

Draft – Plan Report Version 2 Comment and Version 3 Change Log – July 16, 2018

#	Comment	Location in Version 2 Report	Commentee	Comment Method	AW Response/Change Made in Version 3 Report	Change Made for Version 3 Report?
1	Keep a log of changes to document comments and responses.	Miscellaneous	Clint Dawson, Bill Moriarty	6/5 Task Force Meeting	Done for V3 and will continue for subsequent versions	No
2	<p>Reclaimed Water is a identified Water Supply strategy in Water Forward. Austin Water has developed a significant infrastructure to distribute reclaimed water. Even though the system has been in place for a number of years, I am surprised (disappointed) at how little reclaimed water that Austin Water is selling. I think this is a vastly underutilized asset. Austin Water has spent lots of money installing reclaimed water infrastructure but have only secured 35 customers utilizing approximately 4000 Acre-Feet per Year.</p> <p>Even though reclaimed water rates have risen steeply in recent years, it is still a tremendous value compared to potable water. My concern is that Austin Water is not doing enough to work with customers to educate them on the financial and environmental benefits with making the switch.</p> <p>I think as part of Water Forward we need to develop a better strategy for encouraging customers to convert from potable water, particularly with air conditioning chillers and landscape irrigation requirements. We should also develop measurable goals for developing reclaimed water customers, with the ultimate goal of minimizing the use of potable water for non-potable purposes. Maybe even a commitment to converting to reclaimed water over a specified time period.</p>	Overall Plan Recommendations	Bill Moriarty	Body of Email	<p>The draft plan report has been updated to reflect that the reclaimed water program currently has more than 120 metered customers.</p> <p>Yes – with significant expansion of the centralized reclaimed water being a recommended strategy in the Water Forward plan, in the implementation phase Austin Water will lead efforts to develop strategies to achieve the yields envisioned in the plan including new ways to encourage customers to utilize reclaimed water.</p> <p>One of the plan recommendations is to expand the current reclaimed water connection requirements, which would include a stakeholder process. Evaluation is planned to include refinement of ordinance scope, applicability, location in code, and enforcement considerations.</p>	Yes
3	<p>I am generally opposed to two of the identified Water Supply strategies, those being “Distributed Wastewater Reuse” and “Wastewater Scalping (Sewer Mining)”. I will explain my reasoning.</p> <p>Modern wastewater utilities always try to minimize the numbers of treatment facilities, concentrating these treatment activities to a couple of key plants, as Austin has correctly done. Recognize that Austin occasionally inherits small plants through the process of annexation, which they continue to operate, but it is not something that they advocate.</p> <p>The reason for this concentration of treatment activities is normally it is much cheaper to treat wastewater in a large plant versus multiple small plants, and the attendant staff has all the correct professionals on site to watch over the physical, chemical and biological processes. Many other reasons that I will not dwell on include security, safety, better treatment levels and less neighborhood impact.</p> <p>These two proposed options will attempt to proliferate small wastewater treatment plants. I am totally against this. I am also concerned that siting one of these plants will create severe neighborhood uproar. There is a much easier solution. Expand the reclaimed water system. It will generally be cheaper to extend pipelines to distribute reclaimed water than to encourage small plants, and accomplish the same result.</p>	Overall Plan Recommendations	Bill Moriarty	Body of Email	<p>These are valid concerns. Although there are at least some drawbacks associated with every option, Water Forward developed a planning framework that allowed assessment of the trade-offs associated with all options. One of the goals of the Water Forward plan is to develop more diversified supplies for the future, which both options help do. As costed for the integrated water resource plan, the Distributed Wastewater analysis has a similar unit cost to expanding the centralized reclaimed system, and the Sewer Mining option may be beneficial for areas which for some reason may not be able to feasibly connect to the centralized reclaimed water system.</p> <p>Conceptually, these options are not envisioned to be broadly applied strategies. These are envisioned to be more site-specific applications especially in locations where constraints for centralized service may exist. During the implementation process, site specific opportunities can be identified. It is anticipated that technologies may improve over time, which may lead to less complicated systems and greater public acceptance.</p> <p>The drawbacks included in the comment, although initially considered at the strategic planning-level as part of the Water Forward planning process, will be assessed in more detail as part of the next (implementation) phase of the IWRP. Protecting public health and safety is paramount.</p>	No
4	<p>I am opposed to the Water Supply strategy entitled “Indirect Potable Reuse”. This option required the transfer of wastewater effluent from SAR to Lady Bird Lake, and ultimately brought through to the Ulrich Water Treatment Plant. Here are my reasons. Even though the Water Forward report cites one city (Wichita Falls) that is doing this, this is a city with very severe water shortage, and this move was done out of desperation. In my opinion we do not understand what’s really in wastewater from a chemical constituent basis, particularly pharmaceuticals, and to introduce this into are drinking water would be irresponsible. Needless to say we will not be able to remove these more exotic constituents, since we generally do not know they are there and have no ability to test for them. Secondly, the City of Austin has done a great job of keeping effluent from many upstream, small wastewater plants from discharging into the Highland Lakes. Obviously once the City of Austin begins putting their own effluent in the lake, many others will quickly follow. This would be a very bad development</p>	Overall Plan Recommendations	Bill Moriarty	Body of Email	<p>These are valid concerns. Although there are at least some drawbacks associated with every option, Water Forward developed a planning framework that allowed assessment of the trade-offs associated with all options. One of the goals of the Water Forward plan is to develop more diversified supplies for the future, which this option helps do. This option was identified as a deep drought strategy that would potentially be used if combined storage in lakes Travis and Buchanan would drop to less than 400,000 AF (~20%).</p> <p>The drawbacks included in the comments, although initially considered at the strategic planning-level as part of the Water Forward planning process, will be assessed in more detail as part of the next (implementation) phase of the IWRP. Different configurations of this option could be evaluated that could seek to minimize potential impacts. The implementation phase will also include public outreach, seeking public input, and research on other communities that may be using this type of deep drought strategy to learn from others. Protecting public health and safety is paramount.</p>	No

