



Attachment A: M&SSI TAG Comments Received through October 17, 2017.

Comment Number	Comment Author	Organization	Section Reference	Comment	Response
1	Drew Beckwith	Western Resource Advocates (WRA)	2.1	Seems like we should be past describing "baseline water demands" that do not incorporate passive conservation in the demand estimates, charts, tables, or vernacular. Passive water conservation is going to happen whether we like it or not. Baseline water demands should be inclusive of passive conservation.	This section of the July 6, 2017 Draft Technical Memorandum (TM) summarizes methods used in SWSI 2010. The Draft TM Section 3.1.1 proposes an adoption rate methodology to incorporate future reductions in the current population's municipal use.
2	Scott Winter	Colorado Springs Utilities (CSU)	3.1.1	I think the approach of using an adoption rate for each scenario is appropriate. However, this will provide misleading results if current adoption/usage rates are not accurate. This will be difficult in the outdoor categories, but we can't make the same assumptions we made last time regarding current baseline irrigation rates. We have to be much more realistic or the resulting savings targets (at least the savings volumes) will be unrealistic and potentially lead to harmful policies.	New reported data will be used to update the current demand values however limited reported data are available regarding irrigated areas. Outdoor water demands will be estimated from total metered water use data and a range of adjusted future demands will be considered through the five planning scenarios described in Colorado's Water Plan (CWP).
3	Drew Beckwith	WRA	3.1.1	Need a section in the text on justifying the adoption rate. Seems like adoption rates should vary based upon societal preferences, e.g., greater adoption rates under cooperative growth and adaptive innovation, and lesser rates under hot growth.	This recommendation will be incorporated in the final TM.
4	Maureen Mulcahy	Eagle River Water and Sanitation District (ERWSD)	3.1.2	How is a gpcd being established for resort communities/how are tourism impacts being accounted for?	The gpcd calculation methodology is consistent across all locations and therefore has the inherent characteristics of the community embedded within the calculated values. It is not appropriate to compare a gpcd value from an area that has a large influence from tourism and/or non-permanent residents to an area that is primarily year-round residential. This note will be added to the final TM.
5	Drew Beckwith	WRA	3.1.2	Thinking forward to the M&I demands section, we'll have gpcd rates at a finer scale than county level and I am wondering if there's any benefit in producing population projections for a couple key urban areas at a smaller scale than county for some specific purpose or illustration. I understand the statistical technique doesn't work as well the smaller the area examined, so perhaps ignore, just didn't want to lose out on data granularity that could be useful in some way.	This concept was considered during development of the methodology described in the draft TM; however the recommended methodology was selected to provide consistency in developing projections throughout the state.
6	Drew Beckwith	WRA	3.1.2	In preparing a population-weighted average gpcd for each county, since we have gpcd at higher granularity (i.e., for specific cities) is there any benefit of using it in some way? Cross-reference to my above comment.	Please see the previous response.
7	Scott Winter	CSU	3.3.3	For what it's worth, aggregating demands at the county level is problematic. Approximately 1/3 of the population of El Paso County is outside of our service territory. How much demand data do you have for these areas? Aggregated usage rates may be misleading at the county level.	The recommended methodology described in the draft TM Section 3.3 involves proportioning county-level demands between explicitly modeled and aggregated county demands. The hydrologic models will utilize water rights/supplies associated with the explicitly modeled locations to meet the explicitly modeled demands, thereby alleviating the issue described in this comment for explicitly modeled demands. This is an enhancement provided with the SWSI update.
8	Drew Beckwith	WRA	3.1.2	Am feeling like there should be another key assumption that past population growth will be representative of future growth, or something to that effect. If we're generating statistics from historical variability to drive future population growth, we have to be comfortable saying that the way it was is a good indicator of the way it will be. That's obviously not a good assumption anymore for hydrologic planning, and I would wager that the growth Denver, in particular, has experienced over the past few years was greater than anyone expected, but I don't know enough about population forecasting to know if this is an issue or not...perhaps the thousands of model runs capture an adequate spread in the data...just thought we should be more explicit about it.	Please see the 'Recommended Methodology for Developing SWSI Population Scenarios' memorandum prepared by BBC Research & Consulting, which provides additional detail regarding the recommended methodology and assumptions for preparing the five planning scenario population forecasts.
