

Meeting Notes: Community Advisory Group - Aerojet Superfund Issues, May 18, 2011

### **1. Attendees**

Janis Heple, Cindy Caulk (Aerojet), Jackie Lane and Kevin Mayer, (EPA), Travis Anderson (Golden State Water Co), Alex MacDonald (CVRWQCB), , Jimmy Spearow, Burt Hodges (SARA) Claudette Altamirano (Recorder, Weston Solutions, Inc.).

**2. The March minutes were approved** with minor changes.

### **3. Folsom EIR/EIS – Janis Heple - All**

The Environmental Impact Report/Environmental Impact Statement (EIR/EIS) south of Highway 50 on approximately 3,600 acres of specific plan development between Highway 50 and White Rock Road south of the city. The EIR/EIS includes areas covered by White Rock Dumps discussed by DTSC at the January CAG meeting. The City council will vote on the EIR/EIS acceptance (update voted to accept) on June 14, 2011. The city also has to provide a new water source for the area.

One area (Area 40) included in The EIR/EIS covers Aerojet property. The area's future use changed from the original proposal of residential use to open space in the final plan.

Gary – EPA submitted comments – different departments review from all aspects of the EIR/EIS.

Question: Burt, Is this a city project?

Answer: yes it is a city project. They are not supposed to use Folsom water. Obtained from Natomas. Originally the water was committed to Natomas because of the building of Shasta Dam. Janis was looking into water supply issues with ECOS.

Alex Mac Donald distributed a copy of comments he submitted on the EIR/EIS on behalf of the Water Board.

Area 40 is part of the Island OU. This EIS is for use of the area after the cleanup is complete.

### **4. OU-5 Remedial Actions completed to date – Alex MacDonald**

. Alex distributed the attached handout and map that shows each cleanup action and boxes that indicate if the action has been completed.

## 5. OU5 (perimeter) Record of Decision response to comments – Tracking Actions – all

The CAG made comment in the fall of 2009 on the OU5 ROD. The ROD including the response to comments was issued in February 2011. The CAG wants to follow the progress of actions discussed in the response to comments. Janis Heple provided a handout listing a number of comments that the CAG is interested in following (see attached – Response to Comments – Follow-up). The actions listed in the table will need additional input from the rest of the CAG to identify actions of interest.

Kevin – noted that he is currently preparing the Unilateral Administrative Order (UAO) When the order is issued it will direct Aerojet to perform certain actions within a general time frame. Aerojet will then prepare a work plan with a more specific schedule.

The CAG will continue to refine the list of actions to follow. This list will also assist the agencies in understanding CAG information needs.

Travis – regarding the water supply agreement between Aerojet and Golden State Water; The County backed out of the agreement. GSW is working on replacement water, Travis will update with details.

Kevin – Long term water planning was part of the consent decree. Water companies have to use their resources to work out a water replacement plan – they need data from the design plan to evaluate.

Response #84 – Ground water plan for OU3 is considered in development.

Ground water sampling plan for OU5 is being updated TIC's will be addressed in the updated plan. There will be a process for resolving TIC issues.

Jimmy – the (TIC's update) are especially important in the areas of Chem plant 3 where miscellaneous reactions may have occurred.

Jimmy asked a question regarding response 44d , Kevin responded that he would need to see the context of the response. Jimmy noted that items of interest are short and long term water planning and public participation in the remedy design.

## 6. General Aerojet Cleanup Overview: Alex MacDonald. RWQCB

(Handout provided by Alex MacDonald)  
Aerojet Activities – May 2011 CAG Meeting  
(Bold Items shown on Figure)

A **GET L-A.** NO CHANGE - Construction has been completed at the system is up and operating at approximately 900 gpm.

- B **GET KA: NO CHANGES.** Operating with all initially planned wells operating, including former **AC-7** (Georgetown). Flow is approximately 1700 gpm and could be increased up to 1900 gpm. **AC-12** has once again been turned off due to NDMA concentrations near 5 ppt. Aerojet is looking at having an “open house” for the public at **GET K-A** sometime in the future.
- C **AC-6 - NO CHANGES** treatment system to remove perchlorate has been completed. California Department of Public Health will require some testing of the system prior to use within the Golden State system. Discharge of water not into the distribution system is under Aerojet’s NPDES permit.
- D **AC-18** and **AC-23 (NO CHANGES)** have been provided with perchlorate IX units with and startup of the treatment systems will commence when perchlorate concentrations become greater. AC-18 has undergone verification testing and the resin transferred to AC-23 for its demonstration to CDPH. Currently the wells contain around 1-3 ppb perchlorate.
- E **GET H-A: NO CHANGES.** Working on getting two new extraction wells (White Rock Park and Coloma Road area) on north side of US 50 back to GET H. The pipeline under US50 is completed and Aerojet is working with SMUD to provide power to the two wells. The wells will likely be started up in two to three months. Delays are due to ability to supply the wells with power by SMUD.
- F **GET B – NO CHANGES** **GET B** has been expanded to accept transfer of **GET A** facility to the **GET B** location and to accept water from new extraction wells located in southern Zone 3 near **Teichert**. Two extraction wells north, east and south of **Teichert** are now hooked up to GET B.
- G White Rock Road North Dump – **NO CHANGES** The treatment systems is up and operating to treat two extraction wells and the AKT-1 well. Water is currently sent back to GET B for disposal. When needed by **Teichert** for their use the water will be provided to them. Waste Discharge Requirements for system will be considered at the April 2011 meeting of the Regional Board
- H **New Monitor Wells:** Aerojet is planning several new monitor and/or extraction wells:
1. New monitor well northwest of the GET L-B facility to help define the NDMA plume and evaluate capture.
  2. Monitor well between AC6 and AC12 to help define NDMA plume and provide information for placement of an additional extraction well to make sure NDMA does not get to AC6.
  3. Monitor well southeast of AC22A/B to help define plume upgradient of those wells.
  4. Monitor well in the GET E/F area to assess capture of the on-site extraction system and help locate a potential additional extraction well..

