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MINUTES FROM THE 26 FEBRUARY 2014 PUBLIC MEETING ON THE PROPOSED REMEDIAL ACTION PLAN FOR OPERABLE UNIT 20 (OU 20) SITE 86 MCB CAMP LEJEUNE NC

2/26/2014

CAROLINA COURT REPORTERS

PUBLIC MEETING

PROPOSED REMEDIAL ACTION PLAN
SITE 86, OPERABLE UNIT NO. 20
MARINE CORPS INSTALLATIONS EAST BASE
CAMP LEJEUNE, NORTH CAROLINA

FEBRUARY 26, 2014
COASTAL CAROLINA COMMUNITY COLLEGE
444 WESTERN BOULEVARD
JACKSONVILLE, NORTH CAROLINA 28546

* *

MEETING MODERATOR - MS. CHARITY DELANEY
DOI CO-CHAIR
MCB CAMP LEJEUNE EMD/EQB
EMD MAILROOM, RM 244
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CAMP LEJEUNE, NORTH CAROLINA
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PRESENTER - MR. CHRIS BOZZINI, CH2MHILL

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LIST OF ATTACHMENTS

ATTACHMENT [1] PROPOSED REMEDIAL ACTION PLAN PRESENTATION

COURT REPORTER'S NOTE: The public meeting convened at 6:02 P.M. at Coastal Carolina Community College, Jacksonville, North Carolina on Wednesday, August 26, 2014.

MS. CHARITY DELANEY: My name is Charity Delaney. I'm the Camp Lejeune Environmental Restoration Program Manager. This is our quarterly restoration advisory board meeting, but we are also starting with a public meeting for the site 86 proposed remedial action plan. We do have a court reporter with us, so as we go through the presentation, if you have any questions, please say your name first so it can go in the record and then state your question. Chris Bozzini with CH2M Hill will be doing the presentation. There are hard copies of the proposed remedial action plan here. If you don't already have a copy, just let me know. I can pass you one, or there are some up front. And without further ado, we'll go ahead and get started.

MR. CHRIS BOZZINI: All right, thanks Charity. The public meeting tonight, we're here to talk about the proposed remedial action plan for site 86, as Charity just said. So we're going to discuss a little of our site history, our remedial action objectives, the alternatives we looked at to address the site. What the partner team's preferred alternative rational is and any kind of questions that come up and how you can provide feedback on the remedy.

So Site 86 is at the air station. It's

inclusive of a flight line and outside the flight line at the air station. Next. Site 86 is actually quite large because we've kind of grown the -- because the site has expanded over time. So, in this 147 acres, buildings, parking lots, the flight line, just a developed area, also the open grassy area at the end of the flight line is included in the site. The flight line has been active for -- oh, what's that -- about 60 something odd years now, 62 years, 63 years. Primarily, it's the solvents at relatively low concentrations across the site. We'll get into that later. But, because it's an industrial area, because of the flight line, there has been multiple above ground storage tanks, under ground storage tanks -- there was a helicopter watch pad out there, hangers, maintenance, gas stations were added, etc.

So you can see that in '83 the site was first looked at and in the late '90s -- '90s, those USP and ASP investigations out there. Real investigation began in 1996, but it went through a couple of phases, a couple of iterations. In 2004, we put in a horizontal well to do an air sparge pilot study test at the highest concentrations. We went back out after concluding that study to do an expanded RI, because what had happened at the time was, we were actually putting in our peripheral wells to fully delineate the site, and we actually found more contamination. So we had to go chase a little further at the end of the

flight line. We did a couple more pilot studies out there, in, kind of, that new area that we discovered. And we've wrapped it all up in the last year or so with the feasibility study and this PRAP and so forth. Next.

So this is kind of a time line of some of the pilot studies that we've done. As I've said, in 2004, we put in this horizontal well and -- oh, we don't have a map. If folks who have been out there know, there's that large water tower by the air station, on the air station by the flight line. Basically, it's right there, is where this horizontal well is started and it actually went out into the flight line. So we sparged there, blowing air into the ground to strip out the VOCs. And we had really good results with about a 95 percent effectiveness of removing VOCs. So we turned that system off. Also, about the same time frame, back up on the flight line, there was a removal act to take up some contaminated soil with metals and SVOCs and the helicopter watch pad. And then moving about five years further, about 3 years ago, we did a couple other pilot studies. I think we talked about this. One of them was putting in these slow release chemical oxidation candles. And another one was injection of a lactate into the subsurface and extracting it at the same time so we could expand the distribution. And the candles were put out in the flight line and the grassy area and the recirculation system

was right adjacent to the new hanger -- I forget what building number it is, but that brand new hanger system. So, you know, once again, multiple studies over the last five years, ten years, really. It had some really good results of getting, you know, frankly, what has worked great is just getting rid of gas there. Next.

So this is -- this is where we're at today. So we've got, you know, here's the flight line, here's the grassy area and because of 60 plus years of industrial use, we just have these multiple small areas of plumes that, basically, you know, run one into the next, into the next and so forth. So the green areas here are where we have shallow concentrations above the regulatory standards. And this brown is where we have, kind of, a deeper upper Castle Haynes concentrations of VOCs. On the whole, like I said, our highest hits are about 300 parts per billion. And they're actually kind of spread throughout. So our highest hit of PCE is actually back up here, but our highest hits of Vinyl Chloride is down here and our highest hits of ECE is somewhere about here. So the picture that we've seen, that we've put together is, once again, we just have this very large area with a low concentrations of VOCs, relatively speaking. So that was the problem we were faced with, and we rolled into the feasibility study at that point. Next.

So, as part of our investigation, feasibility

study, we did our risk assessment work, human health and ecological risk assessment. So the results are there's no risk posed from the soil, surface and sub-surface, nor for the surface water or indoor air. There is a potential risk associated to ground water, if you were to drink the ground water over a long time. And, once again, no issues from vapor intrusion, no ecological risk. So the primary driver from a risk standpoint is the VOCs in ground water. Next.

So our conceptual site model, kind of similar to what I explained a couple of slides ago, we've got this broad diluted plume, you know, diving down, you know, extending out into the field. It doesn't hit the river, you know, I'm drawing a blank of what that road is.

