option was dismissed due to pre-determined political pressures from the county open space department. Statements like "it was determined" and "likely not provide" seem speculative and pre-determined versus resulting from rigorous technical evaluations. Saying the post-flood channel is "mostly stable" does not capture the major changes and loss of conveyance in Reach 4B. It also ignores major issues such as needs of existing irrigation diversion points.	Incorporated	See conceptual design in Chapter 7
			Walsh Report p 308		It is not clear how recommendations for SS Vrain have been incorporated into the planning for Reach 4B. (SSV01 to SSV05)	Not Incorporated	Reports finalized prior to Alt Analysis Report issuance
			Walsh Report p 420		Entire valley of S. St. Vrain upstream of Lyons is an avulsion hazard zone and the S. St. Vrain creek flowed far south through Lyons Valley Park area 100 years ago.	Not Incorporated	Reports finalized prior to Alt Analysis Report issuance
					Report would appear extremely short on the decision-making processes and rationales for recommendations. All of the supplemental information is not necessary for such a report and expansion of the design decisions would have been more valuable. This supplemental information is fine for appendices to the final report but give little value to the review of the proposals.	Incorporated	See conceptual design in Chapter 7

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Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
			3-1		• Describe for the reader what is meant by “connectivity” in this master planning context and why it is important.	Not Incorporated	But it will be in final master plan
			3-1		A number of homes were flooded at the western edge of the reach and numerous bridges and culverts were damaged by floodwaters and debris. ...	Incorporated	
			6-1		• Can we provide more detail for the reader on how each factor would be ranked at either a #1 or #2 ranking.	Not Incorporated	Superseded by conceptual designs
					Were these comments already used to inform the alternatives analysis??	Incorporated	Wherever possible
					No mention of evaluating diversion structures and their role in raising channel inverts or flood elevations upstream. Add evaluate ditch diversions for maximizing water availability for ditch company based on their water rights, while providing for fish passage, minimum creek flow, etc. BCPOS would encourage fish passage, particularly for native species, on all ditch diversions.	Incorporated	Added a note to coordinate where diversions need to be repaired or might be impacted
					What are the watershed-wide impacts of the alternatives for each reach? For example, what are the implications of Longmont’s 100 year flood channel upstream and downstream? How do the various alternatives tie together? What are the implications of Boulder County’s plans for roads, bridges, open space, etc.? We need to see how all alternatives tie together and what the impacts are of each alternative, including but not limited to environmental, flood mitigation, land use, etc.	Incorporated	To the best of our ability given lack of data to determine impacts
					MBJ needs to provide more details and justifications to their recommendations! Provide all reasons for and against each alternative . This could include lists of Opportunities and Constraints, Pros and Cons, Costs and Benefits.	Incorporated	See conceptual design in Chapter 7
					Within the text box on each alternative page, consider adding the following text in italics: "All proposed watershed activities need to comply with all federal, state, and local requirements prior to implementation. <i>Additional site-specific analyses will be required for all alternatives. This includes but is not limited to: additional environmental and engineering evaluations; detailed engineering design; permitting; local land use and property ownership; and local public processes.</i> "	Incorporated	Discussed multiple times throughout document
					Are alternatives based on the regulatory discharge or CWCBC model? Provide more clarity.	Not Incorporated	See Data Collection Chapter 4
					Clearly note where ‘further evaluation and design is needed’, i.e. data analysis, engineering, e.g. in Project Scope section <u>and</u> include description of what happens after MP final, e.g. funding, additional analysis, engineering design	Incorporated	See Implementation section in Chapter 8
					An advantage of the Master Plan is the ability to identify and facilitate resolution of conflicting proposals in other jurisdictions (e.g., from other planning efforts such as the Lyons PDGs). The Alternatives Analysis identifies some conflicting proposals, but doesn’t help much with resolution yet - please include recommendations	Incorporated	Narrative in Implementation, needs to happen during project execution
					With limited funds, perhaps give more serious consideration to the “No action” alternative unless there is a threat to public infrastructure. In fact, threat to public infrastructure could serve as a guiding principle or criterion so the County doesn’t end up in the middle of private property disputes. “No action” could be more easily justified in upstream reaches in close proximity to large tracts of federal lands, but this should be highlighted in the Report so that it is clear where the “No action” alternative is feasible. Possibly include this as a matrix or table in the Report.	Not Incorporated	Superseded by conceptual designs
					One of the major objectives of the Master plan is to support our ability to obtain funding from outside sources. To help secure funding, the rationale and supporting evidence for each alternative needs to be included so the Team’s decisions are defensible. Possibly include this as a matrix or spreadsheet in an Appendix, but it needs to be accessible so our decisions aren’t unnecessarily questioned.	Incorporated	Alternative Analysis backup in Appendix and more detailed rationale in conceptual designs
			6 - 4		Table 6.2: Under "Detention/retention", note this would cause extensive damage to properties, including open space. POS has not supported flood detention in these pits. Downstream risk benefit and risk analyses need to be conducted and presented if retention remains in master plan.	Not Incorporated	Pre-screening Analysis completed prior to Alternatives Analysis prior to detailed discussions with POS regarding detention/retention
			6 - 4		Table 6.2: Please further define "Non-structural Measures". Does this include floodplain connectivity? This should be emphasized in Master Plan from both an environmental and flood mitigation perspective.	Not Incorporated	Pre-screening Analysis completed prior to Alternatives Analysis prior to detailed discussions with POS regarding detention/retention
					Prior to the map exhibits, it would be EXTREMELY helpful to have a definitions section that in LAYMAN’s terms explained what the symbols/terminology from the legend mean and to have a photo of completed projects or examples that help to put the technical term into a real world context. This was done in the Little Thompson plan and was very useful.	Incorporated	Incorporated concept details.
					Define "risk"	Not Incorporated	But it will be in final master plan
					We would like to see reach SVC10 be broken down into two reaches. One could go from Hwy. 36 to the Cemex bridge (or the old 51st St. bridge). The other from that point to 61st Street. That way Breach 1 and the neighbors to the west that lost a lot of property are pulled out. That stretch is definitely not a 7.2 rating. The downstream section is in good shape. Seems as if they used road/bridge crossings to define reaches, so by using the Cemex bridge or 51st St. this would be consistent. A lower rating here would should the flood impacts in this reach, which would help with opportunity for funding for Breach 1.	Not Incorporated	Reports finalized prior to Alt Analysis Report issuance
					Love Study – mention as ‘locally’ regulatory (Table 4.2, last line, in comments column)	Incorporated	See table in Chapter 4
					Section 4.3, Floodplain Mapping paragraph – acknowledge flows to be used for Floodplain Mapping, better describe use of hydrology for infrastructure sizing v. mapping	Incorporated	
					How will "floodplain management" be addressed in the Master Plan? E.g. Will there be any proposals to limit future development within the floodplain?	Incorporated	Section on Floodplain Management in Chapter 8 but beyond scope of plan to dictate how communities apply.

