

**Rocky Flats Coalition of Local Governments Board Meeting Minutes**  
**Monday, November 4, 2002**  
**8:45 – 11:07 a.m.**  
**Mt. Evans Room in the Terminal Building**  
**Jefferson County Airport, Broomfield**

**Board members in attendance:** Hank Stovall (Director, Broomfield), Tom Brunner (Alternate, Broomfield), Mike Bartleson (Alternate, Broomfield), Lorraine Anderson (Director, Arvada), Clark Johnson (Alternate, Arvada), Jane Uitti (Alternate, Boulder County), Karen Imbierowicz (Director, Superior), Michelle Lawrence (Director, Jefferson County), Nanette Neelan (Alternate, Jefferson County), Lisa Morzel (Director, City of Boulder), Mike Weil (Alternate, City of Boulder).

**Coalition staff members and consultants in attendance:** David Abelson (Executive Director), Kimberly Chleboun (Program Manager), Melissa Anderson (Technical Program Manager), Barbara Vander Wall (Setzer & Vander Wall, P.C.).

**Members of the Public:** John Corsi (Kaiser-Hill), Dave Shelton (Kaiser-Hill), Bob Nininger (Kaiser-Hill), Patrick O’Keefe (Kaiser-Hill), Rick DiSalvo (DOE), Joe Legare (DOE), John Stover (DOE), Liz Wilson (DOE), Laurie Shannon (USFWS), Mark Sattleberg (USFWS), Rob Henneke (EPA), Tim Rehder (EPA), Steve Gunderson (CDPHE), Patricia Rice (RFCAB), Kristi Pollard (Senator Allard), Dan Cheshir (RFSOIU #1), John Whitney (RFSOIU #1), Gail Bange (Wackenhut), Al Nelson (Westminster), Nancy Lemein (Arvada), Bob Nelson (Golden), Roman Kohler (Rocky Flats Homesteaders), Katy Human (Daily Camera), Joey Bunch (Denver Post), .

**Convene/Agenda Review**

Chairman Sam Dixon was not present, so Vice-Chair Lorraine Anderson called the meeting to order at 8:45 a.m.

**Business Items**

**1) Motion to Approve Consent Agenda** – Lisa Morzel motioned to approve the consent agenda. Hank Stovall seconded the motion. The motion passed 5-0 (Superior and Westminster were not present).

**2) Executive Director’s Report** - David Abelson reported on the October staff meeting, saying the efforts to reevaluate the value of the meetings had been very productive. The staff identified a variety of issues, including uncertainty as to the purpose of the staff meetings, different expectations, and different goals for the meeting. In an effort to address these concerns Coalition staff agreed to: 1) provide a bigger picture and longer timeframe; 2) identify priority issues that will come before the Board; and, 3) add supporting information to staff agendas. David said his

goal is for staff to take ownership in the staff meeting agenda. Second, David said the six refuge focus group workshops held last week had been well attended by local government staff. Additionally, he provided copies of letters from Arvada, Broomfield, and the City of Boulder to USFWS regarding the refuge scoping process. Jefferson County also sent a letter, which will be forwarded to the Board as well. Third, David advised the Board that the RFCA parties will be releasing revised RFCA language next week for a 60-day public comment period. David will be present at the press conference. He also said the RFCA parties had sent an initial response to the Coalition's end-state letter, confirming that the Coalition had been a key player in defining Rocky Flats end-state. Fourth, David said he will be traveling to Washington, D.C. next week to meet with Mike Owen regarding CRO grants, Udall and Allard's staff, and Seth Kirshenberg (ECA) regarding long-term funding for long-term stewardship. Fifth, David explained that the Coalition staff is in the process of revising the Board meeting packet cover agenda in order to make the information more accessible to Board members with limited time. Jane Uitti said this would be a good way for Coalition staff to flag policy issues. Lisa Morzel asked if the packets could be made entirely of recyclable paper, and David agreed staff would discontinue use of the brightly colored paper.

**3) FY03 Budget – Initial Review** – David Abelson reviewed the budget changes from FY02 to FY03. Initially there was a net reduction of \$3200, however subsequent changes will likely cut into these budget savings. The subsequent changes include an insurance rate increase and thus a fringe benefits increase, and the cost for monthly executive committee conference calls which average \$180 per call. David noted he reduced the budgeted amounts under the “Contractor – Worker Protection and Retention, Long-Term Protection, and Future Use” category by \$10,000, and he also reduced cost with the new lease.

