

LARIMER COUNTY



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ENVIRONMENTAL AND
SCIENCE ADVISORY BOARD



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2017 Annual Report



January 2018

Board of County Commissioners:

This annual report outlines the Environmental and Science Advisory Board's activities in 2017 and sets out our general goals and direction for 2018.

An important discussion topic for the year concerned solid waste planning and coordination. The County landfill is nearing its capacity, and a regional Wasteshed Coalition has been formed to consider the future of solid waste management in the region. The Advisory Board has followed the activities of the Coalition carefully and provided recommendations where appropriate.

Additional information about the Advisory Board, including minutes for the meetings, is available on the County's website at www.larimer.org/boards/.

We would like to acknowledge County staff for their continued help and commitment to sound environmental management. In 2017, representatives from the Departments of Public Works, Emergency Management, Natural Resources, Planning, and Health & Environment attended ESAB meetings to assist and inform members of the Advisory Board.

We hope that the feedback we provided was useful for the County. Please feel free to contact any of our members if you would like to discuss specific issues in greater detail.



Richard Alper, Chair for 2017

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**2017 ANNUAL REPORT OF THE LARIMER COUNTY
ENVIRONMENTAL AND SCIENCE ADVISORY BOARD**

January 2018

I. INTRODUCTION

The Larimer County Commissioners established the Environmental Advisory Board in 1993. The Board consists of up to 12 at-large members, appointed by the County Commissioners. The name of the board was changed to the Environmental and Science Advisory Board (ESAB) in 2013.

The role of the Advisory Board is to advise the Board of County Commissioners and appropriate departments on environmental and science-related issues that affect Larimer County. Items considered by the ESAB come from the Commissioners, staff, citizens and our own members.

The Advisory Board meets regularly on the second Tuesday of each month and on an as-needed basis for special work sessions. The first agenda item of each meeting is devoted to hearing citizen's comments about environmental issues. The list of speakers and guests that attended the ESAB meetings is presented in Section V of this report.

Important topics and actions considered by the Advisory Board are noted in Section II. Section III outlines the status of issues related to written correspondence. The actual recommendations are included in the Appendix.

The Advisory Board uses an issue index to keep track of the various issues that the board addresses. The index is updated on a monthly basis.

Steve Johnson became the County Commissioner liaison to the Environmental and Science Advisory Board in 2017. Doug Ryan, from the Department of Health and Environment, served as staff facilitator in January 2017, and then retired from his position at Larimer County. Shelley Bayard de Volo, from the Engineering Department, took over as staff facilitator, starting in February 2017.

II. DISCUSSION TOPICS IN 2017

MONTH	TOPICS
January	Air quality, and oil and gas emissions
March	Wasteshed (Solid waste) planning & coordination Larimer County Comprehensive Plan
April	NISP Wildlife Mitigation and Enhancement Plan Recognition of previous ESAB Chair
June	IGA or 1041 permitting for NISP
July	Halligan Reservoir expansion Forest Management and Health, and Climate Change
August	Larimer County Hazard Mitigation Plan
September	Forest Health Larimer County Comprehensive Plan
October	Zoonosis update Syringe Disposal and Opioid Abuse Ozone and air quality
November	Larimer County Comprehensive Plan Wasteshed (Solid waste) planning & coordination
December	Wasteshed (Solid waste) planning & coordination Ozone and air quality ESAB issue index review Consideration of ESAB 2018 work plan elements Election of officers for 2018

III. STATUS OF ESAB RECOMMENDATIONS IN 2017

The table below outlines the formal recommendations made by the Advisory Board, and provides a brief statement about the status of those recommendations. As an advisory board, the ESAB’s written recommendations are submitted to the Board of County Commissioners or a requesting County department. The actual correspondence is shown in the Appendix.

Issue	Principal ESAB Actions and Recommendations	Status
Fish and Wildlife Mitigation and Enhancement Plan for the Northern Integrated Supply Project (NISP)	The Advisory Board reviewed the draft Plan and recommended that additional technical information on impacts to habitat, fish and wildlife be provided. They also noted a need for better information on financial mechanisms and the need for identifying mitigation success criteria, which are both integral to effective adaptive management strategies. The Board felt that the draft Plan lacked such criteria.	<p>The Commissioners took the Advisory Board’s comments under consideration and then heard formal response from Northern Water, who provided an overview on their updated Plan.</p> <p>The Commissioners did not formally comment, nor submit the ESAB’s comments, to the Colorado Parks and Wildlife Commission. The Commissioners cited their need to remain an unbiased entity since they will need to consider Northern Water’s application for a Larimer County 1041 permit in 2018.</p>
Mountain Resilience Plan: Phase-I of a New Comprehensive Plan	<p>The Advisory Board reviewed the entire draft Plan and provided editorial and content comments. Primary comments were the need to provide better linkages between the areas of policy, strategies and monitoring methods. In several cases, some policies lacked corresponding strategies, and some strategies lacked monitoring methods. These inconsistencies resulted in some confusion for the reader, which could be remedied with a more balanced approach across all Sections of the Plan.</p> <p>The Board also found a need to incorporate references and web links to existing studies, reports and land use codes that are generally mentioned, implied or are relevant to the text, but not properly cited.</p>	The ESAB comments were provided to M. Lafferty, Principal Planner and J. Call of Logan-Simpson, the consultant preparing the Plan.

Issue	Principal ESAB Actions and Recommendations	Status
Solid waste planning & coordination	<p>Since 2016, the Advisory Board has been following the activities of the regional Wasteshed Planning Coalition, which was formed to address regional solid waste management in anticipation of closure of the County landfill.</p> <p>Through its Solid Waste Subcommittee, the ESAB encouraged the development of better solid waste data to support Wasteshed decision making, and advised on technology options for solid waste management. The project is now shifting towards evaluating sustainable return-on-investment for the options, and potential political mechanisms to ensure that future solid waste management proceeds according to project goals.</p>	<p>The ESAB has worked to informally advise the Commissioners and County staff on technical and policy issues related to the project, primarily through attending Policy Advisory Committee (PAC) meetings and participating on the Wasteshed Stakeholder group.</p>

IV. ENVIRONMENTAL STEWARDSHIP AWARDS

Each year, the Larimer County Environmental & Science Advisory Board and the Larimer County Commissioners recognize environmental efforts of county residents, businesses, organizations and/or agencies by awarding the Environmental Stewardship Awards. Environmental Stewardship Awards were first issued by Larimer County in 1995.

The board looks for individual or group activities that are innovative and proactive, and that demonstrate exceptional effort and concern for the stewardship of the environment. Projects can be either completed one-time efforts or ongoing activities. Both types are judged on their degree of difficulty and the results they achieve. The Environmental and Science Advisory Board solicits nominations, reviews them and makes recommendations for the awards to the Larimer County Commissioners.

In 2017, the nomination period was changed to run January through mid-March, and included a more streamlined nomination form and webpage interface. This change, along with advertisement on social media (Facebook, Twitter), as well as news print media, increased exposure. As a result there were eight well deserved nominations, and the Board agreed that all of the projects were worthy of consideration and all provided good examples of the important activities local citizens are engaged in to protect and improve our environment. The recommended projects produced positive environmental results locally, and provided good examples of what others can do. Therefore all eight were recommended to the BCC for consideration of the award, and were ultimately presented with Stewardship Awards at a public ceremony by the BCC. The 2017 awardees were:

1. Elkhorn Creek Forest Health Initiative – “Wildfire risk mitigation in the Elkhorn Creek”

The Elkhorn Creek Forest Health Initiative (ECFHI) involves several partners including the Coalition for the Poudre River Watershed (CPRW), Larimer County Conservation Corps (LCCC), Wildlands Restoration Volunteers (WRV) and The Nature Conservancy (TNC). The goal of the Initiative was to reduce the risk of high-severity wildfire and lessen the potential for post-fire impacts to Elkhorn Creek, a tributary to the Poudre River. The project started out as a pilot study to test the effectiveness of integrating volunteer and professional sawyers to implement forest fuels reduction work at the Ben Delatour Scout Ranch in the Red Feather Lakes Area. The forest management techniques used were similar to those used by the Forest Service on neighboring lands, thereby broadening overall treatment footprint. The treatment opens the forest structure, which more resilient to catastrophic fire conditions.

2. Estes Land Stewardship Association – “Noxious weed management”

Since 2007, the Estes Land Stewardship Association has been promoting responsible land stewardship with volunteers through community based noxious weed management in the Estes Park area, through publications, community outreach events, and public displays.

Estes Park is the gateway to Rocky Mountain National Park and is a high traffic corridor between counties, which makes it highly susceptible to weed introductions. The Association's work prevents new introductions, manages existing weeds, and curtails weed dispersal into the Park and its surrounding areas.

3. Heather Knight – “Laramie Foothills Project”

Since arriving from Australia 26 years ago, Heather Knight has been involved in several conservation projects that were highlighted as part of her nomination.

Campbell Valley Erosion Control Project - The Roberts Ranch Campbell Valley Project involved the stabilization of 17 miles of side channels and 3-miles of the main-stem of Campbell Creek. Erosion gullies up to 60 feet deep, and producing ~4.8 million cubic yards of sediment, have been an issue in the area and threaten stream water quality in Northern Larimer County. Heather's work involves coordinating volunteers to participate in work events and stream sediment monitoring. The work is currently ongoing.

Poudre River Ecology Project (PREP) – Starting in 2002, Heather was concerned that students in her area were losing contact with the land, and in response she developed a science curriculum for the “Mountain Schools” in Livermore, Stove Prairie and Red Feather Lakes. Students work in nearby ranch streams like Lone Pine Creek and Stonewall Creek, where they collect insects, measure flow data, record weather observations, and make other observations. Back at school, this data becomes the basis for written reports and discussion. The young students think critically and experience real hands-on science.

North Fork Weed Co-op - Heather brought together residents from the area to create the North Fork Weed Coop, a citizen based initiative to control invasive weeds. The Co-op participants become familiar with invasive weeds and learn how to manage them.

4. Robert Trout – “Loveland Initiative for Monarch Butterflies”

Over the past 20+ years monarch butterfly milkweed habitat in Larimer County has dwindled. In response, Bob has partnered with the Walt Clark Middle School in Loveland to grow milkweed plants for distribution and planting around northern Colorado. He is working many volunteers to plant milkweed along riparian areas in Loveland. Bob has increased awareness of the dwindling Monarchs, and has involved students, parents, volunteers, and the Audubon Society to help sustain Monarch butterflies in Larimer County.

5. Robert Johnson and CATS – “Colorado Addicted Trail Building Society”

Bob Johnson leads a very productive volunteer trail building group called CATS (Colorado Addicted Trail Building Society). They volunteer each week from Spring into late fall building soft-surface trails throughout Northern Colorado. In Loveland, they have single-handedly constructed the new trail system at Mariana Butte. Bob, and the other CATS members, recruit their own volunteers, train them, and continuously provide

opportunities for community volunteers to work with them. Each spring, they also provide Trail Crew Leadership training to teach others good practices in leading trail teams.

