Note: Page and line numberings refer to PDF document supplied to reviewers which had many numbering errors. These will not correspond to pages/numberings in the document being edited. Use PDF here: S:\Projects\PRRIP\Peer Review\Sediment Augmentation Data Synthesis Compilation to find locations of comments.

Reviewer	Comment	Type	Topic	Chapter/Section	Page	Line	Comment / Paraphrase	Addressed?	Response (Text or peg and line#)
Smith	8	Figure	BQ3	1	23		Two slopes are presented in the graph. What are these?	no change made to report	The higher slope (0.0012) was the slope of the linear regression downstream of Overton Bridge, while the lower slope (0.00092) was the slope of the linear regression from J2 to Overton Bridge. This analysis was done prior to the work presented in this report, so exact values and methods for determining these values may vary from what is presented in later chapters.
Williams	Ch. 2d iii	Text	Braid Index	2	47	175-6	in river type (broadly from braided to meandering); is it possible to also calculate a braiding index (if imagery with a similar discharge can be	no change made to report	index (Tejedor, Alejandro, et al. "The entropic Braiding Index (eBI): A robust metric to account for the diversity of channel scales in multi-thread rivers." Geophysical Research Letters 49.16
Brasington	4.2	Organization	Breakthrough	1	21	279-298	Breakthrough intro should be moved before this section	change made to report	Moved to Data Section
Williams	Ch. 4a iv	Organization	Breakthrough	4	87	97-104	Put in introduction/methods	change made to report	Moved to Data Summary Section
Brasington	6.3	Figure	Caption	3	72/73	Fig 3.16	Caption disconnected	change made to report	Fixed
Smith	21	Figure	Ch. 3	3	55	12	waiting for the subsequent volume chapter, but a difference map of the two models would allow these patterns/changes to be seen more	change made to report	Edited text to remove items that cannot be seen from given figures. These are either unimportant to overall conclusions, or will be discussed later
Williams	Ch. 3a iv	Figure	Ch. 3	3		Fig 3.3	Interpretation is very similar to volume change figures. Needed? Show both in same place?	no change made to report	Agree that some analyses in this report may be redundant, partly because we were piloting many new analyses for this study. Some will likely be discontinued in the future, but we will include in this report for a full record of what we have done to date. Any work published for a wider audience will be more focused/paired down
Smith	Big Picture: Main Comment 5	Organization	Ch. 3	3			analyses contain similar conclusions. Rationale could include i) more targeted analysis of hydrologically important variables; ii) more direct	change made to report	In chapter 3 we evaluated changes from a two-dimensional perspective with planform and profile analyses. This approach allowed us to target specific variables that are either
Williams	Ch. 3b v	Text/Stats	Changepoint	3			Reflect upon how the results are phrased and whether some of the small changes in slope are likely a signal or close being similar to the magnitude of noise in the observations. I think that the larger changes in Figure 3.8 are compelling but that interpretation of the small magnitude changes needs to be undertaken carefully.	change made to report	Several figures and some discussion was removed from the report. After review, we determined that we have over-interpreted spatial and temporal changes in slope and have thus pivoted to showing the simplest - but most certain - conclusion that we can make about slope: the J2 channel has a lower slope than the channel downstream of Overton. We will continue to consider and work on how to relate slope to process/landform in J2, with particular attention to comparison among other parts of the Platte.
Smith	36	Text	Cite fig and ref	4 Methods	85		though an image might help to clarify/demonstrate exactly how this was done. I'm also mindful of mentioning the method of segmenting sediment budgets presented in Wheaton et al. (2013) which could be simplified and applied here. To be clear though, I think the method	no change made to report	see Fig. 4.6, and yes we are planning to try sediment flux/budgeting in future work. See addenda for volume change segregated by aggradation/degradation as opposed to the net change presented in the report.
Smith	2	Math	CY to T conversion	Exec Summary	8		There is some issue here with the conversion between tons and cubic yards. The footnote indicates that 1 T = 1.5 yd3. However, the conversion applied on L7 is different, with seemingly the opposite ratio applied (1.5 T = 1 yd3). It would be also useful to see the data on the sediment density; however, this does not change the study conclusions.	change made to report	Fixed - we had the ratio listed backwards
Smith	Big Picture: Main Comment 6	Organization	Data Collection/Lidar	1			Provide more LiDAR specs earlier in the report. Currently on pg. 85 after REMs are presented (pg 31). Data section detailing all data could be useful	change made to report	See new Data Summary section

Note: Page and line numberings refer to PDF document supplied to reviewers which had many numbering errors. These will not correspond to pages/numberings in the document being edited. Use PDF here: S:\Projects\PRRIP\Peer Review\Sediment Augmentation Data Synthesis Compilation to find locations of comments.

