WEBVTT

1
00:00:07.740 --> 00:00:15.379
Laura Feinstein (SPUR): Hi, everybody! Thanks for joining us today. We're just going to hold on a minute while everybody trickles in to the Webinar.

2
00:00:53.600 --> 00:00:55.630
Laura Feinstein (SPUR): All right. It looks like

3
00:00:55.640 --> 00:01:11.320
Laura Feinstein (SPUR): everybody has been able to join us. Thank you so much for coming today. Everyone we're looking forward to this Webinar today. First up, I just want to introduce myself. I'm Laura Feinstein. I'm Spurs sustainability and resilience policy director.

4
00:01:11.330 --> 00:01:24.599
Laura Feinstein (SPUR): Many of you here today are spur members. So thank you for your support. If you're not a member, I encourage you to join to support Spurs ongoing work, to make our cities and region more prosperous, sustainable, and equitable places to live.

5
00:01:24.610 --> 00:01:30.040
Laura Feinstein (SPUR): Your financial support enables us to continue our work, including the hosting of programs like today.

6
00:01:30.050 --> 00:01:35.769
Laura Feinstein (SPUR): You'll find more information about membership online at Spur Org joined.

7
00:01:36.560 --> 00:01:48.259
Laura Feinstein (SPUR): Our next digital discourse is scheduled for this evening at five Pm. If you're ready for a double header, it's go big for homes and jobs. How a b two thousand and eleven will change the game for affordable housing.

8
00:01:48.270 --> 00:02:05.679
Laura Feinstein (SPUR): Join us to learn more about Ab. Two thousand and eleven and how this year's most high-profile housing production. Bill will address California's Growing housing crisis. We will be joined by Assembly Member Buffy Wicks J. Bradshaw North Carpenters Union and Marina Wyant of the California Housing consortium.

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00:02:06.470 --> 00:02:12.519
Laura Feinstein (SPUR): Today's digital discourse is buried. Problems Hunters Point shipyard in a time of climate change.

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00:02:12.530 --> 00:02:29.420
Laura Feinstein (SPUR): When the San Francisco Hunters Point Naval Shipyard closed in one thousand nine hundred and seventy four. They left behind a toxic legacy of radioactive contamination in the soil and groundwater. San Francisco has plans to redevelop the land, once it's declared safe, bringing new homes and businesses to the area.

11
00:02:29.430 --> 00:02:46.649
Laura Feinstein (SPUR): But as sea levels rise, it could elevate groundwater and bring one's buried pollution to the surface. Today you'll hear from Professor Christina Hill on the science of how groundwater responds to sea level rise, and then from the San Francisco civil grand jury on its report buried problems in a very process.

12
00:02:46.910 --> 00:02:57.920
Laura Feinstein (SPUR): Our speakers today are Professor Christina Hill. Dr. Hill is a professor of environmental planning and urban design at Uc. Berkeley, who directs the Institute of Urban and Regional Development.

13
00:02:57.930 --> 00:03:07.009
Laura Feinstein (SPUR): The research identifies successful strategies for adaptation to rising sea levels and groundwater emphasizing the need for cities to build more housing.

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00:03:07.020 --> 00:03:15.219
Laura Feinstein (SPUR): Sarah Miles is a writer and editor living in San Francisco. She served as a member of the two thousand and twenty, one to twenty, two civil grand jury,

15
00:03:15.240 --> 00:03:20.639
Laura Feinstein (SPUR): and Jeff White Sole has worn a variety of technical and management hats in the tech industry.

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00:03:20.650 --> 00:03:29.290
Laura Feinstein (SPUR): Now he's deploying his writing skills against

climate change, starting with his service on the two thousand and twenty one to twenty, two civil grand jury in San Francisco.

17
00:03:30.550 --> 00:03:43.629
Laura Feinstein (SPUR): Now We want this to be an interactive conversation, and we plan on spending as much time as as possible as engaging with all of you. So please use the Chatbots to share your thoughts with each other and the speakers;

18
00:03:43.700 --> 00:04:02.310
Laura Feinstein (SPUR): and if you have questions that you'd like us to address in the Q. And A. At the end, please find the Q. And A. Panel. It should appear as a button, either at the bottom of your screen. If you're on a computer or at the top of your screen. If you're on the mobile app, and with that I will turn it over to Professor. No

19
00:04:05.040 --> 00:04:08.159
Dr. Kristina Hill, UC Berkeley (she/her): great thanks, Laura. Let me try to share my screen here.

20
00:04:19.970 --> 00:04:21.190
Dr. Kristina Hill, UC Berkeley (she/her): Okay.

21
00:04:21.200 --> 00:04:40.909
Dr. Kristina Hill, UC Berkeley (she/her): So I just wanted to start by emphasizing that um sea level has already been rising over the last one hundred and ten thousand years, and we're already beginning to see groundwater emerge at especially high tides, and this photograph is from Marina Boulevard in San Meandro,

22
00:04:40.920 --> 00:04:57.169
Dr. Kristina Hill, UC Berkeley (she/her): and it shows water bubbling up through a manhole. And what we're seeing so far is that as groundwater, it's rising, it's actually coming to the surface through the storm drain infrastructure that we designed to pull water away. That's where we're seeing the first signs of groundwater flooding

23
00:04:58.580 --> 00:05:17.690
Dr. Kristina Hill, UC Berkeley (she/her): what i'm talking about in when I say groundwater is the shallow groundwater that's just sitting in the soil below the surface could be at the surface. It could be five feet below, maybe ten or twenty feet below, depending on the

season and the location, and it's water that's

24
00:05:17.700 --> 00:05:36.249
Dr. Kristina Hill, UC Berkeley (she/her): just filling up the core spaces between particles of soil and the top of that saturated zone is called the water Table, which is another term I may use. It's not usually seen as a resource, because it tends to be polluted with whatever runs off the surface, and with whatever it passes through in the soil

25
00:05:37.510 --> 00:05:42.189
Dr. Kristina Hill, UC Berkeley (she/her): it also can penetrate, and often does in this area this region

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00:05:42.200 --> 00:06:01.219
Dr. Kristina Hill, UC Berkeley (she/her): penetrate ah storm and sewer pipes, and can take up some of the capacity of those pipes which is a real problem for our sewer systems. It can also cause displacement of the pipes and corrosion. If it causes displacement corrosion, it can actually open relative renew pipes

27
00:06:01.230 --> 00:06:03.700
Dr. Kristina Hill, UC Berkeley (she/her): to this kind of infiltration, and inflow

28
00:06:07.960 --> 00:06:25.630
Dr. Kristina Hill, UC Berkeley (she/her): these slides are from the Us. Geological Survey. I borrowed them to try to use their images, which I think are really good to make the point that, as you see in this image the sailing groundwater in that the salty groundwater is in that dark blue wedge under the land,

29
00:06:25.640 --> 00:06:35.689
Dr. Kristina Hill, UC Berkeley (she/her): and freshwater groundwater sits on top of it, because it's a lighter, and it's like the ocean has its toe under a pillow on the couch, and it's going to push that fresh water up

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00:06:36.300 --> 00:06:49.849
Dr. Kristina Hill, UC Berkeley (she/her): so as the sea rises, you can see in this image the water table, that top of the saturated zone also rises, and that's because freshwater ground water is flowing out towards the ocean.

31
00:06:49.860 --> 00:06:57.400
Dr. Kristina Hill, UC Berkeley (she/her): That sailing groundwater underneath is creating more pressure and raising that freshwater lens higher.

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00:06:57.520 --> 00:07:04.279
Dr. Kristina Hill, UC Berkeley (she/her): And this will happen no matter what is at the shoreline. It could be a levy or a seawall, or a dune band.

33
00:07:04.400 --> 00:07:14.219
Dr. Kristina Hill, UC Berkeley (she/her): This is another. Us. Geological Survey slide, and what they're showing here is that when you put in a seawall, not only does it

34
00:07:14.230 --> 00:07:34.210
Dr. Kristina Hill, UC Berkeley (she/her): do some good in terms of blocking the waves, but it can do something bad, which is cause the ground water behind it to actually rise higher than it would just from the rising sea level by itself. And that's just because the foundation traps, some of that water that would discharge that groundwater that would discharge to the ocean.

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00:07:34.230 --> 00:07:39.909
Dr. Kristina Hill, UC Berkeley (she/her): So a seawall or a levy can actually make the groundwater problem worse on the land side.

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00:07:41.870 --> 00:07:52.059
Dr. Kristina Hill, UC Berkeley (she/her): The other thing that can happen is that soil contamination typically has been kept high and dry and protected by a cap.

