

Comment #	Original Comment	Original UDWRe Response	BLM Comment Disposition	UDWRe Response
BLM 589	2nd line of text: Isn't there any more recent flow data than 2008? If so, please update this.	UDWRe's view is that updating the flow data (and associated figure) would not materially affect the information presented.	Disagree with UDWRe's response although the text revision is fine.	Stream flow data is updated to 2016. Please see the attached Extended Narrative document for the response to BLM Comment No. 589.
BLM 592	4th line on page: Wouldn't this instream flow requirement also apply to threatened and candidate species as well? Bullet list at bottom of page: Please write out the full state names (don't use abbreviations).	There is no instream flow requirement for the Virgin River set by USFWS. The text has been revised to address the comment. The text has been revised to write out the full state names.	Paragraph on flows between Quail Creek and Washington Fields should not have been deleted ... it was valid information to include on existing conditions in the river. Please re-insert it.	Information on the flows between Quail Creek and Washington Fields is added. Please see the attached Extended Narrative document for the response to BLM Comment No. 592.
BLM 595	Please define "APY." Is there any streamflow data more recent than 2005? If so, please update this table.	The figure legend and right side y-axis scale read "AFY"; which is an abbreviation for acre-feet per year. "AFY" has been added to the list of abbreviations. UDWRe's view is that updating the flow data (and associated figure) would not materially affect the information presented.	Thank you for defining APY. Disagree with UDWRe's response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don't omit it because it will take extra work to update it.	Updated stream flow data is included in the License Application. Please see the attached Extended Narrative document for the response to BLM Comment No. 595.
BLM 596	Many places on page: Please write out the full state names (don't use abbreviations). Line 1 under "Virgin River Near St. George": Replace "town" with "St. George." 2nd to last line on page: Is there any exceedance flow data more recent than 2008? If so, please update this.	The suggested edits from the first and second paragraph of the above comment have been incorporated. UDWRe's view is that updating the flow data (and associated figure) would not materially affect the information presented.	Disagree with UDWRe's response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don't omit it because it will take extra work to update it.	Updated stream flow data is included in the License Application. Please see the attached Extended Narrative document for the response to BLM Comment No. 596.
BLM 597	Is there any streamflow data more recent than 2005? If so, please update this table.	UDWRe's view is that updating the flow data (and associated figure) would not materially affect the information presented.	Disagree with UDWRe's response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don't omit it because it will take extra work to update it.	Streamflow data is updated in the License Application. Please see the attached Extended Narrative document for the response to BLM Comment No. 597.
BLM 599	2nd line of text: Is there any flow data more recent than 2006? If so, please update this table.	UDWRe's view is that updating the flow data (and associated figure) would not materially affect the information presented.	Disagree with UDWRe's response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don't omit it because it will take extra work to update it.	Streamflow data is updated in the License Application. Please see the attached Extended Narrative document for the response to BLM Comment No. 599.
BLM 600	Is there any streamflow data more recent than 2005? If so, please update this table.	UDWRe's view is that updating the flow data (and associated figure) would not materially affect the information presented.	Disagree with UDWRe's response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don't omit it because it will take extra work to update it.	Streamflow data is updated in the License Application. Please see the attached Extended Narrative document for the response to BLM Comment No. 600.
BLM 601	1st line on page: Please write out the full state name (don't use an abbreviation). Is there any streamflow data more recent than 2003? If so, please update this figure.	The suggested edit from the first paragraph from the above comment has been incorporated.	Disagree with UDWRe's response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don't omit it because it will take extra work to update it.	Updated stream flow data is included in the License Application. Please see the attached Extended Narrative document for the response to BLM Comment No. 601.
BLM 603	Is there any streamflow data more recent than 2005? If so, please update this figure.	UDWRe's view is that updating the flow data (and associated figure) would not materially affect the information presented.	Disagree with UDWRe's response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don't omit it because it will take extra work to update it.	Updated stream flow data is included in the License Application. Please see the attached Extended Narrative document for the response to BLM Comment No. 603.