Lorraine Anderson asked him to clarify how salaries were budgeted. David explained that Coalition staff reviews and salary increases occur on the employee's anniversary, not at the beginning of the calendar year. Thus, in the case of David's salary, he knows the salary amount for the first three months of the year, but then has to project for the remainder of the year based on a possible salary increase. He bases the projected percentage increase on the high end of past reviews. Barbara Vander Wall confirmed this is appropriate to assume the Coalition will expend these funds, so at the end of the year they do not have to make an amendment to the budget. Lisa Morzel asked if the funds could be carried over to the next year if they are not spent. David explained grant money is not the same as revenues as it has to follow the provisions of the grant. Some grants may have a prohibition on carry-over.

### **Public Comment**

There was no public comment at this time.

### **Water Balance Study Briefing**

Melissa Anderson explained that hydrology at the Site will likely be greatly affected by remediation efforts, thus Kaiser-Hill spearheaded the development of the Site-Wide Water

Balance model. This model will aid in understanding and predicting the potential hydrologic changes caused by remediation, and enable hydrology to be factored into decisions for end-state and final Site configuration. Melissa also described how this model will be integrated with the Actinide Migration Evaluation to support cleanup by prioritizing remediation efforts based on where contamination is most likely to get into water and move offsite.

Christine Dayton (Kaiser-Hill) introduced Christine Hawley (Wright Water Engineers) and Bob Prucha (Integrated Hydrologic Systems). She then described the diverse group of people who worked on this project, which has been peer reviewed by industry and academia. She said the purpose of the Site-Wide Water Balance is to develop a management and decision tool to evaluate how site-wide integrated hydrology changes from current to hypothetical future site configurations under a range of climate scenarios. Christine then described the sensitive and complex Site hydrology, including precipitation, rapid surface runoff, slow groundwater flow, seeps, and evapotranspiration. The group created the management and decision tool by incorporating these hydrologic components into a model, which is a mathematical representation of the hydrologic system. Christine said hypothetical Site configurations, such as building and pavement removal, and a range of climate scenarios were plugged into the model to determine how these factors would impact runoff, infiltration, and groundwater levels. The group also took into account current important Site water features which may not be a part of final Site hydrology, such as imported water, groundwater treatment systems, effluent from the waste water treatment plant, and the South Interceptor Ditch. Christine also described other modeling factors, including hillslope and the highly complex surface and subsurface hydrology in the Industrial Area.

Christine then discussed the modeling approach and how a numerical model was created to capture a complex hydrologic system. She described the integrated model components of the surface and subsurface systems, and the external system stresses including man-made (imported water and ponds) and natural (precipitation and evapotranspiration) stresses. Measured data from the natural system were used to calibrate the model, and focus areas were identified to help guide model development and calibration. These focus areas included the groundwater treatment systems, vegetation/habitat areas, major drainage basins, and project areas currently planning remediation (Original Landfill, Present Landfill, and 903 Pad). Christine provided an example of model calibration results, comparing observed flow rates to model simulated rates for a moderate precipitation event in May 2000. The results were comparable.

Next, Christine explained how the model has been applied thus far. Scenarios evaluated include the current Site configuration, a no-imported water scenario, and a final land configuration scenario, plus three climate scenarios for each Site configuration. The land configuration scenario consists of: regraded areas (Original Landfill, Present Landfill, and 903 Pad); building and pavement removed; basement walls and slabs left in place; drains removed; channel modifications (Landfill Pond, Industrial Area, South Interceptor Ditch); and batch and release pond operations. Under this hypothetical scenario the model predicts a significant decrease in flow in Walnut Creek, but little impact on Woman Creek. The hypothetical scenario also results in a sharp reduction in surface water leaving the Industrial Area and the Site, and in the water

volume managed in all the ponds. Additionally, groundwater levels, primarily in the Industrial Area, will increase on average, but groundwater treatment systems would remain largely insensitive to the changes. Christine said their next steps involve applying the model to other cleanup scenarios, including estimating the movement of plumes of organic contaminants in groundwater, and evaluating the hydrologic impacts of different land configurations.

Nanette Neelan referred to the chart which tracked the model calibration, comparing model simulated results to observed results, and she observed that the model curve appears to be close to the actual curve except for the spikes. Christine Hawley explained that the data are based on fifteen minute increments in the monitoring, and the data would have tracked more closely if it had been one minute intervals. Nanette also noted their model boundary ended at Indiana, and asked about the impact on areas east of Indiana. Bob Prucha explained the model boundary is just the structural boundary of the property, and the model did not include any areas outside of it. Lisa Morzel asked why the model would not consider the watershed drainage basin. Christine Dayton explained it would not change the results of the model to include areas farther east since the water moves west to east, and the model represents the western side and the area that impacts the flow. Lisa asked if they factored in unconsolidated materials in the subsurface, and Bob said the basis of their distribution was the USGS designation for soil types, which was put into their GIS system. Christine Dayton added that the removal of buildings which go several stories below ground also impacted groundwater flow. She then explained how their model measured groundwater flow and created groundwater planes.