AUDIENCE: Curtis Road.

MR. CHRIS BOZZINI: So it's not even at Curtis Road yet. And so we are seeing degradation in the plume dispersion. We've actually modeled it out and we just don't see any kind of risk to the river, there's no discharge to the river or anything like that. But, once again, you just have this broad, you know, relatively large low concentration plume. Next.

So, as part of our work, we develop our objectives of what we're going to do out there, and this is kind of what the lawyers have blessed. But, in a sense, it's saying we're going to clean up to the state ground water

standards, which are over there in the table. And we're going to prevent exposure to the contaminates in ground water and vapor intrusion. So that's our goal of what we have to do.

For us to hit our goals, hit our objectives, we've developed several alternatives. So our first one is our no action alternative, just what happens if we do nothing. Our second one is monitored natural attenuation with land use controls, where we'll basically sample the ground water annually to look at how the VOCs are degrading over time and there will be land use controls to prohibit anyone using the ground water. The third alternative is air sparging with MNA, and the target here was going out to the higher concentration areas blowing in air to strip the solvents, the VOCs from the ground water. Next.

Our two final alternatives, one was using chemical oxidation -- in-situ chemical oxidation, which is injecting an oxidant to basically break up the VOCs into an innocuous compound. And the second one, the ERD, is using the naturally occurring bugs and adding bugs to degrade, to break down the TCE into the daughter products, into compounds that are, you know, not an issue for us. And, once again, we've used -- we've talked about this in the past, so next.

So what we do as part of our circle process, we look at various criteria and we've just kind of compared

them, the five alternatives. So all the alternatives are protective of human health and the environment. That's a given that we have to -- and they all comply with law and the regulations. Looking the next level down is the alternatives will be effective in the low-term permanence with alternatives 4 and 5, kind of, getting to the end point faster. So that's why they're considered a higher ranking -- compared to the other alternatives. The alternatives will reduce toxicity and mobility and volume through treatment. MNA with the technicality, we can't say on the same basis because it's not considered active treatment and that's kind of the intent of that. Short-term effectiveness, MNA, it's very easy, very fast to implement. The other alternatives have some form of active construction or injections or so forth that creates an issue. It's relatively, all of these alternatives are pretty straight forward, relatively easy to implement, easy to permit and so forth. And then, finally, we generate a present world cost, and MNA is much less. It's really due -- because it's such a large area, when we start getting into treating a large area, it just gets expensive quick. And so the monitored naturally attenuation, from a financial stand point just -- it's not even close. So with that, the partnering team is taking a protective approach and, you know, looking at cost numbers and selected monitored naturally attenuation with land use controls. So next.

So the rational of what, kind of, went into the decision making is, you know, we've done several of the actions out there that addressed the hot spots and we saw anywhere from 80 to 90 plus effectiveness of removing mass out there. The natural attenuation, it's going to further degrade the VOCs over a reasonable time frame. We've done ground water modeling, that it's gonna be protective of the river, we're not going to exceed any kind of standards at the river. It's the lowest cost alternative. And, really, the only unacceptable risk that remains is use of the ground water for a drinking source and potential vapor intrusion, and we can apply land use controls to prevent withdrawal of that water for drinking purposes. Next.

So the approach is, we're going to design a system where we're going to select wells throughout the plume and monitor it once a year for our solvents, our VOCs. Every five years, we're going to look at some of the basic geochemistry of the ground water to make sure we have the right conditions. And land use controls, which are these lines here, are gonna be placed. So it's going to prevent using the aquifer for any kind of, you know, potable water use or whatever. And requiring, you know, any kind of vapor intrusion issues that might come up have to be mitigated. Next.

Community participation, this is the public

meeting. You know, public input is always welcome. The public comment period, we are in the middle of it. It began technically on February 10th, and it will go through March 14th. So comments need to be postmarked by the 14th. Any comments will be addressed by the partner team and will be included in the recorded decision. This is the public meeting. Once again, up there is the hard copy of the PRAP, I think we even have it on disk if you need it. Thanks. The PRAP is also on the administrative record for another way of finding it. It's also in the library, so plenty of opportunity to get it one way or the other. Thanks. And if there's any questions, any comments, these are the individuals to submit it to. Dave Cleland is with the Navy. Charity is with the Base. Gena is with the EPA and Beth Hartzell is with the State, who's in charge of the site.

So the path forward, once the public comment period closes, the Navy and the base, working with EPA and DENR, will make the final decision of the remedial approach, considering any kinds of questions or information posed by the public. A record of decision will be prepared, the documents, selected remedy, provide any response to comments and so forth. So that's it for this discussion, this public meeting. Does any body have any questions? Yes, sir.

MR. MICHAEL CURTIS: A couple of questions. What's the long-term effectiveness --

MR. CHRIS BOZZINI: I'm sorry -- could you --

MR. MICHAEL CURTIS: I'm sorry -- my name is Michael Curtis, C-U-R-T-I-S. What is the long-term effect of the upper Castle Haynes aquifer of the TCEs?

MR. CHRIS BOZZINI: It's gonna go down over time because we've removed the sources, we've removed the hot spots. So it's gonna -- it's gonna degrade and disperse over time.

MR. MICHAEL CURTIS: What does it degrade to?

MR. CHRIS BOZZINI: It will break down into PCE and then vinyl chloride and then ethenes and so forth.

MR. MICHAEL CURTIS: Is the DCE that you're detecting degraded TCE?

MR. CHRIS BOZZINI: Yes.

MR. MICHAEL CURTIS: And you indicated earlier that your belief is that by this method it will degrade over a reasonable time. What is a reasonable time? And this is the lawyer in me --

MR. CHRIS BOZZINI: Honestly, we're talking around the order of probably 40 to 50 years.

MR. MICHAEL CURTIS: Good presentation, thank you.

MR. CHRIS BOZZINI: You're welcome.

MR. DALE WESTON: This hydrology thing -- first, I believe everything everybody tells me, so --

MR. CHRIS BOZZINI: Fantastic, we're there.

MR. DALE WESTON: Hydrology flow, Castle Haynes is a big aquifer.

MR. CHRIS BOZZINI: Right.