5. Extraction well in the area of Chem Plant 2 to intercept deeper flow from sources upgradient that are not captured by shallower extraction wells there.
6. NEW – pair of monitor wells in the vicinity of Teichert to help define the plume and capture by existing extraction wells.

- I **Chettenham Well:** NO CHANGES. The Chettenham well remains off and the concentrations of perchlorate have remained around 3-4 ppb. Aerojet has reached an agreement with Cal-American Water Company concerning the Chettenham Well. The treatment system has been removed.
- J NO CHANGES. Aerojet and Sacramento County are continuing negotiations on water replacement issues. Meetings are occurring one to two times per week. City of Folsom, The Boeing Company and Golden State Water Company also participate in some or all of the meetings.
- K Perimeter Operable Unit – NO CHANGES - Aerojet is looking at removal of soils at site **C41** within the PGOU. Soils are impacted by perchlorate to the groundwater (approximately 80 feet) and perchlorate is in the groundwater. The area is within the proposed development area. To facilitate development, Aerojet would like to have the issue addressed sooner rather than waiting for ROD and subsequent order/implementation. Soils would be removed in the upper 10 feet to levels that allow unrestricted use.
- L Boundary OU – (NO CHANGES) Aerojet is continuing to evaluate recent comments on the RI submitted by Agency staff on human health and ecological risk aspects. The Feasibility Study is waiting for all of the comments to come in on the RI so as all the sites that need to be addressed in the FS are included.
- M Treatability Studies:
- i) **Line 03.** Redox box delivered along with walnut shells and sulfur to look at perchlorate reduction. Has been operating for one month at 3-7 gpm and results are promising.
  - ii) **Phytoremediation at Cavitt Ranch** – cleanup of perchlorate in groundwater using cottonwood trees. The trees have currently failed to establish themselves and the project is currently on hold
  - iii) **Bioremediation of NDMA** – will be performing in-situ evaluation of biodegradation of NDMA in Zone 4 (GET A area). A SERDP/ESTCP project
  - iv) **Encapsulated Bacteria for NDMA Destruction.** Evaluating the feasibility of the process.
  - v) **HIPOx for NDMA destruction at GET B** – using hydrogen peroxide and ozone to break the NDMA bond. Evaluating potential – currently used at ARGET facility for 1,4-dioxane and TCE removal.
- A Island OU -NO CHANGES. Assessing RI data for the RI/FS. IOU groundwater modeling work plan being developed.

- B Eastern Operable Unit – NO CHANGES - all initial and follow-up sampling completed last week. Aerojet and their consultants will now commence development of the report.
- C Central Operable Unit – NO CHANGES. Draft sampling plan has arrived, agency review has been completed and comments have been sent to Aerojet.
- D IRCTS: (NO CHANGES)
- i) **Sigma Complex In-situ Bioremediation of Groundwater.** NO CHANGES - System has been operational for two years. Boeing is adding an electron donor to remediate high concentrations on perchlorate in groundwater at the Sigma Complex. Boeing is recirculating groundwater and adding an electron donor (acetic acid) to stimulate biological growth and reduction of perchlorate. Initially the system will include one extraction and one recharge well, and several monitor wells. System is working very well. Boeing has requested amending permit to allow discharge of a small portion of the water (after treatment to remove perchlorate and VOCs) to the perchlorate source area to help flush the perchlorate to the biological treatment system. Amended requirements to allow this to occur will be considered by the Board in December.
  - ii) **White Rock Road Dumps 1 and 2.** NO CHANGES. These two old burn dumps will be combined at the Dump 2 location on the IRCTS. That area is slated to be a park in the Rio Del Oro development. Looking at doing the work the end of this summer.
  - iii) (NO CHANGES) The first modular biotreatment cell at **GET F Sprayfield and PBA** to remove perchlorate from extracted groundwater has been constructed and filled with media. The liner was found to leak. Thus, the cell was emptied and the liner repaired. The cell will be tested and then commence operation where the treated water is sent back to the ground for recharge.

Additional notes and discussion:

Alex noted that on May 14, 2011 someone ran in to the control box for well 4700 with their car. It is now out of operation and will take approximately one month to repair.

Question: When does the start of the five year review period occur?

Answer: It starts when the first operable unit comes on-line. This triggers the start of the review time. For OU3, because there will (eventually even if it takes 100's of years) be no waste left on-site, the clock starts when the remedial action is fully operational and functioning (when the last two wells switch on). For OU5, because there will be waste left in place under the interim ROD, the clock starts when

construction of the remedy begins (not ends). Either one of these two actions will start the clock for the five year review on the whole site.

Every five years the remedy will be reviewed to see if it is protective of human health and the environment.

Janis – So the response to comment 49 in the OU5 response to comments will not come up for quite awhile.

Note that some discussion has been moved back to Item 5.

## **7. Aerojet Community Updates, Cindy Caulk, Aerojet**

No additional updates this month.

- 8. Schedule** – due to travel schedules for a number of key people the next CAG meeting was delayed one week to July 27th, 2011.

Kevin noted that the UAO should be out by the next meeting. Gary noted that the Boundary OU6 Feasibility Study should be completed by the end of June but there would not necessarily be time to fully review the FS by the July meeting. Gary will pass any available information to Alex for presentation at the July meeting.