Hello, everyone, and welcome to the daily water update for February the 9th, I'm Capt. Darren Gunther, chief of staff for Navy Region, Hawaii. Yesterday, we experienced some technical difficulties. Yes, we do this show live every day. Our guest yesterday was Captain Mike Meno.

He's a Naval Facilities Engineering Systems Command Engineer and also a member of the Inter-agency Drinking Water Team. He came on our update to explain the process they're using for testing, evaluating and validating the test results following system in-home flushing.

When I said yesterday, before we cut out that many of you had questions, one of you, Cheri, answered, Yes, we do. So we've asked Capt. Meno to come back on the show to talk about and discuss some of those questions and share some important information on this process.

Before we do that, though. I'd like to share some information about a new website that was recently activated by the Inter-Agency Drinking Water Team. It just went live, and it shows post system flushing status in drinking water sampling data.

It's sort of a water data website. It supplements our water resources web page. That one's not going anywhere, but it gives a geographical depiction that I think makes our test results a bit easier to find and read. That website can be found at the following www.jbphh-safewaters.org

So now let's go on and take a look at our map and look at our updates from our flushing. So this chart map is posted on both of our water websites, our water resources website, as well as our water data website that I just read off and it reflects sort of a big milestone that we just met. And that's that we have all 19 neighborhoods, complete with both system flushing and home flushing.
So Kapilina Beach Homes, Iroquois Point. We are complete with our homes, facilities there, as well as the schools that are in that area, which matches the rest of our Navy Water Distribution System and all 19 neighborhoods that we've designated within that system.

So, next update is on Red Hill. So we talked as we've talked over the last several days. The complete data package is in for Red Hill. The Inter-Agency Drinking Water Team has taken a look at all of the sampling data from the distribution systems, as well as the homes and facilities, and endorsed that data and package and passed it to the Department of Health. That happened late last week.

So that's at the Department of Health for them to take a look at and analyze before looking at their advisory for the Red Hill neighborhood. For Pearl City Peninsula, we're awaiting here on island just the final results such that the inter-agency team can then take that package full of data and analyze it before passing it on for the next stage. So just to wait in a few more details for the Pearl City Peninsula water package before moving on to that next stage.

That's our update for the map for today. Ok, what I'd like to do now is bring in our guests, Captain Mike Meno. He is an engineer with Naval Facilities Engineering Systems Command and he's also a member of the Inter-agency Drinking Water Team.

So he sits on this team with members of the Department of Health, Environmental Protection Agency, as well as the U.S. Army and some other drinking water experts to look at every result that comes across and ultimately pass those results on to the Department of Health for their final ultimate decision as we go neighborhood by neighborhood, clearing the water and so I really wanted to have you on since you're probably the Navy expert on this subject, and that's the process that we're using.

Going neighborhood by neighborhood, zone by zone.
[CAPT. MENO] Yes, sir.
To open this up. So if I could, I've got a list of questions that many of our viewers I think have and you know, the first is the process itself. Many have asked about this process, a water sample testing, and particularly why it takes so long to get results. Can you share a little about that process for us?

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CAPT. MENO
Yes, sir. I think, most importantly, is to really understand the sampling process and what happens from when you draw a sample until when we get all the results back and some of the steps in between there first. Our teams went out when they sampled their samples using EPA approved methods.

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CAPT. MENO
Those methods within the sampling were, had oversight by EPA and the DOH staff members, which is good. Make sure we're doing things right so that when we send those samples to the different labs and those labs are numerous labs throughout the United States, they were sent to Hawaii State Certified Labs and EPA state certified labs, meaning that not only are the EPA certified, but also specifically certified by the state of Hawaii, not only are the EPA certified, but also specifically certified by the state of Hawaii. And so we know we're sending them to the right places. They have the certifications and then they have to be analyzed.

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CAPT. MENO
The analyzing can take a little bit of time in itself, depending on what test is run, as well as what type of data, whether it's a level two data package or a level four data package. And you might as well take this opportunity to kind of explain the difference because that really can drive the timeline.