MR. DALE WESTON: And every time I hear this, I think, oh, there's a problem but then, if it's going this way, there's not a problem. Where are the nearest drinking water -- existing drinking water wells and things like that?

MR. CHRIS BOZZINI: Out here -- I think it's over a mile away.

MS. CHARITY DELANEY: Yeah, I think so, too.

MR. CHRIS BOZZINI: And the other important thing, when we say Upper Castle Haynes, we're talking an interval of about 50 feet deep. And so, I don't know exactly how deep the drinking water wells are, but they're going to be around the order of several hundred feet deep. So, you know, the drinking water wells -- like the nearest drinking water wells would be over a mile away and much deeper than where the contamination is at this site.

MR. DALE WESTON: Okay.

MR. CHRIS BOZZINI: I don't know off hand exactly where the nearest wells would be.

MS. CHARITY DELANEY: I'm trying to think where the closest drinking water supply well is, and it's not close right there. And I think, on average, we're finding our

potable water supply wells go anywhere from, like, I want to say some of them might be as shallow as 80-90 feet down to almost 200. It just depends on where on the base and installation they are.

MR. DALE WESTON: Okay.

MS. CHARITY DELANEY: But we do have a well head protection plan that takes into account there are wells, you know, where our sites are. We're actually sampling all of our potable water supply wells for these contaminants and concerns, the wells themselves. That's either annually or bi-annually; I'm not quite sure. So we go a little bit above and beyond in case something did move or something popped up that we needed to know about, we would be able to catch it.

MR. DALE WESTON: Okay. Then the other general area, which is connected is -- this is still a very active flight line.

MR. CHRIS BOZZINI: Yes.

MR. DALE WESTON: Lots of new air craft, lots of new people coming, lots of stuff. Are we to assume that we get 0 new pollution to the area?

MS. CHARITY DELANEY: Yes.

MR. CHRIS BOZZINI: Well, the reality is our monitoring program is set up that if there was a new release, if --

AUDIENCE: When.

MR. CHRIS BOZZINI: -- a spill, a pipeline, a tanker truck turns over, you know, however it got out there, we would detect it. Because the tests that we do, you know, it detects industrial solvents, it detects fuels, gasolines, components of that. So, kind of, the typical industrial chemicals that are used in flight line operations or cleaning operations or fueling operations, if there was a release in this area, we would see it if it's in this 150-acre area. If, you know, if it's -- frankly, if it's outside that area, you know, we would probably pick it up through some other mechanism, whether it's MILCON construction and some of the environmental work we do or -- I mean, frankly, there's several other sites out in that general area. You know, we could pick it up, you know, at a different site that was adjacent, nearby or whatever. So, for example, there's a site 49 -- why don't you flip to about the third or fourth slide. So, you know, any kind of release in this general area, we're going to pick up. And the ground water does move that way -- we have wells out in the field to delineate. And, like I said, Camp Lejeune, frankly, we have so many sites, so many wells out there, if there was some kind of release, lets say more to the South here, we actually have other sites more to the south that, you know, would detect something, intentionally or unintentionally.

MR. RANDY MCKELVIN: And the base has an active

vapor intrusion program, too. So if there's anything where vapor would be entering the building, we would detect those, they sample the air.

MS. CHARITY DELANEY: If there was a release, we would hope that the Marines and the personnel working there would follow the existing protocol and report it and not try to cover it up. So, if they were out there and they had a release, you know, there's a process that they follow under RCRA, where they, basically -- they, you know -- if they can take care of it, they'll throw down their sand, and they'll call 911, they'll have the hazmat team come out and respond. And depending on whether it's petroleum or non petroleum, it could get kicked over to us. So it's possible, we may end up getting a new site and it may be handled as part of this site, or it may be handled under RCRA, in which case, you know, we go and adjust it. Or maybe handled, you know, under USC program, if it's petroleum. So, hopefully, everybody does their job.

MR. RANDY MCKELVIN: In terms of the air, just in general, especially around flat land or in buildings, you know, it takes a really high concentration in the ground water to cause any type of vapor that would do harm to human health -- very high, you just don't see it. Especially when you have that, when you have an open area. You're going to have so much dilution that it's not going -- there's going to

be very little to no impact on human health. That's why you usually see vapor intrusion in the buildings, rather than outdoors.

MR. DALE WESTON: So I go to the air station gym and play racquet ball and see the little sign over the drinking fountain that says, oh, be careful. But it's very small letters so -- And it's gone now.

MS. CHARITY DELANEY: Okay. There was a -- a sign had been put up, like, seven years ago, and they just never took it down. It was related to some incident about -- I'm not in the drinking water quality program, so I only hear whispers of it. But there was an incident at the air station recently where there was a sign that had not been taken down but it was okay.

MR. CHRIS BOZZINI: Does that answer your question?

MR. DALE WESTON: Yeah.

MR. CHRIS BOZZINI: All right.

MR. DALE WESTON: Thank you.

MR. CHRIS BOZZINI: You're welcome. Any other questions? Okay, we'll wrap it up.

* * * * * THE PUBLIC MEETING CONCLUDED AT 6:26 P.M. * * * *

SITE 86 PRAP PUBLIC MEETING

STATE OF NORTH CAROLINA)

) C-E-R-T-I-F-I-C-A-T-I-O-N

COUNTY OF PITT)

I, XAVIER N. BLOUNT, A COURT REPORTER AND NOTARY PUBLIC IN AND FOR THE AFORESAID COUNTY AND STATE, DO HEREBY CERTIFY THAT THE FOREGOING PAGES ARE AN ACCURATE TRANSCRIPT OF THE PUBLIC MEETING IN JACKSONVILLE, NORTH CAROLINA, WHICH WAS TAKEN BY ME BY STENOMASK, AND TRANSCRIBED BY ME.

I FURTHER CERTIFY THAT I AM NOT FINANCIALLY INTERESTED IN THE OUTCOME OF THIS ACTION, A RELATIVE, EMPLOYEE, ATTORNEY OR COUNSEL OF ANY OF THE PARTIES, NOR A RELATIVE OR EMPLOYEE OF SUCH ATTORNEY OR COUNSEL.

