

Bayview Hunters Point Environmental Justice Response Task Force

Part of the **IVAN** (Identifying Violations Affecting Neighborhoods) Network: www.bvhp-ivan.org

When: Wednesday, April 21, 2021

Time: 5 p.m. - 7 p.m.

Location: <https://zoom.us/j/88201714316>

Meeting ID: 8820 1714 316

Call in: +1 408 638 0968 US (San Jose)

Participants: Dalila Adofo, HP Nunes, Chris Whipple, Karen Pierce, Anna Lee, Sebastian Perez, Eric Bissinger, Joni Eisen, Jin Zhu, Renay Jenkins, Anne W, Ahimsa Porter Sumchai, R. Manion, Sara Greenwald, John Ryan, Blair, Wilbert, Aude Bouagnon, Rebecca Skinner, Sabrina Hall, Joshua Abraham, Zsea Bowmani

(Start Meeting)

Dalila: Any other announcements?

Renay: Wanted to shout out the rally for tomorrow as well as remind everyone that we are still looking for hosts for the air monitoring project! Happy early earth day as well.

Dalila: Any other announcements for community resources and involvement? Okay, we can move on in the agenda. We have one IVAN complaint which we will discuss more in-depth, but I just wanted to review it for everyone:

Chronic Illegal Dumping - Update

Fields with * are required.

Title *

Chronic Illegal Dumping

Address *

1295 Yosemite Ave, San Francisco, CA 94124, USA

Category *

Toxic Substances

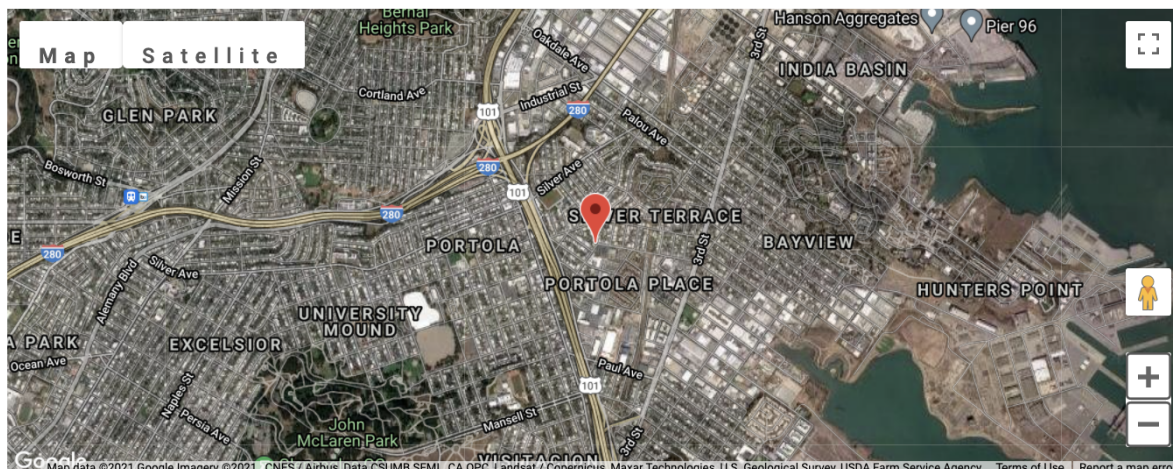
Date *

2021-04-10 06:28:37

Description *

I walked five blocks east on Yosemite to the north shore and western boundary of Yosemite Slough and observed the obviously toxic muddy greasy contents of the slough, pervasive illegal dumping and a discontinuous fence line exposing the community to the shipyards toxic Parcel F sediment.

PLEASE MOVE THE RED MARKER TO THE LOCATION OF THE REPORT



Dr. Ahimsa Porter Sumchai MD is going to be presenting on this a little bit later though.

Renay: I have another complaint – today when I was on 3rd and Pulu, by the bus stop. It was just the worst smell. They need to spray it down or clean it up. It's so pungent in the air that they need to call someone in. It's putrid.

Ray: Just in light of seeing the complaint about illegal dumping, I wanted to mention that there is going to be a virtual state-wide conference sponsored by Alameda county – it's happening today and Friday 9-12.

Dalila: Would you mind emailing me those details?

Ray: Sure.