The CATS volunteer group is all about environmental stewardship. They construct trails by hand and use the natural features of our landscape to construct the trail. They are masterful at using existing rocks and soil for trail construction and causing minimal disturbance as they construct trails. The construction of the Mariana Butte trail has allowed the City to better manage Mariana Butte by providing the public a well delineated trail system, which has resulted in better protection of the surrounding landscape.

6. Colorado Native Plant Society – “Elkhorn Weed Mitigation and Study Project”

The Elkhorn Weed Mitigation and Study Project is a cooperative effort between the Colorado Native Plant Society, the Arapaho-Roosevelt National Forest, the Larimer County Weed District and Shambhala Mountain Center.

The project promotes native plant conservation through education and involves a 3-year study on Sulphur cinquefoil (*Potentilla recta*), a weed with limited distribution in Larimer County. five study plots received two types of treatments: (1) sprayed herbicide; and (2) manual control methods. Volunteers counted plants in each study plot for comparison over time. This ongoing project helps land managers find the most effective methods for controlling this noxious weed.

7. Doug Swartz – “Greyrock Commons Natural Areas”

For over 20 years Doug has pursued a City of Fort Collins Natural Areas certification for the 5-acres of open space near Greyrock Commons co-housing he has been managing. This natural area is used by the 30 families that live at Greyrock, as well as local neighbors and visitors, and wildlife in the area. Doug worked with local nurseries and wildland restoration groups and kept records of plantings, used resources, rainfall, and his stewardship outcomes. Doug regularly photographs the outcomes of experiments in the natural area, and consults with local experts such as entomologists, bird watchers, and wildlands restoration groups. He reports rainfall data to the National Weather Service.

Doug Ryan – “Environmental Science and Advisory Board”

Doug was the Staff facilitator for the Environmental and Science Advisory Board for 10 years (2006 to 2016). He was very well liked by the ESAB members who said he had a ready grasp of a very wide range of environmental and science issues. Doug had good political sensitivity about working collaboratively across organizations and had a large network of contacts both inside and outside the County structure, which helped him greatly in his work with the Board. He was always good at engaging the group in discussion, and had a great work ethic. He worked hard for the ESAB, and in doing so, assisted Larimer County in its own Environmental Stewardship!

V. GUESTS AND INVITED SPEAKERS FOR MONTHLY MEETINGS

MONTH	PERSON	SPEAKER'S TOPIC
January	Jeffrey L Collett, CSU Department of Atmospheric Science	North Front Range Oil and Gas Air Pollutant Emission and Dispersion Study
March	Todd Blomstrom, Director Public Works	Wasteshed Updates – Phase II Study and Formation of Stakeholder Group
	Matt Lafferty, Larimer County Principal Planner	Larimer County Master Plan and Formation of Stakeholder Group
April	Jerry Gibbens, Northern Water	NISP Wildlife Mitigation and Enhancement Plan update
June	Rob Helmick, Senior Planner, Larimer County	Update on 1041 permitting and IGA for NISP
July	Adam Jokerst, City of Fort Collins	Halligan Reservoir
August	Lori Hodges, Director of Emergency Management and Recovery	Hazard Mitigation Plan
September	NRCS Scientists, Sam Adams, Gretchen Reuning, and Jonas Feinstein	MacGregor Ranch Forest Restoration Project
	Matt Lafferty, Larimer County Principal Planner	Boards and Commissions input for draft Comprehensive Plan – Foothills and Mountain Area
October	Jessica Royer, Larimer Health and Environment	Zoonosis annual update (Issue 18.03)
	Katie O'Donnell, Larimer Health and Environment	Syringe Disposal and Opioid Abuse
November	No Guests	
December	No Guests	

VI. ENVIRONMENTAL AND SCIENCE ADVISORY BOARD MEMBERS

Board Member	Status
Jane Abels	Active
Richard Alper	Re-Appointed July 2017
Daniel Beveridge	Appointed July 2017
Corey Broeckling	Active
Richard Conant	Appointed July 2017
Jeremy Deuto	Retired June 2017
Jim Gerek	Active
Michael Lee Jones	Re-Appointed July 2017
Kimberly Karish	Re-Appointed July 2017
Evelyn King	Re-Appointed July 2017
David Lehman	Active
Matt Tobler	Appointed July 2017
Joseph Wilson	Active

Note: This list includes all Advisory Board members who served during the year. At any given time, the Board consists of a maximum of twelve members.

VII. YEAR 2018 WORKPLAN

The workplan provides information about the general direction the Environmental and Science Advisory Board considers taking in 2018. Because conditions or priorities in the County can change, a considerable degree of flexibility needs to be maintained.

Overall: The ESAB strives to inform, and be informed, about county government- related policies, decisions, issues and actions that have environmental implications. To that end the ESAB will:

1. Serve as an informational resource that provides science-based recommendations to the County Commissioners and departments, points out areas of uncertainty and suggests appropriate ways to address them;
2. Identify environmental and science-based issues and opportunities for the consideration of the County Commissioners so that the BCC can be proactive in their responsibilities towards the environment. To that end, the ESAB will solicit from its membership ideas with respect to current environmental issues, and develop a consensus of the most relevant topics to be forwarded to the BCC;
3. Develop and maintain an attitude of trust and respect among the ESAB, the Commissioners, County departments and other boards and commissions;
4. Foster a cooperative working relationship with local & state organizations that are connected with topics on the ESAB issue index.
5. Provide updates on current environmental topics in order to enhance the common knowledge base among the members.

Response to Referrals or Requests:

1. Respond in a timely manner to issues raised by the Board of County Commissioners, the County departments and ESAB members.
2. Facilitate the response to citizen comments received by the Advisory Board with the Board of County Commissioners and appropriate County departments.

Current Environmental Topics:

1. Consider the regional implications of important environmental issues, and consider ways to address those issues across local jurisdictional boundaries. Examples of current issues include planning for ozone air quality compliance, enhancement of forest and watershed health, and mitigating impacts of hydraulic fracturing.

2. Monitor important water issues including watershed planning and proposed water projects. The Halligan Reservoir expansion projects and the Northern Integrated Supply Project (Glade Reservoir) are examples of current water issues.
3. Monitor solid waste management issues such as landfill operations, recycling and hazardous waste disposal. Participate with the Regional Wasteshed Coalition to consider the next steps in solid waste management together with regional partners. This is an important task because of the lead time necessary for implementing changes to the solid waste management system and its long-term impacts on the region.
4. Monitor the status of both conventional and alternative energy development, and as requested, consult with staff and the County Commissioners regarding potential environmental implications. Wind energy, solar energy, and oil and gas development are current topics of interest.
5. Consider important natural or ecological impacts associated with large-scale events such as wildfire, floods, droughts, climate change and biological events (i.e., emerald ash borer, pine beetle).
6. Participate in Phase II of the County's proposed Comprehensive Plan Update for 2018.

Stewardship Awards:

1. Coordinate the annual Environmental Stewardship Awards in partnership with the County Commissioners.

Communications and Process:

1. Maintain open communications with the County Commissioner liaison assigned to the Environmental and Science Advisory Board in order to facilitate communication about environmental concerns or issues seen by either the Commissioners or the Advisory Board.
2. Use the Commissioners' Work Session and Administrative Matters meetings as appropriate for communicating on important environmental issues as they arise.
3. Continue the practice of assigning interested ESAB members monitoring tasks on select environmental activities and provide updates to the full Advisory Board.

APPENDIX: WRITTEN CORRESPONDENCE

These documents were prepared by the Environmental and Science Advisory Board as part of their activities in 2017.

- August 17th, 2017 memo and detailed comments to County Commissioners regarding Northern Water’s “Wildlife Mitigation and Enhancement Plan” for the Northern Integrated Supply Project (NISP). The memo and comments were discussed at the Commissioner’s Work Session August 22nd, 2017.
- October 16th, 2017 full comments provided as attached spreadsheet by email to Matt Lafferty, Principal Planner, regarding the Mountain Resilience Plan: Phase-I of a New Comprehensive Plan. The Board provided both editorial and content comments on the draft “Foundations” and “Visioning” chapters of the Plan.
- November 17th, 2017 executive summary and full comments provided as attached documents by email to Matt Lafferty, Principal Planner, regarding the Mountain Resilience Plan: Phase-I of a New Comprehensive Plan. The Board provided both editorial and content comments on the draft “Recommendations” chapter of the Plan.

MEMORANDUM

TO: Larimer County Board of Commissioners

FROM: Shelley Bayard de Volo, ESAB Staff

DATE: August 17th, 2017

RE: Comments on Northern Water's Fish and Wildlife Mitigation and Enhancement Plan

Attached with this Memo, are the comments and concerns expressed by the Environmental and Science Advisory Board for Northern Water's Fish and Wildlife Mitigation and Enhancement Plan.

Background

As part of the regulatory compliance process for the Northern Integrated Supply Project (NISP), Northern Water has applied for a Clean Water Act Section 404 permit from the US Army Corp of Engineers (the Corp). As part of this 404 permitting process, the Corp is required to comply with the National Environmental Policy Act (NEPA) by preparing a Final Environmental Impact Statement (Final EIS) and acquiring 401 water quality certification from the Colorado Department of Public Health and Environment (CDPHE).

During the Draft EIS process, the Corp received many constructive comments (including those from the Larimer County BCC and the ESAB) which prompted them to issue a supplemental Draft EIS, in which additional plans, reports and studies could be developed and included in the Final EIS.

To address valid concerns over impacts to fish and wildlife resources, Northern Water worked with several stakeholders, including Colorado Parks and Wildlife (CPW) staff, to develop the "Fish and Wildlife Mitigation and Enhancement Plan" (hereafter the "Plan"). The Plan was prepared for the CPW Commission in accordance with C.R.S. 37-60-122.2.

The Plan is important for several reasons: (1) as part of the Final EIS, the Plan will be conditions of the 404 permit and will be part of the Federal Record of Decision; (2) as part of Larimer County's 1041 process, the Plan will be reviewed by Larimer County's Development Review Planning staff, who are required to evaluate impacts to fish and wildlife resources from development of Glade Reservoir, the conveyance pipelines and the re-routing of Hwy 287; and (3) it is in Larimer County's interest to ensure the fish and wildlife resources within its borders are impacted in the least ways possible since they are an important component of the County's recreation and tourism industry.

It is therefore in the County's best interest to review and provide comments on the Plan prior to its incorporation into the Final EIS.

The Process

The draft Plan is currently open for a 60-day public comment period, which ends September 1st. The CPW Commission will then hold a vote on whether to approve the Plan. Following the Commission's vote, the Plan then goes to the Colorado Water Conservation Board for consideration and approval. If one of the two State agencies does not approve the Plan, it goes to the Governor for consideration and signature. If both State agencies deny the Plan, the project loses support from the State.