Comment #	Original Comment	Original UDWRe Response	BLM Comment Disposition	UDWRe Response
BLM 605	Is there any streamflow data more recent than 2003? If so, please update this figure.	UDWRe's view is that updating the flow data (and associated figures) would not materially affect the information presented.	Disagree with UDWRe's response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don't omit it because it will take extra work to update it.	Streamflow data is updated in the License Application. Please see the attached Extended Narrative document for the response to BLM Comment No. 605.
BLM 607	Is there any streamflow data more recent than 2005? If so, please update this figure.	UDWRe's view is that updating the flow data (and associated figure) would not materially affect the information presented.	Disagree with UDWRe's response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don't omit it because it will take extra work to update it.	Streamflow data is updated in the License Application. Please see the attached Extended Narrative document for the response to BLM Comment No. 607.
BLM 609	Is there any streamflow data more recent than 2003? If so, please update this figure.	UDWRe's view is that updating the flow data (and associated figure) would not materially affect the information presented.	Disagree with UDWRe's response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don't omit it because it will take extra work to update it.	Streamflow data is updated in the License Application. Please see the attached Extended Narrative document for the response to BLM Comment No. 609.
BLM 611	Is there any streamflow data more recent than 2005? If so, please update this figure.	UDWRe's view is that updating the flow data (and associated figure) would not materially affect the information presented.	Disagree with UDWRe's response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don't omit it because it will take extra work to update it.	Streamflow data is updated in the License Application. Please see the attached Extended Narrative document for the response to BLM Comment No. 611.
BLM 612	1st line on page: Insert "in Utah" after "Highway 89." 2nd/4th lines on page and Figure 5-64: The Paria River flows nowhere near Kanab, so delete "near Kanab" in these 3 locations. Figure 5-64: Is there any streamflow data more recent than 2008? If so, please update this figure.	The text has been revised to address the comment in the first line on the page. The USGS streamflow gage in the area is named "Paria River near Kanab." The text remains unchanged. UDWRe's view is that updating the flow data (and associated figure) would not materially affect the information presented.	Disagree with UDWRe's response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don't omit it because it will take extra work to update it.	Updated stream flow data is included in the License Application. Please see the attached Extended Narrative document for the response to BLM Comment No. 612.

Comment #	Original Comment	Original UDWRe Response	BLM Comment Disposition	UDWRe Response
BLM 614	<p>3rd line of 1st paragraph: The acronym “M&I” has already been defined, so don’t do so again here.</p> <p>Last line of 1st paragraph: Is there any return flow data more recent than 2005? If so, please update this.</p> <p>4th line of 2nd paragraph: Is there any return flow data more recent than 2008? If so, please update this.</p> <p>Also please be consistent in the use of acronyms – on this line “MGD” is used, whereas on line 7 “mgd” is used.</p> <p>4th line of 2nd paragraph: Was the St. George wastewater reuse plant ever completed? If so, update this text (depending on completion date, it likely isn’t considered “recent” any more).</p> <p>7th line of 2nd paragraph: Please be consistent in the use of abbreviations – on this line “AF” is used, whereas elsewhere (such as on pages 5-136 and 5-146) “ac-ft” is used, which is BLM’s preference. So replace “AF” here with “ac-ft.”</p>	<p>The suggested edits from the first and fifth paragraphs of the above comment have been incorporated.</p> <p>The St. George wastewater reuse plant was completed in 2006. The text has been revised to address the comment.</p>	<p>Note: Sub-section number is wrong in the revised text. (It should be 5.3.3.1.3, not 5.2.3.11.10.)</p> <p>Disagree with UDWRe’s response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don’t omit it because it will take extra work to update it.</p> <p>Disagree with UDWRe’s response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don’t omit it just because you don’t want to take the trouble to update it</p> <p>The last comment was not addressed.</p>	<p>Please see the attached Extended Narrative document for the response to BLM Comment No. 614.</p>
