

Comment Page #	Line #	Reviewer	Address?	Priority
3	3	93 A.J. Kroll	Address	Green
4	4	136 A.J. Kroll	Address	Green
5	5	174 A.J. Kroll	Address	Green
7	6	181 A.J. Kroll	Address	Green
8	8	255 A.J. Kroll	Address	Green
9	8	255 A.J. Kroll	Address	Green
11	9	280 A.J. Kroll	Address	Green
15	20	492 A.J. Kroll	Address	Green
16	20	492 A.J. Kroll	Address	Green
17	20	494 A.J. Kroll	Address	Green
18	28	825 Jenny Knoth	Address	Yellow
19	28	846 Bretherton, Welles (ECY)	Address	Green
20	28	846 Jenny Knoth	Address	Red
21	29	947 A.J. Kroll	Address	Green
22	42	999 Bretherton, Welles (ECY)	Address	Green
23	55	1303 Bretherton, Welles (ECY)	Address	Green
24	55	1308 Bretherton, Welles (ECY)	Address	Green
25	55	1317 Bretherton, Welles (ECY)	Address	Green
26	55	1319 Bretherton, Welles (ECY)	Address	Green
28	60	1431 Bretherton, Welles (ECY)	Address	Green
29	60	1431 Bretherton, Welles (ECY)	Address	Green

32	71	1437 A.J. Kroll	Address	Green
34	72	1467 Bretherton, Welles (ECY)	Address	Green
35	72	1467 Bretherton, Welles (ECY)	Address	Green
36	72	1472 Bretherton, Welles (ECY)	Address	Green
37	73	1513 A.J. Kroll	Address	Green
38	74	1544 Bretherton, Welles (ECY)	Address	Green
43	75	1602 Jenny Knoth	Address	Red
44	77	1638 Bretherton, Welles (ECY)	Address	Green
45	83	1898 Bretherton, Welles (ECY)	Address	Green
47	83	1905 Bretherton, Welles (ECY)	Address	Green
48	84	1909 Bretherton, Welles (ECY)	Address	Green
49	84	1929 Bretherton, Welles (ECY)	Address	Green
50	84	1931 Bretherton, Welles (ECY)	Address	Green
52	104	2733 A.J. Kroll	Address	Green
55	110	3006 A.J. Kroll	Address	Green
56	113	3088 Bretherton, Welles (ECY)	Address, but no need to be detailed.	Green
14	15	484 Jenny Knoth	Address: Suggest a tabulation of dat	Yellow
1	0	3 Jenny Knoth	Do NOT address	Green

2	2	91 A.J. Kroll	Do NOT address	Green
6	6	172 Jenny Knoth	Do NOT address	Red
10	8	255 A.J. Kroll	Do NOT address	Green
12	9	281 A.J. Kroll	Do NOT address	Green
13	14	476 A.J. Kroll	Do NOT address	Green
27	58	1424 Bretherton, Welles (ECY)	Do NOT address	Green
30	71	1434 Bretherton, Welles (ECY)	Do NOT address	Green
33	71	1437 Jenny Knoth	Do NOT address	Green
39	74	1570 Bretherton, Welles (ECY)	Do NOT address	Green
41	74	1573 Bretherton, Welles (ECY)	Do NOT address	Green
42	74	1578 Bretherton, Welles (ECY)	Do NOT address	Green
46	83	1901 Bretherton, Welles (ECY)	Do NOT Address	Green
51	87	2030 A.J. Kroll	Do NOT address	Green
53	107	2857 Jenny Knoth	Do NOT address	Yellow
54	107	2869 A.J. Kroll	Do NOT address	Green
31	71	1434 Jenny Knoth	Do NOT address given above sugges	Red
40	74	1572 Jenny Knoth	Do NOT address: See previous comn	Red

Reviewer Comment

If the Focal Questions are the main items of interest, then why include the Discussion of findings relative to FPHCP objectives?

No observational studies were included? For example, no studies that substituted space for time to evaluate responses of interest?

This information belongs in a table.

A table that describes characteristics of the individual studies would provide a helpful summary to readers. Each study could be characterized with regards to spatial and temporal scale of sampling, sample size, how responses were summarized, and whether measures of precision were included (among other r-squared?

Pearson's correlation coefficients do not need to be reported beyond 2 decimal places.

Was a confidence interval provided with the prediction?

Which of these factors was more important?