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Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
					Anderson writes that in most instances that the channel should be left in the current (post-flood) alignment but that the exception is along the divided flow path south of St. Vrain Creek between Old St. Vrain Creek Rd and McConnell Drive. Anderson should explain why the divided flow path is an exception to their general recommendation. What about that divided flow path makes it different?	Not Incorporated	Reports finalized prior to Alt Analysis Report issuance
					How does the study that Flatirons Surveying did for the Longmont Dam Road (LDR) winter road construction compare to the CWCB study in the same area? Should the LDR model be included in your table and considered for use instead of the CWCB study along that stretch where both CWCB and Flatirons studies exist? Don't know the relative merits of each of the two studies only that the LDR study is better documented, made more careful flow rate decisions, used the same Lidar (?) and was less out of the box.	Not Incorporated	But looking into it
					Strong disclaimers on maps and in front of document about private property project implementation not assumed, project implementation would need to be collaborative	Incorporated	
					In the maps section of the document, it's very easy to get lost as only the major roads are labeled; it was difficult to determine a point of reference and this is sure to frustrate the public. Adding additional road labels and point of interest labels (such as parks, landmarks, etc.) where possible.	Incorporated	
					May be missing another designation of channel alignment known as "current channel alignment". We have pre- and post- flood alignments shown, but in some cases the creek returned to its pre- flood channel, while in others it's still in its post-flood channel. It would be good to highlight where we currently stand since it's not clear on the maps. Reach 1 Alternative 1 is a good example. The pre-flood channel makes sense, but it's not clear if water has returned to this channel, still flows through the post-flood channel shown in yellow through the gravel pond, or if its potentially in the unmarked creek channel east of the pond.	Not Incorporated	We are unable to define the "current location" of the river in many instances and beyond project resources at this stage
					On the maps, would it make sense to use a green shade for public lands, would help to serve as a locator tool when searching for specific properties, as well as to show the distinction between private and public ownership. Will show that this plan will require significant private property owner cooperation to implement.	Incorporated	Added parcel lines. Shading public and private lands might overwhelm the figures and make them unusable.
					The scale of the map exhibits makes it VERY difficult to look at individual properties and understand what is proposed. While we understand that the purpose of this plan is to consider changes to the river on a drainage-scale basis, individual property owners want to know how it will affect them. It proved quite difficult at the meeting last night to identify individual properties at this scale. One alternative to enlarging all the maps might be to enlarge populated areas like Apple Valley and Raymond/Riverside for added detail.	Not Incorporated	Beyond project resources at this stage; however, GIS files will be made available to the County
					As was discussed at the Coalition meeting a couple weeks back, these maps are in need of additional local landmark labels such as road labels, shopping centers, parks etc. that help the plan user to orient himself on the maps. Even for folks that know the lay of the land very well, it's difficult to find specific locations on the current maps without these landmark references.	Incorporated	Incorporated to the best of our ability without cluttering the maps too much.
					On the map exhibits, it seems as though we need another legend symbol for the "current location" of the river. The map show the pre-flood alignment and post flood alignment, but in many cases the immediately post flood alignment is different from what the alignment is today. Likewise, in other locations, the river remains in the post-flood channel. However, it is unclear which location is current.	Not Incorporated	We are unable to define the "current location" of the river in many instances and beyond project resources at this stage
					Where pre-flood channel, post-flood and current channel locations overlap, it seems that we should show the river location in parallel lines/symbols with all two or three designations next to each other, showing that they are one in the same. It looks on the maps like one symbol was chosen and the rest were deleted, but this has created some confusion and ambiguity.	Incorporated	See conceptual design in Chapter 7
					The majority of the maps run from east to west (downstream to upstream), however, in the Lyons area, the order is reversed, running from Reach 4a to Reach 4c in a west to east, upstream to downstream direction. This caused some confusion.	Incorporated	
					In general on the maps, all the legends seem to be a little different. Presumably, this is because not all symbols are needed on every map. However, if this is the case, we should remove the symbols that don't show up on each map. On many maps there are symbols in the legend that are not used on the map, leading the user to attempt to locate something that doesn't exist. For example, Reach 1, Alt. 2, Map 3. The legend shows drop structures and trail replacement symbols that don't appear on the map.	Incorporated	
					1992 Love study appears not to be part of the combination of studies to be used for floodplain mapping. Are there any areas where the Love study might be better than the FEMA effective or the CWCB? BoCo uses it as best available information - why we would use FEMA effective instead of Love,1992 in areas upstream of the Ayres LOMR?	Incorporated	See table in Chapter 4
					The plan mentions North and South St. Vrain Creek, but Middle St. Vrain Creek also runs through Raymond/Riverside. It might make sense to identify Middle St. Vrain here to appease these residents and let them know that they weren't forgotten as part of this plan. (I did notice that Middle St. Vrain Creek shows up later in the document).	Incorporated	
					Significant degradation of water quality caused by disconnection from floodplain, elimination of in-stream habitat or shading trees of sufficient size which could pose conveyance disruption, and natural processes; Complete block of fish passage by installation of an (unknown) number concrete drop or check structures unless modified; Severe environmental degradation to the Boulder County Comprehensive Plan (ERE) mapped elements, including Habitat Conservation Areas for Preble's Meadow Jumping Mouse, Rare Plant Areas, Natural Landmarks and Natural Areas, Critical Wildlife Habitat, Wetland and Riparian Areas, Overland Habitat Connectors and Riparian Habitat Connectors; Substantial reduction of migratory bird flyway habitat; Substantial reduction of winter ground for montane bird species; Overwhelming negative impacts to active bat habitats; Severe impacts to large mammal habitat in northern Boulder County, including Mule Deer, White Tail Deer, Black Bear, and Bobcat. The destruction of riparian areas has a greater negative impact on the biodiversity and vitality of Boulder County's wildlife populations than perhaps any other habitat impact based on the percentage of threatened, rare and imperiled species which depend on this habitat, and wildlife overall.	Incorporated	Recommendations Chapter emphasizes the multiple benefits of natural channel design
					Water infrastructure, mining infrastructure and agricultural development within this reach is substantial and would not be supported by this approach. The plan would require reconstruction of all diversion structures along the St Vrain, a significant cost not immediately evident in the proposed plan.	Not Incorporated	Unsure of what reach this comment applies to.

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Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
			10 - 1		Under 10.2, it states "The primary recommendation from the geomorphic assessment is to return the channel to the pre-flood alignment". However, the pre-flood alignment within reach 4b was manipulated during mining of Hall II and after past flood events. It is questionable whether the pre-flood alignment was the most stable. Additional studies are required.	Incorporated	Added verbiage to report regarding need for additional analysis for all recommendations
			10 - 1		Under the LRAP PDG note #7 ("Mitigate high water mark debris and sediment"), it must be recognized that on open space upland and in-stream woody debris forms the basis for habitat regeneration and is home to the pre-cursors of wildlife recolonization - insects, small mammals, etc. There must be a balance between aesthetics today, and what will serve as the cornerstone for habitat recovery in the future. Also, sand bars and other sediments generally serve as the growth medium for native plants and shrubs, which are fast growing, setting the stage for trees and slower-growing species - weeds are not in themselves a sufficient argument to remove sediment bars and deposits. Science is available to evaluate the need to disturb deposited sediments. Habitat complexity created by upland debris is one of the fundamental aspects of a healthy stream environment.	Incorporated	Recommendations Chapter emphasizes the multiple benefits of natural channel design

Table 2. Consolidated Coalition Comments: Draft St. Vrain Creek Watershed Master Plan

Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
					Please confirm that all planned projects (incomplete or not started) submitted to Baker Team by Boulder County POS are included in the maps and the project cost tables, whether funded in part by FEMA or other source. The SV MP should identify all projects that are planned for creek, regardless of funding status.	Incorporated	Discussed with Julie McKay on 11/17/14 and it was decided unmet needs would be the focus of cost tables and known ongoing/funded projects would be identified on maps and in reach narrative as currently reflected.
					Please confirm that Project lists and estimates within a Reach or 'sub-reach' delineated by jurisdiction, i.e. to agencies and property owners (some of which are also agencies) so we can use the Master Plan for grant applications, e.g. Reach 3 - projects on BoCo-owned property, unincorporated (private) property, etc.	Incorporated	Costs broken out by jurisdiction in Chapter 8 and GIS will allow stakeholders to further define by public versus private property ownership during implementation of specific projects.
					Please address incremental project sequencing between and within reaches, that is, is there work that needs to be, or could be, done before other work? E.g. Any Reach 7 flood control work before Reach 3 projects? Same question within reaches.	Incorporated	See section 8.1 for addition of phasing verbiage.
					Do projects include repair of flood-related POND breaches and other damage caused by St. Vrain breaches - if so, please call out specifics and if not, should be included (reference BoCo POS project list submitted to Baker team)	Incorporated	Based on direction from BCPOS, all repairs on POS property as identified as ongoing by BCPOS without specifics. Pond breaches not on POS property are identified in the plan.
					In our original draft Alternatives Analysis comments, Boulder County requested a stand-alone section of the plan called, "Recommendations to Transportation Agencies." This should be a summary of recommended actions that CDOT, Boulder County or other agencies should take when designing/reconstructing their road and bridge facilities to ensure that master plan recommendations are included.	Incorporated	The Recommendations section are targeted at all entities interacting with the stream corridors. The description of conceptual design strategies provide guidance on bank protection, low flow and high flow channel restoration, habitat diversity, and structure implementation. This guidance in conjunction with site-specific projects in the exhibits are what a state, local or private entity will use to inform detailed design during implementation. A section to provide add'l guidance to transportation projects was added to Chapter 8.
			7-5		It is Hover Street, not Hoover Street	Incorporated	Done.
					Check spelling in tables and exhibits.	Incorporated	Done.
					extent of "boulder bank protection" shown on the plan - In some cases we're talking about exceptionally long stretches, hundreds of feet, close to a thousand in some locations. In Land Use, we've talked about how to avoid "engineering" the creek corridors with long stretches of walls. We realize the boulder bank protection is a bit different than a wall, it's still a dramatic change to the riparian vegetation and potential habitat that existed prior to the flood. We are seeing a significant influx in wall proposals, and we're looking to the Master Plans for guidance which appears to distinguish between high and low risk areas. Please make sure the Reach maps clearly distinguish between high and low risk recommendations, REACH 1, ALTERNATIVE 2., MINOR STABILIZATION, MAP 2 OF 4 just references 'bank stabilization' - need clear guidance on recommended high or low risk approach; include a brief 'system-wide' write-up on general Bank protection guidance, hard vs. soft, how to encourage the re-establishment of riparian vegetation and habitat.	Not Incorporated	Bank protection was used only where necessary. Noted on plans where Root Wad Bank Protection should be used in lower-risk areas. Improvements/modifications to Reach 1 have been superseded by a new project in that location that will be evaluating the alternatives.
					Need to verify source of estimates; units used are not typical, so not able to see if estimates are valid; 25% contingency is good; running cost estimates out to the nearest dollar seems a little too detailed - can we round up to the nearest \$1,000?	Not Incorporated	Selection of units was made so that users could reproduce costs and to assist with a planning-level cost estimate. Applied ave. depth of fill to square footage so fill, topsoil, and plantings could be consolidated. Keep in mind these costs are high level for planning purposes and will benefit from more detailed analysis at implementation.

