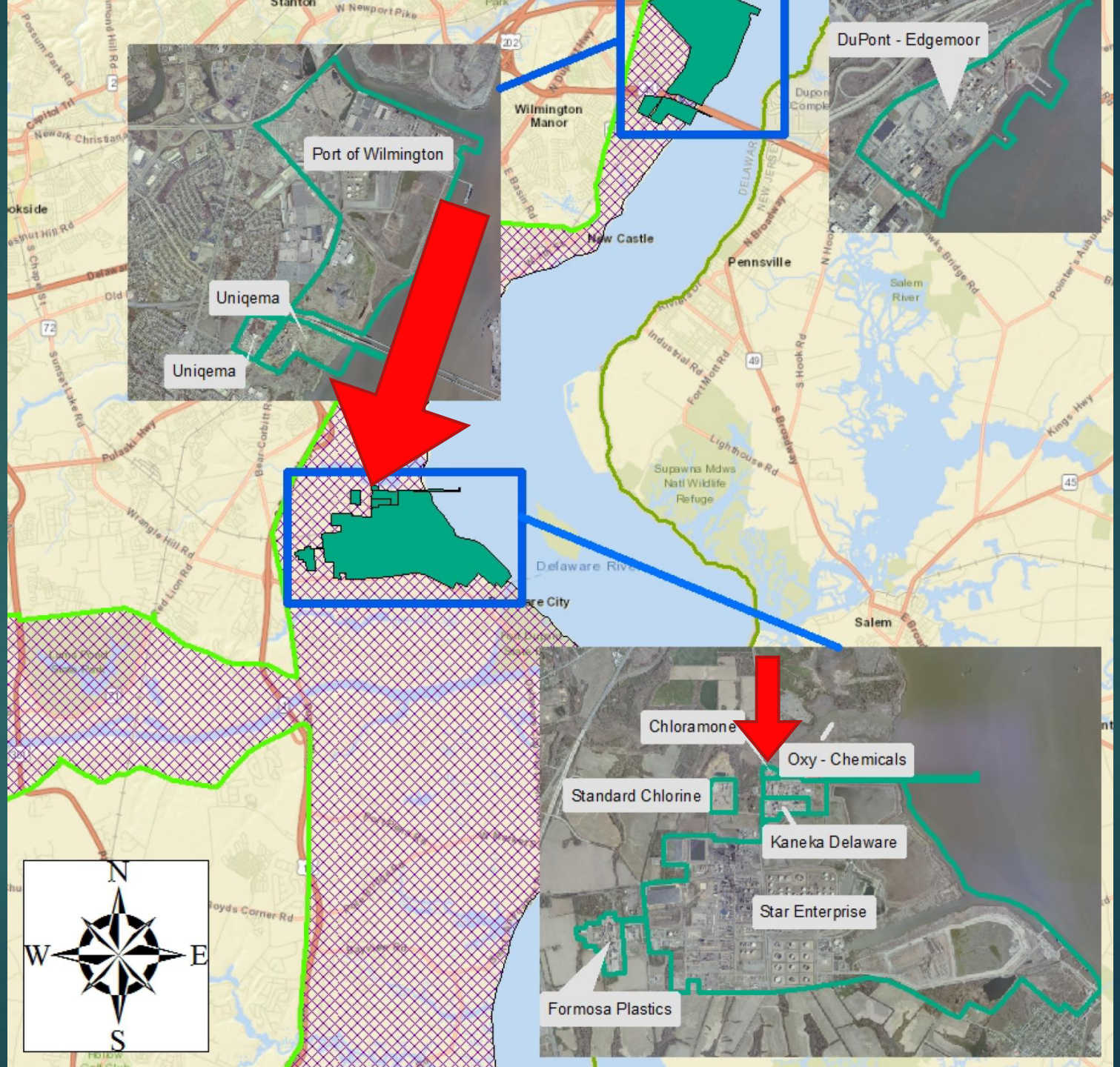
The 14 Heavy Industry Use Sites in Delaware's Coastal Zone