9	Maureen Mulcahy	ERWSD	3.1.3	Was a comparison conducted between 2010 projections and current trajectory to test assumptions? Should the updated SWSI include nearer time horizons as well as further out projections to provide a way to perform reality checks along the way?	The baseline population and recommended population projection methodology for the SWSI update are different from the values and methodologies used in SWSI 2010; please see the previous comment and response. It is not possible for the SWSI update to include projections prior to 2050 because the climate data projections are only available for 2050.



Attachment A: M&SSI TAG Comments Received through October 17, 2017.

Comment Number	Comment Author	Organization	Section Reference	Comment	Response
10	Drew Beckwith	WRA	3.1.2	Because some of the pop projections assume spatial differences in growth (e.g., more in urban areas), shouldn't the ratio between explicitly modeled and aggregate county demands also change through time?	The ratio between explicitly modeled and aggregated county demands will change between each planning scenario and will be different between two scenarios that have the same total population projection with differences in spatial distribution (e.g. the Business as Usual scenario with a Medium population projection and the Cooperative Growth scenario with a Medium, Adjusted population projection).
11	Drew Beckwith	WRA	3.1.3	Suggest we need an in-person discussion about the values in Table 3-3.	Table 3-3 was discussed at the September 26, 2017 M&SSI TAG meeting and recommendations provided by the M&SSI TAG will be incorporated into the final TM.
12	Rick Marsicek	South Metro Water Supply Authority (SMWSA)	3.1.3	Adoption rates for Conservation/Penetration rates/Percent reduction values. At TAG meeting would like to discuss how existing penetration factors into the calculations and potential differences in past levels of conservation across the state.	This topic was discussed at the September 26, 2017 M&SSI TAG meeting and recommendations provided by the TAG will be incorporated in the final TM.
13	Scott Winter	CSU	3.1.3	Do you really have adequate data to confidently disaggregate and project categories like multi-family outdoor?	Metered water use data from the 1051 reporting and Water Efficiency Plans submitted to the CWCB will generally allow for disaggregation by customer category, although the methodology is dependent upon availability and quality of the data.
14	Scott Winter	CSU	3.1.3	The first bullet states that crop irrigation water requirements can serve as a proxy for use. This may be an appropriate assumption if you are starting with an accurate estimate of baseline irrigation rates per landscaped area. If you are not starting from a relatively accurate estimate of baseline usage rates, this approach will exacerbate one of the key problems with the SWSI 2010 process - an estimate of baseline usage rates that was higher than reality, which resulted in an overestimation of savings potential in the landscape. This bullet states that adequate data are not available to improve this process statewide. But if you don't improve these estimates in some way, you will significantly overstate potential. You have some data for Colorado Springs. A study was done in Westminster. And Denver Water and Aurora also have data. Please, make some effort to improve baseline assumptions in this area. I also think you should hedge a bit and don't assume that change in demand will be commensurate with changes in climate. I think some adaptation should be expected.	The referenced bullet describes that water providers have begun reporting landscaped areas through the 1051 reporting but sufficient information is not yet available on a statewide basis to estimate outdoor demands from a crop irrigation water requirement multiplied by landscaped area. However, representation of baseline outdoor demands will be improved in the SWSI update through the process of using updated demand data. Furthermore, the planning scenario methodology provides projections that consider a range of futures based on a number of drivers, which is a key difference between SWSI 2010 and the SWSI update.
15	Scott Winter	CSU	3.1.3	The second bullet states that with increased density, in some circumstances, the landscape characteristics also change from a higher water use category to include more low water use plants and shrubs. Do you have adequate evidence that these changes result in a commensurate change in demand? I have found evidence there is not a one to one change in demand in relation to landscaped area and I believe the same may apply to changes in plant material.	Information in the referenced bullet is provided to describe the complexity of the relationship between density and water use. CWP references density as a key driver however, due to the complications in how density affects water demands in different situations and a lack of fully conclusive data at this time, the draft TM recommends incorporating the effects through the outdoor driver adjustment.