THIS THE 24TH DAY OF MARCH, 2014.

NOTARY PUBLIC NUMBER 2012121000222.

Xavier N Blount

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GREENVILLE, NC 27858

Proposed Remedial Action Plan
Operable Unit 20, Site 86

MCIEAST-MCB CAMLEJ
Public Meeting
February 26, 2014

NAVFAC Naval Facilities Engineering Command

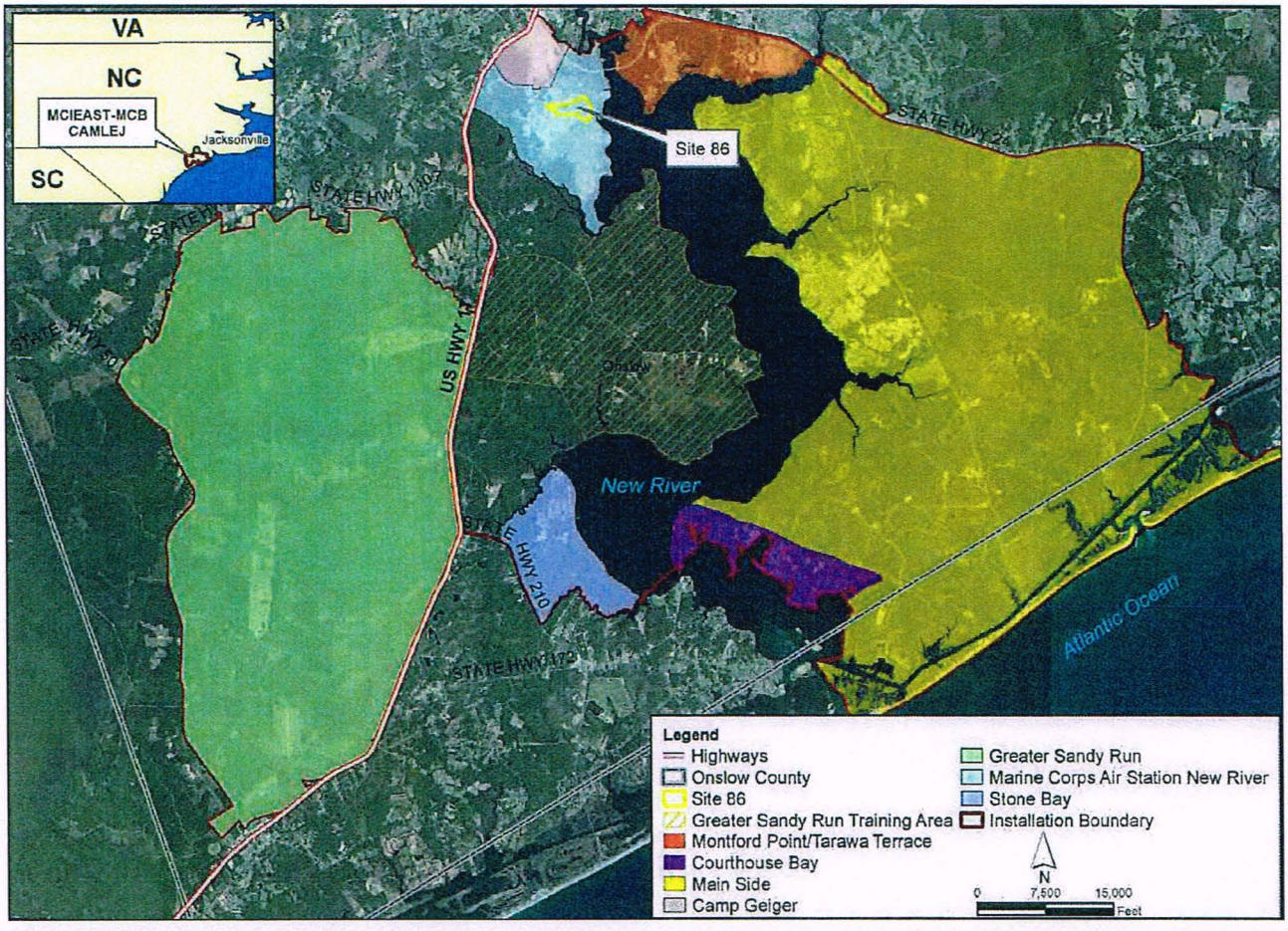
CH2MHILL

NCDENR

Purpose

- **Present the Proposed Remedial Action Plan (PRAP) for Site 86**
  - Site history
  - Remedial action objectives
  - Remedial alternatives evaluated for addressing groundwater contamination
  - Preferred alternative and rationale
- **Answer questions and seek community feedback**

