

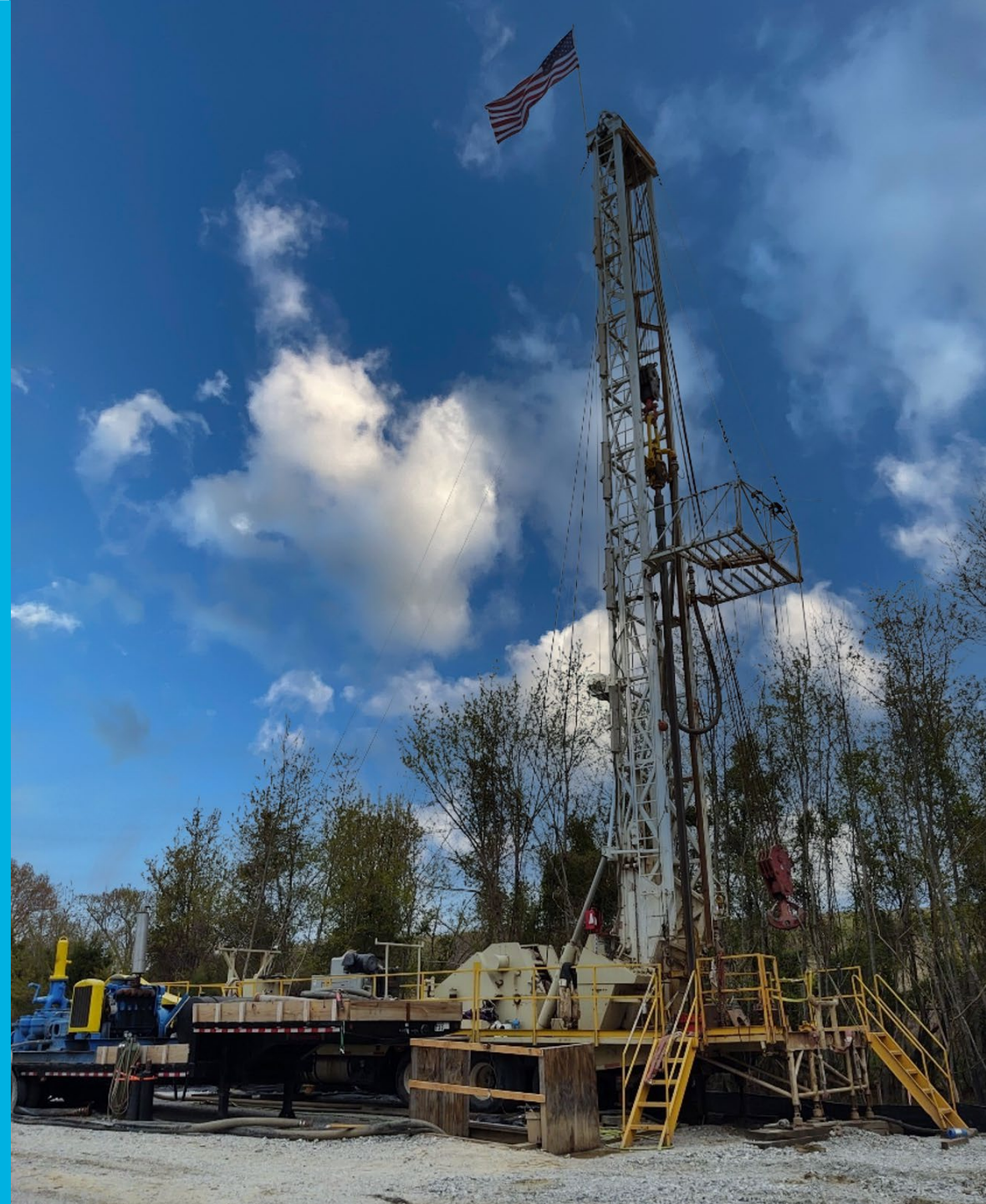


HRSD SWIFT

**Nansemond Plant Service Area
Managed Aquifer Recharge (MAR) Work**

Industry Outreach Virtual Meeting

May 17, 2023



Participation Tips

- If your connection to the meeting freezes, please exit and re-enter the meeting to refresh your connection
- Please remain on mute throughout the presentation
- You may listen through your computer speakers or the Teams app on your mobile phone
- Please type questions into the chat or raise your hand to be called on when we get to the Q&A period

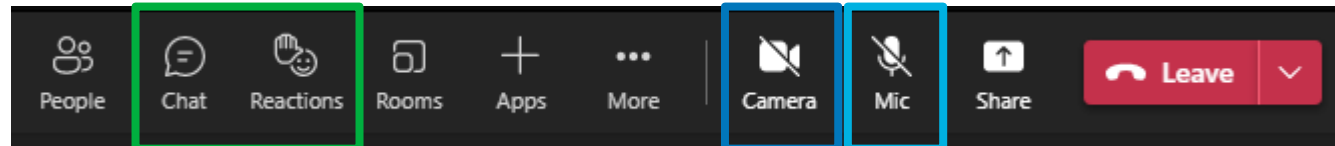


Virtual Meeting Logistics – Teams

Use **CHAT** or **RAISE HAND** to ask questions

Attendee camera preferred **OFF** during presentation; **OPTIONAL** when asking questions.

MUTE when not talking to limit background noise



Today's Agenda



01 SWIFT Program and Nansemond Project Overview



02 HRSD Procurement Process and Schedule



03 Well Characteristics



04 Q&A

SWIFT Full Scale Implementation Program Charter



Before HRSD was created in 1940, raw sewage was discharged to open area waterways and ditches.

SWIFT FSIP will implement sustainable managed aquifer recharge infrastructure by developing adaptable, innovative, and cost effective solutions through a collaborative process, while maintaining HRSD's Promise and Vision.

Our Promise:

We promise to treat wastewater and recover natural resources to protect public health and the environment.