Table 2. Consolidated Coalition Comments: Draft St. Vrain Creek Watershed Master Plan

Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
		3-4 to 3-7			We appreciate that the Baker team included Sections 3.4 Threatened and Endangered Species and 3.5 Vegetation and Wildlife, but would have liked them to have used information from Boulder County Comprehensive Plan's Environmental Resource Element, which provides better local information, instead of the overly general information provided. In particular, the description of the species of special concern within St. Vrain Creek is lacking in the draft Master Plan, including noting the greater than 60 species of special concern listed in the BCCP ERE, the significance of the native fishery, and the BCCP ERE Preble's Meadow Jumping Mouse habitat conservation areas. In addition, the master plan should highlight the unique biodiversity in the St. Vrain corridor (see the Survey of Critical Biological Resources in Boulder County, 2009). It should also consider these Federal/State designations in the watershed: 1. Headwaters: Designated Colorado Critical Resource Waters (Army Corp of Engineers, 2012), 2. Foothills: North St. Vrain canyon, is a United States Forest Service Research Natural Area managed in a "pristine condition" (USFS, 2009), a "Wild Trout Water" designated by Colorado Parks and Wildlife (CPW, 2008), and Lake Chub habitat (Coesius plumbeus)—Colorado State Endangered species and Forest Service Species of Concern, only found in the South Fork of St. Vrain Creek (Bestgen et al. 1991; USFS, 2006). 3. Lower foothills to plains: CPW Tier 1 Aquatic Species Richness High Priority Watershed (4 watersheds; CPW, 2011). CPW Priority 1 for Native Fish and Trout Passage (CPW, 2014). 4. Multiple native fish species were first discovered in the St. Vrain going back to the late 1800's. Despite mining and ditch diversions and predatory fish stocking/intrusion from connected lakes, the habitat remains and has potential to be improved and restored to its historical prominence for statewide conservation. 5. St. Vrain Creek Open Space management plan page 24: "According to the Colorado Division of Wildlife, the reach downstream of 75th Street supports the highest biodiversity of native minnow species in the South Platte basin of Colorado." 6. Critical Wildlife Habitat #7 site description in the Boulder County Comprehensive Plan Environmental Resources Element - Primary Wildlife Habitat Values: Vital Habitat – Rare Native Fish, Threatened Preble's Mouse, Bald Eagles, Golden Eagles and Herons. Wildlife Concentration – Due to the amount of habitat created in and near the creek, the numbers of both rare and common native wildlife, from birds to mammals, is extremely abundant. Unique Biodiversity – Due to the presence of rare habitat types, uncommon native species of wildlife are concentrated, such as Preble's meadow jumping mouse and Bald Eagle. BoCo POS will provide language from Mgt Plan for Master Plan	Incorporated	Incorporated guidance provided by Ernst through Diane (provided via email on 11/17/14) to refer to county's website for T&E info: http://www.bouldercounty.org/property/build/pages/bccpupdate.aspx
		3-5			The draft Master Plan references the document, " <i>Frequently Asked Questions and Recommended Conservation Measures to Avoid and Minimize Impacts to the Preble's Meadow Jumping Mouse...from Emergency Flood Response Activities...</i> " This is a confusing statement, as this document is for emergency work only and not for long-term recovery efforts and other flood mitigation projects. There should be some clarification about the need to consult with the appropriate regulatory agencies, including USFWS, for projects implemented in the future, as necessary, instead of calling out this particular document.	Incorporated	Incorporated guidance provided by Ernst through Diane (provided via email on 11/17/14) to refer to county's website for T&E info: http://www.bouldercounty.org/property/build/pages/bccpupdate.aspx
		3-5			Add "crack willow (<i>Salix fragilis</i>), Siberian elm (<i>Ulmus pumila</i>)" before black locust to sentence " <i>Dominant tree species within the riparian forest along the St. Vrain Creek channel consists of plains cottonwood (<i>Populus deltoids</i>), narrowleaf cottonwood (<i>Populus angustifolia</i>), coyote willow (<i>Salix exigua</i>), peach-leaf willow (<i>Salix amygdaloides</i>), box elder (<i>Negundo aceroides</i>), and alder (<i>Alnus incana</i>), as well as black locust (<i>Robinia pseudoacacia</i>) and Russian-olive (<i>Elaeagnus angustifolia</i>), which are nonnative tree species.</i> " Even though we could get a lot more detailed about plant species here, these dominant non-native trees should be included as they are prevalent.	Incorporated	Incorporated guidance provided by Ernst through Diane (provided via email on 11/17/14) to refer to county's website for T&E info: http://www.bouldercounty.org/property/build/pages/bccpupdate.aspx
		3-6			Spotted Knapweed is a county B List species, not A.	Incorporated	Incorporated guidance provided by Ernst through Diane (provided via email on 11/17/14) to refer to county's website for T&E info: http://www.bouldercounty.org/property/build/pages/bccpupdate.aspx
		3-7			Based on communication with Colorado Department of Parks and Wildlife's Native Aquatic Species Biologist, Boyd Wright, regarding the description of fish species in St. Vrain Creek as presented in the draft Master Plan, we feel it would be more appropriate to use the Draft State Wildlife Action Plan species designations rather than the "State Listing" in the final Master Plan. The state listings have not been updated in many years and the SWAP designation has more up-to-date information about species of special concern. The CPW SWAP link is located at: http://cpw.state.co.us/Documents/WildlifeSpecies/SWAP/SGCN-Final-Table.pdf	Incorporated	Incorporated guidance provided by Ernst through Diane (provided via email on 11/17/14) to refer to county's website for T&E info: http://www.bouldercounty.org/property/build/pages/bccpupdate.aspx
					The Project map insets need to be very clear and more direct about what action needed, . For example, many labels are unclear as to whether something has already happened or should happen. i.e.7-21 "CDOT Stabilization" and 7-19 "river put back in pre-flood channel for water line repairs then back in post flood channel during exigent work".	Incorporated	Scrub exhibits to remove "informational" notes.
					The Project maps reference 'coordination' - please replace the general 'coordination' statement with a specific project / action.	Not Incorporated	Intended for current and future projects undertaken by others to coordinate with stream recommendations in plan.
	4th para		1-1		Remove, "The SVMP is not a regulatory document. Start paragraph with, "The SVMP articulates the vision..." Delete, "Therefore" at start of third sentence.	Incorporated	Done
	final paragraph		1-1		Change "limited" data to "best available data, given the changed hydraulic conditions of St. Vrain Creek"	Incorporated	Done with slight modification
			3-1		Remove second sentence: "The September 2013 flooding event revealed severe..."	Incorporated	Done

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Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
	Second to last paragraph:		3-1		Please indicate geographic coverage of FIS, i.e. "The effective Boulder County Flood Insurance Study (FIS)" for XXX was published..."	Incorporated	Done
	Table 3.1		3-1		Please clarify the language used in the columns in Table 3.1 so that it is the same as the description of it in this paragraph, e.g. the table should say "Regulatory Peak Discharge"	Incorporated	Done
			3-5		Need consistent formatting with list of ecological systems- all should be indented (the first one, "Alpine Tundra" already is). The Vegetation information in the three paragraphs before the "noxious weeds" section would be more effective if presented in table or list format. Same with the presentation of the "wildlife information"- it needs some indenting or other type of formatting.	Incorporated	Incorporated guidance provided by Ernst through Diane (provided via email on 11/17/14) to refer to county's website for T&E info: http://www.bouldercounty.org/property/build/pages/bccpupdate.aspx
	2nd para		4-1		Delete second sentence, "There are limitations to the data..." This point is more effectively made in the following sentences of this paragraph. Also, it would be more effective if you could format, i.e. bullet points, the different caveats about the data, so that they stand out more. The same comment applies to the "GIS Data" section, where the list of sample data sets should be in bullet item format.	Incorporated	Done
	Hydrology				Hydrology. This section should clearly state whether the Baker Team recommends using the more conservative CDOT/CWCB flows in updating the regulatory floodplain (i.e., conducting new Flood Hazard Area Delineations (FHADs)). Baker Team recommendations should stand out clearly from the text, to highlight them and create "action items" going forward.	Incorporated	Done, with exception of highlight to avoid confusion on importance of all text in document (i.e. people will only read the highlights if you provide that), rather added recommendation section at end of chapter.
	Table 4.2		4-2		Table 4.2 should also include the supplemental flood hazard analysis prepared by Baker as part of the SVMP	Not Incorporated	Table 4.1 reflects existing data gathered at the start of the plan. The development of new data (i.e. supplemental analysis) is addressed in Section 4.5.
			4-2		States in regards to the original flood studies that "using elevations and/or exact inundation limits from these data sets is not advised." Needs revised because we have to use the studies in floodplain permitting until better information is developed. Soften this statement, omit, or clarify.	Incorporated	Softened
			4-5		Based on communication with the Baker Team, it was the County's understanding that the reach "Confluence to Longmont Dam Road," specifically Apple Valley, was included on a Lyons FEMA Project Worksheet for re-mapping. Since this is not the case, the plan should recommend a joint effort between the County and Lyons to remap Apple Valley. The County and Town of Lyons also have joint interests in the reach from US36 upstream to Lyons. Please accompany Table 4-2 with an explanation of the benefits of following a re-mapping progression that builds on the Longmont and Baker work that ends at US36.	Incorporated	Town of Lyons has indicated they plan on procuring modeling up to Longmont Dam Road, but FEMA PW states it will end at 36 crossing at upstream Lyons corporate limit. Added recommended verbiage, see Section 4.6b.
			4-5		Is the Baker study (Hygiene Road upstream to U.S.36) ready to submit to FEMA for adoption?	Incorporated	It would be ready to submit to replace existing approximate Zone A but would need additional work to meet FEMA's requirements for a detailed study. See additional verbiage in Sections 4.5 and 4.6.
	Geomorph				Geomorphological Assessments. This section would benefit from added explanation in layman's terms, but is otherwise fine.	Incorporated	Added a brief definition of what a geomorphic assessment is.
			7-1		Downplay the fact that this is not yet a Final Master Plan	Incorporated	Text revised
			7-1		The section on stream restoration and natural channel design is appreciated but very general. Please strongly recommend the use of a few design criteria manuals for natural channel design that are used in other communities. The County has immediate needs for design criteria that can help us influence the type of projects we want to see. The goal is to incorporate another design criteria manual into our code that specifically addresses natural channel design. Our Drainage Criteria Manual is severely outdated, and the UDFCD manual only touches on bioengineering methods of stream restoration/channel design.	Not Incorporated	We are not aware of any existing all-encompassing criteria manuals focusing on natural channel design in Colorado. Recommending manuals outside of Colorado would be misleading due to the unique regional nature of streams and NCD solutions. NCD applications in urbanized areas is a relatively new application and even entities as advanced as UDFCD are just getting around to developing criteria.
			7-2		States that "the use of root wads and large woody debris is recommended for bank protection in lower risk areas where structures and infrastructure are not present." CDOT used this form of bank protection at the upstream end of Hall Meadows and it is directly adjacent to HWY 7. Could this be worded more broadly so these techniques could be considered where there are structures / infrastructure?	Incorporated	Revised verbiage to allow for it based on additional analysis.
			7-3		Riffle is mistakenly shown as a rock cluster. The riffle should span the width of the channel. Also, a figure better showing step-pools would be helpful.	Not Incorporated	Rock clusters are incorporated into riffles to provide refuge for fish. Graphic is just exposed rock within the riffle.
			7-3		We have been discussing this technique of using floodplain culverts incorporated into crossings. Is this supported by any criteria manuals? If so, please strongly recommend the use of a few design criteria manuals for this technique.	Not Incorporated	Local criteria has not been developed. However, this is common practice in channel restoration. General guidance is to avoid obstructing the bankfull channel, avoid creating a vertical in-stream barrier, and providing additional flood conveyance by using culverts out on the floodplain.
4a	Map 2 of 3		7-20		It's not clear what floodplain the legend is referring to. If the basis is generally Table 4.2 in aggregate, then reference that table in the legend.	Incorporated	Added a note to the figures.