16	Scott Winter	CSU	3.1.3	In the second bullet, yes 10% savings per 20% increase in density is probably a good conservative estimate, with the caveat that demands may be shifted to common areas. It is clearly not just a reflection of density, however. Incomes, home values, and household size are all less with increased density - at least historically. It's also important to account for the fact that greater densities will decrease the effectiveness of other interventions such as conservation-oriented rates.	Please see the previous response.
17	Scott Winter	CSU	3.1.3	The Residential Indoor future gpcd bullet: Baseline 2016 gpcd of 58.6 seems a bit high. 1051 data should be used to generate baseline. 53-55 gpcd seems more likely. 33.3 is an unreasonable planning target. 36.4 gpcd is probably the most aggressive target I would be comfortable with and that feels low due to the ongoing prevalence of leakage.	The example in Table 3-3 of the draft TM shows current indoor demand at 42.4 gpcd for illustrative purposes however, the baseline current demands will be calculated using the available data. The referenced value of 58.6 gpcd is based on a 2016 published study of indoor daily metered water use.
18	Maureen Mulcahy	ERWSD	3.1.3, Residential indoor future gpcd	The 'current efficiency benchmark' of 42.4 gpcd is based on 247 homes. This seems like a very small sample size. Were these homes located in diverse communities throughout the state? Clearly there are very focused population centers within the state, regional differences may or may not greatly impact the average, but they may be worth assessing/recognizing. Additionally, were behavioral components assessed at all? What were the demographics of the participants in the study? (i.e. was this group representative of the population?)	Please see the previous response and the 'Residential End Uses of Water - Version 2, Project #4309; report published in 2016 by the Water Research Foundation for additional information.



Attachment A: M&SSI TAG Comments Received through October 17, 2017.

Comment Number	Comment Author	Organization	Section Reference	Comment	Response
19	Maureen Mulcahy	ERWSD	Footnote to 3.1.3	Indoor use may not remain constant for all areas throughout the year. Recommend finding a way to account for variability for communities that may have significant demand variability associated with tourism.	1051 reporting includes information about which month(s) are representative of typical indoor use for the service area. Water Efficiency Plans also typically include data on indoor and outdoor use. These data sources will be relied upon for the SWSI Update.
20	Maureen Mulcahy	ERWSD	3.1.3 2nd to last bullet	May want to acknowledge that there is some level of inelasticity related to indoor water use that rate changes will not impact. Additionally, affordability will likely increasingly become an important social issue, especially related to low income populations, into the future as rates increase.	These points will be incorporated in the final TM.
21	Scott Winter	CSU	3.1.3	Non-residential Indoor bullet: Declines in commercial indoor gpcd over the past decade have not kept pace with declines in residential indoor in Colorado Springs. Is it reasonable to assume such declines are even possible given this fact? There is untapped potential, but tying it to residential potential is presumptuous and counter to what little evidence we have. This is very subject to the whims of the economy as well. I suggest we hedge our bets and use maximum savings estimates in the 10-15% range.	This topic was discussed at the September 26, 2017 M&SSI TAG meeting and recommendations provided in this comment and by the M&SSI TAG will be incorporated in the final TM.
22	Maureen Mulcahy	ERWSD	3.1.3	For determining non-residential indoor % adjustment, would it be helpful to analyze the trend over time and use that information, expecting a similar trend to continue (although keeping diminishing returns in mind and possibly not projecting lower than a certain realistically achievable value)	This topic was discussed at the September 26, 2017 M&SSI TAG meeting and recommendations provided in this comment and by the M&SSI TAG will be incorporated in the final TM.