37
00:07:52.390 --> 00:08:00.259
Dr. Kristina Hill, UC Berkeley (she/her): But legacy contaminants are often still in the soil, and our goal over the last thirty or forty years has been to keep that soil dry

38
00:08:00.330 --> 00:08:10.129
Dr. Kristina Hill, UC Berkeley (she/her): As groundwater rises. You can see this red area that I've added to the Usgs diagram can be soaked by that rising groundwater,

39
00:08:10.140 --> 00:08:23.460
Dr. Kristina Hill, UC Berkeley (she/her): and as it gets wet it can be mobilized in what we call a plume, so it can spread out like inked on a piece of tissue paper and start causing problems in the area surrounding the contaminated site.

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00:08:25.940 --> 00:08:33.700
Dr. Kristina Hill, UC Berkeley (she/her): When we look at Hunters pointing baby, which is not my research area, I've made this diagram using us Geological Survey maps.

41
00:08:33.770 --> 00:08:50.770
Dr. Kristina Hill, UC Berkeley (she/her): Um. This map was made in two thousand and twenty by scientists at the Us. Geological Survey, and it's available at the our coast. Our future map viewer for sea level rise and groundwater flooding. And what it shows here is that at Hunter's Point

42
00:08:50.810 --> 00:08:54.189
Dr. Kristina Hill, UC Berkeley (she/her): there's already shallow shallow groundwater.

43
00:08:54.200 --> 00:09:05.020
Dr. Kristina Hill, UC Berkeley (she/her): The red is very close to the surface, or at the surface. Orange is about three feet below the surface, and yellow is between three and six feet below the surface.

44
00:09:05.480 --> 00:09:09.650
Dr. Kristina Hill, UC Berkeley (she/her): Purple is even farther down, so we're not as concerned about the purple.

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00:09:09.890 --> 00:09:28.180
Dr. Kristina Hill, UC Berkeley (she/her): But as you look at this Usgs mapping data, this is the projection for three feet about a little more of sea level rise, and you can see that the entire area and the flats of Hunters Point has gone orange, which means that the groundwater is very shallow.

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00:09:28.210 --> 00:09:46.949
Dr. Kristina Hill, UC Berkeley (she/her): I flip back and forth. You can see it turn from yellow in the present day condition, with some

orange and red to almost completely orange, and that blue patch There, That's interesting. That's seawater coming right over whatever the edge is of the land. There, at three feet of sea level rise,

47
00:09:46.960 --> 00:09:59.540
Dr. Kristina Hill, UC Berkeley (she/her): and it would pond on the surface. But if you build a seawall or a levy, then that would be colored red on this map, because the ground water will come up behind the sea. Waller Levy. Anyway,

48
00:09:59.660 --> 00:10:07.560
Dr. Kristina Hill, UC Berkeley (she/her): groundwater equilibrates or finds a new level. As the seawater rises,

49
00:10:07.760 --> 00:10:24.180
Dr. Kristina Hill, UC Berkeley (she/her): so the Usgs data is showing that there is already a risk um in this area that as sea level rises, I'm. Just going to show that three feet again this whole area is going to have shallow and groundwater. No matter what we do with structures at the edge.

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00:10:26.740 --> 00:10:44.739
Dr. Kristina Hill, UC Berkeley (she/her): The plume is something that can be started. I mentioned it's like a sort of a spreading ink stain from the source as groundwater comes up and inundates it. And if that plume moves towards a sewer pipe, we've already shown you how groundwater can enter a sewer right that can cause problems for homes

51
00:10:44.750 --> 00:10:49.620
Dr. Kristina Hill, UC Berkeley (she/her): and other buildings that are hundreds of feet away from the place where it enters

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00:10:50.320 --> 00:11:09.539
Dr. Kristina Hill, UC Berkeley (she/her): It looks like this in cross-section. If the a plume of a bottle organic chemical that has a gas component enters a pipe a sewer pipe, it can travel uphill which is unexpected When you're thinking about how water modes, the gas will travel uphill, and it could actually enter

53
00:11:09.550 --> 00:11:27.440
Dr. Kristina Hill, UC Berkeley (she/her): homes, businesses, schools by ah, the plumbing system, or by ah cracks in the foundation if it's sitting on a concrete slab foundation. So one of the big concerns is

what happens to indoor air quality If these chemicals that are known to cause cancer

54
00:11:27.790 --> 00:11:31.910
Dr. Kristina Hill, UC Berkeley (she/her): able to enter the air of the building without being detected.

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00:11:32.010 --> 00:11:47.339
Dr. Kristina Hill, UC Berkeley (she/her): So those are the primary ah concerns about groundwater, and i'll just ah close with a summary, which is just to say that even if we build levees and sea walls, groundwater is going to rise behind them.

56
00:11:47.870 --> 00:11:54.579
Dr. Kristina Hill, UC Berkeley (she/her): This is going to cause impacts underground long before we see any puddles at the surface, and most of the bay area

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00:11:54.870 --> 00:12:09.970
Dr. Kristina Hill, UC Berkeley (she/her): it's going to get into pipes, storm drains and sewer pipes. It'll limit their capacity. It could cause erosion, and cause the pipes to separate and allow more leakage, and it can mobilize legacy contaminants,

58
00:12:09.980 --> 00:12:22.879
Dr. Kristina Hill, UC Berkeley (she/her): so things that are currently high and dry may become mobile, as the water intersects with those legacy contaminants, and they may be mobile metals. Valid organic chemicals may be mobile

59
00:12:23.230 --> 00:12:32.289
Dr. Kristina Hill, UC Berkeley (she/her): as they become mobile, they can move into buildings through the air of the building, through the plumbing system.

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00:12:32.380 --> 00:12:39.090
Dr. Kristina Hill, UC Berkeley (she/her): Then there's also a risk that which I haven't shown you maps about because i'm trying to speed up here.

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00:12:39.350 --> 00:12:45.370
Dr. Kristina Hill, UC Berkeley (she/her): There's a risk that as

groundwater rises, It'll create corrosion impacts on building foundations

62
00:12:45.450 --> 00:12:47.500
Dr. Kristina Hill, UC Berkeley (she/her): as it becomes saltier,

63
00:12:47.510 --> 00:12:57.450
Dr. Kristina Hill, UC Berkeley (she/her): and also on pipes, and create a higher risk of higher-intensity. Earthquake shaking in places that are built on film in particular.

64
00:12:57.790 --> 00:13:13.060
Dr. Kristina Hill, UC Berkeley (she/her): And then it'll also reduce the ability of soil to absorb rain water, which means all of our efforts to do green infrastructure, and to get rainwater into the soil to prevent surface flooding, are unlikely to succeed near the coast,

65
00:13:13.070 --> 00:13:22.420
Dr. Kristina Hill, UC Berkeley (she/her): and these impacts of groundwater will be most ah severe. Within about a half a mile of the coast, but they could extend as far as three miles in one.

66
00:13:22.430 --> 00:13:26.640
Dr. Kristina Hill, UC Berkeley (she/her): It'll just tap her off as it goes farther from the ocean,

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00:13:26.950 --> 00:13:34.200
Dr. Kristina Hill, UC Berkeley (she/her): so I hope that gives you a better sense to what some of the science is, what we're learning about groundwater as it rises.

68
00:13:34.210 --> 00:13:49.630
Dr. Kristina Hill, UC Berkeley (she/her): Um! And there are strategies for how to adapt in this it's not that we can't adapt, but it's very, very important to plan ahead for these impacts before someone's exposed to harmful chemicals in their home as a result of rising groundwater.

69
00:13:51.600 --> 00:13:53.900
Dr. Kristina Hill, UC Berkeley (she/her): I'll turn it back over to Laura.

70
00:13:54.590 --> 00:14:04.749
Sara Miles: All right, Thanks, Professor Hill. That was an incredibly concise summary of a really complex issue. You actually wrapped up five minutes early.

71
00:14:04.760 --> 00:14:08.649
Laura Feinstein (SPUR): So I must have been talking fast.

72
00:14:08.660 --> 00:14:16.760
Laura Feinstein (SPUR): Given that there's a couple of questions that I think would be great to answer right now, while people still have the science fresh in their minds.

73
00:14:16.770 --> 00:14:23.489
Laura Feinstein (SPUR): We have one question here: What about raising the ground up. Can you accommodate rising brown water by adding more soil?

74
00:14:24.320 --> 00:14:40.480
Dr. Kristina Hill, UC Berkeley (she/her): Ah, yes, but you have to add a fair amount, because about three feet above the water table, the soil can become saturated. So it would have some of these impacts, even if you raise the soil by three feet in an area where the groundwater would otherwise be at the surface.