At their last meeting (August 10th), the CPW Commission heard comments from CPW Staff and the public (City of Fort Collins and others). The Commission discussed the difficulty they face with coming to a decision and taking a vote at their September 8th meeting, only 7 days following the end of public comments. The Commission chair inquired as to whether they could get an extension on the date for when they could hold a vote. They are waiting to hear from Northern Water as to whether they will allow the extension. The extension would not add time to the public comment period, but would allow the Commission more time for their review.

Links to Recorded Council Meetings

Wildlife Commission's recorded meeting (August 10th)

Ken Kehmeier, CPW Senior Aquatic Biologist, presents the CPW Staff response to the Plan. This recording provides a very good summary of the regulatory background and the Plan (with a slide show)

<http://cpw.state.co.us/aboutus/Pages/CommissionMeeting2017-8.aspx>

The discussion starts about 6:21:00 on the slide show, and ends around 7:11:00
Public comments begin around 7:17:00. Fort Collins Mayor Pro Tem Gerry Horak, and his staff present a 2 min summary of the City's concerns.

Fort Collins's Reviews

The Fort Collins City Council meeting video is at the links below.

Link to video from July 25th City Council meeting

<https://fortcollinstv.viebit.com/player.php?hash=kk2R8mykg7e5#>

Link to video from August 8th City Council meeting

<https://fortcollinstv.viebit.com/player.php?hash=PvYgbFoysEVg#>

To: Larimer County Board of Commissioners

From: Richard Alper, Chair

Date: August 17, 2017

Subject: NISP FWMEP Review

The Environmental Science and Advisory Board has reviewed and discussed the Fish and Wildlife Mitigation and Enhancement Plan (FWMEP or the Plan) for the Northern Integrated Supply Project (NISP) and offers the following comments and concerns.

Water Flow-Peak Operations.

The peak flow operations program proposed in the FWMEP is obviously a significant improvement over NISP without the program. However, a doubling of the interval between the 3-day peak flow with the Peak Flow Operations Program from 3.6 years (observed historic recurrence) to 7.1 years (with this Peak Flow Program) at the Canyon Gage is considered a significant change. It may adversely impact river ecology parameters related to periodic peak flow flushing. The Peak Flow Operations Program should include a clear scientific rationale for the selected interval, 7.1 years that includes a discussion of the potential impacts to river ecology, fish habitat and population and planned mitigation efforts.

After NISP is in place, if the peak flow program results in 3-day peak flow rates significantly less than those desired for a long period of time, the adaptive management program seems to address this issue.

However, it is unclear that this program will be able to compel changes that increase the 3-day peak flow rates. This adaptive management plan is substantially different than that proposed for wildlife management in the re-routed 287 corridor in that the key desired outcomes and performance indicators are not clearly defined and there is no clear provision that management changes will be made to achieve those desired outcomes.

Financial Responsibility and Commitment.

Reference is made throughout the Plan to external funding sources, cooperative funding and additional mitigation activities. It is not clear that the applicant, the Northern Colorado Water Conservation District (the Northern), including its participating municipalities, will bear sole financial responsibility for funding the complete mitigation effort outlined in the Plan. What recourse is there for NISP fish and wildlife impact mitigation if these additional competitive funding sources are not realized? It is conceivable the Northern may seek external funding from Larimer County Government and participating municipalities.

Measuring Success.

To our knowledge fish and wildlife mitigation plans must define and apply success criteria for mitigation efforts so that regulators, participants in the NISP and affected parties may understand how well the mitigation plan is working. Given the size of this project, the FWMEP is alternately silent or ambiguous on

success criteria for river ecology, fish habitat, wildlife habitat and the effects of the Plan on fish and wildlife populations.

Fish and Wildlife Impacts.

Wildlife species impacts and mitigation are mentioned, particularly for large game, throughout the FWMEP, but impacts on specific fish species, such as rainbow trout and brown trout, are not discussed. There is much discussion of mitigation proposals for aquatic ecosystems, including fish passages, but none speak directly to impacts on specific fish species. Similarly, federally-protected fish species are addressed in the plan but state-listed species are not specifically addressed.

Principal Recommendations.

We recommend that additional technical information on impacts to habitat, fish and wildlife, financial information and inclusion of success criteria which are integral to an effective mitigation plan be prepared and presented as part of the FWMEP. The addition of these types of supplementary information in an adequately detailed form will allow the public, the Colorado Parks and Wildlife Commission and the Corps of Engineers to make an informed judgement on the sufficiency and likely success of this important plan. Detailed technical comments referring to specific sections of the text of the Plan are also attached for your consideration and for the convenience of the CPW staff.

We look forward to discussing these comments with you at our meeting next Tuesday, August 22.

Attachment to Letter, dated November 17, 2017, from ESAB Chair to Board of County Commissioners:

RE: Detailed Technical Comments with specific references to text of FWMEP

5.0 Proposed Fish and Wildlife Mitigation Plan

Introduction

- *“Some mitigation measures described in this section involve providing funding to state agencies, primarily CPW, to manage programs relating to the Mitigation Plan. This funding is proposed to be in addition to funding already received by state agencies, and not to replace any source of funding. Northern Water expects the agencies to continue seeking current funding sources and not rely on funding from this Mitigation Plan to replace current funding.”* There is no description of proposed actions, or additional funding for such actions paid by Northern Water for FWMEP projects which increases past levels of funding shown in the Plan. The mitigation actions listed in this Plan, due to development of NISP, should be covered 100% by Northern Water. Language should be included in the Plan that requires Northern Water to meet the specific funding levels called for by the Plan which exceed its mitigation efforts at the time of permitting.

Section 5.2. Avoidance and Minimization

5.2.1. Design Commitments

5.2.1.4. Multi-Level Outlet Tower for Glade Reservoir Releases (WQ-01)

- Additional details are needed to address how much regulation of temperature in the Poudre River can be provided by this structure and how decisions will be made as to when to use the structure to regulate River water temperature and by how much. The efforts to aerate the water will also presumably impact the temperature of the water being delivered to the Poudre. The Plan should describe if flow release temperature will be monitored or simply estimated.

5.2.2. Operational Commitments

5.2.2.5. Poudre River Flow Augmentation Protection (FW-05)

- Before the project is permitted, the Plan should provide a definite path to legal protection for flow commitments remaining in the River for environmental benefits. If not completed before permitting there is a risk that such legal protections will be very difficult to mitigate after the project is permitted. The Mitigation Plan should include a description of the legal agreements that will insure flow commitments from Northern Water.

5.2.2.6. Peak Flow Operations Program (FW-08)

- A doubling of the interval between the 3-day peak flow with the Peak Flow Operations Program from 3.6 years to 7.1 years at the Canyon Gage is considered a significant change and may adversely impact river ecology parameters related to periodic peak flow flushing. The Peak Flow Operations Program should include a scientific rationale to support the chosen interval.

- The peak flow operations program is close to the observed historic (1950-2006) 1-day average peak flow, but the plan results in substantially less than the observed 3-day average flow of 2,800 cfs (7.1 with program vs. 3.6 observed). These data on proposed peak flow operations would probably not be conducive to River health.
- The proposed water quality/quantity monitoring plan at gauges seems adequate and the data archiving/sharing plan is sufficient, but an explanation needs to be included in the Plan that shows how these data will be used to adapt management plans. This section should also include a detailed description of what recourse is provided if, after NISP is in place, predictions are found to be inaccurate. The adaptive management program seems to address this issue, but it's unclear that this program will be able to compel changes that compromise NISP yields. This adaptive management plan is different than the plan proposed for wildlife management in the re-routed 287 corridor in that the key desired outcomes and performance indicators are not clearly defined and that there is no clear provision that management changes will be made to achieve those desired outcomes. Desired outcome and performance indicators for water quality/quantity should be explained in detail as part of the adaptive management program.
- Table 6: Additional explanation is needed to describe why full curtailment is planned to occur only at peak flow, and why options such as partial curtailment in Tier 3 and additional collection in Tier 1 is not suggested. However, some of the benefits of collecting during peak flow are flood management and sediment control.

5.2.3. Construction BMP Commitments

5.2.3.1. Noxious Weed Control Plan (NW-01)

- Literature exists that stresses the importance of a native soil fungal communities in successful prevention/exclusion of establishment of non-native plant species. The Plan should consider the cost/benefits of transplanting native soil, where appropriate and useful.
- “*Disturbed areas will be reclaimed as soon as practicable...*” should be re-stated as follows: “Disturbed areas will be reclaimed as soon as practicable so that noxious weed establishment is prevented or minimized. “
- “*A determination of the presence and distribution of noxious weeds comprising...any area greater than 400 square feet...*” This blanket value of 400 square feet may not be applicable to all noxious weed species depending on the current county management plan. Different species are required to be treated at specific densities, area of coverage, or stages, and adherence to these requirements should be explained in the Plan.

5.3. Compensatory Mitigation

5.3.1.2. Channel and Habitat Improvements (AG-02)

- This concept of channel and habitat improvements should be discussed in detail. "Improvements" at various locations will not compensate for the removal of water from the River and would be unnecessary if the River system was not already modified and impacted.

5.3.2. Terrestrial Wildlife Mitigation

5.3.2.1. U.S. Highway 287 Realignment Design for Wildlife Protection (TW-01)

- The construction of wildlife underpasses and drainage conveyance are two very different designs. A high level of care in design selection and design team vetting should be undertaken to ensure the compatibility of these two purposes in a single design.

5.3.2.2. U.S. Highway 287 Realignment Big Game Movement Adaptive Management Program (TW-02) 9th bullet.

- Change "15 roadkills per year" to "Greater than 10 roadkills per year" as there is no scientific explanation provided for increasing the threshold from 10 and 15 roadkills per year.
- Clarify the text for the NISP Budget to identify the funding amount set aside to plan and construct one wildlife underpass.

5.3.2.3. Wildlife Habitat – Glade Reservoir Conservation Mitigation (TW-06)

- The first paragraph contains important technical details that need a scientific reference citation.
- The compensatory mitigation wildlife habitat should be equal to, not less than, the amount of habitat lost. Additionally, the amount and location of big game winter concentration acreage offered as compensatory mitigation should be clarified in text and figures.

5.3.3. Special Status Species Mitigation

5.3.3.6. Black-tailed Prairie Dog (SS-07)

- Although a burrowing owl survey is listed in the burrowing owl section below in the Plan, the last prairie dog removal option in the bulleted list should state the following prerequisite to prairie dog removal: "A burrowing owl survey will be performed prior to in-burrow extermination."

5.3.3.7. Swift Fox (SS-08)

- The BMP for construction (avoidance of construction during denning season) should be applied to dens of all burrowing animals, including but not limited to the swift fox.