Draft – Plan Report Version 2 Comment and Version 3 Change Log – July 16, 2018

#	Comment	Location in Version 2 Report	Commentee	Comment Method	AW Response/Change Made in Version 3 Report	Change Made for Version 3 Report?
5	I would like to see a strong statement on “Regionalization”. I realize there is language in the report about regional cooperation, but this relates to Region K regional water planning, which we are already doing, and in fact we are required to do. But I would like us to consider the regional development of projects, like ASR. Spread the risk and the cost.	Overall Plan Recommendations	Bill Moriarty	Body of Email	Austin Water will plan to continue to be open to exploring partnership opportunities and continue to work to protect the City’s interests in these pursuits. Through the Water Forward process regional aspects of the plan have been identified and incorporated in the plan recommendations. Options that increase potential for local control and use of local resources have also been recommended, in alignment with plan objectives.  Text referring to potential for regional partnership strategies to be considered when implementing water supply options was expanded/added in Sections 7.2.14, 9.1.1, and 9.1.2.	Yes
6	Solar Power. Austin Water is the largest user of electricity in the City. I would like to see Austin Water conduct a feasibility study to generate their own solar power, which of course would help address costs of water conveyance and treatment. Austin Water has vast acreage (not including the BCCP) that could support the development of solar power. I am suggesting this development on top of whatever Austin Energy is doing to develop solar power.	Overall Plan Recommendations	Bill Moriarty	Body of Email	This can be discussed. Austin Water has efforts underway and is open to exploring options to increasing its use of solar power. Austin Water is currently exploring the potential for expanding its use of solar and cogeneration and is in discussions with Austin Energy. Austin Water does have solar power being generated for use at the Glen Bell Service Center and Austin Water’s Hornsby Bend facility’s power demand is largely offset through on-site cogeneration. Austin Water has Green Choice energy.	No
7	ASR. In the paragraph that describes what ASR is, the report indicates that water would be taken from the water distribution system and injected underground. State law requires that the water be treated to drinking water standards prior to injection. But there is no mention in the report about treatment post ASR.  My suggestion is we use Water Plant 4 to treat water before and after ASR. This could be accomplished by a two way pipe. Obviously this may be a long pipe depending on the location of the ASR well field, but much cheaper than introducing another water treatment plant. Austin Water has an over capacity for water treatment capacity and this would allow us to more efficiently use this asset.	Overall Plan Recommendations	Bill Moriarty	Body of Email	This can be discussed. In the implementation phase, various configurations of the required ASR systems will be analyzed. The concept is to store treated potable water in the aquifer and then bring it back out when needed and deliver that water back to the potable water system. In the project planning and preliminary engineering phase, additional treatment requirements for the stored potable water being withdrawn from the aquifer will be examined and evaluated.	No
8	Add an outline of what’s to come at the end of each section.	General Report Comments	Clint Dawson	6/5 Task Force Meeting	Staff will work on this for Version 4 of the report.	Pending
9	Create a page of technical definitions and acronym descriptions.	General Report Comments	Bill Moriarty	6/5 Task Force Meeting	List of acronyms included, will develop glossary for future version.	Pending
10	Bill Moriarty general redline/grammatic edits	General Report Comments	Bill Moriarty	Copy of Report	Various edits made. Staff is working on improving additional graphics and maps, will plan to include in V4.	Yes
11	Don’t use acronyms if something is only mentioned twice.	General Report Comments	Lauren Ross	6/5 Task Force Meeting	Staff working to address this for Version 3 and future versions.	Yes
12	Work on “un-burying” the capture local inflows in to Lady Bird Lake option.	General Report Comments	Jennifer Walker	6/5 Task Force Meeting	Edits have been made to address this comment.	Yes
13	Uneven quality of writing. In particular the early chapters need more editing than later chapters.	General Report Comments	Lauren Ross	Body of Email	Staff working to address. Additional smoothing will be planned for V4.	Yes
14	The figures and communication of data needs help, could you get a communications consultant or a data visualization expert, or someone who knows how to use Tableau? I think it could really help more of this make sense	General Report Comments	Zach Baumer	Body of Email	Austin Water staff is working with the AW Public Information Office to produce materials that are more accessible to all audiences. Additional graphics will be added to report with V4	Pending
15	Include Maddaus Water Conservation Study as appendix to Draft Plan Report and reference in body of the report	General Report Comments	Lucia Athens	Body of Email	Reference to report and link have been added.	Yes
16	Lauren Ross general redline/grammatic edits	General Report Comments	Lauren Ross	PDF Comments Sent Via Email	Various edits made.	Yes
17	Resist acronyms. There should be some rule along the lines of: only if used more than 10 times in a document. Otherwise your reader doesn’t remember what they mean.	General Report Comments	Lauren Ross	PDF Comments Sent Via Email	Staff worked to address for Version 3 and will continue to address for subsequent versions as needed.	Yes
18	Bring this in at the beginning [refers to the IWRP mission statement]	General Report Comments	Lauren Ross	PDF Comments Sent Via Email	Section moved.	Yes

Draft – Plan Report Version 2 Comment and Version 3 Change Log – July 16, 2018

#	Comment	Location in Version 2 Report	Commentee	Comment Method	AW Response/Change Made in Version 3 Report	Change Made for Version 3 Report?
19	2025 Goals -- SMART goals (specific, measurable, achievable, realistic and timely) for 2025. I think it is important in any ambitious, long-range plan to have near-term goals within a relevant policy lifetime (a council member's tenure or a GM's tenure) that can keep the community bought-in that the implementing entity is on track to realize its vision. As best I can tell, right now we have some annualized goals for onsite water capture, water conservation through irrigation reductions, etc. What would be hugely useful for the implementing task force, council and AWU is to have a 2025 target for how much water will have been captured or offset through conservation by that year (so basically just summing the annual projections for relevant categories into a total by 2025). This should be accompanied by a commitment to measure, monitor and report these figures to the public, ideally in an annual report that will help everyone stay on top of what's happening before we get to 2025. I think this will also be helpful to AWU as it will spur movement up the learning curve on how to track performance against long-term projections for distributed and demand-side options.	General Report Comments	Sharlene Leurig	Body of Email	<p>AW staff is supportive of the concept of tracking this type of information as part of plan implementation.</p> <p>As part of the Task Force discussion at the April 19th Task Force meeting, water savings estimates from demand management options were presented, by year, for the interval between the Water Forward Plan's 2020 and 2040 planning horizons and are at: <a href="http://www.austintexas.gov/edims/document.cfm?id=297285">http://www.austintexas.gov/edims/document.cfm?id=297285</a>. As part of the plan's implementation phase, this type of information could serve as the basis for near-term goals to be further developed and discussed. (These projections did not include demand management savings from AMI, Water Loss Control –Utility-Side, and CII Ordinances. The estimates presented were noted to be subject to change dependent on many factors including growth rates, development trends, specific ordinance and program design, etc.)</p> <p>As with the Implementation Outlook and Adaptive Management Plan, Austin Water sees the more detailed refinement of the yield projections between the Water Forward planning horizons of 2020 and 2040 as being part of the implementation phase.</p>	No
20	Financing options: As Bill discussed in his comments, it is important to recognize the need to capture as many low-cost financing opportunities as possible in implementation of this plan, including SWIFT and SRF as well as potentially WIFIA. Given the importance of distributed capture and conservation in this plan, PACE (Property Assessed Clean Energy) is an important financing vehicle that can allow property owners to get quick payback on water-saving elements of the plan without Austin Water having to front the financing, and should be discussed. As should (briefly) the opportunity for onsite systems to be financed by third-party providers also capable of managing those systems through long-term water purchase agreements.	General Report Comments	Sharlene Leurig	Body of Email	<p>Recommendation item added to new Section 9.2.2.</p> <p>Case studies describing financing options used by other utilities and that could be considered as financing mechanisms for projects included in Water Forward are planned to be included as a companion to the Implementation Outlook and Adaptive Management Plan. Discussion of PACE and SWIFT opportunities for onsite systems to be financed by third-party providers also capable of managing those systems through long-term water purchase agreements will likely be discussed as part of those case studies.</p> <p>SWIFT funding will likely be considered as a financing option. However, this type of detail is planned to be addressed in the implementation process. SWIFT funding has been applied for and approved by TWDB for Austin's AMI project and a number of reclaimed water projects.</p>	Yes
21	Discussion of future planning efforts expanding supply risks to include non-climatological variables like land use change and groundwater production in basins of significance to our water supply catchment area including Barton Springs Edwards Aquifer and the tributaries to the Highland Lakes. This comment should also discuss the importance of future efforts exploring opportunities for City of Austin and/or Austin Water Utility to proactively protect its water supply watersheds through tools like land conservation and groundwater pumping forbearance agreements like those that San Antonio has implemented in the contributing and recharge zones to its portion of the Edwards Aquifer.	General Report Comments	Sharlene Leurig	Body of Email	<p>One of the plan recommendations discussed in the report focuses on broadening AW's understanding of basin-wide issues, including both upstream and downstream issues. This recommendation includes broadening our understanding of factors affecting our regional water supplies and watersheds, such as the non-climatological variables mentioned, like land use change and groundwater production in basins of significance to our water supply catchment area including Barton Springs Edwards Aquifer and the tributaries to the Highland Lakes. The wording for this recommendation was expanded to include reference to exploring opportunities for Austin Water to protect its water supply watersheds through tools like land conservation and other potential measures.</p> <p>Note too that through its Wildland Conservation Division, Austin Water manages ~28,000 acres of Water Quality Protection Lands and ~14,000 acres of Balcones Canyonland Preserve endangered species habitat land.</p>	Yes
22	Discussion of future planning efforts better quantifying the energy tradeoffs or implications of different options, recognizing Austin's commitment to a low-carbon future. (This came up a bunch with the Joint Sustainability Commission and I think is recognized in the energy intensity evaluation metric we developed for Water Forward).	General Report Comments	Sharlene Leurig	Body of Email	<p>Energy trade-offs between options were examined as part of this planning effort through the Minimize Net Energy Use sub-objective, which ranked portfolios that used less overall annual energy (for treatment, transmission, etc.) higher than those that used more. The Implementation Outlook and Adaptive Management Plan includes 5-year updates of the IWRP, which provides the opportunity for even more in-depth analysis of energy trade-offs and interaction with Austin's commitment to a low-carbon future.</p>	No