Reviewer	Comment	Type	Topic	Chapter/Section	Page	Line	Comment / Paraphrase	Addressed?	Response (Text or peg and line#)
Smith	34	Text	Data Collection/Lidar	4	85		Some details on the specific LiDAR system used would be informative.	change made to report	This is now in the new Data Summary Section.
Williams	Ch. 4a iii	Text	Data Collection/Lidar	4	85	50	State actual errors reported in lit rather than typical	change made to report	Addressed accuracy in new data summary section D.1.
Williams	Ch. 4 a vii	Text	Data Collection/Lidar	4	93	Table 0.3	remove vegetation or other objects from the DEMs? How many samples points were acquired to assess the accuracies reported in Table 0.3 (P93); what were their distribution? What is the median grain size in the reach and how does this compare to the reported vertical errors (i.e. what is the roughness of the dry, unvegetated topographic surface)? Does the table of wet/dry errors measure errors before or	change made to report	Additional details on LiDAR collection over vegetated surfaces and grain size has been added to D.1. D50 = 0.5 to 2 mm. Vertical accuracy is assessed using ~700 ground control points captured in 2020 (see LiDAR addendum) and 58 to 340 bathy check points depending on the year. All error is reported after post-processing is complete.
Brasington	7.8	Text/Stats	Data Collection/LiDAR	4	93	Table 0.3	Further describe vertical accuracy methods from QSI	change made to report	See Data Summary Section and LiDAR addendum
Williams	3	Organization	Data Summary	throughout			before these data are used for analysis. It would also be useful if a hydrograph was presented earlier (e.g. it would be useful to support	change made to report	There is now a Data Summary section at the beginning of our report
Smith	27	Text/Analysis	Deposition patterns	3	69	9	Is there any deposition taking place on the inside of these migrating meanders?	change made to report	There is indeed deposition on point bars to go with erosion at cutbanks and we have clarified this sentence.
Williams	Ch. 3 Discussion ii	Figure	Discussion	3			Section would be improved by developing of a conceptual/schematic diagram/cartoon to summarise the findings (this could also integrate findings from other chapters and be presented in the executive summary)	no change made to report	We appreciate this suggestion and will consider it for future work.
Williams	Ch. 3 Discussion i	Text	Discussion	3			the high flow record (to help interpretation of comment on 2019 high flows – P80 L34), breakthrough channel closure (P80 L47-8)	change made to report	Added several references to the Data Section and ES
Williams	Ch. 3 iv	Text	Discussion	3			feasibility of different future analyses (P81; L97) – I consider that the changes in channel width and slope are already good but this could be enhanced with multi-temporal satellite imagery analysis, lateral thalweg migration quantification could be achieved with various GIS	no change made to report	These suggestions are being considered or applied in our ongoing monitoring
Williams	Ch. 3a vi	Text	Disking	3	55	19	Define disking	no change made to report	We use a tractor to pull a disk harrow across areas of vegetation to be removed. Disks cut and turn soil to depths of 6" to 1'. The term is common for this audience.
Smith	37	Text	Disking	4 Methods	90	140	What might be the effect of the disking of vegetation mentioned previously?	no change made to report	amounts. It also increases erodibility. Because bare-earth LiDAR is used, it should not have a strong impact on elevations apart from potential error. See data section
Smith	Big Picture: Main Comment 6	Figure	DoDs	1			Show details of systemic errors? (DoDs)	change made to report	check of our DEM data accuracy, reports on errors, and more convincingly justifies our decision to not threshold our data. We have also provided you with a supplemental addendum on this subject depicting a histogram of channel elevation change and showing these are not biased in a particular direction (e.g. not towards erosion or deposition) in the ranges that
Brasington	7.1	Text/Analysis	DoDs	4			It's not enough to say we removed systematic error without demonstrating. Show variation over areas that are assumed to be unchanged. Also effect of in-channel veg change? Or stripmatching from QSI	change made to report	Addressed accuracy and thresholding in new data section D.1. and LiDAR addendum
Williams	Tech Q 1	Text/Analysis	DoDs	4			Although the authors cite Anderson (2019), Anderson still argues that estimated uncertainty bounds should be part of a quantitative estimate of volumetric or mean change (second bullet point in the conclusion e.g. Figure 11 and Table III of Anderson's (2019) example). Use Vericat 2017 or Anderson 2019 to characterise uncertainty and whether some changes are within range of uncertainty	change made to report	Addressed accuracy and thresholding in new data section D.1.2. and LiDAR addendum

Note: Page and line numberings refer to PDF document supplied to reviewers which had many numbering errors. These will not correspond to pages/numberings in the document being edited. Use PDF here: S:\Projects\PRRIP\Peer Review\Sediment Augmentation Data Synthesis Compilation to find locations of comments.

Reviewer	Comment	Type	Topic	Chapter/Section	Page	Line	Comment / Paraphrase	Addressed?	Response (Text or peg and line#)
Brasington	7.9	Text/Analysis	DoDs	4	95	Fig. 0.7	linearly with the integration area, the models of longitudinal net volumetric change (i.e., Figure 0.7) could be presented as envelope	change made to report	We have given more careful consideration to how we deal with systematic uncertainty in section D.1
Smith	Big Picture: Main Comment 6	Text/Analysis	DoDs	4			No issue with Anderson (2019) threshold approach.	no change made to report	
Smith	Big Picture: Main Comment 7	Figure	DoDs	throughout			Show more DoDs	change made to report	We have addressed this comment by adding a full set of DoDs in an appendix (A) for the J2 Return Channel reach.
Smith	7.5	Figure	DoDs	throughout/appendix			As highlighted above (6.3) DoDs for the full sequence should be presented in full page map formats, extending the exemplar plot of Figure 0.4	change made to report	We have addressed this comment by adding a full set of DoDs in an appendix (A) for the J2 Return Channel reach.
Brasington	6.2	Figure	Enlarge	3		Fig. 3.5	Present as a single page	change made to report	Moved Fig. 3.5 to single page
Smith	Big Picture: Main Comment 3	Figure	Field Photos	Throughout/Appendix			Provide more field photos such as on P22. Especially of incision/ other things discussed	change made to report	Added to incision discussion, Figure 2.5
Williams	2b	Figure	Figure	throughout			(e.g. Figure 2.6) include a consistent set of geographic features (e.g. JT Return, Augmentation Area, Overton Bridge etc); it would be useful if	change made to report	Overview map has been replaced to address these and other comments (E.1, 2.1)
Williams	2c	Figure	Figure	throughout			Add a "flow direction" arrow to all maps.	change made to report	Added to figures where appropriate
Smith	13	Figure	Figure	2	33	20	It would be good to see these cross-section locations.	change made to report	Added map (Fig 2.7)
Williams	2a	Figure	Figure	throughout			wide variety of different colours are used on different charts; interpretation would be easier if a consistent palette was used	no change made to report	Agree this is a good approach and we will incorporate it into future work.
Smith	23	Figure	Figure	3	60		An 'elevation distance from grade line' plot might help discriminate between these two lines a little.	no change made to report	Fig. 3.8 provides a differential comparison of 2016 and 2021 thalweg elevations as part of the changepoint analysis
Smith	40	Text	Flow Normalization	4 Methods	98		This flow normalization is good to see. Of course, it is sensitive to the choice of exponent on the q divided (P92).	no change made to report	Agreed.
Williams	Ch. 2 c iii	Text	Gage Analysis	2	37	52	Can you further expand the reasons for water surface elevation change (P37 L52) to include local change and roughness change?	change made to report	Modified sentence to say: Trends of increasing or decreasing water surface elevation at a constant discharge can be linked to a variety of complex processes and can be associated with bridge/site modification, changes in sediment supply, and changes in roughness (vegetation dynamics).
Williams	Ch. 2c v	Text	Gage Analysis	2			Does interpretation of planform change (e.g. switching of anabranches, changes in anabranch widths) in the multi-thread sections (particularly Cottonwood) influence the consistency of interpretations of gage data, particularly for low flows?	no change made to report	Yes. The dynamic nature of the multi-threaded channel creates "noise" in stage measurements at low discharges. This was part of the rationale for using GAMMs to develop long-term relationships and plotting the relationships along with the measurement data to get a sense of variability and confidence in modeled stage through time.