Site Location Map

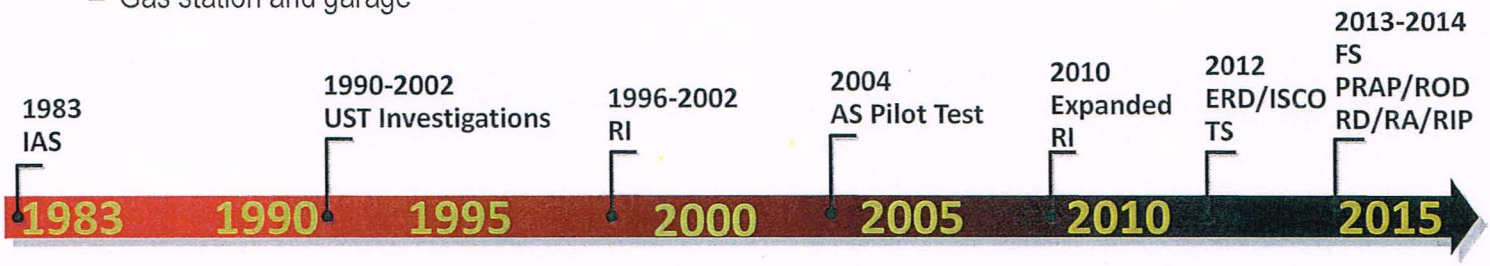


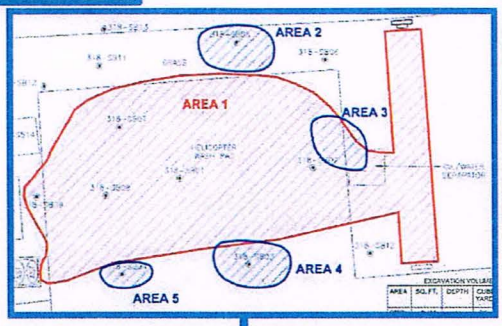
Site 86 History

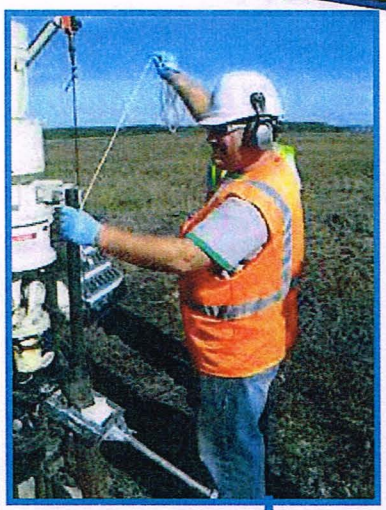
- **147 acres**
  - Buildings, parking lots, landscaped grass, and the flight line
    - Flight line has been in service since 1951
    - Surrounding area developed over time to provide support for aircraft and personnel
  - Open, grassy area
- **Large groundwater volatile organic compound (VOC) plume**

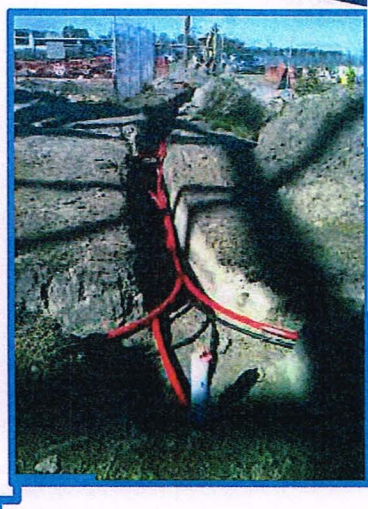
Multiple historical sources

- Above ground storage tank (AST) areas used for fuel storage
- Underground storage tanks (USTs) used for waste storage
- Helicopter wash pad and oil/water separator
- Hangars used for aircraft maintenance
- Gas station and garage









2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012

2004 - 2006
Groundwater Pilot Study - Air/Ozone

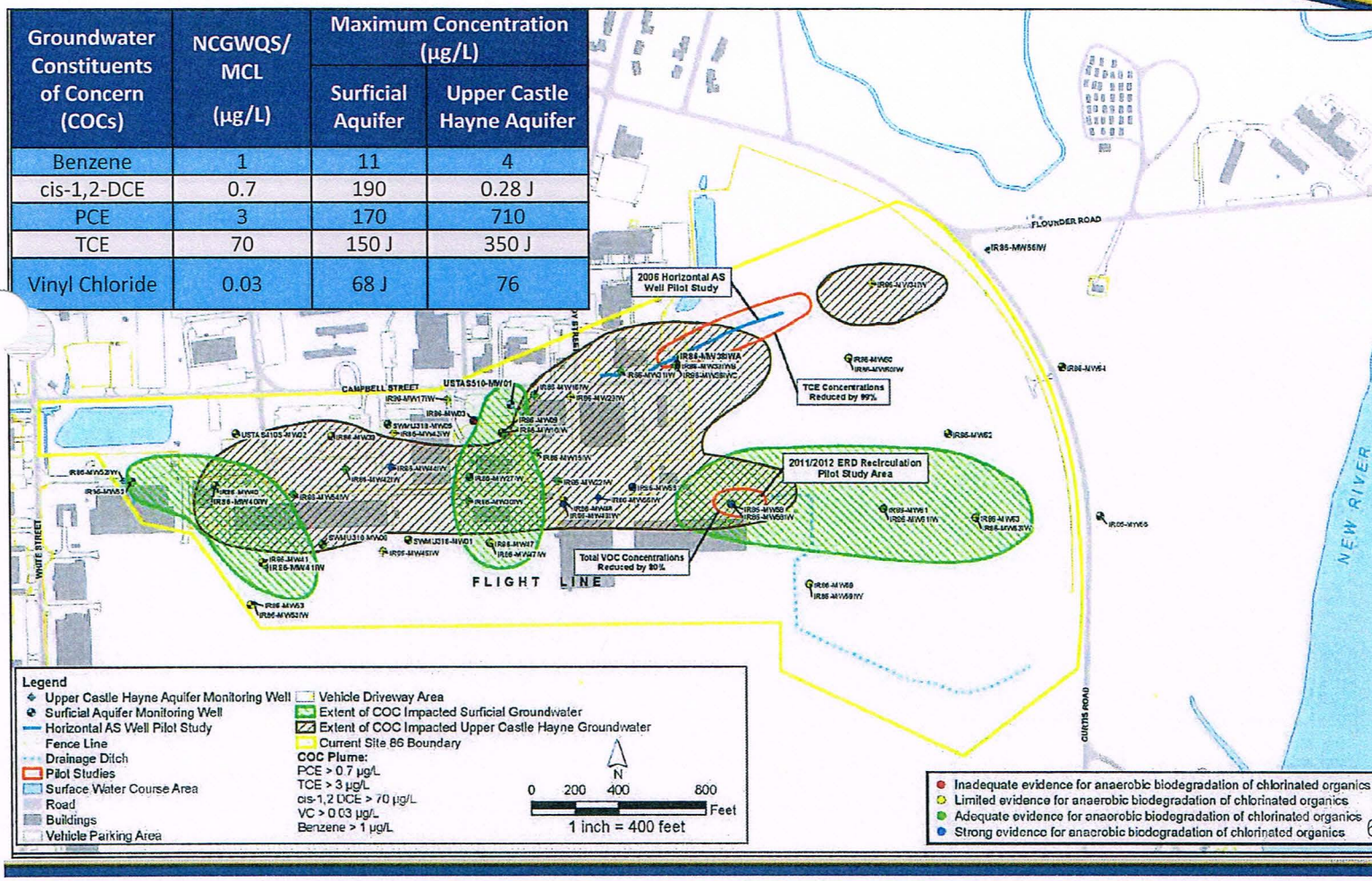
2006
Interim Measure - SVOC and metal impacted soil removed at helicopter wash pad

