

**Comments on Draft December 2019 Water Policies as of January 20, 2020**

<b>Source of Comment</b>	<b>Comment</b>	<b>Staff Response</b>
<b>Water Conservation through Landscaping Comments</b>		
<i>Water Conservation Through Landscaping Proposed Goal: Promote the conservation of water supplies through the use of landscape and site design that can have a beneficial effect upon water conservation.</i>		
Citizen comment on handout	Goal and all policies are important	Noted
Citizen comment on handout	Goal - Certified landscaper sign off	We will pass this comment onto the Planner in charge of updating the landscape regulations. Currently, the regulations require a licensed landscape architect to create and stamp the landscape plans for all new development. This requirement will not change.
Citizen comment via email	Goal: The goal seems somewhat oddly worded. Essentially says promote conservation that can have a beneficial effect upon conservation. - Promote the use of landscape and site design that can have a beneficial effect upon water conservation.	Agree that language is awkward. This was modified and added to the Site Design Goals.
Citizen comment at meeting	Explore ways to preserve existing vegetation in the mountains such as changing the size of trees that should be preserved (in regulations) or the case manager walking a site with the developer to encourage landscape preservation.	Agree, added a new policy, "In the Mountain Ground Water Overlay District, existing vegetation should be evaluated for whether existing landscaping should be a substitute for the landscaping required by zoning."
Jefferson County Public Health	The Goal and Policies 1-11 are all important. Policy 10 had an additional comment.	Noted. See below for staff's response on items 10.
<i>Water Conservation Through Landscaping Proposed Policy 1: Review the County's existing Landscaping regulations for changes that would improve water conservation. Revisions should contemplate modified landscaping options based on soil types, water source, available water supplies, and climate zones across Jefferson County.</i>		
Citizen comment on handout	Policy 1 important	Noted. Combine with Policy 3 and move to Long Range section to say: "Review the County's existing Landscaping regulations for changes that would improve water conservation. Revisions should assess:

		<ul style="list-style-type: none"> <li>a) Creation of differing standards for Mountain and Plains;</li> <li>b) Inclusion of and emphasis on native species in landscaping options;</li> <li>c) Protection of native vegetation, not just existing trees; and</li> <li>d) Limitations on turf areas.”</li> </ul>
Citizen comment at meeting	<p>Policy 1 - 6 tally marks for important, 1 tally mark for strike</p> <p>Conserve water rather than aesthetics</p> <p>We want architects to have a large list to choose from Flexible, “architects can propose additional plants to list”</p> <p>No additional water</p>	<p>This policy has been combined with Policy 3 and added to the Long Range section. See above for language.</p> <p>This policy would be the first step in revising the regulations.</p> <p>Water conservation can be aesthetically pleasing.</p> <p>A plant list would be developed with the regulation changes, we will pass this comment along to the Planner in charge of that process to ensure flexibility.</p> <p>Additional water could be trucked into an area to water landscaping while it is being established.</p>
Citizen comment on handout	Policy 1- Policy becomes regulation plant guide	Yes, the policy influences the regulation and possible plant guide.
Citizen comment at meeting	Policy 1 is very important	Noted. See above.
<p><i>Water Conservation Through Landscaping Proposed Policy 2: Consider landscaping regulations for single-family residential as well as non-residential and multi-family uses.</i></p>		
Citizen comment on handout	Policy 2 important – say require rather than consider	<p>We are striking this policy due to inability to enforce, instead this would be better addressed through an educational program for homeowners.</p> <p>This is an advisory document, so cannot use words such as required.</p>
Citizen comment at meeting	Policy 2 – No spigots on outside of house	We are striking this policy. See above.

Citizen comment at meeting	Policy 2 – Landscaping regs for residential may be politically difficult	We are striking this policy. See above.
Citizen comment on handout	Policy 2 – defensible space landscape	We are striking this policy. See above.
Citizen comment at meeting	Policy 2 – 4 tally marks for important, 3 tally marks for strike - HOA Lawn requirements - Burdensome on individual	We are striking this policy. See above.
<i>Water Conservation Through Landscaping Proposed Policy 3: Provide for the protection of and installation of native vegetation</i>		
Citizen comment at meeting	Policy 3 – 7 tally marks for important How much? Tree next to home with addition	Combine with Policy 1 and move to Long Range section to say: “Review the County’s existing Landscaping regulations for changes that would improve water conservation. Revisions should assess: e) Creation of differing standards for Mountain and Plains; f) Inclusion of and emphasis on native species in landscaping options; g) Protection of native vegetation, not just existing trees; and h) Limitations on turf areas.”
Citizen comment on handout	Policy 3 – How? Too Broad.	Combine with Policy 1. See above.
Citizen comment at meeting	Policy 3 – Landscape Plans = Water Usage Gray water – 5 tally marks Native species take a while to get going	Combine with Policy 1. See above.
Citizen comment on handout	Policy 3 – Fire fighting infrastructure	Combine with Policy 1. See above for language. Landscaping does need to account for wildfire hazards and firefighting infrastructure. Planning is involving the Fire Districts in this process to ensure this issue is addressed. The Board of County Commissioners is

		working with Planning, the Fire Districts and Emergency Management to further address wildfire hazards. Staff has added policies regarding on-site water supplies.
Citizen comment at meeting	Policies 3 and 4 are important. There should be a list of native species to allow in landscaping to conserve water.	Noted. Policies 3 and 4 have been combined with other policies, but continue to discuss native species.
<i>Water Conservation Through Landscaping Proposed Policy 4: Create an approved plant list to encourage native species and plants that use less water.</i>		
Citizen comment at meeting	Policy 4 – 5 tally marks for important, 2 tally marks for strike Provide some flexibility “encourage”	Combine with Policy 11 and move to Long Range section. Language will read: “5. Create an approved plant list that supplements the landscape regulation and evaluates landscape options based on: a) Soil types b) Water sources (wells vs. public water) c) Water requirements d) Climate zones e) Wildfire hazard”
Citizen comment on handout	Policy 4 important	Noted, this policy has been combined with Policy 11 and expanded. See above for language.
<i>Water Conservation Through Landscaping Proposed Policy 5: In the Mountain Ground Water Overlay District, any new developments served by groundwater should use plant materials that will not require irrigation once established.</i>		
Citizen comment on handout	Policy 5 – Broaden, not just ground water	Remove “...served by groundwater...” to read: “In the Mountain Ground Water Overlay District, any new developments should use plant materials that will not require irrigation once established.” Move to Development Review section.
Citizen comment at meeting	Policy 5 – 7 tally marks for important, * yes under strike column	This policy has been revised. See above.

Citizen comment at meeting	Policy 5 is important – “Established”	This policy has been revised. See above. When a plant is considered “established” will depend on the plant type. Until established some developments must hand water their landscaping. If landscaping on the approved plans die, it is a zoning violation, and the owner of the property would have to replace the dead plants.
Citizen comment at meeting	Policy 5 – collaborate on native plants that protect watershed	There is a proposed policy that addressed native plants. See the Long Range section.
Citizen comment at meeting	Policy 5 – All agree - critical, important with new development	Noted. This policy has been revised and added to Development review section.
Citizen comment at meeting	Policy 5 - Encourage no disturbance areas/ no build areas instead of designed landscape	Add a new policy, which reads, “In the Mountain Ground Water Overlay District, existing vegetation should be evaluated for whether existing landscaping should be a substitute for the landscaping required by the zoning.”
Citizen comment via email	<p>Policy 5 - Why limit this policy to Mountain Groundwater Overlay District and to groundwater? Shouldn't minimizing both groundwater and surface water for irrigation be applicable throughout the county? Although groundwater in the mountains is somewhat more problematical and shouldn't require irrigation.</p> <p>- Encourage use of plant materials that will not require or minimize irrigation once established. In the Mountain Ground Water Overlay District, any new developments served by groundwater should use plant materials that will not require irrigation once established.</p>	Agree, however, the plains areas do have capacity for some irrigated landscaping, so it seems most applicable to the mountain areas.

<i>Water Conservation Through Landscaping Proposed Policy 6: Limit turf areas associated with development. Create a standard for moderate and low water use turf. Areas of native or naturalized grasses should be exempt from these limits.</i>		
Citizen comment at meeting	Policy 6 – 6 tally marks for important	Noted. Combined this with Policies 1 and 3 and added to the Long Range section.
Citizen comment on handout	Policy 6 – Needs specifics or guidelines	We do not want to add a specific number into the comp plan, but it could be in the regulation update. Combined this with Policies 1 and 3 and added to the Long Range section. Also, added a policy about preserving existing vegetation to the Development Review section.
<i>Water Conservation Through Landscaping Proposed Policy 7: Streetscapes should utilize xeric plants over traditional turfgrass.</i>		
Citizen comment on handout	Policy 7 important	Noted. This policy has been added verbatim to the Long Range section.
<i>Water Conservation Through Landscaping Proposed Policy 8: Increase the percentage of landscape area that can be covered with non-living, permeable landscape material.</i>		
Citizen comment at meeting	Policy 8 – It is very important to limit impervious area. How much is allowed? Very interested.	Noted. This policy does not seem necessary, so was stricken. County regulations don't have limits on non-living landscape material.
Citizen comment at meeting	Policy 8 – How much is allowed? Very interested	This policy does not seem necessary, so was stricken. See above.
Citizen comment on handout	Policy 8 should be stricken, could drive up ground heat	Concern about ground heat is addressed in policy 6 under Water Conservation through Design. Policy 8 does not seem necessary, so was stricken. See above.