Note: Page and line numberings refer to PDF document supplied to reviewers which had many numbering errors. These will not correspond to pages/numberings in the document being edited. Use PDF here: S:\Projects\PRRIP\Peer Review\Sediment Augmentation Data Synthesis Compilation to find locations of comments.

Reviewer	Comment	Type	Topic	Chapter/Section	Page	Line	Comment / Paraphrase	Addressed?	Response (Text or peg and line#)
Williams	Ch. 2 c i	Text/Analysis	Gage Analysis	2			Methodological approach: Why was water surface elevation (i.e. stage height) interpreted and not any bed level information from ratings? Are the latter available. I'd be curious to know whether these gages were included in Slater et al.'s analysis of USGS station data; if so, what do their results show? If not, why couldn't the data be included in Slater et al.'s analysis? This may explain why bed level can't be used here?	no change made to report	These gages were not included in the Slater analysis. We agree that using flow area, velocity, and width to enhance our analysis would be beneficial if we revisit specific gage analysis in the future, however, we do not intend to add more to this analysis for this report.
Williams	Ch. 2 a	Text	GGL	2	29	104	Justify use of GGL (no perturbations/tribs/chokepoints to interrupt)	change made to report	Added language to 2.3.1
Williams	Ch. 2 a	Text	GGL	2		fig 2.5 caption	Change reference to 2016 "topography" to include bathy	change made to report	edited
Smith	10	Text/Figure	GGL	2.9	29		Clarify that the equation is for the black GGL line. Does this include the J2 return channel and land in-between (I'm just wondering why the convexity is not apparent)? What was Murphy's slope estimate and how exactly does it compare?	change made to report	Updated Fig. 2.3 caption. Yes the cross sections are depicted in Figure 2.2 and cover everything from the north bank of the north channel to the south bank of the J2 Channel. There is enough floodplain elevation data in this extent to reduce the impact of J2 slope on the overall GGL slope.
Smith	26	Text	GIS	3 Methods	66	70	A 'single' polygon used for all years. Was this a union of all wetted areas?	no change made to report	yes
Smith	Big Picture: Main Comment 9	Text	Habitat	throughout			Make stronger connection between channel change and habitat. Characterize things more clearly as good or bad for habitat	change made to report	Clarified this in wetted width discussion
Williams	Ch. 2 b	Figure	Historical Trends	2	Fig 2.7		Whilst there are only two sample years available from the cross-section data, and it is known that there is inter-year variability, I agree with the interpretation of Figure 2.7 that there is a signal of different elevations between stations 50,000 and 90,000 between 1989 and 2002-2016. Shading could be provided around each line to indicate the elevation uncertainty in the different survey techniques, potentially drawing on Bangen et al. (2014) for cross-section surveys and the error analysis for "wet" areas in the 2016 LiDAR survey (presented in Chapter 4). This would enable further interpretation of the point (e.g. at station 50,000 or 60,000 etc.) at which the signal is clear from potential survey noise.	change made to report	We agree this would be a more robust way of demonstrating the uncertainty of measurements. We don't have information on the vertical accuracy of the historical cross-section surveys and had trouble identifying a way to show elevation uncertainty that wasn't arbitrary. Instead, we modified the text to acknowledge this limitation. See caption on Figure 2.8
Williams	Ch. 3d ii	Text	Hydraulic Model	3			Were any of the numerical models calibrated / validated with observation data? How well do they perform? A range of metrics are available to assess 2D hydraulic model predictions; Section 2.51 of Masafu et al. (2024) provides a summary of some of these techniques. If information is available in other reports then a summary of model performance would be valuable here.	change made to report	Calibration and validation details can now be found in section D.3
Smith		Text	Hydraulic Model	3 Methods	66	66	Why use two separate discharge levels either side of Overton to clip the transects? Could a more consistent approach be used (e.g., stage when the gage reading was X)? Presumably, the approach taken was simpler to implement, but did it result in a discontinuity at Overton?	change made to report	Because the J2 Return channel and North Channel do not typically have an upstream connection, this reach must be modeled with 2 upstream boundary conditions. We selected flows that approximate a realistic bankfull flow in they system (i.e. 2500 at J2 Return and 2500 in the North Channel) These flows then combine near Overton Bridge to create the 5000 cfs flow for the rest of the reach. This has been clarified in the report.
Williams	Reproducibility	Text	Hydraulic Model	3, 4			It is clear that some modelling results that have been undertaken for previous reports are not accessible and/or not reproducible. Are there plans to ensure that the data and analysis that has been undertaken for this report are long-term digitally accessible?	change made to report	Previous models are accessible, however we did confront challenges in comparing results from 1D models based on transect surveys to 2D models based on LiDAR bathymetry. We have added more detailed background on our models in sections D.3 and 3.6.1
Smith	35	Text	Hydraulic Model	4 Methods	85	68	Perhaps clarify here that the 1D models were in HEC-RAS.	change made to report	This is now noted in section D.3
Smith	Big Picture: Main Comment 6	Text/Figure	Hydraulic Model	Ch. 3,4 Methods			A flow chart of the method and how LiDAR and models were used to determine key outputs might be informative and add clarity to the overall data processing workflow thereby improving reproducibility	no change made to report	We do not believe that a flowchart is needed for the intended audience but will consider this for wider publication.
Williams	Ch. 4a iv	Organization	Hydro Data	4	85	1.27.1.2	"Hydraulic data". This is an example (together with the LiDAR data) of where there could be cross-referencing through the report and the report could be made more concise by organising common methods into one location (see earlier comments on this). Similarly, I found the material on P87 L97-104 and P88 L109-130 to be rather contextual and more suitable for an introduction rather than methods section.	change made to report	This has been addressed by moving hydraulic, hydrologic, and other introductory/contextual information to the new Data Summary Section