The evidence for salmonid population responses to LWD is equivocal...please see

<https://cdnsiencepub.com/doi/10.1139/cjfas-2014-0344> for a flavor of the overall debate. Without question, LWD shapes the physical structure of streams and creates salmonid habitat. The challenge is to determine, in a watershed, whether physical structure is the factor limiting fish population growth by influencing

Was this effort based on empirical data?

There is a difference between modeled or simulated results and empirical results and this should be taken into account in this summary of findings. How do they compare, with the observed data presented? Again, a table that contains information with treatment and impact would be helpful for the reader. ☒

This doesn't really say anything

I agree with Welles, this paragraph adds no further information that isn't provided above.☒

This table should be placed in an appendix. Also, I would reconsider how much information is placed in the table...as it stands, it is less a summary table than massive blocks of text with lines around them.

Should be sediment

Numbers are incorrect. Please see Buffer Treatment Table 4-18, and 4-6.3 Summary in McIntyre et al 2021. There was no post harvest year 11. Is this meant to be year 11 of the study? Also, 0.2 is incorrect, see above comment for locations of stream temperature effects.

A statistical analysis was performed, see Figure 4A-3, Table 4A-8, Figure 4A-4, and section 4A-2.3 Stream Temperature of Ehinger et al 2021

I would also include Roon et al 2021a, which is more directly about temperature and shade response at the same Also included many metrics mentioned elsewhere in this table.

Multiple statistical analyses were run on the temperature response (e.g. GLS, GLIMMIX), see 4-3.4 of Ehinger et al 2021. "Small sample size" is not an informative metric, please provide actual sample sizes if mentioned in this table to provide reader with information to determine how the sample sizes of the studies compare to each other. If possible find a way to normalize the data for comparison. E.g. Soft Rock - 7 treatment basins (~7000 m of streams treated with current forest practice buffers), 3 reference basins (~3000m of streams), and 57 temperature stations. This study had an unbalanced design (reference sites were well matched and in close proximity with treatments).

I am confused here, too. It seems that many of the studies are summarized more than once.

Canopy photos were also taken

Only through post 5

This statement is incorrect, there were some non-significant decreases in the 100% buffer treatments and later FP at stream level.

This study had a very modest sample size, if I recall correctly...

Why was this done?

this is a good example of the type of presentation of the data that is most useful, adding the data from McIntyre et al. for comparison will help tie the studies together for a broader picture of the affects of buffers on the measured variables.

SSE was calculated, the authors state that it was difficult to draw any solid conclusions on the effectiveness of rule. Extended monitoring was conducted (through Post 6) and included as addendum chapters.

Statistical analyses were performed. Some descriptive statistics were used in Chapter 3, the remaining 4 chapters had formal statistical analysis done. Please go through document and accurately reflect the statistical analyses performed when discussing portions of the Soft Rock report.

Was not significant across all years for all treatments, see previous comment on this subject.

How young, please provide age of forest if available

Stream temperature is included in the FPHCP under Performance Goals 3. "meet or exceed water quality standards" -

This includes stream temperature. It's also a functional objective and a performance target in Appendix N (Schedule L-1). If it's necessary to point out that stream temperature is not described as a function, please provide the connections to water quality and shade that are within the FPHCP.

I would be very careful about conflating spatial and temporal variation in this response.

I had to read this paragraph several times before I understood that you were identifying bank stability as an information gap (or uncertainty). Each one of the responses (or narratives) for each focal question should be written in a manner so that the reader is introduced, in the first paragraph, to the general aspects of your response. This would be good to include in this review: Quinn, T., G.F. Wilhere, and K.L. Krueger, technical editors. 2020. Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications. Habitat Program, Washington Department of Fish and Wildlife, Olympia.

This table is helpful. I find that I still want to see a table that puts the data (results) from each of these papers together in one story - what does it all mean when taken together. How does the empirical data compare to modeled and hypothesized results? This comment applies to all the summaries..

There is a lot of information compiled and summarized in this project. I am having a difficult time digesting the information presented as a "synthesis" and find that it might be better presented as a Summary or annotated bibliography. Overall, I appreciate the effort by the authors however, I think this document is still raw in terms of synthesizing the findings into a clear picture of how the collected studies answer the focal questions (or don't where there are gaps). I agree with many of the comments from the other reviewers and have added only

I have a major concern with the absence of a defined standard of evidence in this document. The studies differ based on strength of experimental design and statistical power based on sample sizes. As a result, the conclusions from each study cannot be placed on equal footing. I understand reviews have been conducted in this manner, but providing narrative summaries of individual studies and reporting conclusions at face value is not consistent with contemporary standards of evidence.