<i>Water Conservation Through Landscaping Proposed Policy 9: Encourage efficient irrigation systems that eliminate run-off from landscaped areas, use water efficient fixtures (such as rain sensors, master valves, and flow sensors), and incorporate non-potable water.</i>		
Citizen comment on handout	Policy 9 – require, do more than encourage irrigation timers that are not programmed correctly, “always” over water.	The Plan is an advisory document and therefore, we cannot use the words require, shall, must or similar language. The Plan can use verbs other than “Encourage”, like “Promote” or “Request” and several policies have been revised to use different words. The Plan can encourage a regulation to require irrigation timers and appropriate programming.
<i>Water Conservation Through Landscaping Proposed Policy 10: Water features should recycle water and be designed to reduce evaporation.</i>		
Citizen comment on handout	Policy 10 should be stricken – how do you do this? Water features can supply oxygen to fish and aquatic life?	Policy 10 has been stricken.
Citizen comment at meeting	Policy 10 - strike	Policy 10 has been stricken.
Citizen comment at meeting	Policy 10 should be stricken.	Policy 10 has been stricken.
Jefferson County Public Health	Policy 10 - It would be very beneficial to not allow water features anymore given the limited water availability. Even if water is recycled a fair amount is lost to evaporation and needs to be replenished.	Policy 10 has been stricken.
Citizen comment via email	Policy 10 - Not sure what water features all entail. For instance, is a pond a water feature? Ponds could be designed/located to enhance groundwater recharge. A fountain water feature not so much. Suggest clarifying what a water feature is. - Water features should recycle water and be designed to reduce evaporation. Discourage water features that do not have a beneficial effect on water conservation.	Policy 10 has been stricken.

<i>Water Conservation Through Landscaping Proposed Policy 11: Encourage landscape design that groups plant materials which require similar amounts of water to maximize irrigation efficiency.</i>		
Citizen comment on handout	Policy 11 – Require rather than encourage – add word “new”	Combine policy 11 with Policy 4 to focus on the plant list. Grouping plants with similar water requirements is already required in the Landscaping section of the Zoning Resolution (E.1.B.(1)).
Citizen comment on handout	Policy 11 – Brochure “Living with expansive soil”	Staff will convey this information to the Planner working on the updates to the Landscaping regulations.
<i>Water Conservation Through Landscaping other comments:</i>		
Citizen comment at meeting	Landscaping policies are generally irrelevant up in the Mountains when on wells.	Perhaps for residential development, but the County has landscaping requirements for all non-residential and multi-family developments in the Mountains, whether or not they are on wells. There are some different landscape standards included for the Mountain Ground Water Overlay District in this proposal. Also, in the Long Range section, a policy notes that when County Landscaping regulations are reviewed, revisions should address the differences between mountains and plains.
Citizen comment on handout	Resource – Irrigation.org – Irrigation Association	Thank you. This information looks more detailed than what would go into a Plan, but will be useful at the Regulation stage. Policy 9 addresses the need for more efficient irrigation systems. More specific standards can be added to regulations.
Citizen comment via email	People in the Mountain Communities (generally those of us over 6500 feet in elevation) do not really do “landscaping” like people in the metro areas. The people in the metro areas have sprinkler systems, and a supply of water that does not come from a well on their property, or a community well. The metro-people may	These policies would reinforce what is already being done. Additionally, for commercial areas the County requires the same type of landscaping in the mountains as it does in the plains, so it seems like there needs to be some differences in the commercial arena. Maybe education is more important for residential users.

	<p>be mandated to only run their sprinklers on certain days of the week, but they can water their beautiful lawns, and commercial places can water the areas in the parking lot and around their buildings which have lush greenery. This practice does not exist in the mountain areas – many of us do not, or may not be, allowed to even wash our cars. Because of the scarcity of water, if we want to wash our cars, we drive “down the hill” to a car wash.</p> <p>There is everything “right” about conserving water, and because of where we live, it just happens out of necessity – updating this part of the Master Plan for the Mountain areas just doesn’t apply to those of us who live here – suggest coming up with something that makes sense for the area.</p>	
Citizen comment on handout	Needs to be different between Flatlands/Plains and Foothills. How? And how to educate citizen and turnover of new residents.	<p>We have noted in the policy regarding regulation changes that there should be different standards for the Mountain and Plains.</p> <p>We have several policies about how to educate residents. County staff would like to start implementing some of those policies as resources are available.</p>
Citizen comment on handout	Consider defensible space, make sure landscaping is xeric and not a fire hazard.	A Plant list will not be created with the Comp Plan update, this policy will just create guidance for if the County creates a Plant list during a regulation update. Wildfire hazard has been noted as a factor to consider when creating that plant list.
Citizen comment on handout	Drought can be very localized, could be a drought on Lookout Mountain, but not in Evergreen	Noted.
Citizen comment on handout	Need to separate policies between Mountains and Plains. Can this be enforced?	Agreed. Yes, standards can be created for both.

Citizen comment at meeting	Consider the relationship between fire, landscaping, and water. (comment offered twice)	Agreed. Wildfire hazard has been noted as a factor to consider when creating an approved plant list.
Citizen comment at meeting	Well monitoring program Small water systems Centralized septic system Water quality testing	There are currently policies in the Plan that address ground water monitoring, centralized septic systems and water quality testing, they state “Encourage collection and analysis of data to evaluate the extent, availability, and quality of Ground Water resources in the Mountain Ground Water Overlay District.” And “Encourage connections to Centralized Water and Sewer Systems, when economically feasible, or necessary to protect human health or the environment.”
Citizen comment at meeting	Xeriscaping with areas where infiltration occurs, e.g. Swales.	Agree, xeriscaping should be emphasized in more areas.
Citizen comment at meeting	Educate on xeriscaping/conservation. Incentivize	Since xeriscaping is a way to conserve water, the following proposed policy covers this comment, “Collaborate with partners on water conservation education for residents and businesses about ways to conserve water in their homes and businesses.”
Citizen comment at meeting	Educate from bottom (elementary schools) to top (HOA’s & Government)	Add policy, “Coordinate with public educators to add water education to curriculum or assemblies.”
Citizen comment at meeting	Questionable benefits to low flow toilets	Fixture changes cannot be enforced by Planning & Zoning, that would be the purview of the Building Safety Division. This is why the Plan policies focus more on water conservation through landscaping and design; things that Planning has an ability to enforce.
Citizen comment at meeting	County could be an example for water smart streetscapes, capital projects	When the County’s new right-of-way improvement projects include landscaping, dryland seeded grass and xeriscape trees and shrubs are used. These may require some irrigation, but it is minimal.

<b>Water Conservation through Design Comments:</b>		
<i>Water Conservation Through Design Proposed Goal: Reduce end user water consumption in the County.</i>		
Citizen comment via email	Goal - Given the extent of individual wells in the mountain areas and that groundwater is a supply source, suggest that groundwater recharge be broken out from the water consumption goal with its own goal and related policies relocated under it. Goal: Encourage groundwater recharge and promote the protection of important groundwater recharge areas.	There are two policies in the Development Review section and one policy in the Long Range section that address recharge.
<i>Water Conservation Through Design Proposed Policy 1: Encourage development patterns and higher density, mixed use developments in appropriate locations that propose to incorporate water conservation measures.</i>		
Citizen comment on handout	Here's what we ought to do to achieve our goals: Policy 1 – holistic planning; smart meters – rationing Policy 3 – residential and commercial landscaping standards	Agree, however, since the County does not control any of the water supplies we would not be able to dictate smart meters or water rationing. The County can create better landscaping standards for residential and commercial uses. There is a new policy promoting this in the Long Range section.
Citizen comment on handout	Policy 1 should be stricken – Confusing?	Modify policy 1 to read: “Encourage development patterns, types and densities that minimize or reduce water use.” Add to the Development Review, Site Design policies.
Citizen comment on handout	Policy 1 – strike – high density leads to more parking lots and paved areas. High density does not equal low water use.	There was a study done that included water analysis of residential densities in Denver and Aurora, which showed that different densities use different amounts of water. Large single family and higher intensity multi-family uses tended to use more water, where smaller lot single family (5 dwellings per acres) to small scale multi-family (16 dwellings per acres) used less water, by up to 10 gallons per Capita per day. This study evaluated both indoor use only and indoor and outdoor uses.

