I. **Introductions and Agenda Review**

The meeting started late because the morning tour went over.

*Introductions:* Meeting participants introduced themselves.

*Agenda Review:* Molly went over the agenda for the day’s meeting. No changes were made.

II. **Group Discussion – Q & A for Gravel Mining Association**

*Morning Tour.* Individuals attending the morning tour shared their experiences and thanked Becky Wood, with Teichert, for planning the tour and lunch.

*Q & A for Gravel Mining Association.* Becky went over the questions the DTMC prepared for the Gravel Mining Association and presented her responses. Many of the questions were concerned with whether or not mercury was being found during gravel mining activities, and if found, was it being reported. Becky responded that, for the most part, mercury is not found at gravel mining operations. In general, the concentrations of mercury are low and sources disperse; it would be expensive to outfit operations with equipment to recover these low levels of mercury.
The question was raised if the set of questions developed for the Gravel Mining Association would generate different answers if applied to the operations in the Sierras rather than Cache Creek. The group discussed the differences in the operations in different regions. Becky proposed a tour of Teichert’s operations in the Sierras, and offered to arrange the activity. The group accepted; this tour is tentatively scheduled for October. Molly will work with Becky on this.

Mitch Maidrand indicated that he was interested in using the MAS/MILS database for gravel and sand operations to map out existing operations. This data could be useful in determining operations where mercury could be recovered. Mike Tuffly indicated that a map could be generated, though locations would be not exact.

The group discussed that physical removal of mercury may not be the only opportunity to keep mercury out of the Delta and that it was worth exploring options that would immobilize the mercury (e.g., wetlands).

**Group Discussion of Mercury in the Environment.** The group discussed the general behavior of mercury in the environment, highlighting some of the lessons being learned as more studies are being done.

- **Habitat.** Darell Slotton and Charlie Alpers emphasized how important habitat is in influencing mercury speciation in a waterbody. Two streams with the same mercury load could have dramatically different bioaccumulation of mercury in the biota because of the different habitat. Significant factors include: turbidity, anoxic conditions, complexity of the food web, etc. In lakes, where wind can keep the waterbody mixed, anoxic conditions are minimal and methylation is not as significant.

- **Atmosphere.** The contribution of atmospheric mercury was discussed. In much of the mercury work being conducted in Northern California, atmospheric contributions are considered insignificant with respect to the mercury contribution from historic mining operations. The group agreed, but felt that this assumption needed to be verified. The CALFED Mercury study Science Advisory Panel has also indicated that they would like to see studies to support the assumption that the atmospheric contribution was not important.

- **Vegetation.** The role that vegetation plays in cycling mercury was brought up. Plants can absorb mercury and translocate it to plant parts that are aboveground (e.g., stems, leaves) which in turn would be returned to the environment. Group members indicated that researchers at the University of Nevada, Reno, are studying this.

- **General parameters for methylation:** Once mercury is in a system, habitat characteristics that favor methyl-mercury production include: dry climate, steep slopes, and slow, turbid water. It was noted that Cache Creek is low with respect to these parameters.
III. **Group Decision on Meeting Schedule**
Molly provided meeting participants with the background for this agenda item. Specifically, the decision was made six months ago to meet every month in an attempt to standardize the meeting time and frequency. The group agreed to revisit this decision after six months to determine how it was working. This meeting was the 6 month scheduled check-in. Molly asked regular meeting attendees how this decision was working.

Responses were given and included:
- The decision has been good in standardizing the meeting, but that the meetings are too frequent.
- It may be worthwhile to reduce DTMC meeting frequency, especially as the Strategic Planning effort is ramping up – freeing up time to focus on the strategic planning.
- There is less of a need currently to meet so frequent.
- Set the meetings monthly, then take months off, maybe around the holidays and during the summer when researchers are out in the field.
- The regular schedule is fine.
- Monthly meetings are too frequent; to keep meeting regularity, schedule the meetings every other month.
- Products and deadlines are driving us now. The workgroups need the time to develop the Strategic Plan. We may want to shift now and then shift back to meeting more frequently after the Plan is drafted.
- The minutes are extremely valuable to those who miss meetings to keep up with what is happening.
- Utilize email more to keep in contact; considering using the website for communication.
- Tuesdays are Board of Supervisor meetings, which causes a conflict for county staff.

**Decisions:**

*Meeting Schedule:* The group decided to meet every other month through December and agreed to re-visit the schedule again at that 6 month point. The same meeting day (second Tuesday) was retained. The meeting time was shifted to 1 -5 in the afternoon.

*Workgroups:* It was proposed that the second Tuesday on alternate months could be used by the workgroups if they would like to do so.

*Facilitator/Assistant facilitator hours:* With a reduction in the number of meetings, Molly encouraged meeting participants to consider how to redirect her time as well as Carol’s time. Additional support for the workgroups and strategic planning effort may be an option.