BLM 615	<p>Is there any streamflow data more recent than 2008? If so, please update this figure.</p>	<p>UDWRe’s view is that updating the flow data (and associated figure) would not materially affect the information presented.</p>	<p>Disagree with UDWRe’s response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don’t omit it because it will take extra work to update it.</p>	<p>Streamflow data is updated in the License Application. Please see the attached Extended Narrative document for the detailed response to BLM Comment No. 615.</p>
BLM 616	<p>Line 1 of text: Please insert “, Utah” after “La Verkin.” Line 4 of text: Please be consistent in the use of abbreviations – on this line “acre-foot” is used, whereas elsewhere (such as on pages 5-136 and 5-146) “ac-ft” is used, which is BLM’s preference. So replace “acre-feet” here with “ac-ft.”</p>	<p>The suggested edits have been incorporated.</p>	<p>2nd comment was not addressed – text uses “AF,” “acre-feet”, and “ac-ft” ... need to be consistent on which format is used.</p>	<p>Change made. The third paragraph of Section 5.3.3.1.3, Chapter 5, Exhibit E of the License Application is revised to read: Wastewater for the towns of Toquerville, Hurricane, and LaVerkin, Utah is treated at the Ash Creek Special Service District wastewater treatment lagoons. For the communities served by the Ash Creek lagoons, 56 percent of M&I water use was indoor water use and 44 percent was outdoor water use. A total of 90 percent of the total indoor use (1,961 ac-ft) returned to the Ash Creek lagoons. Water from the lagoons is land-applied and does not have a surface return flow to the Virgin River. However, after accounting for evaporation, UDWRe considered that 98 percent of the water delivered to the lagoons returned underground to the Virgin River. Of the 4,281 ac-ft of outdoor water use, UDWRe estimated that 50 percent eventually returned to surface waters as non-sewered return flow (UDWRe 2014).</p>
BLM 617	<p>Several places on page: Please be consistent in how the use of abbreviations - on this line “acre-foot” is used, whereas elsewhere (such as on pages 5-136 and 5-146) “ac-ft” is used, which is BLM’s preference. So replace “acre-feet” here with “ac-ft.” 1st line of 2nd paragraph: Is there any more recent water use data than 2005? If so, please update this text.</p>	<p>The suggested edit from the first paragraph from the above comment has been incorporated.</p>	<p>Comment was not addressed – text uses “AF,” “acre-feet”, and “ac-ft” ... need to be consistent on which format is used.</p> <p>Disagree with UDWRe’s response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don’t omit it because it will take extra work to update it.</p>	<p>Updated stream flow data is included in the License Application. Please see the attached Extended Narrative document for the response to BLM Comment No. 617.</p>

Comment #	Original Comment	Original UDWR Response	BLM Comment Disposition	UDWR Response
BLM 618	1st 3 sentences of 1st paragraph: This information is already stated in Section 5.1.4, so no need to repeat it here (at most, reference that section here).	UDWR's view is that the text is appropriate as written.	Agree that "the text is [not in] appropriate as written," however making the requested edit would certainly make the document flow better and reduce redundancy.	Edit made. The first and second sentences in the first paragraph of Section 5.3.3.1.4.1, Chapter 5, Edit made. The first and second sentences in the first paragraph of Section 5.3.3.1.4.1, Chapter 5, Exhibit E of the License Application is revised to read: As previously described in Section 5.1.4, Lake Powell primarily provides water storage for use in meeting delivery requirements to the Lower Colorado River consistent with the Law of the River, i.e., numerous compacts, federal laws, court decisions and decrees, contracts, and regulatory guidelines collectively known as the "Law of the River."
BLM 619	Is there any water storage data more recent than 2008? If so, please update this figure.	The figure has been revised to address the comment.	Disagree with UDWR's response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don't omit it because it will take extra work to update it.	The Final License Application (FLA) filed with FERC shows the figure in BLM Comment No. 619 as Figure 5-67. The figure was previously updated with data through 2016 and included as part of the FLA filed with FERC. A copy of Figure 5-67 is provided in the Extended Narrative document under BLM Comment No. 619.