Dalila: Do we have anything else to add before we move to Dr. Ahimsa's presentation? Alright, something I do want to update this body on, is for the Air Quality District presentation at the last EJ Task Force Meeting, in regards to permits going to plants such as Hanson Aggregates, Cemex, and I'm missing one – the public comment period has been extended 10 days. I just wanted to announce that and I will be putting more information on how to contribute to that in the next vertical response.

Dr. Ahimsa: Okay, well, we're going to be talking about some practical applications of environmental analysis and combining some advanced tools like the EPA EJScreen, Human Biomonitoring and Geospatial Mapping in Analysis of Environmental Impacts Yosemite Slough. I promise you by the end of this presentation you're going to have a very focused understanding of impacts on a specific area. And we're going to choose an area that in my professional experience has been the dirtiest, muddiest, most hazardous area in the City and County of San Francisco – and that's Yosemite Slough. Many people have shared that opinion – that when you look at Yosemite Slough it's hard to believe you're in San Francisco.

So on this first slide, we're going to be talking about this screening tool: the EJScreen tool by the EPA – it's so darn easy to use. This has replaced google maps and google earth for me in my search when I'm trying to get just a mapping of an area, because all you have to do is input your address or location in that search bar and it gives you pop – a map. You can alter the map, focus in and focus out, and then on top of the map, you can add 12 environmental indicators – and you can include them, such as PM 2.5, exposure DPM, cancer risk, hazard index, and we'll go through all of these. But what is also really great about this tool is that you can add demographic indicators and get an EJ Index. So in addition to mapping out the degree of lead toxicity a neighborhood has, you can include demographics of the population like factoring in the percentage of the population that are people of color, people below the poverty line, number of people under five and over 64 – this all gives an EJ Index.

The EJ Screening tool is quite easy to use. So we're going to look at Yosemite Slough. This is a photo of the slough from an aerial view. This is the view of the south view of the India Basin – parcel E shoreline and parcel F sediment. This region drains the most

chemically contaminated regions of the shipyard including the parcel E shoreline and landfill. The natural pattern of water is north to south and it drains the parcel F water and sediment and it extends westward. If that wasn't enough, this draining – like a toilet that doesn't flush – then it heads west towards a community at that Yosemite/3rd street intersection. You walk two blocks south and you're at a bayview park, MLK Swimming Pool, a playground and the southeast health center. You have what the EPA calls a "cluster of sensitive receptors" that are in such close proximity to this very polluted region. That a powerful slugger could bat a baseball from this park into the slough. The slough used to be a beautiful ecosystem when the Ohlone Native Americans had claim over this land. It used to be a beautiful ecosystem with plants and wildlife flourishing, and then industries came in, narrowed the channel with crushed debris, and the channel became more and more narrow. What the slough looks like now –



And as you can see, the water level is low, it evaporates. There are polluting industries in the area near the shipyard looking at the Gantry Crane towards the east. These industries have dumped in this area for so long that it has accumulated petroleum products that you can see, it's a greasy texture, the water has evaporated, the PCP content here was enormously high, lead and arsenic were high. The EPA has characterized this region. In 2014, the EPA announced that it was suing for public entities and 12 private entities to restore the slough and in doing so designated it as a federal superfund site. All you have to do is google this and a bunch of articles – from the chronicle, media – come up. You can find the settlement from the EPA – instead of getting money from all of the parties (and the public parties included dept of navy, the city and county of SF, state parks and bureau of land management, and the private industries were big industries like exxon, coca-cola.)

But what you find is that the EPA entered into a settlement with one of the parties that was willing to pay and they got 50,000 dollars and those funds went right to the EPA, and it doesn't appear that there were funds recovered that were sufficient enough to remediate the slough.

And then in 2016, Saul Bloom died. Saul Bloom died of brain cancer, glioma. He was the executive director of Arch Ecology, which had been driving for years the cleanup of the slough. I want to say publicly that I had a lot of problems with Saul Bloom, but I have

been studying him and his work. I think that as a body we should look into this. I believe that the cleanup of Yosemite Slough lost its momentum when he died.