Note: Page and line numberings refer to PDF document supplied to reviewers which had many numbering errors. These will not correspond to pages/numberings in the document being edited. Use PDF here: S:\Projects\PRRIP\Peer Review\Sediment Augmentation Data Synthesis Compilation to find locations of comments.

Reviewer	Comment	Type	Topic	Chapter/Section	Page	Line	Comment / Paraphrase	Addressed?	Response (Text or peg and line#)
Williams	Ch. 2c iv	Figure	Imagery	2			Imagery should be more carefully evaluated and cited	change made to report	We added information on imagery data used to section D.5 and added flow labels to imagery figures
Williams	Ch. 2d i	Figure	Imagery	2	47	164	Can you provide information on the specific satellite (P47 L164) and the imagery dates (as an appendix?); are the thalweg lines available (digital supplement?)	change made to report	Information on aerial imagery added to Section D.5. No satellite imagery used. Data is available upon request.
Brasington	5.4	Figure	Imagery	2	2.9-2.11	2.9-2.11; 2.14-2.15	Label discharge in figures	change made to report	Added flow and flow direction label on all aerial imagery
Williams	Ch. 2d ii	Text	Imagery	2			How was imagery selected for each year? Similar month, similar discharge?	no change made to report	Prior to 2011 - used highest resolution CIR imagery available. 2011 - present, used Program's annual fall imagery flown in October or November.
Brasington	6.5	Figure	Imagery	3		3.20	The discharge at the time of capture for the aerial imagery shown for 2016 and 2021 in Figure 3.2 clearly differs. I would be useful to back out the discharge for the two acquisition dates and add this to the images as a label or as a note in the caption	change made to report	Added flow and flow direction labels to Figure 3.20
Williams	Ch. 3f i	Figure	Imagery	3	Fig 3.20		I think the discharges for 2016 and 2021 are different. Can the discharges be labelled or imagery with similar discharge be found (see an earlier comment about this for figures in Chapter 2).	change made to report	Added flow and flow direction labels to Figure 3.20
Williams	1c	Text	Introduction	1			Vegetation: There are various references to the root systems of vegetation and their relation to bank erosion susceptibility. It would be useful to have a description of the colonization of bars and banks with vegetation, any seasonal dynamics, and any management interventions .	no change made to report	Our intention was to very broadly state that vegetation exists on channel boundaries, and while a full-scale investigation of the vegetative characteristics is no doubt interesting and important we feel it is beyond the scope of the current report. Moving forward, we are investigating the impact of roots and trees on cutbank erosion patterns and rates with lidar and drones, and we hope to develop a stronger connection among flow, form, and vegetation.
Williams	VIII	Text	Introduction	1	16	140	When will proposed flow regime be implemented? More context	change made to report	Added text to footnote 10: Proposed flow regime refers to implementation of the Program's Water Action Plan designed to reduce deficits to United States Fish and Wildlife Service (USFWS) target flows by 130,000 – 150,000 acre-feet annually. Implementation of the Plan began in 2007. As of 2024, water projects are credited with reducing deficits by approximately 110,000 acre-feet annually. Water has been used to increase flow during whooping crane migration, during the summer to enhance baseflows, and to conduct vegetation scour/management experiments.
Williams	IX	Text	Introduction	1	18	222	What are the "other" geomorphic metrics?	no change made to report	There was no additional specificity. The EDO was tasked with exploring appropriate metrics.
Williams	1d	Text	Introduction	1			Summarize all historical management actions earlier in the report. Include meander straightening, blocking breakthrough channel, mechanical augmentation, disking.	change made to report	Description of augmentation projects (including 2017 straightening) is in 1.5.4. Added a reference and breakthrough channel description added to D.2
Brasington	4.1	Figure	Introduction	1	19	Fig 0.5	No scale bar and legend obscures channel. Maybe rendering better? Remove acronym in caption	change made to report	Fig 1.5 in revised report
Smith	7	Text	Introduction	1	16		what is the 'proposed flow regime'? Presumably this is a higher flow, relating to the values in the footnote?	change made to report	The specific flow regime was the implementation of USFWS target flows. Clarification added to footnote 10.
Smith	Big Picture: Main Comment 1	Text	Introduction	1			Provide more information the catchment/ canal system. How much is abstracted at N. Platte? Pre-canal history of the J2 Channel and flow decreases	no change made to report	We will note this for publication to a wider audience, but do not consider it necessary for the current audience of this report.
Williams	Ch. 3 Intro i	Text	Introduction	3			Make explicit reference to 2016 onwards topobathy and pre-2016 to 2009 topo only	change made to report	clarified
Williams	Ch. 3 Intro ii	Text	Introduction	3	51	43	More precise/expansive description of "more detailed evaluation"	change made to report	added
Williams	Ch. 3c iii	Text	Introduction	3	66	76-77	Describe aggradational processes	change made to report	Added "Increases in mean channel elevation indicate aggradation due to depositing material. Material sources in this case include sediment augmentation, lateral erosion, and upstream transport."
Williams	XI	Text	Introduction	3	50	31	This paragraph is relatively general at this stage of the report. The overall aim of the report doesn't need to be repeated, you can go straight to the chapter objective (next paragraph). Edits such as this will help to make the report more concise.	change made to report	Agree, moved paragraph to ch. 1
Smith	20	Text	Introduction	3	50	40	Four analyses? The following text suggests three, though it is hard to identify exactly what they are.	change made to report	Agree that this was unclear. Rephrased the sentence
Williams	Ch. 4a i	References	Introduction	4	84	24	See Vericat 2017 for earlier references to cite	change made to report	Rephrased, added Ashmore and Church 1998

Note: Page and line numberings refer to PDF document supplied to reviewers which had many numbering errors. These will not correspond to pages/numberings in the document being edited. Use PDF here: S:\Projects\PRRIP\Peer Review\Sediment Augmentation Data Synthesis Compilation to find locations of comments.