Our Vision:

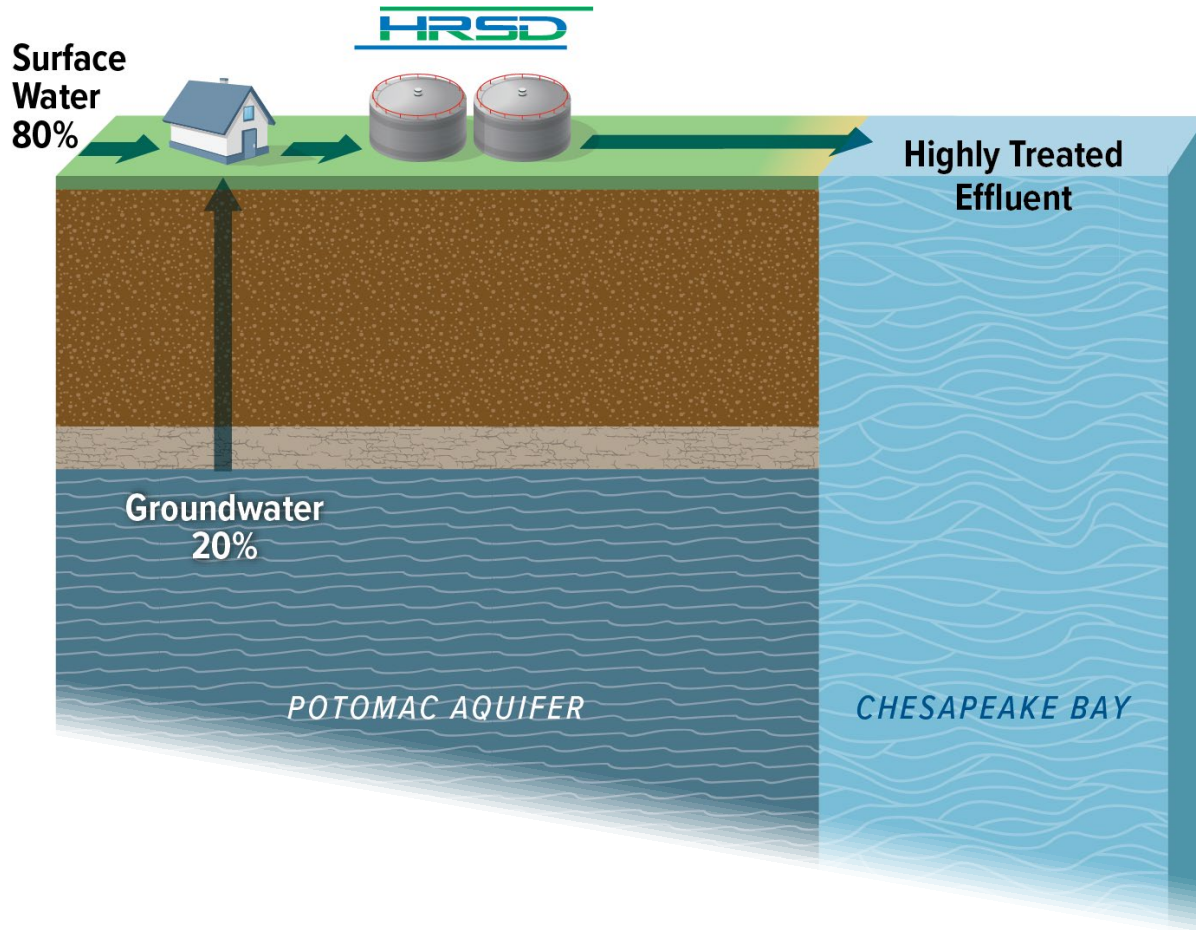
Our communities will have clean waterways and reliable water resources for generations to come.