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Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
4a	Map 2 of 3		7-20		I used 850 AVR as a test case for whether the plan would help resolve any issues with this property. Does the plan indicate that more boulder bank protection is needed to protect this structure, above and beyond the NRCS work? Are you recommending that the overflow/post flood channel be eliminated entirely?	Not Incorporated	Yes, recommendation is to further investigate a permanent bank stabilization solution in addition to NRCS. Yes, to restore low flow channel/floodplain interaction.
7			7-46		The section under plan recommendations does not yet reference the correct Reach and Figures. Just needs updated.	Incorporated	Done.
7	All Maps		7-48		A proposed channel alignment is not shown.	Not Incorporated	Proposed channel alignment is shown as a dark blue line.
7	Map 2 of 2		7-49		I used 2159 Riverside Drive Fire Barn as a test case in this reach. Not that I expected the plan to tell me specifics, but there is not sufficient detail to determine whether bank stabilization at this property makes sense for the reach as a whole, or whether unintended consequences may occur further downstream. Test of usefulness here.	Not Incorporated	Conceptual plans were developed to improve overall channel and watershed conditions. Site-specific recommendations were only made to protect infrastructure or structures considered to be at risk. Potential downstream impacts of small-scale projects were not evaluated as a part of this project.
1			7-5		What are 'Unmet need' costs? That term is currently being used to refer to CDBG grant funding needed for a multitude of recovery programs. The Master Plan should include all projects that need to be done and the total Project Cost.	Incorporated	As per the text in this section: "...these costs represent 'unmet needs', meaning all FEMA post-flood funding, CDBG-DR funded projects, CWCB grants, and FHWA recovery funds are not included in the estimates." This approach was verified between project team and Julie McKay.
1 & 2					What happened to the maps for these reaches?	Not Incorporated	Longmont provided direction for representation of Reach 1 and 2 and have confirmed that this format is what they wanted.
4			7-17		Can you be more specific about where these areas are: "There are several locations where State Highway 7 has truncated historical channel migration areas. In these locations, resiliency could be improved by realigning State Highway 7 to be outside of these disconnected migration areas" I see some areas are outlined on the map--are all areas identified?	Not Incorporated	All areas are identified on maps.
5			7-33		Please clarify - Button Rock parking lot repair is not listed in the costs. Is this because it is a funded project? Are there other projects listed on the maps that were not listed in the costs?	Not Incorporated	Parking lot is assumed funded by others and not an unmet need in the stream.
6			7-49		Is it necessary to identify crossings that need replacement on the map?	Not Incorporated	Yes, it's part of the scope in contract.
			8-2		Please completely revise this section to match my comments on the Fourmile Masterplan. You should refer the reader to the Boulder County Land Use Code where it discusses all permits and land use processes that may be applicable. Furthermore, 401 WQ certification is not the same as the State Stormwater Permit.	Incorporated	BoCo gave direction to the leave the links as-is on 11/20 via email from Stacey Proctor. Did revise the State Stormwater Permit verbiage.
			8-1		Prioritization: Delete final sentence in paragraph, 'it should be noted...' (section 8.1 para). Please replace the term 'tier' with 'project objective'; Please clarify current Tier 3 definition - hard to comprehend that Hwy 7 restoration impacts nothing else; Could there be a 4th objective related to Infrastructure Resiliency that would include Hwy 7?	Incorporated	Revised verbiage and tiers.
			8-4		Projects that are not started / complete and received Watershed Restoration Grants should identified in the plan if we're to have a comprehensive plan of creek recovery (i.e. on the maps)?	Incorporated	All known funded/ongoing projects are designated as such on maps.
3					Do any recommendations/costs for the Airport Road bridge include or consider the plan to add a trail underpass?	Not Incorporated	Beyond the level of detail of conceptual design, estimates based on square footage of proposed bridge.
					The hydraulics report wasn't mentioned in the plan. The project directed specific expenses to supplemental Hydraulic Analysis in Raymond-Riverside and Reach 3. The plan needs to include information reflecting what studies were done and what recommendations resulted from the analysis. Recommendations from the analysis should be clearly stated. Please include explicit reference to the studies and results in Reach 3 and Reach 7 sections.	Incorporated	See Section 4.5e and 4.6b.
4a		3 of 3	7-21		What is meant by Rebuild River Access? What about repairing the bridge?	Not Incorporated	Public requested restored river access (put-in) at this location. Bridge appeared to be repaired via FEMA PW at time of site visit.
5		1 of 5	7-30		Yes, the bridge was recently replaced, but from what I have heard from Bill, there was a bit of erosion/damage to the slopes underneath the bridge that should be assessed. I don't know if that would relate to this report, but I wanted to at least bring it up.	Not Incorporated	Erosion should be addressed when channel under bridge is restored.
4a		2 of 3	7-20		It calls out for "Boulder Bank Protection" for the portion shown on the bottom of the map in the area of the biggest washout of Apple Valley Road. There was some bank protection placed after the flood. Is the intent to keep that in place or replace completely	Not Incorporated	Recommending both the extent and type of bank protection to be incorporated, as with all recommendations, evaluation of usability of existing materials/work should be considered.
5		2 of 5	7-31		What is meant by "Coordinate channel improvements with crossing replacement"? Are we replacing the Longmont Dam Road bridge that connects to US 36? Is that going to be done by a different agency?	Incorporated	Replaced replacement with repair.
4b		2 of 3	7-23		Looks like r.o.w. for Old St. Vrain Bridge is in the wrong location.	Not Incorporated	Can't revise BoCo's property layers in GIS.
		7-7	3		"Work in Progress" has 2 bulleted points that seems woefully understated as a lot of work has occurred. The temporary breach repairs completed by Parks & Open Space are not called out, although they are mentioned in the assessment section.	Not Incorporated	That's what's meant by "Miscellaneous temporary pond embankment stabilization projects".

