

**Division of Water
Human Health Criteria (HHC) Technical Workgroup
Meeting #12 *Draft* Notes
October 17, 2018**

Time of Meeting: 10:00 AM – 11:30 AM

Location of Meeting: via Skype for Business; GCI Conferencing Services

Technical Workgroup for Water Quality Standards HHC Members:

- Kristin Bridges (absent), Alaska Department of Health & Social Services/Division of Public Health (DHSS/DPH)
- Larry Duffy, University of Alaska Fairbanks
- Jim Fall, Alaska Department of Fish & Game/Division of Subsistence (DF&G/Subsistence); Marylynne Kostik, DF&G/Subsistence
- Bob Gerlach, DEC/Environmental Health
- Alison Kelley, NANA Regional Corporation (NANA)
- Michael Opheim, Seldovia Village Tribe (Seldovia)
- Brett Jokela (absent)/John Plaskett (alternate), Anchorage Water and Wastewater Utility
- Nancy Sonafrank, DEC Division of Water (DEC/DOW)
- Lori Verbrugge (absent), U.S. Fish and Wildlife Service
- Ted Wu, DEC Spill Prevention and Response
- Kendra Zamzow (absent), Center for Science in Public Participation

Technical Advisors:

- Lon Kissinger, USEPA R10
- Matt Szelag, USEPA R10

Meeting Facilitator: Brock Tabor, ADEC/DOW

Meeting Notetaker: Gina Shirey, ADEC/DOW

Agenda

Housekeeping

Review ADF&G updated FCR Values – what changed?

- **Questions/Comments**

Review EPA-contracted statistical analysis

- a. **Purpose**
- b. **Product**
- c. **Timeline**

Finalize the *draft* HHC Technical Workgroup Report

- **Edits from Lori and Kendra**
- **Reformatting of Section 3**
- **Questions/Comments**

Next Steps

Public Comments

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Adjourn

Meeting Documents

1. 2018 September ADFG Draft-Final Report
2. HHC Technical Workgroup Report Updated ADFG Appx Draft 09 14 18

Housekeeping

Brock opened the meeting at 10:00 am. He noted that he would take roll call of the technical workgroup participants soon and said that roll call for the public will be at the end of the meeting during the public comment period.

Brock reminded the participants of the purpose of the technical workgroup is to provide technical feedback on issues associated with development of human health criteria (HHC) in state water quality standards (PowerPoint Slide #3). He noted that this was meeting #12 for the technical workgroup. The expected meeting outcomes for today (from the agenda) were

1. Discuss the ADF&G preliminary fish consumption rate (FCR) document
2. Discuss EPA's contracted statistical analysis of ADF&G work
3. Discuss draft technical workgroup report

Brock thanked the participants for attending the meeting today. He appreciated the feedback that he had already received on the draft report. Brock noted that the technical workgroup has been meeting since August 2015. He thanked the technical workgroup again for sticking with this endeavor and for participating so long. He felt that the draft report was in pretty good shape at this point.

Review ADF&G updated FCR Values – what changed?

Brock pulled up PowerPoint slide #5. He noted that ADF&G's work has been going on for some time now. The most recent version of the ADF&G report

- Provides updated regional and statewide FCR percentiles
- Identifies and quantifies consumption by species on a regional basis
- Considered 110 communities
- Includes new graphics depicting the percentiles and percentages of species consumed

PowerPoint slide #6 provided some cursory information on EPA's contract with Mountain Whisper Light (MWL) to review ADF&G's work. EPA contracted MWL as a means of providing an "expert" opinion of ADF&G's methodology and results. The focus of the contract was to review the ADF&G methodology for deriving a FCR, attempt to replicate the work using the same data and assumptions, and conduct an analysis of the results and where revisions to the methodology may be appropriate. There has been significant interaction between MWL and ADF&G staff throughout the process, and they worked out some data issues to develop a better baseline. MWL

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reviewed ADF&G's methodology and re-analyzed the data using weighting to account for a few factors including:

- Different number of communities sampled in each region (high number of communities in Southcentral and a low number in Southeast)
- Different number of sampled households in each community that participated
- Different number of sampled respondents in each household that participated

The regional FCR means identified in the ADF&G and the MWL reports were slightly different due to the weighting factors and similar data processing actions. When looking at larger scale of the fish consumption values, there is quite a range in regional consumption rate percentiles but few other differences exist between the different regions. Brock said that we will go into the details of the report in a moment...

