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www.navy.mil/jointbasewater [1/21/2022]

08:05:38:07 - 08:05:34:13 CAPT GUENTHER

Hello everyone and welcome to the daily water update for January the 21st. I'm Captain Darren Guenther, Chief of Staff for Navy Region, Hawaii.

08:05:29:02 - 08:04:42:23

CAPT GUENTHER

We've spent a lot of time updating you on our Flushing plans. And yesterday we discussed the how of flushing. Today, we'd like to go into a bit on the why of flushing and give you some insights into our cooperative collaborative partnership with the interagency drinking water teams. And so here in a few minutes, we'll have Mr. Chris Waldron on. Chris is an environmental engineer with over 30 years of professional experience, and he's a principal on the Interagency Drinking Water System team representing the Navy and Marine Corps Public Health Center. Also joining us remotely will be Mr. Karl Banks. He's an environmental engineer with the U.S. Environmental Protection Agency's Water Emergency Team.

08:04:42:10 - 08:04:17:03

CAPT GUENTHER

Before we get to the two of them, though, I'd like to remind you of the. CDC survey to assess the potential health effects on our community. That survey is still open to anyone impacted and you can go and take the survey at the following it's Go.USA.gov/xtg8z.

08:04:15:17 - 08:03:52:24

CAPT GUENTHER

What I'd like to do now is go straight to our experts. As I mentioned just a minute ago, our two guests are experts with the Environmental Protection Agency. Mr. Karl Banks, he's a drinking water subject matter expert and Mr. Chris Waldron with our Navy Marine Corps Public Health Center, and he is on the Interagency Drinking Water Team.

08:03:52:10 - 08:03:37:14

CAPT GUENTHER

And purpose this morning is to understand the function of that team and also understand flushing and how we came to that as the option going forward. So first and foremost, welcome Karl and Chris.

08:03:35:23 - 08:03:17:20

CAPT GUENTHER

Chris, I have a, first question is for you, if you could start us off with an explanation of the Interagency Drinking Water Systems Team. Who's in it, what they do, do they improve how we flush and do they determine the water status and posting results?



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08:03:16:03 - 08:02:31:26 CHRIS WALDRON

Thank you, captain, really appreciate the opportunity to be here today to talk with you and talk with members of the community. So the Interagency Drinking Water System Team is made up of representatives from the United States Environmental Protection Agency, the State of Hawaii Department of Health, Army, Navy and other experts. And we have a team of diverse experts, scientists, engineers, toxicologists and folks that work on the interagency team. And we're working collaboratively and we are actually in the same space in a building where we're in the room every day working on the drinking water system issues that face us.

08:02:29:25 - 08:02:08:22

CHRIS WALDRON

Our approach is a collaborative and comprehensive approach, and that we all work together as the data comes in. And so as part of the flushing that we're talking about today, that has actually been worked through the team, experts from each of the different members of the team have worked together and contributed to the flushing program, approved the flushing program and then we monitor the results of that. So it is a collective effort and each one of the members of the team participates in every step of that process. So it is a very integrated approach and it is a an approach where we flush and then check, test and sample, get the results back and evaluate them together, and we make the decisions on it in a collective manner. So it's not just the Navy, it's not just the army, it's the entire team together. So I think it's really important in terms of the overall process is it really is an integrated approach to evaluating and assessing the data from flushing to testing and evaluating the results to get our folks back into their houses safely is our number one priority in our mission and as quickly as possible.

08:01:15:15 - 08:00:54:26 CAPT GUENTHER

OK. And Chris, one follow up question. So the Interagency Drinking Water Team, which is which is that team of those various agencies is going to then as a final provide that recommendation to the Hawaii Department of Health and the Department of Health will be the ones to change that recommendation or advisory from the drinking water. Is that correct?

08:00:54:10 - 08:00:17:26 CHRIS WALDRON

Yeah, that's exactly right. The team is working together, and I think the point I was trying to make is that every step of this process is that we are working together and there's a feedback loop in real time because we're in the same room. Ultimately, you're correct. At the end, we will have a package that we have a recommendation for each flushing zone, which is evaluated



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individually that will go to the State of Hawaii Department of Health with a recommendation about amending the health advisory. But ultimately it's their decision. So they'll do a review at the end and make that decision to amend the health advisory on a zone by zone basis.

08:00:17:10 - 08:00:16:19 CAPT GUENTHER OK, thank you.

08:00:15:26 - 08:00:00:07 CAPT GUENTHER

Karl and the next question is for you. Thank you for being on. I wonder if we can talk about flushing in general is the type of flushing being done under this plan done here. Is that a proven means to address a crisis like this?