SWIFT Overview

Laura Kirkwood

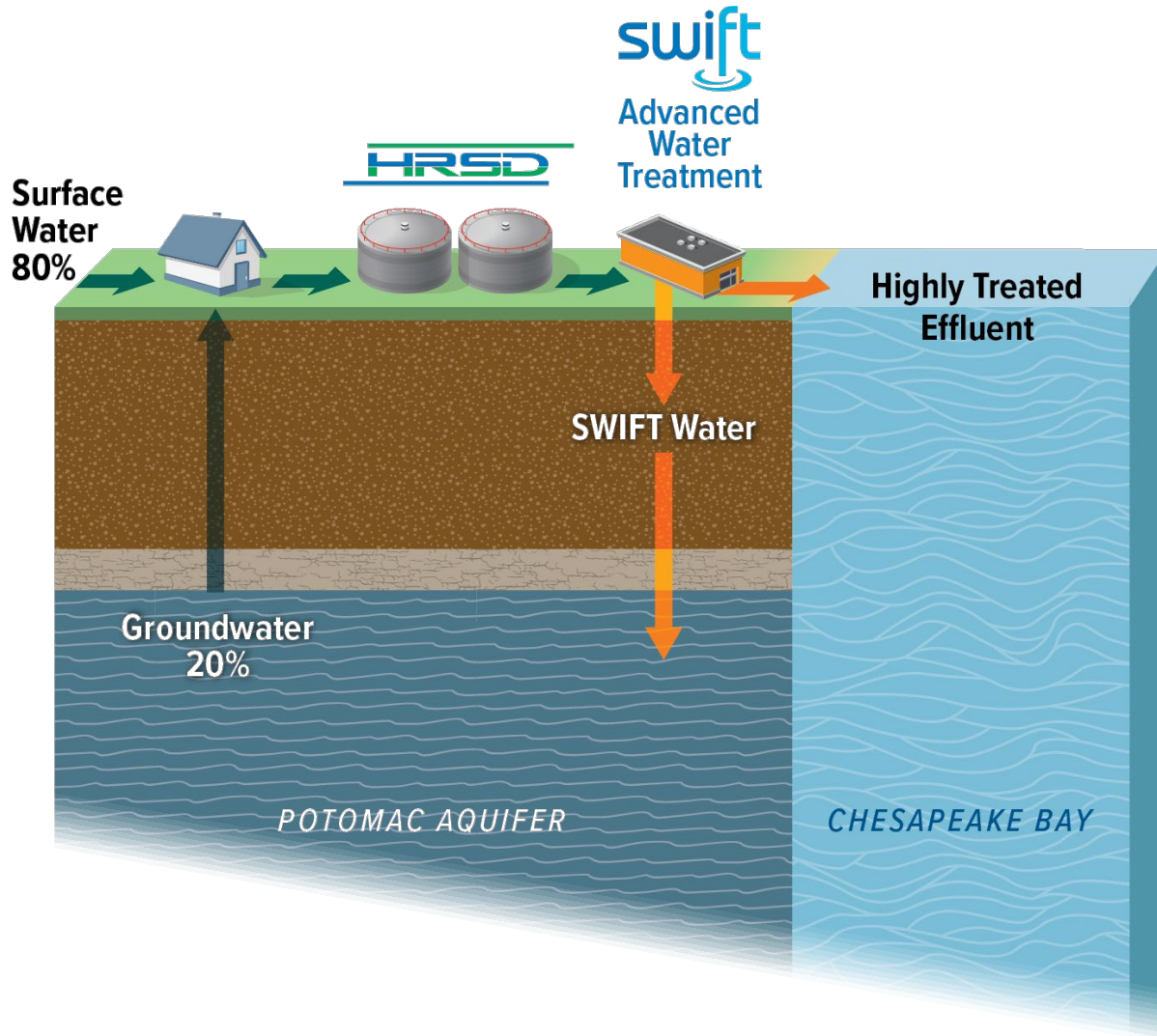


SWIFT Overview



- Water is a valuable resource and should not be wasted.
- HRSD has developed an aquifer recharge program, Sustainable Water Initiative for Tomorrow (SWIFT), to protect this valuable resource.
- SWIFT Water™ is used to replenish the depleted Potomac aquifer, deep below Hampton Roads.
- The initiative is highly successful at HRSD's SWIFT Research Center (1MGD demonstration facility) and has progressed to Full Scale Implementation.

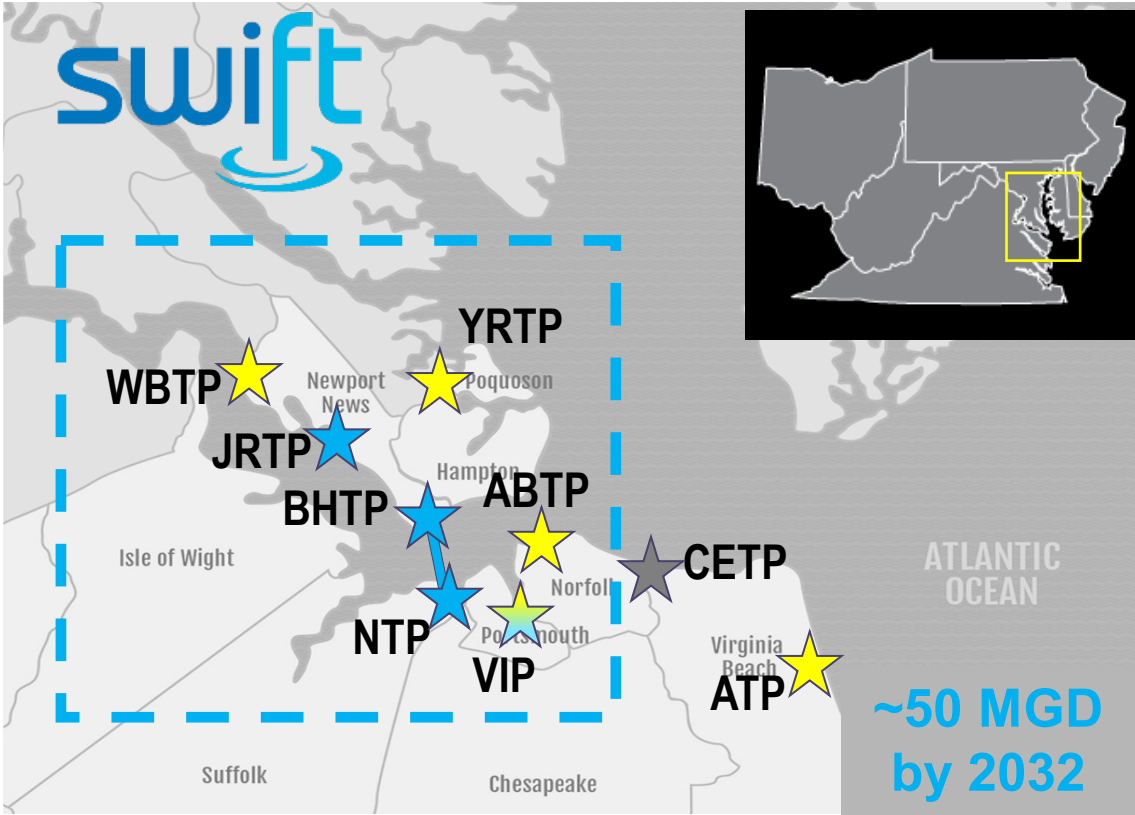
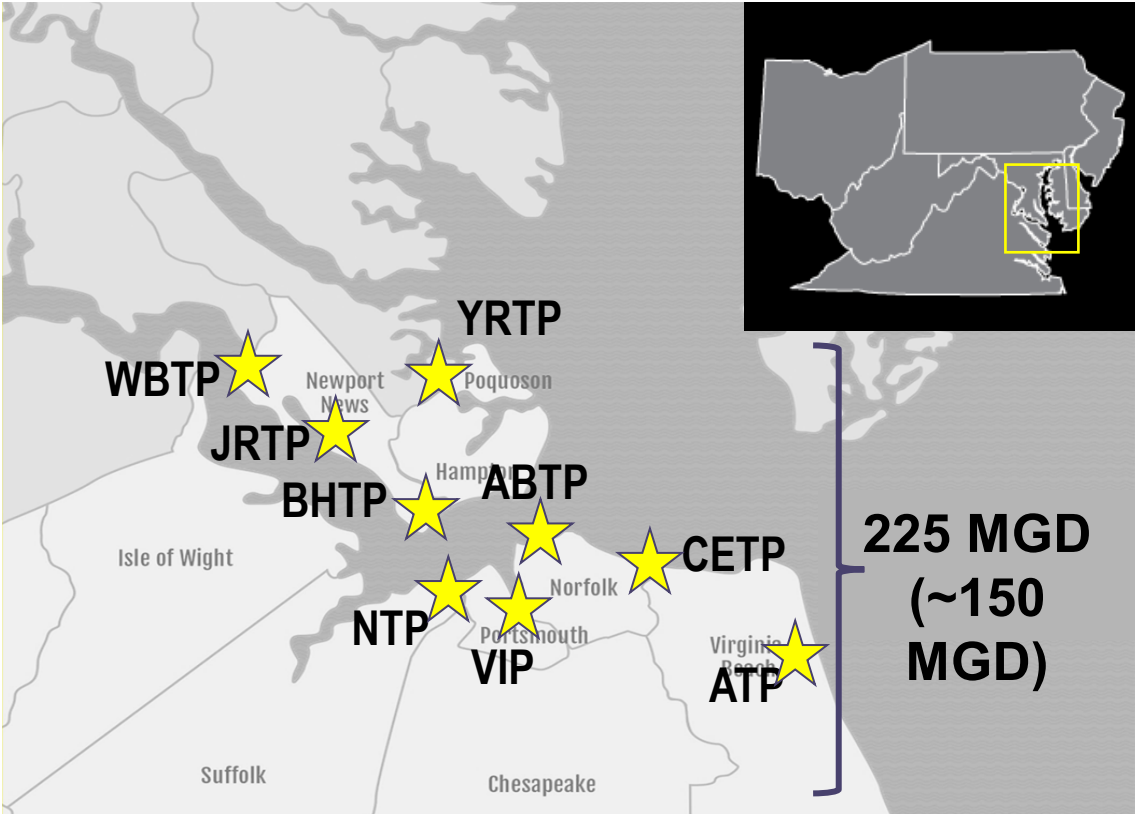
SWIFT Overview