Brock next pulled up the ADF&G report and asked for specific questions about the work and the results. Brock noted that there were now graphics that highlight the regional FCRs and percentages of species consumed that accompany the tables previously included in the report. He scrolled to and highlighted Table 4 stating that most of the technical workgroup discussion around FCR percentiles has been referenced here. The table shows fish consumption rates for consumers only of salmon, non-marine fish, and marine invertebrates by region and statewide. He said that the table that provides a good representation of the different regions and shows their respective means, 90th percentiles, and 95th percentiles.

Brock next scrolled to Appendix D in the ADF&G report. Table D1 has harvest and use characteristics for Southeast Alaska. Figures D1 and D2 are graphs of the information in the table. D1 is a graph of the composition of grams per day by resource category. D2 is the percentage of households that used, attempted, and harvest wild resources by category. This information is repeated in subsequent tables and figures for the other regions of the state. Brock asked if Marylynne had anything to add at this point.

Marylynne said that she had nothing to add right now. She did suggest looking at the bar chart (Figure D2). While some community members may not be harvesting, there is lot of use. This can be seen in the sharing component. She said that this is her main takeaway for the regions.

Brock said that he made an effort to address sharing report.

A sample of questions raised by the Workgroup were:

- Q: For percentiles in the distribution, were they transformed in any way or based on normal distribution?
- A: Normal distribution was used.
- Q: Was that the case when you look at the consumer and non-consumer data?
- A: When you look at consumers only, that is the household rate rather than individual rates. There are likely to be small groups on either side of the distribution curve if you look at individual consumption values.
- Q: Do the regions include urban areas?
- A: ADF&G focused on rural areas only. There is some information on urban areas, but the methodology for collecting data is different (subsistence vs sport fish/personal

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consumption). The data ADF&G has used to derive FCR percentiles is specific to rural areas.

Brock returned the discussion back to the workgroup report.

- C: The new graphics are very helpful.

Brock credited Water Division Director Andrew Sayers-Fay for wanting graphics in the report to help understand what's going on and Marylynn for their creation and inclusion.

Review of EPA-contracted statistical analysis

Brock moved on to discuss the EPA-contracted statistical analysis. He turned the discussion over to EPA (Lon and Matt).

Matt: EPA has been working with contractor since July 2017 to look at the ADF&G draft FCR values. There is limited individual fish consumption data in Alaska, but there is robust harvest data. Given the great statewide coverage of the harvest data, EPA wanted to contract with a consultant to look at the methodology for calculating consumption rates from the harvest data and the results as ADF&G is using a novel approach. EPA wanted to see how the contractor would view the data and how it would translate into fish consumption rates. The MWL report shows numbers for the mean and 90th percentiles. The contractor recommended statistical weighting of the numbers to compensate for those communities that were not sampled. In the end, the weighting structure was anticipated to determine the validity of data when comparing sampled and non-sampled communities. The MWL report is fairly close to completion. EPA is weeks to a month away for sharing final report with the state. The state will make publicly available. The contractor's FCR numbers are very similar to the ADF&G report. It shows that the ADF&G approach is defensible. We are in the home stretch on this report.

Lon: The contractors wanted to make sure that each region was appropriately represented. I think that there are going to be some differences between harvest and fish consumption. The harvest numbers are based on household. The fish consumption rate is individual. There may be some reduced variability in results. If an actual fish consumption survey was done, there might be more variability. There is no way to get at this issue other than to compare harvest results with consumption results. Unfortunately that information is not available. We do see that the results between communities and regions are reasonably consistent and reliable.