09:59:58:17 - 09:59:07:04

KARL BANKS

Yeah, that's somewhat of a nuanced question, I'll just be honest, if we had the luxury of time eight, ten, twelve months to develop the perfect plan based on, you know, all available information we might, we may have gone with something much more detailed. But considering the product in the system, the team decided that a much more rapid response to to this flushing would be would be the right move. It was the idea of getting this product out of the system as soon as possible. And so the method chosen was to essentially try to completely replace the water five times inside the system, and so given the constraints, I think that was the best move to be made at the time.

09:59:05:19 - 09:58:45:01 CAPT GUENTHER

OK. And a follow up to that. How will this flushing clean the pipes if the pipes are made of plastic? Is there a chance that that fuel might leech that contamination may leech into the pipes? And does this method, will that method clean it out of everything?

09:58:44:03 - 09:57:48:23

KARL BANKS

So so as an engineer and a water expert and with EPA really trying to bring the best available science and engineering to these decisions, I cannot definitively say it will work. What we're doing, though, is backed by the sampling from within the distribution system and in the home. So basically, these homes, samples and these distribution samples have to show that no product is left in the system. And so that that will prove that the methods of flushing have worked and there is in that process, if samples show that it wasn't working in a particular area or a particular home of the team will get together again, apply best available data and best practices and take further action to flush as necessary.



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09:57:47:27 - 09:57:36:01 CAPT GUENTHER

OK, thank you for that answer. So so the sampling and the testing of those samples will be really the ultimate decider and in terms of the way forward.

09:57:34:29 - 09:57:13:28

KARL BANKS

And I want to, I would just add, so excuse me, I would just add that to direct to answer the question about plastic pipes that was really considered. And that's the attempt to as rapidly as possible, move that water, that bad water out of the system. So that would not have as much time in contact with plastic pipes.

09:57:13:11 - 09:57:12:16 CAPT GUENTHER OK, thank you.

09:57:12:11 - 09:56:32:01 CHRIS WALDRON

And if I could, sir, I just would like to add to that. I mean, there have been we have consulted with experts, both inside the Interagency Drinking Water System Team and outside, for example, with universities and other experts on that. And certainly one of the objectives was to move clean water into those pipes as soon and as quickly as possible at high velocity in order to try to minimize the potential for contact with plastic in those pipes. And as you said, ultimately, we are sampling and so every step of the way we have a flushing and then we're doing a sampling and sampling verification, so that data is the key.

09:56:30:13 - 09:56:00:21

CAPT GUENTHER

Chris, a follow up to that does the testing that we're doing, we talk about flushing water, but does it also include a stagnant water test just to make sure that nothing's coming out of the pipes and into that water?

09:56:18:05 - 09:55:14:24

CHRIS WALDRON

Yeah, absolutely. And in that, as Carl had mentioned, and that's what we've worked with and the team is we are taking what we call stagnation samples. So we've flushed locations, buildings, residences. We wait a certain period of time. Usually it's a few days up to 72 hours, 48 to 72 hours and then go back and collect the sample and evaluate that and those results are the results that will help us evaluate the potential for issues that might be associated with the chemicals



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leaching from the plastic pipes or other things back into the water. That'll be the definitive answer. We are also doing, as you may be aware of some longer-term monitoring as part of this, which is after we've even cleared a zone and the health advisory has been amended. We're still looking at that. So that is something that is a fundamental part of what we're doing on the comprehensive evaluation of the drinking water system and the drinking water in homes to ensure that it's safe for our people to drink.

09:55:13:24 - 09:55:13:05 CAPT GUENTHER Thank you, Chris.

09:55:12:16 - 09:54:52:14

Speaker 2

Karl, one last question for you. Are the large scale, large size carbon filters, that are GAC filters. Are they adequate to filter any contaminants out of the water prior to that water being discharged to the environment or prior to that water being used for flushing of homes and facilities?

09:54:51:11 - 09:54:05:16

CARL BANKS

Yes, we believe so, and there's a few reasons, first of all, the technology of granulated activated carbon filters, which is similar to a British filter that someone could purchase for their home. The granulated act of the activated carbon grabs on to organic chemicals. So that would be all the chemicals involved included in fuels such as jet fuel and diesel. These filters that are being used for flushing are monitored for their efficacy, and the media would be replaced prior to that efficacy being diminished. So that is absolutely the right technology for this contaminant.