Draft – Plan Report Version 2 Comment and Version 3 Change Log – July 16, 2018

#	Comment	Location in Version 2 Report	Commentee	Comment Method	AW Response/Change Made in Version 3 Report	Change Made for Version 3 Report?
23	I agree with Bill's comments to discuss regional efforts to develop centralized infrastructure more specifically.	General Report Comments	Sharlene Leurig	Body of Email	See response above - Text referring to potential for regional partnership strategies to be considered when implementing water supply options was expanded/added in Sections 7.2.14, 9.1.1, and 9.1.2.	Yes
24	Readability is challenging, seems editorial. Should make more declarative statements and try to be more direct.	Section 2-Introduction	Chris Herrington	6/5 Task Force Meeting	Edits have been made to this section to address this comment. Additional edits can be made in future draft, as needed.	Yes
25	Include more about climate change.	Section 2-Introduction	Sarah Richards	6/5 Task Force Meeting	Additional content about various aspects of climate change have been added, especially in the two appendices, D and E regarding climate change analysis and water availability analysis	Yes
26	Make the case for why we need the plan.	Section 2-Introduction	Jennifer Walker	6/5 Task Force Meeting	Content added to address this comment, additional content can be added in future drafts, as needed.	Yes
27	Broaden section 2.1 to include mention of Austin's Watershed Protection Department and other players; highlight the "integrated" nature of plan.	Section 2-Introduction	Sarah Richards	6/5 Task Force Meeting	Text added to introduction section to address this comment including new Section 2.3.	Yes
28	Add language explaining how we are sometimes willing to pay more for a supply if that supply will be very firm during drought.	Section 2-Introduction	Lauren Ross	6/5 Task Force Meeting	Trade-offs between options, including their relative cost, were assessed as part of the portfolio evaluation process. Comparing various portfolios allows assessment of their performance against many objectives (including cost and reliability) to identify a portfolio that can meet water supply reliability goals and balance the other objectives in a relatively cost-effective manner.	No
29	Under paragraph 2.2 I would suggest that we add some further discussion about the drought. The drought was made more severe by a significant management breakdown which resulted in LCRA sending large quantities of raw water downstream for rice irrigation in 2011. LCRA made two major water releases during this year to gain cash influx from their interruptible customers. Further we should comment that the City has worked hard to address this problem and has worked with LCRA and TCEQ to development new rules that would prevent LCRA from releasing water when lake levels are down or droughts are looming. Think we need to put this in report so we do not make this mistake again.	Section 2-Introduction	Bill Moriarty	Body of Email	Content added to address this comment, additional content can be added in future drafts, as needed.	Yes
30	Page 2-2 – I don't think the 98 <sup>th</sup> meridian is an actual geologic dividing line. It's a human created line that approximates the division of more and less than 30 inches of rain and the meridian isn't moving, and I'm not even sure the amount of precipitation is expected to change that much, its just going to be HOT. We even say this on page 6-2, long term average annual precipitation is not expected to change. I'd replace this sentence with something else.	Section 2-Introduction	Zach Baumer	Body of Email	Sentence was clarified.	Yes
31	Nothing about social justice in guiding principles. Add language about social justice in guiding principles.	Section 2-Introduction	Lauren Ross	PDF Comments Sent Via Email	This can be discussed with the Task Force. The Water Forward Guiding Principles were developed early in the process and includes reference to focusing on projects that are technically, socially, and economically feasible. The process included a social equity sub-objective in the Social Benefits Objective, which was scored and taken into account in assessing portfolios. As Water Forward moves into implementation, social equity and affordability are key considerations that are planned to be included in implementing the Water Forward recommendations.	No
32	This is OK, but we need something more relevant for the 1st paragraph. The reader needs to know immediately what the report is about and why it is important. Even if the executive summary has already covered that.	Section 2-Introduction	Lauren Ross	PDF Comments Sent Via Email	Section content was revised and rearranged to address this comment.	Yes
33	Lake Austin is immediately upstream from Austin. Lake Buchanan certainly is not.	Section 2-Introduction	Lauren Ross	PDF Comments Sent Via Email	Section was corrected to address this comment.	Yes
34	This could be the opening paragraph [Commented located at sentence that starts "Central to Austin's economic vitality..."]	Section 2-Introduction	Lauren Ross	PDF Comments Sent Via Email	Paragraph noted was moved to be the opening paragraph.	Yes

Draft – Plan Report Version 2 Comment and Version 3 Change Log – July 16, 2018

#	Comment	Location in Version 2 Report	Commentee	Comment Method	AW Response/Change Made in Version 3 Report	Change Made for Version 3 Report?
35	geographical, not geological [Comment located at text mentioning “98th meridian”]	Section 2-Introduction	Lauren Ross	PDF Comments Sent Via Email	Correction made.	Yes
36	325,000 includes the run-of-river rights or no?	Section 2-Introduction	Lauren Ross	PDF Comments Sent Via Email	Yes - the 325,000 AFY includes City of Austin municipal run-of-river rights. Wording was clarified in report.	Yes
37	explain [Comment located at text mentioning “pro rata curtailment”, on pg. 2-5]	Section 2-Introduction	Lauren Ross	PDF Comments Sent Via Email	Text was added - additional clarification can be made if needed.	Yes
38	This history needs to be brought in earlier [Comment located at text discussing 2014 Task Force]	Section 2-Introduction	Lauren Ross	PDF Comments Sent Via Email	References to the 2014 Task Force and recommendation were added to the opening introduction section.	Yes
39	Move the summary of outreach activities to an appendix.	Section 3- Collaborative Plan Development	Jennifer Walker	6/5 Task Force Meeting	Summary table removed and replaced with map of outreach activities. Summary table included in appendix. Report narrative language and reference table/figure edited to reflect change.	Yes
40	Show that public was involved at key decisions points and how their input has been incorporated.	Section 3- Collaborative Plan Development	Sarah Richards	6/5 Task Force Meeting	Merged Section 3 into Section 4 and highlighted when public input helped to inform key stages in the planning process.	Yes
41	Be more specific on how public input was used to inform the process.	Section 3- Collaborative Plan Development	Chris Herrington	6/5 Task Force Meeting	Merged Section 3 into Section 4 and highlighted when public input helped to inform key stages in the planning process.	Yes
42	Section 3 contains a lot of material that should be in an appendix.	Section 3- Collaborative Plan Development	Chris Herrington	6/5 Task Force Meeting	Moved much of this material to Appendix B - Public Outreach and merged Section 3 with previous Section 4.	Yes
43	Get data on whether we achieved the objective of getting public input that reflects Austin's demographics (include demographics summary, include efforts that show that we tried to meet that goal).	Section 3- Collaborative Plan Development	Lauren Ross	6/5 Task Force Meeting	This information will be included as an attachment to Appendix B - Public Outreach	Yes
44	meaningful by what criteria? [Comment located at the word “meaningful” in first sentence]	Section 3- Collaborative Plan Development	Lauren Ross	PDF Comments Sent Via Email	Public input was meaningful in that it directly informed key stages throughout the planning process. Public engagement was also intentional in that it sought to reach diverse voices to allow them to provide meaningful input.	No
45	I don't like the word "stakeholder" as it is used in the COA public engagement processes. It is a legacy word from processes that produced a lot of white, economically privileged and business involvement. As if people outside those groups don't have a "stake" in City outcomes. The word "participant" could be used instead. [Comment located at section 3.2.2 Targeted Stakeholder Meetings]	Section 3- Collaborative Plan Development	Lauren Ross	PDF Comments Sent Via Email	Edited body of the report and appendices to reflect this input. Generally replaced the word “stakeholder” with “participant/s,” “public,” or “community” as appropriate. The name of the Targeted Stakeholder Meetings was kept the same as this was how we referred to and publicized these meetings when they were held in January and November 2017.	Yes
46	Table 4-1 need more clarity on the difference between vulnerability and reliability.	Section 4-Water Forward Planning Process	Lauren Ross	6/5 Task Force Meeting	A brief description for vulnerability and reliability will be added to Table 4-1. Additionally, Appendix F includes additional information on how the Water Supply Benefits metrics of vulnerability and reliability were calculated.	Yes
47	Need to split out the subobjectives that have two metrics associated with them (esp. to explain why ASR in Carrizo-Wilcox is “local”).	Section 4-Water Forward Planning Process	Lauren Ross	6/5 Task Force Meeting	Reference to the qualitative score including the local sources component was added to the performance metric description in Table 4-1. Appendix L was added, which includes additional detail on how the performance measures were scored.	Yes
48	4.4 is the first time we talk about the planning horizons, so add text explaining what they are and why they were chosen.	Section 4-Water Forward Planning Process	Sarah Richards	6/5 Task Force Meeting	Text added to explain these planning horizons	Yes
49	Explain why supply diversification is a good thing and what its benefits are.	Section 4-Water Forward Planning Process	Sarah Richards	6/5 Task Force Meeting	Text added in Section 4.4 to address supply diversification and benefits.	Yes
50	Talk about first year and a half of laying the foundation and learning about other cities doing making similar planning efforts.	Section 4-Water Forward Planning Process	Clint Dawson	6/5 Task Force Meeting	Text added in beginning of Section 4 to address comment (new Section 3.2). Staff will look at adding additional information as needed for Draft Plan Report Version 4.	Yes