75
00:14:40.810 --> 00:14:56.820
Dr. Kristina Hill, UC Berkeley (she/her): So it doesn't address the um stability question in an earthquake, and the pipes are still underground at six or eight feet down, so the pipes are still exposed to rising groundwater, even if we raise the surface of the ground itself.

76
00:14:58.160 --> 00:15:06.190
Laura Feinstein (SPUR): So if you already have infrastructure in place, adding more soil on top doesn't. Change the location of that infrastructure. So it's still vulnerable.

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00:15:06.200 --> 00:15:11.659
Laura Feinstein (SPUR): That's right. You'd have to raise the infrastructure also and have it be quite shallow,

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00:15:12.040 --> 00:15:15.069
Laura Feinstein (SPUR): but it would. It would work for addressing

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00:15:15.370 --> 00:15:19.989
Laura Feinstein (SPUR): some of the impacts. For example, the emergent groundwater issue.

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00:15:20.000 --> 00:15:34.920
Dr. Kristina Hill, UC Berkeley (she/her): Yeah, it could help with the surface bonding. But really that's the least of our worries at this point. That's quite a ways off, you know, eighty years away. But these impacts on pipes and the potential for moving contaminants in new ways that could be happening already.

81
00:15:35.500 --> 00:15:36.590
Laura Feinstein (SPUR): Okay.

82
00:15:36.600 --> 00:15:46.770
Laura Feinstein (SPUR): So you would still have all the same increased vulnerability to earthquakes, and it would only really help if you'd awesome with all the infrastructure of an elevation along with that oil.

83
00:15:46.780 --> 00:15:51.519
Dr. Kristina Hill, UC Berkeley (she/her): That's right. Having your feet stay dry is not the biggest concern with this.

84
00:15:52.430 --> 00:16:01.839
Laura Feinstein (SPUR): And then we have another question here: Can we learn something from the Dutch and the Netherlands, or any other countries or regents who have been living with flooding risks for a long time.

85
00:16:01.850 --> 00:16:09.770
Dr. Kristina Hill, UC Berkeley (she/her): Yes, we can learn a lot from the Dutch. Those are my colleagues, and they have been using structures like canals

86
00:16:09.970 --> 00:16:25.030
Dr. Kristina Hill, UC Berkeley (she/her): to lower the groundwater around the canal. That's how Amsterdam works If you dig canals in a saturated soil, and then you lately pump in the canal. Not a lot of

pumping, but enough to make the water move.

87
00:16:25.040 --> 00:16:35.639
Dr. Kristina Hill, UC Berkeley (she/her): That's enough to sort of ah wick the water out of the surrounding soils to a certain distance in the hundreds of feet. Tens to hundreds of feet.

88
00:16:35.650 --> 00:16:47.949
Dr. Kristina Hill, UC Berkeley (she/her): Um! So that's how the Dutch manage high groundwater. What we've done in the past is, we've done deeper wells to try to remove groundwater from the soil, and that can actually accelerate the sinking of the land

89
00:16:47.990 --> 00:17:06.069
Laura Feinstein (SPUR): When you pull the water out of the soil it collapses, and that can be ah for several feet of lost elevation. That's how New Orleans got to be below sea level. That's how San Jose sank during irrigation groundwater withdrawals earlier this century last century.

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00:17:06.079 --> 00:17:15.679
Dr. Kristina Hill, UC Berkeley (she/her): Um! And that's how the California Central Valley sank. So we have to be very careful to pump in a shallow way the way the Dutch do, using something like a canal system.

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00:17:16.579 --> 00:17:19.789
Laura Feinstein (SPUR): And how do the canals interact with the levees

92
00:17:19.970 --> 00:17:21.390
Laura Feinstein (SPUR): in the Dutch system.

93
00:17:21.400 --> 00:17:31.869
Dr. Kristina Hill, UC Berkeley (she/her): Well, they have tide gates at the levees. They have to have a lock for ships or a gate just for water, and they close that gate at high tide, and they open that gate at low time.

94
00:17:35.270 --> 00:17:42.649
Laura Feinstein (SPUR): So those are are those some of the options that the bay area should be considering to grapple with this canals in combination with tidy

95
00:17:42.660 --> 00:17:59.549
Dr. Kristina Hill, UC Berkeley (she/her): Yeah. And canals may be an expensive but beautiful version of what we could do. We could also turn our leaky stormwater sewer systems into a tool. If we pumped at the bottom of the network of sewer pipes, not sanitary, but storm sewers.

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00:17:59.560 --> 00:18:12.950
Dr. Kristina Hill, UC Berkeley (she/her): We could actually use them like an underground canal system, and pull groundwater out of the soil, using our own broken infrastructure, which to me seems like an an advantage for American systems which are typically now built. Main thing.

97
00:18:13.070 --> 00:18:29.940
Laura Feinstein (SPUR): Yeah, just assume It's leaky. Um. Well, we have a question here. Could parts of San Francisco become a New Amsterdam or Venice, which is an exciting vision, but also at the same time part of what we're talking about is potentially contaminants, becoming mobilized by the groundwater.

98
00:18:29.950 --> 00:18:49.069
Laura Feinstein (SPUR): Do we really want canal that are potentially filled with contaminated groundwater, the best strategy, And i'm not speaking specifically about Hunter's Point because I haven't looked at it. I look more at the shoreline of Richmond and Alameda and Oakland, but the best strategy is to actually excavate contaminated soil

99
00:18:49.080 --> 00:18:52.459
Dr. Kristina Hill, UC Berkeley (she/her): sequester. It, put it somewhere high and dry,

100
00:18:52.540 --> 00:18:57.519
Dr. Kristina Hill, UC Berkeley (she/her): hopefully. Treat it so that it can be reused for other things like levies.

101
00:18:57.770 --> 00:19:10.470
Dr. Kristina Hill, UC Berkeley (she/her): But to remove that soil, and then, if you have a pond, you you would have a pond in a shallow groundwater area. If you dig out some of that soil just like when you dig at the beach. When you come down to the water table.

102
00:19:10.480 --> 00:19:20.219
Dr. Kristina Hill, UC Berkeley (she/her): If you create a pond you could have a series of smallish ponds. This is what the Dutch are doing in Amsterdam, and they're floating new housing in those artificial ponds,

103
00:19:20.300 --> 00:19:34.199
Laura Feinstein (SPUR): So they're living with higher water instead of pretending It's not happening or building the walls to try to keep it out. They're actually learning to live with it, and it can be beautiful as long as it's, not polluted, excessively polluted.

104
00:19:37.040 --> 00:19:52.499
Laura Feinstein (SPUR): Well, great, that's incredibly informative, and it's helpful also to start to think about what some of the solutions might be. Thank you so much, Professor Hill. I'll turn it over now to um to Jeff and Sarah to present on the findings of the Civil Grand Jury.

105
00:19:53.450 --> 00:20:18.469
Sara Miles: Great. Thank you so much, Laura, and Thanks, Dr. Gil for that incredibly um thorough explanation in a very short time. Um! Just so that everyone knows the ah urls for our full report, and the mayor's response are in the chat. So if you want to follow along page by page Um, please pull that up. We'll post it also at the end of the session.

106
00:20:18.480 --> 00:20:24.240
Sara Miles: I wanted to start with just a few basics to explain what a grand jury is.

107
00:20:24.250 --> 00:20:37.189
Sara Miles: Every California county has a civil grand jury which serves as a watchdog to investigate and report on the affairs of local governments, and they are made up of volunteers who serve a one-year term.

108
00:20:37.200 --> 00:20:37.690
He

109
00:20:37.700 --> 00:20:54.710
Sara Miles: each civil grand jury chooses which departments and

operations to look into in those months of research and interviews and fact-checking by law, civil grand juries carry out our work under rules of complete confidentiality,

110
00:20:54.720 --> 00:21:00.949
Sara Miles: and we protect the identity forever of everyone who talks with us.

111
00:21:01.230 --> 00:21:15.650
Sara Miles: We don't, make policy for the city. We can't hire or fire employees. We don't make criminal charges. We just investigate a concrete specific problem thoroughly.

112
00:21:15.660 --> 00:21:26.339
Sara Miles: Then we publish reports with our findings and make recommendations to improve operations. City officials decide whether or not to implement recommendations.

113
00:21:26.890 --> 00:21:39.880
Sara Miles: So you've heard Dr. Hill talk about groundwater rise, and I want to share Why, our grand jury was interested in what this science could mean, for the formal naval shipyard at Hunter's Point

114
00:21:40.500 --> 00:21:43.649
Sara Miles: let's do a very brief history.

115
00:21:43.770 --> 00:21:53.239
Sara Miles: The first dry docks at Hunters Point were built back in one thousand eight hundred and sixty, seven, and over time the whole area became a center for the shipbuilding industry.