23	Scott Winter	CSU	3.1.3	Outdoor: In Colorado Springs, there is NO potential whatsoever. Customers are already watering at a severe deficit on average. Westminster also found little to no potential in a study they published. If you don't have good data to establish a baseline outdoor usage rate, your savings estimates have to be much more conservative than in SWSI 2010. There is waste left in the system, but that potential demand reduction can <i>easily</i> be offset if those who are deficit watering or not watering at all start watering even a little more. Additionally, you may get up to 20% outdoor savings per residential site through increased housing density. However, in some cases, some of this demand may simply be shifted to common area irrigation under a commercial account resulting in no net savings - or even a net increase in demand. This is already happening in some new "higher density" developments. Lots are smaller, but common areas may not be.	Please see the previous responses to comments related to outdoor use projections.
24	Maureen Mulcahy	ERWSD	3.1.3	It seems like there is still a substantial behavioral component related to landscape irrigation equipment, may want to acknowledge this potential limitation of technologies that have been developed to date for this application.	These points will be incorporated in the final TM.
25	Maureen Mulcahy	ERWSD	3.1.3 - social values	How will this be measured?	While social values are recognized as a key driver in influencing water demands, currently there is no available methodology to separately measure or quantify the impacts of social values on water demands, particularly for a statewide modeling effort.
26	Scott Winter	CSU	3.1.3	Water Loss: I am very dubious about water loss of less than 5 or 6%. Unless this referring strictly to real loss. If it is real loss <i>only</i> that we are including, let's make that explicit. How many water providers have actually done water loss audits using M36? How many have had these validated? It is possible that we don't have a good handle on water loss, real or apparent, in Colorado. Even the values in 1051 may be suspect. Until we have better data, we shouldn't set any targets below 8%. Distribution systems aren't getting younger and investing in them is not getting cheaper. Expecting substantial reductions is inappropriate at this time.	This topic was discussed at the September 26, 2017 M&SSI TAG meeting and recommendations provided in this comment and by the M&SSI TAG will be incorporated in the final TM.
27	Maureen Mulcahy	ERWSD	Table 3-3	There seems to be a high level of consensus that our aging water infrastructure will require major investment in the near future. Depending on how this issue is addressed and future funding options, it seems likely that NRW will increase at least for a period of time as a result of aging infrastructure. Was this considered when estimating future percentages?	This topic was discussed at the September 26, 2017 M&SSI TAG meeting and recommendations provided in this comment and by the TAG will be incorporated in the final TM.
28	Maureen Mulcahy	ERWSD	3.1.3	What has the statewide trend related to water loss been? Has it been increasing, decreasing, or remaining steady over time? Understanding trends may help with future projections.	Please see the previous response.
29	Maureen Mulcahy	ERWSD	3.1.3	Consider using a weighted average for NRW by basin with a range of % change applied based on scenarios.	Please see the previous response.
30	Scott Winter	CSU	3.1.6	It is very problematic that water demand for landscaping does not account for deficit irrigation. Half of our existing customers are already watering at a significant deficit.	To the extent that deficit irrigation is currently occurring and represented in the baseline water demands, the methodology will represent it continuing into the future for scenarios that use the 'current' climate conditions with no adjustment to future outdoor demands.



Attachment A: M&SSI TAG Comments Received through October 17, 2017.

Comment Number	Comment Author	Organization	Section Reference	Comment	Response
31	Scott Winter	CSU	3.1.6	I completely disagree with the final bullet in this section. Percent reductions from existing programs are NOT representative of potential percentage reductions under future climate scenarios. Over time, returns on investments will begin to diminish.	This assumption will be clarified in the final TM and the comment will be noted. The methodology primarily relies upon preparing future demand projections by making percentage adjustments to current demands. The percentages reflect a net effect and if there is a basis to assume that current demand management efforts are not anticipated to be sustained into the future, the specific percentage value and the adoption rate can be reduced to account for such changes.
32	Rick Marsicek	SMWSA	3.3.1.1	At TAG meeting would like to discuss and hear explanation of return flow calculations and how this information will be utilized in SWSI. Many entities currently or plan to utilize all of their legally entitled return flows. Glad that this important topic is being looked at.	This topic was discussed at the September 26, 2017 M&SSI TAG meeting and recommendations provided by the M&SSI TAG will be incorporated in the final TM.