Draft – Plan Report Version 2 Comment and Version 3 Change Log – July 16, 2018

#	Comment	Location in Version 2 Report	Commentee	Comment Method	AW Response/Change Made in Version 3 Report	Change Made for Version 3 Report?
51	Mention consultants involved, roles, why they were chosen, process for selecting them, etc.	Section 4-Water Forward Planning Process	Sarah Richards	6/5 Task Force Meeting	Text added in beginning of Section 4 to address comment (new Section 3.2).	Yes
52	Work on description of “Types” of needs; include language explaining why we would pay more for very firm supplies rather than just doing the cheapest options.	Section 4-Water Forward Planning Process	Lauren Ross	6/5 Task Force Meeting	Text added in section 4.4.1 (now 4.5.1) to more descriptively refer readers to Section 6.1 and 9.1 for more information on water needs. Appendix F was also added to provide more detail on Water Needs Assessment and Identification.  Trade-offs between options, including their relative cost, are assessed as part of the portfolio evaluation process. Comparing various portfolios allows assessment of their performance against many objectives (including cost and reliability) to identify a portfolio that can meet water supply reliability goals and balance the other objectives in a relatively cost-effective manner.	Yes
53	Table 4-1 uses Type needs, but they haven’t been explained yet. Include a description before or in the table so it’s less confusing.	Section 4-Water Forward Planning Process	Chris Herrington	6/5 Task Force Meeting	Fixed by taking the Type 1, 2, and 3 reference out of table and adding to footnote, which refers to Section 6 and 9 where information about the Type needs can be found.	Yes
54	Further explain qualitative scores.	Section 4-Water Forward Planning Process	Chris Herrington	Staff Report Review	Appendix L has been added, which further explains the qualitative and quantitative scores.	Yes
55	Include screening visuals (possibly in appendix).	Section 4-Water Forward Planning Process	Chris Herrington	6/5 Task Force Meeting	Appendix I has been added, which includes water supply screening graphics.	Yes
56	Re: objectives and performance metrics yes although one may question how we came up with the weightings for the various metrics.	Section 4-Water Forward Planning Process	Clint Dawson	PDF Comments Sent Via Email	Comment is noted, staff will prepare for questions that may arise as to how the we came up with the weightings for the various metrics.	No
57	Local control was not a primary objective from the first task force. The objective was locally-sourced water. I still don't understand why we have conflated local control and local resource. [Comment refers to table 4-1]	Section 4-Water Forward Planning Process	Lauren Ross	Body of Email	Through the process, the Water Forward sub-objective of "Maximize Local Control" was revised and discussed at the January 22, 2018 Water Forward Task Force meeting to be a measure assessing both AW’s control over operations of the resource and whether the resource resides within the local area. The sub-objective for local control/local resource was scored based on two components: (1) yield from options where AW will control the implementation and operation, and (2) yield from options with water sources within the local area. Reference to the qualitative score including the local sources component was added to the performance metric description in Table 4-1. Appendix L was added, which includes additional detail on how the performance measures were scored.	Yes
58	Page 4-4 – I like the table, great criteria. However, what are type 1, 2, and 3 water needs?	Section 4-Water Forward Planning Process	Zach Baumer	Body of Email	Addressed by taking the Type 1, 2, and 3 references out of table and adding to footnote, which refers to Section 6 and 9 where information about the Type needs can be found. Appendix added to explain the Type 1, 2, and 3 water needs	Yes
59	It might be nice to add a footnote or note somewhere that says something like this. "The combination of the Economic, Environmental, and Social benefits categories comprises the triple bottom line of sustainability. The City of Austin's official definition of sustainability is finding a balance among three sets of goals: 1) prosperity and jobs, 2) conservation and the environment, and 3) community health, equity, and cultural vitality. It means taking positive, proactive steps to protect Austin's quality of life now, and for future generations.	Section 4-Water Forward Planning Process	Lucia Athens	PDF Comments Sent Via Email	Suggested wording added to the end of Section 4.3.	Yes

Draft – Plan Report Version 2 Comment and Version 3 Change Log – July 16, 2018

#	Comment	Location in Version 2 Report	Commentee	Comment Method	AW Response/Change Made in Version 3 Report	Change Made for Version 3 Report?
60	Since there has been discussion about this and a report distributed to Task Force members, I think it would be expedient to mention that there may be additional stream flow issues not addressed by the WAM model. These might include mentioning that base flow to the Pedernales and Lake Travis have been suggested to be significantly impacted by aquifer-based groundwater. Many private wells exist that have the potential to impact aquifer availability. Future groundwater management actions need to be considered to ensure base flow. See The Meadows Center for Water and the Environment, How Much Water is in the Pedernales: Determining the Source of Base flow to the Pedernales River in Northern Blanco, Hays and Travis Counties. Sept. 2017	Section 4-Water Forward Planning Process	Lucia Athens	PDF Comments Sent Via Email	The draft plan recommendations include several items targeted at continued regional collaboration. One of these recommendations is to broaden our understanding of basin-wide issues, including both upstream and downstream issues. The wording for this recommendation was expanded to include reference to exploring opportunities for Austin Water to protect its water supply watersheds through tools like land conservation and other potential measures.	Yes
61	proven how and by whom? [Comment refers to section 4.1: Evaluation Process Overview]	Section 4-Water Forward Planning Process	Lauren Ross	PDF Comments Sent Via Email	The IWRP process is an established one that CDM Smith, Austin's IWRP consultant, has used with other cities to develop IWRPs. Reference to "proven" was removed.	Yes
62	Reader needs to understand here the difference between vulnerability and reliability [Comment refers to Table 4-1]	Section 4-Water Forward Planning Process	Lauren Ross	PDF Comments Sent Via Email	A brief description for vulnerability and reliability was added to Table 4-1. Additionally, Appendix L includes additional information on how the Water Supply Benefits metrics of vulnerability and reliability were calculated.	Yes
63	Have we seen this? [Comment refers to section 4.3.2: Options Characterization Template]	Section 4-Water Forward Planning Process	Lauren Ross	PDF Comments Sent Via Email	Yes - the Options Characterization Template was included in the Draft Evaluation Tech Memo from April 2017 included in the Water Forward Task Force packets on April 18, 2017. Also, the Options Characterization Sheets were included in the Water Forward Task Force packets for the August 1, 2017 Task Force meeting.	No
64	I still don't understand these differences in water needs. Do they correspond to Type 1, Type 2, and Type 3 on page 48/105? That language is pretty clear. Can we have consistent language? [Comment refers to section 4.4.2: Method for Formulation of Portfolios]	Section 4-Water Forward Planning Process	Lauren Ross	PDF Comments Sent Via Email	Language added to section 3.7.2 to clarify that needs referenced are the Type 1, 2, and 3 needs.	Yes
65	Include more information on population projections, since they are what the water demands are based on.	Section 5-Water Demands	Sarah Richards	6/5 Task Force Meeting	Added more information on population projections as well as a table of population projections.	Yes
66	Consider explaining why Region K and Water Forward demands are different.	Section 5-Water Demands	Jennifer Walker	6/5 Task Force Meeting	The Region K demands function as conservative planning numbers and are based on the overall per-capita water use in a historically hot-dry year and projected population growth. The Water Forward demands were developed by the utility to represent baseline demands, including passive conservation, implementation of best management practices, such as requiring or incentivizing water efficient fixtures, and relatively new active conservation measures, such as permanent one-day-per week watering restrictions for automatic irrigation systems.  The Water Forward demands are calculated differently than Region K projections. They were developed by looking at water use across multiple sectors (e.g. single-family residential, commercial, etc.) and end uses (e.g. irrigation, toilet flushing, etc.). The baseline projections are based on use during 2013, 2014, and 2015, which includes years with drought restrictions in place.	No
67	Since climate is mentioned, may make sense to flip it with climate and hydrology section.	Section 5-Water Demands	Sarah Richards	6/5 Task Force Meeting	Comment noted, however it was thought best to maintain the current sequence as the next chapter deals more with climate in the context of water availability modeling, to which demands are a key input.	No
68	Include information on how passive conservation was incorporated to the disaggregated demand model and how much savings that achieved.	Section 5-Water Demands	Lauren Ross	6/5 Task Force Meeting	More information is included in the Disaggregated Demand Model appendix. A reference to the Disaggregated Demand Model appendix was included in the body of the report. A table was added to Section 6.4.10	Yes
69	Include more information about the DDM in the Demand Appendix, especially the effects of passive conservation (for example: fixture types, improvement, etc.).	Section 5-Water Demands	Chris Herrington	6/5 Task Force Meeting	More information included in Demand Model appendix and reference to Demand Model appendix included in the body of the report. A table was added to Section 6.4.10	Yes