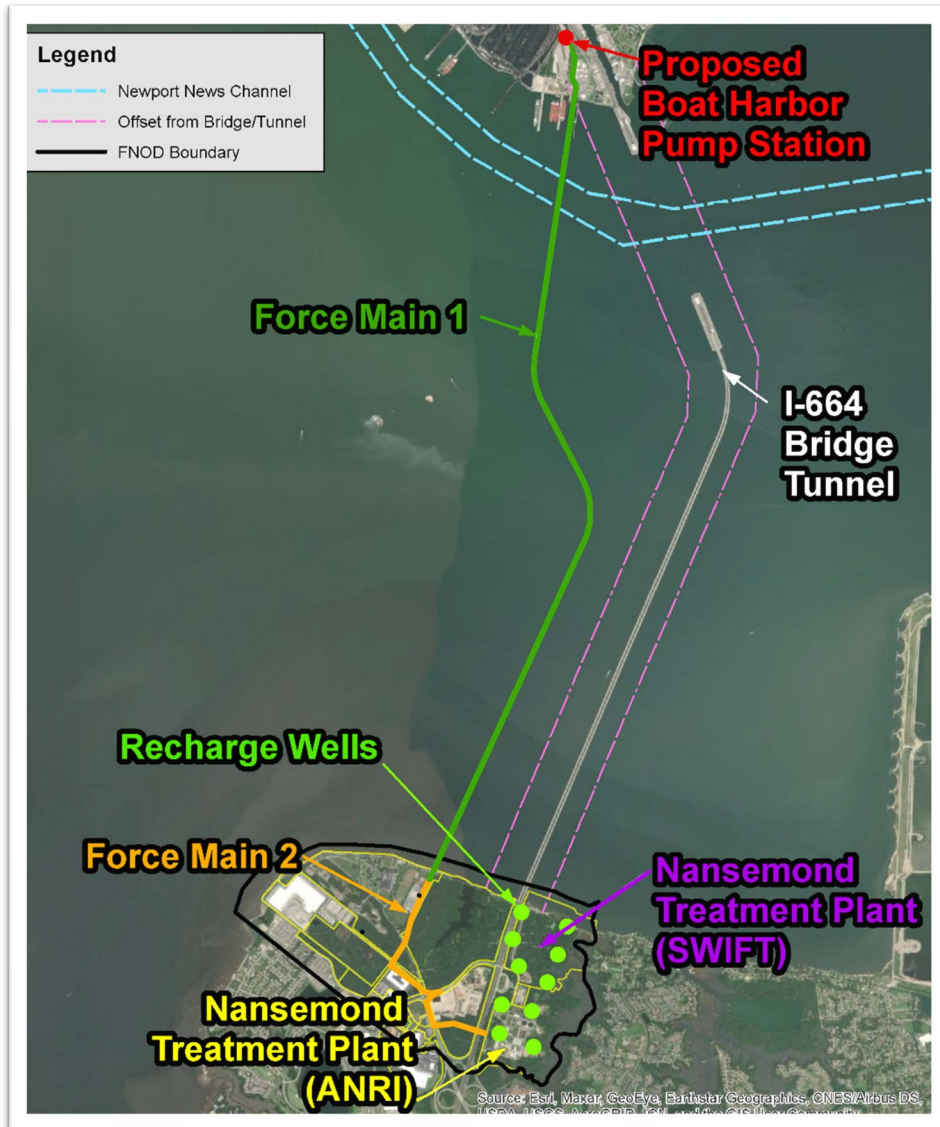
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HRSD SWIFT Project Sites