116
00:21:53.250 --> 00:21:59.059
Sara Miles: Right after Pearl Harbor. The Us. Navy took over the shipyard for the war effort.

117
00:21:59.080 --> 00:22:11.860
Sara Miles: It built four new large dry dots and expanded the peninsula by smashing an adjacent hill into gravel and dumping it into the bay. As

118
00:22:12.540 --> 00:22:18.169

Sara Miles: the navy recruited over eighteen thousand wartime workers.

119
00:22:18.190 --> 00:22:21.540
Sara Miles: A third of them were black migrants from the south,

120
00:22:21.580 --> 00:22:32.700
Sara Miles: and housed them in barracks above the shipyard. During World War Ii. Hunter's Point became a major repair, and Meatlands facility for us warships and submarines

121
00:22:33.560 --> 00:22:48.650
Sara Miles: After the war. The shipyard continued serving military vessels, and when the United States conducted atomic bomb tests in the Pacific that coded dozens of navy test ships with dangerous levels of radioactive fallout.

122
00:22:48.660 --> 00:22:59.190
Sara Miles: They towed those damaged ships to a new laboratory set up at hunter's point to try decontaminating them with open-air sand blasting

123
00:22:59.660 --> 00:23:14.399
Sara Miles: that lab became the naval radiological Defense Laboratory, which operated in the shipyard until one thousand nine hundred and sixty nine, doing all kinds of radiological experimentation and research,

124
00:23:14.410 --> 00:23:33.580
Sara Miles: and also serving as a regional hub for the disposal of nuclear race. At one point workers at Hunter's Point packed up contaminated materials from the lab from warships and from West Coast nuclear facilities into forty seven thousand big steel drums,

125
00:23:33.770 --> 00:23:38.419
Sara Miles: and took them out and sank them in the ocean near the far along the islands

126
00:23:38.860 --> 00:23:49.289
Sara Miles: in one thousand nine hundred and seventy four. The navy ended its operations at the shipyard, and leased the site to triple a machine shop until one thousand nine hundred and eighty six.

127
00:23:50.140 --> 00:23:51.890
Sara Miles: So what was left

128
00:23:52.420 --> 00:24:04.249
Sara Miles: over the years radioactive material had been spilled, burned, or improperly disposed of contaminating the soil, the base landfill and the bay.

129
00:24:04.260 --> 00:24:18.280
Sara Miles: Shipyard operations had left behind piles of asbestos, pawns of oil, crushed heavy metals, discarded batteries, spilled acids, tucks of chemicals and volatile organic compounds.

130
00:24:18.330 --> 00:24:25.370
Sara Miles: Aaa had illegally dumped large amounts of highly carcinogenic pcbs and heavy metals.

131
00:24:25.560 --> 00:24:31.880
Sara Miles: In one thousand nine hundred and eighty nine. The entire shipyard was declared a superfund site.

132
00:24:32.000 --> 00:24:38.899
Sara Miles: It was divided into parcels for cleanup by the navy under circle the superfunding process.

133
00:24:39.220 --> 00:24:48.510
Sara Miles: Once cleanup was done, the land would be transferred to the city for development. Three decades later the cleanup is still underway.

134
00:24:49.770 --> 00:24:54.880
Sara Miles: The navy originally planned to remove all dangerous materials from the soil,

135
00:24:55.100 --> 00:25:10.820
Sara Miles: but by two thousand and ten it was clear that not all the contaminants could be removed, and the navy and regulators decided it would be safe to bury some toxins under durable covers of dirt or concrete where they still remain.

136

00:25:11.790 --> 00:25:16.230
Sara Miles: Our jury knew about the toxic history of the ship. Here

137
00:25:16.240 --> 00:25:21.979
Sara Miles: we were aware of the emerging science around the risks of groundwater rise,

138
00:25:22.170 --> 00:25:38.620
Sara Miles: and we knew how high the States are. San Francisco plans to build the biggest development project since the one thousand nine hundred and six earthquake at the shipyard, with Parks office towers, school, and over ten thousand homes.

139
00:25:38.780 --> 00:25:48.199
Sara Miles: We decided to investigate how the jury was working, how the city was working on this issue, and so Jeff was going to tell you what the grand jury found out.

140
00:25:48.690 --> 00:26:03.179
Jeff Weitzel: Thank you so much, Sarah. Um. So the most important parts of a civil grand Jury report are its findings and recommendations. So i'm going to be structuring the rest of this presentation around those findings and recommendations.

141
00:26:03.420 --> 00:26:16.200
Sara Miles: A finding in a civil grand jury report identifies a specific problem in local government, and it can also commence underappreciated successes. But today we're going to be talking about.

142
00:26:16.280 --> 00:26:22.380
Jeff Weitzel: Recommendations, meanwhile, are proposed solutions to the problems identified in the findings.

143
00:26:22.610 --> 00:26:30.450
Jeff Weitzel: The reason these are important is because the Mayor and the Board of supervisors are required to respond to them in writing.

144
00:26:30.470 --> 00:26:45.480
Jeff Weitzel: In the case of this report the mayor delivered her response a few weeks ago, and remember, Sarah mentioned that the url for that is in the chat. If you're interested in reading it for yourself, it's pretty long. It's about as long as the report itself.

145
00:26:45.730 --> 00:26:57.979
Jeff Weitzel: Um. So for those of you who are not familiar with Hunter's point, this is a very contentious issue in San Francisco, and the mayor disagreed partially or wholly with all of our findings and recommendations.

146
00:26:58.180 --> 00:27:01.339
Jeff Weitzel: Now these finding and findings and recommendations

147
00:27:01.350 --> 00:27:07.500
Jeff Weitzel: a little dense, so during this presentation I will, I'll be summarizing them instead of reading them. Now,

148
00:27:07.700 --> 00:27:09.730
Jeff Weitzel: speaking of which,

149
00:27:09.870 --> 00:27:22.409
Jeff Weitzel: our first finding appears on page twenty, three of the report of: If any of you downloaded the reports, i'll be giving you page numbers if you want to try and find them and see that adjoining discussion.

150
00:27:22.420 --> 00:27:36.509
Jeff Weitzel: And the this finding the first finding comes after a very long discussion of the science and risks and groundwater rise. But I want to thank Dr. Hill again for that great presentation to lead this off, so I don't have to recap that material.

151
00:27:36.530 --> 00:27:46.260
Jeff Weitzel: So as a civil grand jury, not a scientific body, we were really trying to get at the question, Does what we know about the shipyard today

152
00:27:46.350 --> 00:27:52.970
Jeff Weitzel: quite strongly enough towards a dangerous situation with regard to groundwater rise and soil. Contamination

153
00:27:52.980 --> 00:27:56.870
Jeff Weitzel: that we feel like we need to know more. It's a closer look. Merit

154
00:27:57.220 --> 00:28:03.279
Jeff Weitzel: The answer, after a lot of research and discussions with many experts is a strong Yes,

155
00:28:03.540 --> 00:28:07.760
Jeff Weitzel: in fact, this is one of the few ideas in our findings that the mayor agrees with

156
00:28:08.410 --> 00:28:28.390
Jeff Weitzel: more to the point we looked at whether these risks had been accounted for by the Navy and the Regulators planning to clean up at the site. That is to say, had they asked the question we asked, Do we need to take a closer look at whether rising groundwater is going to have an implications for what's safe and what's not,

157
00:28:28.400 --> 00:28:31.409
Jeff Weitzel: with the contaminated soil in the future of the shipyard.

158
00:28:31.420 --> 00:28:37.149
Jeff Weitzel: This is our second finding. On page twenty four of the report, we found that they had not looked at this

159
00:28:37.160 --> 00:28:44.509
Jeff Weitzel: When it comes to sea level rise induced groundwater rise at the shipyard. The clean up to date has been flying blind.

160
00:28:44.860 --> 00:28:46.740
Jeff Weitzel: So what is to be done?

161
00:28:47.030 --> 00:28:50.020
Jeff Weitzel: As the civil grand jury for San Francisco.

162
00:28:50.030 --> 00:28:55.179
Jeff Weitzel: Our job was to focus on how the city can take action in this situation. The

163
00:28:55.330 --> 00:29:03.940
Jeff Weitzel: so our recommendation was that the city itself should

pay for independent experts to study how groundwater will rise in the shipyard

164
00:29:04.140 --> 00:29:22.089
Jeff Weitzel: pretty straightforward, and there's this precedent for this. Alameda commissioned the study of this kind a few years ago, and there's a regional study from the Pathways Climate Institute and the San Francisco Estuary Institute. That will be coming out in the very near future that includes San Francisco.