Draft – Plan Report Version 2 Comment and Version 3 Change Log – July 16, 2018

#	Comment	Location in Version 2 Report	Commentee	Comment Method	AW Response/Change Made in Version 3 Report	Change Made for Version 3 Report?
70	Highlight staff work on DDM	Section 5-Water Demands	Jennifer Walker	6/5 Task Force Meeting	Noted. AW staff efforts are recognized in section and in the Demand Model Appendix.	Yes
71	Section 5 sets the stage for modeling work in future chapters and therefore shouldn't be moved to a later position in the report.	Section 5-Water Demands	Clint Dawson	6/5 Task Force Meeting	Noted.	No
72	Re: DDM background I doubt that someone that hasn't been in the weeds on this will understand it.	Section 5-Water Demands	Clint Dawson	PDF Comments Sent Via Email	Noted.	No
73	Chart on 5-7 – Very important chart, might it be better as a pie chart?	Section 5-Water Demands	Zach Baumer	Body of Email	Noted, staff will work to address this in Version 4 of the draft plan report.	No
74	Page 5-5 and 5-8 – how do the diversions on 5-5 connect to 5-8? It doesn't appear that our water usage is growing tied to population, but is this table projecting that? Oh, part of it is you're switching units, keep it consistent with billions or acre feet. These graphs and charts could be much clearer.	Section 5-Water Demands	Zach Baumer	Body of Email	Noted. Will work to use consistent units.	Pending
75	Include description of how candidate droughts were chosen from the extended simulation (how we chose the ones with a certain chance of occurrence in the modeled time frame).	Section 6-Hydrology and Climate Change Modeling	Chris Herrington	6/5 Task Force Meeting	Included in water availability modeling appendix, some text added to main report.	Yes
76	Include information for reference to (IPCC, 2012) in references section.	Section 6-Hydrology and Climate Change Modeling	Sarah Richards	6/5 Task Force Meeting	Reference added.	Yes
77	I didn't follow page 53/105.	Section 6-Hydrology and Climate Change Modeling	Lauren Ross	Body of Email	Edits made to clarify process.	Yes
78	Page 6-2 – C and D, did we really look at 10,000 years? That's a lot	Section 6-Hydrology and Climate Change Modeling	Zach Baumer	Body of Email	Yes, the maximum number of years the water availability model allows as input is 10,000 years. A large number of years were selected so that random chance would be more likely produce a large number of candidate droughts that are worse than those experienced in the period of record.	No
79	Figure 6-3 – what do those log stream flows even mean? Not accessible or understandable to anyone.	Section 6-Hydrology and Climate Change Modeling	Zach Baumer	Body of Email	Some text added to report body. The log of the streamflow volume is used in the graph for comparison purposes as it allows all data to be viewed more easily.	Yes
80	Figure 6-7 – Explanation of this chart? I think it shows average of flows going down, but what are the dots that go even higher in later years, might we have "higher" flow?	Section 6-Hydrology and Climate Change Modeling	Zach Baumer	Body of Email	Text added to body of the report.	Yes
81	Section 6 – while all the analysis is great and super scientific, it really needs a few well designed and well communicated charts to boil it all down. It's not currently understandable, what does it all mean?	Section 6-Hydrology and Climate Change Modeling	Zach Baumer	Body of Email	Appendix on modeling will include more explanation; working to make text and figures in report more reader-friendly.	Yes
82	Is the climate modeling that AWU contracted with Dr. Hayhoe what is summarized here? If so I think that should be more clearly explained. As she is one of the leading voices and authorities on climate change, I think that also adds credibility to the modeling. In addition, I suggest some mention of the Office of Sustainability work on Climate Change and Resiliency. Here is a link to the more high level climate change projects we developed with Dr. Hayhoe. <a href="http://austintexas.gov/sites/default/files/files/Sustainability/ClimateProjectionsSummary.pdf">http://austintexas.gov/sites/default/files/files/Sustainability/ClimateProjectionsSummary.pdf</a> . In addition, I think it would be a nice touch to mention AWU's participation in the Water Utility Climate Alliance and how that benefits the utility and its customers.	Section 6-Hydrology and Climate Change Modeling	Lucia Athens	PDF Comments Sent Via Email	Text added referencing Dr. Hayhoe and the Office of Sustainability work. References added to Water Utility Climate Alliance (WUCA).	Yes
83	This statement isn't consistent with Hayhoe: "Despite LITTLE change in total precipitation. . ." emphasis added. [Comment refers to section 6.2.1: Climate Change Modeling]	Section 6-Hydrology and Climate Change Modeling	Lauren Ross	PDF Comments Sent Via Email	Text added to report.	Yes
84	You've lost me. [Comment refers to step 6 of section 6.2.1]	Section 6-Hydrology and Climate Change Modeling	Lauren Ross	PDF Comments Sent Via Email	Appendix on hydrology will include more explanation; working to make text and figures in report more reader-friendly.	Yes

Draft – Plan Report Version 2 Comment and Version 3 Change Log – July 16, 2018

#	Comment	Location in Version 2 Report	Commentee	Comment Method	AW Response/Change Made in Version 3 Report	Change Made for Version 3 Report?
85	If you give us this boxplot, you need to help us understand the x, the bars, the rectangles, the circles. If that is too much detail, find another way to convey what is important from this figure. [Comment refers to figure 6-7: comparison of annual flows at Austin gage]	Section 6-Hydrology and Climate Change Modeling	Lauren Ross	PDF Comments Sent Via Email	Text added to body of the report.	Yes
86	Why is the water supply from the Highland Lakes lower in the 2010s drought, when the lake levels were higher? How is water supply defined, if not combined storage? [Comment refers to section 6.2.2: Extended Simulation Period]	Section 6-Hydrology and Climate Change Modeling	Lauren Ross	PDF Comments Sent Via Email	The 2010's drought was more severe than the 1950's drought. The best method to use to compare drought impacts on water availability in this context is combined firm yield modeling, which looks at full use of authorized water rights rather than actual use of those rights. The combined firm yield model applies the same demands and the same set of water rights operations over the entire period of record. Water Forward is not using combined firm yield modeling however, Region K and LCRA both use combined firm yield modeling to determine the worst critical period for determining water availability.	No
87	I know from the presentations that there is a bit more to this than is explained here. We didn't choose the very worst drought observed in the simulated 10,000 years, but the median? Give us that sentence or two so that we can completely follow the process. [Comment refers to section 6.2.2: Extended Simulation Period, candidate droughts]	Section 6-Hydrology and Climate Change Modeling	Lauren Ross	PDF Comments Sent Via Email	Text added to report.	Yes
88	Make clear what proportions are referring to [Comment refers to proportions described in demand management descriptions]	Section 7-Water Conservation and Demand Management Strategies	Lauren Ross	6/5 Task Force Meeting	Proportion (or saturation) refers to a fraction of new development that would have an option. Implementation will target meeting yield goals in the plan recommendations. Proportions (or saturations) which led to the development of these yield goals are shown on the table included in the Dec. 2017 task force materials packet. This table was added to Appendix L.	Yes
89	Worry that costs for storm/rain/graywater too expensive because of what was assumed for treatment.	Section 7-Water Conservation and Demand Management Strategies	Lauren Ross	6/5 Task Force Meeting	Ranges of costs for these options (storm/rain/graywater) are included in the options characterization sheets based on various end-use scenarios (for example, an option for outdoor non-potable uses, which includes costs for filtration, and an option for outdoor and indoor non-potable end uses, which includes more costs for treatment. (See Options Characterization sheets in Appendix J)	Yes
90	Include reference to option characterization sheets for more information.	Section 7-Water Conservation and Demand Management Strategies	Lauren Ross	6/5 Task Force Meeting	Added a reference to "options characterization sheets" in Appendix J - at the end of Section 6.3 (was 7.3)	Yes
91	Include option illustrations in this section.	Section 7-Water Conservation and Demand Management Strategies	Jennifer Walker	6/5 Task Force Meeting	Plan to include in the future.	Pending
92	This section includes way more about what we've done rather than what we plan on doing – work on balancing out or include a set up as to why we present the conservation history.	Section 7-Water Conservation and Demand Management Strategies	Chris Herrington	6/5 Task Force Meeting	Section was edited in light of this comment, will continue working to balance.	Yes
93	Use quantification as much as is possible rather than editorializing	Section 7-Water Conservation and Demand Management Strategies	Chris Herrington	6/5 Task Force Meeting	Section was edited in light of this comment, will continue to work to quantify.	Yes
94	Search for any references to dual plumbing currently being illegal	Section 7-Water Conservation and Demand Management Strategies	Lauren Ross	6/5 Task Force Meeting	Edits made to clarify	Yes
95	Pages 7-4 – 12 – seems like a lot of looking at the past and documenting how good we are. Seems all of this could be condensed to 1 page, it's a plan about going forward.	Section 7-Water Conservation and Demand Management Strategies	Zach Baumer	Body of Email	This point is noted. However, on the balancing side, information on current programs provides a basis and context for planned new options. Will continue to work on condensing.	Yes