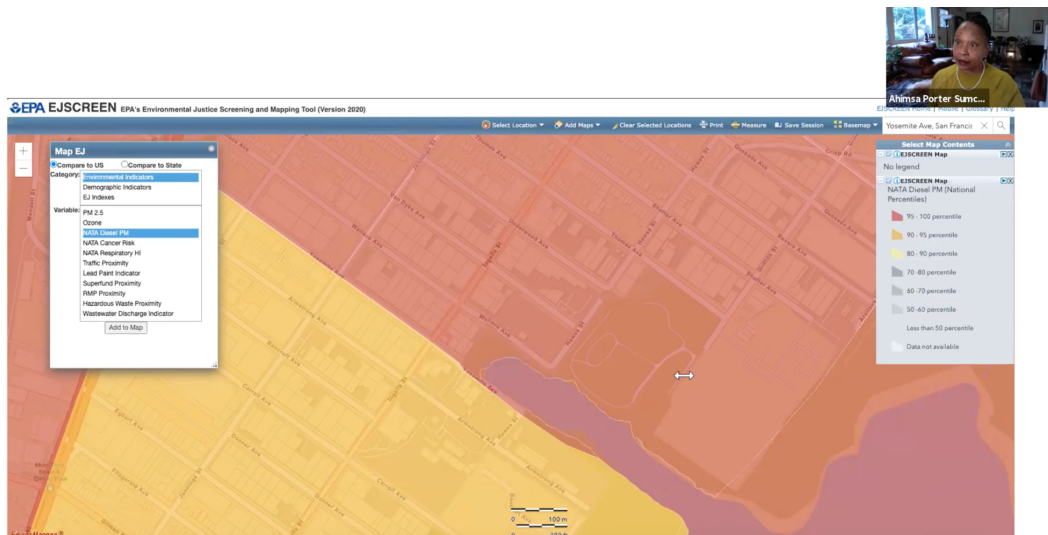
So this is Yosemite Slough – this is what it looks like when you get up close:



What worries me about this is that this water then evaporates with these chemicals and puts them into the air. When this stuff evaporates, it volatilizes toxic chemicals into the air. And I believe we are detecting these chemicals in people who live near to Yosemite Slough.

A video: [Return to Yosemite Slough April 10, 2021](#)

Okay, so – the next slide.



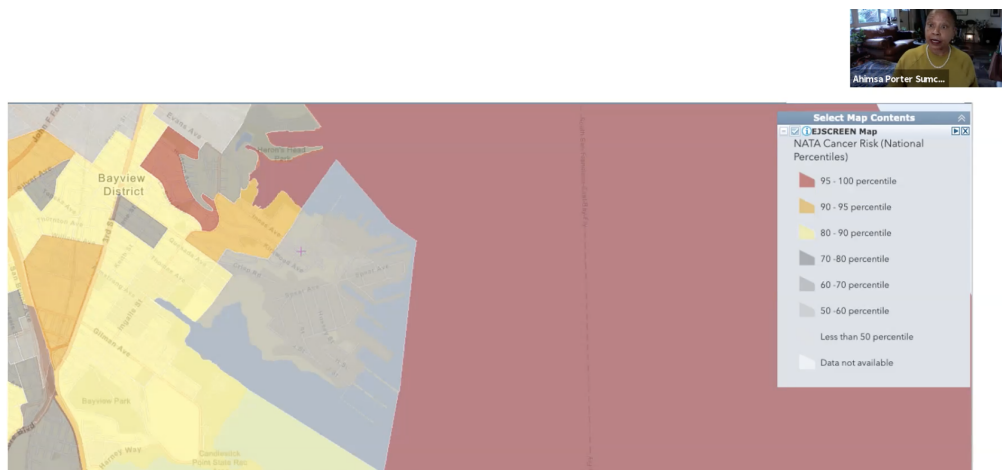
I just want to pick up on the point I was making in the video – that I reread some of the press reports about the EPA announcing that it had filed a suit to clean up Yosemite Slough and designate it as a superfund site, the third superfund site in a one mile radius.

I reread them because I just couldn't believe that these kind of public announcements would have been made and not followed up on. According to the Chronicle, the Slough was supposed to be cleaned up by 2017. And I think not only should we keep up the effort on this issue because of Saul but also because of Espanola Jackson, who was an advocate for cleanup of the slough probably because of her ancestry.