Reviewer	Comment	Type	Topic	Chapter/Section	Page	Line	Comment / Paraphrase	Addressed?	Response (Text or peg and line#)
Williams	Ch. 4a ii	Text	Introduction	4	84	34-35	Describe aggradational processes	no change made to report	Added in chapter 3, but doesn't fit in the context of this paragraph
Williams	IV	Text	Introduction	Exec Summary	8	21	More context on the river before hydropower impacts is needed.	no change made to report	Executive Summary is aimed at an audience already familiar with the river. More context is provided further in the report
Williams	V	Text	Introduction	Exec Summary	9	38-39	Reference to the high flow dynamics during these years would be useful	no change made to report	Executive Summary is aimed at an audience already familiar with the river. More context is provided further in the report
Williams	VI	Text	Introduction	Exec Summary	9	43	An average is presented then a range. Need to be consistent or provide greater explanation of these different formats.	change made to report	Updated text to provide a range for both components
Williams	VII	Text	Introduction	Exec Summary	9	56	Is the word specific needed?	no change made to report	Yes, this is consistent with how we refer to this analysis later
Williams	II	Text	Introduction	Exec Summary	8	E.1	Define Big Question	change made to report	Add footnote: Big Questions are priority uncertainties identified by policymakers. The answers to these questions will inform future decision-making.
Smith	4	Text	Introduction	Exec Summary	9	25	How far downstream did the 6 ft of incision reach by 2002?	no change made to report	Approximately 4000 feet based on available data points (Figure 2.8)
Smith	5	Text	Introduction	Exec Summary	9	fn 5	What is NPPD?	change made to report	Nebraska Public Power District. Defined in text
Williams	Ch. 4 a viii	Text/Analysis	Lateral Erosion	4			Does lateral erosion method work along anabranches within the active channel where topo variation is smaller? Could compare with Wheaton et al. 2013 method or "expert manual interpretation" to check	Data Provided	Using this suggestion we had two experts within the Program manually delineate lateral erosion in two example locations (wandering section and braided section) between two different time periods. We have included figures and tables that justify moving forward with our automated procedure in the Lateral Erosion Addendum
Brasington	7.3	Text/Figure	Lateral Erosion	4			Cite similar work (listed) and provide more DoD plots	change made to report	We have reviewed citations but no additions made to this section. Added full set of DoDs for the upper study reach as Appendix A
Williams	Ch. 3b i	Organization	Long Pro	3			Consider the logical sequence of the methods section: I think the slope smoothing (i.e. producing the data that will be analysed) should be presented before the changepoint analysis.	change made to report	Moved thalweg generation and simplification methods from Section 3.7.1 to 2.3.1 (prior to changepoint). Changepoint analysis not done using the GAMM-modeled thalweg data so GAMM is described where first referenced in 3.6.2 and also used for Sta. 70,000 analysis (section 3.8)
Williams	Ch. 3b ii	Text	Long Pro	3	61	12-14	Consider whether some of the differences quoted (e.g. 0.2 ft; P61 L12 / L14) are within the range of uncertainty in the wet area accuracy of the LiDAR (P93 Table 0.3).	change made to report	We estimate that wet LiDAR accuracy (95% confidence) ranged from 0.17 to 0.25 ft in 2016 and 2021 (Table D.1), therefore conclusions about changes of 0.2ft may be affected by error. However, we have shown in Table D.3 that error is overall normally distributed. An average change of 0.2 ft over many points considered in the changepoint analysis is therefore likely representing real elevation change.
Williams	Ch. 3b iii	Text/Stats	Long Pro	3	table 3.1		Consider quartiles instead of min/max	no change made to report	We think our simplistic descriptive stats are easier to interpret and we are not sure what additional benefit adding quartiles would provide to the average reader.
Williams	Ch. 3b iv	Text/Stats	Long Pro	3	Fig 3.10		Figure 3.10: Could a statistical test be used to determine whether there is statistically significant difference between the 2016 and 2021 Thalweg Models? This would help to shed light on my next two comments.	change made to report	We removed this figure based on this and other comments regarding slope analysis
Williams	Ch. 2 b	Text	Murphy	2			observations and predictions could be edited to place less emphasis on the model potentially being "correct" (i.e. the truth) and rather emphasizing what the limitations to the model are in terms of its	change made to report	Agreed, changed text to clarify on pg. 55 ln8-10
Williams	Ch. 2 b	Text	Murphy	2	35	39	Focus on how further monitoring may allow the river to express its dynamics	change made to report	edited text
Smith	14	Text	Murphy	2	36		et al. (2004), though I suppose these new lines would shift down if the same maximum incision depth was used. How would it compare then?	change made to report	We redid this analysis with the same maximum depth/Murphy method to make this an apples-to-apples comparison. It did not change the outcome of the analysis.
Williams	Ch. 2d iv	Text	North Channel	2			Is there value in interpreting sinuosity / braiding intensity of the North Channel as a "control" to compare to the J2 Return Channel?	no change made to report	We like the suggestion of using a control reach to better place morphological changes in J2 into context, but we do not think the North channel is a strong candidate due to many decades of considerably different flow regime. We are exploring how best to use other parts of the Platte for adding context to J2 and will pursue this concept in future work.
Williams	Ch. 3 Discussion iii	Text	North Channel	3	81	97	North Channel, to contextualise the findings for the J2 Return Channel (P40 L92) and improve the certainty associated with the statement about confluence inputs on P81 L92 as these are important for sediment supply downstream of Overton Bridge;	no change made to report	We like the suggestion of using a control reach to better place morphological changes in J2 into context, but we do not think the North channel is a strong candidate due to many decades of considerably different flow regime. We are exploring how best to use other parts of the Platte for adding context to J2 and will pursue this concept in future work.