5.3.3.9. Other Riparian Species (SS-10)

- The Northern Leopard Frog, which is a Tier 1 species of greatest conservation need in Colorado, and which requires a variety of riparian and upland habitats in its lifecycle, is not individually reviewed/surveyed in the FWMEP. It is instead lumped in with several other sensitive species with their own distinct habitat requirements. Given its great conservation value, this species warrants its own separate mitigation entry.

5.3.3.10. Bell's Twinpod (SS-11)

- Bell's twinpod are notoriously difficult to propagate and have very particular environmental conditions for establishment and success. Collected seeds should be scattered on adjacent, appropriate, undisturbed areas instead of "restoration areas" that have been altered. This text change should be made in the Plan.

5.3.3.11. Townsend's Big-Eared Bat (SS-12)

- It needs to be stated that timing of additional ground surveys and any nearby construction activity, including the installation of closure structures, should avoid the hibernation period. This is similar to disturbance avoidance of nesting raptors.

5.3.4. Recreation and Public Access Mitigation

5.3.4.1. Glade Reservoir and State Land Hunting Access (RC-02)

- 1st paragraph: “CPW desires that the current level of hunting access and opportunity be maintained on lands that are currently in the Poudre River State Trust Land.” This is confusing because a previous sentence states that 1,635 acres of the Trust Land will be inundated by Glade. Additional text is needed to clarify this confusion. With respect to inundation of Trust Land, there is no discussion of monetary or mitigation compensation. The text should address this concern.

5.3.4.3. Glade Reservoir Poudre River Recreator Parking (RC-06) and

5.3.4.4. Glade Reservoir Visitor’s Center (RC-07)

- Parking lots, visitor’s centers, and other built uses will probably have direct and indirect impacts on the surrounding environment and wildlife. A description of potential impacts and the proposed mitigation actions needs to be provided for a 200-car parking lot, a visitor’s center, and access roads at Glade Reservoir.

11/28/2017

co.larimer.co.us Mail - Comp Plan ESAB Comments for Foundations and Visioning



Shelley Bayard de Volo <bayardsh@co.larimer.co.us>

Comp Plan ESAB Comments for Foundations and Visioning

Shelley Bayard de Volo <sbayard@larimer.org>

Mon, Oct 16, 2017 at 11:27 AM

To: Matthew Lafferty <mlafferty@larimer.org>

Cc: "Richard S. Alper" <rsalperesq@aol.com>, Jim Gerek <jmgerek@frontiernet.net>

Hi Matt,

Attached is the spreadsheet with word-smithing/edits and comments agreed to by the ESAB at their October meeting.

The those members present at the meeting worked as a group, and each comment was reviewed and accepted by majority vote thus providing consensus from the Board.

Please let me know if you have any questions or if something is not clear, and I will ask for clarification.

The Board appreciates the opportunity to participate and looks forward to the next "recommendations" chapter.

Shelley

—

Shelley Bayard de Volo
Environmental Coordination Specialist
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 Phase-I Mountain Resilience Plan Comments and Recommendations 20171010.xlsx
119K

The “Foundations” spreadsheet of comments
The “Visioning” spreadsheet of comments



Shelley Bayard de Volo <bayardsh@co.larimer.co.us>

ESAB Comments on the Recommendations Chapter: Mountain Resilience Plan

Shelley Bayard de Volo <sbayard@larimer.org>

Fri, Nov 17, 2017 at 2:49 PM

To: Matthew Lafferty <mlafferty@larimer.org>

Cc: Michael Jones <michaelleejones@comcast.net>, Corey Broeckling <corey.broeckling@colostate.edu>, Daniel Beveridge <azcougar@gmail.com>, David Lehman <david.lehman@ucdenver.edu>, Evelyn King <dking49326@aol.com>, Jane Abels <janeabels@gmail.com>, Jim Gerek <jmgerek@frontiernet.net>, Joseph Wilson <wilsonj@prpa.org>, Kimberly Karish <kkarish@post.harvard.edu>, Matt Tobler <matt_tobler@yahoo.com>, Richard Conant <rconant@gmail.com>, "Richard S. Alper" <rsalperesq@aol.com>, Shelley Bayard de Volo <sbayard@larimer.org>, Steve Johnson <johnsosw@co.larimer.co.us>

Hi Matt,

Attached are the comments on the "Recommendations" chapter of the Mountain Resilience Plan: Phase I of a New Comprehensive Plan. Attached you will find:

- 1. The ESAB Executive Summary and Thematic Comments
- 2. ESAB Full Comments - individual member's comments.

The Board appreciates the opportunity to participate in the Phase 1 of the Comprehensive Plan, and they hope you find their comments constructive and useful.

If they can be of more assistance, please let me know.

Thanks again! Shelley

—

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2 attachments

ESAB_Recommendations_ExecutiveSummary_ThematicComments.pdf
97K

ESAB_Recommendations_FullComments.pdf
126K

EXECUTIVE SUMMARY

The Larimer County Environment and Science Advisory Board (ESAB) has reviewed the document titled “MOUNTAIN RESILIENCE PLAN: PHASE 1 OF A NEW COMPREHENSIVE PLAN” Section 3 “Recommendations” (the “Document”) and is pleased to submit these comments on it. The ESAB welcomes this initiative to adopt a new Comprehensive Plan with an initial focus on Mountain Resilience and it appreciates the quality of the content set forth in the Document.

Format of Comments: All comments from Individual board members are compiled in spreadsheet form in a second PDF document; Thematic comments below are organized by the three Sections in the Document, Policy Framework, Implementation Strategies and Monitoring, and this document begins with an Executive Summary of the compiled spreadsheet and the thematic comments. Here we present a paragraph summary of Overarching Themes followed by separate paragraphs on each of the three Sections.

OVERARCHING THEMES:

Linkages from a specific policy stated in the Policy Framework section to a specific Implementation Strategy for that Policy and linkages from that Strategy to a specific monitoring method proposed for that Strategy, need to be addressed and in some cases drawn more clearly. Since some Policies do not have Strategies and some Strategies do not have corresponding Monitoring methods, related concepts should be addressed across each section. This would lead to a more balanced approach across all Sections of the Plan.

There is a need to incorporate references and links to existing studies, reports and codes that are generally mentioned, implied or are relevant to the text, but not mentioned. For example, the Land Use Code, the Unmet Needs Study, other external reports and a table of definitions would be helpful to citizens and agency officials.

POLICY FRAMEWORK:

With respect to the Sections titled Health and Social, and Watersheds and Natural Resources, several editorial (wordsmithing) and organizational comments are contained in the Thematic Comments section below. Concerning Infrastructure, specifically private and public sewer, stormwater management in existing developments, on site public facilities, public subdivision and private roads, the comments reflect a clear need for more tools, incentives and funding mechanisms to protect public safety and promote resilience. With respect to the adequacy of public facilities as it relates to developers’ “paying their own way”, the document should include more principles and concepts to help explain what policies might apply, generally, in future practice.

IMPLEMENTATION STRATEGIES:

The ESAB welcomes the use of a County-wide WUI Fire Code in that it may reduce risk of structural damage and increase compliance with fire safety practice. There is also discussion of a new Overlay Zone to reduce and manage fire risk. There is a need to clarify the necessity and complementarity, if any, of using both regulatory mechanisms for a similar purpose. With respect to reducing risk in areas prone to natural disaster, the principle of increasing building fees, pooling resources with neighboring counties to reduce insurance rates, and providing incentives to not build in such areas are positive steps in the area of risk reduction and natural disaster prevention. There should be an explanation linking these strategies to the “resilience value” stated in this Section.

MONITORING:

ESAB suggests that to fairly measure success (or failure) of stated goals, there is a need to define the metrics listed with greater clarity and particularity. There is also a need to add new metrics which connect to certain themes in prior Sections of the Document. Parts of this Section would benefit from a focus on metric quality rather than metric quantity.

CONCLUSION: The ESAB concludes that the Document states several good approaches and innovations with a definite focus on natural disaster. While there is thought given to improving restoration and mitigation measures, there appears to be a modest shift in priority from these toward active prevention strategies, which the ESAB welcomes. The Thematic comments below indicate a need to further define and clarify a number of terms and concepts and give additional thought to the organization of the Document. Given the length and breadth of the subjects addressed in the Document, the ESAB spreadsheet comments are for the most part separate, non-overlapping comments on different but related subjects. **THEMATIC COMMENTS BY SECTION**

In this section we submit thematic comments on the three sections of the Document, the “Policy Framework”, the “Implementation Strategies” and “Monitoring.” These thematic comments are entirely drawn from the spreadsheet compilation of all comments made by ESAB board members (the “Compilation”). When overlapping comments and themes emerged from the content-related comments, we have attempted to summarize those themes here. However, these thematic comments do NOT capture every comment made in the Compilation, so it may be useful to review the Compilation separately from the thematic comments below.

Section 1, Policy Framework:

Comments 27 and 32 are organizational comments that with respect to Natural Disasters, watershed principles 2 and 4 are partially redundant and overlapping and then suggesting a way to re-organize them to keep both of them.

Comments 5,6,7,9, 28, 33, 34 and 35 suggest specific wordsmithing to improve consistency and clarity of presentation.

Content related comments:

- a) There are some hard to reconcile inconsistencies between “sustainable design in Comment 25 and four qualities of robustness, diversity, cost-effectiveness and modularity in Comment 26.

[Comment 25 pg 11, prin 3: Comment 26, pg 11 prin 3 sub 2]

- b) With respect to private roads (Comment 23), public subdivision roads (comment 22) and transportation (roads) in new developments (comment 13) it appears there is a need for more tools, incentives, and funding to provide roads for public safety and resilience.

[Comment 23 p 11, prin 2 sub 5: Comment 22 p 11, prin 2 sub 4; Comment 13 p 10 prin 1 sub 1]

- c) Making developers pay their own way (Comment 12) and determining what adequacy means in public facilities (Comment 11) to the extent developers pay for them, appear to require a more substantive in-depth treatment. “Please provide links to specific code that defines terms such as ‘adequate public facilities’.

[Comment 11 p 10, prin 1: Comment 12, p10, prin 1, Comment 20, page 11]

- d) There seem to be real concerns about meeting gaps and vulnerabilities (comment 21) in providing private and public sewer (Comment 17) , stormwater management services in existing developments (Comment 15) , and on-site public facilities (Comment 14). There needs to be some description of incentives, tools, loans, grants or alternative approaches to these concerns..

[Comment 14, p 10 prin 1, sub 3; Comment 15, p10, prin 1 sub 4; Comment 17, p10 prin 1 sub 6; Comment 21 p11 prin 2, sub 3

Section 2, Strategic Implementation:

Comments 45 and 55 represent non-actionable comments, supporting the county's emphasis on fuel management practices and work by the Wildfire Partners Program.

Comment 39, 47, 52, 54, and 59 suggest organizational edits for improved consistency and clarity of presentation.