SWIFT Goal: ~50 MGD by 2032

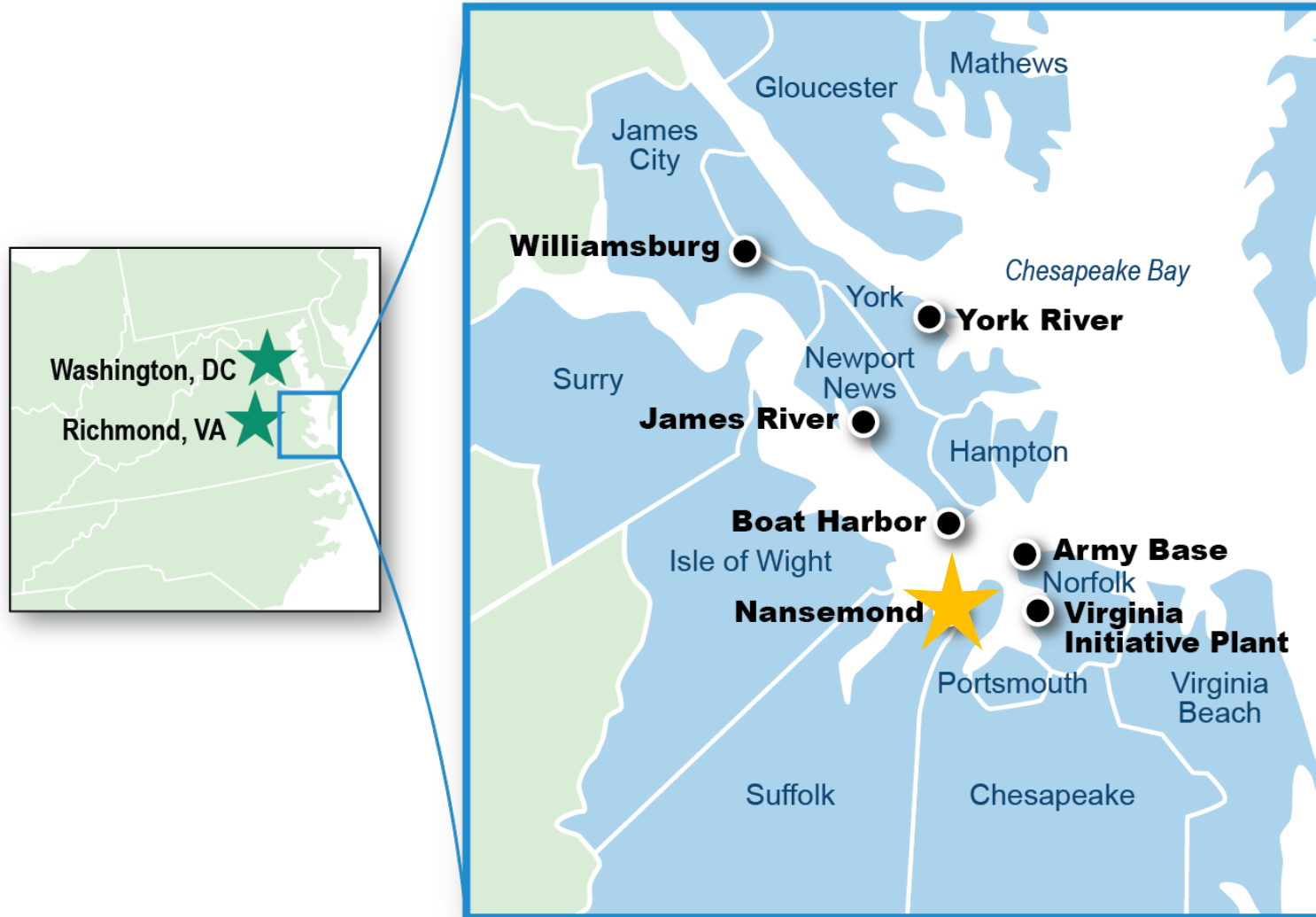


Boat Harbor – Nansemond Projects

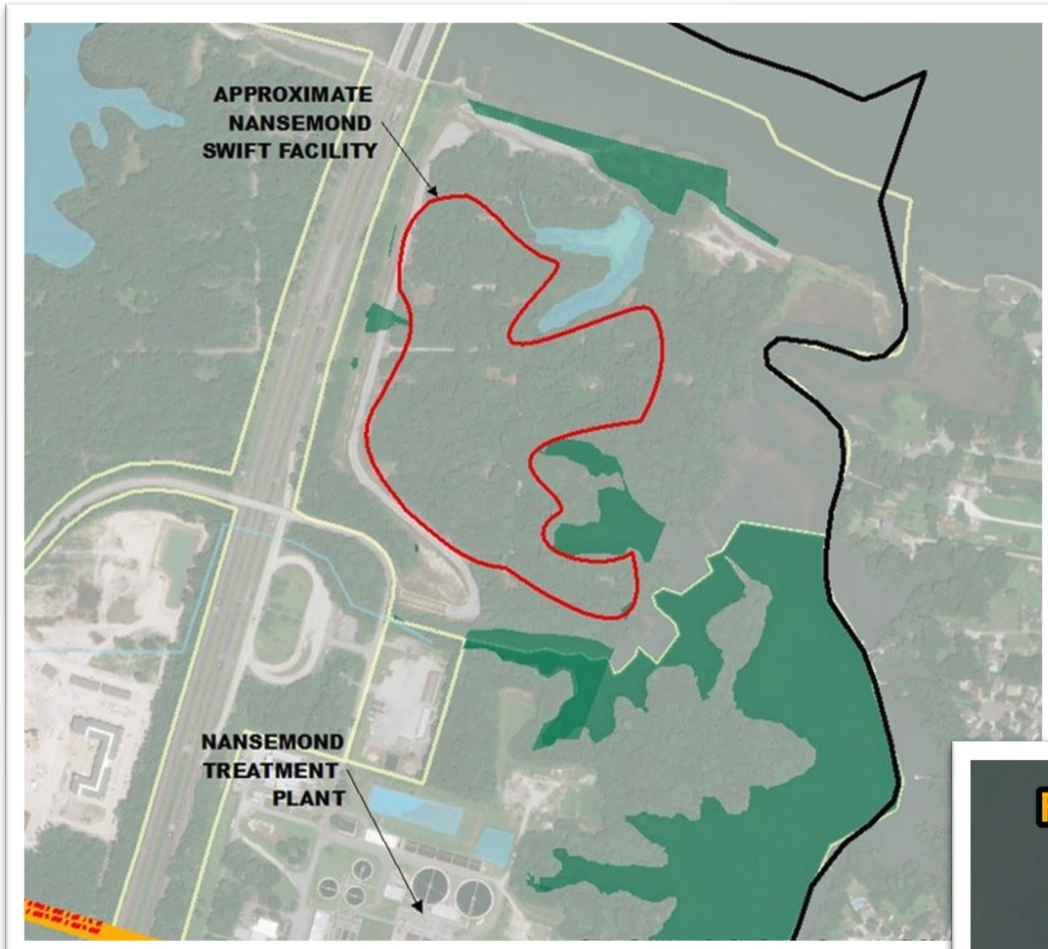


- The planned closure of HRSD’s Boat Harbor Treatment Plant is an essential component of HRSD’s strategy to cost-effectively comply with the legislatively required nutrient reductions imposed on HRSD’s James River aggregate nutrient allocation.
- Boat Harbor Treatment Plant flow will be diverted to the Nansemond Treatment Plant.
- Major projects on Nansemond Plant property:
 - Nansemond Advanced Nutrient Reduction Improvements (ANRI)
 - Nansemond SWIFT