Note: Page and line numberings refer to PDF document supplied to reviewers which had many numbering errors. These will not correspond to pages/numberings in the document being edited. Use PDF here: S:\Projects\PRRIP\Peer Review\Sediment Augmentation Data Synthesis Compilation to find locations of comments.

Reviewer	Comment	Type	Topic	Chapter/Section	Page	Line	Comment / Paraphrase	Addressed?	Response (Text or peg and line#)
Smith	Big Picture: Main Comment 4	Organization	Organization	throughout			Prefers clearer separation of Methods and Results. Suggests short discussion section to help isolate interpretation from description	no change made to report	Considered alternate structures but prefer existing organization
Smith	7.6	Figure	Overview Map	1		Fig. 0.1, 0.5	Add a scale bar and inset location map	change made to report	Replaced these figures (E.1 and 1.5), inset not required for this audience
Williams	X	Figure	Overview Map	2	27	48	These places aren't marked on the maps, or different acronyms are used; see comment above on consistency in geographic reference points on figures.	change made to report	Overview map has been replaced to address these and other comments (E.1 and 2.1)
Williams	III	Text	Overview Map	Exec Summary	8	18	Expand caption to provide more context for the summary	change made to report	caption edited
Smith	3	Figure	Overview Map	Exec Summary	8	27	Presumably this is false colour image (there are several through the document)? Perhaps indicate flow direction. Also, perhaps indicate station 70,000 which is referenced in the Executive Summary.	change made to report	Yes, this is color infrared (CIR) imagery. Figure updated based on this and other comments (E.1)
Williams	2d	Figure	Overview Map	throughout			Consider using identical extents and scales for similar maps (e.g. why do the extents for Figures 2.1 and 2.2 need to be different – it makes it hard to cross-compare them).	change made to report	Overview map has been replaced to address these and other comments (E.1, 2.1)
Smith	11	Text	Photos	2	30		Are there any field observations of these bank heights (or even measured directly from LiDAR)?	change made to report	Yes. Added photos of incision (Fig. 2.4)
Williams	Ch. 2 i, ii	Text	Planform Change	2	48	216	Comment on whether the transition is from braided to meandering or whether there is a wandering state, since a wandering planform is referred to in subsequent sections of the report; and (ii) Discuss what are the typical capacities of braided / wandering river types for conveying sediment versus meandering rive types) (see e.g. Church, 2002).	change made to report	Added text in Section E.2 and 2.7.
Williams	Ch. 3a ii	Text	Planform Change	3	51	62-3	Explicitly summarize meandering, wandering, braided definitions in Exec Summary	change made to report	We have added explicit definitions to section E.2.
Smith	Big Picture: Main Comment 9	Text	Planform Change	1 or 3 Intro			Consider adding Leo&Wolman(1957) or other braiding thresholds discussion	no change made to report	We note a reference to this seminal paper is already included in section 2.6.2. We think the idea of thresholds in planform is well established and think a detailed discussion of these papers (and more recent ones (e.g. Kleinhans and van den Berg, 2011) are interesting but beyond the scope of the report.
Williams	Ch. 4a vi	Text	Pre-Aug Data	4	90	150	Define hydroflattening. Important source of bias should be explained/ assumptions listed in table and figure captions	change made to report	Defined in Data Summary Section; Uncertainty shown and labeled in all figures involving 2009 LiDAR.
Smith	38	Text	Pre-Aug Data	4 Methods	90		The use of 2009 data when no bathymetry was available is slightly challenging. My understanding is that model estimates suggested an average depth of 1 ft and this is used to estimate subsequent sediment aggradation below the water level of the survey. I agree this gives a maximum possible value, but I'd exercise caution in how this value is interpreted. To be fair, this is reflected in the results description (e.g., P94).	no change made to report	Agreed
Smith	39	Text	Pre-Aug Data	4 Methods	95		Exactly how were these uncertainties calculated? I suggest dedicating a short section in the methods to clearly articulating this. No uncertainty in upstream reach? Is it within the thickness of the line?	no change made to report	Uncertainty is calculated at each station by adding the potential aggradation volume (calculated as described in the methods section) to the volume change.
Williams	Ch. 3a v	Figure	REM	3	55	17-18	There is no data to support this comment on the differing proportions for different categories. Can a histogram be added to the side of each REM in Figure 3.3?	change made to report	Removed this statement as the conclusion is not supported by other analyses.

Note: Page and line numberings refer to PDF document supplied to reviewers which had many numbering errors. These will not correspond to pages/numberings in the document being edited. Use PDF here: S:\Projects\PRRIP\Peer Review\Sediment Augmentation Data Synthesis Compilation to find locations of comments.