Draft – Plan Report Version 2 Comment and Version 3 Change Log – July 16, 2018

#	Comment	Location in Version 2 Report	Commentee	Comment Method	AW Response/Change Made in Version 3 Report	Change Made for Version 3 Report?
96	Table 7-2 – Great table, and the costs seem very important, but in the description of each action below the table, we don't show the math of how the costs and volumes of savings were calculated? Should we show this, it seems key.	Section 7-Water Conservation and Demand Management Strategies	Zach Baumer	Body of Email	Information to address this question can be found in the Option Characterization Sheets Appendix.	Yes
97	I am wondering why there is no mention of the Water Conservation Study that we did as a collaboration with AWU and prepared by Maddaus Water Management. It seems like a pretty nice piece of work that validated a lot of things about current efforts, and also pointed to some things other utilities were doing that could be mentioned as part of the proposed measures. Please pull out the study and find ways for it to add value to this document. I realize it was a different consultant than the one doing this report, but its up to our staff team to connect the dots.	Section 7-Water Conservation and Demand Management Strategies	Lucia Athens	PDF Comments Sent Via Email	Added reference to Maddaus study report in Section 6.3.	Yes
98	I suggest deleting this. Apparently there has been little uptake of the 2030 District with its target audience. The funding is ended and the effort is going to be discontinued. [Comment refers to section 7.2.4: Incentive Programs for Businesses-Austin 2030]	Section 7-Water Conservation and Demand Management Strategies	Lucia Athens	PDF Comments Sent Via Email	Item was deleted from report.	Yes
99	Compliance is simple. Tie it to site plan approval. [Comment refers to section 7.3.4: Water Use Benchmarking, Phase 2]	Section 7-Water Conservation and Demand Management Strategies	Lauren Ross	PDF Comments Sent Via Email	Comment noted - will be important in informing implementation next steps.	No
100	The incentive could be as simple as "you get to be an Austin water customer." (7.3.6 Landscape Transformation Incentives)	Section 7-Water Conservation and Demand Management Strategies	Lauren Ross	PDF Comments Sent Via Email	Comment noted - will be important in informing implementation next steps.	No
101	Document that filtration is necessary for landscape irrigation. How did this assumption affect cost? [Comment refers to section 7.3.8 Alternative Water Ordinances, Stormwater Harvesting]	Section 7-Water Conservation and Demand Management Strategies	Lauren Ross	PDF Comments Sent Via Email	Cost assumption documentation is provided in the characterization sheet appendix.  For reference for the public and others, filtration is specified for stormwater reuse in Austin Water's Onsite Reuse Guidelines (found at <a href="http://www.austintexas.gov/sites/default/files/files/Water/AlternativeWater/AW_Multi_Family_Guide.pdf">http://www.austintexas.gov/sites/default/files/files/Water/AlternativeWater/AW_Multi_Family_Guide.pdf</a> ).	Yes
102	For all of these, tell the reader what proportion was assumed. [Comment refers to section 7.3.8 Alternative Water Ordinances, Stormwater Harvesting]	Section 7-Water Conservation and Demand Management Strategies	Lauren Ross	PDF Comments Sent Via Email	Proportions (or saturations) which led to the development of these yield goals are shown on the table included in the Dec. 2017 task force materials packet. This table was added to Appendix L.	Yes
103	quantify the demand reduction for these.	Section 7-Water Conservation and Demand Management Strategies	Lauren Ross	PDF Comments Sent Via Email	Theoretical demand reductions contained in characterization sheets and total portfolio demand reduction in portfolio evaluation appendix.	Yes
104	Re: Sufficient information on demand and supply strategies Again, for those of us who have been in the weeds on this, yes, maybe not for the general public, but that's to be expected.	Section 7-Water Conservation and Section 8-Water Supply Strategies	Clint Dawson	PDF Comments Sent Via Email	Noted.	No
105	Does the implementation schedule match the cost/AF savings on 70/105?	Section 7-Water Conservation and Section 8-Water Supply Strategies	Lauren Ross	Body of Email	Generally yes, in that all Candidate Future Water Conservation and Demand Management Strategies listed D1-D12 are incorporated in Hybrid 1 and the draft plan recommendations and implementation schedule outlook	No
106	P. 73/105. How did assumptions regarding filtration affect cost?	Section 7-Water Conservation and Section 8-Water Supply Strategies	Lauren Ross	Body of Email	Ranges of costs for these options (storm/rain/graywater) are included in the options characterization sheets based on various end-use scenarios (for example, an option for outdoor non-potable uses, which includes costs for filtration, and an option for outdoor and indoor non-potable end uses, which includes more costs for treatment. (See Options Characterization sheets in Appendix J)	Yes