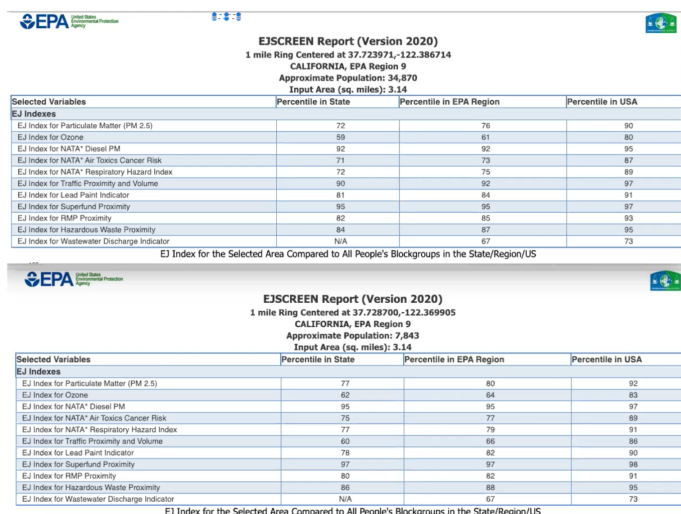
So now what we're going to do is look at the EJ screen mappings of yosemite slough. I don't mean to horrify you, but any time you see total red on an EJ screen mapping, you are looking at an area that is more dangerous than 95% of what people face in the united states of America. So let's figure out what is the environmental indicator here.

What is causing the redness – is Diesel Particulate Matter. Not just PM 2.5. It is particulate matter that has soot and forty carcinogens. What it means is that people in this area are being exposed to a compound of diesel particulates that the california air resources board attributes 70% of the risk of cancer.

This is a really interesting slide; this is the NATA Cancer Risk slide.



NATA is a national agency and the indicators are stable. The federal EPA considers these indices stable and reliable. This tells us that there are regions around yosemite slough that have a very very high cancer risk linked to breathing substances that cause cancer. What's to look at here, is that it looks like they have blanked the shipyard out. It's in the gray area. This is essentially evidence that the EPA has taken the hunters point shipyard off the grid for mapping of these indicators. What we do see is that there are areas in the Bayview region that have high cancer risk.



EJSCREEN Report (Version 2020)
 1 mile Ring Centered at 37.723971,-122.386714
 CALIFORNIA, EPA Region 9
 Approximate Population: 34,870
 Input Area (sq. miles): 3.14

Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
EJ Indexes			
EJ Index for Particulate Matter (PM 2.5)	72	76	90
EJ Index for Ozone	58	61	80
EJ Index for NATA Diesel PM	92	92	95
EJ Index for NATA Air Toxics Cancer Risk	71	73	87
EJ Index for NATA Respiratory Hazard Index	72	75	89
EJ Index for Traffic Proximity and Volume	90	92	97
EJ Index for Lead Paint Indicator	81	84	91
EJ Index for Superfund Proximity	95	95	97
EJ Index for RMP Proximity	82	85	93
EJ Index for Hazardous Waste Proximity	84	87	95
EJ Index for Wastewater Discharge Indicator	N/A	67	73

EJ Index for the Selected Area Compared to All People's Blockgroups in the State/Region/US

EJSCREEN Report (Version 2020)
 1 mile Ring Centered at 37.728700,-122.369905
 CALIFORNIA, EPA Region 9
 Approximate Population: 7,843
 Input Area (sq. miles): 3.14

Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
EJ Indexes			
EJ Index for Particulate Matter (PM 2.5)	77	80	92
EJ Index for Ozone	62	64	83
EJ Index for NATA Diesel PM	95	95	97
EJ Index for NATA Air Toxics Cancer Risk	75	77	88
EJ Index for NATA Respiratory Hazard Index	77	79	91
EJ Index for Traffic Proximity and Volume	80	86	96
EJ Index for Lead Paint Indicator	78	82	90
EJ Index for Superfund Proximity	97	97	98
EJ Index for RMP Proximity	80	82	91
EJ Index for Hazardous Waste Proximity	86	88	95
EJ Index for Wastewater Discharge Indicator	N/A	67	73

EJ Index for the Selected Area Compared to All People's Blockgroups in the State/Region/US