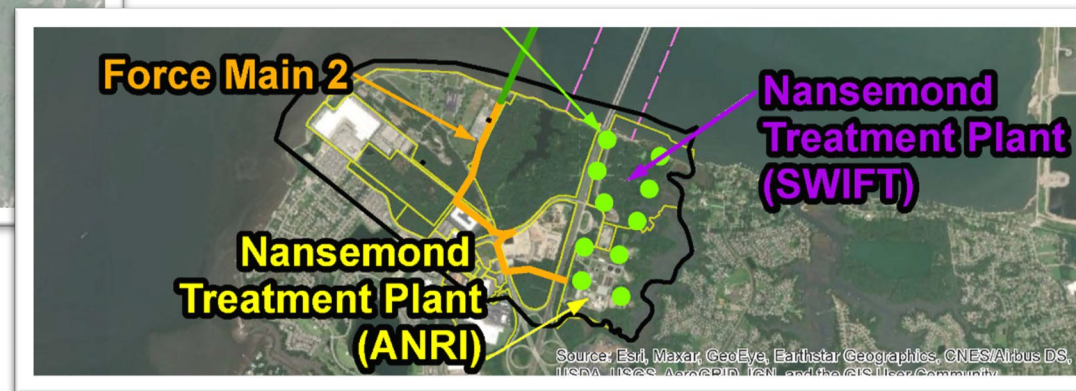
HRSD SWIFT at Nansemond



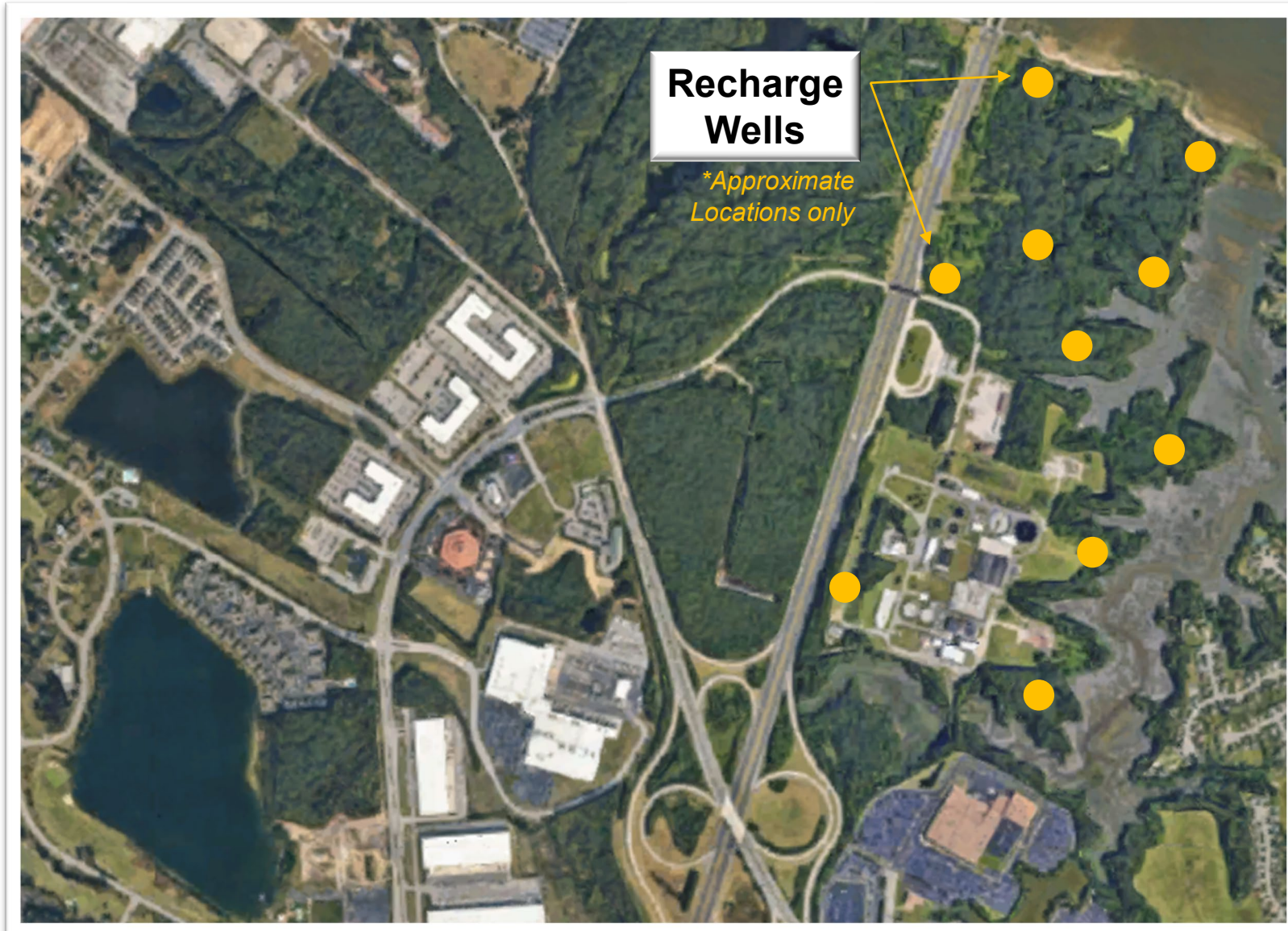
Nansemond Projects



- “On-site” well drilling work, located east of I-664, will overlap with Nansemond SWIFT and ANRI project work and well integration.
- “Off-site” well drilling work, located west of I-664, will overlap with force main work and well integration.
- All Nansemond projects are critical pieces of the SWIFT Full Scale Implementation Program (FSIP) with required completion by **March 2029**.