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Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
	All	7 - 9 to 7 - 14	3		In the Alternatives Analysis comments, it was asked that future mining sites be included as they will have a large influence on future flood dynamics and may be able to incorporate both flood mitigation and wildlife habitat values. The Baker team stated "Did not identify future gravel mining sites due to lack of data." However, this data is shown in Figure 5 of <i>St. Vrain Creek Corridor Open Space Management Plan</i> (Boulder County Parks & Open Space, 2004), which the Baker team has a copy of. Alternatively, the most up-to-date information could be obtained from the Colorado Division of Reclamation, Mining, and Safety. We again request that this information be incorporated and a statement be included that recommends future mine sites should consider future flood dynamics and flood mitigation potential as well as wildlife habitat.	Incorporated	Added verbiage to "work in progress" section of text on p 7-7.
	2	7 - 10	3	Pella Crossing	As mentioned in the Alternatives Analysis comments, there is a pond breach (area with excessive unstable erosion that may not be noticeable from an aerial, but is evident on the ground) on the east dam of Sunset Pond that is not shown on the map. (Note: Sunset is the northwest pond at Pella Crossing, which is east of 75th St.) The Water Commissioner ordered this pond be drained during the flood to ensure it did not continue to erode and fully breach. Therefore, this breach and its repair (<i>Repair Pond Breach</i>) need to be shown on Map 2 for Reach 3 in the Final Master Plan.	Incorporated	Done.
	4	7 - 12	3	Western Mobile	In the Alternatives Analysis comments, it was stated that the breach shown between Lake 2 and Lake 3 needs to be removed because it is not a breach location. The Baker team responded "This was a breach location. Post flood channel flows through this area." There is a breach between Lake 3 and Lake 4 (which should remain on the figure), however there is <u>not</u> a breach between Lake 2 and Lake 3. Baker incorrectly shows the post-flood channel alignment across this area, which may be causing the confusion. The actual post-flood flow paths were 1. from the west starting at Breach 1, going south of the CEMEX plant into Lake 3, then into Lake 4, West Pond, A-frame Pond, across 61st Street, and finally back to St Vrain Creek and 2. at Breach 2 into Lake 2 and then back to St Vrain Creek at the east/northeast corner of Lake 2. This needs to be corrected in the Final Master Plan.	Not Incorporated	Aerials show the area in question received a large amount of sediment and would now be interconnected during high flows. So we proposed improvements.
	4	7-12	3	Western Mobile	In the Alternatives Analysis comments, it was requested that St. Vrain and Left Hand Water Conservancy District be included as a partner in the repair of Lake 4. This lake is jointly owned by Boulder County and SVLHWCD. The response to the comment stated that "Not calling out specific stakeholders, wouldn't be consistent with rest of plan." However, SVLHWCD is a part-owner, not a stakeholder. Please include them for Lake 4.	Incorporated	Done.
	5	7-13	3	Western Mobile	The maps shows BCPOS pond repairs on large head cuts within county property boundary. However, the head cut continues to the west. Recommended work should not end at a political or legal boundary. This is a large item that should be addressed along with the work on BCPOS reservoirs.	Not Incorporated	Earlier iteration of alternative proposed repairs in this area; however, POS directed us to remove the recommendation.
	6	7-14	3	Western Mobile	Should hatching of area recommended to be filled and revegetated for Breach #1 really stop at property line? Can we get by with less, or should it continue into adjacent properties (e.g. CEMEX)? Report seems to point out that majority of work should be on county owned land, but repairs should not be confined to legal or political boundaries. Also, this hatching is not included within legend as it is on other maps. Add to legend. (See comment recommending changing "Fill & Revegetation" to "Grade & Revegetation".)	Not Incorporated	Repairs were recommended regardless of political boundary and the extents were based on planning-level assessments. The hatch shown is for breach repair, although this may not have specifically been a breach. Breach repair is shown in the legend.
	6	7-14	3		North Foothills Highway (US 36) is incorrectly labeled as Highland Dr.	Incorporated	Done.
			4-1		Based on the descriptions given for location of the N & S St. Vrain Confluences (Rows 3 & 4) it seems they would be the same location. These descriptions are quite confusing.	Incorporated	They are but one is the discharge for North and other for South.
	Unmet Needs		4-6		Last sentence of first paragraph should say, "... <u>should</u> be utilized for all <u>future</u> flood hazard analyses." (note that the underline is to illustrate the change, not suggest that those words should be underlined)	Incorporated	Clarified.
			1 and 2		Although the Master Plan no longer is showing Longmont's plans in Reaches 1 and 2, it would be useful to still include aerials for these reaches in the Final Master Plan to show the existing conditions. We would also still like our comment from the Alternatives Analysis included in these comments regarding Reaches 1 and 2: Boulder County understands that Longmont will be analyzing the environmental factors along this reach of St. Vrain Creek during the preliminary and final design of the 100-year flood conveyance project. That analysis should reflect that there are native non-game fish populations within this reach of St. Vrain Creek, the highest historically, and pre-flood, being around Longmont's wastewater treatment plant. CPW has previously noted the significant importance of this area to rare and declining native fishes, and we would encourage Longmont to coordinate their plans with CPW on ways to minimize impacts, including providing appropriate in-stream habitat. In addition, the removal of riparian areas has a greater negative impact on the biodiversity and vitality of wildlife populations than perhaps any other habitat impact. We encourage Longmont to consider these environmental factors as they move forward and encourage the city to consider natural channel design and native fish passage and to preserve as much intact riparian habitat as possible throughout the reach in their design and implementation.	Not Incorporated	Longmont provided direction for representation of Reach 1 and 2 and have confirmed that this format is what they wanted.

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Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
	Tables 7.1 and 7.2	7-8 and 7-17	3 and 4b		We have some concerns about the cost estimates and estimated quantities provided. Just measuring a few lines, it doesn't seem to add up. For example, the "low flow channel restoration" with the dark blue line from 63 rd to Hygiene Road measures about 4,000 LF. There is another 3,000 feet with the blue line near Cemex and Breach 1. That is a total of about 7,000 LF. However, the cost estimate includes only 3,160 LF from Hygiene Road to Highway 36. The line could be overly conceptual in which case it would be helpful to know more specifically where the 3,160 LF that need work are. One way to do this would be to indicate in the label the number of feet that are included in the estimate along each of the two stretches. The same is true for: Boulder Protection (5,200 LF on the plan, 1,963 LF in the estimate); Root Wad Protection (3,300 LF on the plan, 1,217 LF in the estimate); Embankment Stabilization (4,500 LF on the plan, 1,681 LF in the estimate); and the section of channel restoration west of Marlatt (1,400 LF on the plan, 730 LF in the estimate), among others. Similarly, what is the definition of "Fill and Revegetate"? Some of the areas called-out with that treatment are very deeply scoured, like at Ramey. So using a SF unit doesn't make sense. There is a huge assumption built into the unit cost of just \$4/SF that the depth of fill is small, which wouldn't be sufficient in some areas like at Ramey. Also, it would be good to understand if the pond breach repairs shown on Braly and Western Mobile are included in the cost estimate. Finally, what breach repairs are included in the cost estimate? In particular, are permanent breach repairs for breaches 1, 2, and 7 included, as well as others?	Incorporated	Will review quantities.
			3 and 4b		In the text box entitled "Restoration Strategy", add "Incorporate floodplain bench where appropriate"	Not Incorporated	These notes are intended to describe reach-wide restoration strategy, not site-specific projects.
		7-16	4b	Hall 2	The draft Master Plan documents Lyons' desire for a detention basin on Hall 2 (Andesite Quarry). This was analyzed during the Alternatives Analysis process and was deemed infeasible. Because it is still mentioned under the LRAPS PDGs list and in the LFRTF objectives, a statement should be made again about its infeasibility in the Final Master Plan. Please add a brief sentence referencing the Alternatives Analysis that determined not feasible.	Incorporated	Done.
	2	7-22	4b	Hall Meadows	In the Alternatives Analysis comments, it was stated, "Some areas of this reach have been significantly affected by placement of large boulder "deflectors" many years ago, as indicated in the prior Ayres report, i.e. near Meadows Ditch...Efforts should be made to analyze the effects of these structures on creek flows and removal if necessary." In another comments, it was stated, " Remove hard points (armored meadow) that were constructed following the 1969 flood." The Baker team replied "Will be incidental to channel restoration within the area. Unable to identify all hard points based on available data." These large boulder deflectors / hard points are identified in the Environmental Assessment – South St. Vrain Creek (Ayres Associates 2000). At a minimum, it should be noted that these should be analyzed for removal as they affect flooding dynamics.	Not Incorporated	The evaluation of keeping/moving/modifying these features is something that will take place during design. Indications from discussion with locals is most large boulders were removed from this reach and used for bank stabilization efforts.
	3	7-24	4b	Hall 2	Why is there a call-out for wetland plantings on the flat bench area of Hall 2 (i.e. Andesite Quarry)? Boulder County Parks & Open Space does not have any plans to plant wetlands in this area, and the area would not likely support wetland vegetation unless it was substantially excavated down to be closer to groundwater. Future uses will be determined in a future management plan once mining reclamation is complete. With that, it should be noted within the document that reclamation of the Andesite Quarry is currently the responsibility of Aggregate Industries, including the flat bench area, and not Boulder County.	Incorporated	Added note to plans.
			All		The Baker team shows "Fill & Revegetation" on many of the maps. Many of the locations are immediately adjacent to the channel or otherwise within the floodplain (e.g. map 4 of Reach 3 downstream of 63rd St.). Why would these areas be filled? Would it be more correct to state that they require grading, rather than "fill" (i.e. some filling, some excavation, reconfiguring slopes, etc.)? If so, could this be changed to "Grade & Revegetation" instead of "Fill & Revegetation"?	Not Incorporated	Conceptual designs focused on large areas of degradation (based on comparison between pre and post-flood LiDAR and aeriels) that would require fill and reveg to re-establish a floodplain bench adjacent to low flow channel. Smaller cut and fill will be required in low flow channel restoration areas and those costs are considered in the "low flow" line item.
			All		In the Alternatives Analysis comments, it was requested that upstream and downstream impacts of the recommended improvements be considered in the Master Plan. However, there still doesn't seem to be sufficient analysis about these effects in the draft Master Plan. Does the current plan account for the future behavior of the stream given the build-out of the improvements that are suggested in it as well as Longmont's plans? Or, is it expected that future, more detailed studies for restoration and recovery projects suggested in the plan will need to do their own assessment to ensure that they will not have any adverse effects either upstream or downstream? If the latter, this should be clearly stated in the final plan.	Incorporated	Added verbiage to plan in Chapter 8 to discuss phasing and interconnectivity of improvements. Not possible to determine effects given the project constraints.
All					When showing crossings in the legend, the label should read "Crossing Replacement/Evaluation - as Needed"	Not Incorporated	Exhibits reflect verbiage guidance provided by BoCo during Alt Analysis report review.
7					Not comfortable with the recommendation that where the channel is unable to fit the 10-year that the solution is to perform earthwork to create a channel that can carry the 10-year. That seems a little aggressive. Please remove the sentence (last sentence in the section under 10-year event).	Not Incorporated	Can't find reference to 10-year channel?
			7-7		How can both of these sentences be true? "The results of the geomorphic assessment show that the alignment of the channel is similar between pre- and post-flood conditions. However, the post-flood channel alignment did change drastically as a result of an avulsion through the ponds upstream of Hygiene Road."	Incorporated	Revised verbiage to clarify
3		3 of 6	7-11		Crane Hollow Bridge was replaced not too long ago. What is the current conveyance? It says to optimize flood conveyance, which I assume means, replace the bridge if necessary. Is this the case and if so, is it realistic given that the bridge is not that old?	Not Incorporated	General recommendation to evaluate all structures given the increased discharges prepared or being prepared by CDOT/CWCB.
3		3 of 6	7-11		For the pond breach over Hygiene Road, it says just to repair it. I assume that means repair to a level that it doesn't occur again?	Incorporated	Correct, breach repairs are intended to be more substantial than a simple berm.
4b		2 of 3	7-23		Please specify - What kind of Old St. Vrain Road re-alignment is in mind for this recommendation?	Not Incorporated	Incorporation of comment from USFS during Alternative Analysis. Not to a level of detail to propose a specific alignment. Simply identifying that the road will continue to be at risk due to its vicinity to the stream.