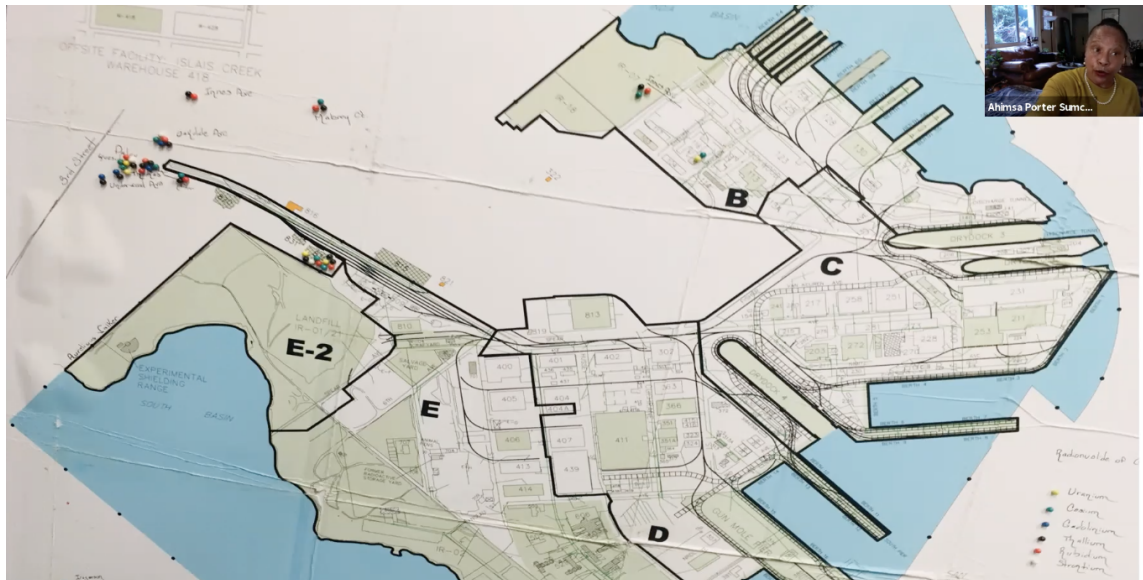
So what the EJScreen does, and these are two EJ screen standard reports, all you do is click on the area that you searched on the map. And then it will say standard report, you open it up, and this is what you get. I took some out so I could superimpose the two screens. What it does is lines up all of the environmental variables and gives you the percentile in the state, the percentile in the EPA region.

So what I did here was I put the EJ screen for Yosemite Slough on the top and I put the EJ screen report for the Hunters Point Shipyard below it so you're looking at screens from two adjacent regions. So when you look at the EJ screen on the bottom for the Hunters Point Shipyard it says EJ screen for NATA air toxic cancer risk is in the 89th percentile. It's almost the 90th percentile and now you remember, we looked at the map they had. Again it's like it's off the grid just blacked out. That map should have shown us a region that was almost – well, dark orange to red. Because the standard report is telling us that the NATA air toxin risk at the shipyard is approaching 90. The diesel PM is in 97, so we should have seen that in red. Then PM 2.5 was in the 92nd percentile. Again, so when you're in this one mile ring, exposure to PM 2.5 in the Hunters Point Shipyard is 92% of all exposure in the United States. You've got a really toxic area, you look at a percentile of what people in the country are faced with. So again, as you can see from the EJ screens, there is one difference I want to point out to you.

When you look at the top of the screen, it's the 97th percentile for Yosemite Slough. But there's a lot of traffic in the area; when you look at HPS, the traffic proximity is only 86% which is still high. But you know the shipyard is fundamentally close, you wouldn't expect a lot of traffic in the area anyway, but what this is saying is that the NATA diesel particulate matter risk of 95% in Yosemite Slough is being contributed to by bad traffic volume. The NATA diesel PM exposure at HPS is 97% but the traffic volume is lower, so that means that the diesel in the shipyard is not just coming from traffic, it's coming from other sources. That's what this is telling you.