Citizen comment on handout	Policy 1 – need to define this – maybe not high rise apartments, but cluster homes and having more of 5-7 du/ac.	Modify policy 1 to read: “Encourage development patterns, types and densities that minimize or reduce water use.” Add to the Development Review, Site Design policies.
Citizen comment via email	Policy 1 - Density in the appropriate locations will have a lower impact on the environment than low density. As the EPA has shown, low density causes more impervious surface in the area than higher density development. See: <a href="https://www.epa.gov/sites/production/files/2014-03/documents/protect_water_higher_density1.pdf">https://www.epa.gov/sites/production/files/2014-03/documents/protect_water_higher_density1.pdf</a> & <a href="https://www.epa.gov/sites/production/files/2014-04/documents/protecting-water-resources.pdf">https://www.epa.gov/sites/production/files/2014-04/documents/protecting-water-resources.pdf</a>	Thank you for citing these resources.
Citizen comment at meeting	Policy 1 – 4 tally marks for important Modifications: “Appropriate locations” = available water	Modify policy 1 to read: “Encourage development patterns, types and densities that minimize or reduce water use.” Add to the Development Review, Site Design policies.
Citizen comment via email	1. Higher density wouldn’t be appropriate for mountain areas. Simply stating “in appropriate locations” seems too nebulous. Maybe it should state in areas outside of the Mountain Groundwater Overlay District. Also it seems that development patterns should be separate from water conservation measures. There is a separate policy on conservation practices. Perhaps this policy should be narrowed to: - Encourage development locations, patterns, types and densities that minimize or reduce water use.	The proposed language seems like a good compromise – Modify slightly to read: “Encourage development patterns, types and densities that minimize or reduce water use.”
Citizen comment at meeting	Encourage lower density development	Modify policy 1 to read: “Encourage development patterns, types and densities that minimize or reduce water use.” Add to the Development Review, Site Design policies.

Citizen comment at meeting	Well Monitoring	There is an existing policy that discusses well monitoring, “Encourage well owners to regularly measure the static water level in their well to establish a baseline level.”
Citizen comment at meeting	Create overlay district	There is the Mountain Ground Water Overlay District that contains different standards for adequate water demonstration in the mountain areas served by a well.
Citizen comment on handout	Policy 1 – Do we know how well water conservation measures really work?	Studies show reductions in water use of anywhere from 15% - 63% after conservation measures were put into effect.
<i>Water Conservation Through Design Proposed Policy 2: Encourage low water demand uses in areas served by an individual or community well.</i>		
Citizen comment on handout	Goal and Policies 2-7 and 10 are important	Noted. Policies 3 and 5 are proposed to be stricken. See reasons below.
Citizen comment at meeting	Policies #2, #5 & #6 are important	Noted.
Citizen comment at meeting	Policy 2 - 5 tally marks for important, 1 tally mark for strike with caveat: May be different if an OW Keeping water there on site	Modify to say, “In areas served by an individual or community well, emphasize low water demand uses.”  There is an existing policy that discusses how ground water recharge should be in the same general area from where the water is withdrawn.
Citizen comment on handout	Policy 2 – important, require	Noted. The Comp Plan is not a regulatory document and therefore, cannot “require”, but we did change “encourage” to “emphasize”.

<p><i>Water Conservation Through Design Proposed Policy 3:</i>  <i>Encourage water conservation practices for existing and new developments, including, but not limited to:</i></p> <ul style="list-style-type: none"> <li>- <i>Efficient water fixtures and appliances</i></li> <li>- <i>Landscape design</i></li> <li>- <i>Irrigation technology and performance</i></li> <li>- <i>Water efficient processes and equipment</i></li> </ul>		
Citizen comment on handout	Policy 3 – important, require	After rearrangement of other policies, this seemed redundant and was stricken.
Citizen comment on handout	Policy 3 – Most of us already do this.	Great! This policy was stricken. See above.
Citizen comment at meeting	Policy 3 - 6 tally marks for important	See above. This policy was stricken.
Citizen comment on handout	Policy 3 – Can the fixtures be altered by taking out “low flow” parts and how could anyone know if this were done? One think for a development to start out with these but what happens when they need to be replaced? Who would “police” all this?	See above. This policy was stricken.
<p><i>Water Conservation Through Design Proposed Policy 4:</i>  <i>Review and revise, as appropriate, the standards of the various zoning districts to ensure they are consistent with promoting water efficient development.</i></p>		
Citizen comment at meeting	Policy 4 - 5 tally marks for important	Noted.
Citizen comment on handout	Policy 4 – Strike – Who does this?	It would have to be P&Z evaluation working with water providers and DOWR.
Citizen comment at meeting	Policy 4 – modify to add working with water providers	Modify to say: “Work with water providers and the Division of Water Resources to review and revise, as appropriate, the standards of the various zoning districts to ensure they are consistent with promoting water efficient development.” Add to Long Range section.

<p><i>Water Conservation Through Design Proposed Policy 5: Quantify the effect of changes in land use and development (e.g., increases in impervious surfaces, changes from agricultural to residential land uses) on groundwater recharge in both rural and urbanized areas of the watershed and disseminate the information to decision makers.</i></p>		
Citizen comment at meeting	Policy 5 - 5 tally marks for important More Info = Good	Noted.
Citizen comment on handout	Policy 5 – Strike – Who pays for this? Impervious surfaces can be high maintenance and “plug”, i.e. not work over time.	Strike. The County does not currently have the resources to do this, however, this policy came from the El Paso County Water Plan, so we will monitor what they do.
Citizen comment via email	Policy 5 – should be stricken - This sounds like you would change classifications for current Domestic wells to household wells.	See above.
Citizen comment on handout	Policy 5 - Great! How? Can I/Citizens help?	This policy was stricken.
<p><i>Water Conservation Through Design Proposed Policy 6: Follow best management practices to maximize aquifer recharge, including supporting the use of greenway corridors, the maintenance of drainage ways in their natural state, and the avoidance of large amounts of impervious cover for recharge areas.</i></p>		
Citizen comment at meeting	Policy 6 - 6 tally marks for important Who is determining “best management practices”?	Staff would review information from the EPA and the Mile High Flood Control District.
Citizen comment via email	Policy 6 - Suggest instead of stating the worst case to be avoided, state what should be achieved. - Follow best management practices to maximize aquifer (is this term synonymous with groundwater?) recharge, including supporting the use of greenway corridors, the maintenance of drainage ways in their natural state, and avoiding or minimizing impervious cover for recharge areas.	Modify language as suggested, to say: “Follow best management practices to maximize ground water recharge, including supporting of greenway corridors, maintaining drainage ways in their natural state, avoiding large amounts of impervious cover for recharge areas, and using swales or other landscape treatments that facilitate recharge.”
<p><i>Water Conservation Through Design Proposed Policy 7: Evaluate cluster development as a water conservation strategy.</i></p>		
Citizen comment at meeting	Policy 7 - 7 tally marks for important Near available water- water service district	Strike, add “water conservation” to existing policy regarding clustering in Site Design element of the Development Review section.

Citizen comment at meeting	Policy 7 – encourage clustering if there are benefits such as allowing more land to be undisturbed	See above. There are an existing policies that outline some of the benefits – visual impacts, protection of sensitive lands, efficient distribution of services.
Citizen comment via email	Policy 7 – should be stricken - Cluster Development can only work with the appropriate infrastructure or roads that will feed into or out of Cluster developments, this is not always an option in the foothills	See above, this will be stricken. There are existing policies that goes into more detail about cluster development.
Citizen comment on handout	Policy 7 – tough – I think this may be in the good news/bad news category	See above, this will be stricken.
<i>Water Conservation Through Design Proposed Policy 8: Promote rainwater capture as allowed by law.</i>		
Citizen comment at meeting	Policy 8 - 7 tally marks for important	This will be added to the Long Range section.
Citizen comment on handout	Policy 8 – consequence – help drought proof supply. Modify – encourage reservoir construction - Lower Beaver Brook	There is already Water Storage section of policies in the Development Review section that discusses reservoirs.
<i>Water Conservation Through Design Proposed Policy 9: Encourage swales in landscaped areas to allow water recharge, rather than berms.</i>		
Citizen comment at meeting	Policy 9 - 4 tally marks for important, 3 tally marks for strike Too in the weeds?	Combine with Policy 6. This is very specific and similar to what is discussed in Policy 6.
Citizen comment via email	Policy 9 - Don't limit water recharge techniques to just swales. Also I'm not clear on why it is implied swales good, berms bad. Some berms could be used to direct runoff into swales. - Encourage techniques such as swales in landscaped areas to allow water recharge.	See above.

Citizen comment on handout	Policies 9 and 10 - Just do it!	Noted.
<i>Water Conservation Through Design Policy 10: Encourage porous concrete or permeable pavers for sidewalks and parking areas in important recharge areas.</i>		
Citizen comment at meeting	Policy 10 - 6 tally marks for important, 1 tally mark for strike Who decides what's an important area? Reduce solar radiation on asphalt	The geography of an area would determine whether or not it is an important recharge area.
Citizen comment on handout	Policy 10 – strike – parking areas can freeze and cause problems – studies have proven this. If kept, modify so not applicable in the mountains.	Modify Policy 10 to add: “Efficacy of these systems should be evaluated in mountain areas due to more and longer freeze times.”
Citizen comment on handout	Policy 10 – freezes in winter in the mountains	See above.
Citizen comment via email	Policy 10 - Seems like it would be beneficial to encourage porous concrete or permeable pavers in general not only in important recharge areas. - Encourage porous concrete or permeable pavers for sidewalks and parking areas, especially in important recharge areas.	Agree with modification. This has been changed.
<i>Water Conservation Through Design other comments:</i>		
Citizen comment on handout	Need incentives for replacing fixtures in smaller districts or on a well.	Agree, however, the County does not have jurisdiction over smaller districts. This could be a part of a future outreach/education program.
Citizen comment at meeting	All concepts important but a lot of public education will be necessary	Agree, Staff is working on a basic educational program in cooperation with other agencies.
Citizen comment at meeting	Currently, there are not enough education programs about water use and ways to reduce	Agree, Staff is working on a basic educational program in cooperation with other agencies.