Nansemond On-site Well Work



Where we are:

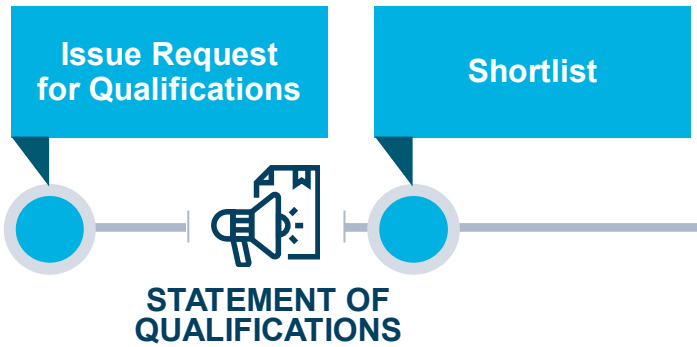
- Two options to install 10 MAR wells:
 - Procure under Design-Build contract with NTP in **June 2024**
 - Procure separately as a Design-Bid-Build contract with Advertisement in **Summer 2025**

Where we are going:

- Procurement Method decision to be made in **Spring 2024**

HRSD Design-Build Project Flow

REQUEST FOR QUALIFICATIONS



We are here

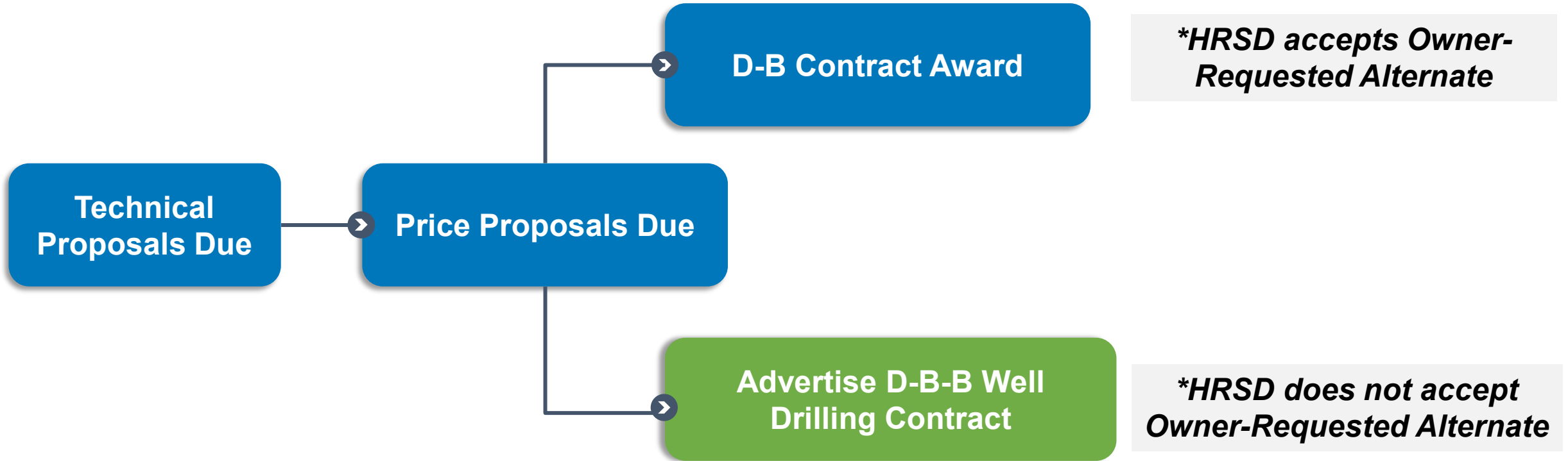
REQUEST FOR PROPOSALS



"Off Ramp" option to cancel or deliver in a different manner

* If required

Owner-Requested Alternative Explained



Design-Build

Design-Bid-Build

Design-Build Procurement Schedule

Nansemond SWIFT Procurement Activity with Short-listed D-B Teams	Date
HRSD issued Request for Proposals (RFP)	April 24, 2023
Teams submit Technical Proposals	December 14, 2023
Interviews	February 12, 2024
Teams submit Price Proposals	March 13, 2024
HRSD requests Commission Approval	May 23, 2024

**All proposers and teaming partners should refer to HRSD's online procurement system for the most up-to-date schedule.*

Nansemond Off-site Well Work



Where we are:

- Evaluating properties west of I-664 to install 7 MAR wells

Where we are going:

- Anticipated Design-Bid-Build Procurement with Advertisement in **Summer 2025**

Well Characteristics

Dan Holloway



Nansemond Drilling Program Stats

2

Separate wellfields
and drilling contracts

18

Deep MAR wells

8

Deep monitoring wells

~6,000

Total feet of 316L well screen

~27,000

Total vertical feet of drilling

4 MGD

MAR per well
withdrawal capacity

2 MGD

MAR per well
recharge capacity

~9,000

Feet of 316L well casing



Well Characteristics

- 18 MAR wells, 8 monitoring wells
- MAR wells
 - 30" diameter upper casing
 - 18x20" screen, blanks
 - 316L material
 - Combination of direct and reverse mud rotary drilling
 - Standard withdrawal testing
 - Aquifer conditioning with aluminum chlorohydrate
- Monitoring wells
 - 8" upper casing
 - 4" screens
 - Fiberglass material
 - Direct mud rotary



Anticipated Scope of Work for Well Drilling Contract

- Site preparation and logistics (access roads, water, discharge fluid routing, etc.)
- Geophysical borehole installation (GBH), geologs, finalize well designs (and price)
- Surface/conductor casing installation
- Upper casing installation
- Drilling out Potomac formation (including reverse circulation)
- Install well screen and blank, gravel filter pack, well development
- Withdrawal testing
- Aquifer conditioning, follow up step testing



What about well integration work?