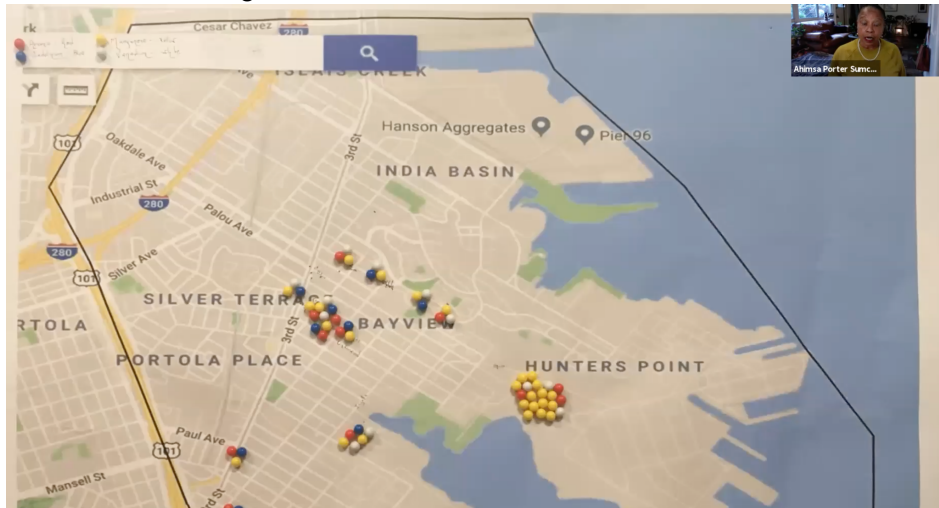
Okay let's move on and I will finish up, I know that this is a lot of information to absorb. But it is very, very important information and I want to emphasize again how advanced this EPA screening tool is; I encourage you guys to play around with it, you know because it's so easy and it's very creative and enjoyable instead of reading this stuff and

trying to slip through these technical terms, this is the HP bio-monitoring radio nuclear cluster.



These are screenings we conducted in which we detected elements that irrefutably are linked to ionizing radiation, cesium, uranium, thallium, rubidium, millenium and again, as you can see, some of you have seen this. It is clustered around Third and Pulu traveling east towards the radiation contaminated parcel E shoreline, so the radiation we're detecting and people is where you'd expect to find it. But what's happening is that no one else is detecting this in human biomonitoring. No one else has detected multiple radioactive biomarkers in multiple screenings with people in the community, because there aren't a lot of places beyond Chernobyl, where people have been exposed to multiple, you know, radioactive biomarkers, so this is one of the most important things that we've been able to map with HP biomonitoring.

This next screening:

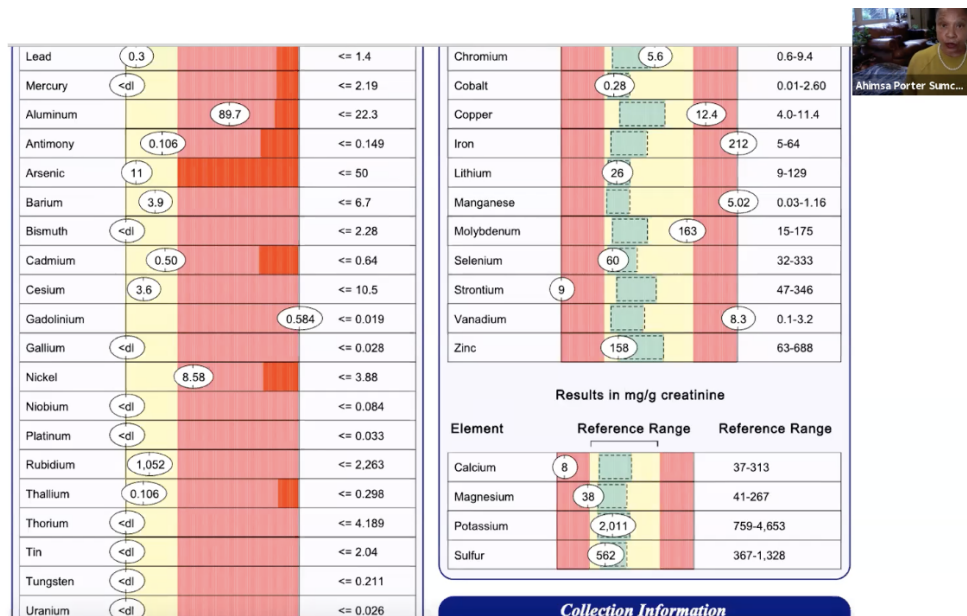


South basin cluster – this gives a cluster beyond statistical probability. This is 16 people who have either $\frac{3}{4}$ or $\frac{4}{4}$ toxic elements – arsenic, gadolinium, manganese, baradium.

