Columbia River Total Dissolved Gas TMDL
Adaptive Management Team (AMT) Meeting

12/13/2007
National Marine Fisheries Service NOAA
Portland, OR

Attendance: See list at end

Action Items for Next Meeting:

- Send TDG literature review comments to Andrew and Agnes before the next meeting (January 8, 2008)
- Send comments on ACOE SYSTDG modeling assumptions to Andrew and Agnes before next meeting (January 8, 2008)
- ODEQ and Ecology will determine next steps after reviewing AMT comments and discussing at an upcoming AMT meeting
- Mark will work with Chris Maynard to add more articles to the TDG literature review.
- Ron will give Agnes newer TDG literature; Agnes will add to TDG literature review.
- Margaret will prepare and distribute her report on fish passage spill volumes before January 8, 2008
- At the next meeting, Mark will get someone from NOAA to present COMPASS
- At the next meeting, Bob will organize a presentation on alternatives to COMPASS
- At the next meeting, Mark will present on resident fish species
- At the next meeting, Andrew and Agnes will present WA standards and OR standards and waivers.

Meeting Notes:

Introductions and brief review of last meeting - Andrew

Andrew explained the purpose of the AMT. Our goal is to be on track for the 2008 spill season. For DEQ, it is a waiver and for WA it is a standard, which would require a standard change and take much longer to implement a change if the 115% forebay limit is removed.
Dan wanted to know how many more fish will pass by eliminating the 115% limit. Need to clarify if they are live or dead fish. Andrew confirmed we will be looking at live fish.

Bob wanted to know how we consider endangered species vs. non endangered species. Andrew said this is difficult and that we will look at the data. Mark will talk about resident impact in his presentation. Mark asked that we base data on salmonids, but make the assumption that the effects are the same for all fish -- resident and anadramous.

Ron stated that the literature does not reflect more recent data regarding effects of TDG on live fish. **Mark will work with Chris Maynard to add more articles to lit review list.** Mark is using an annotated bibliography from Don Wycamp. **Ron will give Agnes the newer TDG literature.**

ACOE presentation on spill volume changes – Rudd

Rudd gave a brief explanation of models, processes, and results. The model was based on the 2007 data. Ron suggested looking at more comprehensive data vs. data from just one year.

Rudd stated that ACOE would still use the forebay gauges for SYSTDG modeling purposes in order to know what level of TDG is coming into the projects, even if the system was not managed to forebay limits. This was not mentioned in the report.

Andrew would like similar charts using spill data as Tables 4 & 5. Laura – COE can do that. They have it in hourly values. They could do it in daily values, but that would take more work. Jim asked Andrew what quantity he wants. **Andrew will let COE know.**

Ron asked Laura to explain Table 7 – forebay exceed and tailrace exceed. Scenario A = 49 exceedances, B is greater. Only change to the model was in the limitation of the 115% forebay standard all other variables needed to be kept constant as described in the ACOE report.

Hydraulic capacity was not explicitly cited in the ACOE report and did not take into consideration the 20 units which were off line in 2007. Additional model runs will likely occur. **AMT is to send additional SYSTDG model run scenarios to Agnes and Andrew for consideration.**

<u>FPC presentation on Spill Volume Changes with Use of Tailrace Monitors – Margaret</u>

The modeling conducted by ACOE and FPC yielded the same results even though two different approaches were taken. Both analyses reported a 1,300 KAF increase in spill volume at Bonneville Dam. Laura wanted to know how the COE and FPC's numbers were the same. In Scenario A, an average of 20 units were out of operation during the spill season from 1 week to 5 months each. Scenario B did not take that into consideration. FPC used only Bonneville units. COE used 20 units for outages. ACOE would like both FPC and ACOE to use the same hydraulic capacities in the future. Roger stated that the total number of units off-line seems to be irrelevant if both analytical approaches yielded similar results.

Laura asked what "20 year AVE" meant on the y-axis of the "Runoff Volume Characterization of 4 Years" slide. Margaret said it was the last 20 years as identified in ACOEs end of year document. There was discussion about this and confusion about what years were used. Group wants to know additional critical monitoring years to run models on. **AMT is to send additional SYSTDG model run scenarios to Agnes and Andrew for consideration.**

Agnes asked if it is useful to run model on RPA 29 in draft bi-op. Jim said there are uncertainties on when the spills are stopping and starting. Ron said not to base models on bi-op but to use dissolved gas criteria. Rudd said that since we are looking towards the future, we will need to use bi-op. Laura said that we all need to agree on assumptions used in model.

Due to time constraints the group was not able to discuss the 9:45 am agenda item, and the 11:15am agenda item.

Due to concerns regarding NOAAs COMPASS model, an alternative model approach will also be presented at the next AMT that will provide the methodology for calculating the effects on fish passage and survival without the 115% TDG limit. **NOAA and Bob Heinith (with help from others) will present these two modeling approaches, respectively, at the next AMT.**

Mark quickly explained the literature review he's been doing on impact of TDG on resident fish and showed his table on the impact of increased TDG on resident fish species. The table includes both lethal and sub-lethal effects. The format provided a clear overview of the literature reviewed. **Mark will present his findings on the impacts on resident fish due to increased TDG at the January 8 meeting.**

Next meeting January 8, 2008, Tuesday, at NOAA fisheries in Portland.

Adjournment

Attendees:

	Name	Organization
1	Agnes Lut	ODEQ
2	Rudd Turner	COE
3	Andrew Grassell	CPUD
4	Ross Hendrick	Grant PuD
5	David Wills	USFWS
6	Margaret Filardo	FPC
7	Mark Schneider	NMFS
8	Ron Boyce	ODFW
9	Rhett Lawrence	SDS
10	Bob Heinith	CRITFC
11	Richelle Beck	D. Rohr & Assoc.
12	Laura Hamilton	COE
13	Roger Schiewe	BPA
14	Dan Feil	BPA
15	Bao Le	Douglas PUD
16	Brandon Chockley	FPC
17	Stephanie Bahrio	ODEQ
18	John Piccinini	BPA
19	Andrew Kolossens	Ecy
20	Jim Adams	COE