BLM 620	Is there any historical stage data more recent than 2008? If so, please update this figure.	The figure has been revised to address the comment.	Disagree with UDWR's response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don't omit it because it will take extra work to update it.	The Final License Application (FLA) filed with FERC shows the figure in BLM Comment No. 620 as Figure 5-68. The figure was previously updated with data through 2015 and included in the FLA filed with FERC. Figure 5-68 is provided in the Extended Narrative document under BLM Comment No. 620.
BLM 621	Is there any water release data more recent than 2008? If so, please update this figure.	The figure has been revised to address the comment.	Disagree with UDWR's response ... while the ultimate conclusions may be the same, the analysis will be more accurate (and defensible) with updated data. Don't omit it because it will take extra work to update it.	The Final License Application (FLA) filed with FERC shows the figure in BLM Comment No. 621 as Figure 5-69. The figure was previously updated with data through 2016 and included as part of the FLA filed with FERC. Figure 5-69 is provided in the Extended Narrative document under BLM Comment No. 621.
BLM 622	1st paragraph: Much of this information is already stated in Section 5.1.4, so no need to repeat it here (at most, reference that section here). 2nd line: Delete "the" before "Sand Hollow." (Don't use "the" when referencing a proper name.)	The text has been revised to address the comment. The suggested edit from the second paragraph from the above comment has been incorporated.	Agree that "the text is [not in] appropriate as written," however making the requested edit would certainly make the document flow better and reduce redundancy. Suggest doing what was done at the beginning of Sec. 5.3.3.1.4 and insert "As previously described in Section 5.1.4,".	Edit made. The first sentence in Section 5.3.3.1.4.3, Chapter 5, Exhibit E of the License Application is revised to read: As previously described in Section 5.1.4, Sand Hollow Reservoir is a 50,000 ac-ft storage facility located about 5 miles southwest of the town of Hurricane.

Comment #	Original Comment	Original UDWRe Response	BLM Comment Disposition	UDWRe Response
BLM 627	3rd line of section: This is an incorrect statement ... the environmental effects analysis in this section is supposed to be the effects of the Lake Powell Pipeline ON water quantity and flows, not that flow would have on other resources. Please correct this statement (as well as the significance criterion listed below, which is also incorrect).	The approved study plan incorporated analyses requested by FERC, which included potential effects that return flows resulting from the LPP Project water could have on other resources.	UDWRe is correct in stating that there could be effects from “return flows resulting from the Lake Powell Pipeline project ... on other [water] resources” ... that’s exactly what reviewer said in the comment. Thank you for the revised text, although the first sentence in Sec. 5.3.3.2.1 makes no sense in saying that no significance criteria were developed for surface water, then going on to list a significance criterion. And sentence #2 is incorrect because altering flows in rivers would affect wetlands/riparian areas, aquatic resources, and special status aquatic species. The text after the first paragraph in this section should be rewritten to read “The following significance criterion is identified to evaluate effects on surface water resources resulting from alterations in return flows to streams as a result of the Lake Powell Pipeline project: • Effects on peak flows and/or geomorphology as a result of the proposed project.”	We agree with the BLM section rewrite. The first paragraph in Section 5.3.3.2.1 Chapter 5, Exhibit E of the License Application is revised to read: The following significance criterion is identified to evaluate effects on surface water resources resulting from the LPP: • Effects on peak flows and/or geomorphology as a result of the proposed LPP Potential flow and water level changes in water resources resulting from the proposed LPP could have effects on other resources. The significance of potential flow and water level changes that could result from the proposed LPP are addressed in Chapter 5 sections on other resources including surface water quality, wetlands and riparian resources, aquatic resources, special status aquatic resources, and special status wildlife species.