2011 - 2012
Groundwater Pilot Studies
- ISCO using slow release permanganate candles
- ERD recirculation system

Previous Pilot Studies and Removal Actions

Groundwater VOC Plume

Groundwater Constituents of Concern (COCs)	NCGWQS/ MCL (µg/L)	Maximum Concentration (µg/L)	
		Surficial Aquifer	Upper Castle Hayne Aquifer
Benzene	1	11	4
cis-1,2-DCE	0.7	190	0.28 J
PCE	3	170	710
TCE	70	150 J	350 J
Vinyl Chloride	0.03	68 J	76

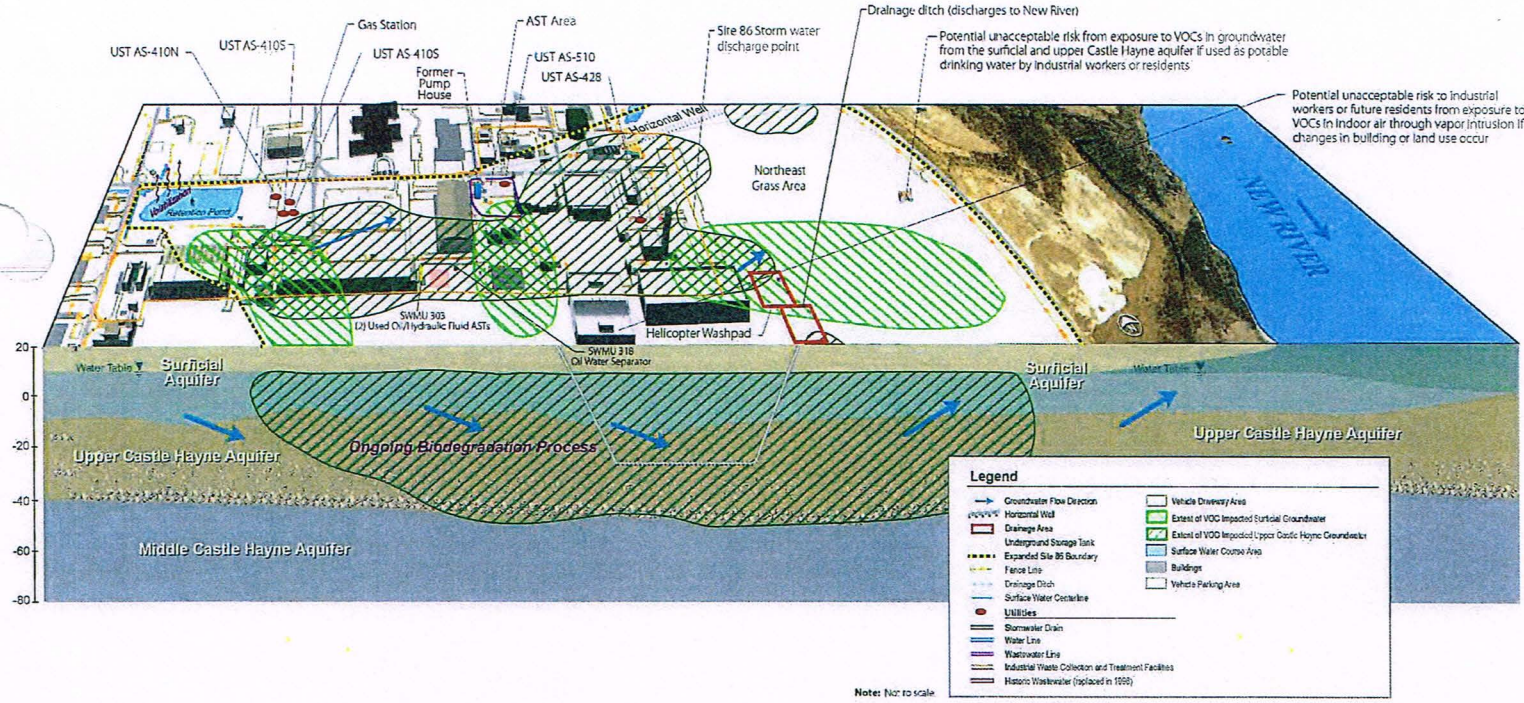


Risk Summary

- **Human Health Risk Assessment**
  - No risk from exposure to surface soil, subsurface soil, surface water, and indoor air
  - Potential risk to future residents from exposure to VOCs in groundwater from the surficial and upper Castle Hayne aquifers, if used as a potable water supply
  - No current risk from vapor intrusion
    - Will be re-evaluated if new construction occurs or future land/building use changes
- **Ecological Risk Assessment**
  - No risk

Media	Human Health	Ecological
Surface Soil	Acceptable	Acceptable
Subsurface Soil	Acceptable	Not Applicable
Surface Water	Acceptable	Acceptable
Groundwater	Unacceptable	Not Applicable
Indoor Air	Acceptable	Not Applicable

Conceptual Site Model



Remedial Action Objectives

- **Restore groundwater quality to meet NCDENR and federal primary drinking water standards** based on the classification of the aquifer as a potential source of drinking water (Class GA or Class GSA) under 15A NCAC 02L.0201.

- **Prevent exposure to COCs in groundwater and vapor intrusion** until such time as groundwater concentrations or vapor intrusion mitigation measures allow for unlimited use/unrestricted exposure.