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CAPT. MENO
So a level two data in this case, what we do is the term validated data, and I'll explain what that means is essentially we sent the sample to the lab. The lab analyzed it, they followed the process. They did some quality control to make sure things were documented properly and then it gets sent to our contractor and our contractor then does third party validation level two data validation package and what that does is it makes sure that everything that the lab does or did was consistent with standard practices and so not only is the Navy reviewing that, our team, our interagency drinking water system team of EPA, Department of Health and Army folks, we all look at that to make sure things were done correctly and so a level four is a little more and what I like
to do is I use the tax analogy and this may help and may confuse folks, but you know, tax season's coming up in. Why not use a tax example? Think of level two data and level two validation as, Hey, I just completed the software, and before I submit it, I would like an accountant to look at it and make sure it's ok and so the accountant looks at it.

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CAPT. MENO
So that's it's pretty good. It's validated, and you should go ahead and submit it to the IRS. Think of a level four data validation package.

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CAPT. MENO
It's the same test, but the documentation to make sure that it's done properly is substantial and the tax analogy. It would be the equivalent of preparing your tax report as if it was going to be audited and you had to prove that everything you did and in this case, that the instruments were calibrated correctly, that all the raw data, all the logs and everything was correct and if there were any anomalies that would have to be documented and or explained. And the reason that's so important is that we're making some very important decisions as a team we're making the decision is, is the water fit for human consumption?

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CAPT. MENO
Should the Department of Health amend its health advisory and we have to have complete confidence that the data is accurate and that the labs did things correctly. And unfortunately, you know, labs make mistakes, people make mistakes and our job is to make sure those mistakes don't change our decision making by verifying and validating the data and then unfortunately, there are examples where labs have practiced unethical behaviors. And if you were to Google lab fraud, you would see that sometimes, you know, laboratories don't always do the right thing. And for us, it's that important to make sure that this data is correct and validated.

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CAPT. GUENTHER
So when you get a Level four package in, and if I'm correct for the distribution system tests that were published, those were sort of level two.
[CAPT. MENO]That's correct.
So you had your, uh, your experts on it, but for the level four packages, and that's the final look that everyone is giving to each of these zones currently, that's an auditors look. That is that's being done to ensure that the tests are valid. There's no mistakes and there's no instrument calibration issues. There's no fraud. It's essentially a tight product that you can stand behind.

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CAPT. MENO
You couldn't have explained it any better.
[CAPT. GUENTHER] Ok, So and that's why it's taken so long, maybe on the back end and some of these neighborhoods waiting for sort of the final. They completed all their flushing and we even published some of those the results from the system flushing, but now it's maybe taken a little longer because all this extra validation is occurring at that. So initial reports for the system tests were maybe 100 pages. I imagine the data packages now are quite more extensive.
[CAPT. MENO] Yes. And so that kind of leads into, you know, how much testing did we do?

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CAPT. MENO
You know, we did 10% of our residents. We also sampled all the schools. We sampled all the CDC for each school. We did five samples for each CDC. We took five samples to ensure the safety of that water.

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CAPT. MENO
Um, actually, I correct myself. It was five for the schools, two for the CDCs. I just want to make sure that that's accurate, especially since you'll see it in the reports, but a level four data validation package could be anywhere from 300 to 600 pages of information and so that's a pretty large amount of information.
[CAPT. GUENTHER] and that's for one neighborhood?
[CAPT. MENO] it's for one sample group and so, for example, I believe for those that go on the website, which we'll talk a little bit more, they'll be able to prove it is.

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CAPT. MENO
I think there were six lab data packages that represents the different labs that were validated level four for the Zone 11 one. So in a data package could be numerous samples that are sent to individual lab for specific test, and that gets the level four validation to make sure things are done correctly.