Reviewer	Comment	Type	Topic	Chapter/Section	Page	Line	Comment / Paraphrase	Addressed?	Response (Text or peg and line#)
Williams	Ch. 3a iii	Text	REM	3			Are elevations associated with the extent of the North Channel excluded from any subsequent quantitative analysis of the dynamics of the J2 Return Channel? The full extent, including both Channels, is shown on Figure 3.1 and I'm concerned that if the North Channel is not excluded then the morphodynamics of that Channel may influence (even bias) any interpretation of data from the J2 Return Channel. It would be worth making a note about this on the figure caption and in the methods.	no change made to report	The North Channel is excluded from sinuosity , wetted width and mean channel elevation analyses. It is included in the GGL computation.
Williams	Ch. 3a i	Text	REM	3	51	54	Is "in general" correct; is "For all" more precise?	change made to report	Removed "in general"
Smith	6	Figure	Scale	Exec Summary	12		Why is the map not to scale?	change made to report	Figure has been updated (1.1)
Williams	Ch. 4a v	Text	Sed volumes	4	Table 0.2		How were volumes calculated?	change made to report	Volumes were calculated using the method described in the next section. This was clarified in the report text.
Williams	1b	Text	Sediment Data	1			Grain size: Do you have surface / sub-surface grain size information for different reaches? If so, what are the downstream / bar-scale patterns? This is important since the report refers to bed armouring as a consequence of "hungry water" winnowing fines.	change made to report	No armoring data available, but field photo added along with general grain size information to section D.4
Smith	Big Picture: Main Comment 2	Organization	Sediment Data	1			Provide flow summary (N and J2) earlier. Currently on P88. Any direct sed trans measurements? Sed rates in US reservoirs? If so provide upfront	change made to report	Hydrology and sediment are now discussed in the Data Summary Section.
Brasington	5.1	Text/Analysis	Sediment Data	2			There is no discussion of bed texture/substrate changes in the chapter. As the authors note, the arresting of incision is likely to reflect a combination of factors, including armouring, reduced slope and also exposure of poorly reinforced bank material. Do the authors have any insight into the principal driver of the changing nature of bed adjustment – and specifically – could the revised HEC-RAS sediment routing model discussed in Chapter 1 be used to isolate the significance of the controls?	change made to report	A brief description of sediment size is now provided in D.4. We are currently working with consultants on improved mobile bed models of this system that may help us address these uncertainties
Williams	Ch. 4a iv	Organization	Sediment Data	4	88	109-130	Put in introduction/methods	change made to report	Moved to Data Summary section
Smith	31	Text/Figure	Sinuosity	3 Methods/Discussion	73	118	"Continued to increase"… the real increase from Figure 3.17 seems to be prior to 2012, though following the straightening of the meander, there has been a gradual increase… I doubt this would be statistically significant. Also, is sinuosity not hard to interpret when there is so much braiding. Why was there no braiding index considered? Finally, P72 notes both manual and LiDAR-derived thalwegs… which is shown in the Figure?	change made to report	We think the general trend in increase in sinuosity is important, though we do concede the value of this increase is small. However, since sinuosity is nearly one to begin with, even small increases can be important to note the onset of wandering and eventually meandering. We have clarified this with some edited text. In addition, we think a rigorous assessment of statistical significance would be both difficult with such a small dataset and potentially distract from the point - that sinuosity numerically confirms visual analysis of planform changes. Our goal is to highlight evidence that confirms recent planform changes and could inform potential future changes. Additional analyses of planform changes - for example, comparison of J2 with other parts of the Platte - could indeed benefit from statistical tests and we appreciate the suggestion moving forward.
Brasington	6.6	Text	Slope/Width Relationship	3	72/73		Interesting, but be cautious of conclusion as other factors may be just as critical for maintaining a braided channel (sed supply, bank strength, various flows)	change made to report	Agree, removed the paragraph on the relation between the two factors.

Note: Page and line numberings refer to PDF document supplied to reviewers which had many numbering errors. These will not correspond to pages/numberings in the document being edited. Use PDF here: S:\Projects\PRRIP\Peer Review\Sediment Augmentation Data Synthesis Compilation to find locations of comments.

Reviewer	Comment	Type	Topic	Chapter/Section	Page	Line	Comment / Paraphrase	Addressed?	Response (Text or peg and line#)
Smith	30	Text/Stats	Slopes	3 Discussion	72	89	The text suggests a nonlinear relationship between slope and width, yet Pearson correlation used. It might be nice to see this relationship. Which direction is the relationship?	change made to report	We have removed Fig 3.11 and slope is now discussed in combination with thalweg profile (3.4.2, pg 80,ln3-8) and regarding Fig. 3.15
Williams	Ch. 3b vi	Analysis/Figure	Slopes	3	Fig 3.11		Double check that the magnitude of difference between 2016 and 2017 modelled thalweg slopes is correct upstream of Overton Bridge (Figure 3.11). In the caption it would be valuable to concisely explain the channel changes that caused these differences.	change made to report	We have removed Fig 3.11 and slope is now discussed in combination with thalweg profile (3.4.2, pg 80,ln3-8) and regarding Fig. 3.15
Smith	22	Text/Analysis	Slopes	3	58	75	I need a little bit of clarity on the point being made here. What might the effect be on the calculated slopes? If migration has taken place, would the horizontal distance used in the slope equation be a lot out? Or is this really minor given the migration rates and intervals used (is it 100 ft like the prior analysis)? Without this information, I can't really judge how limiting this assumption is in the slope calculations.	change made to report	We have removed Fig 3.11 and slope is now discussed in combination with thalweg profile (3.4.2, pg 80,ln3-8) and regarding Fig. 3.15
Smith	16	Figure	Specific Gage	2	41	Figure 2.12	I assume the presence of triangles (for example) on the graph, where this discharge is well below the triangle stage range, simply reflects the use of the 30-day trailing mean discharge? Perhaps note this in the caption to explain this.	change made to report	That is correct. Text added to caption: Presence of stage measurements in flow ranges above corresponding discharge on this figure reflect use of 30-day average trailing discharge.
Brasington	6.1	Organization	Thalwegs	3	57		Thalweg delineation methods were used for Figs. 2.6 and 2.7 as well. Should those methods go in Ch. 2?	change made to report	Moved thalweg generation and simplification methods from Section 3.7.1 to 2.3.1.
Brasington	6.4	Figure	Thalwegs	3		Fig. 3.18	Plot timeseries of thalweg alignments around 70K as accompaniment	change made to report	Created planview figure of thalweg alignments around 70K (Fig. 3.18)
Smith	17	Text	Typo	2	41	105	typo 'dischargers'	change made to report	fixed
Smith	19	Text	Typo	2	47	161	'attempted to'?	change made to report	fixed
Smith	33	Text	Typo	4	85	62	typo "3three"	change made to report	fixed
Williams	I	Text	Typo	Throughout			Fix numbering	change made to report	Apologies for the many numbering issues. They should be addressed in the current version
Brasington	7.2	Text/Analysis	Volume Change	4		Fig. 0.10	Further describe how "volume eroded" values computed vs. net change	Data Provided	Segmented aggradation and degradation figures are provided as an addendum
Williams	Ch.4 a xi	Text/Analysis	Volume Change	4	104	394-395	Dynamic but stable with no observable signal from augmentation". Do you know that all sediment generated from augmentation has been deposited in upstream reaches; a cumulative, segmented budget similar to that shown in Figure 5.2 in Vericat et al. (2017) would enable you to quantitatively analyse where sediment is being stored along sub-reaches.	Data Provided	Segmented aggradation and degradation figures are provided in this package. We plan to examine sediment flux and budget analyses in future work
Williams	Ch.4 a x	Figure	Volume Change	4		Fig. 0.11	Add vert and horizontal scales to inset	change made to report	Edited Figure 4.9
Williams	Ch. 4 a ix	Text/Analysis	Volume Change	4			Aside from "lateral erosion", all other changes are "lumped" together whether they are associated with erosion or deposition. To interpret the dynamics of the study area, I think it would be beneficial to more extensively segregate erosion and deposition within this residual class (e.g. on the bottom panel of Figure 0.8 showing erosion and deposition separately as well as the net).	Data Provided	Segmented aggradation and degradation figures are provided as an addendum
Smith	42	Text	Volume Change	4 Discussion	103		It would be useful to have a comment about the very different pattern of volume change in 2019/20 in the most upstream portion of the reach. Is this related to the closure of the breakthrough or just the higher flows that year mobilising more of the augmented sediment?	no change made to report	see Fig 4.11 caption. Without exact flow data in the upstream reach, can't point to an exact cause.
Williams	Ch. 3d iv	Figure	Wetted Width	3	3.15		What is the unit on the y axis?	change made to report	Added FT to y axis unit on Fig 3.13
Williams	Ch. 3d iii	Text/Figure	Wetted Width	3			Show that Sat imagery confirms large change following 2015 (not due to HEC-RAS/SRH switch)	change made to report	Added figure 3.14
Williams	Ch. 3d i	Text	Wetted Width	3			Why was a value of 2,000 cfs used here (compared to 2,500 and 5,000 cfs used in the previous section).	no change made to report	2,000 cfs was used here for consistency with previous wetted width data sets that are reported across the entire Associated Habitat Reach. (3.6.1)