<p>Citizen comment at meeting</p>	<p>Encourage water metering and monitoring</p>	<p>There are existing policies that address some monitoring, “Encourage well owners to regularly measure the static water level in their well to establish a baseline level.” and “Encourage collection and analysis of data to evaluate the extent, availability, and quality of Ground Water resources in the Mountain Ground Water Overlay District.”</p> <p>The Conifer Plan specifically states, “The Hydrologic Conditions and Assessment of Water Resources in the Turkey Creek Watershed, Jefferson County, Colorado, 1998 - 2001 should be continued and extended for as much of the Plan area as possible. The results and recommendations of current water studies should be reviewed for possible inclusion in the Plan. The community should participate in future water studies.”</p> <p>Staff proposes to add: “Partner with Public Health and community groups that want to monitor wells for water quality and/or quantity to establish consistent methodology.”</p>
<p>Citizen comment at meeting</p>	<p>Consider a rate increase for water if water use exceeds a set threshold</p>	<p>The County does not establish rates for water use, that is done by individual districts or companies providing water service.</p>
<p>Citizen comment at meeting</p>	<p>Can Jeffco improve water conservation methods as a government? Does the facilities master plan have water efficiency goals? Other methods? -For example, why does Highway 73 have curb and gutter? Shoulder and ditch design would promote water recharge and is less expensive.</p>	<p>Jefferson County has a Sustainability Program and a Sustainability Coordinator. One of the focus areas for 2020 will be water conservation. While no significant changes were made in 2019 regarding water conservation, it has been addressed in previous years. The 2018 Sustainability Report notes that both indoor and outdoor water use at the size main campus buildings</p>

		<p>has decreased from 2006 to 2018 by up to 612,000 gallons per year. Water conservation efforts include fixture upgrades, irrigation controls, and xeriscaping.</p> <p>At the intersection of Hwy 73 and North Turkey Creek Road, the County used curb and gutter to help drivers recognize they are entering the roundabout causing them to slow down. Overall curb and gutter helps control speed and improves safety at the roundabout intersection. The curb and gutter at this location quickly transitions back to a shoulder and ditch past the intersection.</p>
Citizen comment at meeting	Design on slowing water down for recharge	Current detention pond design requirements do hold the water in a large storm event so that it is released at the same rate as it flowed off the property prior to development. This may allow for some recharge.
Citizen comment via email	<p>This particular section of the Master Plan is again, nonsensical for the Mountain areas. First, because of the water source (fractured bedrock), there is no such thing as “design” of things for water conservation – there isn’t enough water for designing. I’m not intending to argue with the purpose of the Plan – water conservation is important everywhere, but the Plan should reflect the geography of Mountain Communities – conservation is a must here, but talking about design to people does not resonate with people up here.</p> <p>And, more importantly, there should be no references in your Plan regarding higher density housing – high density housing does not exist in the mountain areas, and should never be allowed to exist. Referring to that type of housing in a Plan update for the mountain areas sounds like it is not forbidden – the Plan is giving permission to</p>	<p>While some residents in the mountains may already conserve water, the commercial businesses are required to meet the same standards as plains developments. While this plan covers all of unincorporated Jefferson County, not just the Mountain areas, staff has added policies to distinguish the mountains from the plains.</p> <p>There is existing higher density housing in some of the Mountain areas. It offers a different housing choice and staff has received comments that it offers the ability for people that have lived up in the mountains to stay in the mountains as they age, it allows service workers to live closer to their work, and it allows the adult children, who may have been raised in the mountains, to find entry level housing.</p>

	develop high density housing as long as the “design” of such a development adheres to the Plan.	There was a study done that included water analysis of residential densities in Denver and Aurora, which showed that different densities use different amounts of water. Large single family and multi-family uses tended to use more water, where smaller lot single family (5 dwellings per acre) to small scale multi-family (16 dwellings per acre) used less water, by up to 10 gallons per capita per day. This study evaluated both indoor use only and indoor and outdoor uses.
Citizen comment via email	Add a Policy 11 - The County should identify, monitor, and protect important recharge areas in mountains.	An existing policy in the Long Range section addresses defining and protecting recharge areas.
Citizen comment via email	Add a Policy 12 - The County should incorporate effects of potential drought conditions and climate change into their evaluation of the adequacy of existing and future groundwater supplies to support new development.	An existing policy in the Long Range section has been modified to incorporate considerations of climate change and drought into data collection and analysis.
Citizen comment at meeting	Questions about how thresholds or standards are decided and who decides that	Thresholds or standards would be taken from research for each specific topic.
Citizen comment on handout	Needs to be a process that reinforces with each sale.	One of the existing Long Range policies has been modified to talk about distributing information to inform residents about water issues.
<b>Water Reuse Comments:</b>		
<i>Water Reuse Proposed Goal: Increase water reuse to better optimize available water supplies.</i>		
Citizen comment on handout	Goal is important (1 cmmts)	Noted. Added to Long Range section.
<i>Water Reuse Policy 1: Support efforts by water providers to effectively and environmentally implement potable and non-potable water reuse, including augmentation.</i>		
Citizen comment on handout	Policy 1 is important (2 cmmts)	Noted. Added to Long Range section.

Citizen comment on handout	Policy 1 – Toughest on all 4 pages	Noted. Added to Long Range section.
<i>Water Reuse Proposed Policy 2: Encourage re-use of treated wastewater for irrigation and other acceptable uses when feasible.</i>		
Citizen comment on handout	Policy 2 is important (2 cmmts)	Noted. Added to Long Range section.
<i>Water Reuse Proposed Policy 3: Consider opportunities to demonstrate the benefits of using non-potable sources of water and to dispel negative attitudes.</i>		
Citizen comment on handout	Policy 3 is important (2 cmmts)	Noted. Added to Long Range section.
<i>Water Reuse Proposed Policy 4: Encourage land uses which accommodate the reuse of water including capture of non-consumptively used water within the basin and the use of reclaimed water for irrigation, within legal parameters and providing that water quality is maintained.</i>		
Citizen comment on handout	Policy 4 is important (1 cmmt)	Noted. Added to Development Review section.
<i>Water Reuse Proposed Policy 5: Support plans for the siting of additional treatment plants or modification of existing facilities to allow for more effective use of non-potable water and to promote plans for responsible aquifer recharge.</i>		
Citizen comment on handout	Policy 5 is important (1 cmmt)	Noted. Added to Development Review section.
Citizen comment on handout	Policy 5 – Treatment Plants don't always operate as they should (Conifer example) and spend years in default – how can we rectify that?	This is outside the scope of what this update is reviewing. Planning & Zoning does not have oversight over Special Districts once they are formed.
<i>Water Reuse Proposed Policy 6: Consider allowing higher residential densities for new developments, in appropriate locations, where such developments will be served by water providers that are optimizing their supplies through established reuse and conservation measures.</i>		
Citizen comment on handout	Policy 6 should be stricken (1 cmmt)	Noted – combine with policy regarding density from Conservation through Design sheet and add to Development Review section. Language would read: “Encourage development patterns, types and densities that minimize or reduce water use.”

<i>Water Reuse Proposed Policy 7: Explore options for the use of non-potable water and further research into the use of reclaimed and renewable water.</i>		
Citizen comment on handout	Policy 7 is important (1 cmmt)	Noted, combined this policy with an existing policy in the Long Range section regarding water reuse.
Citizen comment on handout	Policy 7 - A number of these are state controlled – how do we interact and have a positive effect?	True. There are policies the discuss coordination with a variety of other entities in the Long Range section.
<i>Water Reuse Other comments:</i>		
Citizen comment via email	<p>Again, a great idea – reuse of water. Water providers – again, many water providers are the residents themselves probably make this a good practice.</p> <p>And again, the Plan – “Consider allowing higher residential densities for new developments, in appropriate locations, where such developments will be served by water providers that are optimizing their supplies through established reuse and conservation measures. “</p> <p>Again, totally inappropriate to appear to give permission for higher density developments – for the Mountain Communities, higher density housing developments should never be considered, or mentioned – these developments are not appropriate for Mountain areas.</p> <p>You have heard from others in the Community who may have echoed some of these same thoughts. I speak for myself here – my own opinion. There should be a separate Master Plan (call it a “Sub-Plan”) for the Mountain Communities, reflecting the insistence of developments that are not high density, with “suggestions” reflective of the uniqueness of the Mountain Communities – not lumped in with a metro</p>	<p>Agree, water reuse is important.</p> <p>The policy regarding density has been modified and combined with the policy regarding density from the Conservation through Design sheet to say, “Encourage development patterns, types and densities that minimize or reduce water use.”</p> <p>There are some higher density developments in the mountain areas. Higher density is not appropriate in all mountain areas, but may be appropriate in some areas. It really does need to be determined on a case-by-case basis and not with an all encompassing policy as initially proposed, so that policy is proposed to be modified as noted in the paragraph above.</p> <p>With any new development in the Mountain Ground Water Overlay District, the County conducts a Water Availability Analysis to determine if there is adequate legal and physical water.</p> <p>There are separate plans with specific land use recommendations for the Mountain areas. And even within the Mountains there are different Area Plans because the character of the mountain areas differ from</p>