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CAPT. GUENTHER
OK. Going back more generally, maybe you know, where do you think we are progressing through the overall process here for, you know, drinking water restoration? Obviously, I think we're really focused on the testing portion of it
[CAPT. MENO] sure and so stepping back a couple of key milestones is, you know, the distribution system was completed approximately January 22nd today being February 9th. You just mentioned the chart, it's all striped blue, which is good to see, which means all of the residential and nonresidential schools CDC is flushing was complete. Big milestone and now it's about the test results.

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CAPT. MENO
It's about making sure we have the validated data back. The team has a chance to review it to make sure any concerns or issues are addressed, and then building reports to give to the Department of Health to support their decision to amend the health advisory for each zone.

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CAPT. GUENTHER
Ok, and you know, one question that we've gotten is despite the flushing and we've completed all in-home flushing, we're still advising residents that the water isn't cleared for consumption. Why is that?
[CAPT. MENO] So, the reason why is that the Hawaii Department of Health is responsible for making the determination regarding the health advisory.

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CAPT. MENO
You know, they are the regulator for our potable water system and really it is their decision to say that no health advisory exists for specific section or portion of our potable water system and or our overall system, so each zone will be amended.

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CAPT. MENO
Eventually, we'll get all 19 zones amended and at that time they'll lift the overall health advisory and our water will be. Our system will be returned to potable water safe.
[CAPT. GUENTHER What kind of timelines are you know on the plans or anticipated timelines?

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CAPT. GUENTHER
Should can residents sort of expect for the way forward?
[CAPT. MENO] So once and it's it's hard because I know that's come up is, hey, we just want to know when we're going to be back in our home. And, and for those that are on this Facebook Live.
CAPT. MENO
You know, I wish you wouldn’t. What is so hard? I wish it wasn’t so, so difficult, but we really need to do is make sure the data is right and so occasionally we’ve gotten some exceedances. I’m sure folks have seen, hey, we learned about a high TPH sample here or there.

CAPT. MENO
When we have that happen, we need to investigate that. Our job is to make sure that we know what the cause was to the best of our ability and that that concern is alleviated so that an advisory can be amended.

CAPT. MENO
So for example, if everything is good and we have no exceedances from the time the team gets all the data about seven days for the IDWST to review all the data and prepare a package of material to forward to the Hawaii Department of Health seven days and then another seven days for the Hawaii Department of Health to review everything we’ve done, make sure things are documented well and that they feel comfortable amending that health advisory.

[CAPT. GUENTHER] and I think a lot of us now know the answer to this, and I think a lot of our residents are comforted by it, but the Department of Health and Validation, can you talk about why it’s so important?

[CAPT. MENO] Oh, absolutely. I think one is just the confidence that there is an external agency making sure that the Navy and the Army are doing the right thing following the processes.

CAPT. MENO
Just another set of eyes to make sure no corners were cut. All I’s and t’s were dotted. I’s are dotted, t’s are crossed. And I would like to say that I’ve been at this for almost two months, working with the Hawaii Department of Health, also working with different members of region 9 EPA who are a rotational group.

CAPT. MENO
The folks that I’ve had the opportunity to work with, particularly the Hawaii Department of Health, are some of the most dedicated and committed people that I’ve ever had the pleasure to serve with and that’s, you know, looking back over my 20 plus years of service, they want to make sure that our water is safe to drink.
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CAPT. MENO
They want to make sure that we protect the environment. And I do not believe without their hard work and dedication, we will be as far as we are and so for those out there listening, just just, yeah, I hope you appreciate how hard the Hawaii Department of Health and EPA Region nine has been working to try to get everybody back in their homes with safe drinking water, as well as the Navy and Army's commitment to do everything we can to do it as fast and safely as possible.

[CAPT. GUENTHER] I thank you for that. one final question. As we look forward, there's a lot of sampling and testing we're taking maybe some final samples out of the Kapilina Beach Homes today, but that will be, sort of close up this round of sampling and testing.