Hank Stovall asked how many input parameters were considered, and Bob said approximately 100 with ten being sensitive, meaning small changes could significantly change the outcome. Hank then asked if flows were modeled as two-dimensional, and Bob explained surface flow is horizontal and one dimensional while subsurface flow is two-dimensional, flowing both horizontally and vertically. Hank asked what they considered a heavy storm event, and Bob said the model included every hydrologic event in fiscal year 2000. Christine Dayton said they ran a 100-year flood scenario recently, and they will also evaluate mining impacts. Tom Brunner asked the regulators if they had staff that could also make evaluations and decisions based on the information generated by this model. Tim Rehder (EPA) said the EPA had people involved in working on the model, including the parameter selections. Steve Gunderson (CDPHE) said the state also had hydrologists looking at the model and results. Lorraine Anderson asked if they had considered how the process waste lines could impact flow, and the impact of possible future leaks. Christine Dayton said they considered the pipes and the backfill materials used around them as conveyors of water. She explained the contaminant transport results would depend on the contaminant (since plutonium and americium travel as particles), and if the pipes are foamed, and the type of backfill. She noted the model could perform combinations of simulations. Hank asked if the model has the capability to correlate and determine type, quantity, and quality of actinides leaving the Site over time, and particularly during low frequency-high impact storm events (i.e. 100-year, 200-year, 300-year, 500-year frequency flooding). Christine Dayton said these modeling results were based on water only, but they are planning to combine this study with the actinide migration work.

## **Solar Ponds Remediation Briefing**

Melissa Anderson prefaced the briefing by explaining that she, along with Shirley Garcia and Jerry Henderson, had met with Site representatives to discuss Coalition and Citizen Advisory Board comments on the Solar Ponds closure strategy. She said DOE addressed most comments and changes were being made in the decision document.

Lane Butler (Kaiser-Hill) provided a brief review of the Solar Evaporation Ponds (SEP) operations history and past remedial actions. The SEPs operated from 1953 to 1986 storing and evaporating radioactive process wastes and neutralized acidic wastes, which contained high levels of nitrates and aluminum hydroxide. Leakage from the SEPs contaminated the shallow groundwater in the area, creating the Solar Ponds Plume (SPP). The primary contaminant source for the SPP (sludge and liquid in the SEPs) was removed from the SEPs by 1995. A series of eighteen French drains were constructed in 1981 to collect nitrate water and transfer it to modular storage tanks and Building 374 for treatment. In 1999 a new collection system/passive treatment cell was constructed for the SPP. In summer 2002 a minor modification was approved that allowed for the addition of a solar-powered pump to the treatment system. The primary groundwater plume contaminants are nitrates and uranium. There are no metals in the plume. The uranium plume is primarily limited to the plateau of the SEPs, but the nitrate plume extends from the SEPs approximately 1400 feet northeast toward North Walnut Creek and 1400 feet southeast toward South Walnut Creek.

Lane then described current remedial actions. Removal actions of structures outside the ponds themselves were initiated earlier this fall under another document (ER RSOP Notification #02-08). Under the ER RSOP Notification, the Site has removed, or will remove: all RCRA unit slabs; all five valve pits; all four collection pumps; approximately 600 feet of process waste lines; and, above-ground return lines. In addition, six americium hot spots were removed from the berms and surface soil outside of the SEPs this September. The Proposed Action Memorandum (PAM) serves to close the SEPs. Based on the results of the PAM risk assessment (which evaluated risks to a wildlife refuge worker), removal actions under ER RSOP Notification #02-08, and americium hot spot removal, the PAM proposes a No Further Action (NFA) decision for the SEP areas of concern. Upon approval of the PAM, the pond berms will be pushed into the ponds, clean fill soil will be placed on top of the SEPs, and the area will be regraded and vegetated. Remediation of the SPP is addressed in a separate decision document but is considered to some degree in this PAM. Lane also explained the details of the risk assessment, data adequacy, and best management practices.

Lane noted the ER RSOP Notification activities should be completed October 18, and the closeout report should be ready by November 22. He stated the PAM public comment period runs from October 10 to November 10, and the Site expects to complete all activities by December 20, 2002.