Draft – Plan Report Version 2 Comment and Version 3 Change Log – July 16, 2018

#	Comment	Location in Version 2 Report	Commentee	Comment Method	AW Response/Change Made in Version 3 Report	Change Made for Version 3 Report?
107	P. 73/105. What are the proportions for implementation assumed? Generally there isn't enough information on any of these options to understand the basis for their ranking or costs.	Section 7-Water Conservation and Section 8-Water Supply Strategies	Lauren Ross	Body of Email	Proportion (or saturations) refers to a fraction of new development that would have an option. Implementation will target meeting yield goals in the plan recommendations. Proportions (or saturations) which led to the development of these yield goals are shown on the table included in the Dec. 2017 task force materials packet. This table was added to Appendix L. More information on the characteristics used to score each option is presented in the Appendix L -Portfolio Evaluation.	Yes
108	The Section 8.0 summary has capitalization issues.	Section 8-Water Supply Strategies	Sarah Richards	6/5 Task Force Meeting	Fixed.	Yes
109	Show what type of need each option meets. Table 8-1 might be a good place to include information about Type Needs and how those map to how much we're willing to spend on each option.	Section 8-Water Supply Strategies	Lauren Ross	6/5 Task Force Meeting	Trade-offs between options, including their relative cost, are assessed as part of the portfolio evaluation process. Comparing various portfolios allows assessment of their performance against many objectives (including cost and reliability) to identify a portfolio that can meet water supply reliability goals and balance the other objectives in a relatively cost-effective manner.  Type 2 needs as defined can only be met by options that create potable water supply. Type 1 and 3 needs can be met by potable supplies, non-potable supplies, or demand management options.	No
110	Make it clear that conservation and water supply strategies go hand in hand - reducing demand creates supply, baseline demands do not include demand management options, etc. Maybe include a preamble that's the same for each of these sections that states that explicitly. Bar charts per hydrology and year would be a good way to visualize how demand management reduced demand.	Section 8-Water Supply Strategies	Jennifer Walker	6/5 Task Force Meeting	Noted. Plan to include a chart in Version 4 of the draft plan report that illustrates how much demand reduction lowers portfolio demand compared to the baseline.	Pending
111	For section 8.2.14, make the title clearer to show that these are other options that are included in recommendations.	Section 8-Water Supply Strategies	Chris Herrington	6/5 Task Force Meeting	Changed title to address comment	Yes
112	For decentralized community-scale options, describe what community-scale means. Include pictures and maybe a callout box to explain decentralized more; possibly include in glossary of terms at beginning.	Section 8-Water Supply Strategies	Lucia Athens	6/5 Task Force Meeting	Text added to clarify, plan to add graphics in Version 4 of the draft plan report to better illustrate options. Will target adding glossary of terms in future.	Yes
113	P. 78/105. One of the things that I learned at the H2Oaks water tour is the value of water based on its availability during drought. So we need to see which of these water supplies is available when there is no water, or no additional water, from LCRA to be able to gauge the cost.	Section 8-Water Supply Strategies	Lauren Ross	Body of Email	Trade-offs between options, including their relative cost, are assessed as part of the portfolio evaluation process. Comparing various portfolios allows assessment of their performance against many objectives (including cost and reliability) to identify a portfolio that can meet water supply reliability goals and balance the other objectives in a relatively cost-effective manner.	No
114	79/105. ASR based on Carrizo-Wilcox storage and recovery. Wilcox for brackish groundwater.	Section 8-Water Supply Strategies	Lauren Ross	Body of Email	Noted, text was edited.	Yes
115	84/105. Is indoor dual plumbing currently illegal?	Section 8-Water Supply Strategies	Lauren Ross	Body of Email	Indoor dual plumbing is no currently illegal. Edits were made to clarify.	Yes
116	Can sewer waste heat recovery be paired with this strategy in order to defray the costs by capturing energy? (8.2.10 Sewer Mining)	Section 8-Water Supply Strategies	Lucia Athens	PDF Comments Sent Via Email	This possibility could be explored in implementation.	No
117	I suggest changing this and the other "community" strategy to "district stormwater harvesting." This is a better match with our EcoDistricts and neighborhood scale sustainability efforts. (8.2.11 Community Stormwater Harvesting)	Section 8-Water Supply Strategies	Lucia Athens	PDF Comments Sent Via Email	As discussed at the Task Force meeting, the word "district" might make people think of council districts. Other language was used in the report to clarify.	Yes
118	New development at scale should be the key here, it is only going to make sense for a multiple parcel development at a large enough scale to create a system for ALL buildings in the development. This could be for PUDS or Master planned areas such as	Section 8-Water Supply Strategies	Lucia Athens	PDF Comments Sent Via Email	This possibility could be explored in implementation.	No

Draft – Plan Report Version 2 Comment and Version 3 Change Log – July 16, 2018

#	Comment	Location in Version 2 Report	Commentee	Comment Method	AW Response/Change Made in Version 3 Report	Change Made for Version 3 Report?
	Colony Park, South Central Waterfront, developer submitted large PUDS, etc. (8.2.11 Community Stormwater Harvesting)					
119	As mentioned about, a proportion doesn't make sense to me. Why wouldn't we have ALL new buildings in the targeted area hook up? Otherwise most likely not cost effective. Same for next scenario below (8.2.11 Community Stormwater Harvesting)	Section 8-Water Supply Strategies	Lucia Athens	PDF Comments Sent Via Email	If we understand the comment, the question is focused on the use of an option targeting all buildings within an identified neighborhood-scale opportunity. The specific applicability of this option within the community, or neighborhood, scale opportunity will be further explored in implementation.	No
120	District Rainwater Harvesting (8.2.12 Community RWH)	Section 8-Water Supply Strategies	Lucia Athens	PDF Comments Sent Via Email	If we understand the comment, the question is focused on the use of an option targeting all buildings within an identified neighborhood-scale opportunity. The specific applicability of this option within the community, or neighborhood, scale opportunity will be further explored in implementation.	No
121	list these (reclaimed customers, 8.1.2 Reclaimed Water System)	Section 8-Water Supply Strategies	Lauren Ross	PDF Comments Sent Via Email	Number of reclaimed customers was updated in report and staff will explore what additional information can be provided.	Yes
122	map these (reclaimed customers, 8.1.2 Reclaimed Water System)	Section 8-Water Supply Strategies	Lauren Ross	PDF Comments Sent Via Email	See <a href="http://www.austintexas.gov/sites/default/files/files/Water/Water_Reclamation/locationsbulk_fill.pdf">http://www.austintexas.gov/sites/default/files/files/Water/Water_Reclamation/locationsbulk_fill.pdf</a> for a map of the fill stations. Footnote added to report.	Yes
123	what is this cost based on? (Table 8-1, LCRA Add. Supply Ann Unit Cost)	Section 8-Water Supply Strategies	Lauren Ross	PDF Comments Sent Via Email	See characterization sheet for costing details; unit costs are based on water use fees plus operations and maintenance costs for water and wastewater treatment. Characterization sheets are included in Appendix J.	Yes
124	Some of this infrastructure could be used to directly transport Carrizo-Wilcox water. The ASR contemplated by the 1st task force was for Edwards/Trinity storage, not Carrizo-Wilcox. (8.2.1 ASR)	Section 8-Water Supply Strategies	Lauren Ross	PDF Comments Sent Via Email	Comment noted.	No
125	Why not critical summer months? Can we raise and lower Ladybird Lake as well? How much water was produced by this option? (8.2.14 Other Options Considered, LA ops)	Section 8-Water Supply Strategies	Lauren Ross	PDF Comments Sent Via Email	The screening-level estimated yield for Lake Austin Operations was 2,500 AFY (see Supply Option Screening Appendix for detail on screening-level option yields). The months used for this option represent times when rain events could more likely be captured and stored for use.  Fluctuation of Lady Bird Lake was not evaluated as an option at this time.	No
126	Can the raw performance scorecard be represented visually?	Section 9-Portfolio Evaluation	Sarah Richards	6/5 Task Force Meeting	Raw scores are difficult to represent visually on a graph because they are all measured in different units. Part of the process of portfolio evaluation is to transform all the different measurements into units that can be compared directly, as Figure 9-4, at the objective level, shows at the end of the section. Graphs of all sub-objective standardized scores are presented in the Portfolio Evaluation Appendix.	No
127	93/105. We need the water use estimates (gpcd) for time frames shorter than 100 years.	Section 9-Portfolio Evaluation	Lauren Ross	Body of Email	Staff working to follow up on this comment for potential inclusion in subsequent version.	Pending
128	94/105. How sensitive are annualized capital costs to assumptions regarding financing costs? What are uncertainties regarding financing?	Section 9-Portfolio Evaluation	Lauren Ross	Body of Email	Text added to refer reader to characterization sheets for costing details.  Where applicable, capital financing costs were assumed to be consistent across the options. Over time, the different options may be financed through a number of different mechanisms including low-interest loans, grants, development costs, Austin Water revenues, and others. As the plan moves into the implementation phase and as future updates to the plan occur financing aspects can continue to be looked at and factored in.  Also note that potential for external funding, such as grants or developer funding, was incorporated in the portfolio scoring within the economic benefits objective. Portfolios with more potential for external funding than others would have received higher scores in this sub-objective.	Yes
129	94/105. Costs include those incurred by private owners, as well as those incurred by utility. The advantage of owner-borne costs is captures in the external funding score.	Section 9-Portfolio Evaluation	Lauren Ross	Body of Email	Comment noted.	No