Brock added, for background, that the contractor was involved in previous work in Idaho with developing fish consumption rates there demonstrating that is not the first time they've dealt with this kind of statistical analysis. Brock noted that this is the data that certain members of the technical workgroup called for.

- Q: I was wondering for communities that were not sampled, why were they not sampled?
- A: The selection criteria used by ADF&G-Subsistence for determining communities is varied. There are a lot of communities include in the sample. To a large extend, the selection reflects the availability of funding. Funding is usually connected to development projects or regulatory issues. We've been trying to fill in gaps with general fund money, but it mostly

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reflects other funding sources. Very few communities have said no thanks. This was not a major factor in the selection of communities.

Brock asked if there were any additional questions about the MWL work. Since there were no questions, he pulled up PowerPoint slide #8, which had a summary table of ADF&G's updated fish consumption rates percentiles. He said he was providing this information based on previous technical workgroup preferences and discussion. There are some similarities between the FCR values but also large differences between regions. The FCR percentiles in the EPA-contracted report are slightly lower than ADF&G's FCR percentiles. The EPA-contracted report does say that they may have underestimated consumption since they assumed that each member of a household consumes fish equally. Brock will distribute the EPA-contracted report when it is finalized.

- Q: Will the report address the differences between harvest and individual FCR estimates?
- A (Lon): There is not a way to do that unless you have identical consumption and harvest data for a community. There will be a section in the report that addresses this topic. The contractor is experienced in looking at fish consumption rates.

Finalize the *draft* HHC Technical Workgroup Report

Brock moved onto PowerPoint Slide #9 and the discussion around the draft technical workgroup report. He thanked everyone for providing comments. He has done his best to incorporate all comments and suggestions. He tried to make sure there was consistency in the report. He received good language edits for several topics. Kendra gave him a good comment about reformatting section 3. He noted that she perceived the report as being written from regulatory point of view and that it might be difficult for certain parties to read the report and understand the issue(s) and ultimately provide good comments when it comes to rulemaking. Brock reformatted the order of the issues in Section 3 in accordance with Kendra's suggestion. He moved the discussion about fish consumption rates into the first section. Other HHC formula topics are grouped into the second section. Implementation information, including the statewide versus regional application, is at the end. If anyone has questions or comments, we can address outside of the meeting.

Brock pulled up the draft report and highlighted key items. He started with Introduction and Table of Contents. The Introduction and Background sections did not change other than some minor text edits. In Section 3 (Workgroup Discussion) he moved the Relative Source Contribution discussion up to the Fish Consumption Rate discussion since that is where we have the conversation about species to be included including marine mammals. Next are the additional components of the HHC formula. Finally, implementation is discussed at the end. Brock said that he hoped this will improve the overall readability of the report. Also, at the request of Lori, he added a text box in the Introduction to talk about the HHC issue in a simplified manner without formulas. Brock said he was interested in getting feedback on this addition.

- Q: One thing that I was thinking about was how "acceptable" and "unacceptable" are defined for the public. We heard opinions about what is acceptable and unacceptable. DEC is defining this. For someone that is not familiar with the fish consumption discussion, what do those terms mean?

