

The Baylands Contamination and Remediation Emphasis OU-2

BBCAG Mission Statement:

The purpose of the Brisbane Baylands Community Advisory Group (BCCAG) is to provide an open forum and community based input from the communities of Brisbane, Daly City and San Francisco and to advise the agencies charged with the remediation actions on three contiguous sites commonly referred to as the Brisbane Baylands.

What do we need to know to accomplish our goal?

We know that OU-2(the southern Railyard) plus Industrial Way is contaminate with Arsenated Lead, Bunker C Oil, VOCs and Nickel.

Toxin	Proposed Remediation
Arsenated Lead	cap in place
Bunker C Oil	cap in place
VOCs	removal by excavation to hazardous waste landfill
Nickel	removal to haz. waste landfill

Since both the Arsenated Lead and the Bunker C Oil may be remediated by using a cap in place, we must consider what the risk to human and environmental health is for that method.

Community acceptance of the risk requires understanding the following:

- A. Effectiveness of the cap
- B.
 1. The range of the depth of shallow groundwater
And deep groundwater
 2. The path and direction of the groundwater
- C. Range of Depth of the contaminants
- D. Path of surface water runoff or flowing water in ditches and creeks
- E. Are there better alternative types of remediation
- F. What the land use will be

The impact of removal of the VOCs or Nickel from beginning to end must be considered to understand the risks it poses.

The Baylands Contamination and Remediation Emphasis OU-2

Our recommendations to regulators including our comments on the Draft EIR (if not already included in the Draft EIR) should include the following

1. A recommendation that the cap be made of the ideal soil and clay type particle size to contain the arsenated lead and the Bunker C Oil ~~and that the cap be two to three times thicker than recommended. We could ask if there is any reason why the extra thickness would be detrimental.~~ **Design of cap is two-fold: (1) to have redundancy in system in case of failure and (2) integrity of cap last for life of property with a more intensive monitoring program in place. Consensus of group is that we lack the data necessary to make a recommendation and would like an engineer to discuss maintenance and integrity of cap.**
2. A detailed study of shallow groundwater should be made that would include all of OU-2 recording the depth at the top and bottom of groundwater every 25-50 feet. The width of the flow should also be measured as should its direction. The material it is flowing through should be identified. A three dimensional diagram should show where the contamination is located with relation to the groundwater.
3. The same study should be done for the deep groundwater.
4. The range of the depth of the contaminants across the area of contamination should be studied and determined. The three dimensional diagram mentioned above should be prepared.
5. There should be a detailed diagram showing the extent (width) of flowing surface storm water and water that flows in permanent and seasonal ditches and creeks.

Please note that one reason that cap in place is considered an appropriate form of remediation is because it is alleged that the contaminants, arsenated lead and Bunker C Oil will not come into contact with either surface water or groundwater. If it does come into contact with either one, it flows toward the Bay, as the Bunker C Oil was doing before the installation of the interim remediation of the North Ditch.

6. If there are alternate forms of remediation that would result in overall less impact on the environment and less risk to human health than a proposed method then the alternate method should be considered and chosen if it is equally effective remediating the toxin. An example would be the possible use of bioremediation on the Bunker C Oil. We need to know the details of using this alternative e.g. how long would it take to remediate the amount of cubic yards of Bunker C Oil contaminated soil.

The Baylands Contamination and Remediation Emphasis
OU-2

7. **Wetland mitigation questions. (1) Should land be capped, a liner placed on top, and then establish wetlands? (2) Should natural bio remediations wetlands be established with cap and liner and allowed to do the clean-up naturally? (3) Where do we want to allow or not allow natural mitigation, consider mapping? (4) If natural bio remediation is considered how do we control water bubble without a cap in place? (5) Kinder Morgan continues to use wetlands for micro remediation? Group would like to a full discussion of alternatives.**
8. The monitoring of the soil and ground and surface water for arsenated lead, Bunker C Oil and Nickel should **be deternuned** continue for 20-30 years, maybe more. The Mitigation Monitoring and Reporting Plan should require that the RWQCB and the overseer of the MMRP receive the reports twice a year. **Discussion: What is the length monitoring; what should we be concerned about. Address this in EIR.**
9. Since the source of the VOCs is unknown, no matter what type of remediation is used, there should be a set of monitoring wells that are located in the direction or directions that the shallow and deep groundwater are flowing. The wells should be tested twice a year and the reports should be sent to the RWQCB and the overseer of the MMRP. **Ask Vic Pal what the RWQCB views are on reclamation of grey water; potable water use. What protections are in place for deep water aquifer.**
10. Soil vapor can create a risk to human or environmental health and it should be studied and remediated.
11. There should be a review to determine all of the toxic chemicals that have been tested for and a determination if that it is sufficient.
12. In each case of remediation, there should be at least three different methods that are considered.
13. Where arsenated lead is the contaminant being capped there should be consideration given as to whether there are bio accumulators for arsenic present.
14. ~~(The clean up should be to residential level and beyond removed) Housing is not recommended because of unknowns related to contamination. Human health must be protected.~~ **As the mission statement of this group states we are “charged with the remediation action on three contiguous sites...” i.e., charged with cohesively tackling the necessary toxic remediation plans and the CAG is not discussing use, the group suggested a new survey be circulated with concerns on what is hazardous.**

The Baylands Contamination and Remediation Emphasis
OU-2

15. There should be a geotechnical analysis of the impact of day to day wear and tear, sea level rise and earthquakes of various magnitudes on all fill areas including the areas filled after the 1906 quake.
16. All fill areas should be evaluated for the risk of liquefaction.
17. There should be a geo technical peer review of all geo-technical work
18. Where contamination exists and there are monitoring wells in the direction of the groundwater flow, there should be sensors upland to detect what new contaminants may be flowing onto the site.
19. The aquitards thickness and slope should be investigated and reported. Is it a constant slope? **This is the responsibility of the RWQCB.**
20. The impacts of sea level rise and 100 year and greater storm flooding must be thoroughly investigated.