And in addition there's also a cluster of manganese here and building 830, UCSF employees. 100% had these toxins. In fact, the HP biomonitoring screening is a manganese screening. 100 % of people who live or work within a one mile radius of the shipyard have manganese in their urine, in concentrations above allowable levels, and shipyard soils have a detection frequency for manganese of 100%. Arsenic is detected around this watery body, where we'd expect of most of the global exposure to arsenic.

Gadolinium is an agent that is used for neutron shielding in nuclear reactors and nuclear submarines and there were nuclear submarines parked at the north eastern – a dry docks of the shipyard, so that's one of my theories for why we're detecting gadolinium so much. Gadolinium is also used for contrast agents and some people have had these scans.

This lady up here is healthy, she's a neighborhood association president. She's got no indication for a scan but she has these toxins in her urine.



I'd like to talk about a woman who I have a lot of respect for; she grew up by Yosemite Slough. She was fit, and healthy, but she started to have a problem with her leg and someone noticed her walk, her gait was abnormal. Then she had an MRI scan that showed to a brain stem glioma, a rare tumor that has been proven in human and animal studies to be exposed or induced by exposure to heavy metals and prolonged exposure. And so after she got better she requested a urinary screening, and as you can see, in her urinary screening there was aluminum, cadmium, cesium, gadolinium, nickel, rubidium thallium, copper, iron, manganese, molybdenum and vanadium. All are in a range that is high normal to floridly toxic. This is a 35-year-old woman.

This next slide is a doctor who underwent surgery for a lung tumor when she lives on the hunters point shipyard and also had a tumor of her pituitary. She inherited her mom's house on Jamestown, within blocks of Yosemite Slough and she developed some new tumors coming out of both ears – they interfered with her balance. She requested the biomonitoring screening, and as you can see she's got arsenic that is floridly toxic. All you have to do is have an arsenic level of 50 to be in a toxic range and she's off the charts with arsenic, gadolinium again has been detected, rubidium thallium, but these

are high normal ranges. Copper, manganese. And there's some nutritional deficiencies here, so this is another screening.

(Shows more screenings of more people).

The next screening is one that I found mind-blowing. This is a married couple, they live on Arellano Walker Drive facing Yosemite slough. They've been there for 12 years and the difference between them; the woman is obese, her body mass index is greater than 35 and the man is muscular but he doesn't have as much body fat, so they requested the screening. And what you're going to see on the left side and the toxic elements, the way I approached the screening is I always look at the toxic elements first because that's the bad news – you don't want any of these in the body. They play psychological roles too. So I always look at the toxic elements, looking at the red bar anything in red or close to red is what you need to worry about.

So when we look at her screening she's got mercury levels that are up there, almost four times higher than toxic. She's got an element called neodymium you have probably never heard of; it is associated with steel production and by the way, many of these elements, including manganese are part of steel production. So yobium is in a toxic range, platinum is off the chart and she's got this ugly thallium in her urine. Thallium is a radioactive element that was banned as a killer because it is such a risk to human health.

So when I was looking, I was ultimately sure it was caused by environmental factors because I looked at her husband's urine – her husband's mercury levels were creeping up to a toxic range. His aluminum level is detectable. By the way we mention that she has cesium. Her husband's cesium level is 4.6. Platinum, rubidium and valium. So they have the same profile chemically.

One thing I want to emphasize is that you know, the Navy continues to deny the legitimacy of the work that we're doing, but what we're seeing fundamentally is shipyard toxic concentrations across all ages, races, genders; the same basic profile that's important, that is the most important thing that we're seeing that in most people we screen, we're detecting common elements like aluminum, nickel, arsenic, valium, rubidium, cesium, strontium, uranium... there are some variations and then manganese and aluminum are so common. And I joke that you know, you can look at someone's urine and tell that they live within one mile radius of the Hunters Point shipyard.