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- A (Brock): That is a whole conversation and a huge policy question. Are there thoughts from the workgroup? Ted, you are well-versed in this from your work with contaminated sites.
- Ted: We have definitions in our regulations. In terms of communicating this to public, it's difficult unless you have a toxicology background. It's not a bright line. There is some variability there. It's hard to communicate that.
- C: This report is for public consumption. I understand challenge but I think that we need to provide definitions for "acceptable" and "unacceptable."
- Ted: Most of the draft report is based on exposure. Non-cancer based on reference dose from EPA. Most of information in document is based on exposure and how much one is consuming fish.
- C: I think I was looking for a text box on the side. What definition we're using to describe what "acceptable" means and the values we're using.
- Lon: We are designing criteria so that there are no health affects with long-term consumption. We just have to use the definition of reference dose for protection of non-carcinogens. For carcinogens, we're saying that for 1 in 100,000, it will not result in additional cancer. I think it's possible for some lay language to explain the terms.
- C: The report tries to explain the equation in lay terms. I think it's possible to say in lay terms what "acceptable" and "unacceptable" means.
- Lon: I've done something like that. I've done some presentations on different aspects of the equation. Maybe we (EPA) can come up with some language.
- Brock: I can send the text box out to the workgroup for edits and consideration.

There was general agreement from the group to look at the text box and other proposed language for this.

Brock said he was willing to put some effort into this. He will send out draft language to everyone today. Just give him some words, and he can help craft something acceptable.

Ted: You can ask Kristin Ryan, Division Director for Spill Prevention and Response, for some words.

Lon: That makes sense since that group does a lot of work in describing risk to the public.

Brock said he'll start by sending out the text box with draft language for acceptable and unacceptable to the Workgroup for their edits. . He's looking at 2-3 sentences to provide clarity.

Brock said that the various issues in the draft report are still the same. He's highlighted all the alternative viewpoints in the draft report. Brock said he paraphrased some of the alternative viewpoints where it was contextually appropriate. The alternative viewpoints are also part of Appendix G. Brock acknowledged that he got an email from Alison about the alternative viewpoint language in Appendix G.

Brock said that one area that received a number of suggested edits is the bioaccumulation section. Lori helped massage the language with solid definitions and what they mean in layman terms (see p. 36). Kendra also added some language to tone down the technical language and make it more easily read to the public. At Lori's request, he changed to BCF/BAF to BAF in the formula for

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consistency. That way there is no “/” in the formula and, therefore, no confusion about whether BAF is dividing BCF or some other mathematical interpretation.

- Ted: For the drinking water intake number, is there a reason why 2.4 is chosen instead of 2.5?
- Lon: I will have to go back and look at national table.
- Ted: I have table in front of me. Contaminated sites uses 2.5.
- Lon: I will go back and check.
- Ted: I recommend 2.5.
- Lon: I will get an answer and get back to workgroup.

Brock reiterated that the formatting modifications to section 3 to focus the reader on key issues of concern to the general public like fish consumption. The workgroup recommendations are all the same. There was a suggestion for a FCR table from the ADF&G report be inserted in the text so people can understand. A sample table from the ADF&G report (Figure 4) was added to better illustrate the different FCR percentiles discussed in the text with a reference that the full ADF&G report is included at Appendix E.

C/Q: I think rearranging the section will be helpful for general readability. Did you massage the language for the market fish discussion? Initially it was hard for me to get in the original discussion. It's not clear in the report.

- Brock: I will go back and do that.

On PowerPoint slide #11, Brock asked for feedback on the report. What are its strengths/weaknesses? The Workgroup did not have any suggestions at this time.

- Q: Does DEC plan to do public meetings? Presentations?
- A: Yes. We have extensive plans for the next year to reach out to different groups interested in this topic.

After answering that question, Brock segued the discussion to next steps.

Next Steps

PowerPoint slide #12 listed DEC's next steps. DEC will post the three reports (draft report, ADF&G's report, and MWL's report) on the webpage. DEC is not looking for formal comments on workgroup report process. DEC is planning on doing outreach to key stakeholders and interested parties in Fall 2018 - Fall 2019.

Brock is going to the Alaska Tribal Conference for Environmental Managers (ATCEM) in November and co-presenting on the ADF&G study and the Workgroup Report. DEC will inform the public when both are available on the water quality standards, HHC, and other DEC listservs. DEC is planning on robust outreach that will involve statewide webinars and presentations over the course of 2019. Brock will also be at the Alaska Forum on the Environment (AFE) to speak on the efforts of the Workgroup and rulemaking to follow. DEC wants to have larger conversation about this topic before it engages in formal rulemaking.