33	Scott Winter	CSU	3.3.1.1	Bullet d: Outdoor return flows of 20% seems very high to me. Where does this number come from? This seems to assume a level of inefficiency that just doesn't exist any more. Should probably be closer to 5-10%. As previously stated, outdoor savings potential is overestimated, meaning impacts on return flows will be overestimated. You should reduce the return flow assumptions. Not because outdoor use <i>will</i> decline or get more efficient, but because it already has done both.	The numbers referenced in the draft TM are based on existing CDSS models and stated assumptions. This topic was discussed at the September 26, 2017 M&SSI TAG meeting and recommendations provided in this comment and by the TAG will be incorporated in the final TM.
34	Maureen Mulcahy	ERWSD	3.3.1.1	Agreed that the SWSI update should consider decreasing the return flow factor for outdoor uses as they become more efficient. What will that factor be? What adoption rate of higher efficiency will be assumed?	Please see the previous comment and response.
35	Richard Belt	Xcel Energy	3.3.1.1	Municipal return flow reduction with outdoor water use...while return flows may reduce with increased outdoor efficiency, these return flows may not necessarily be available to the system if the respective municipal LIRF decrees do not adjust. Too detailed for this effort?	Please see the previous comment and response.
36	Drew Beckwith	WRA	3.3.1.1	I know LIRFs have been legally determined in a few OLD court cases and that water providers rely on them for accounting of reusable return flows, so this could be a touchy subject, but does anyone REALLY believe that 20% of outdoor water use is returning to the stream/groundwater!? I certainly don't.	Please see the previous comment and response.
37	Maureen Mulcahy	ERWSD	Appendix B	Point of clarification - does the "Upper Eagle Valley Water Authority" refer to the Eagle River Water and Sanitation District (Vail) and/or the Upper Eagle Regional Water Authority?	This is the reference from the prior modeling documentation however it is our understanding that the model explicitly represents the Eagle River Water and Sanitation District and that the Upper Eagle Regional Water Authority is modeled as an aggregated demand with other small districts.
38	Maureen Mulcahy	ERWSD	Process	Timeline permitting, I think it would be really valuable to have the group review a draft because it may be easier to reality-check results than it is to evaluate assumptions without really knowing what the numbers might look like	This comment has been provided to CWCB.
39	Maureen Mulcahy	ERWSD	3.2	Why is there a lack of new SSI data? Would it be useful to have updated data? If so, can a mechanism for collecting this information (such as requiring industry reporting) on an ongoing basis be a recommendation of the SWSI update?	While there are existing statutory reporting requirements and common planning documents that provide municipal demand data (e.g. 1051 reporting, municipal water efficiency plans, etc.), there is no similar reporting for SSI demands. Historically, the SSI demands have been a relatively small portion of the statewide water demands, which may also partially explain the current status of water demand data availability. Additional data may become available through the M&SSI TAG and the comment will be noted in the final TM.



Attachment A: M&SSI TAG Comments Received through October 17, 2017.

