NOTES SUMMARY AMP development working group meeting 02/03/11

Follow-up action status:

- State issue letter on IC?
 - CDPHE will keep people informed and provide a letter as soon as it is ready
- Letter from DOE re water lease?
 - DOE will provide letter concerning water lease in the next few weeks when it is completed
- Broomfield city manager sent letter to CDPHE asking to hold off RFLMA until AMP done.
- Broomfield doesn't want to go too far down AMP until IC issue resolved and can't indicate support through AMP until issues resolved. Doesn't want to discuss triggers, etc. because IC issue is fundamental – legal issues must be resolved. Will have to withdraw participation in AMP process if path forward on ICs not know.

Questions:

- Will a new contact record be issued re subsurface IC modification?
 - Will be done when RFLMA parties' consultation on a path forward is completed.
- Will this IC change have public comment?
 - Still working on defining the process and what's needed to make the change. DOE explained contact record process used to document RFLMA Party consultations and that they are posted to Rocky Flats LM website for public information. RFLMA parties are not sure if IC clarification will reach threshold requiring public review and comment, but proposed changes will be result of RFLMA Party consultation and public will be kept informed of path forward. CDPHE said IC resolution is a priority.
- Briefing environmental covenant vs. restrictive notice (see end of notes)
- Was a risk analysis done for soil below 3 feet? Broomfield wants clarification – believes a risk assessment for soil below 3 feet is needed before can change IC/covenant. Citations/quotes from CAD/ROD: pages 47, 54, 66, 70. Broomfield will send to DOE in an e-mail.

Discussion topic 1 – Triggers to close C-2 valve in flow-through (need a strategy)

- South-facing hillsides and 903 lip area (wildfire)
 - DOE some lightning strikes in north side, but no wildfires have occurred in this drainage to date
- Exceedance of standard at SW027 trigger?
 - Need to decide what will trigger at GS01, GS31 and/or fence line(any downstream POC), based on 30-day, 12-month average?

- WCRA with any exceedance would like to see C-2 closed until source located. Focus on SW027 perhaps 12-month average?
- Exit strategy after closing valve (to reopen)?
 - SW027 can be a trigger to show something has gone wrong, need to identify steps to close valve during evaluation to identify the issue and steps and criteria to re-open valve.
 - o Seasonal?
 - Low-flow vs wet years may not have enough data to meet criteria to resume flow-through in dry year.
 - Within normal variability?
 - Issue of single bottle exceedance could be settling problem, C-2 only has by-pass water, not Woman Creek flow
- When POC changes, this decision matrix would be modified accordingly.
 - Response could be based on whether using upstream data or downstream data.
- Is there a trigger based on level of flow? (pending rain event)
 - WCRA flow-through is a test/proof of principal
 - DOE concentration and how fast it flows is what matters. Closing valve based on flow raises a technical concern, stops step-wise understanding of final breach and downstream data collection.

Topic 4 – Response Actions to SW027 exceedance in 2010

- Is there intent to let SW027 response vegetation grow for a growing season before go to flow-through? WCRA recommendation
 - DOE wattles are short-term, vegetation long-term.
 - SW027 response is to accelerate vegetation establishment.
 - There would be a trade-off of losing a year of flow-through data
- Is flow level/storm event a trigger

Broomfield question on flow-through operation.

- WWE evaluation what are flow conditions downstream with valves open? Was that evaluated?
 - It falls between the scenarios they evaluated. Not relevant, was a worst-case floodplain analysis for the two alternatives,
- Request show flow rate out of pond with valve open in 100 year event
 - Valve would not be fully open during flow-through. Won't open valves all the way, flow restricted by the diameter of the outflow pipe. Already have inflow, attenuation and outflow information.

Topic 5 – Minimizing missed sampling periods at GS01

- Concern is missing sampling during large precipitation events
 - o 2 cases:
 - a. Bottle fills and we can't change right away
 - b. Can't get to the bottle or the flume is flooded too much water
- WCRA recommends back-up bottle, or bigger bottle, in place that picks up when 1st bottle gets full, especially at GS01

• DOE will research to see if back-up bottle or larger bottle is feasible, effective.

Topic 3 – Communications/info provision to WCRA

- WCRA requests increased communication between DOE and WCRA so can do real-time water management
- Share data with WCRA as DOE gets it to help with reservoir management fence line info is a priority.
 - What kind of time frame the AMP would provide for notification of WCRA?

Topic 2 – Additional AMP-specific data collection

- AMP-specific data collection in Woman Creek
 - Pu/Am with solids
- Would be nice to use this period to understand how system works before any review to change AMP.
- Focused data like additional sampling in Walnut Creek
- Turbidity probes GS31 most critical
- SW027 tend to get rising limb add downstream of pond C-2 as well to see how C-2 responds to events (GS31?), TSS info
 - Want rising limb to be AMP specific for downstream of C-2 for data collection. See how C-2 responds to worst case while recognizing not have any base data.

Topic 6 – AMP re-evaluation timeframes and triggers

- Evaluate data with annual report data or quarterly after annual report or technical meetings?
 - Not resolved yet
- Revisit AMP at "no less than" (possible AMP modification)
 - Periodic reviews two year review period
 - Set criteria for reviews
 - Recognize steps for re-evaluation and modifications
- Email communication as things happen
- Comment Broomfield will submit draft AMP language

Request – Plots for Walnut Creek for April storm similar to Woman Creek for next meeting.

Future meetings:

- ➢ Feb. 10, 1 p.m.
 - Walnut Creek
 - PLF and No Name
- ➢ Feb. 17
 - Ecology
- March 3

✤ Woman and Walnut Creeks > start to agree

Environmental Covenant vs Restrictive Notice briefing: Difference between covenant and restrictive notice

- May not be any difference
- Covenant assumed to be based on state's police power, but it doesn't specifically say and there are disagreements on what it means and how binding it is.
- Restrictive notice binds anyone with interest in the property
- Practical difference
 - Covenant may not be binding on all parties (prior interest)
- Public notice if do change
- If in doubt, use restrictive notice
- Any changes to covenant would be made at the same time as any changes to the IC.