Note: Page and line numberings refer to PDF document supplied to reviewers which had many numbering errors. These will not correspond to pages/numberings in the document being edited. Use PDF here: S:\Projects\PRRIP\Peer Review\Sediment Augmentation Data Synthesis Compilation to find locations of comments.

Reviewer	Comment	Type	Topic	Chapter/Section	Page	Line	Comment / Paraphrase	Addressed?	Response (Text or peg and line#)
Smith	28	Text	Wetted Width	3	71		I found the modelling aspect of the wetted width calculation a little tricky to follow.	no change made to report	We do not know what specifically should be changed in response to this comment but we recognize that we had to use a mismatch of 1D and 2D models. We will consider how to make the modeling aspect of this work easier to understand in future reports.
Smith	29	Text	Wetted Width	3 Discussion	71		The figure really highlights the main problem reach where there are some narrowing or static widths (around 75,000). Surely the increases in width around cottonwood are good? Though it is hard to tell without any identification of impacts on habitats.	change made to report	Added "these width increases had a positive impact on WC habitat"
Brasington	5.3	Text/Analysis	Wetted Width	2			SWOT data?	no change made to report	With this suggestion we tested these data and we confirm that the width of the river is at the observational limits - especially when flows are low. In some cases the water surface slope is only represented by less than 2 pixels, and we found there to be substantial lateral and downstream variation with such marginal data. However, we will consider using SWOT in the future especially during large flood flows and we remain excited for future uses of this and other similar remote data.
Smith	9	Text	Wording	1	28	81	What is meant by 'pre-development channel'?	change made to report	Agree this was unclear, removed this term from text.
Smith	15	Text	Wording	2	37	55	would channel narrowing not *increase* the water elevation for a given discharge?	change made to report	Agree with comment, removed narrowing example from sentence
Smith	41	Text	Wording	4	99	336	When describing erosion here, is it net erosion? I assume so. Likewise for the Figure on P100.	no change made to report	Correct
Smith	Big Picture: Main Comment 8	Text	Wording	Exec Summary	9	51-52	Interpretation pushed further than rest of document. Cite specific figures/ results here and throughout section	change made to report	We have reviewed our wording in this section, but we also emphasize that we think our language is appropriate for our audience - softening language too much, or making statements less firm, should only be done when the conclusions or results are weak and warrant it.
Smith	1	Text	Wording	Preface	2	30	'Mining' of sediment invokes some kind of human sand/gravel mining. Is this what is intended here?	change made to report	No. Changed text to "erosion of sediment"
Williams	Ch. 3c v	Text	XS Ave Pro	3	Fig 3.13		From c.72,000 ft station to Overton Bridge there is a consistent pattern of average cross-sectional elevation; this is compelling for analysis of the overall trend.	change made to report	Agreed! Added to 3.5.2 results text
Williams	Ch. 3c vi	Text	XS Ave Pro	3	69	24	Greater cross-referencing to the evidence would help here.	change made to report	Added more references to specific sections in the discussion and throughout this chapter.
Williams	Ch. 3c ii	Hydraulic Modeling	XS Ave Pro	3			Why were 2,500 and 5,000 cfs selected? Is there a physical basis for these values? From figure 2.12, I note that these values exclude many Annual Maximum flows. To contextualise and aid interpretation, it would be useful to see a figure showing the inundation area associated with these flows (from 2D model predictions?).	change made to report	Added explanation that these are the approximate bankfull flows for the reach above and below the confluence. See 3.5.1
Williams	Ch. 3c i	Text	XS Ave Pro	3			Is N. Channel excluded from XS Ave Profile calcs?	no change made to report	Yes
Williams	Ch. 3c iv	Text	XS Ave Pro	3	67	81	Convex or linear?	change made to report	Fig. 3.10. agree doesn't look obviously convex, reworded to deviation from GGL
Smith	12	Figure		2	31	Fig. 2.5	This figure is very convincing.	no change made to report	Thank you