Cleanup Levels	
Chemicals of Concern	**NCGWQS/MCL* (µg/L)**
Benzene	1
cis-1,2-DCE	70
PCE	0.7
TCE	3
Vinyl Chloride	0.03

µg/L - micrograms per liter
NCGWQS - North Carolina Groundwater Quality Standard
MCL – Maximum Contaminant Level
*More conservative value of NCGWQS or MCL

Remedial Alternatives

1. **No Action**
   - Baseline for comparison
2. **Monitored Natural Attenuation (MNA) & Land Use Controls (LUCs)**
   - Annual groundwater sampling to monitor VOC degradation
   - LUCs to prohibit aquifer use and potential future vapor intrusion
3. **Air Sparging (AS), MNA, & LUCs**
   - Inject air to induce mass transfer (stripping) of VOCs from groundwater
   - Groundwater monitoring to evaluate effectiveness and LUCs

Remedial Alternatives

4. **In-situ Chemical Oxidation (ISCO), MNA, & LUCs**
   - Inject a chemical oxidant permanganate to chemically degrade VOCs in groundwater
   - Groundwater monitoring to evaluate effectiveness and LUCs
5. **Enhanced Reductive Dechlorination (ERD), MNA, and LUCs**
   - Inject an electron donor substrate to promote anaerobic biodegradation of VOCs in groundwater
   - Groundwater monitoring to evaluate effectiveness and LUCs

Comparative Analysis

CERCLA Criteria	No Action (1)	MNA and LUCs (2)	AS, MNA, and LUCs (3)	ISCO, MNA, and LUCs (4)	ERD, MNA, and LUCs (5)
Threshold Criteria					
Protection of human health and the environment	○	●	●	●	●
Compliance with ARARs	○	●	●	●	●
Primary Balancing Criteria					
Long-term effectiveness and permanence	○	◎	◎	●	●
Reduction in toxicity, mobility, or volume through treatment	○	○	●	●	●
Short-term effectiveness	○	●	◎	◎	●
Implementability	●	●	◎	◎	◎
Present worth cost	$0	$585k	$5.46M	$7.91M	$3.65M

Ranking: ● High ◎ Moderate ○ Low

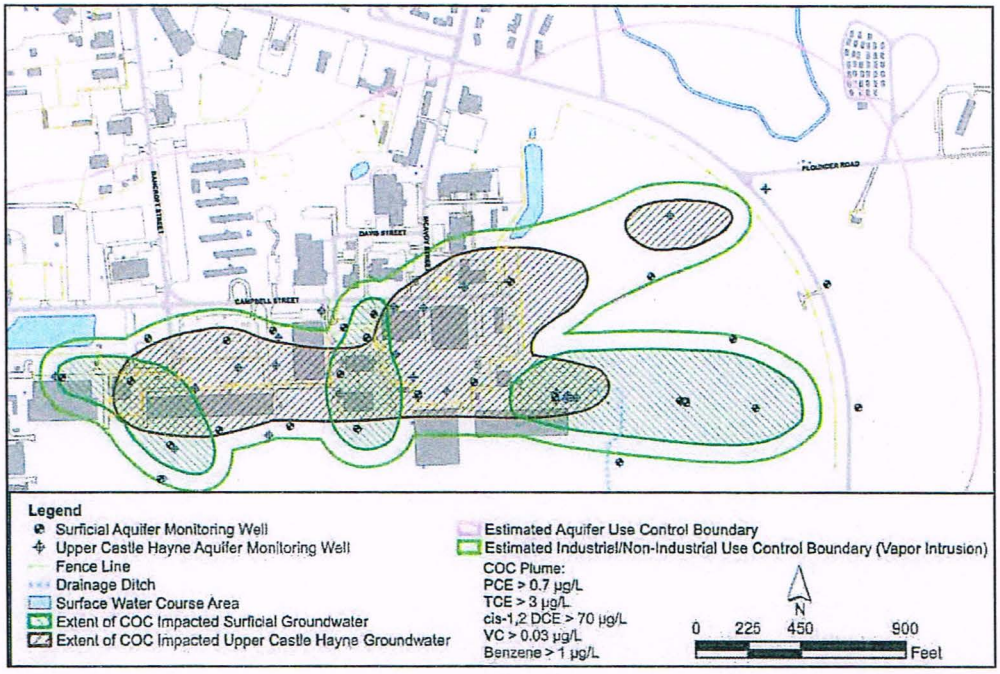
Preferred Alternative - MNA and LUCs

Preferred Alternative – MNA and LUCs

- **Rationale:**
  - Previous actions have removed highest concentrations of VOC mass
  - Natural attenuation is ongoing to further degrade VOCs in a reasonable timeframe
  - Groundwater modeling suggests MNA will be protective of the New River
  - Lowest cost alternative
  - Only remaining unacceptable risk is based on potable use of groundwater and potential for vapor intrusion, which will be restricted through LUCs

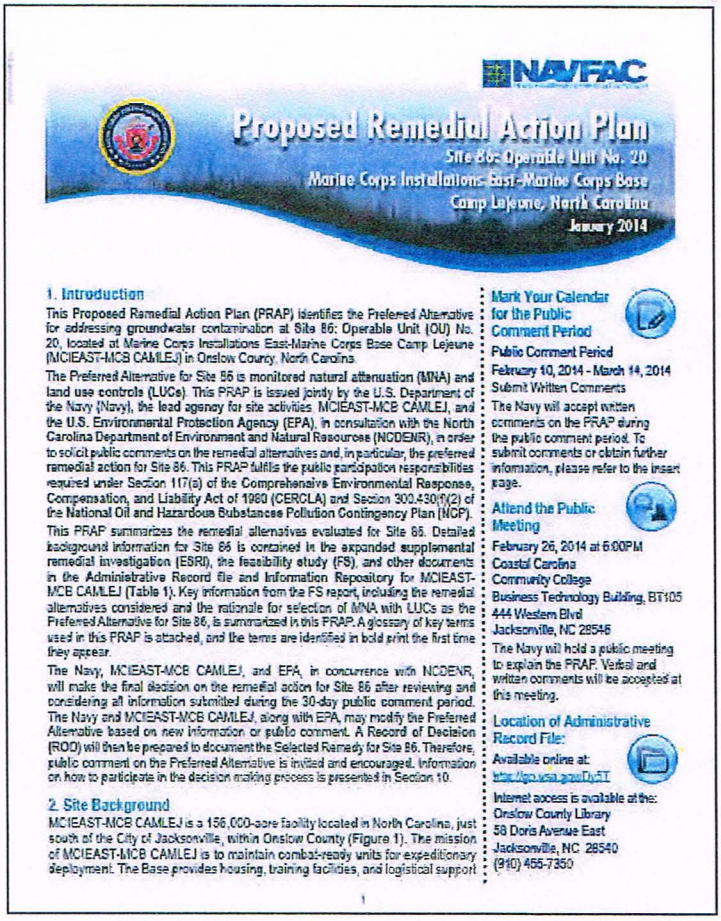
Preferred Alternative – MNA and LUCs

- **Approach:**
  - Annual groundwater monitoring for VOCs
  - Analyze for MNA parameters during 5-Year Reviews
  - LUCs to prevent aquifer use and mitigate potential future vapor intrusion



