

**Final Meeting Notes: Community Advisory Group (CAG) –
Aerojet General Corporation Superfund Site Issues
Meeting Date: March 18, 2015**

1. Introductions and Attendees

Janis Heple, CAG Chair, began the meeting with introductions at 7:00 p.m.

Attendees:

Alexander MacDonald (Regional Water Quality Control Board)	Jerald Drobesh (Community Member)
Burt Hodges (Save the American River Association [SARA])	John Valdes (Sacramento Suburban Water District)
Chris Fennessy (Aerojet Rocketdyne [Aerojet])	Kevin Mayer (EPA)
Derrick Green (Community Member)	Larry Ladd (CAG)
Jackie Lane (U.S. Environmental Protection Agency [EPA])	Paul Schubert (Golden State Water Company [Golden State])
Janis Heple (CAG Chair)	Rick Bettis (Sierra Club and others)
Jessica Cooper (Recorder, Sullivan International Group, Inc.)	Stephan Green (SARA)
Jimmy Spearow (CAG)	Steve Nugent (Carmichael Water District [Carmichael])
	Steven Ross (Department of Toxic Substances Control [DTSC])

The Draft Meeting Notes from the meeting on January 21, 2015 were finalized.

2. Aerojet Community Update – Chris Fennessy, Aerojet

Mr. Fennessy discussed recent changes and restructuring of Aerojet and its parent company, GenCorp Inc. He announced the president of Aerojet left the company, and the new chief operating officer is Ms. Eileen Drake from United Technologies Corporation (UTC). He said she has a strong background in the rocket propulsion business, she was the president of UTC’s environmental health and safety department, and involved with a lot of environmental projects.

He explained GenCorp Inc. announced an agreement to sell approximately 700 acres of land to WestLand Capital Partners for the City of Folsom development projects.

Additionally, he said GenCorp Inc. is now referred to as “Aerojet Rocketdyne Holdings, Inc.”, and Aerojet and Easton Development Company are subsidiaries of this corporation.

He further explained there is a lot of activity, such as the building of a new pipeline, which Mr. MacDonald will describe at the end of the meeting.

Question: Aerojet abolished 260 jobs recently – were any of those jobs involved with the cleanup? Mr. Fennessy said the environmental group was not impacted and does not believe it will be targeted for cuts in the future. He said Aerojet is working to streamline

activities and eliminating duplicated efforts in different offices; therefore, they are working to reduce manpower and facility space. He mentioned there is financial assurance for cleanup as well.

3. Aerojet Cleanup Updates –Kevin Mayer, EPA

Mr. Mayer said Ms. Julie Santiago will be back from leave in early April.

He said the completion of the Record of Decision (ROD) for the Boundary Operable Unit (OU-6) is in progress. He said State regulatory agencies will conduct another round of reviews, and work on how to reconcile the Applicable or Relevant and Appropriate Requirements (ARARs). He mentioned that the Region will need to consider national interpretation of some ARARs proposed by the State of California. He hopes the ROD will be completed in the near future.

Mr. Mayer discussed how the current groundwater cleanup will be integrated into cleaning-up (or isolating) the sources so that they are not a continuing source of contamination.

Question: Why couldn't the contamination be dug-up in the first place? Mr. Mayer explained that cleanup was approached like a target with concentric rings, with the highest concentrations in the bullseye. We prioritized control over the outer edges to reduce potential risk. Ms. Heple explained that the CAG is working on a booklet for new CAG attendees that would help explain the background of Aerojet, how it's broken up into Operable Units (OUs), and cleanup methodologies. The information will include the initial work on the groundwater (OU3), then the perimeter groundwater with some surface soil cleanup (OU5), and then the boundary operable unit (OU6), where the development of parts of the area is cause for concern. Mr. Mayer further explained that many of the Aerojet source areas are the size of just one Superfund Site anywhere else in the country – therefore, it's an extremely large area to work with (approximately 2,000 acres) and contamination has been found deep (like to 100 feet below ground surface [bgs]). He said we would love to dig it all up if that was feasible – noting that there are approximately 350 different source areas. Therefore, he said parts that were immediately a potential to affect human health were the most important to clean.