Throughout the document there has been no synthesis of the findings from the collected studies and the same weight seems to be given to modeled/estimated results as with empirical data.

This result is a weak one. A correlation coefficient of 0.41 doesn't suggest much correlation at all (and I will assume the relationship was approximately linear). Also, a p-value of 0.077 shows only a moderate relationship at best (assuming one is interested at all in p-values in 2024).

More generally, I urge you not to report summary statistics from studies without standard deviations, standard errors, confidence intervals, or prediction intervals. If the authors did not provide any summary measures of precision, that should be reported your summary. At the very least, the range of responses should be reported.

Throughout the document, this type of comment must be supported with statistical summaries of evidence.

Please expand on this summary. This does not include clear-cut vs thinning, complexities in riparian stands (e.g. conifer vs broadleaf), hyporheic exchange, topographic shading, etc.. This is a complex topic that deserves more. Answers to focal questions appear to just be additional summaries of specific studies. This reads more like an annotated bibliography broken up by topic. Very little synthesis of these papers in a way that could address the focal questions appears to have been done. One benefit of a literature synthesis is to provide the reader with a comparison and integration of the full breadth of literature around a specific topic. This can provide information on how all of the literature together can and cannot answer these specific questions. The way this is written puts the onus on the reader to make the comparisons to the studies reviewed. There should be more of an effort to provide a narrative structure that tries to answer these questions by integrating findings of multiple studies that either support or potentially don't support (and try to provide a possible reason why) an answer to these questions.

I recognize this question was presented to the contractor and was even perhaps vetted by CMER or Policy. I wonder, however, if better question is about "desired future conditions" as conditions before harvest may not be optimal to meet the goals of the FFR.

Please expand. There has been decades of research on this topic in WA, OR and CA and the differences in approaches, results, site specific responses could all be discussed here.

Another aspect of litter is quality and decomposition rate and how that affects macroinvertebrate communities. This seems to be a missing piece of this review.

This has been repeated multiple times now. Maybe include this in a table once and then refer to it throughout the. This could provide some relevant information on patches of narrow buffers.

Again, what conclusions can be drawn, collectively, from the studies?

Answering this question may best be achieved through extensive monitoring and landscape assessment in areas that have experienced a time gradient of management. Like a chronosequence conducted where conditions are similar or. What do these studies tell us, collectively?

Again, I find the answers to the focal questions appear to be a reiteration of the summaries provided above. What can we infer or learn from this collection of studies that may help answer or reframe the focal questions? As above, I suggest tabulating the findings from the studies by treatment or maybe treatment range when there isn't consistent buffer width for example. What are the key factors that affect the five functions in question?

This is another summary of the studies presented above. A table or graph with the combined data would be more helpful in answering the question. What are the buffers in place? 10, 20, 30m? What is the % change in shade observed following each treatment? While not inaccurate, the conclusion isn't a synthesis of the data.

Author Response

Because the scoping document presented to us requested that it be done this way “

A synthesis of the literature will also be produced that summarizes the overall findings by key riparian function, and related physical processes, that will provide recommendations for future research. “ It also provided Schuett-Hames et al. 2015 as an example of the format.

Yes, they were. Statement included.

Table included

Included

Corrected

corrected

A range of optimum temperatures included

Responses included

Addressed

Addressed

Tables tabulating treatment, response and type of study has been added to the questions section. These tables have been moved to an appendix.

Removed

Removed

Moved to Appendix. Smaller tables outlining treatment and impact have been added to the Question sections.

Corrected

Yes, this was accidentally taken from the mean within treatment differences, thank you. Corrected

Addressed

Removed

Included

Included

Addressed

Reviewer Response

Yes, in the previous reviews it was requested to include background review and summary when discussed in each question. While it is redundant, it provides context for the reader within each question. This way, the reader does not need to go back to the original summary for these details.

Included
addressed

addressed
Included
Addressed

Unfortunately for the Literfall study, McIntyre et al. only present 2 years of post harvest data, and only the total change (not presented yearly). Also, the reduction in litterfall in the McIntyre study is presented as change in ash-free dry mass, not as a percentage. A new table has been added that presents both results.

Addressed
Corrected

Addressed
Corrected
Included

Addressed
Corrected

Moved to front

Included
Tables tabulating treatment, response and type of study has been added to the questions section. These tables have been moved to an appendix.