	Denver Plan. Perhaps this Sub-Plan should be more of a grass roots effort, and provide better guidance for the evaluation of projects presented to Planning.	place to place. To account for these differences, there are 5 different mountain Plans. Those Plans give specific density recommendations based on the constraints in the areas. What we are working on now, are the general Water policies in the Comprehensive Master Plan, so these will apply to all areas of unincorporated Jefferson County.
<b>Coordination and Outreach Comments:</b>		
<i>Coordination and Outreach Proposed Goal: Develop and maintain partnerships and joint outreach programs with water providers.</i>		
Citizen comment on handout	Goal is important (1 cmmt)	Noted. This goal will be expanded and will become a policy in the Long Range section.
Citizen comment via email	Many mountain residents are on individual wells and don't have a water provider, but would benefit from educational outreach programs on water conservation that could be developed and promoted through a variety of partners. Consequently, the goal seems too narrowly defined by only considering water providers. Perhaps expand.  Develop and maintain partnerships and joint outreach programs with water providers, Jefferson county municipalities and other entities with water /hydrologic expertise and common water education goals (e.g. USGS, CSU Extension Office, CO Universities, Water Education Colorado).	This is a good point and appreciate the suggested language, this seems more like a Policy now, so it will be added as a policy to the Long Range section.
<i>Coordination and Outreach Proposed Policy 1: The County should engage with water providers to share issues of mutual concern on a periodic basis and work collaboratively to address long-term water supply concerns.</i>		
Citizen comment on handout	Policy 1 is important (1 cmmt)	Noted.
Citizen comment on handout	Policy 1 – include citizens?	This policy was intended to just be the County and water providers.

<i>Coordination and Outreach Proposed Policy 2: Create a list of water providers by Area Plan.</i>		
Citizen comment on handout	Policy 2 is important (1 cmmt)	Noted.
<i>Coordination and Outreach Proposed Policy 3: Encourage continued collection and analysis of data for the purpose of better determining the extent and availability of groundwater.</i>		
Citizen comment on handout	Policy 3 is important (1 cmmt)	Noted.
Citizen comment via email	3. Suggest that the analysis should include trends; that another purpose is to forecast; and that surface water extent/availability changes also, particularly with climate change and droughts. - Encourage continued collection and analysis of data for the purpose of better determining the extent and availability and trends of groundwater and surface waters and forecasting future extent and availability considering climate change effects and potential drought conditions.	This is a good point and appreciate the suggested language.  There was an existing policy very similar to this language, so Policy 2 of the Long Range section, Water element, Ground Water, has been modified to include some of the proposed concepts.
<i>Coordination and Outreach Proposed Policy 4: Work with the CSU Cooperative extension to create a Xeriscape program to educate residents about the benefits and proper maintenance of low water use landscapes.</i>		
Citizen comment on handout	Policy 4 is important (1 cmmt)	
Citizen comment on handout	Policy 4 – may work in flatlands – but in mountain areas?	This could work both in Mountains and Plains. The policy talks about xeriscaping, which could mean plants that need some minimal irrigation, to plants that solely rely on precipitation.
<i>Coordination and Outreach Proposed Policy 5: Coordinate with water providers on water conservation education for residents and businesses about ways to conserve water in their homes and businesses.</i>		
Citizen comment on handout	Policy 5 is important (1 cmmt)	Noted.

Citizen comment via email	5. Broaden to all potential partners not just water providers. - Coordinate with partners on water conservation education for residents and businesses about ways to conserve water in their homes and businesses.	This is a good point and appreciate the suggested language.  Policy language has been updated in draft.
Citizen comment on handout	Policy 5 – New residents may need this most, could HOA’s help distribute?	Yes, policy has been broadened to say “partners” rather than “water providers”. Additionally, another Outreach policy has been modified to include community groups and citizens as distributors of information.
<i>Coordination and Outreach Proposed Policy 6: Landscaping regulation updates should be complemented by an education program for residents, developers and builders to maximize the potential of water-conserving landscape design.</i>		
Citizen comment on handout	Policy 6 is important (1 cmmt)	Noted.
<i>Coordination and Outreach Proposed Policy 7: Encourage special districts to include water conservation measures in their utility master plans.</i>		
Citizen comment on handout	Policy 7 is important (1 cmmt)	Noted.
<i>Coordination and Outreach Proposed Policy 8: Support implementation of water provider conservation projects.</i>		
Citizen comment on handout	Policy 8 is important (1 cmmt)	Noted.
<i>Coordination and Outreach Proposed Policy 9: Support appropriate efforts by water providers to incorporate drought conditions in their supply and demand forecasts in providing future and existing water supplies.</i>		
Citizen comment on handout	Policy 9 is important (1 cmmt)	Noted.
Citizen comment on handout	Policy 9 – storage helps drought-proof service area. Examine storage possibilities in Jeffco and Open Space.	There are existing policies regarding Water Storage in the Development Review section, Infrastructure, Water and Services element. Those are included in Draft 2.

<i>Coordination and Outreach Other comments:</i>		
Citizen comment on handout	Should have a booklet like the one regarding landscaping and expansive soils for water conserving landscaping.	This is a good idea, but may be better accomplished with the landscaping regulation updates, so that any new standards can be clarified.
Citizen comment via email	<p>There is nothing wrong with “outreach and coordination” – in other words, educating people on the idea of water conservation. Again, the vast majority of the people in the mountain area (there, of course, may be exceptions) already understand water conservation. These are “water providers” are not be commercial operations, but the residents themselves because the water provided comes from a well on their own property, not some municipal water operation, like those in the Denver Metro area.</p> <p>Requiring water providers with incentives to provide proof to the authorities and the public would be beneficial to all of us – punishment if they do not provide the information may also be an incentive – if a resident is provided water from a commercial provider, then public information provided to residents should be required. The “suggestions” in a Plan, while admirable, need more imperatives than are currently in the Plan – most providers will ignore the points. But, based on the meeting, and others with whom I’ve spoken, JEFFCO has little, or no authority to require water providers to adhere to the Plan.</p> <p>Bottom line – not sure, again, this part of the Plan is apropos to the Mountain areas.</p>	<p>It seems like this is still important in the Mountains as new people move up there and there is turnover of existing houses. This education and outreach should be expanded beyond water providers.</p> <p>There are also Area Plans as a part of the Comprehensive Master Plan that address more specifics in individual areas. With this update, we are reviewing the policies that apply to the entire County, not just the Mountain Areas.</p>
Citizen Comment	Let the community help with outreach and education.	An existing Outreach policy has been modified to include community groups and citizens.

Citizen comment via email	Education could offer large benefits in terms of water conservation. Perhaps educating people on the watershed we are in, the history of development of our water resources, and other pertinent facts about our watershed, water infrastructure, and water use would be helpful. I found it interesting to see that Coloradans use 50% more water than our neighbors in Nebraska: <a href="#">County Water Use Map</a> . (Also interesting, though more complicated, is water use by country: <a href="#">Country Water Use</a> . And another educational tool I found interesting, yet aimed towards Nebraska is this site: <a href="http://plattebasintimelapse.com/">http://plattebasintimelapse.com/</a> )	This is great information and tools to use as we develop an education program. Thank you.
<b>Other Comments Regarding Proposed Water Policies:</b>		
Citizen comment on handout	Have one map that shows all water providers	Agree, the County is working on this.
Citizen comment via email	Just a general comment on the updates regarding water policies. Water is going to be a limiting factor as population continues to grow in Jeffco and the metropolitan area. We must start strongly encouraging water conservation among all users. We also need to monitor both recharge and our aquifers to know whether or not our wells are drawing down our aquifers and if we will be facing water shortages in the future.	Agree, these are the big reasons behind updating the Water Policies. We did modify an existing policy regarding collection and analysis of data to include looking at trends and future extent and availability considering climate change effects and potential drought conditions.
Citizen comment via email	One more idea would be to protect space along our waterways as much as possible. Golden's Clear Creek is very popular with the citizens of Jefferson County, and it would be great to have more land along Clear Creek, and our other waterways protected and kept as open space. This would help the watershed, and public appreciation of our water resources.	There are a couple of policies in the existing Site Design policies that discuss protecting drainageways, those can be viewed in Draft 2 Development Review section. There are also policies in the Physical Constraints section of the Plan that discuss preserving floodplains.