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Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
5		2 of 5	7-31		Based on the new alignment shown for the N. St. Vrain, how are we going to actually fit a bridge that conveys a 100-year flow since the creek would essentially be parallel to the road. Otherwise a 90 crossing (or anything in between) may not fit because of geometry, topographic and resident home constraints.	Not Incorporated	Recommending evaluating it. All those concerns would need to be vetted during evaluation.
5		3 of 5	7-32		Jim Hanley is planning to do some creek work (probably significant) on the 180 degree bend just east of the mailboxes/asphalt pavement. How will this plan work with that? Has he been a part of this study at the public open houses?	Not Incorporated	Specific information on Mr. Hadley's activities were not brought to us via the public engagement process.
5		3 of 5	7-32		How will the crossing of the creek just south of the mailboxes/asphalt pavement work with Longmont's work? they re-established that crossing after the flood.	Not Incorporated	Ideally they will reference the conceptual design guidance at the beginning of Chapter 7 and apply.
5		3 of 5	7-32		As part of the Longmont Dam road permanent repair the bridge replacement was not part of the scope. This bridge was still structurally intact after the flood. The plan was to armor the approaches only.	Incorporated	Replaced replacement with repair.
Bridge					My recollection on my comments for the 61/63 rd bridge over St Vrain Creek is that the capacity and resiliency be evaluated before the replacement of the bridge is evaluated. Also I think I said that for any change that is being proposed the impacts to the creek and properties and County infrastructure downstream be evaluated.	Incorporated	Based on previous direction, we standardized bridge call outs as "evaluate". Furthermore, additional verbiage was added to Chapter 8 regarding evaluating upstream and downstream effects while phasing all projects.
					Will all agency and public comments on the Alternatives Analysis and Draft Master Plan be included in the appendix of the Final Master Plan, including the Baker team's responses?	Incorporated	Yes.
			Page 8, Section 3.3, paragraph 5		It is not clear if the choke in the canyon is on the North or South SV. Please clarify.	Incorporated	Revised verbiage.
			Page 10-13, Sections 3.4 & 3.5		This information seems better suited for an appendix. It detracts from the flow of the document and the focus of the river. Would be more interesting to see the alternatives analysis documentation (such as the pre-screen table of appendix D –(as was done for the Fourmile Master Plan) in the main body of the document to help understand the planning process and planning recommendations. What about some watershed maps that could help readers understand the "planning area description" – such as a land cover land use map, property ownership map, etc.	Incorporated	Would like to keep environmental section in the front of the report to be consistent with typical master planning format. Will move the pre-screen matrix to front of report.
			Page 14, Section 4, paragraph 2		Does the Baker Team have any recommendations for GIS data in need of collection? If so please state.	Not Incorporated	No GIS needs recommended
			Page 23, Figure 7.1		Figure 7.1 clearly shows a base flow but the bankfull elevation is labeled as "low-flow channel". Bankfull is generally the average annual high flow and by definition is the channel-forming flow. It should not be labeled low flow and should be called bankfull or average annual high flow. There should be a definition of bankfull in the glossary. The definition of "low-flow" in the glossary should be rewritten so that it describes "base-flow". It should be clear to engineers, designers and landowners that there needs to be a design for both base flow and bankfull flow so we don't end up with a trapezoidal channel and no definition for base flow conditions. This will enhance aquatic habitat in conjunction with added complexity	Incorporated	As outlined in text, we refer to low flow as the bankfull channel. Notes added to graphics to clarify.
			Page 23, Figure 7.2		Figure 7.2 is not clear as to what the pre-flood, post-flood, and restored channel cross-sections look like. It does not look like any trees exist below the 100-year flood elevation – obviously it's just a computer drawing but shouldn't it represent as closely as possible the end goal/vision?	Incorporated	Section is not intended to depict pre-, post-, and restored conditions. Section is intended to convey how a floodplain bench can be restored.
			Page 24, Section 7.3		"Site specific design considerations" is mislabeled – should be "7.2"	Incorporated	Done
			Page 24, Section 7.3, paragraph 2		Can you recommend burying rip rap and planting vegetative cuttings, like willows, in the voids?	Incorporated	Done
			Page 24, Section 7.3, paragraph 3		"Lower risk areas" seem subjective. Can you recommend LWD be implemented with large rock in areas where structures and infrastructure need to be protected as a preferred alternative to exposed rip rap? This will enhance aquatic habitat.	Not Incorporated	Lower risk areas are defined as areas where structures/infrastructure are not present. Boulder bank protection is recommended as an alternative (not riprap) and recommends using native boulders material.

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Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
			Page 24, Figure 7.5		Illustration shows wrong alignment of root wads	Not Incorporated	Conceptual root wad alignment is consistent with application outlined in River Restoration & Natural Channel Design (Rosgen, 2014).
			Page 25, Figure 7.7		Change low flow to avg high or bankfull flow in fig 7.7	Incorporated	See previous comment
			Page 27, top of page, bulleted list		In this area there is a great opportunity for large amounts of cheap LWD that can be installed strategically to encourage the floodplain to deposit, regenerate native riparian vegetation, and develop new wetlands in old gravel mining operations. Managing non-native invasive species will be a concern regardless of which alternative is selected. There is an excellent opportunity here to maintain a broad and expansive floodplain without encroaching on infrastructure and allowing the creek to recover on its own. LWD could encourage new habitat and the formation of new wetlands and riparian vegetation.	Incorporated	Will note availability of LWD. Filling in old gravel mining operations is not consistent with BCPOS Open Space plan.
			Page 28, "Overview," last paragraph		There appears to be a big opportunity, particularly in Reaches 3 & 4, for the coalition to work with ditch companies to develop alternative designs or retrofits for fish passage and/or recreational enhancements without sacrificing any of the interests of the ditch companies. Coordinating with the ditch companies through the SVLHWCD, if Sean agrees, could lead to improved relations between various stakeholders and the coalition could help identify new funding sources for diversion improvements. More should also be said about the need for ditch diversion improvements. What are they?	Incorporated	Will incorporate note about fish passage.
			Page 29, "Pond Breaches" bulleted list		This is another opportunity to expand the floodplain and strategically install LWD to encourage appropriate deposition, wetland development and native riparian revegetation. If water rights are an issue here it should be explained why this cannot happen.	Incorporated	Will note availability of LWD. Filling in old gravel mining operations is not consistent with BCPOS Open Space plan.
			Page 29, "Channel Restoration" bulleted list		Boulders may not be appropriate at this location for such a low gradient stream. Should match natural surroundings. Large wood in the channel would be a more appropriate solution to create habitat and scour pools here.	Not Incorporated	Boulders (i.e. particles greater than 10" in diameter) are present in this reach.
			Page 29, "Channel Restoration" bulleted list		More should be said about the opportunity for the Coalition to negotiate, or partner with, the many ditch companies in this reach for a cooperative approach for multi-objective projects that meets the goal of water delivery as well as recreational and environmental interests.	Incorporated	Done
			Page 37, "Assessment," paragraph 2		Finish sentence? "...is to return"... what?	Incorporated	Done
			Page 38, "Reach 4a"		4 a, b & c need to be redefined in the title identifying the North St. Vrain as a, the south as b and the main as c. Had to go looking back to the front of the document to figure out which was which. You could simply add north, south or main to the title.	Incorporated	Done
			Page 39, "Channel Restoration"		Need to add general design parameters to the table	Incorporated	Done