165
00:29:22.100 --> 00:29:24.240
Jeff Weitzel: Speaking of that regional study,

166
00:29:24.460 --> 00:29:42.259
Jeff Weitzel: This is a a map of Hunter's point from that study that shows a projection of of what the groundwater and Hunters Point will look like at four feet of of sea level. Rise. It's, it's it's fairly similar to the maps that the Dr. Don't show us, but it's from a different source and a more, a more recent project.

167
00:29:42.580 --> 00:29:43.700
Jeff Weitzel: So

168
00:29:44.070 --> 00:29:51.339
Jeff Weitzel: there's a problem with this map like even though it's got these these scary bits of red and purple.

169
00:29:51.350 --> 00:30:07.389
Jeff Weitzel: We can't have a lot of confidence in what it's showing us, because the navy's groundwater data from the shipyard is currently very hard for external scientists to use, and this map is based on data from just two wells. So what we're recommending is that the city

170
00:30:07.400 --> 00:30:18.499
Jeff Weitzel: pay to create maps for the shipyard that look like this, but are based on more and better groundwater data with more sophisticated analysis. So they have more value as planning.

171
00:30:19.010 --> 00:30:23.640
Jeff Weitzel: Now you could argue, and the Mayor does argue in her response

172
00:30:23.680 --> 00:30:27.939
Jeff Weitzel: that the groundwater rise in the shipyard is the navy's,

173
00:30:28.250 --> 00:30:31.280
Jeff Weitzel: but we believe the city should own this issue

174
00:30:31.750 --> 00:30:35.790
Jeff Weitzel: when the cleanup is complete and the parcels have been handed over the

175
00:30:35.800 --> 00:30:49.890
Jeff Weitzel: we're going to have to make decisions about how and where we can safely build in the shipyard. Even after the cleanup is done, the soil and groundwater and the shipyards will remain contaminated with many dangerous chemicals.

176
00:30:49.900 --> 00:31:00.120
Jeff Weitzel: This is a map of partial bead from the risk management plan for the shipyard, and it's based on the navy's own information. So this is the official line, and what's still on the slip.

177
00:31:00.140 --> 00:31:03.399
Jeff Weitzel: This is a similar map for Parcel G. The

178
00:31:03.410 --> 00:31:20.189
Jeff Weitzel: Um. The pink blocks in these two contaminated areas are are contaminated with pollutants called volleyball, organic compounds, and and Dr. Hill mentioned those in her presentation specifically as like as one of the

179
00:31:20.200 --> 00:31:26.349
Jeff Weitzel: public enemy, Number one. When it comes to groundwater ride, and what can happen when it gets involved with a contaminated soil

180
00:31:26.620 --> 00:31:44.030
Jeff Weitzel: so, and to to repeat what what Dr. Hill told us like. I wanted to to to call these out because they they're very mobile. It's easy for them to move in groundwater, and they can invade um buildings. As toxic Vaders, like Dr. Hill, had a slide in her presentation. That showed us how that can happen

181
00:31:44.080 --> 00:31:45.889
Jeff Weitzel: so a few decades from now.

182
00:31:45.900 --> 00:32:04.589
Jeff Weitzel: Um, Dr. Yhad another slide um That showed us how how how to. You know Groundwater can move contaminants in a plume. Um. So these pink areas in these maps are going to become plumes just like that. As groundwater rises They'll be smearing these pink areas with ball to organic chemical chemicals around.

183
00:32:04.600 --> 00:32:05.450
Jeff Weitzel: Yes,

184
00:32:06.080 --> 00:32:15.430
Jeff Weitzel: moving that that pollution around. And as of dead. Today we don't have good predictions about which direction they're going to go,

185
00:32:15.630 --> 00:32:31.110
Jeff Weitzel: or how far in and in what conditions. So how can we safely erect a building. If we have no idea where we, where the volatile organic compounds are going to be, and where we need special protections to to try and keep those buildings safer,

186
00:32:32.560 --> 00:32:46.770
Jeff Weitzel: and that is just one of many different ways to keep that rising groundwater, or that is one of just many different ways that browsing, rising groundwater can harm this community as we're planning for this site. If we don't plan for it. Now,

187
00:32:46.780 --> 00:33:01.809
Jeff Weitzel: the city needs this planning information today before the building gets built, regardless of whether the maybe makes any changes to the cleanup, you can find the full text of these recommendations in context. On page twenty five of the report

188
00:33:02.520 --> 00:33:12.439
Jeff Weitzel: in the Mayor's response she declines to commission the study that we can recommend, because in her estimation it is not warranted or reasonable.

189
00:33:12.510 --> 00:33:25.960
Jeff Weitzel: Obviously we disagree with that. She does say that the city will propose a review of the shallow groundwater issue inside of the superfund process, and that is a good start. We're glad that the city is going to make that happen.

190
00:33:27.070 --> 00:33:29.270
Jeff Weitzel: Now, to be clear.

191
00:33:29.540 --> 00:33:31.890
Jeff Weitzel: If we had this study in hand,

192
00:33:31.900 --> 00:33:37.459
Jeff Weitzel: we would want the city to very assertively bring that to the attention of the navy.

193
00:33:37.570 --> 00:33:45.610
Jeff Weitzel: But when the civil Grand jury looked into how this might work in practice. Pulling that thread turned into a whole second act for our report.

194
00:33:45.620 --> 00:33:47.449
Let me set some context.

195
00:33:47.750 --> 00:34:00.259
Jeff Weitzel: The cleanup in the shipyard is governed, but governed by a very complex, very bureaucratic process, to keep the jargon to a minimum. Today i'm going to call it the superbun process.

196
00:34:00.630 --> 00:34:07.130
Jeff Weitzel: The superfund process has four principal participants, and they are all ponderous bureaucracies,

197
00:34:07.230 --> 00:34:11.469
Jeff Weitzel: the maybe Epa and two State regulators.

198
00:34:12.000 --> 00:34:26.810
Jeff Weitzel: What this means is that the navy which made the mess and Hunter's point and is cleaning it up on a budget, gets to negotiate directly with the Regulators overseeing. You know about what needs to

be done and what is enough. And what is it?

199
00:34:27.020 --> 00:34:31.010
Jeff Weitzel: The city and county of San Francisco, which will be like,

200
00:34:31.130 --> 00:34:37.520
Jeff Weitzel: which will have this site for decades after the navy is gone? Does not have that privilege.

201
00:34:38.170 --> 00:34:45.600
Jeff Weitzel: It cannot be taken for granted in any way that this process will produce results that San Francisco should be satisfied with,

202
00:34:45.830 --> 00:34:47.890
Jeff Weitzel: or that nothing can go wrong.

203
00:34:47.900 --> 00:34:49.790
Jeff Weitzel: And this is not hypothetical. By the way,

204
00:34:49.800 --> 00:34:51.910
Jeff Weitzel: things have already gone badly wrong.

205
00:34:52.199 --> 00:35:09.050
Jeff Weitzel: Some of you might remember the catastrophe a few years back, when it turned out that a good chunk of the radiological testing data and the shipyard was thick, and there were very contentious negotiations about what to do about that after it happened, and the city largely set those out

206
00:35:09.560 --> 00:35:10.830
Jeff Weitzel: also.

207
00:35:11.160 --> 00:35:29.290
Jeff Weitzel: Ah, just if there's the example of what we found in our report that there's an important risk related to sea level rise that the Navy and Regulators have not today been been. Ah been looking at in the shipyard, and That's another example. Something that was not going right where someone from the outside had to come in and bring attention to

208
00:35:30.250 --> 00:35:39.040
Jeff Weitzel: is often the case when a city is at the mercy of a complicated Federal bureaucracy, the super, The superfund process is

209
00:35:39.070 --> 00:35:45.259
Jeff Weitzel: very, very hard to understand the fact. This is our our third finding the

210
00:35:45.730 --> 00:35:47.579
Jeff Weitzel: on page twenty-seven of the report.

211
00:35:48.650 --> 00:35:55.829
Jeff Weitzel: The city, The only people who know anything about it are work in a tiny program in the department of public health.

212
00:35:56.870 --> 00:36:12.679
Jeff Weitzel: What this high barrier to entry process means is that when things go badly for San Francisco there's a very good chance that no one will notice, and if problems are noticed, it's very challenging for the city to lobby it for its position.

213
00:36:12.780 --> 00:36:25.489
Jeff Weitzel: It also means that the deep reservoir of institutional knowledge inside the city about the city goes largely untapped, because those experts are excluded by those high barriers to entry.

214
00:36:25.770 --> 00:36:38.989
Jeff Weitzel: Meanwhile the stakes are enormous. The shipyard sits adjacent to one of the most environmentally urban neighborhoods in the State, where residents have suffered health harms from the shipyard for generations.

