

**Travis Air Force Base
Environmental Restoration Program
Restoration Advisory Board (RAB) Meeting**

Final Meeting Minutes
April 20, 2023

Name	Affiliation	Present
Bobbie Campbell	USAF, Travis AFB (Air Force Co-Chair)	✓
Jim Dunbar	RAB Member	
Mark Goltz	RAB Member	✓
David M. Feinstein	RAB Member	
W.T. Jeanpierre	RAB Member	
Thomas Randall	RAB Member	✓
Patricia Shamansky	RAB Member	✓
Adriana Constantinescu	SF Bay Regional Water Quality Control Board	✓
Nadia Hollan Burke	US Environmental Protection Agency	✓
Vicky Wiraatmadja	US Environmental Protection Agency	✓
Kimiye Touchi	Department of Toxic Substances Control	✓

Public Members Present:

- Rosemary Ingram Community Member
- Jared Neumayer Community Member

Agencies and Contractors Present:

- Louis Briscece Travis AFB
- Kurt Grunawalt Travis AFB
- Leslie Pena Travis AFB
- Angel Santiago, Jr. Travis AFB
- Chet Storrs Travis AFB
- Jason Thompson Travis AFB
- Jessica Faragalli USACE - Sacramento
- Megan Duley SRS/Oneida
- Alyse Gutierrez SRS/Oneida
- Luis Rivero Bayside
- Cindy Liu ERRG
- Doug Berwick Jacobs
- Jill Dunphy Jacobs
- Leslie Royer Jacobs

Welcome Remarks & Introductions

Mr. Chet Storrs, Restoration Program Manager, called to order the regular meeting of the Travis AFB RAB at 7:06 p.m. on April 20, 2023. The meeting was held at the Northern Solano County Association of Realtors, 3690 Hilborn Road, Fairfield, CA 94534.

Meeting attendees introduced themselves.

Administrative Notes

Mr. Storrs noted the following:

Location of restrooms, snacks available and exits, and that meeting protocol would follow Robert's Rules of Order.

Agenda

The seven agenda items published for the meeting were briefly discussed.

- Welcome Remarks & Introductions
- RAB Discussion
- Voting
- Program Updates
- Agency Updates
- Public Comments
- Closing Remarks

The RAB's purpose is to establish and maintain a forum with the Air Force, regulatory agencies, and the community.

RAB membership criteria were discussed and a number of RAB activities were noted.

Voting

Mr. Storrs noted that a quorum was not present and thus voting on past meeting minutes and new members would have to be postponed to a meeting when a quorum was established, or conducted over email.

The meeting minutes for tonight's meeting as well as those for the last two years would be sent to the RAB Members for vote.

Program Updates

Most of the presentations will be 10 minutes in length and regulatory agencies will have 5 minutes to present.

Agency Updates

AFB Restoration Update

The list of these updates is as follows:

- Air Force – EPA Proposed PFAS MCLs
- Sheen at Outfall IV (new)
- Five-Year Review
- AFFF/PFAS Remedial Investigation
- Optimized Remedial Contract

EPA Proposed PFAS MCLs

Mr. Storrs noted that per- and polyfluoroalkyl substances, or PFAS, are probably in everything we touch.

These extremely robust chemicals were designed in the 1940s. AFFF is a PFAS chemical that was used by the Navy in the 1960s. The Air Force started using it in the 1970s.

In 2016, the EPA established the health advisory of 70 parts per trillion (PPT) for these chemicals. This is equivalent to about 30 seconds in a million years or one penny in a stack of pennies from here to the sun.

In 2023, the EPA has proposed Maximum Contamination Levels (MCLs) of 4 PPT for exposure of people to PFAS. Once this MCL is approved we will have a finite number to compare to.

To comply with the 2016 Health Advisory the Air Force went out and started sampling wells around the Base. We also sampled off-base sites using the 70 PPT for comparison.

With the proposed standard of 4 PPT the Air Force is looking at all our data and when the new MCL goes into effect, we are ready to take action.

RAB Member Mark Goltz asked about the treatment systems installed on impacted offbase properties. To what level were you seeking to reduce the contamination?

Mr. Storrs replied that the treatment level that the Air Force sought was non-detect. Influent is about 70 PPT and effluent is non-detect.

US EPA representative, Nadia Hollan Burke, asked what the detection level of the lab was.

Mr. Storrs replied that he was not certain of this, noting that the laboratories continue their ongoing efforts to keep up with the evolving standards.

Outfall IV

Mr. Jason Thompson with Air Force Civil Engineer Center (AFCEC) presented the following:

I will be talking about the sheen that we have been seeing at Outfall IV at Union Creek.

A map of Travis AFB was shown and locations pertinent to the presentation were discussed.