Comments 49, 50, and 60 suggest specific wordsmithing to improve consistency and clarity of presentation.

Content related comments:

- a) Content related comments suggested alternate or additional incentives for mitigating natural disaster risk were frequent (48, 51, 53, 58, 61).
 - b) Comments 46 and 48 asked for more details clarifying the 'resources and incentives' used for fuel management improving the proposed links between landowner, risk, and programmatic assistance.
 - c) Comments 56 and 57 request clarification and/or stronger justification for the stated position and goals.
 - d) Overlay zoning was a well-received concept, and several comments (37, 38, 39) suggest improvements/expansion. The ESAB board request a more specific definition of the scope and implementation of this concept (38, 39, 52).
- e) Comments 56 and 57 ask for clarification on floodplain acquisition policy, including additional referencing to relevant documents guiding floodplain policy goals. **Section 3, Monitoring:**

Comment 76 suggests an organizational edit for improved consistency and clarity of presentation.

Comments 60, 62, 65, 66, 81, 84, 90, 94, 99, and 100 suggest specific wordsmithing to improve consistency and clarity of presentation. Additionally, the ESAB recommends renaming the tables in a manner that is descriptive of the specific content of each table.

Content related comments:

- a) Additional metrics are proposed, including measures of income inequality (71), distance to nearest health care provider (79), resilience to fire and drought (88, 98)

- b) Several comments reflected the need to refine or clarify the proposed metrics, including the calculation of unemployment rates (72), population percentage in each census tract (73), seasonal resident counting (80), and flood resiliency (89) and mapping (93). Use of mean and median values in a summary table is extremely difficult to interpret (72).
- c) Clarification of language or data presentation was requested for the phrase “chapter work will be measured” (64), and data summary methods and presentation were the subjects of comments 74 and 82.
- d) Setting unrealistic or undefined goals was a theme for comments 68, 78, 82, 83, 85, 86, 87, 91, 92, 93, 96, 97, and 99.
- e) Several comments requested the clarification of terms and specifying links/reference to previous reports or data sources. The commonly cited ‘Unmet needs...’ report is clearly guiding the goals set in the ‘monitoring’ section, but couldn’t be readily found (69). Maps of census tract data could be included or reference made to them (71). The number of structures currently and historically in the floodplain is requested (94).
- f) Comment 67 requests a proposed approach for reconciling inconsistent community and county planning goals.

The "Recommendations" spreadsheet of comments

Chapter 1: The Foundation			
Name of ESAB editor	Chapter heading, Topic heading, Page #, Paragraph #, Starting Line #	Word-smithing and edits.	Substantive Comments/Recommendations
1	Meaningful Countywide Dialogue, p. 8-10	Now that you are at a Final Draft, this section should uniformly change from future tense to past tense.	
2	Pg. 11 The Foundaton, Foundational Plans: Overall General Comments		<p>The authors should consider making the text more concise in order to more effectively reach the target audience. As part of this revision, the authors should also attempt to more tightly integrate the foundational and vision sections of the document. Also, speaking in a uniform voice throughout the document will increase clarity and credibility.</p> <p>When a topic such as transportation or housing recommendations are mentioned, consistency between the Vision and Framework documents will improve clarity.</p>
1	Foundational Plans, UNCF Study, Why Prepared, p. 16, graph 2	Don't use personal proper names in text - use endnote if necessary.	
2	Larimer Community Resiliency Framework, What are the Key Recommendations, Page 18-19		We encourage the authors to clarify information from past documents; clearly refer to those sources, and distinguish new material from old.
David Lehman	pgs 23-42		<p>The housing information in the Community profiles pgs 23-42 note a % of vacant (seasonal/occasional) ranging from 10.5% in Area 2 to 71.6% in Area 8. An Excel spreadsheet (see attached) provided data to support making the issue of vacant housing units one that should receive more attention in the overall analysis of housing. For the 8 Mountain areas vacant housing units constitute a substantial (dare I say astounding) 41.9% of all the housing units. It seems that the Comp Plan should analyze and address directly the risk differences between year-around occupied units and seasonal-occupied units.</p> <p>The Plan hints at the developing issue of conversion of seasonal units to year-around occupied units. It might help planning to highlight the impact of these conversions which would likely differ in the Areas studied.</p> <p>John Clarke's "New Code of the West" on pg 1 articulated the fact of subsidies from urban to rural areas: "In general, those living in the cities subsidize the lifestyle of those who live in the country by making up the shortfall between the cost of services and the revenues received from rural dwellers..."</p> <p>We suspect there is an even greater disproportionate sharing of the burden of the costs of Hazard Mitigation Plans (pg 14). Given that absentee owners will pay less sales tax, our relative reliance on sales taxes versus property taxes to fund county services likely exacerbates this difference. A comprehensive plan should suggest ways to mitigate the downside of this disparity.</p>
1	Community Profiles, Area 2, Issues, p. 27		When will "visioning outreach" conclude and this section be completed? Aren't we at the plan "approval" (e.g., Final) stage now?
1	Community Profiles, Area 3, Issues, p. 29		When will "visioning outreach" conclude and this section be completed? Aren't we at the plan "approval" (e.g., Final) stage now?
1	Community Profiles, Area 3, Existing Plans, p. 30, last bullet	Should "... a community supply resources ..." be "... a community supply OF resources ..."	
3	Community Profiles, Area #4, Location, Pg. 31	An ironic substitution of "Risk" Canyon Road for "Rist" Canyon Road.	

Chapter 1: The Foundation

Name of ESAB editor	Chapter heading, Topic heading, Page #, Paragraph #, Starting Line #	Word-smithing and edits.	Substantive Comments/Recommendations
2	Pg. 44, 60 and 64 Community, Housing and Infrastructure sections		The Community, Housing and Infrastructure sections all could have greater emphasis on resiliency preparedness for any type of disaster, in any season, where citizens lose shelter, mobility, communication, utilities, water, food or medicine. Plans should provide for adaptation to unique circumstances, mitigate to provide resiliency and preparedness, and maintain landowner private property rights. These could be educational, provide guidance and/or be implemented in the county land use code.
1	Exist Cond Snapshots, Introduction, p. 44, graph 2	Should "... in favor OR what ..." be "... in favor OF what ..."	
1	Existing Cond Snapshots, Community, #2, p. 48, graph 2	Should "Red FEATHERS" be "Red FEATHER"	
3	Pg 51		Pg 51 states: "Mountain tourism and outdoor recreation is a primary economic driver, which creates demand for services in mountain communities." Lumping the 8 Mountain Areas studied with Estes Park and RMNP into a single economic analysis likely distorts our thinking about the economic benefits of particular infrastructure expenditures. The Comp Plan (which does not include the Estes Valley) would better serve decision-making by the BCC and other officials by distinguishing impacts on the 8 Mountain areas (that are the focus of this plan) separately from Estes Park. The Visioning cited in that document seems appropriately aspirational.
1	Existing Cond Snapshots, Economy, #1, p. 51, graph 2	How can County "visitors" also be mostly "residents"?	
1	Existing Cond Snapshots, Economy, #2, p. 52, graph 4	Should "Red FEATHERS" be "Red FEATHER"	
1	Existing Cond Snapshots, Health/Social, Direction from Existing, LCRF, p. 56, bullets	Are items without colons bullets or not?	
1	Existing Cond Snapshots, Health/Social, #2, p. 58, graph 1	"... residents can CHOSE to pay into . . ."	
1	Existing Cond Snapshots, Health/Social, #2, p. 58, graph 2	Should "Park R-3" school district be "Estes Park R-3"	
1	Existing Cond Snapshots, Health/Social, #3, p. 59, graph 3	Should "INCREASING important" be "INCREASINGLY important"	
2	Existing Conditions Snapshot, Housing, Pg 60, Directions from existing plans, LU6		
2	Existing Conditions Snapshot, Housing, Pg 61, Cost of Deveopment; Pg 62, Availability of Fire and Flood Insurance; Pg 63, Skyrocketing Housing Prices		It is not the County's position to determine what is feasible or not feasible. We suggest changing "largely infeasible" to "challenging."
1	Existing Cond Snapshots, Housing, #1, p. 61, graph 4		No "table below" is evident. Either add the one that was intended to be there, or change the text.
1	Existing Cond Snapshots, Economy, Health/Social, Housing, Watersheds/Nat Resources	Number and Label ALL Figures	
1	Existing Cond Snapshots, Infrastructure, Direction from Existing, 1997 MP, p. 64, graph 1	Should "... those in LESS densely populated areas ..." be "... those in MORE densely populated areas ..."	
1	Existing Cond Snapshots, Infrastructure, Direction from Existing, LRF, p. 64, graph 1	Should "... that is IN integrated network ..." be "... that is AN integrated network ..."	

Chapter 1: The Foundation

Name of ESAB editor	Chapter heading, Topic heading, Page #, Paragraph #, Starting Line #	Word-smithing and edits.	Substantive Comments/Recommendations
1	Existing Cond Snapshots, Infrastructure, Direction from Existing, LRF, p. 64, graph 1	Should "... even THE event of disaster ..." be "... even IN event of disaster ..."	
2	Existing Conditions Snapshot, Infrastructure, Pg 65, The Aging Bridge and Road System		
1	Existing Cond Snapshots, Infrastructure, #1, p. 65, graph 1	Should "... basic road IMPROVES ..." be "... basic road IMPROVEMENTS ..."	
1	Existing Cond Snapshots, Infrastructure, #4, p. 67, graph 3	Should "...being able stay at home ..." be "... being able TO stay at home. ..."	
5	pg. 69, LC Resiliency Framework,		<p>The proposal to "Design with Nature" is in many ways more challenging with fire than with flood or drought. We think that zoning actions or land use code direction must be used to minimize additional building in high fire risk areas. The final paragraph on p. 73 states "Larimer County should consider policies and criteria that further discourage building within high risk wildfire areas. In addition to code content, the effectiveness of enforcement of compliance with best management practices following issuance of a building permit and construction requires review. A third tool to consider is increased public education and outreach efforts." [emphasis added]</p> <p>Though we certainly agree that public education and outreach efforts are valuable, we believe that in order to ensure that further building in high risk wildfire areas is actually discouraged, firmly worded advice in the comprehensive plan should translate to regulatory policy in the land use code & zoning documents.</p>
2	Watersheds and Natural Resources, Pg 69, Direction from existing plans Larimer Community Resiliency Framework, Second Paragraph		
2	Watershed and Natural Resources, Pg 69 or 70.		<p>There are Fire, Hazard Mitigation and Wateshed Plans, but nothing was included on Forest Management/Restoration and the ability to coordinate/partner with others on funding and/or design. Why not? Definitely something for Resiliency.</p>
1	Existing Cond Snapshots, Watersheds & Nat Resources, Direction from Existing, HMP, p. 70, graph 1	What does "... wetlands restoration of preservation slope stabilization ..." mean?	
1	Existing Cond Snapshots, Watersheds & Nat Resources, #1, p. 71, graph 3	Should "The September 2013 destroyed ..." be "The September 2013 FLOOD destroyed ..."	
1	Existing Cond Snapshots, Watersheds & Nat Resources, #2, p. 72	Number and label the table	
4	Page 72: #2: Larimer County is one of the most hazardous...	<p>"Fire behavior is erratic and not fully predictable. As a result, even when you do things right, bad things can happen. For example, 65% of the homes destroyed in the High Park fire had defensible space established around them."</p>	<p>This statement is misleading and dangerous because it implies nothing can be done to prevent wildfire losses. It reinforces the notion that fire is capricious and we are hapless victims. Our industry is working very hard to extinguish this misperception. Things burn as the requirements for combustion are met (heat, fuel, oxygen.) While the statement is factual with regard to loss, it fails to account for the initial quality of defensible space or the maintenance thereof. More importantly, defensible space layout typically fails to mitigate surface fire and ember shower ignition of the structure itself. These factors are proven to cause the greatest number of structure losses as opposed to crown fire. Factors contributing to structure loss (in addition to characteristics of the fire) include quality and maintenance of the defensible spaces, presence of a non combustible zone around the house, hardening of the structure itself, architecture, maintenance of the structure, wildfire education of the homeowner and their willingness to embrace recommendations.</p>