215
00:36:39.000 --> 00:36:42.189
Jeff Weitzel: Among many other sources of pollution.

216
00:36:43.340 --> 00:36:47.580
Jeff Weitzel: There are also the families who live in the shipyard in the future to think of.

217

00:36:47.630 --> 00:36:58.659
Jeff Weitzel: If we get this wrong in coming decades, rising groundwater could create, create pathways for toxins to enter their bodies and their homes, not to mention the bay

218
00:36:59.210 --> 00:37:12.070
Jeff Weitzel: in light of these very high stakes. In the many ways the superfund process can go wrong for the city. How does the city protect itself and seek the best possible outcomes out of the process?

219
00:37:12.130 --> 00:37:14.890
Jeff Weitzel: The civil grand jury offers this recipe,

220
00:37:15.150 --> 00:37:28.939
Jeff Weitzel: the city should adopt a due diligence mindset just like we were. If we were buying a house or a used car, we should be expecting that things are not going to be right. We need to be kind of looking up.

221
00:37:29.160 --> 00:37:45.739
Jeff Weitzel: Given that we know we have. There's no way to know what those problems will be in advance. We need many different eyes on those, on on what is happening in the superfund process, from many different perspectives within the city, bringing to bear many different domains of expertise

222
00:37:45.870 --> 00:37:51.700
Jeff Weitzel: those many percent. Those people looking should be actively looking for for what the process overlooked. The

223
00:37:52.450 --> 00:37:54.070
Jeff Weitzel: all of that said.

224
00:37:54.080 --> 00:37:55.690
Jeff Weitzel: We also have to remember.

225
00:37:55.700 --> 00:38:01.179
Jeff Weitzel: The city and county of San Francisco participates in the superfund process as a guest

226
00:38:01.650 --> 00:38:10.269

Jeff Weitzel: that we have to to to respect the process and work with the navy, Epa and the other Regulators on their terms, so that we can be heard.

227
00:38:11.310 --> 00:38:15.619
Jeff Weitzel: This kind of vigilance is not what we have today

228
00:38:16.050 --> 00:38:20.600
Jeff Weitzel: which brings us to our fourth finding the fourth finding of our report on page twenty eight.

229
00:38:21.600 --> 00:38:35.310
Jeff Weitzel: What we are saying here is that beyond the small number of city employees directly involved in the superfund process, hardly anyone inside the city knows much of anything about the cleanup or how it works

230
00:38:35.750 --> 00:38:52.160
Jeff Weitzel: that small number of directly involved. And if city employees work in the Department of Public Health, Andrew's Point shipyard program, and to be clear the work they do, sitting in the room with the principals in the superfund process, and reviewing clean up documents is critical,

231
00:38:52.620 --> 00:39:04.639
Jeff Weitzel: but under the status quo almost the entire burden of vigilance is resting on that one hundred point staff at D. Ph. A whole city's worth of expertise is going largely on tact.

232
00:39:04.970 --> 00:39:05.990
Two

233
00:39:06.190 --> 00:39:20.989
Jeff Weitzel: under the status quo, with just this one department, and starting ten line of defense instead of many eyes looking out for us in the in a circular process. We just have a few eyes. Instead of many different perspectives. We have the Department of Public Health,

234
00:39:21.000 --> 00:39:23.399
Jeff Weitzel: and that and that we have their expertise.

235

00:39:24.020 --> 00:39:28.720
Jeff Weitzel: Our fifth and six findings describe what we're missing. Under this arrangement we,

236
00:39:29.090 --> 00:39:38.870
Jeff Weitzel: under the status quo, with just a few city employees involved in the superfund process. The city is poorly prepared to spot when things go wrong, you know,

237
00:39:38.890 --> 00:39:44.120
Jeff Weitzel: and poorly repaired and prepared to respond to them. When things when problems are noticed,

238
00:39:44.410 --> 00:39:47.420
Jeff Weitzel: the city has no process to decide the

239
00:39:47.590 --> 00:39:58.690
Jeff Weitzel: what its priorities are in. The we know, meaning the city can't say what like we. I couldn't tell you what the city wants, because those discussions Aren't happening, and and no one is making decisions about this.

240
00:39:58.700 --> 00:40:05.000
Jeff Weitzel: If we did have priorities, we have no mechanism to track our progress on those priorities over time.

241
00:40:05.900 --> 00:40:14.749
Jeff Weitzel: The full text of date of finding Number five is on page twenty, eight, and the full text of finding Number six is on page thirty.

242
00:40:15.480 --> 00:40:28.599
Jeff Weitzel: The mayor's response argues at length that the existing institutional architecture with one Dph program, as the lead actor is sufficient to meet these needs. So I will say it again to be absolutely clear.

243
00:40:28.830 --> 00:40:46.430
Jeff Weitzel: The tiny staff doing this work Part time lacks the bandwidth or breadth of expertise to identify many problems to respond to them. And this one program at D. Ph. Can't be said to represent the priorities of the city at large, because there is no process to

establish what those priorities are.

244
00:40:46.860 --> 00:40:49.849
Jeff Weitzel: The Civil Grand jury's recommendation

245
00:40:50.050 --> 00:41:01.900
Jeff Weitzel: to alleviate these shortcomings. It's for the Board of Supervisors to create a committee composed of relevant experts from throughout the city to keep an eye on the supervision process for us.

246
00:41:03.040 --> 00:41:06.290
Jeff Weitzel: We like this solution because it creates a brain trust,

247
00:41:06.300 --> 00:41:22.270
Jeff Weitzel: a pool of people from all over the city, familiar with the shipyard and the superfund process, and that brain trust can at appropriate moments explore the question. Is San Francisco, well served by the latest developments in the super funding process.

248
00:41:22.280 --> 00:41:29.519
Jeff Weitzel: They can deploy their deep knowledge of the city to service issues the navy and regulators wouldn't otherwise have thought about.

249
00:41:29.530 --> 00:41:35.740
Jeff Weitzel: They can act as a forum in which a statement of San Francisco's priorities and the cleanup can be drafted.

250
00:41:35.750 --> 00:41:41.990
Jeff Weitzel: They can make the cleanup that the shipyard visible in city departments that currently have no reason to pay attention.

251
00:41:42.170 --> 00:41:58.399
Jeff Weitzel: If this committee has saved eight to twelve people on it that meets our criteria of many eyes, and if they come from different functions in many different departments from throughout the city, we get perspectives that those many perspectives are about many different Ah! Domains of expertise

252
00:41:59.070 --> 00:42:09.319
Jeff Weitzel: a well composed committee could bring to bear, for

instance, the lenses of infrastructure, safety of city employees, equity,

253
00:42:09.610 --> 00:42:11.700
Jeff Weitzel: planning considerations,

254
00:42:11.860 --> 00:42:21.370
Jeff Weitzel: more dimensions of health than the shipyard program can bring by itself civil engineering and Earth sciences, and of course, climate change, resilience.

255
00:42:22.460 --> 00:42:36.049
Jeff Weitzel: We have four more recommendations in our report that can be thought of in agenda to the recommendations we already talked about today in the interest of time. I'm not going to go over them in detail, but I encourage you to look at the report and check them out for yourself.

256
00:42:36.310 --> 00:42:45.109
Jeff Weitzel: I will say in summary, there are two things that I would like you to take away if you only take two things away from what you heard today. First,

257
00:42:45.480 --> 00:42:57.179
Jeff Weitzel: San Francisco meets a high quality Forecast of how groundwater will rise with sea level rise in the shipyard before more parcels are handed over before any construction takes place.

258
00:42:58.770 --> 00:43:10.209
Jeff Weitzel: Second, we need to change the way the city participates in the superfund process to involve more experts from throughout the city. So we have a chance to get the best outcomes for ourselves.

259
00:43:10.690 --> 00:43:23.160
Jeff Weitzel: So that's a report. The next thing or the next step for for this process is that we will be presenting this report to the Board of Supervisors Government Audit and Oversight Committee,

260
00:43:23.170 --> 00:43:30.760
Jeff Weitzel: We think, on September the fifteenth. But we don't actually know because that there's a chance. It could be delayed. But

261
00:43:30.770 --> 00:43:48.190
Jeff Weitzel: if you are inspired by what you heard today, and you would like to let the Board of Supervisors know what you think about this issue. You can either attend that committee hearing in person, or you can phone in and leave a comment. You can also send email to the, to the um

262
00:43:48.630 --> 00:44:00.160
Jeff Weitzel: to to the committee itself, and with with comments, and you can find information about how to do all those things, and also get the the final word on when the date is by visiting the Board of Supervisors website.