*Coordination with Bear-Yuba technical workgroup:* Participants agreed to continue to coordinate with this group making use of the joint mailing list and encouraging participation in regular meetings but would not hold a joint meeting now.
IV. Report Back from Florida Mercury Conference

Charlie Alpers reported that the Workshop on the Fate, Transport, and Transformation of Mercury in Aquatic and Terrestrial Environments was excellent and well attended. The conference had technical sessions, posters, and field trips of the Everglades. The source of mercury in the Everglades is atmospheric deposition. Charlie indicated that while the Everglades is a complex system, experts have indicated that Cache Creek is more complicated than Everglades. The work undertaken in Cache Creek is just scratching the surface of what needs to be done. The effort in the Everglades has included a combination of studies to evaluate mercury movement through the foodweb. Charlie offered to make the abstracts available to group members, and will bring a list of the abstracts to the next meeting. The Florida conference was the fourth workshop in a series of five and it is expected that the proceedings from all five will be produced on a CD-Rom.

Charlie also discussed METAALICUS (Mercury Experiment to Assess Atmospheric Loading in Canada and the United States), an international experiment being conducted in Canada, to determine the relationship between atmospheric deposition of mercury and mercury in fish. In this whole ecosystem experiment, mercury input to a lake and its watershed will be increased incrementally, and at the same time the response of fish mercury levels will be assayed. In addition to following changes in mercury concentration of fish, the relative importance of different pathways of mercury into the aquatic ecosystem will be studied. Details about this study are available on the USGS website (http://minerals.usgs.gov/mercury/).

Members indicated that the 15-year plan prepared by the Cache Creek Mercury Group was realistic and should be revisited.

The TMDL mercury study in Georgia was discussed; the study is available on the internet or from Tom Grovhoug. Consultants developed a simple, yet successful, model for predicting mercury levels in fish. It was suggested that the Strategic Plan workgroups take a look at this study.

V. Updates

Mercury monitoring and Prop 13. Mike Tuffly gave an update on the meeting held on May 22nd. The Department of Conservation selected North Yuba River and Upper Putah Creek as the two watersheds to study for their CALFED contract. The study will incorporate soil samples and will include Cold Creek and James Creek. After the inventory is complete, sites will be ranked and further characterization will be undertaken. BLM has already started a pretty comprehensive inventory for Upper Putah and Dry Creek and has offered to assist with sampling on private land; they have identified 8 mines that are contributing to water quality issues. Mike indicated that he could send out the soil sampling method to those who wanted to review it.

It was noted that the monitoring being conducted would be useful to the individual watersheds; it was not clear how it could benefit the DTMC effort as both watersheds are above dams. The DTMC is looking for a remediation project in a simpler system that could be extrapolated to the larger system.
Question were raised about the criteria used to select the two watersheds. At one point in the planning for the study, The Mercury Monitoring Group was told that they would participate in the development of the selection criteria but that did not happen. The workgroup was briefed on the chosen sites after they were selected. These criteria may be of use to the DTMC. The group asked to hear more details and Mike Tuffley agreed to make a presentation to the Full group at their next meeting (The group subsequently realized that it was the same presentation made to the Mercury Monitoring Workgroup and that it would not be necessary to make it again.) A request was made to post the data collected through this study on the DTMC website.

**Strategic Planning Workgroup.** The workgroup met last Thursday. The intent is to have a preliminary draft of the Strategic Plan by the end of this year. Five sub-workgroups were set-up: fate and transport; modeling and monitoring; sources and control measures; decision support; outreach; and targets. A lead and co-lead have been identified for each group as well as resource people to make use of while writing the Strategic Plan. The lead person is responsible for gathering information and drafting the sections identified in the Strategic Plan outline. The next meeting for the Strategic Planning Workgroup will be on June 26 at 10 am. Participants are to revise the outline, identify data gaps, identify management questions, and expand the resource list. Carol will be helping to keep the Strategic Planning Workgroup on track.

Questions were raised regarding the link between the DTMC strategic planning effort and related parallel efforts such as the development of mercury TMDL’s. Patrick Morris, with the Regional Board, is a member of the targets sub-workgroup, and will provide coordination between the Regional Board’s TMDL effort and the DTMC strategic planning effort.

The workgroup meetings are open and anyone wishing to participate is welcome to attend.

**Bear/Yuba Workgroup.** Dave Lawler indicated that work on the Bear and Yuba Rivers has benefited from an increase in funding from the State Board. This funding is expected to continue for three more years. Studies are looking at the amount of mercury that these waterbodies contribute to the system. Biota and mercury load to fish will be studied. Some stable isotope work will be done to understand the foodweb. Flux studies on sediment cores taken quarterly from Campfire West will be studied in the laboratory; these studies will begin July 1. Work at Rawlins Reservoir will be minimal. Dave reported that between 20-30 pounds of mercury was recovered through the recycling program. The next meeting of the Bear/Yuba Workgroup will be in August.

**DTMC Website.** The website workgroup met on June 4th to discuss the current status of the website. Changes will be made to make posting new information more efficient and timely. A list of key words will be created for the website to increase hits. LWA is beginning work on the GIS component. It was pointed out that the old website is still accessible, and needs to redirect users to the new website.

**Carol’s Contract.** Carol’s contract has been approved and she is working on several of the workgroups. Participants were asked to consider how to use her time. This will be discussed at the next meeting.
VI. Next Meeting
The next meeting will be on August 14th in Woodland. The following topics were identified as presentation topics for future meetings:

- Work by Steve Lindberg on atmospheric mercury
- Vegetation work being done by University of Nevada, Reno researchers (Mae Gustin and Glenn Miller)
- Any groups with a remediation plans for mercury (Carson River was suggested)