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CAPT. GUENTHER
But then we start another round of samples and tests in it. Can you tell us what long term monitoring of our water within our neighborhoods looks like?

[CAPT. MENO] Absolutely. Absolutely. So when you want to be transparent and you want to have confidence in your system, you need to have some form of continuous or follow on monitoring, and so as part of the plan we put together. And for those that have had the opportunity, pull down the sampling plan that maybe we're interested in, they probably run about, hey, there's some long term monitoring. So what we will be doing the Navy, with some degree of oversight from the EPA and Department of Health is 5% for the first three months. And when I say 5%, 5% of the residences of a zone as well as some schools, and the CDC is kind of, you know, what we consider the the, I don't know, high risk is the right, but the ones where we have children and other where it's important to make sure

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CAPT. MENO
that their water is safe to drink will be sampled. We'll do 5%. 1, 2 and 3 months and then a month 6, 12, 18 and 24, so almost 2 years. From initial testing, we will do a 10% sample, so there's a lot more sampling to be done and that will give us the confidence not only in the short term, but in the long term that our system is running properly and that we have confidence in its safety and our ability to deliver safe drinking water and so some folks may be asking why? Why do we have another website? I don't know if you were wondering, why do we have this jbphh-safewaters.org? It's really about transparency, and it's about the ability to share not only summary of the test results, which should be coming out soon

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CAPT. MENO

for I1 on the Red Hill zone, but also the ability to share the laboratory data straight from the lab, as well as the validation sheets that were completed by the third party chemists for the level two and level four results.

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CAPT. MENO

The volume of reports and the size of the reports would have essentially made the, you know, the water, the commander, the Commander of Pacific Fleet water site, where most of the emperors probably would have got a little too busy.

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CAPT. MENO

So this is really about creating transparency, sharing the status and providing the information to help build that transparency and confidence in our system and we hope that the residents will find it valuable to be able to go and actually see the lab report, see the validation, see the summaries.

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CAPT. MENO

I do want to mention that the way we design the stage four and when I say we, you know, the EPA, the DOH, feedback Army, I'd be remiss to not mention the Navy, Marine Corps Public Health Center, experts.

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CAPT. MENO

There are many, many Navy, Marine Corps and Army experts. I just was the lucky one that got to come talk, but the report was built to have a summary table for the residences, a summary table for the individual school.

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CAPT. MENO

So for those that are at Red Hill Elementary School, you will be able to see the school results specific to that school. To my knowledge, there are no CDCs in the Red Hill area, but there would be a separate table for that and then another table for the nonresidents is so it's not all rolled up in a single table, but those that are interested in specific areas, especially where our children go to learn where they eat and as well as our young children at the child development centers.

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CAPT. MENO
They have confidence and transparency in what the levels were and whether or not there is a concern. So I really do hope that the residents. You know, I think we've heard the concerns of how that is being presented, and we really hope that this will get after some of those concerns and increase and improve transparency as we move along in the process.

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CAPT. GUENTHER
Well, Mike, I know how transparency, how important that is to our residents and you know, I want to thank you for your I know you're here from Washington, D.C. in the command out there.

00:22:41:13 - 00:22:53:23
CAPT. GUENTHER
Thank you for your service to our community here in Hawaii in bringing your expertise and your teamwork, especially to the interagency drinking water team and appreciate you talking with us today. So thank you.
[CAPT. MENO] Thank you, sir. Thank you.

00:22:53:25 - 00:23:15:17
CAPT. GUENTHER
Thank you. That was your daily water update for today, I hope you found it helpful. Please join us tomorrow, same time. We're monitoring your questions on Facebook and you can email those questions to see in our cnrhpao@gmail.com

00:23:16:02 - 00:23:48:10
CAPT. GUENTHER
Don't forget to check out our water info website. That's navy.mil/jointbasewater and also our water data website. That's jbphh-safewaters.org. Make sure to check out the good stuff at greatlifehawaii.com/wegotyou. Please 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.