Question: Will the building of new homes and business affect cleanup? Mr. Fennessy explained that Aerojet is working closely with the developer.

Question: Is there concern about the development of the road through Aerojet property for US-50 interchange project in contaminated areas? Mr. MacDonald explained that the proposal for the US-50 interchange project came through the regulators and Aerojet more than a decade ago, and it's clear of soil contamination sites. He said it would not affect remediation of the soil contamination sites or groundwater.

Question: It still appears disconcerting to develop on Boundary Operable Unit (OU-6) lands because we still don't know the amount of contaminant mass. Additionally, Island

Operable Unit (OU-7) is still releasing contamination. It appears crazy to develop these areas. What is the mass of contamination remaining? Mr. Fennessy said Aerojet is pushing forward and working with the regulatory agencies on cleanup. Mr. MacDonald explained that the remaining mass of contamination is unknown but that is not the relevant issue in this case. The concentrations of contaminants and movement of those concentrations is the concern for the potential downgradient development and that is taken into account in the permitted land uses. Mr. Mayer said the agencies receive regular reports regarding concentrations and monitoring systems. He explained we just passed 1 million pounds of contamination removed from groundwater.

Question: Will this affect the water purveyors? Mr. Schubert explained the contamination is a massive effort, but we continually monitor and check wells.

Ms. Heple mentioned she wished we had holograms or 3-D interpretations of what is going on in the subsurface. Mr. Schubert said that their groundwater models actually do a good job of showing estimated plumes.

Mr. Fennessy explained that the initial plan for the cleanup was to clean the sources, but then drinking water wells were discovered to have been contaminated, so the focus was shifted to protect the beneficial use of groundwater and human health. He said now work is moving forward to clean source areas.

Ms. Heple explained that this CAG has been meeting since 2001, but that when Aerojet cleanup began in the 1980s, there were not concerns regarding building new homes on a contamination site – now we are reaching that type concern with the Easton development plans.

4. American River Pipeline Project – Steve Nugent, Carmichael Water District

Note: A presentation handout was distributed (see attachments with final meeting notes).

Mr. Nugent discussed the American River Pipeline Project. He explained the background of the project. He explained that when it was discovered that contamination migrated under the American River, Aerojet built groundwater treatment plants and reached a settlement that included providing 5,000 acre feet of remediated water to Carmichael. He explained that now that demand for water has dropped due to system improvements and conservation, they have the ability or capacity to treat and deliver water to others outside of Carmichael. He explained that approximately 25 million gallons of water per day of treated water from Aerojet flow down the American River past the Carmichael intake structure, and now we have the capacity to treat a portion of that water and provide it to Golden State Water Company. He described the pipeline that would run under the river to Carmichael's water treatment plant for treatment, and back under the river to give water to the city of Rancho Cordova, partially funded by Aerojet.

He said the public comment period ended, and they did not receive many comments. He said they hope to have the project awarded by May and start the project in June. He said there are a lot of permits required for the project, and many are lengthy (one is over 400 pages long). He said they will begin obtaining easements and start drilling from Coloma Road, working back toward the Bajamont Water Treatment Plan. Additionally, he mentioned removal of an older pipeline and cleaning-up older facilities on the American River Parkway is scoped for the project in addition to the new pipeline construction.

He described the components or materials of the pipeline construction. He said the pipeline will be composed of thick fiberglass and constructed approximately 85 feet bgs below the river bed.

He said they hope to complete the project by October this year. He mentioned this type of work is restricted to April through October, and if it is not finished by this October, they will have to remobilize in April 2016. He said as a precaution, the permits will be obtained for both 2015 and 2016 work seasons.

Question: What is the estimated cost of the project? Mr. Nugent explained that funding has been received for the project, including a \$775,000 grant. He said the estimated cost is \$4.2 to \$4.4 million. In 1990, he said there was an effort to figure out how to reuse the water such as giving it back to the community. He said due to a shortage of an emergency need for water, this effort was previously not possible. Mr. Mayer said he is involved with this type of reuse of remediated water in southern California and it has been successful. Ms. Heple mentioned remediated water is used for golf course irrigation in the area as well.