09:54:04:09 - 09:53:44:00

CHRIS WALDRON

In another way of saying that, too, is that I like to say is it's similar to like Velcro for chemicals and that it's, you know, when you put Velcro together, it just grabs it. That's what the granular activated carbon does to these organic chemicals. So when they come into contact in the water, it's like Velcro. It's a snap boom. It gets absorbed and it doesn't let go of it.

09:53:42:15 - 09:53:30:17

CAPT GUENTHER

OK. Chris Waldron with Navy and Marine Corps Public Health Center and. Mr. Carl Banks of the Environmental Protection Agency. Thank you both for being with us and answering our questions today.



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09:53:30:01 - 09:53:28:24 CHRIS WALDRON Thank you, captain. Appreciate it.

09:53:24:17 - 09:51:59:07 CAPT GUENTHER

All right, what I'd like to do now is go to our flushing update on our chart. Their latest chart is posted on our water resources website, Navy.mil/jointbasewater. There's a lot of flushing, home, flushing a facility, flushing going on today and into this weekend. This is really the focus going on. So for current flush, Earhart got started today. They're well underway and they are broken up. We should be moving fairly quickly through that neighborhood. We've been going here for a bit there. Also, other flushes Hickam. We have the Hale Na Koa, Onizuka housing Officer field portion of that. We're pretty much done there. We have a few more facilities to go, but we've done all the homes for the island is the same. We've done all of those homes. We have a few more facilities to go. But you hear the numbers for Earhart. Let me go back to that really quickly. We've only got two homes left, so we're 910 homes complete in Earhart of 912.

So a couple of days in there and really a handful less than ten of the facilities left. We do have five of the schools to complete there in the Earhart area.

09:51:58:24 - 09:51:12:26

CAPT GUENTHER

So we also have some starts that started today that we talked about yesterday at Camp Smith neighborhood is a small neighborhood, but we're getting started there. We'll finish that today and then our eastern housing areas that are started today, they're going to go through today, tomorrow and the next day, broken out by neighborhood. So Doris Miller and Catlin Park started this morning and we should be able to finish both of those neighborhoods today. Halsey Terrace also getting a start today that one will go into tomorrow on the 22nd and Maloelap is going to start this afternoon should be able to finish that this afternoon, but if not,

09:51:12:18 - 09:50:47:13

CAPT GUENTHER

that'll go into to tomorrow, the 22nd as well.

So on the 22nd Halsey terrace will be running through that street by street. Any holdovers from Maloelap and then Radford Terrace will begin on the afternoon of the 22nd and then Radford Terrace will go into the 23rd, so expecting Radford Terrace to finish out on the 23rd. So a lot of flushing going on in those sort of eastern housing areas into the weekend.

09:50:47:04 - 09:50:37:06 CAPT GUENTHER

And then next, let's see. Also upcoming for the 22nd is Hale Alii, Marine Barracks, Hospital



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09:50:37:06 - 09:50:35:08 CAPT GUENTHER Point and the Shipyard neighborhoods.

09:50:35:08 - 09:50:32:12 CAPT GUENTHER

Those are all fairly small neighborhoods, but they're all going to get.

09:50:32:06 - 09:50:29:17 CAPT GUENTHER Started and should be completed on the 22nd

09:50:29:17 - 09:50:20:27

CAPT GUENTHER

And then some projected starts early next week, but the

Interagency Drinking Water Team is still looking, pulling in some of those results, still waiting on some.

09:50:20:27 - 09:50:14:13

CAPT GUENTHER

Of those results, and then they'll be meeting to discuss that. And so I would ask neighborhoods looking at prospective.

09:50:11:28 - 09:50:06:02

CAPT GUENTHER

Starts early next week to watch your email this weekend for confirmation on when we'll be getting started.

09:50:05:17 - 09:49:46:07

CAPT GUENTHER

That we still have some neighborhoods still awaiting results from the drinking water samples in the homes and facilities. That's Pearl City Peninsula, that's the Red Hill neighborhood at Moanalua Terraces NEX area, as well as Hale Moku Hokulani, hopefully.

09:49:49:11 - 09:49:46:07

CAPT GUENTHER

So that's your map update for today.



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09:49:39:18 - 09:49:31:07 CAPT GUENTHER

All right, and that was your daily water update for today. So please join us on Monday. Same time.

09:49:30:24 - 09:48:58:25

CAPT GUENTHER

We're monitoring your questions on Facebook and you can also email those questions to cnrhpao@gmail.com. Don't forget to check our water info website Navy.mil/joint base water and especially over the weekend coming up. Check out the good stuff at GreatLifeHawaii.com/wegotyou. Remember we're all in this together as one community and ohana. Stay safe. Take care of yourself. Take care of each other and we'll see you next time.