Elk Creek FPD	In the interest of public safety and for fire and life safety purposes we believe that Fire Districts, Jefferson County and potential developers should plan to provide adequate fire protection water supplies for all new development. The minimum requirements should be a part of the Comprehensive Master Plan to provide notification to potential developers so they can plan accordingly during their due diligence and design stages. These requirements are based on the International Fire Code (which has been adopted by Jefferson County) and National Fire Protection Association Standards. These requirements are currently enforced by all fire districts in Jefferson County. I believe it would benefit everyone to add these requirements into the Comprehensive Master Plan to insure that the development process goes smoothly from the very beginning, with no surprises.	Thank you for your comments. We have updated the policies regarding Wildfire. We did have some existing policies that we have modified and then we have added two policies as well. We are hesitant to add language specifically referencing the IFC and NFPA standards since the Plan is an advisory document.
Elk Creek FPD	The four proposed policies do not include fire protection water supplies. I would suggest that a policy be developed regarding fire protection water supplies.	Modify existing language in the Wildfire Section to read: "Encourage effective alternative on-site water supplies, such as <del>ponds</del> , cisterns and residential sprinkler systems for fire protection in developments without fire hydrants."
Elk Creek FPD	The Comprehensive Master Plan, Site Design Policies, page 30: I would suggest that a general item be added: "Request that the Fire District's review proposals for site design that is consistent with the requirements of the International Fire Code, including access and fire protection water supplies".	The County does not get site plans with rezoning cases, so many of these items cannot be addressed at the time of rezoning. There is language from the 2003 Plan that will address many of the Fire District's suggestions within the limitations of the rezoning process. It will be added to the Services Policies. Language would read: "2. Fire protection providers should be referred New Development proposals for compliance with their standards. This review should include an assessment of the:

		<p>a. Adequacy of the proposed water supply and water storage facilities;</p> <p>b. Accessibility, adequate access and egress, to the site for emergency vehicles;</p> <p>c. Capacity of the personnel and equipment to serve the development; and</p> <p>d. Developer’s fire reduction program when the site has a wildfire hazard.”</p>
Elk Creek FPD	The Comprehensive Master Plan, Wildfire Policies, page 37. I would suggest revising #8: “For commercial and multi-family residential developments fire protection water supplies shall be provided in accordance with the International Fire Code. For single family residential developments without fire hydrants fire protection water supplies shall be provided in accordance with the International Wildland Urban Interface Code”.	See above. The proposed policy discusses how fire protection providers should assess adequacy of proposed water supply.
Elk Creek FPD	The Comprehensive Master Plan, Water & Wastewater, page 49, I would suggest adding a sentence: “The adequacy of fire protection water supplies shall be determined by the fire protection district”.	See above. The proposed policy discusses how fire protection providers should assess adequacy of proposed water supply.
Citizen comment via email	1. The mixed geographical and demographic features of Jefferson County — specifically, cities utilizing community drinking water / sewer systems contrasted with smaller mountain communities with residences typically equipped with well & on-site wastewater treatment systems while local commercial centers rely on special utility districts for water and sewer services — clearly necessitate a bi-furcation of land use policy when developing policies for water usage, wastewater treatment, fire protection, emergency medical services, and emergency evacuation services	<p>A proposed policy in the Long Range section proposes different landscape regulations for mountains and plains. The current Mountain Ground Water Overlay District also provides different regulations for the mountain areas served by a well.</p> <p>The Plan gives general policies that would apply to the entire County and it contains Area Plans that give different policies depending on geographic region. These Area Plans provide policies regarding water, wastewater, fire protection, and emergency services. Emergency</p>

	<p>planning. RECOMMENDATION: The Board of County Commissioners (BCC) should use the intersection of the Jefferson County Mountain Ground Water Overlay District and the Wildfire Zone — generally, the areas west of the C-470 / C-93 north-south corridor — as the basis for development of a land use policies that are differentiated between the mountain and non-mountain communities.</p>	<p>evacuation planning may need to be addressed, but that is not within the scope of this update.</p>
<p>Citizen comment via email</p>	<p>2. Single-family residences within the Conifer / South Evergreen rely entirely on drinking water from groundwater is withdrawn from a local fractured crystalline rock aquifer while wastewater treatment is provided by an on-site wastewater treatment system. Commercial centers within these same communities provide drinking water and wastewater treatment service to their commercial customers from centralized special utility districts. There is reliable empirical evidence that the water table beneath the fractured crystalline rock aquifers at both the commercial centers and in a number of residential areas has been continuously declining due to withdrawal, treatment, but then discharged to surface into either North Turkey Creek or South Turkey Creek. Additionally, mountain community centralized drinking water / wastewater treatment systems — Conifer Metropolitan District, Aspen Park Metropolitan District, and Conifer Sanitation Association — have all failed to provide utility services in conformance with EPA / CDPHE water quality regulations (please see, <i>Conifer Metropolitan District - Violations 1-1-20</i>, attached. RECOMMENDATIONS: The BCC should adopt the specific drinking water / wastewater utility related recommendations described in <i>Recommendations for Rezoning in the Mountain Groundwater Overlay</i></p>	<p>See below under the comments from the Conifer and South Evergreen Community Committee for the response to the Recommendations in the two documents referenced.</p>

	<i>District 7-8-2019, attached, and Analysis of the Previously Proposed Conifer Heights PD 1-10-20, attached.</i>	
Citizen Comment via email	<p>3. Fire protection and emergency medical services are provided to both residential and commercial areas by local fire protection districts while emergency evacuation services are provided by the Jefferson County Sheriff. However, within the Conifer / South Evergreen communities the danger due to wildfire is extreme in most areas while the resources available to fire protection districts are modest relative to the potential losses. However, when proposed high-density, multi-family construction projects are evaluated, it becomes clear that fire protection districts are outmatched when asked to defend these developments. RECOMMENDATION: The BCC should adopt the specific fire protection related recommendations described in <i>Recommendations for Rezoning in the Mountain Wildfire Zone 1-10-20</i>.</p>	<p>These recommendations pertain more to addressing the wildfire hazard rather than water issues. While we understand that water is needed to fight wildfires, the County has been undergoing separate discussions with the Fire Protection Districts in order to address wildfire. Elk Creek Fire Protection District did have some specific recommendations related to water supply for firefighting purposes that were addressed above.</p>
Conifer and South Evergreen Community Committee	<p>Recommended Rezoning Requirements — Within the District, any rezoning application requiring the utilization of a Public Water Treatment Facility or a Domestic Wastewater Treatment Facility, the applicant shall provide Planning &amp; Zoning documentation showing completion of the listed studies, tests, and plans:<sup>3</sup></p> <ol style="list-style-type: none"> <li>1. Groundwater Contamination Study - All potential groundwater contamination sources must be identified: <ul style="list-style-type: none"> <li>• A comprehensive search must be performed of pertinent federal, state, and county records for all mitigated and unmitigated contamination sites which may influence the proposed development.</li> <li>• The potential public health impacts of identified contamination sites must be determined by, in</li> </ul> </li> </ol>	<p>These recommendations would be better addressed during a regulation update. Currently, water quality is addressed during a Plat or SDP. However, in rare cases, there may be a rezoning that does not trigger a subsequent process. For those cases, it would be good to have the ability to request the Well Water Supply Report outlines in the Land Development Regulations (LDR) at the time of rezoning.</p> <p>An Environmental Questionnaire and Disclosure is required with a rezoning or special use application. The Questionnaire asks about underground storage tanks, storage of pesticides and herbicides, and hazardous or dangerous chemicals stored.</p>

	<p>accordance with applicable ASTM standards, a qualified professional licensed in the State of Colorado.</p> <ul style="list-style-type: none"> <li>• A plan for mitigating the potential public health and safety impacts of identified contamination sites must be developed by, in accordance with applicable ASTM standards, a qualified professional licensed in the State of Colorado.</li> </ul> <p><i>Footnotes can be found in the original document submitted.</i></p>	
<p>Conifer and South Evergreen Community Committee</p>	<p>2. Calculation of Water Supply Requirements - On-site water supply requirement calculations must include an adequate margin:</p> <ul style="list-style-type: none"> <li>• Well capacity required to meet the gallons per capita per day ("gpcd") indoor water demand for the proposed development must be determined using the design values of a 90 gpcd<sup>4</sup> per residential dwelling unit ("DU") utilizing a 3 person average occupancy.<sup>5</sup></li> <li>• Water demand for each proposed outdoor use must be calculated for inclusion in the total water demand determination using industry standard water usage values according to the specific use-case.<sup>6</sup></li> <li>• Water demand for each proposed commercial building must be calculated for inclusion in the total water demand using industry standard water usage values specific to the use-case.<sup>6</sup></li> <li>• In the case where a value for average day demand is determined, this value must be increased by a factor of safety between 1.5 and 2.5 to reflect the variability in water usage.<sup>7</sup></li> </ul> <p><i>Footnotes can be found in the original document submitted.</i></p>	<p>These recommendations are very specific and would be better addressed during a regulation update.</p>