263
00:44:00.250 --> 00:44:03.880
Jeff Weitzel: That's that brings us to a close. Thank you very much.

264
00:44:04.990 --> 00:44:24.280
Laura Feinstein (SPUR): Thank you so much. Jeff and Sarah, and thanks for your service on the Civil Grand jury, and all that research and effort you put into that. Um. This is our question and answer time. We have about fifteen minutes, so ah, please Ah, drop your questions in the Q. And A. Window, and we will be speaking them.

265
00:44:24.290 --> 00:44:33.899
Laura Feinstein (SPUR): So first up we have a good question here. Are there any examples of other large cities being involved so closely in a circular process?

266
00:44:39.090 --> 00:44:44.740
Jeff Weitzel: I don't know the answer to that. I think the answer is undoubtedly yes. But

267
00:44:45.320 --> 00:44:51.259
Jeff Weitzel: like we really focused on San Francisco, so I can't give you a good example, and maybe Dr. Hill has some

268
00:44:55.510 --> 00:45:09.640
Dr. Kristina Hill, UC Berkeley (she/her): not at the top of my head, but I do know that on the east coast there have been more engaged conversations about what to do, and there have been strategies that have involved additional development, like in

269
00:45:10.210 --> 00:45:22.360
Dr. Kristina Hill, UC Berkeley (she/her): Ah, the harbor areas of Massachusetts. There have been some efforts to sequester a contaminant soil and then develop on top. But that was all. Previous to the conversations about sea level,

270
00:45:27.330 --> 00:45:49.789
Laura Feinstein (SPUR): and somebody is wondering here. Ah, well, to stay on process for a minute. We have a question here rather than having the responsibility Baton getting pushed up and forth between the navy and the city. Are there any reasonable ways that the responsibility can be jointly split pointing fingers. And please at fall doesn't make headway. But it's an issue, especially with the waterfront real estate going up in the neighborhood.

271
00:45:49.800 --> 00:45:50.439
The

272
00:45:50.500 --> 00:46:18.680
Sara Miles: you can say something quickly about that which is, I really want to reinforce that the single grand jury isn't about pointing figures, or saying whose fault something is. Our job is to look specifically at government operations. We don't make recommendations to the navy, and we don't make recommendations to the Epa. Our job is to say, what is San Francisco doing? And are there ways of San Francisco doing? And are there ways of San Francisco doing? And are there ways of San Francisco doing? And are there ways of San Francisco doing? And are there ways of San Francisco doing? And are there ways of San Francisco doing? And are there ways of San Francisco doing? And are there ways of San Francisco doing? And are there ways of San Francisco doing? And are there ways that

273
00:46:18.690 --> 00:46:32.369
Sara Miles: we think that there are ways to improve the operations of San Francisco and those definitely involve collaborating within the city and with the Navy and the Regulators.

274
00:46:32.380 --> 00:46:47.070
Jeff Weitzel: And I can follow up on that really quickly, too. But the the arrangement between the city and the the navy in this and the circular process actually is quite collaborative right now. But like um like I I I think if anything,

275
00:46:47.080 --> 00:46:53.729
Jeff Weitzel: the through critique that the the Civil Grand jury might make it. Maybe it's a little bit too collaborative

276
00:46:53.740 --> 00:47:03.069
Jeff Weitzel: that we feel like the city should just be a little bit more of kind of a skeptical buyer, or just have a due diligence mindset. But but

277
00:47:03.180 --> 00:47:21.999
Jeff Weitzel: but there, there's ah an agreement signed between the city and and the the Ah Navy and the circular process participants in two thousand and four called the Conveyance Agreement that specifically established it, We're going to work collaboratively, and I think in most ways that's been very successful, and has so so,

278
00:47:22.010 --> 00:47:35.550
Jeff Weitzel: even though kind of it makes the headlines when when there's when there's trouble and kind of finger pointing um in in practice. The the the work between the city and and the the navy, and the Epa and the Ah, and the other Regulators has been quite clever.

279
00:47:38.490 --> 00:47:58.120
Laura Feinstein (SPUR): Casino. Did you want to weigh in on that? I was just going to say that it's very common, for there to be agreements between a Federal agency and a city and other property owners um about who will retain responsibility. But I think that The key thing is to ask questions about the design, and whether the design is robust,

280
00:48:03.630 --> 00:48:08.310
Dr. Kristina Hill, UC Berkeley (she/her): not as good as designing something for the right conditions. In the first place,

281
00:48:12.580 --> 00:48:21.909
Laura Feinstein (SPUR): we have a question here in the chat that I'm just going to go ahead and take because it's really mainly a question for me.

282
00:48:21.920 --> 00:48:32.780
Laura Feinstein (SPUR): The question, Why is the alternative view not being presented here, and uses for being more balanced? I understand

there's differing views. Why isn't Someone from the Mayor's office here to present their response.

283
00:48:32.790 --> 00:48:47.700
Laura Feinstein (SPUR): That is a great question. We would be more than happy to host somebody from the city to talk about their response. When we organized this event. It was. It was a good eight weeks or so prior to the mayor writing her response. So it wasn't available yet,

284
00:48:47.710 --> 00:48:53.829
Laura Feinstein (SPUR): and we also are working within constraints. Our digital discourses are only an hour,

285
00:48:53.840 --> 00:49:11.949
Laura Feinstein (SPUR): and so to dive deeply into a topic like this, we do often have to focus on a couple of people at a time, and sometimes trying to get the full balance. Because we also could ask the question, Why aren't there? Community members from Hunter's Point here as well, you can easily picture.

286
00:49:11.960 --> 00:49:27.739
Laura Feinstein (SPUR): We had great insight from Professor Hill on the science. We had great insights from a civil grand jury on their work, adding in the Mayor's office and a community voice would be very welcome; but it would probably be a two-hour event which we just Don't have capacity for

287
00:49:27.750 --> 00:49:42.819
Laura Feinstein (SPUR): um. Nonetheless, we are always open to new ideas, and would be happy to host a follow up event on this, where we hear from more voices, so please always feel free to reach out if you have ideas on events and including more voices at Spur

288
00:49:43.650 --> 00:50:00.320
Laura Feinstein (SPUR): Um. So moving back to the Q. And A. Window, And for people who are dropping your questions in the chat, they're great. But please put them over in the Q. And A. Window, so I can keep track. So we have a question. If chemicals are mobilized because of emergent groundwater, then who's responsible for fixing the problem?

289
00:50:01.850 --> 00:50:04.309
Sara Miles: Well, there's uh,

290
00:50:04.810 --> 00:50:29.249
Sara Miles: who is responsible for fixing? The problem depends on whether the land has been transferred to the city or not. So the clean up when the cleanup is done, and all the circular participants have signed off on it, and it goes to the city. Then comes the city's problem. The city turns it to the developer it becomes the developer's problem.

291
00:50:29.260 --> 00:50:34.059
Sara Miles: But right now the navy is required to remediate the site,

292
00:50:34.070 --> 00:50:44.929
Jeff Weitzel: and in the future let's say, like twenty years from Now there's very there. There are rules which are complicated, and I can't some of what summarize them adequately. But say that

293
00:50:45.030 --> 00:50:58.110
Jeff Weitzel: under certain conditions, like like a the navy will become on the hook again, like like the navy, will come half back and have to do more clean up if certain conditions are met

294
00:50:58.360 --> 00:51:15.080
Jeff Weitzel: and our our like. What What we have to say to that is that we should do the best job we can before any buildings. But like like, Obviously, if something happens that we couldn't have foreseen. But in this case we can foresee it very easily, so we should. We should be doing what we can now,

295
00:51:19.920 --> 00:51:27.690
Laura Feinstein (SPUR): so we have more of a comment in the chat, but I just wanted to recognize it. This is from

296
00:51:27.710 --> 00:51:37.809
Laura Feinstein (SPUR): Excuse me now. I'm madly scrolling from Tanya Randall, she comments that Department of Public Health stopped tracking the health of D. Ten.

297
00:51:39.870 --> 00:51:50.200
Laura Feinstein (SPUR): Hopefully. We can explain what D. Ten is for the whole audience many years ago because of the high rates of cancer and lung disease. Tracking, Health Care Department of Public Health

would show the human cost of inaction.

298
00:51:50.530 --> 00:51:58.030
Laura Feinstein (SPUR): It's not a question specifically a tanya that's District ten. But does anybody have any comments on that before we?

299
00:52:00.940 --> 00:52:09.119
Jeff Weitzel: I mean, that was but like we've heard things like that, but that was really outside of the scope of our investigation, so we can't really comment on it.