Chapter 1: The Foundation			
Name of ESAB editor	Chapter heading, Topic heading, Page #, Paragraph #, Starting Line #	Word-smithing and edits.	Substantive Comments/Recommendations
4	Page 72: #2: Larimer County is one of the most hazardous...	"Fire behavior is erratic and not fully predictable. As a result, even when you do things right, bad things can happen. For example, 65% of the homes destroyed in the High Park fire had defensible space established around them."	The statement "fire behavior is erratic and not fully predictable. As a result, even when you do things right, bad things can happen," may lead residents to inaction and lack of personal responsibility. Numerous studies point to the efficacy of residential mitigation, which is a good place to start. We suggest the report reference studies that illustrate the efficacy of residential fire mitigation to promote personal responsibility.
4	Page 72: #2: Larimer County is one of the most hazardous...	"In addition to code content, the effectiveness of enforcement of compliance with best management practices following issuance of a building permit and construction requires review."	The above discussed Wildfire Partners program also informs Boulder County building code. Thus providing mitigation to new construction via a regulatory route or to existing structures via a voluntary (Wildfire Partners) route. The proof is in the pudding: 100% of the 23 certified structures within the 2016 Cold Springs Fire footprint survived. If Larimer County is serious about mitigating this hazard, we know how to do it and we won't get there by promoting the notion that "even when you do things right, bad things can happen." This is of course true but it implies powerlessness in the face wildfire which is the opposite of what needs to be conveyed.
2	Watersheds and Natural Resources, Pages 71-74		
	Pg. 69, Watersheds & Natural Resources		Watersheds & Natural Resources: There should be something in the Vision for Forest Management coordination with others and/or education.

Chapter 2: Visioning			
Name of ESAB editor	Chapter heading, Topic heading, Page #, Paragraph #, Starting Line #	Word-smithing and edits.	Substantive Comments and Recommendations
6	pg. 2, Community Direction fpr the Plan, Visioning Events, last graph, 2nd sentance.	400 people attended but 200 people reached? Maybe 2000 people reached?	
1	Community Direction, Issues and Opportunities, p. 2, graph 4	If this is intended as a direct quote, it needs an end quotation mark after ". . .t-shirts".	
1	Community Direction, p. 4	Need to clarify what these items represent - opinions of individual respondants?, summations of respondent themes?, conclusions of the project?, future directions?	
1	A Vision: Plan Themes, p. 5-7		Be clearer as to what are Plan Themes and what are Guiding Principles. For example: is Community a "theme" and the 5 bullets under it "guiding principles"? Or are the bullets "Themes". Use preamble, color, font, or other tools to be clearer.
1	A Vision: Plan Themes, p. 5-7	Be consistent in presentation of the bulleted items. Are they present time "facts" using words like "is", "are", "supports". etc.? Or are they aspirational future "goals" using words like "shall", "will be", etc.	

Section 3: Recommendations					Content: clarification or additional language suggested. Wordsmithing: specific language edits suggested. Organizational: suggested reorganization of existing content. Non-actionable: suggestions not clearly actionable within the MOUNTAIN RESILIENCE PLAN document
Comment Number	Editor	page	Page Number, Title of the Page, Paragraph Number or Paragraph Header	Substantive Comments/Recommendations	Category
1	Jim	0	Overarching Theme	Data presented in this plan indicate that (with a few local exceptions) the mountain communities in the Planning Area currently have higher median incomes, lower unemployment rates, and lower poverty rates than the County as a whole. While all portions of the County can benefit from enhanced "resiliency", the County needs to carefully consider where it spends its limited public dollars - particularly for economic development activities.	non-actionable
2	Alper	6	6: Health and Social guiding principle; health and social principle 1: sub paragraphs 1-4	The transportation paragraphs belong in the infrastructure section page 10 because it relates to multi-modal, transit, alternative transport senior transportation and broadband.	organizational
3	Alper	6	6L health and social guiding principle # 3; Sub-Paragraph 1	Should this also address west Nile fever, tularemia, zoonosis as part of vulnerable populations?	content
4	Alper	6	6L health and social guiding principle # 3; Sub-Paragraph 2	Needs explanation of connectivity.Of what?	content
5	Lehman	6	Page 6: Plan Themes ¶ 4	the County "ensures" is beyond aspirational; substitute "helps" or "encourages;"	wordsmithing
6	Lehman	6	Page 6: Plan Themes ¶ 5	need to "maintain" citizen health and wealth sets the bar impossibly high; substitute need to "maintain safety, and to support health and welfare."	wordsmithing
7	Lehman	6	Page 6: Health & Social 3: Item 1:	substitute "e.g., aging" for "i.e. aging."	wordsmithing
8	Alper	7	Page 7 health social principle 4; Partnerships should be added as part community preparedness. Sub-graph 1: fourth line:	"through distribution of the Code of the West." This should be clarified to state "through education about the principles stated in the Code of the West", including [I am guessing] individual responsibility and preparedness. Otherwise it should be clearer what aspect of the Code of the west is applicable to risks related to residing in rural/mountain areas.	content
9	Lehman	7	Page 7: Essential Questions #1:	substitute preparedness "for" replacing preparedness "from."	wordsmithing
10	Alper	10	Page 10 Plan Theme second paragraph:	What does feasible multi-modal transportation" mean? In this region ,we primarily know bus service and private vehicles. Does this contemplate a 20 year period in which this region might add rail?	content

Section 3: Recommendations					Content: clarification or additional language suggested. Wordsmithing: specific language edits suggested. Organizational: suggested reorganization of existing content. Non-actionable: suggestions not clearly actionable within the MOUNTAIN RESILIENCE PLAN document
Comment Number	Editor	page	Page Number, Title of the Page, Paragraph Number or Paragraph Header	Substantive Comments/Recommendations	Category
11	Alper	10	Page 10 Infrastructure: guiding Principle 1;	Comment 1: The term adequate is used in this guiding principle #1, the Plan Theme on this page 10 and in three separate subgraphs 1,5,8 of this same Principle #1. While these are simply guiding principles the concept of adequacy can vary widely. This should attempt such clarity as sufficient to meet the projected needs for the relevant community or subregion based on projected capital improvement and building permit issuance or language to similar effect.	content
12	Alper	10	Page 10 Infrastructure: guiding Principle 1;	Comment 2: The term pay its own way needs some further clarity though it is simply a policy guideline. For example: "within a planning area [or a community] new development will be financially responsible to pay for not less than 75% of the cost to provide existing facilities and services at the current level of service or better. Consideration will be given to an array of tools such as incentives and impacts fees to accomplish this purpose."	content
13	Alper	10	Page 10 Infrastructure: guiding Principle 1; Sub paragraph 1:	the term new development in the context of infrastructure work should include roads and schools, not transportation as developers are typically required to install roads as distinct from other forms of transportation, such as transit or rail.	content
14	Alper	10	Page 10 Infrastructure: guiding Principle 1; Sub paragraph 3	There are practical and legal problems with installing public facilities "on site" if that means private land. This sentence should specify what type of public facility is contemplated to be installed on private land.	content
15	Alper	10	Page 10 Infrastructure: guiding Principle 1; Sub paragraph 4, line 1	it is very expensive to upgrade and retrofit stormwater management in existing developments, even where it is "necessary." The Comp Plan does not address financial measures, such as special improvement districts, to back-up its guiding principles. Is that ok?	content
16	Alper	10	Page 10 Infrastructure: guiding Principle 1; Sub paragraph 4, line 2	"provide stormwater management services within highly developed areas." Typically this calls for stormwater management facilities. What would a stormwater management service be?	content
17	Alper	10	Page 10 Infrastructure: guiding Principle 1; Sub paragraph 6	The principle should specify how private and public sewer would be "encouraged." Would it be through incentives or tax credits or some other tool?	content
18	Alper	10	Page 10 Infrastructure Principle 2 4th line:	"equity and fairness" call for a statement of underlying principles regarding infrastructure and transportation needs as it relates to "all citizens". does this mean equal access? or need? or merit of the project? Or justice? Sufficient community benefit?	content

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19	Alper	11	Page 11, Infrastructure Principle 2:Sub paragraph 1 1st and second lines:	Does this statement mean that transportation planning processes shall be consistent with development patterns and the two plans mentioned Or does it mean that transportation planning processes and development patterns shall be consistent with the two plans mentioned? This sentence should be clarified and an example added.	content
20	Alper	11	Page 11, Infrastructure Principle 2:Sub paragraph 2 second line:	"new development pays its equitable share." One or two principles should be stated or an example given to explain what an equitable share might look like. Does this mean that burdens should be approximately equal to benefits derived from the new development?	content
21	Alper	11	Page 11, Infrastructure Principle 2: Sub paragraph 3 lines 3 and 4:	What would a key system mean in this context? What does vulnerability in a key system mean? Might that refer to a failing or inadequate sewerage or stormwater management system in the face of the addition of a large new development abutting such systems?	content
22	Alper	11	Page 11, Infrastructure Principle 2: Sub paragraph 4, lines 1 and 3	How would the county government "encourage" public improvement districts for public subdivision roads? There should be a reference to tools or incentives used in the development process to encourage this action. Does this statement mean that a developer of a public subdivision road is not required to post a bond and dedicate such a road for public maintenance if it is in a mountainous area?	content
23	Alper	11	Page 11, Infrastructure Principle 2: Sub paragraph 5: line 1	"inform residents how to effectively maintain private roads long term." For purposes of first responders and emergency services, it would seem that public health and safety would call for the County to encourage, incent or regulate the long term maintenance of private roads as distinct from simply inform or educate.	content
24	Alper	11	Page 11, Infrastructure Principle 2: Sub-paragraph 6 , lines 2 and 3.	After the words "planned growth" add the following: "consistent with the Capital Improvement Plan, the Transportation Plan and the Comprehensive Plan as applicable." With respect to the term adequacy in this context, see Infrastructure, Guiding Principle 1 Page 10, Comment 1	content
25	Alper	11	Page 11, Infrastructure Guiding Principle 3 line 2:	"sustainable design measures." Does this mean the engineering useful life/ life cycle for each specific infrastructure project or does this mean environmentally conserving and resilient design measures? What does this mean?	content