Lisa Morzel asked if they had looked at contamination below the pads, and Lane said 300 samples, based on the Industrial Area Sampling Plan approach, had turned up very little

contamination. He confirmed they had remediated under the pads. Lisa asked about the nature of the berm material, and Lane said the liner was asphalt and the berm is Rocky Flats soil. Lisa asked where they would get the clean soil to cover the liner and berm for regrading, and Lane said they would be using uncontaminated material from the northeast corner of the Site. Tom Brunner asked about high-level sampling anomalies from the C pond. Lane replied they had removed all soil from the bottom of the pond and sampled below the liner, but if necessary they would sample more. He added the salt residues could have caused higher levels, but the surrounding water wells had not shown any other indications of contamination. Hank Stovall asked about the concentration of nitrate and uranium before the groundwater goes through the passive treatment system. Lane said nitrates are in the range of 200 milligrams per liter (mg/l) going in, and 1-2 mg/l coming out. Uranium is approximately 60 picocuries per liter (pCi/l) going in, and 1-2 pCi/l coming out. Hank asked what would happen to this system under the NFA, and Lane said the passive treatment system would fall under a separate decision document, but it would remain functional. Hank asked what would happen to contamination that got past the treatment system. Lane said the nitrate plume that bypassed the treatment system was considered a sacrificial zone and would not be collected. He explained the water content is fairly low, and it is not breaking any standards and should not exceed any standards at the boundary. He also said they are looking to tie in the water balance modeling for the final comprehensive risk assessment to determine contaminant transport.

David Abelson said Melissa had worked with local government staff to identify key issues regarding the SEPs. Based on the conversations they had with Site personnel they are much more comfortable with the approach the Site is taking and do not see a need for formal Board comment. He added that Melissa is continuing discussion with the Site over lingering issues such as long-term stewardship. Melissa described the types of issues she raised with the Site, and asked the Board if they had any additional issues to be resolved. Hank asked about the delineation between the closure of the SEPs and the groundwater treatment system. Melissa said the groundwater treatment was considered to some degree in the PAM, but it would be addressed under a different decision document. Hank also referred to monitoring for a number of complex chemicals, and asked the hypothetical question of how the Site would know to monitor for them if they are not on the list of contaminants of concern. Lorraine Anderson asked if the covered asphalt could form an underground pond, and if contaminants could leach from the asphalt. Melissa said she had raised the possibility of a perched groundwater system being created by leaving the asphalt liner in place, but the Site had explained if the asphalt were removed there could be more infiltration and flushing of contaminants. She said the Site agreed to put a caveat in the PAM to leave the asphalt in place, but if a problem results they will breach the liners further. Lane confirmed the issue is not leachate from the asphalt, but creating a bog of some sort. He said they would prefer to leave the breached liners in place for a preferential path for flushing contaminants. Lisa asked if they were concerned about a new influx of contaminants, and Lane said they sampled the asphalt and liners and they are clean. Lisa asked about asphalt's contribution to organics. Lane said the county considers asphalt a nonregulated material and appropriate to use for backfill. He added the material should degrade before it leaches, and they are not concerned about a plume forming. Lisa asked if they would test for volatile organic compounds, and Melissa said it would be tested under performance monitoring if it is a

contaminant of concern for a given area. More specific contaminants are identified under the Integrated Monitoring Plan. David said they will also have three years of monitoring prior to closure to better understand the scope of success. Lane agreed and said they had already installed new wells around the area of concern to begin this monitoring.

### **FY03 Strategic Plan**

David Abelson provided a quick overview of the FY03 Strategic Plan and changes from the FY02 Plan. The “Five-Year Plan” has been changed to the “2007 Plan”, focusing on closure. This year the Coalition will shift focus to implementing its September 2002 end-state policy, while also following and resolving other cleanup issues. Second, the Coalition will continue to focus on stewardship issues and documents, such as the Site Long-Term Stewardship Plan. Third, the Coalition should remain integrally involved in the development of the refuge Comprehensive Conservation Plan. Fourth, changes under “Rocky Flats Workforce” will more accurately reflect the role the Coalition has carved out for itself in working with Kaiser-Hill on Site transition and workforce changes.

Lorraine Anderson said it is important to try and retain workers in the community by providing jobs. She suggested the local government’s economic development departments work with Kaiser-Hill to find ways to keep people here. Hank Stovall said people looking for job placement with Broomfield’s county workforce group has increased substantially due to major area employers continuing workforce reductions. He said he is not sure the jobs are here now. David said he may set up a briefing in February and/or a forum with Kaiser-Hill for the government’s economic development staff. Lisa Morzel said it would be useful to know job skills, and the number of layoffs and how they would be phased over time. Lorraine added they should look at how to create some of these jobs. David said Alan Parker (Kaiser-Hill) wants Rocky Flats to be the model for how to transition a closure site. Hank said he would expect a process plan so that any employee who needs a job would know where to go and who to contact. David said they would also need to understand how local government efforts would fit in with efforts by the Site’s workforce transition team.

### **Round Robin**

There was no additional comment from the Board.

### **Public Comment**

There was no further public comment.

### **Big Picture**

David Abelson reviewed the Big Picture. At the December meeting the Board will receive a briefing on the draft RFCA language to be released November 12, and again review issues

surrounding the Original Landfill. The Board will also finalize the budget and strategic plan for FY03.

The meeting was adjourned by Lorraine Anderson at 11:07 a.m.

Respectfully submitted by Kimberly Chleboun, Program Manager