Community Participation

- Public input is key in the decision-making process
- Public comment period gives opportunity for input
  - February 10 – March 14, 2014
    - Comments postmarked by March 14, 2014
- Responses to comments will be provided
  - Included in Record of Decision (ROD) and Administrative Record
- Public meeting
  - February 26, 2014



NAVFAC

Proposed Remedial Action Plan

Site 86: Operable Unit No. 20
Marine Corps Installations East-Marine Corps Base Camp Lejeune, North Carolina
January 2014

1. Introduction

This Proposed Remedial Action Plan (PRAP) identifies the Preferred Alternative for addressing groundwater contamination at Site 86: Operable Unit (OU) No. 20, located at Marine Corps Installations East-Marine Corps Base Camp Lejeune (MCIEAST-MCB CAMLEJ) in Onslow County, North Carolina.

The Preferred Alternative for Site 86 is monitored natural attenuation (MNA) and land use controls (LUCs). This PRAP is issued jointly by the U.S. Department of the Navy (Navy), the lead agency for site activities, MCIEAST-MCB CAMLEJ, and the U.S. Environmental Protection Agency (EPA), in consultation with the North Carolina Department of Environment and Natural Resources (NCDENR), in order to solicit public comments on the remedial alternatives and, in particular, the preferred remedial action for Site 86. This PRAP fulfills the public participation responsibilities required under Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and Section 300.430(f)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

This PRAP summarizes the remedial alternatives evaluated for Site 86. Detailed background information for Site 86 is contained in the expanded supplemental remedial investigation (ESRI), the feasibility study (FS), and other documents in the Administrative Record file and Information Repository for MCIEAST-MCB CAMLEJ (Table 1). Key information from the FS report, including the remedial alternatives considered and the rationale for selection of MNA with LUCs as the Preferred Alternative for Site 86, is summarized in this PRAP. A glossary of key terms used in this PRAP is attached, and the terms are identified in bold print the first time they appear.

The Navy, MCIEAST-MCB CAMLEJ, and EPA, in concurrence with NCDENR, will make the final decision on the remedial action for Site 86 after reviewing and considering all information submitted during the 30-day public comment period. The Navy and MCIEAST-MCB CAMLEJ, along with EPA, may modify the Preferred Alternative based on new information or public comment. A Record of Decision (ROD) will then be prepared to document the Selected Remedy for Site 86. Therefore, public comment on the Preferred Alternative is invited and encouraged. Information on how to participate in the decision making process is presented in Section 10.

2. Site Background

MCIEAST-MCB CAMLEJ is a 156,000-acre facility located in North Carolina, just south of the City of Jacksonville, within Onslow County (Figure 1). The mission of MCIEAST-MCB CAMLEJ is to maintain combat-ready units for expeditionary deployment. The Base provides housing, training facilities, and logistical support

Mark Your Calendar for the Public Comment Period

Public Comment Period
February 10, 2014 - March 14, 2014
Submit Written Comments

The Navy will accept written comments on the PRAP during the public comment period. To submit comments or obtain further information, please refer to the insert page.

Attend the Public Meeting

February 26, 2014 at 6:00PM
Coastal Carolina Community College
Business Technology Building, BT105
444 Western Blvd
Jacksonville, NC 28546

The Navy will hold a public meeting to explain the PRAP. Verbal and written comments will be accepted at this meeting.

Location of Administrative Record File:

Available online at:
http://go.usa.gov/DyST

Internet access is available at the:
Onslow County Library
58 Doris Avenue East
Jacksonville, NC 28540
(910) 455-7350

Available Information

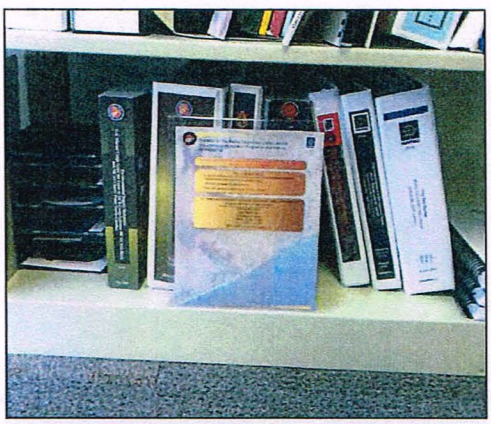
- PRAP and previous documents available in the Administrative Record: http://go.usa.gov/Dy5T
- Internet access to Administrative Record available at:

Onslow County Public Library

58 Doris Avenue East

Jacksonville, North Carolina 28540

(910) 455-7650



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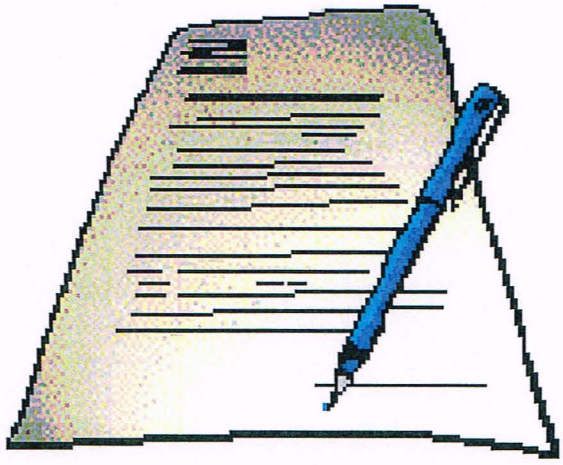
Path Forward

- **The Navy and Base, in consultation with USEPA and NCDENR, will make the final decision on the remedial approach for Site 86 after reviewing and considering all information submitted during the public comment period**
- **Prepare Record of Decision (ROD)**
  - Select Remedy
  - Provide responses to any comments
    - Responsiveness Summary



This concludes the Public Meeting

Questions or Comments?

Thank you for attending!