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- C: You should advertise the AFE presentation.
- Brock: I would appreciate members of workgroup to participate in the ATCEM and AFE presentations as well. The audience would probably appreciate hearing from the technical workgroup as well.

Brock said that he was not anticipating having another technical workgroup meeting. He asked that if you have additional questions or comments, contact him. At this point, the technical workgroup's time and effort has been greatly appreciated. Brock joked that he didn't want to have a meeting #13 anyways since 13 is considered bad luck.

- C: It would be good to have thank you note for files.
- A: Absolutely. I can start work on that immediately.
- Ted: Has anyone calculated final numbers? This is the part everyone is most interested in.
- Brock said he has spreadsheet with final numbers. He will share the spreadsheet with Ted and anyone else that was interested in trying out different scenarios.

Brock said that feedback on the workgroup process would be appreciated. He noted that this was the first time he has been involved in a workgroup process that lasted this long and covered so much territory. Too much communication? Not enough? Brock would love to have comments on process.



Kendra!

Brock once again gave a huge thank you to everyone involved.

Public Comments

At 11 am, Brock opened the meeting to public comments. He asked those comment to state their name and who they were representing.

Tony Gallegos (Ketchikan Indian Community): I have two comments. First thing, communities like Ketchikan are not in the federal subsistence user classification because of their urban status. I'm not sure if our consumption rate was considered because of the fact that we are not considered rural. Consumption is important. We are not sure if Ketchikan's consumption was considered. Second, the tribal council is concerned that there not be a one sizes fits all for final water quality standards because of significant regional differences. Those are two general comments for the record.

Dennis Nickerson (Prince of Wales Tribal Stewardship Consortium): Thank you. This is my first time at this meeting. Fish consumption rate was added to his work plan for this fiscal year. One of the things I noticed is that we have a lot of resident sport fisherman. I noted that this wasn't

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something that was taken into consideration. We have federal subsistence users on Prince of Wales. These are a few ways that I use licenses to catch my fish. Using just subsistence data leaves out other considerations.

Jim Fall: The data we used to calculate harvest and consumption rates include harvest data from all gear types. We're trying to capture the full range of fish harvest and use by communities.

C: This would be an important clarification for presentations, such as at AFE.

Guy Archibald (Southeast Alaska Conservation Council): I noticed that the consumption of aquatic plants wasn't included. Will that uncertainly be reflected in somewhere else? Cancer risk?

Brock: It is addressed through the Relative Source Contribution.

CORRECTION: The *draft* Technical Workgroup Report notes that the Workgroup has recommended the consumption of seaweed be addressed as part of the FCR (Per B. Tabor 10-26-18)

Guy: Will there be a response to comments published?

Brock: Yes. I've got several ways to address comments. DEC can collect comments on the webpage and post on the webpage. We can set up a place where people can submit comments directly to the DEC. There will also be a way to see how DEC response to comments.

Dennis: When it comes to outreach and resources, is there a way for tribes to utilize these resources so that we can educate our tribal members?

Brock: What I'm hoping to do is develop fact sheets and presentations to drill down to what the technical workgroup told us and what DEC is doing. DEC is planning on doing statewide webinars. We are also trying to do some in-person meetings. We'd like to talk to you more about that.

Adjourn

Brock adjourned meeting around 11:10. He will share notes with workgroup and send out edits to text box. He said that he will look forward to speaking to everyone at future date and will work on letter of thanks to workgroup members.

Action Plan

Who	Will do What	By (Date)
Brock	Share draft meeting notes with workgroup	10-24-18
Brock	Send out edits to text box	Done
Brock	Send out updated draft report?	Done 10-23
Brock	Give letter of thanks to workgroup members	In progress