<p>Conifer and South Evergreen Community Committee</p>	<p>3. Determination of Water Supply Sufficiency - On-site water supply sufficiency must be determined in a rigorous manner:</p> <ul style="list-style-type: none"> <li>• A Water Availability Analysis (WAA) localized for the proposed development site must be used to evaluate the regional sufficiency of the groundwater resource to meet water demands.</li> <li>• Variable rate testing must be performed by pumping new production wells at no fewer than three discharge rates, evenly distributed over the anticipated range of pumping in normal operation, each lasting no less than 60 minutes.</li> <li>• Constant rate testing must be performed by pumping new production wells at a constant rate for a duration of, without interruption, not less than 24 hours with a constant discharge rate of +/- 5%. Water levels must be measured for a minimum of two hours prior to the start of the test, throughout the testing period, and for a minimum period of 48 hours following cessation of pumping.</li> <li>• In order to determine potential interference with existing wells surrounding the proposed development site, water levels must be measured in all existing wells within a 600 foot radius on the same schedule as the pumping well. If wells within 600 feet either do not exist or are inaccessible, a revised radius of 800 feet must be used to ensure that at least two wells, in addition to the pumping well, are monitored prior to, during, and following the test, in accordance with the above-described schedule.</li> </ul>	<p>Analyzing water on a watershed sub-basin level is the County's chosen approach to the WAA since water does not respect property boundaries.</p> <p>Staff has received recommendations from the Colorado Geologic Survey about potential changes to LDR Water Supply section. Changing to a 24-hour pump test is one of those recommendations. This will need to be analyzed by staff during a regulation update process.</p> <p>Making a development proposal contingent upon the ability of an applicant to obtain information from a neighboring property owner seems like it could put the decision making ability on a case in the hands of a property owner, not through analysis done by the Board of County Commissioners.</p>
<p>Conifer and South Evergreen Community Committee</p>	<p>Drinking Water Treatment Utility Plan - When new infrastructure is required, a Colorado Department of Public Health and Environment (CDPHE) approved utility plan that demonstrates compliance with Colorado State</p>	<p>These recommendations are very specific and would be better addressed during a regulation update.</p>

	<p>Regulation 11 must be submitted, addressing at a minimum, the following plan elements:</p> <ul style="list-style-type: none"> <li>• Site characterization including: Hydrogeological conditions; weather conditions; flood plains and wetlands; wildlife and habitats; air quality; and historical sites.</li> <li>• Groundwater quality testing and characterization in accordance with Regulation 11.</li> <li>• Groundwater quality assurance in accordance with EPA guidelines for Indirect Potable Reuse systems.<sup>8</sup></li> <li>• Proposed treatment plant processes, infrastructure, sizing, and staging.</li> <li>• Management and financial plans.</li> </ul> <p>When existing infrastructure will be utilized, the current utility plan must be updated through CDPHE processes in order to ensure adequate infrastructure to handle the proposed increase in capacity and groundwater quality assurance in accordance with EPA guidelines for Potable Water Reuse systems.</p> <p><i>Footnotes can be found in the original document submitted.</i></p>	
<p>Conifer and South Evergreen Community Committee</p>	<p>5. Wastewater Treatment Utility Plan - When new infrastructure is required, a CDPHE approved utility plan that demonstrates compliance with Colorado State Regulation 22 must be submitted, addressing at a minimum the following plan elements:</p> <ul style="list-style-type: none"> <li>• Site characterization including: Hydrogeological conditions; weather conditions; flood plains and wetlands; wildlife and habitats; air quality; and historical sites.</li> <li>• Groundwater quality testing and characterization in accordance with Regulation 22.</li> <li>• Groundwater quality assurance in accordance with EPA guidelines for Indirect Potable Reuse systems.</li> </ul>	<p>These recommendations are very specific and would be better addressed during a regulation update.</p>

	<ul style="list-style-type: none"> <li>• Proposed treatment plant processes, infrastructure, sizing, and staging.</li> <li>• Management and financial plans.</li> </ul> <p>When existing infrastructure will be utilized, the current utility plan must be updated through CDPHE processes in order to ensure adequate infrastructure to handle the proposed increase in capacity and groundwater quality assurance in accordance with EPA guidelines for Potable Water Reuse systems.</p>	
Conifer and South Evergreen Community Committee	Rezoning Pre-application Submittals — When a rezoning application meeting the above criteria is in the pre-application phase, the applicant must submit to the County for public review and comment at least two weeks prior to any scheduled community meeting, final versions of the pertinent Groundwater Contamination Study, Calculation of Water Supply Requirements, and Determination of Water Supply Sufficiency. Additionally, preliminary versions of the Drinking Water Treatment Utility Plan and Wastewater Treatment Utility Plan must be submitted.	This type of detail should not be required with a pre-application. The pre-application process is intended to be a quick and easy process to get an idea of what the big issues are and whether staff thinks the proposal complies with Plans and Regulations. If an applicant decides to move forward with a formal application, then water information is required.
Conifer and South Evergreen Community Committee	Rezoning Application 1st Referral Submittals — When a rezoning application meeting the above criteria is submitted, in addition to currently required 1st referral phase submittals, for example, a completed ODP, the applicant must submit for public review and comment, final versions of the pertinent Groundwater Contamination Study, Calculation of Water Supply Requirements, Determination of Water Supply Sufficiency, Drinking Water Treatment Utility, Plan, and Wastewater Treatment Utility Plan.	See comments above regarding these additional documents. This would be better addressed through a regulation update.
Conifer and South Evergreen Community Committee	Introduction — Recent rezoning applications before the Jefferson County Planning & Zoning Division1 (“the Division”) have brought into clear focus the need to adhere to best industry practices whenever a	These recommendations pertain more to addressing the wildfire hazard rather than water issues. While we understand that water is needed to fight wildfires, the County has been undergoing separate discussions with

	development project is proposed for construction within a Jefferson County Mountain Community Wildfire Zone2 (“a Wildfire Zone”). In offering these specific recommendations, concerned members of the Conifer and South Evergreen community seek to improve the processes utilized by the Division to evaluate land use proposals within a Wildfire Zone and, additional, we seek to ensure that future processes are sufficiently rigorous to be protective of the health, safety, and welfare of both existing and future community residents.	the Fire Protection Districts in order to address wildfire. Elk Creek Fire Protection District did have some specific recommendations related to water supply for firefighting purposes that were addressed above.
Citizen comment at meeting	Is there accountability?	Accountability for what?
Citizen comment at meeting	Stronger words than encourage, incentivize is better	We have evaluated the policies that used encourage for stronger, more specific words and made changes where appropriate.
Citizen comment at meeting	Water districts – What is their role?	Water Districts have been informed of this proposed update and should comment on the proposed policies.
Citizen comment at meeting	Highlight success stories – Genesee/Evergreen	Agree.
Citizen comment via email	There are more critical concerns of adequate engineering analysis and adequate evaluation of the impact to our community that should be addressed in the Comprehensive Plan revisions.	Many of these concerns need regulatory fixes or a program set up for water monitoring.
Citizen comment via email	Declining water levels in the aquifer impose like hazards as a drought. If measures are not taken to immediately assess the ground water conditions and development continues at the rate at which Jeffco has permitted, I fear the next wildfire will have great human cost and economic devastation to our community.	The County is not currently in the financial position to start new programs, however, we may be able to support interested community groups in monitoring wells. We have added a policy to this effect in the Long Range section. We also have modified the existing policy regarding collection and analysis of ground water data. The County will also continue to evaluate the potential for grants to address water issues, like we did with the

		recent grant to review our water policies, regulations and water availability analysis (WAA) from the Sonoran Institute.
Citizen comment via email	The environmental consequences of aquifer mining cannot always be easily rectified. Ground water monitoring provides a means of timely detection and enhances the possibility of effective mitigation. But there is insufficient data available to evaluate how aquifer water levels are responding to increased development in the Conifer area. It is not reasonable to believe that Jeffco is able to protect our supply so that the quantity and quality of our water resource are sustained without adequate data to rely upon.	See above.
Citizen comment via email	Are aquifer ground water levels declining? [More information regarding this question provided in the comments.] <b>Conclusion:</b> Water levels in the bedrock aquifer are likely declining at an unknown rate and over an unquantified extent in the Conifer area. To the extent that aquifer mining is occurring, it is unreasonable to assume that the aquifer will continue to yield a reliable supply for current or future residents. In the absence of adequate data, it is reasonable to be concerned that current levels of ground water pumping may be unsustainable. It is my opinion that Jeffco approval of additional development resulting in greater demands on an aquifer potentially already endangered, and in the absence of a quantitative determination of the current ground water conditions, is unwise.	<p>The County does not currently have the resources to start a ground water monitoring program. We did receive a grant to have an independent review of our policies, regulations and water availability analysis. We have received that report and will be implementing changes as appropriate. For example, the report pointed out some current inconsistencies between the Plan policies and the regulations that are being addressed in this update.</p> <p>There are policies in the Long Range section that discuss monitoring and data collection, so if resources become available, they could be used to support such a program.</p>
Citizen comment via email	Is the Aquifer Water Quality Being Degraded? [More information regarding this question provided in the comments.] It is my understanding that CMD has also been permitted to discharge to an unnamed creek tributary to Turkey Creek. <sup>23</sup> The CMD surface water	The County does not currently have the resources to create a program to evaluate water quality. There are policies that discuss water quality and identification of contamination and mitigation, so if the County does have