Comment Number	Comment Author	Organization	Section Reference	Comment	Response
40	Richard Belt	Xcel Energy	3.2 and Appendix B	<p>There are a number of changes that can be made to the entities listed in Appendix B:</p> <p>a. Craig Station is planning to early-retire some units...I don't recall the details off the top of my head, but can find them (Tri-State will know).</p> <p>b. Palisade Hydro could be added to the Colorado River list...Orchard Mesa Irrigation District is the operator.</p> <p>c. Nucla Station is probably effectively already retired (San Miguel River...Tri-State facility). I don't know if Tri-State has plans to replace generation in the area.</p> <p>d. Tacoma Hydro could be added to the Animas River. I can provide details...the primary consumptive loss is through evaporation.</p> <p>e. Xcel has announced the early retirement of Comanche Units 1 and 2...I can provide details on this. These aren't fully-approved, but probably could be included in planning.</p> <p>f. South Platte basin...Arapahoe Station has retired and Valmont will be retired by the end of this year. Rocky Mountain Energy Center could be added though it is currently supplied by a lease with Aurora. Pawnee Station is a major plant and should be added.</p>	<p>New and/or updated data are a key enhancement of the SWSI update. Any data provided are much appreciated and will be considered to the extent that information becomes available prior to preparing the water demand projections.</p>
41	Drew Beckwith	WRA	3.2 and Appendix B	<p>There has been significant change in the thermoelectric power generation industry since the last SWSI report, notably, with significant increases in renewables and retirement and scheduled future retirement of coal-burning plants across the state. This will translate into reduced use of water for electricity generation. See as data source WRA publication: https://westernresourceadvocates.org/publications/water-required-for-energy-generation-in-colorado-is-declining/. Even since that report's publication in 2014, updates to Table 1 of the report include: 1/3 of Craig will be retired by 2025, 1/2 of Comanche by 2025, 1/6 of Martin Drake (date ?), and all of Nucla by 2022.</p>	<p>Please see the previous comment and response.</p>
42	Richard Belt	Xcel Energy	2.2.1	<p>Does the methodology provide results on a "demand" or a "consumptive use" basis? I think that both are important to understand, but I think that the results from earlier efforts could be clearer. For instance, I think that the municipal methodology pretty clearly focuses on demand, but the results for the SSI (i.e. Table 2-3) is probably at the low-end of consumptive use, at least for thermoelectric. It seems like this should be consistent.</p>	<p>Both demand and consumptive use/return flow projections are being prepared, which is a key enhancement of the SWSI update. Any data provided are much appreciated and will be considered to the extent that information becomes available prior to preparing the water demand projections.</p>
43	Richard Belt	Xcel Energy	2.2.1	<p>Is snowmaking a demand value or a consumptive use value? Same comment as , above...should both be listed? Should the season of use be considered in the determination of contribution to the overall "gap" or is that too detailed for this study?</p>	<p>Please see the previous response. The gap will be analyzed on a monthly basis and seasonal issues may be identified. This is a key enhancement of the SWSI update.</p>
44	Maureen Mulcahy	ERWSD	2.2.1	<p>Was a shift from coal towards natural gas anticipated? Was energy conservation impact taken into account? Was water demand associated with hydraulic fracturing included?</p>	<p>Planning scenario descriptions from CWP will be used to guide the adjustments representing drivers of economy, regulations, and social values that are made in preparing SSI demand projections. New and/or updated data from SSI users will be relied upon, which are expected to reflect a transition from coal to natural gas and energy conservation. Hydraulic fracturing demands will be included to the extent they were represented in basin-level studies.</p>
45	Richard Belt	Xcel Energy	3.2	<p>It seems very unlikely to me that the thermoelectric sector water use will continue to grow. We can explore this during the study (and I have data), but Xcel's water use has maintained a fairly constant level since the late 2000s and expect that trend to continue. Conversion from coal to gas and the increased integration of renewables currently and in the future are the primary drivers. Locations of consumptive use/return flow could change, though...i.e. retirement of coal plant generation and replacement of that generation at a different plant using gas. Overall net change in water use might be zero, but the location of the demand/return flow could change.</p>	<p>New and/or updated data are a key enhancement of the SWSI update. Any data provided are much appreciated and will be considered to the extent that information becomes available prior to preparing the water demand projections. If the location of demands and/or consumptive use/return flows is anticipated to change, this would also need to be provided in order to represent it in the hydrologic modeling and gap analysis.</p>
46	Richard Belt	Xcel Energy	3.2	<p>It seems like "energy development" should be included in both the Southwest and South Platte basins to cover oil/gas/coal-bed methane development...are there others? What is the contribution of coal and uranium development to the overall "energy development" sector? Is it worth revisiting those sectors in light of current changes in the electric generation market?</p>	<p>Basin-level studies for these areas did not include demands for energy development. However, new and/or updated data will be incorporated into the SWSI update to the extent it is provided prior to preparing the water demand projections.</p>



Attachment A: M&SSI TAG Comments Received through October 17, 2017.