BLM 629	6th line of 1st paragraph: Need to explain why the “50th percentile” was selected as most representative.	UDWRe’s view is that the reason why the 50th percentile was selected is self-explanatory. Nonetheless, text has been added to address the comment.	Thank you for the added text ... it’s good and helpful. However, there is still no explanation as to the relevance of the “50th percentile climate change projections” ... it’s not mentioned/explained/introduced in the new text (10 percent scenarios are described, but not 50). Need to add this	Explanation of the 50th percentile added. The third paragraph in Section 5.3.3.2.2.2, Chapter 5, Exhibit E of the License Application is revised to include the following sentence at the end of the paragraph: The 50th percentile climate change projections represent the median value of 112 climate change model runs of projected Virgin River streamflows modeled by Reclamation (Reclamation 2014b) and based on results of the Colorado River Basin Supply and Demand Study.
BLM 631	3rd and 4th lines on page: Doesn’t WCWCD HAVE to leave some flows in the river due to listed fish species (vs. what is stated here, that WCWCD may CHOOSE to leave some flow)?	Rights of way for the Quail Creek project were issued by BLM pursuant to an environmental assessment dated August 15, 1983. The EA analysis was based upon studies performed by Hardy and Deacon in 1982, which formed the basis for the December, 1982 biological opinion for the Quail Creek project. The 1982 BO and subsequent BOs have....	This is REALLY good information (in UDWRe’s response). It would be very helpful to add a summary of the text in this response into the Affected Environment section (Section 5.3.3.1.2.2) – and thank you for deleting the sentence referred to in my comment.	Information is added regarding the management of flows in the Virgin River. Please see the attached Extended Narrative document for the response to BLM Comment No. 631. This revision supersedes the language provided in the response to this comment, BLM Comment 631, in the February 27, 2017 submittal to BLM. Also please see the Extended Narrative document for the response to BLM No. 592 for additional information relevant to the response to BLM Comment No. 631.

Comment #	Original Comment	Original UDWRe Response	BLM Comment Disposition	UDWRe Response
BLM 632	<p>2nd and 4th lines of 1st paragraph: Line 2 states that KCWCD would receive up to 4,000 ac-ft/year, then Line 4 states they would receive 1,338 ac-ft/year ... why the difference? Where would the other 2,662 ac-ft go? Please clarify/explain in text. Also, please be consistent in the use of abbreviations - on this line "acre-feet" is used, whereas elsewhere (such as on pages 5-136 and 5-146 and other places in the PLP) "ac-ft" is used, which is BLM's preference. So replace "acre-feet" here with "ac-ft."</p>	<p>The text has been revised to address the comment.</p>	<p>Edit for 1st comment is fine 2nd comment was not addressed – text uses "AF," "acre-feet", and "ac-ft" ... need to be consistent on which format is used.</p>	<p>"Ac-ft" used as consistent format. The first paragraph in Section 5.3.3.2.2.3, Chapter 5, Exhibit E is revised to read: In the Lake Powell Pipeline Development Act, the Utah legislature allocated KCWCD up to 4,000 ac-ft per year of LPP water, with the first LPP depletions beginning in 2035. The total amount of LPP water that could be distributed by KCWCD in the Johnson Canyon and Kanab areas of the District's service area is approximately 1,338 ac-ft per year based upon the projected water demand. Should the actual water demand exceed the projected demand, KCWCD could receive additional LPP water from 1,338 ac-ft per year up to 4,000 ac-ft per year. Based on the 2005 wastewater effluent return flow from the Kanab area, the 2060 wastewater effluent return flow could increase to 574 ac-ft per year. In 2060, the Kanab area wastewater effluent would likely be land-applied for pasture grass or other indirect use. The requirement to provide water for Kane County agricultural land is 5 ac-ft of water per year, and a total pasture area of approximately 115 acres could be irrigated with wastewater effluent in 2060. Therefore, no wastewater effluent is expected to return as measurable surface flow to Kanab Creek or other Kanab area drainages.</p> <p>All other uses of acre-feet and AF are globally revised in Chapter 5, Exhibit E of the License Application to read ac-ft.</p>