- Well building
 - Backflush pump, motor & accessories
 - Piping & valves
 - Instrumentation
 - Associated Electrical Work
- Transmission Pipes
 - Backflush
 - SWIFT Water
- Who designs and constructs well integration work?
 - On-site Wells: SWIFT Design-Build Team
 - Off-site Wells: Determined by IFB

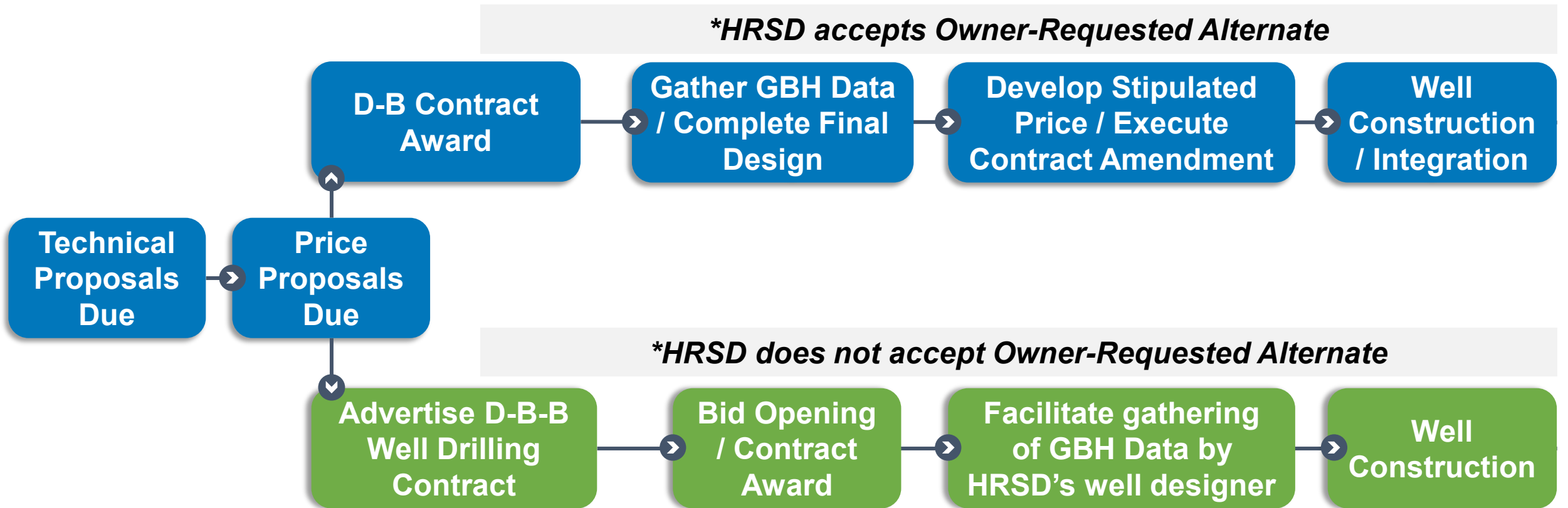


Well Procurement Recap

Laura Kirkwood



Recap: On-site Well Procurement Paths

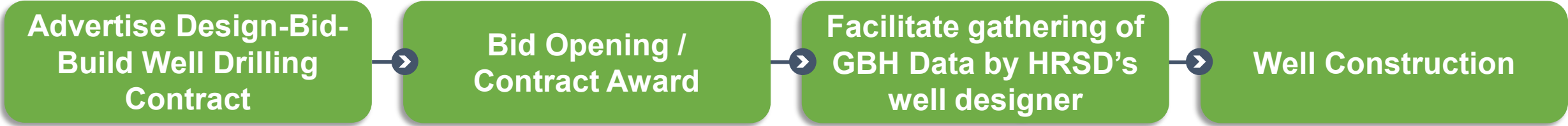


**Well integration by others*

Design-Build

Design-Bid-Build

Recap: Off-site Well Procurement Paths



**Well integration by others*

Design-Bid-Build

Funding Sources and Requirements



- ✓ DBE / SWaM Participation
- ✓ Davis Bacon Wage Rates
- ✓ American Iron and Steel

Question and Answer



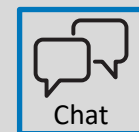
How to Submit a Question During Meeting

ORAL QUESTIONS



1. Click the **Raise Hand** icon to be placed in the comment queue
2. When called upon, come off mute and state your name and affiliation, if desired
3. State your question, then mute your microphone and lower your hand by clicking Raise Hand again

WRITTEN QUESTIONS



1. Click the **Q&A** button to enter a written comment
2. Include your name and affiliation with your written comment, if desired
3. The Facilitator will read off the question and the team will then provide the appropriate response.

IMPORTANT

Please note we are under an active procurement. HRSD reserves the right to forego answering questions that may solicit information that is not public knowledge.

How to Submit a Question After Meeting

- If you are partnering on one of the Nansemond SWIFT Design-Build teams or have questions specifically about the Design-Build procurement documents:
 - Submit questions formally through HRSD’s ERP system through your teaming partner.
- If you have a question specifically related to well drilling or are unsure about which process to follow:
 - Send inquiries to HRSD’s Engineering Contract Specialist, Shannon Rice, srice@hrsd.com.

The screenshot shows the HRSD website navigation menu with the following items: About HRSD, Customers, Doing Business with HRSD (highlighted with a blue arrow), and Initiatives and Programs. Below the menu is a dark blue navigation bar with two main sections: 'Work With Us' and 'Technical Information'. Under 'Work With Us', there are links for Bids and RFPs, Development Services, Procurement, and Engineering (highlighted with a blue arrow). Under 'Technical Information', there are links for Design and Construction Standards, GIS Public Viewer, and Record Drawings Requests. Below this bar is a yellow button with the text 'UNIFIER AND ERP ISUPPLIER LOG INS AND HELP' (highlighted with a blue arrow). Below the button is the 'iSupplier Portal' section, which lists several options: Update Supplier Information, View Purchase Orders / Agreements, Submit / View Invoices / Pay Applications, Submit / View Work Confirmations, View Open Solicitations and Your Responses, Participate in Online Discussions, and Submit an Online Response to a Solicitation. At the bottom of the screenshot is a yellow button with the text 'ERP LOGIN'.

New to HRSD? [Click here](#) to register for the first time.

How to View Bid and RFP Results

- Select Bids and RFPs
 - **Construction Project Bid Results***
 - Request for Proposals for Professional Services Selections
Public Notices
 - Construction Management and **Design/Build Projects RFQ Results***