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26	Alper	11	Page 11, Infrastructure Guiding Principle 3: Sub paragraph 2: lines 2 and 3:	With regard to infrastructure projects “increase robustness, modularity, cost effectiveness and diversity.” Does this mean diversity in technology and innovation in infrastructure projects? It is not clear that these four qualities are collectively attainable in any one infrastructure project that contains technology and innovation. For example, would cost effectiveness likely be compatible with modularity and robustness in an innovative project? One or two of these qualities should be eliminated or language added to indicate that the goal should be certain combinations of these qualities, but not all of them captured in any one project.	content
27	Alper	13	Page 13 Watersheds and Natural Resources Guiding Principle #2	See the discussion of Principle #4 below. This principle should be amended to indicate that it is primarily concerned with planning, design and development on private land. If that is not the case it should be combined with Principle #4.	organizational
28	Alper	13	Page 13 Sub-paragraph 1.	After the words proposed development and before the word mitigates insert the words “minimizes and/or”	wordsmithing
29	Alper	13	Page 13 Sub-paragraph 4	Second and third lines: The term “other institutional plans” is unclear. If this refers to school districts, public improvement districts, water conservancy districts, it should spell that out. Otherwise it should state “additional plans and policies of the County government.”	content
30	Alper	14	Page 14, Watersheds and Natural Resources Principle #3: Sub-paragraph 2	With respect to increasing public education about the interaction of human activities with natural resource protection, the CSU Warner College has a whole department called Human Dimensions of Natural Resources with which the County could partner on this topic.	content
31	Alper	14	Page 14, Watersheds and Natural Resources Principle #3: Sub-paragraph 3, first line	“area partners”. This should be more specific. It should be clarified to state what it means, such as federal and state agencies, municipalities, and recreational outfitters, or natural resource non profit organizations?	content
32	Alper	14	Page 14 Watersheds and Natural Resource Principle #4	This Principle of reducing risks of wildfire and flood hazard is very similar to Principle #2, which is minimizing risks and vulnerability to impacts of natural hazards. Principle #4 has three sub-paragraphs that deal with wildfire, which are sub graph 1 ,2 and 3. Sub graph #4 deals with flood, water quality and stream design. Principle #4 is properly named to deal with wildfire and flood hazards.	organizational
33	Alper	14	Page 14 Watersheds and Natural Resource Principle #4: Sub-paragraph #1, first line	Before the word encourage, add the word educate.	wordsmithing

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34	Alper	14	Page 14 Watersheds and Natural Resource Principle #4: Sub-paragraph #3 line	change multidiscipline to multi-disciplinary	wordsmithing
35	Alper	14	Page 14 Watersheds and Natural Resource Principle #4: Sub-paragraph #4 line 5 and 6:	This currently states "designing with nature to improve stream design and watershed capacity." This is unclear. Amend this language as follows: Incorporating natural factors into improving stream function and watershed capacity.	wordsmithing
36	Beveridge	19	19: Secondary Egress Action Plan: Strategy In Action	This strategy is important but as stated, secondary egress routes may not be feasible or possible in all communities. Regardless of the type of disaster that may affect a neighborhood, additional access is crucial when it is an option. This is a very worthwhile plan to continue to develop.	content
37	Beveridge	21	21: Overlay Zoning: Relevant Resiliency Frameworks	The overlay zoning concept for significant hazards could be a very effective way to eliminate future structure losses in the county to disasters	non-actionable
38	Karish	21	Overlay Zoning, pg. 21 - P. 4 (definition paragraph)	Recommended enhancement: Describe example applications in more detail of "overlay zone standards and procedures" and "special and additional provisions," including resulting actions, to give residents a better understanding of what this strategy might mean for them 'on the ground.'	content
39	Karish	21	Overlay Zoning, pg. 21 - P. 5 (Strategy in Action)	Recommended enhancements: Describe the procedure in this example for how staff might "determine" if/when/how a parcel is subject to the adopted regulations when a parcel lies outside of "those areas included in the overlay map." This sentence of this paragraph is essentially saying that despite using an overlay zoning tool to place additional land use regulations on certain areas, any parcel outside of the zone is subject to the additional regulations as well. If this is the case, a defense of overlay zoning as a strategy should be made to describe why this strategy would be more effective than just applying the regulations to the entire county.	content
40	Karish	23	Transfer of Development Rights, pg. 23 - P. 5 (Strategy in Action)	Recommended enhancements: Detail the reasoning behind why a community-wide area identification ordinance would be more beneficial for this strategy versus project-based determinations as the county and cities develop at different paces over time. Describe how the community would constructively contribute to defined growth boundary determinations.	content
41	Karish	24	Future Land Use Map, pg. 24 - P. 2 (Resilience Value)	This is an essential strategy. I would highly recommend including climate change impacts when "tak[ing] into account natural hazard risk...constraints."	non-actionable

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42	Beveridge	25	25: Comprehensive Review & Update of Land Use Code: Resilience Value	An update to the Land Use Code to re-evaluate and clearly define WUI considerations and hazard mitigation for wildfire risk would be beneficial	non-actionable
43	Jim	25	25, Comp Review and Update of Land Use Code, timeline 1970	Please clarify what is meant by: "BCC adopted the Mobile home".	content
44	Karish	26	Business Retention/Creation Program, pg. 26 - P. 3 (Associated Actions)	If this strategy is to focus on mountain communities, potential partners should also include tourism organizations/boards, and possibly contacts within the Federal government (NPS, FWS, USFS, etc.) who manage public land uses/tourism.	content
45	Beveridge	28	28: Fuel Management & Reduction Programs: Resilience Value	Fuel management and reduction coupled with related land and homeowner education is one of the most effective and actionable means by which value losses can be mitigated during wildfire events. This is a critically important strategy that has the potential to noticeably reduce the current wildfire risk that exists in the county on a local level.	non-actionable
46	Karish	28	Fuel Management, pg. 28 - P. 3 (definition paragraph)	The definition of the strategy should be amended to include what the proposed "resources and incentives" are that will be used for encouragement, including potential financial arrangements. The current definition only describes proposed actions to be taken in the Program, not the methods of how those actions will be supported.	content
47	Karish	28	Fuel Management, pp. 28, 29 - PP. 2 (Resilience Value) and 5 (Associated Actions)	Editing comment- continuity error: All other strategy sections place the Associated Actions paragraph directly after the Resilience Value paragraph except for this section.	organizational

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48	Tobler	28	Fuels Management and Reduction Programs	This section provides an overview of the problem and identifies five actions (slash depots, a chipping program, alternative breaks, agency resources and CWPPs). I think this section could be strengthened by building a stronger link between the type of landowner, their risk and the programmatic assistance that has proven effective for them. The examples provided don't seem to make a direct link between the problem they will solve and who will benefit. Further, there are numerous other programs that have proven effective in nearby counties. I think the reader, and citizen, and the county needs to understand how resources (provided or to be developed) will function in conjunction with one another. Resources are disjointed and incomplete. At present this document states the problem and provides resources like the parts of a machine that still needs to be assembled. I would like to provide assistance.	content
49	Jim	29	29, Fuel Management and Reduction Programs, Alternative Break Citizenship School	Since this refers to a 2016 event, the statement: "When they return back to campus they will share . . ." should be stated in the past tense, or otherwise reworded to state what they actually did.	wordsmithing
50	Karish	29	Fuel Management, pg. 29 - P. 5 (Associated Actions)	For those who are not familiar with urban goat grazing programs, the first line of the last paragraph in this section may read as a typo and confuse residents. Suggestion is to either use an established program name and capitalize it, or to use more generic phrasing to introduce this concept.	wordsmithing
51	Beveridge	32	32: TITLE OF THE PAGE: WUI Code: Associated Actions	Regulatory code compliance is yet another means by which wildfire hazard can be reduced and since it can be enforced, it can be a more effective motivation to improve safety.	content
52	Karish	32	County-wide Fire Code, pg. 32	This strategy reads as a detailed, county-wide example of the Overlay Zoning strategy, especially as they both describe additional regulations. This strategy could also fall under an Associated Actions sub-heading of the Land Use Code Update strategy. Suggestion is to roll it into one of the other strategies as an action, or more clearly delineate it as an independent strategy.	organizational
53	Beveridge	33	33: TITLE OF THE PAGE: Wildfire Home Mitigation Program: Associated Actions	An incentive to potentially lower insurance rates with a program used in a sister county that also provides subsidies for mitigation work is very valuable.	content
54	Karish	33	Wildfire Home Mitigation Program, pg. 33	In reality, this strategy is more effectively placed within the Fuels Management strategy as an Associated Action. Suggestion is to combine these two separate strategies into one comprehensive wildfire mitigation strategy.	organizational

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55	Tobler	33	Wildfire Home Mitigation Program	Thank you for including this valuable information regarding the Wildfire Partners Program in Boulder. Comments here, like above include providing a broader spectrum of resources that work in conjunction with the Wildfire Partners Program so it is clear to residents and the county how all parts of the system work in conjunction. i.e. Wildfire partners is not a stand alone program, it works in conjunction with the planning and zoning department, fire protection districts, community sort yards, wildfire awareness outreach programs, the insurance industry, Saws and Slaws programs, etc. Also of note. Wildfire PArtners certification does not lower insurance rates; however, the certificate is recognized by several insurance companies thereby preventing policy cancelation.	non-actionable
56	Karish	34	Floodplain Acquisition Program, pg. 34 - P. 4 (definition paragraph)	Recommended enhancement: Add an additional sentence to the end of this paragraph that ties the reasoning given for developing this strategy, directly to the determination of which floodplain properties to acquire as defined in the first sentence of the paragraph.	content
57	Karish	34	Floodplain Acquisition Program, pg. 34	The overall tone of the description for this strategy seems ambiguous and disconnected. Recommended enhancements: Rewrite the first four paragraphs of this strategy description to more clearly define the strategy: its differentiation from what is currently used for floodplain management, its interaction and complementary benefits with associated actions, and a direct and clearly described definition of its purpose.	content
58	Beveridge	35	35: Resiliency/Mitigation Fee: Associated Actions	If previous recommendations/strategies are intended to disallow construction or improvement in "designated hazard areas", this seems to be a contrary strategy allowing a fee to be charged for building in areas in which it is discouraged...	content
59	Karish	35	Resiliency/Mitigation Fee, pg. 35	This strategy seems to be the funding arm of the Wildfire Home Mitigation Program and the Fuel Management Strategy as a way to financially support the actions of the other strategies. Suggestion is to group all wildfire strategies together in this chapter, describe this fee first, and allude to it as a funding source in the other strategies.	organizational
60	richard	36	36 implementaiton strategy paragraph 2 fire mitigation	change "mitigation fee" to "mitigation penalty"	wordsmithing
61	richard	36	36 implementaiton strategy paragraph 2 fire mitigation	there shold be an addttt expense to a landowner for living in the wui if there is additional expense for emergency services.	content