Comment Number	Comment Author	Organization	Section Reference	Comment	Response
47	Richard Belt	Xcel Energy	3.2	Thermoelectric and energy development water uses may be influenced by CO demographics, but I think the effect is tempered. Thermoelectric may be much more influenced by the increase in renewable generation as a percentage of overall generation and/or whether the ability to market electricity outside of the state significantly changes. Energy development may be more influenced by the national economy and/or other trends that are occurring at a larger scale.	Planning scenario descriptions from CWP will be used to guide the adjustments representing drivers of economy, regulations, and social values that are made in preparing SSI demand projections.
48	Alan Ward	Pueblo Water	3.2	I believe it is appropriate to explicitly model the Evraz Rocky Mountain Steel Mills (CF&I) water supply because of the large scale, multiple points of diversion, and large return flow. CF&I's primary source of industrial water comes from the Minnequa Canal which diverts from the mainstem of the Arkansas River near Florence in Fremont County. The Minnequa Canal flow is supplemented by the St. Charles Flood Ditch which diverts from the St. Charles River in southern Pueblo County. Water from both sources is collected and stored at the St. Charles Reservoirs No. 2 and 3 just south of the City of Pueblo and from there it is piped to the mill. After use at the mill most of the water is discharged to Salt Creek which flows in to the Arkansas River on the eastern edge of the City of Pueblo. Consumptive use is minimal. DWR Div 2 can provide greater detail and diversion records. Return flow accrues above the SALT CREEK NEAR MOUTH BELOW PUEBLO (SALTMOCO) gage and the return flow makes up almost the entire flow of the Salt Creek which would otherwise be an intermittent stream.	Demands related to the steel industry in Pueblo County were provided in SWSI 2010 and will be included in the SWSI update. Demands will be prepared at the scale represented in the hydrologic model. This specific facility is not currently listed as an explicitly modeled demand, however this comment is being provided to the hydrologic modeling team for consideration.
49	Jackie Brown	Tri-State	3.2	Thermoelectric demands should be updated with current information and Tri-State can help provide this information.	New and/or updated data are a key enhancement of the SWSI update. Any data provided are much appreciated and will be considered to the extent that information becomes available prior to preparing the water demand projections.
50	Gregory Johnson	CWCB	3.2	Information regarding energy development in the North Platte basin may be available through Basin Roundtable representatives.	New and/or updated data are a key enhancement of the SWSI update. Any data provided are much appreciated and will be considered to the extent that information becomes available prior to preparing the water demand projections.
51	Maureen Mulcahy	ERWSD	Table 3-4	I think it makes sense to evaluate industry demands accounting for low/medium/high population growth. Are potential climate impacts also being considered especially related to the energy sector? For example, will more extreme temperatures increase demand for energy (heating/cooling, etc.) and if so, how will that impact associated water demand?	This topic was discussed at the September 26, 2017 M&SSI TAG meeting and recommendations provided by the M&SSI TAG will be incorporated in the final TM.
52	Richard Belt	Xcel Energy	3.3.1.2	SSI return flows...I think there are few enough of these that maybe they can be specifically identified in an Appendix C or something. There will be industrial sites that have return flows directly, some that return through the municipal sewer system, and others that are zero discharge. I don't think there is a rule that can be applied across sectors/locations. My guess is that these will trend toward zero-discharge in the future, but I don't know.	Unless new information is provided, the return flow locations will be as currently represented in the hydrologic models.
53	Drew Beckwith	WRA	3.3.1.2	Not a big number, but I don't think we should consider snowmaking 100% consumptive, it comes back to the stream albeit much delayed.	This topic was discussed at the September 26, 2017 M&SSI TAG meeting revisions will be incorporated into the final TM. Unless new data becomes available, values will be based on what is currently represented in the hydrologic models.
54	Maureen Mulcahy	ERWSD	Water Supply	Does the SWSI evaluate storage capacity/location of storage to help with hydraulic modelling?	It is our understanding that existing storage is included the hydrologic models.