Question: How many drinking water wells have been lost in the last 5-years? Mr. MacDonald said none in the last 5 years, but a total of 21 wells have been shut down, which included 6 County wells (100% of county wells) and 15 wells from Golden State Water Company. Additionally, he said 4 wells from Mather were shut down as well. Mr. Mayer added that Carmichael has not lost any wells.

5. Area 40 Update, Hillsborough Purchase Agreement – Chris Fennessy, Aerojet

Note: Maps were presented (see attachments with final meeting notes).

Mr. Fennessy explained the development is occurring on land surrounding the Aerojet site, some of which are Superfund lands. He said the community will likely be hearing a lot about this development over the next 5 years because it will take a lot of time to develop this much property.

He discussed the location of the development areas in relation to Area 40. The portions of Area 40 with high concentration of chemicals will be included as open space, possibly with environmentally friendly habitat areas or nature preservation areas, but will not include recreational aspects such as hiking trails. He said it will look aesthetically

pleasing, and surrounded by a fence that may look like a cattle ranch fence. Most of the remaining portions of Area 40 will be a public park with amenities such as ball fields.

Question: The prevailing wind direction is east to northeast – what is the concentration of trichloroethylene (TCE) in outdoor air at ground surface? Mr. Fennessy said the concentrations have never been above the permissible exposure limits.

Question: Is this development an unrealistic amount of pressure on you all? Mr. Fennessy said the 5 source areas have been investigated and assessed for risk – the schedule for cleanup by 2018 seems doable unless there are bureaucratic issues.

Question: On Prairie City Road, will there be an entrance into the development? Mr. Fennessy responded in the affirmative.

Question: Will there be restrictions on building in the area that will be put into the property deeds, particularly for the open space areas? Mr. MacDonald said there will be land use controls (LUCs). Mr. Fennessy said these are included in the Remedial Design.

Mr. Fennessy described the sampling point symbology indicating whether perchlorate was detected 100 times the screening level, 10 times the screening level, and below the screening level.

Question: Is the screening level 50 µg/kg? Mr. Fennessy said the screening level is 60 µg/kg in soil for the protection of groundwater.

Question: Wouldn't it be safer to eliminate housing? Mr. Fennessy said some had been eliminated.

Question: Could the “less than screening level” become “10 times the screening level”? Mr. Fennessy said it depends on the contaminant – for example, TCE is not shown to spread laterally at this particular site.

Mr. Fennessy said it is approximately 7 feet bgs to bedrock at the site, and sits up against the foothills. He mentioned there will only be a few roads, and the developer may request to construct the road early. He said that the developers are required to obtain Agency and Aerojet Rocketdyne approval of construction plans that incorporate Agency-required risk mitigation components prior to construction. He explained cleanup requirements will be identified before construction. Additionally, he said the regulatory agencies will prescribe the remedy – Aerojet cannot do that.

Question: What is the maximum concentration of TCE detected? Mr. Fennessy responded the concentration in groundwater was 50,000 µg/L at 15 feet bgs.

5. Regional Board Aerojet Cleanup Overview – Alex MacDonald, RWQCB

Note: The presentation notes and activities map were distributed (see attachments with final meeting notes).

Mr. MacDonald described the new monitoring wells and extraction wells installed. Additionally, he discussed the construction of a new pipeline being constructed to connect three new Layer E extraction wells in Gold River. He noted there will be 33 utility crossings, and Aerojet will work to minimize impact to the community. He said the plan is to complete the project in October.

Question: How much has been spent on remediation at Aerojet so far? Mr. Fennessy it is close to \$1 Billion – Aerojet receives reimbursements for a portion of these expenditures through execution of current Department of Defense contracts.

Mr. MacDonald mentioned Aerojet submitted a bunch of different reports for regulatory review, and the Remedial Investigation for Central Operable Unit (OU-9) is up next.

For Island Operable Unit (OU-7), the regulatory agencies are reviewing the draft risk assessment. Additionally, he said Aerojet has completed the sampling proposed in the supplemental Sampling and Analysis Plan for Area 40 to further define the extent of contamination.

6. 2014 Meeting Dates

The next CAG meeting is scheduled for Wednesday, May 20, 2015 in the American River South Room.

The subsequent meeting is tentatively scheduled for Wednesday, July 15, 2015 in the American River South Room.