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62	Lehman	37	Page 37: Monitoring Why Metrics? ¶ 4:	Effective community resilience metrics must be: "simple, replicable, adaptable, and represent" community diversity and vulnerabilities. Substitute other factors: "well-defined, easy to score, replicable, and representative of significant factors which contribute to resiliency."	wordsmithing
63	Lehman	37	Page 37: Monitoring Why Metrics? ¶ 5:	The Larimer Health Tracker monitors "more than 700" health indicators, including selected socioeconomic and environmental measures that "strongly affect" a community's health status. In the context of Resiliency Metrics, I am skeptical that there are even 100 health indicators that meet the above or any reasonable criteria for effective metrics. The referenced "in-depth review of leading academic research" should facilitate identifying the 50-100 most effective indicators to guide policy decisions. "Affect" implies causing change which is not usually an attribute of a metric. Substitute "The Larimer Health Tracker monitors "up to 100" significant health indicators, including selected socioeconomic and environmental factors that "measure the contribution" of a community's health status "to its resiliency."	content
64	Jim	38	38, Monitoring, Proposed Metrics paragraph 1.	Please clarify what is meant by: ". . . chapter work will be measured . . ."	content
65	Lehman	38	Page 38: PROPOSED METRICS ¶ 2	corrective actions . . . strategies "would be needed." Substitute "will be explored."	wordsmithing
66	Lehman	38	Page 38: PROPOSED METRICS FOOTER Sentence	"GROWTH MUST HELP ACHIEVE THE COMMUNITY'S VISION." This is at best unrealistically aspirational and may even be an ideological distortion of reality. Substitute "GROWTH IS ONGOING. THE COUNTY AIMS TO MANAGE GROWTH IN WAYS THAT MOVE US TOWARD RESILIENCY WHEN FEASIBLE AND MITIGATE ANY NEGATIVE IMPACT."	wordsmithing
67	Corey	39	39: Community Proposed Metrics: Metric 1 versus Metric 2	Can this document provide some framework/guidance by which conflicts between county goals and community goals will be resolved? If in the future mountain communities determine internally that they wish to expand their community and population density, does the county level goal of 4% residency in the mountains remain or will it necessarily be modified?	content

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68	Corey	40	40: Metric 3: Baseline	Please clarify whether there are established locations in Red Feather Lakes and Crystal lakes, as the term 'established' suggests that you would not need new member recruitment (though it may be on-going)	content
69	Corey	40	40: Metric 4. Community Fragility Scores: Description	Please provide a link through which we might find the Larimer County Unmet Needs and Fragility Study results. The results of this study are clearly driving many of the goals in this document, yet there is no detailed description or link to the original report describing the study.	content
70	Corey	41	41: Economy: proposed Metrics: Baseline	A map with the census tracts would be helpful to understand the baseline data provided.	content
71	Corey	41	41: Economy: Median Household Income	I suggest that the county need also monitor income inequality in larimer county. The median is a good metric generally, but does not fully describe the statistical distribution of wealth among households.	content
72	Lehman	41	Page 41: Metric 1.	The BASELINE Table can be improved. The DESCRIPTION ¶ refers to % of the labor force. The table says Unemployment of population. The table should be amended to list the Unemployment Rate of the Labor Force. The Planning Area Average should be a population-weighted Average, not just an arithmetic average of the rates for the 9 Census Tracts.	content
73	Lehman	41	Page 41: Metric 1.	Eight of the 9 Census Tracts are "not fully contained within the Planning Area." The data would likely be more useful by including a column estimating the % of the population of each Census Tract within the planning area. A separate table including those Census Tracts with the lowest percentages of population within the Planning Area would likely facilitate interpreting areas of concern.	content
74	Lehman	41	Page 41: Metric 2.	The BASELINE Table can be improved. The Median Household Income should be presented in integer values. The ".00" is extraneous. An arithmetic average of median values is difficult to interpret. The table should include the Planning Area Median.	content
75	Lehman	41	Page 41: Metric 2. ¶ DESIRED TREND:	The discussion should focus on median income. The reference to "rates" is confusing. If there is mention of state and national medians, these data should be presented. Reference to state and national averages is confusing.	content
76	Corey	42	42: Health and Social: Metric 2: Poverty Rate	Given that poverty is a description of income, this metric might be better categorized as economic.	organizational

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77	Jones	42	42: Health + Social: Metric 1., Desired Trend	If possible, modify the desired trend to be more specific and goal-directed, e.g., "Larimer County would like to see four new health services established in the Mountain Planning Area within the next five years."	content
78	Jones	42	42: Health + Social: Metric 2., Desired Trend	If possible, modify the desired trend to be more specific and goal-directed, e.g., "All census tracts within the Mountain Planning Area ideally reduced to no more than eight percent poverty rates within the next five years."	content
79	Lehman	42	Page 42: METRIC 1. DESCRIPTION	DESCRIPTION should read Health services include any health-related facility, provider, or organization. BASELINE: Given the absence of health services, useful metrics to report might include estimated median distance and time to access health services for each Census Tract. DESIRED TREND might be to evaluate the acceptability of these distance and time values and to explore location, type and funding opportunities for one new health facility.	content
80	Lehman	42	Page 42: METRIC 2. DESCRIPTION	DESCRIPTION: How are seasonal residents counted?	content
81	Lehman	42	Page 42: METRIC 2. DESCRIPTION	The poverty rate should be assessed against countywide, statewide, and national "rates" not conditions which is too vague.	wordsmithing
82	Lehman	42	Page 42: METRIC 2. DESCRIPTION	The BASELINE Table can be improved. The table should be amended to list the Poverty "Rate." The Planning Area Average should be a population-weighted Average, not just an arithmetic average of the rates for the 9 Census Tracts. DESIRED TREND: ". . . decreasing poverty rate for the Planning Area over time as well as countywide rates remaining below state and national "rates." It would be most helpful to include Colorado and US rates in the table.	content
83	Corey	43	43, plus several additional locations: Housing: proposed metrics: "desired trends"	in several locations, the desired trend is described as 'countywide rates remaining below state and national averages'. Given that this is a common goal it would be very helpful to include the state and national averages which we are trying to remain lower than.	content
84	Corey	44	44: Infrastructure: Description	If the results of the Neighborhood Access Evaluation study have been reported it would be valuable to provide a link by which we might view them.	wordsmithing
85	Jones	44	44: Infrastructure: Metric 1., Desired Trend	If possible, modify the desired trend to be more specific and goal-directed, e.g., "An elimination of any neighborhoods rated as having Extreme or Severe vulnerabilities within the next five years."	content

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86	Jones	44	44: Infrastructure: Metric 2., Desired Trend	If possible, modify the desired trend to be more specific and goal-directed, e.g., "Six CIP projects will have been completed within the next five years."	content
87	Jones	45	45: Infrastructure: Metric 3., Desired Trend	If possible, modify the desired trend to be more specific and goal-directed, e.g., "Seventy-five percent of private lands in the Planning Area will be served by broadband internet within the next five years."	content
88	Corey	46	46: Watershed and Natural Resources	Please add some metric(s) for monitoring resilience to fire or drought – flood is the only major natural disaster which is currently addressed.	content
89	Corey	46	46: Watersheds and natural resources: metric 2: baseline	A more direct metric by which to measure flood-resiliency would be the total number of structures currently in the regulatory floodplain, rather than the number of structures removed.	content
90	Jim	46	46, Watersheds and Natural Resources Proposed Metrics, Metric 1 - Desired Trend.	Add a specification that this metric relates to "the Planning Area".	wordsmithing
91	Jones	46	46: Watershed & Natural Resources: Metric 1., Desired Trend	If possible, modify the desired trend to be more specific and goal-directed, e.g., "Seventy-five percent of river & stream miles will have regulatory floodplains mapped on non-federal land within the next five years."	content
92	Jones	46	46: Watershed & Natural Resources: Metric 2., Desired Trend	If possible, modify the desired trend to be more specific and goal-directed, e.g., "Fifty percent of the structures in the regulatory floodplain will be removed within the next five years."	content
93	Lehman	46	Page 46: WATERSHEDS & NATURAL RESOURCES. METRIC 1.	Since flood water can move from Federal Land to Non-Federal Land, it would seem that mapping should include all of Larimer County. DESIRED TREND: A complete map of the rivers and streams at risk of flooding. The consultants may be able to suggest a goal % increase per year for newly mapped streams and for updating out-of-date maps.	content
94	Lehman	46	Page 46: WATERSHEDS & NATURAL RESOURCES. METRIC 2. DESCRIPTION:	Remove "one of the most." Substitute is "a significantly" impactful way to reduce individual landowner's risk and the County's collective risk of loss due to flooding. BASELINE: It would be helpful to cite the # of structures in the floodplain and then the % and # of structures that have been removed since 2013.	content
95	Jones	47	47: Watershed & Natural Resources: Metric 3., Desired Trend	If possible, modify the desired trend to be more specific and goal-directed, e.g., "Fifty percent of the Mountain Planning Area will be included in watershed master plans within the next five years."	content

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96	Jones	47	47: Watershed & Natural Resources: Metric 4., Desired Trend	If possible, modify the desired trend to be more specific and goal-directed, e.g., "All watersheds in the Mountain Planning Area will be rated as healthy within the next five years."	content
97	Jones	47	47: Watershed & Natural Resources: Metric 4., Desired Trend	If possible, modify the desired trend to be more specific and goal-directed, e.g., "All watersheds in the Mountain Planning Area will be rated as healthy within the next five years."	content
98	Jones	47	47: Watershed & Natural Resources: Metric 5	A metric should be added that addresses achieving resiliency related to wildfire risk.	content
99	Lehman	47	Page 47: METRIC 3. DESCRIPTION:	DESCRIPTION: "a number of" This is vague and should be more precise. The easily identifiable watershed coalitions should be counted. The sentence can then read ". . . more than X watershed coalitions . . ." In the 2nd sentence change "implemented" to "implement."	content
100	Jim	48	48, Plan Management, paragraph 2	Should "Board of County Commissions" be "Board of County Commissioners"?	wordsmithing