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Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
			Page 41		After hearing what most residents said about the meander bend at 480 Apple Valley Road I think it is a mistake to put it back in the preflood channel and I cannot see where the science supports this. This meander makes sense where it is today. Barbara Welke has groundwater issues but some of that can be mitigated with the lowering or relocation of the Longmont water lines. I'm surprised there is not a recommendation to move those lines out of the floodplain. I don't think moving the channel makes good sense from a morphological perspective and it surely is not cost-effective. Furthermore, if you move it back it will also create a stability problem for the downstream owner at the current downstream confluence. Keeping that as a split channel increases floodplain capacity and overall safety. This plan also calls for a lot of rip rap which is not preferred by residents. I don't suspect this option could ever get approved by residents.	Not Incorporated	It is recommended to move the channel back to the pre-flood alignment to reduce the flood-related risks that currently exist with the existing channel alignment.
			Page 42		Root wad protection should go along the edge of the river, not where the post flood alignment was. If there is a desire for setback protection than root wads could be installed off channel as well.	Not Incorporated	This was intended to function as "setback protection". Bank protection is not needed along the bankfull channel at the inside (depositional side) of the bend.
			Page 42		More rip rap would not be needed at 18762 Hwy 36 if the property was acquired. The owner wants out. Acquisition of property should be a recommendation.	Not Incorporated	Identifying specific property acquisitions is not part of this master plan per discussions with the SVMP Coalition.
			Page 42		There is a recommendation to add more rip rap on top of the existing rip rap and root wads at 850 Apple Valley Road. That will not encourage new riparian vegetation. To improve flood capacity in this area there should be a recommendation to acquire the property on the other side and allow it to become floodplain. The owners want out and it would make good sense. If there is a problem with owner privacy then the owners should be asked directly if it is OK to make that recommendation. Property acquisition should be a major component of this master plan. The Casey property downstream should also be recommended for acquisition	Not Incorporated	Identifying specific property acquisitions is not part of this master plan per discussions with the SVMP Coalition.
			Page 43		Low flow channel near Stone Mountain Lodge has already been restored as part of the Hwy 36 construction.	Incorporated	Incorporated note. However, some work still needs to be done in this area.
			Page 45		The relocation of SH7 is a good recommendation, however, where road realignment to reconnect disconnected migration areas cannot be achieved, overflow culverts under the road to allow water to access these areas should be an option.	Incorporated	Added verbiage
			Page 50, "Plan Recommendations"		Something should be said about acquiring the property at the intersection of Longmont Dam Rd and Hwy 36. The river tore through this area but it was put back into the overly-constrained channel under the existing bridge. It seems to me that the channel should go back to the post-flood alignment and construct a proper floodplain.	Not Incorporated	Identifying specific property acquisitions is not part of this master plan per discussions with the SVMP Coalition.
			Page 50, "Channel Restoration"		Need to fill in design parameter table	Incorporated	Done
			Page 52		There are a lot of recommendations for boulder bank protection where there is already protection in place	Incorporated	Will review using all data available to avoid overlap as much as possible.
			Page 53		No need for boulder bank protection at Sims property above the Winery site. Already installed and no infrastructure. Root wads more appropriate.	Incorporated	Will review using all data available to avoid overlap as much as possible.
			Page 53		Boulder bank protection on the inside bend? It's already there but should probably be a point bar	Not Incorporated	Boulder bank protection is intended to assist with protecting adjacent structures if channel shifts alignment to the west.
			Page 53		Rip rap needs to be buried and planted and boulder clusters re-installed	Not Incorporated	Addressed in Section 7
			Page 68, "Plan Recommendations", last paragraph		Develop a modeling project for all the personal driveway crossings.	Incorporated	Referenced crossing guidance in App G now.
			Page 71		Is this an opportunity to share driveway crossings? Can you recommend that?	Incorporated	Added verbiage
			Page 72, Section 8		For the section titled "prioritization and implementation" – the section on prioritization is very short, lacks good definitions of the categories (e.g., Tier 1, 2, etc.) and the process by which they were derived. This could be more robust. What is the next step after these are taken care of?	Incorporated	Added additional clarification to the section.

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Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
			Page 73, Section 8.3D		What about local floodplain permits? Other permits? - this only discusses building permits	Incorporated	Coordinating with BoCo on permitting verbiage.
			Intro through Public Engagement		Explain the difference between "Current regulatory discharge" and "modeled regulatory discharge" (also on pg 4-1). It's not clear what is being compared in Table 4.1. I assume this refers to pre-flood 100 peak flood levels versus post flooding channels that are larger.	Incorporated	Straight from CDOT/CWCB report to show impacts of updated hydrology. Updated table title to clarify.
			Intro through Public Engagement		Pg 3-2: More discussion of how connectivity is "disrupted", or how that differs from biological connectivity disruption. I think they are saying the former channel is no longer connected because the river is taking a different path (through gravel ponds). That is different that a total loss of connectivity which to me means the channel is no longer continuous (ie fish couldn't move through the entire reach).	Incorporated	Revised verbiage in reach descriptions.
			Intro through Public Engagement		What is the choke in the canyon?	Incorporated	Where it narrows greatly just upstream of Andesite Mine.
			Intro through Public Engagement		Why number both the North and South St Vrain as 4? Seems like that will promote confusion.	Not Incorporated	Reach 4 was previously Town of Lyons and their "planning area" (SSV and Apple Valley). Was broken up into sub-reaches through planning process. Delineated as 4a and 4b, respectively.
			Intro through Public Engagement		Pg 4-3 The 2013 Lidar isn't inaccurate, the channel has just been changed subsequently due to emergency repair measures.	Incorporated	Revised verbiage.
			Intro through Public Engagement		4.3a. Is there a more detailed narrative to explain why the higher 100 year flows are not feasible or why the benefits are negligible?	Incorporated	Revised verbiage.
			Alternatives Development & Evaluation		I don't see that the categories identified in 6.2 are clearly discussed in the plan for each reach later in the document.	Not Incorporated	This information was moved to the appendix.
			Alternatives Development & Evaluation		"Structural Improvements", seems like a misnomer. I think they are getting at channel hardening for flood control and/or to prevent the channel from migrating. Makes it sound like if you don't include "structure improvements" the channel is unimproved. I would prefer a different term.	Not Incorporated	Understand the potential for confusion. Term was defined early in the report and used throughout the alternatives analysis. Did not change terminology because it received approval in early stages of this project and didn't want to cause confusion.
			Alternatives Development & Evaluation		Unclear how the 5 bulleted points on evaluating the alternatives compares to the "Alternative Ranking Criteria"	Not Incorporated	This information was moved to the appendix.
			Alternatives Development & Evaluation		Overall, appears that the ranking criteria seems pretty thorough, although the actual weights/metric are not discussed.	Not Incorporated	All were weighted equally.
			Alternatives Development & Evaluation		NCD- goals seems reasonable and appear to promote natural looking configurations. However, I hope that figure 7.6 is an example of the different types of features, not an example of completed design. It appears that the figure has every possible habitat/stream restoration structure you could possibly put in a stream. In other words, it doesn't look natural with perfect sinusoidal meanders and artificial placement of habitat features at each and every possible location.	Not Incorporated	Figure 7.6 is an example of the different types of features, not an example of what completed design should look like.