In the summer of 2021, the Base was notified of fuel odors and a sheen on the water in the area.

Water sampling is ongoing, attempting to identify the source of the release of JP-4, JP-8, and Jet-A fuels in Outfall IV and Union Creek.

Stakeholders in this matter include AFCEC as the Air Force Lead Agency. This agency consists of the 60th Civil Engineer Squadron, the Defense Logistics Agency (Energy) and the US Army Corps of Engineers.

Additional stakeholders include the Regulatory Lead Agency of the San Francisco Regional Water Quality Control Board, in addition to the Environmental Protection Agency (Restoration), the Environmental Protection Agency (Emergency Response), the Solano County Environmental Health Department, the Department of Toxic Substances Control, the California Fish and Wildlife Service, and the city of Fairfield.

A preproposal site visit was conducted by the Air Force on 7 March 2023 to allow the stakeholder agencies an opportunity to relay concerns for incorporation into related contracts.

These specific sites were visited: ST028 JP-4 data gap investigation area, JP-8 and Jet-A release areas, Outfalls I and Outfall IV.

Six lines of effort and cost were discussed. US Ecology has been contracted as the Oil Spill Response Organization to support containment and mitigation efforts. The slide shows six specific actions that have been identified, including the status of contract funding and award. The total cost for the six lines of effort is \$7.44 million.

Mr. Thompson then discussed the Air Force response efforts that have been completed, are planned, and are ongoing. Photos of the current conditions were shared.

Five Year Review (FYR)

Cindy Liu with ERRG presented the Five Year Review (FYR) overview.

This is the fifth Five Year Review. ERRG and Bayside Engineering Construction are working on this together.

The FYR is a requirement under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

CERCLA is the guidance under which all environmental restoration programs at Travis AFB are conducted.

The purpose of the FYR is to evaluate the performance of the existing remedies.

FYR findings are documented in an FYR Report that recommends necessary actions and seeks review and concurrence from regulatory agencies.

The five components of the FYR are as follows: remedy protectiveness, personal interviews, public involvement, document review, and site inspection.

Activities conducted to date include: January 2023 meeting with oversight agencies, published February 2023 public notice announcing the start of the FYR, and reviewed historical documents, and conducted site inspections, interviews with pertinent agencies are ongoing. The last step is to prepare the report.

A map showing the 20 sites throughout the Base was shown and discussed.

The FYR Schedule includes: Preliminary Draft FYR Report, Draft FYR Report, Draft Final FYR Report, and Final FYR Report. This FYR Schedule will take place from April 2023 through October 2023.

RAB Member Pat Shamansky asked, is there anything published on the Travis website regarding past actions and results?

Ms. Liu replied that you can see what happened five years ago by reviewing the most recent FYR.

RAB Member Mark Goltz asked if the Document Library is where all the documents can be found?

Mr. Storrs answered, we have what is called the Administrative Record online, and all our documents are there. It lists every base across every military installation.

Nadia Hollan Burke with US EPA stated that EPA has a deadline for finalization of this FYR, which is the end of September. EPA will submit a letter stating their findings regarding protectiveness of remedies at each site, along with suggestions.

Mr. Storrs added that the main purpose of this review is to make sure that the money that taxpayers are spending is meeting the intent of the clean-up program.

Aqueous Film Forming Foam (AFFF) Remedial Investigation

Megan Duley with Oneida presented the following:

Our team is conducting the AFFF Remedial Investigation at 16 past release areas.

The AFFF Remedial Investigation activities include: surface water and sediment sampling, base-wide groundwater and soil sampling, installation of over 100 new groundwater monitoring wells, and development of a conceptual site model.

Investigation Objectives include: protection of human health and the environment, developing an understanding of impacts from prior use of AFFF, and providing recommendations and support future human health and ecological risk assessment decisions.

AFFF Investigation Areas are as follows: fire fighting storage and equipment cleaning areas, Past/present fire fighting training areas, Fire truck nozzle test areas, and Aircraft crash sites.

The contract was awarded in July 2020. Major tasks completed to date include development of planning documents and data evaluation through May 2022, in addition to two field events.

Major tasks yet to be completed include: a third field event, data evaluation, and the Phase I Remedial Report to be completed by September 2025.

A detailed discussion of Field Event #1, Field Event #2, and Field Event #3 was presented.

Next Steps will include development of a Conceptual Site Model, completion of field Event #3 in the summer/fall 2023, evaluation of data collected during Field Event #3, and completion of Phase I RI Report in 2025.

Ms. Duley explained vadose zone definitions and concerns, and importance of this in ongoing investigations.

RAB Member Mark Goltz asked what kind of detection limits the Air Force is looking at in regard to AFFF in the Remedial Investigation. Will it be 4 PPT?