300
00:52:10.030 --> 00:52:12.880
Laura Feinstein (SPUR): So do you want to just sort of clarify,

301
00:52:13.070 --> 00:52:23.650
Laura Feinstein (SPUR): I think, for some people they're wondering like To what extent is this a report that covers environmental justice problems at Hunter's Point

302
00:52:24.160 --> 00:52:27.189
Laura Feinstein (SPUR): versus where you where you kind of drew the line on that.

303
00:52:27.200 --> 00:52:28.930
Laura Feinstein (SPUR): Is it in there, or is it not?

304
00:52:29.200 --> 00:52:38.860
Sara Miles: No, I Well, let's be clear. I think everything that's happening at Hunter's Point we we're looking at in the context of

305
00:52:38.920 --> 00:52:48.680
Sara Miles: Ah, the history of the area, and what's going on there now, and environmental justice concerns but the simple grand jury has a very

306
00:52:48.690 --> 00:52:59.380
Sara Miles: um. We have to focus our investigations very carefully, so we did not look at the current health of residents. We didn't look at air quality. We didn't look.

307
00:52:59.390 --> 00:53:12.759
Sara Miles: Ah, at what Dph's population health was doing in general about tracking we really looked at. Is the city prepared to deal with the consequences of rising groundwater,

308
00:53:12.770 --> 00:53:32.059
Sara Miles: and you can see why this is important. I mean, if you have a grand jury that says, Let's look into everything you wind up looking into nothing. So we have to focus what we're doing. But I think it's important to say that everything that's happening that we looked at is, of course, happening in the context that we didn't

309
00:53:32.340 --> 00:53:34.410
Sara Miles: look into very deeply.

310
00:53:34.560 --> 00:53:43.290
Jeff Weitzel: Yeah. And and we don't want to in any way diminish the incredible burden that the people in the baby and Hunter's Point are bearing,

311
00:53:43.300 --> 00:53:44.319
Sara Miles: and

312
00:53:44.900 --> 00:54:01.500
Jeff Weitzel: we we turned over one rock, and we found a good story about some ah a failure of the city that that we could follow and investigate, and that doesn't mean that there aren't one. Ah, ah! Thousand other stories that need to be told, but but we had to pick one, and this is the one we think so.

313
00:54:01.510 --> 00:54:13.280
Jeff Weitzel: But we're super super. Want to recognize that there There are many, many other stories about the the environmental burden and the environmental justice issues happening in one hundred point that need to be told.

314
00:54:14.410 --> 00:54:27.650
Laura Feinstein (SPUR): And, Professor hill. I know your work always takes a strong environmental justice. Lens, How do you work environmental justice, or see that as having a nexus with this conversation about groundwater rise and its response to sea level one.

315
00:54:27.950 --> 00:54:42.960
Dr. Kristina Hill, UC Berkeley (she/her): We're talking a little bit about new development and what the risks are for new Development Hunters Point. But we know that there are plumes that exist today that are affecting people who've lived in Hunter's point in Bayview over the last thirty forty years,

316
00:54:42.970 --> 00:54:51.069
Dr. Kristina Hill, UC Berkeley (she/her): so I think the studies really need to look at existing plumes as well as places where contaminants are not yet in motion,

317
00:54:52.340 --> 00:55:05.339
Dr. Kristina Hill, UC Berkeley (she/her): and I do know that the Epa is considering a new rule on linking remedies to the ah burden of the surrounding community, and I look forward to that being issued, I hope, in the next month or so.

318
00:55:05.560 --> 00:55:25.189
Laura Feinstein (SPUR): There's a question here actually about. Should the Epa be doing more? So? Do you want to talk a little bit more about? It sounds like you. You are looking at a way that the Epa perhaps should be doing more. Do you want to comment on that? Well, I know that the Epa itself is looking at a way that it should be doing more um Under this administration we're actually seeing an interest in

319
00:55:25.740 --> 00:55:39.750
Dr. Kristina Hill, UC Berkeley (she/her): the way that the Federal Government can address this, so I would think this would be the time to raise it with the Epa district here in the San Francisco area and try to establish a new memorandum

320
00:55:39.760 --> 00:55:49.780
Dr. Kristina Hill, UC Berkeley (she/her): that creates a kind of fire alarm system. But when we see these contaminants in motion that people can be warned the way you would if you had a smoke alarm in your house.

321
00:55:49.840 --> 00:55:57.519
Dr. Kristina Hill, UC Berkeley (she/her): So it needs to be real time, and it needs to be to involve modeling as well as monitoring, so we can stay a step ahead.

322
00:55:58.270 --> 00:56:02.500
Laura Feinstein (SPUR): And what would you say? Sort of the current pace of monitoring?

323
00:56:03.110 --> 00:56:20.639
Dr. Kristina Hill, UC Berkeley (she/her): Ah, there's monitoring. I believe it's mine annually is typical in sites like this, but there's no projection ahead with the changing environment of a rising sea level and rising groundwater, and that monitoring doesn't necessarily capture the highest groundwater of the year,

324
00:56:20.650 --> 00:56:36.109
Dr. Kristina Hill, UC Berkeley (she/her): because it's not done at high tide or the highest tide, and it's not done right after marine events, and that's when you would see the highest groundwater surface. So I don't think anybody has quite figured out yet what the worst case scenario is.

325
00:56:36.860 --> 00:56:51.089
Laura Feinstein (SPUR): So you would recommend that the Epa should be looking more at some of the predictions around groundwater rise. And then, in addition to that layering and more frequent monitoring, so that they can let citizens know when there might be a risk of sort of mobilizing.

326
00:56:51.100 --> 00:57:04.390
Dr. Kristina Hill, UC Berkeley (she/her): And there's already a lot of data that's been collected that is accurate about Hunter's point and debut. And those data should be used so that the day-to-day work of consultants becomes part of the projection that

327
00:57:04.420 --> 00:57:11.669
Dr. Kristina Hill, UC Berkeley (she/her): a commission, or the city, or whoever it is, would be able to use to say when there's a risk to human health or to the day

328
00:57:11.780 --> 00:57:13.089
Laura Feinstein (SPUR): right?

329
00:57:13.100 --> 00:57:35.660
Laura Feinstein (SPUR): And it is pretty fascinating. The Epa is starting to talk about setting higher standards for superfund clean up

at places where they already know there is an extremely high environmental pollution burden. That's right. Up to now. The Epa has pretty much just. Ah said, Okay, if people have a higher environmental burden, they should be engaged more we should do more outreach.

330
00:57:35.670 --> 00:57:45.310
Dr. Kristina Hill, UC Berkeley (she/her): But this is the first time that this the step has been contemplated that goes beyond engagement, and into linking the remedy to the status of the surrounding community.

331
00:57:45.570 --> 00:57:47.069
Laura Feinstein (SPUR): Heme

332
00:57:47.080 --> 00:57:56.390
Laura Feinstein (SPUR): right, and that sort of links back to the map that Jeff was showing of Cal and Virus Green, where Hunter's point is, I believe, in the ninety six percentile

333
00:57:56.400 --> 00:58:15.839
Laura Feinstein (SPUR): for California in terms of being exposed overall to many different sources of blooms. And so the the public health perception is generally that it's not about being exposed to one pollutant or another. It's about your total exposure, and reducing that overall. So that's sort of a

334
00:58:15.870 --> 00:58:26.590
Laura Feinstein (SPUR): a new lens for Epa to bring to superfund clean ups to say, Okay, we have a greater responsibility to do more clean up in areas with greater cumulative exposure.

335
00:58:26.600 --> 00:58:44.879
Dr. Kristina Hill, UC Berkeley (she/her): But I think the worst situation in terms of justice or injustice would be if people with higher income and lighter-colored skin move into new developments and the attention shifts to them instead of to the existing risks around that area. And people who have those risks for decades.

336
00:58:46.320 --> 00:59:03.799
Laura Feinstein (SPUR): And then I think we'll take. Oh, we are at time. I'm so sorry. I believe It's a great question about Alameda and Treasure Island. I know that there is a great study on Alameda Island about groundwater rise and toxic mobilization. So I encourage you to

table that and look it up.

337
00:59:03.910 --> 00:59:18.219
Laura Feinstein (SPUR): I'm sorry we didn't get a chance to answer these last couple questions. But thank you so much for joining us today, and we hope that you learn a great deal, and we want to thank our um, our panelists for sharing their insight with us,

338
00:59:18.230 --> 00:59:31.869
Laura Feinstein (SPUR): and in a day or two you'll get an email with a link to the reporting and the presentations from today. So thank you very much, and we look forward to seeing you again soon.

339
00:59:32.440 --> 00:59:33.930
Laura Feinstein (SPUR): Bye, Everybody.