	<p>discharge permit has no limitations for TDS or total coliform and so CMD is not considered to be in violation of that permit, yet clearly the surface water quality is degraded as a consequence of CMD's actions. Because Turkey Creek may be experiencing lessened flow rates, as is presumably the case on nearby tributaries, and at times, potentially contemporaneous with receipt of CMD discharge water (which has now been shown to be of a quality unacceptable for discharge to the aquifer), it is likely that when there is surface water, it is likely insufficient to dilute the CMD discharge water concentrations and the impact to the Creek and shallow ground water.<sup>24</sup> Is there an opportunity or responsibility for Jeffco to impose more stringent criteria on CMD's discharge to the surface water system to compensate for that not imposed by CDPHE? It is not known if water quality sampling along Turkey Creek is conducted by CDPHE or Jeffco Public Health, or compliance monitoring by CMD is required to demonstrate that its operations are not degrading the Creek water quality beyond that permitted.<sup>25,26</sup> It is not known if other constituents in the CMD discharge water unquantified as a consequence of exclusion from the analyte list, are also degrading the quality of the surface water and ground water system. It is unknown<sup>27</sup> if the Colorado Division of Wildlife has a role in demanding threshold water quality criteria for wildlife beyond the CDPHE permitted levels.<sup>28</sup></p> <p><b>Conclusion:</b> It appears that degradation of the ground water and surface water quality is occurring at least in portions of the Conifer area. I consider the effects of CMD practices to not be far different than the "cesspool on Grandpa's farm" to which Jeffco points as something of the past.<sup>32</sup> Similar to the noted deficiency in water level monitoring data, the extent to which known and</p>	<p>resources in the future, or finds a grant that could help, they could be used to support some type of program.</p>
--	--	---

	<p>unknown sources of contamination impact the aquifer and streams appears to be unquantified based on the Homestead Water Company’s recent realization of excess chloride concentrations in its supply water, and CMD’s continued practices known to result in discharge of inadequately treated water to the aquifer and to the surface water system, and violation of drinking water standards in its supply. Because Conifer Heights (CH) has already acquired some approval from Jeffco, it may be developed at a future time.<sup>33</sup> However, development of CH at any scale in the absence of a robust, defensible analysis showing that the nearby Aspen Park Superfund CT plume presents zero risk to CH, and likewise, CH pumping presents zero risk of compromising EPA’s 25-year (and ongoing) cleanup action to not result in re-contamination of the aquifer should be a mandatory next step in permitting. Reasonably, in future applications, this should be a necessary first step so that Jeffco does not waste resources evaluating applications that have ignored proximity<sup>34</sup> to a Superfund site, as one example. <i>Footnotes can be found in the original comments.</i></p>	
<p>Citizen comment via email</p>	<p>The following recommendations are offered, among others from the Conifer area that have been already communicated to Jeffco on prior occasions, that seek to protect our aquifer, and help us sustain our sole mountain water supply. Like many other cities, counties and entities responsible for securing reliable water supplies, Jeffco too should contract with a water resources consultant to complete a detailed plan to secure a reliable water supply for the future. I recommend that Jeffco review El Paso and Elbert counties’ plans.</p>	<p>See above. The County does not have the resources to create a program.</p>

	<ol style="list-style-type: none"> <li>1. Request available data from area water providers. Indian Hills Water District, for instance, has shared its data in the past as may have others. Acquire all CDWR data for Conifer area permitted wells at the time of drilling. Organize all available ground water data (supply and quality related) into a Jeffco-maintained database.</li> <li>2. Survey area landowners to assess potential impacts to the aquifer and streams regarding historic versus current conditions. Landowners may be a great source of anecdotal information to establish a strategic starting point for monitoring locations.</li> <li>3. Resurrect monitoring at wells formerly used for previous studies.</li> <li>4. Complete streamflow surveys and conduct sampling and gaging of area streams.<sup>49</sup></li> <li>5. Collect ground water level data at several monitoring wells throughout the area on a quarterly basis for a period of at least two years. Select appropriate water quality analytes for a subset of the locations/sampling events.</li> <li>6. Perform pumping tests and tracer tests in the area for increased understanding of the fracture flow system building on the 2003 USGS analysis.</li> <li>7. Update the 2003 USGS conceptual model and update the 2003 Colorado School of Mines (VanderBeek) ground water flow model<sup>50</sup> with additional collected/acquired data.</li> <li>8. Use the calibrated model to predict impacts to the aquifer and streams that guide future development which will sustain the water supply and water quality.</li> <li>9. Continue monitoring to corroborate strategic modeling results and identify impacts early enough to mitigate.</li> </ol> <p><i>Footnotes can be found in the original comments.</i></p>	
--	---	--

Citizen comment via email	We suggest the underlying assumptions of the WAA analysis be revisited, in consultation with experts in the field of groundwater resources (e.g. the Colorado Geological Survey and others involved in the investigation and development of the resource) such that the tool yields a reliable assessment of the ability of the resource to sustain contemplated development.	Because of a grant from the Sonoran Institute, the WAA has been evaluated by an independent reviewer. Since the WAA is a model that is not dictated by regulation, the County can more easily update the parameters that go into the model. The County is in the process of reviewing the report and determining next steps.
Citizen comment via email	The determination of the required well capacity (to meet day-to-day demand) for a project should parallel the analysis of sufficiency of supply, including an upward adjustment in the estimate of average demand to reflect the uncertainty inherent in average values and incorporate a margin of safety as is common in sound engineering design of water supplies. In the case where a value for average day demand is determined, this value should be increased by a factor of between 1.5 and 2.5 to reflect both the uncertainty in the estimate and the variability in water use from day to day, week to week, and month to month. This is standard engineering practice. A design based on average day demand is likely to fail.	This specificity would be better addressed in a regulation update.
Citizen comment via email	We suggest well testing for a community groundwater supply should consist of at least one step-drawdown test having the following attributes: <ul style="list-style-type: none"> <li>- Pump well at no fewer than three discharge rates, approximately evenly distributed over the anticipated range of pumping in normal operation, each lasting no less than 60 minutes;</li> <li>- Measure water levels in the pumping well for at least 60 minutes prior to pumping, through the pumping period, and for at least 60 minutes following cessation of pumping.</li> </ul>	This specificity would be better addressed in a regulation update. See also page 32 of this document for response to some of these suggestions.

	<p>A constant rate well test having the following attributes:</p> <ul style="list-style-type: none"> <li>- duration not less than twenty-four hours (without interruption);</li> <li>- constant discharge (within +-5%) during the testing;</li> <li>- water levels measured for not less than two hours prior to the start of the test, through the testing period, and for a period of not less than 48 hours following cessation of pumping in the pumping well unless 90 percent recovery is achieved before then;</li> <li>- water levels measured in all wells within a 600 foot radius on the same schedule as the pumping well. If wells within 600 feet either do not exist, or are inaccessible, a revised radius of 800 feet should be used such that at least two wells besides the pumping well are monitored prior to, during and following the test according to the above-noted schedule.</li> </ul>	
Citizen comment via email	The County's review must consider both quantity and quality of the water supply in the early stages of review.	Since many water quality issues can be addressed with a treatment option, it seems more applicable to review water quality with the plat or SDP stage. If one of those processes will not be required, then it would make sense to do that analysis with a rezoning. It is not appropriate to require water quantity or quality information with a pre-application.
Citizen comment via email	<p>The water decrees associated with a proposed development in the fractured rocks often specify that the non-consumed portion of pumped water be returned to the fractured rocks to partially offset the impact of the pumping.</p> <p>Whereas the County closely regulates the separation between a homeowners domestic supply well and their onsite wastewater disposal system, we are not aware of similar requirements for separation of a community</p>	Noted. This is a question for Jefferson County Public Health. If more information is obtained, we will revise this document.

	groundwater supply from the community wastewater disposal system. We believe there may be an ongoing impact to the drinking water supply at the CMD precisely because of this practice.	
Citizen comment via email	The Aspen Park Solvent Site has been a documented US Environmental Protection Agency (EPA) Superfund site for 25 years and groundwater remains contaminated at levels far exceeding the drinking water Maximum Contaminant Level standard. This site is located approximately one-half mile from Conifer Heights (CH), and less than one mile from CMD's water supply. The County should develop a database of known and suspected contaminated sites so that the environmental and human health risk associated with permitting a new development can be adequately evaluated. The database could be constructed using existing EPA and CDPHE data, and supplemented with County information.	The Plan contains a policy in the Long Range section, under Water Quality that says, "Identify existing water contamination sources and mitigate or eliminate them."
Citizen comment via email	I recently did a trial of UrbanFootprint, and created a map that I feel would be of educational use (see attached). It shows the floodplains of Jefferson County and the surrounding area. A map like this could help educate on where our waters come from and go to. (And additionally could help start a process of education for protecting and transforming floodplains into protected parkland.)	Thank you for this information for future educational programs. The County does have access to floodplain maps and they are shown on Jmap and in the Comp Plan's Floodplains and Hazards maps. However, that does not show them in context with the surrounding jurisdictions. Jmap has some context, but not as broad a scope as the maps attached to these comments show.
Citizen comment via email	I am very supportive of any efforts to encourage water conservation in planning activities. That includes encouraging landscaping, building, and surface choices to conserve water, and encouraging research into and the use of techniques to recycle and/or reuse water.	Noted.