Ms. Duley answered, yes. Our Planning Document includes detection limits and methods of investigation.

Mr. Storrs emphasized that 4 PPT is a “proposed” limit and not yet finalized.

Optimized Remediation Contract

Leslie Royer from Jacobs introduced this agenda item.

We are partnering with FPM Remediations, Inc. for this contract. We refer to this Optimized Remediation Contract as the ORC.

The objectives of this contract are: To perform remediation systems operations and maintenance (O&M), Perform compliance monitoring and reporting at all active sites, and to Optimize remediation systems to reduce long-term costs and expedite remediation progress.

The ORC consists of 21 separate sites.

Site SS016 is a large site and it is where the Central Groundwater Treatment Plant (CGTP) is located.

The history of the remedies applied to SS016 was discussed.

CGWTP Control System Upgrade Objectives include to replace obsolete equipment, remove components no longer needed for groundwater treatment, increase CGWTP system operational time, and allow remote monitoring of CGWTP system operations.

The price to do this is \$180,000.

Doug Berwick with Jacobs presented the following:

I will provide a context of what our upgrading of the system means and the reasons for the upgrade.

We will look at some of the data collected and the importance of it.

When it was installed in the 1990s we had a thermal, oxidation system (THOX).

The Plant process flow diagram was discussed.

In 2010 we took the West Plant offline, and it is no longer contributing to the Central Plant.

The THOX system was also taken offline.

The irrigation system has long since been offline and not used and you can start to see the contraction of the system.

In 2010 a bioreactor was installed right in the middle of the oil spill area (OSA). It is now recirculating as part of a bioreactor.

Many parts of the original system are no longer manufactured. So now to keep the system running we have had to go out to ebay many times for parts with no warranties and partially used equipment. It is not a good spot to be in.

You want to get equipment that is supported. You want to get equipment that is still manufactured so that if there is a problem you can replace it.

A new hangar was built right in the middle of our OSA and this required rerouting of pipes. A new well was installed as well.

A new programmable logic controller and system control panel have been installed.

A new treatment plant operator interface has been established with the concomitant advantages this entails.

Department of Toxic Substances Control (DTSC)

Kimiye Touchi, Hazardous Substances Engineer of DTSC presented the following:

I do not have an actual presentation, but you can see on the slide my contact information as well as my colleague's, Christopher Scudder, Engineering Geologist.

We are both in the Sacramento area and part of the Site Mitigation and Restoration Program.

Mr. Storrs noted that Travis AFB has been working with this team for years.

San Francisco Regional Water Quality Control Board

Adriana Constantinescu with the San Francisco Region Water Quality Control Board presented the following:

I am an engineering geologist overseeing groundwater protection activities at Travis AFB.

Tonight, I will focus on two topics, the PFAS Investigation and Outfall IV.

PFAS constituents are a very large group of chemicals and perhaps as many as 6,000 chemicals to 9,000 chemicals.

Slide 28 was referenced by Ms. Constantinescu in discussing her second topic for the evening.

During our last virtual meeting I presented the actual plan that is taking place throughout the state of California for identifying PFAS in drinking water sources. It is a very well-coordinated effort and had been studied in March 2019 and additional funding has been provided for the investigation.

We are providing our regulatory input about this issue to Travis AFB according to the Federal Facilities Agreement.

According to the Federal Facilities Agreement, the Air Force would comply also with the state laws and regulations.

At the end of the Remedial Investigation, we will end up with site cleanup numbers.

The numbers for this that will be selected in the future will be the most protective numbers.

And if the state of California numbers will be more protective, those numbers will be selected.

As we can see from what we know today, April 2023, the numbers issued by the federal EPA and by California EPA are comparable numbers.

They are of the same order of magnitude, and we are still surprised by the proposed public health numbers and they are so low because of the risk to human health.

We need to accomplish the MCLs to protect human health.

The second topic that I wanted to focus on tonight was the release at Outfall IV.

There has been progress here but at our agency we are concerned about the length of time that it took for the Air Force to act from the time when the release was discovered. It was discovered in October 2021, and the Air Force tested the quality of the water release at Outfall IV in November 2021, We are today to the end of two rainy seasons, the rainy season of '21-22 and the rainy season of '22-23, without the issue being addressed.

For our agency this is a non-compliance.

An MS4 is a statewide permit which stands for municipal, industrial stormwater permit issued under the authority of the federal Clean Water Act and the authority of the California Water Code known also as Porter-Cologne.

Travis AFB should comply with the requirements of that statewide permit and the Base was not in compliance with the statewide permit requirements for a very long timeframe.

We believe that it took the Air Force too long to get to this step of a contract.

We have worked with the Air Force and have reviewed the plan for site ST028, which is a potential source of petroleum constituents being released.