So let's finish up. This final mapping I zoomed out and looked at the diesel particulate matter for the entire eastern border of San Francisco in the East Bay, and as you can see, for the region, probably the most serious cancer impact that the region faces is from diesel particulate matter, as it's so pervasive. What I'm seeing in the work that we're doing that combines human biomonitoring looking at people individually, you're seeing concentrations at toxic levels where the body burden is so high.

And then we're trying to combine it with the geospatial mapping of where someone lives and then overlay the mapping of environmental factors like this, so the three big cancer causing elements that we're seeing, radiation, radioactive biomarkers that are clearly from the shipyards, clearly the source of exposure. No one should argue that, it's just obvious, common sense.

(Goes over Map marker key, sources, community lawsuit information.)

---- End Presentation ----

Unknown speaker: thank you so much, Dr.

Dalila: Blair, in the chat has a question –

Blair: Thanks doctor porter for the presentation and for all of your work. The last slide there was something I didn't understand. It seemed that a lot of it was actually the bay, including very far out.

Dr. Ahimsa Sumchai Porter: It's no secret that this region, of the east bay, is a region that faces a great deal of pollution, some of the earliest cartographers who did environmental justice mapping in 1985. You know eastern san francisco bayview hunters point and the east bay. You know that between what's being generated by southeast and northeast SF and what's being generated by the port of oakland. That is a very contaminated area.

Joshua: Thank you for the amazing presentation. I just wanted to underscore something that you touched on. You know, the port of Oakland and SF are considered major ports, so I believe that the EPA has a way of detecting diesel coming off of the ships and that's why they're coloring those areas red. I also think within a certain distance from the coast, they're actually allowed different emission standards as well, so that could contribute to the high levels of PM in that map. I had mentioned something in the chat – should we be looking at it a different screen at this time, we were talking about the canine deaths and you were talking about the color coded map and that was a different map than the PM map. So I was interested in seeing the map you were referring to.

Dr. Ahimsa Porter Sumchai: The map I uploaded into the chat actually was completed yesterday and it took a lot of work. I took a map of the shipyard from a navy document that identified its planned reuse. The areas in pink are residential development and then there are other areas that are coded, either educational or recreational red open space and then I superimposed the address with the pin that corresponds to a cancer, where that person lives. And then there are also pins that are placed in regions where people have worked, like Saul Bloom. I gave him a pin for dry doc because he documents in his writings and legal writings that he worked there, that he was exposed to heavy metals and he again died of cancer. (Discussion of death lawsuit).

Joshua: Thank you. I just heard you say how much work went into that and I wanted to make sure I was able to appreciate it so I'll follow up with Dalila and try to get access to the map, because I wasn't here early enough to see this.

Dalila: Next question.

HP Nunes: Hi Dr., I just wanted to understand something clearly - it's in your criticism of the hottest point being ranked and given percentiles for different indicators – this

is your criticism. That it is a shortcoming of the screen in this index, or I just didn't catch your main criticism.

Dr. Ahimsa Porter Sumchai: (Main point) The shipyard is taken out, you don't see colors at the shipyard it's as though it is off the grid, or it's been deleted from the mapping process by the EPA.

Dalila: We have a question in the chat that says "outstanding research, my question is what innovations or solutions do you suggest in regards to cleaning up the pollutants and improving the overall health of residents and BVHP?"

Dr. Ahimsa Porter Sumchai: I know it all sounds very extreme, but it's one of the reasons we're having the rally tomorrow and the call for more tourism that many people are joining in on the San Francisco democratic county central committee last year, who passed a near unanimous resolution calling for a moratorium at the shipyard and the equivalent of reparations. Two years ago I wrote an article that was published in Doc City, which is the doctors social media network and they picked it up as an editorial. I called for a declaration of a local public health emergency at the shipyard and you know I also feel that way now about Treasure Island – I just evaluated a woman, senior and disabled, she was walking with her dog and her daughter along the perimeter of treasure island and developed redness and particle sensation in her eyes. Her eyes got red, her face got red, her lips swelled, and had to watch herself, her daughter and her dog. I screened her and she has a urinary screening that looks similar to what we see in Hunters Point – toxic ranges.

Dalila: Are there any other questions? Okay, thank you again so much Dr. for your presentation, and that is all we have today. Is there any last announcements anyone wants to make? No? Thank you and see you next month.