Draft – Plan Report Version 2 Comment and Version 3 Change Log – July 16, 2018

#	Comment	Location in Version 2 Report	Commentee	Comment Method	AW Response/Change Made in Version 3 Report	Change Made for Version 3 Report?
130	Despite the many times I've asked, for months, I still see nothing about the potential savings from Austin Energy electrical generation options.	Section 9-Portfolio Evaluation	Lauren Ross	Body of Email	Projections for AE water use at power plants are relatively flat representing current use patterns, as discussed with Austin Energy (~18,500 acre-feet for Travis and Fayette County combined). Austin Water, in its role in management of the City's water rights, is in the process of seeking an amendment from TCEQ to Austin's steam-electric water rights to allow other beneficial uses, including municipal use. Through future IWRP update processes, updates can be made to the AE water demand projection to reflect potential future changes at that time. Austin Energy participates in the Water Forward process and Austin Water will continue to collaborate with AE, so updates can occur when changes happen. Note that modeling of the aquifer storage and recovery option and the off-channel reservoir option included use of City of Austin steam-electric water right water (amended to allow other uses) if the model found there to be water available under these water rights.	No
131	Table 9-2 – you've lost me. I understand the scenarios and I think the type 1-3 water, but I don't get the table.	Section 9-Portfolio Evaluation	Zach Baumer	Body of Email	Changes made to refer readers to the Needs Appendix for more detail. Also changed table name.	Yes
132	Table 9-3 – the Xs are simple, but how much of each option? How much would it all cost? Especially since Hybrid 1 is the "do everything" scenario, right?	Section 9-Portfolio Evaluation	Zach Baumer	Body of Email	Added text in the paragraph introducing the table that refers to the characterization sheet appendix for option-level detail and the portfolio evaluation appendix for portfolio-level detail. Hybrid 1 contains the mix of options that scored the best in the portfolio evaluation process, however, it does not include all options. The other portfolios included options not in Hybrid 1.	Yes
133	Table 9-6 – seems very important, bad chart and hard to understand. Way too much information and complication going on.	Section 9-Portfolio Evaluation	Zach Baumer	Body of Email	Moved to portfolio evaluation Appendix, where it is explained in more detail.	Yes
134	Page 9-7 - is there a visualization of this table? It's a lot to take in. I think the summary is in figure 9-4.	Section 9-Portfolio Evaluation	Zach Baumer	Body of Email	Raw scores are difficult to represent visually on a graph because they are all measured in different units. Part of the process of portfolio evaluation is to transform all the different measurements into units that can be compared directly, as Figure 9-4, at the objective level, shows at the end of the section. Graphs of all sub-objective standardized scores are presented in the Portfolio Evaluation Appendix.	No
135	I want to see the actual net diversions, stormwater and rainwater capture, as well as the score. OK in an appendix. (Table 9-5 raw performance score)	Section 9-Portfolio Evaluation	Lauren Ross	PDF Comments Sent Via Email	Included in the Portfolio Evaluation Appendix, text added to point to Appendix.	Yes
136	Would be helpful to include a general timeline illustrating the use of decision points and update points; could use graphic from CDM to include in this section.	Section 10-Recommendations	Jennifer Walker	6/5 Task Force Meeting	Austin Water will follow up on comment for potential inclusion in Version 4 of the draft plan report.	Pending
137	Need to include more language and text about how Hybrid 1 is the portfolio we're recommending, why we chose that portfolio, why it's the best, and why it will be good for the City.	Section 10-Recommendations	Lauren Ross	6/5 Task Force Meeting	Text was added, primarily in Section 10: Recommendations and the Executive Summary.	Yes
138	Include recommendation that Water Forward Task Force stay in place	Section 10-Recommendations	Jennifer Walker	6/5 Task Force Meeting	Comment noted; text added to Section 10.	Yes
139	Consider referring people to the companion document for implementation timeline.	Section 10-Recommendations	Jennifer Walker	6/5 Task Force Meeting	Comment noted. Will work to potentially include in subsequent version.	No
140	Include key information at 5-year increments.	Section 10-Recommendations	Sarah Richards	6/5 Task Force Meeting	<p>Comment noted. As part of the Task Force discussion at the April 19th Task Force meeting, <a href="http://www.austintexas.gov/edims/document.cfm?id=297285">http://www.austintexas.gov/edims/document.cfm?id=297285</a>, water savings estimates from demand management options were presented, by year, for the interval between the Water Forward Plan's 2020 and 2040 planning horizons. As part of the plan's implementation phase, this type of information could serve as the basis for near-term goals. (These projections did not include demand management savings from AMI, Water Loss Control - Utility-Side, or CII Ordinances. The estimates presented were noted to be subject to change dependent on many factors including growth rates, development trends, specific ordinance and program design, etc.)</p> <p>As with the Implementation Outlook and Adaptive Management Plan, Austin Water sees the more detailed refinement of the yield projections between the Water Forward planning horizons of 2020 and 2040 as being part of the implementation phase.</p>	No

Draft – Plan Report Version 2 Comment and Version 3 Change Log – July 16, 2018

#	Comment	Location in Version 2 Report	Commentee	Comment Method	AW Response/Change Made in Version 3 Report	Change Made for Version 3 Report?
141	For Section 10.1.1, consider expanding language to include water quality issues.	Section 10-Recommendations	Chris Herrington	6/5 Task Force Meeting	Comment noted; text added.	Yes
142	Include text about SMOWR, make it clear this plan is an integrated plan.	Section 10-Recommendations	Chris Herrington	6/5 Task Force Meeting	Comment noted; text added.	Yes
143	For Section 10.1.2, add a mention about continuing to look for opportunities for AW and WPD to look for multiple benefit solutions.	Section 10-Recommendations	Chris Herrington	6/5 Task Force Meeting	Comment noted; text added.	Yes
144	Financing. Would like to see a write up that Austin Water will commit to financing these projects with SWIFT funds from the Texas Water Development Board, or other grants or subsidized loans. We need to use this money, it is much cheaper.	Section 10-Recommendations	Bill Moriarty	Body of Email	Plan to include case studies look at financing options as a companion to the Implementation Outlook and Adaptive Management Plan . SWIFT funding will likely be considered as a financing option. However, this type of detail is planned to be addressed in the implementation process. SWIFT funding has been applied for and approved by TWDB for Austin's AMI project and a number of reclaimed water projects. Recommendation item added to new Section 9.2.2.	Yes
145	100/105. How would changing the assumed proportion of implementation for Demand Management Options change the balance in the Sub-total between demand and supply options? 60,000 from ASR is still problematic.	Section 10-Recommendations	Lauren Ross	Body of Email	The assumed proportion of implementation for demand management options represents a balance of yields that can be achieved based on analysis of end uses and supply volumes. In the implementation phase and subsequent plan updates, new and updated information can be used to make plan adaptations, where appropriate.  As with the other recommended options, the 60,000 AFY capacity recommendation for ASR, which was analyzed in the portfolio evaluation process, was recommended to provide potable supplies through extended drought periods.	No
146	Section 10 – doesn't feel completely finished. Seems like there is a lot of work to do that will cost a ton of money, how will it all get done?	Section 10-Recommendations	Zach Baumer	Body of Email	Additional text has been added to the Recommendations section and staff will work to continue to refine this section as needed.	Yes
147	I'm not sure just where it belongs but nowhere in the plan have we addressed the One Water concept and how it should inform what we do. It seems odd not to mention it since there is a lot of activity on this front with staff and some direction from Imagine Austin on exploring the water/green infrastructure/stormwater management nexus. The Rain Catcher pilot project mentioned below is a good example. Contact Mateo Scoggings if you want more info on the project.	Section 10-Recommendations	Lucia Athens	PDF Comments Sent Via Email	Additional text added to address comment. Section 2.3 added.	Yes
148	WUCA [Comment refers to section 10.1.1: Core Colorado River Supplies, near the last bullet on climate change]	Section 10-Recommendations	Lucia Athens	PDF Comments Sent Via Email	Additional text added to address comment - see Section 9.1.1	Yes
149	I think that the Adaptive Management section and the Timeline for Actions that will be included in the final plan should include the following components. Perhaps we need a special section entitled "Other Issues of Options" to cover some of these items.1) Net Zero Water development. While this is not currently proposed, there should be a time set in the plan when this strategy can be considered. Perhaps it would be 5-6 years after adoption of Code Next.2) <b>Water Quality Protection. It would be expedient to mention this issue, and the possible need to dedicate additional funding for the purchase of increased WQPL acreage before it is lost forever to development.</b> 3. On-site water storage for individual lots/housing. Probably needs to be some discussion of the implications for affordability as well as a mention of the WPD Rain Catcher Plot Project in the Upper Creek Watershed. Once this project is complete, an assessment could be done to determine a joint program with WPD and AWU for geographically targeted cistern catchment that could help to address water conservation as well as creek resto.... channel restoration.	Section 10-Recommendations	Lucia Athens	PDF Comments Sent Via Email	AW staff will look at adding to Implementation Outlook and list of items to be investigated as adaptive management plan is executed.	Pending
150	Add other resource documents, including the 1st task force report.	Section 11-References	Lauren Ross	PDF Comments Sent Via Email	Reference to Austin Water Resource Planning Task Force report - July 2014 - and Council Resolution creating the Water Forward Task Force added to reference list.	Yes