We would like the Air Force to move at a faster pace and to be ready for at least the next rainy season, which will be '23-24, and during that rainy season we should stop talking about releases to Outfall IV.

Contaminants have been detected for two seasons and there are specific requirements in the permit.

The permittee, the responsible party, should respond in 72 hours or should present a plan after 72 hours and that is why we have concerns about the time that occurred in between the release and the end of the second rainy season when hazardous materials continued to reach the MS4 conveyance pipelines.

For our agency this is a real concern. We are ready to work with the Air Force to modify the pace of addressing this issue.

RAB Member Mark Goltz commented: I understand the Air Force does have the booms and they have the dam constructed. Are you saying that is inadequate or is it the fact that it is just getting into the pipeline before the Outfall and that's the problem?

Ms. Constantinescu replied that the main issue is that those materials, petroleum constituents are reaching the conveyance pipelines and that is the first concern.

And those constituents are migrating with the stormwater to surface water. And it is a discharge, that is not allowed under the federal law and the state law.

RAB Member Goltz asked: Even though it is being captured before it gets out further into the environment it is still a problem?

Ms. Constantinescu answered: It is captured on the surface of the Base. At the same time, the Air Force should comply with the federal laws and state laws on this property.

We need to stop the release of those constituents to the conveyance pipelines and to make sure that stormwater is not moving those constituents to Union Creek.

RAB Member Goltz stated: That's the law.

Ms. Constantinescu acknowledged: Yes.

RAB Member Goltz replied: Thanks.

Ms. Constantinescu added: That is the law and that is our goal, to protect water quality and to protect groundwater quality and surface water quality. It is our continuous goal.

Jill Dunphy projected slide 26 onto the screen.

Ms. Constantinescu reiterated: It is a complex project mainly because it is underground. Whatever happened, the release happened underground. And we cannot point out today where the release reached the conveyance pipelines, the stormwater conveyance pipelines.

Mr. Campbell stated: We are attempting to locate the source. That contract was awarded as soon as we could get it awarded. I believe it was September of 2022.

Ms. Constantinescu continued: We want to make sure that the Air Force will not discharge during the next rainy season; that the best measures are in place. We are concerned that it took the Air Force so long to get to this point.

We are ready to work with the Air Force right away. Our goal is to protect water quality. To preserve the water quality.

Environmental Protection Agency

Ms. Nadia Burke addressed attendees stating that EPA is working with the Air Force and other agencies in the continuing efforts at clean-up.

I am the Remedial Project Manager for the Travis AFB CERCLA Clean-Up.

Technically in CERCLA petroleum contamination is excluded from CERCLA regulation.

Vicky Wiraatmadja, Environmental Scientist, is assisting in overseeing anything petroleum related.

EPA has proposed an official drinking water standard for several PFAS compounds in drinking water.

We are accepting public comments through May 30, 2023.

EPA is having a public meeting on May 23, 2023.

EPA is involved in a proposal rulemaking to make PFOA a hazardous substance.

EPA has stated that if there is any investigation needed at Travis AFB regarding contaminants such as PFAS, that is considered a remedial investigation.

EPA is allowed to review and approve any sampling and any investigations under those remedial investigations.

So, there is a high-level disagreement between EPA and the Secretary of Defense that Air Force remediation work is not reviewable by the EPA.

The EPA would like to see additional pieces added to the PFAS remedial investigations taking place.

Vicky Wiraatmadja presented the following:

There are federal laws that apply to these petroleum spills, specifically the Clean Water Act and the Oil Pollution Act.

We do have the Emergency Response Branch of the EPA responding to this effort.

In regard to the discharge from Outfall IV, we are also concerned, and we have issued two letters that are Notices of Federal Interest – one is to the Air Force and one is to DLA.

We are reviewing the actions that are being taken at Outfall IV and to understand where the sources are.

RAB Member Randall asked how urgent this is to the public and if it is an emergency.

Ms. Wiraatmadja responded that the agencies feel that it is a matter that needs to be addressed. She added, as far as public health, the particular location where the sheen has been observed is on-base and so it is of limited access to the general public.

Mr. Campbell noted that Outfall I is tested regularly, and there has been no indication of fuels at Outfall I since testing began. The location of the sheen is at Outfall IV. The booms and the dams have all been installed where the sheen was identified.

Mr. Campbell stated that to his knowledge there has not been any detectable fuels at Outfall I, so the health risks to the public are not significant because the contaminants of concern are not leaving Travis AFB. This is a very important matter, and we need to comply with the law. We need to do whatever we can to protect the public from these chemicals. We are working through these issues and we have a good rapport with our partners.

Public Comments and Closing Remarks

Mr. Storrs asked for any additional comments from the public. (No comments were voiced)

Adjournment

Mr. Storrs adjourned the meeting at 8:56 p.m.