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Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
			Reach 1		Pg 7-4. Plan recommendation, not clear whether the designs moving forward by the City of Longmont restoration work are or are not alternatives listed in the SVMP. If this is a master plan, they should be the same right?	Not Incorporated	The alternatives identified in this master plan will be used as a starting point. A more detailed alternatives analysis will be completed in order to determine what alternative is best. Then, the design phase will likely investigate variables that were not considered in the master plan to shape the final design.
			Reach 1		The primary recommendation from the geomorphic assessment is to return the channel to the pre-flood alignment, however that does not appear to be an alternative. Alternative 1 sounds like it is returning a small amount of flow to the old channel, but the majority would go through the gravel ponds?	Not Incorporated	This alternative was determined to be unfeasible during the alternatives analysis.
			Reach 1		Costs not itemized, but totals are included in the total cost table 8.1	Not Incorporated	A cost estimate was not prepared for this reach since it is currently being designed as a part of a separate contract.
			Reach 2		Maybe provide discussion about how the other plans fits in the master.	Not Incorporated	As per Longmont guidance, referring to their project due to timing. In this case, their flood control conceptual informs the master.
			Reach 2		Costs not itemized, but totals are included in the total cost table 8.1	Not Incorporated	A cost estimate was not prepared for this reach since it is currently being designed as a part of a separate contract and already partially funded by a grant.
			Reach 3		No discussion of overflow channel with berm. Seems like a big feature, why is this needed, how would it work.	Incorporated	Discussion in Plan Recommendations section.
			Reach 4		The sentence for the primary recommendation from geomorphic assessment is not complete.	Incorporated	Done
			Reach 4		Looks like a lot of fill, but overall all fill costs seems to be a small part of the budget which seems incongruent. Is there opportunity to leave some areas unfilled to provide secondary channels or floodplains to accommodate higher flows?	Not Incorporated	The Fill & Revegetate line item accounts for major areas of fill only. Some fill is accounted for in the Low Flow Channel Restoration line item.
			Reach 4		4a, pushing river into pre-channel reduces sinuosity in some places	Incorporated	Agree. Recommended that channel be restored to the natural dimension/pattern/profile to the extent practical given existing constraints.
			Reach 4		What is the basis for moving the channel out of the current configuration and not into the old channel? Seems like it would be more cost effective to do either of those rather than build a new channel.	Not Incorporated	It is recommended to move the channel back to the pre-flood alignment to reduce the flood-related risks that currently exist with the existing channel alignment.
			Reach 5		How is the upstream portion within the City of Longmont jurisdiction?	Not Incorporated	Near Longmont Reservoir.
			Reach 5		I like the inclusion of stakeholder priorities, would be nice to see a similar section for each reach.	Incorporated	Provided for all reaches where we prepared a conceptual plan.
			Reach 5		Why is dredging needed?	Not Incorporated	It's referring to the Longmont reservoir sedimentation issue.
			Reach 5		What do the blue dotted lines represent? Is it the extent of the proposed low flow channel? Why aren't there post-flood channels on the maps?	Not Incorporated	The blue dotted lines are the 100-year floodplain. Post-flood channel is in the same alignment as the pre-flood channel.
			Reach 5		Cost seems high given what looks like less work compared to other reaches. However, I'm not calibrated to estimates of this magnitude!	Not Incorporated	This is one of the longest reaches.
			Reach 6		I like identification of primary issues in this reach.	Incorporated	Provided in the "Plan Recommendations" section for each reach.
			Reach 6		This reach in particular makes me wonder about what will happen if the channel is left largely alone to rebuild itself...		This option was discussed and determined to not be the preferred alternative. However, some sections within this reach were recommended to be preserved with no modification.'
			Reach 7		Nice to see that limited work is proposed for this reach.	Incorporated	No further action taken.
			Conceptual Plans		More analysis and/or discussion of how channel alignments were changed historically and whether or not the new configuration is flowing through old channel alignments. If not great, otherwise it will be a constant battle to keep the channel out of the natural low points.	Incorporated	In almost all cases, pre-flood low points were filled with alluvial material by the flood. New low points were cut in the dynamic, alluvial valley floor and recommendations are focused on restoring various natural characteristics and preventing future avulsions.
			Conceptual Plans		Can't always see post flood alignment, I think it's probably under the proposed channel alignment. Should change how this is mapped so you can see both. Maps need to be created in a way that you can see all 3 channels even if they are aligned on top of each other for example, make the pre- channel line thicker, then layer on the post line as a narrower solid line, and then a dotted lined for the proposed channel.	Incorporated	Done.
			Conceptual Plans		Would be helpful to discuss the primary recommendations for each map section, particular if there is something unique to that reach (such as overland berms)	Incorporated	Recommendations are provided in the "Plan Recommendations" section for each reach.
			Conceptual Plans		Need more discussion of the legend for the maps. Is bank protection hard or soft? How is that different from embankment stabilization?	Incorporated	Bank protection methods (Boulders vs. Root Wads) is noted on plans.
			Conceptual Plans		Unclear from drawings what land needs to be acquired or which structures (houses, etc.) would be removed.	Not Incorporated	Identifying specific property acquisitions is not part of this master plan per discussions with the SVMP Coalition.
			Conceptual Plans		Is CPW involved in habitat assessments?	Not Incorporated	They did attend a public meeting and said they would be studying fish counts in the watershed next year.

Table 2. Consolidated Coalition Comments: Draft St. Vrain Creek Watershed Master Plan

Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
			Conceptual Plans		Consider breaking reach 4 into 3 pieces, below the confluence, the lower South St. Vrain, and the lower North St Vrain.	Not Incorporated	Reaches were delineated based on jurisdiction, post-flood impairments, and restoration strategies.
			Conceptual Plans		It would help to have a more consistent format for the conceptual design strategies. I realize that a lot of different entities are working in this area, but each reach should really provide the same type of information if this is a master plan.	Not Incorporated	This would likely need to be coordinated after all plans are completed.
			Conceptual Plans		Be good to see a table that lists Stakeholder priorities and a table that lists primary issues (ecological, geomorphic, etc.) for each reach.	Not Incorporated	These items are included in the narrative and additional tables are not possible with current budget constraints.
			Conceptual Plans		Plan occasionally mentions exploration of opportunities to increase floodplain width rather than armoring banks—good idea!	Incorporated	No further action taken.
			Section 8		Costs in Table 8.1 do not add up, even with the \$20 million bond. Grand total is more like \$124 million - \$20 million is \$104 million.	Incorporated	Fixed totals.
			Final Thoughts		I think too much of the supporting information is in appendixes. I'd rather see all of the information for each reach in one place. That means discussion of the available data, data gaps, stakeholder issues, geomorphic and ecological assessments, alternatives, alternative evaluation, discussion of selection of the final alternative, the plans for that alternative, and the cost break down. It would make the document larger, but it would build a much more complete and thorough view of what is known, proposed, and why for each reach	Not Incorporated	Direction from Coalition to date has been to keep report succinct and refer to Appendices for additional details.
			Final Thoughts		Overall the plans seem heavily geared to significant channel manipulation. In locations without infrastructure and minimal development, I'd like to see more discussion of alternatives that would allow the channel to repair itself, or alternatives that propose more modest construction efforts.	Incorporated	Refer to Alternative Analysis documentation in Appendix. Many reaches had the option of "do nothing" and alternatives with limited channel improvements were the preferred in all cases.
			7.1		1.(Section 7.1: Incorporate/Stabilize a Low Flow Channel and Floodplain Bench). The term low flow channel should not be used in association with bankfull channel. Although you define the low flow channel as being equivalent to the bankfull channel, this is likely to cause confusion as the term low flow is most often and more commonly used to define flow conditions and channel dimensions during drier conditions when flow only partially fills the channel. Previously published papers, technical documents/manuals, and studies on stream restoration use the term bankfull to define flow conditions in which flow is confined within the channel banks before it overtops the banks and inundates the floodplain. Both the ecological report (appendix B) and geomorphic report (appendix C) in the appendixes use the terms bankfull flow and low flow as described above. This comment applies to all figures and text referencing the term low flow in the document.	Incorporated	Agree. Defined terms in text as being synonymous terms and added clarification to figures. Changing the wording would have a significant impact on note revisions to figures. Many municipalities define low flow as the point of incipient floodplain flooding. Although it is not technically accurate, it is something that many identify with.
			7.2		2. (Section 7.2: Site-specific Considerations, Stream Crossings and Figure 7.7). Please reference the U.S. Forest Service design methodology for assessing, designing, and constructing road-stream crossings (http://www.fs.fed.us/eng/pubs/pdf/StreamSimulation/index.shtml). Also attached are a couple of papers that discuss the stream simulation design method the Forest Service uses at road-stream crossings.	Incorporated	Done.
			7.3f		3. Section 7.3f (Reach 6). In paragraph 1 of the "Overview Section" you reference CDOT as having land along the reach. Although CDOT is responsible for State Route 7, I am pretty certain CDOT does not own any land along reach 6.	Incorporated	Done.
			7.3f		4. Section 7.3f (Reach 6). In the first sentence of paragraph 3 of the "Plan Recommendations" you reference reach 3 and not reach 6. Additionally, the map numbers are not referenced.	Incorporated	Done.
			7.3f		5. Section 7.3f (Reach 6). In the "Drainageway Crossing" of the Plan Recommendations section, please modify the first sentence of the first bulleted item to include ...optimize flood conveyance capacity <i>using design methods that at a minimum span the bankfull channel....</i>	Incorporated	Added verbiage to second bullet.
			7.3f		6. Section 7.3f (Reach 6). In the "Drainageway Crossing" of the Plan Recommendations section, please modify the first sentence of the second bulleted item to ...unobstructed in order to maintain channel stability, achieve ecological connectivity, <i>provide unimpeded fish and aquatic organism passage, and improve flood resiliency.</i>	Incorporated	Added verbiage.
			7.3f		7. Section 7.3f (Reach 6). In the bulleted items under "Channel Restoration" in the Plan Recommendations section, the last two bullets (remove debris blockages, excavate material deposited by flooding to restore flood capacity) because they are not channel restoration activities, but are channel stabilization activities. Debris blockages are most likely of a crossing that is poorly designed, poorly aligned, and/or undersized.	Not Incorporated	As part of our overall restoration approach to watershed in the post-disaster environment, we feel these are part of "restoration".
			7.3f		8. Section 7.3g (Reach 7). In the first sentence of paragraph 3 of the "Plan Recommendations" you reference reach 3 and not reach 6. Additionally, the map numbers are not referenced.	Incorporated	Done.
			7.3f		9. Section 7.3g (Reach 7). In the "Drainageway Crossing" of the Plan Recommendations section, please modify the first sentence of the first bulleted item to include ...optimize flood conveyance capacity <i>using design methods that at a minimum span the bankfull channel....</i>	Incorporated	Added verbiage to second bullet.

Table 2. Consolidated Coalition Comments: Draft St. Vrain Creek Watershed Master Plan

Reach #	Alternative #	Map #	Page #	BoCo Property Name	Comment	Resolution	Notes
			7.3f		10. Section 7.3g (Reach 7). In the "Drainageway Crossing" of the Plan Recommendations section, please modify the first sentence of the second bulleted item to ...unobstructed in order to maintain channel stability, achieve ecological connectivity, <i>provide unimpeded fish and aquatic organism passage, and improve flood resiliency.</i>	Incorporated	Added verbiage.
			7.3f		11. Section 7.3f (Reach 6). In the bulleted items under "Channel Restoration" in the Plan Recommendations section, the last two bullets (remove debris blockages, excavate material deposited by flooding to restore flood capacity) because they are not channel restoration activities, but are channel stabilization activities. Debris blockages are most likely of a crossing that is poorly designed, poorly aligned, and/or undersized.	Incorporated	As part of our overall restoration approach to watershed in the post-disaster environment, we feel these are part of "restoration".