DNREC Division of Waste and Hazardous Substances

Site Investigation & Restoration Section
Solid & Hazardous Waste Section
Tank Management Section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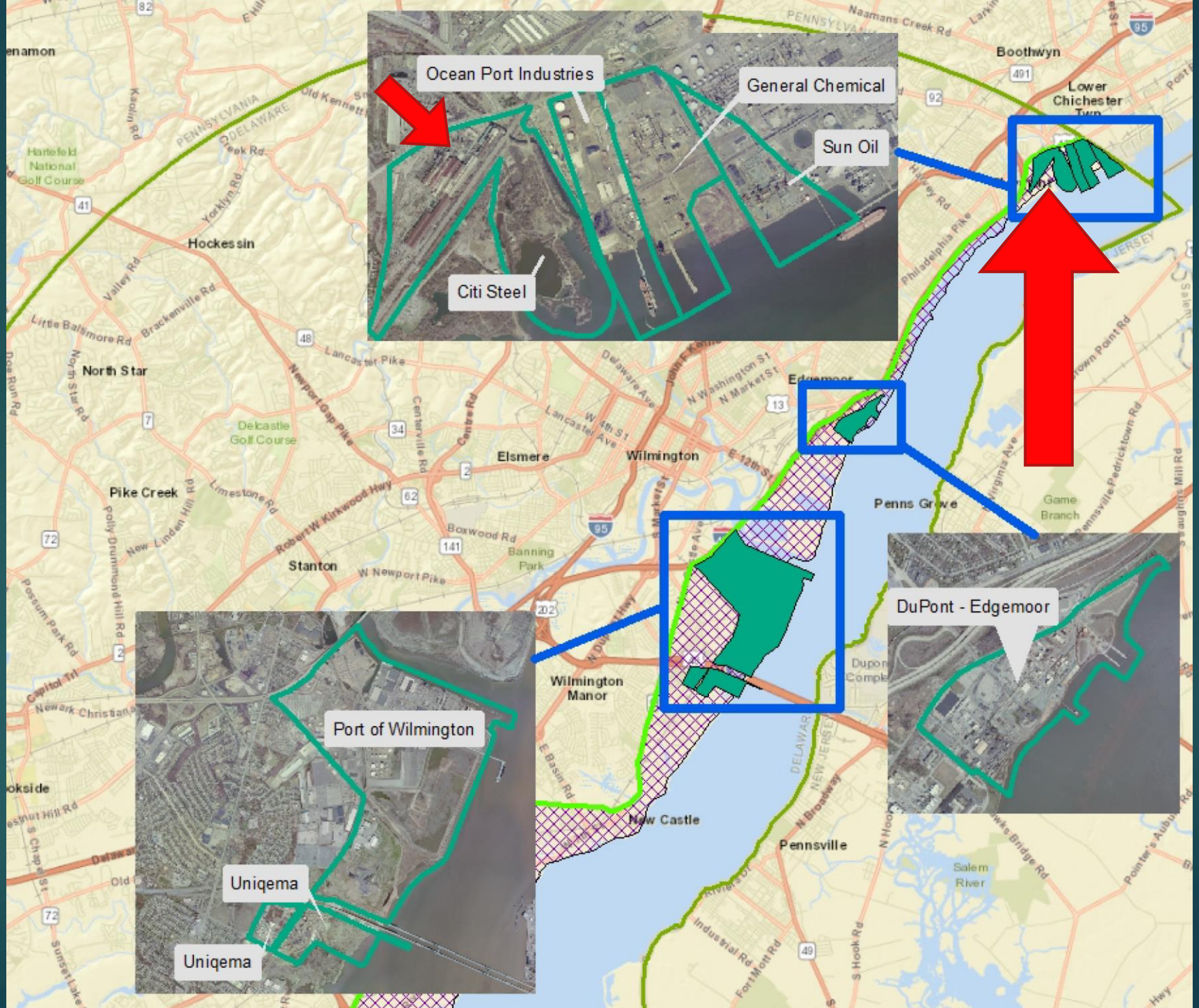
Chloromone

(1999 Site Name and Boundary)

- **Current owner:** Chloromone/Kuehne
- **Type of Site:** Chemical processing plant
- **Operation Status:** Currently in operation as heavy industry use

Current Site

- **Infrastructure (past):** 2 leaking Underground Storage Tanks/one Aboveground Storage Tank removed; all projects closed
- **Infrastructure (current):** 14 active Aboveground Storage Tanks
- **Site conditions:** Currently no active remediation programs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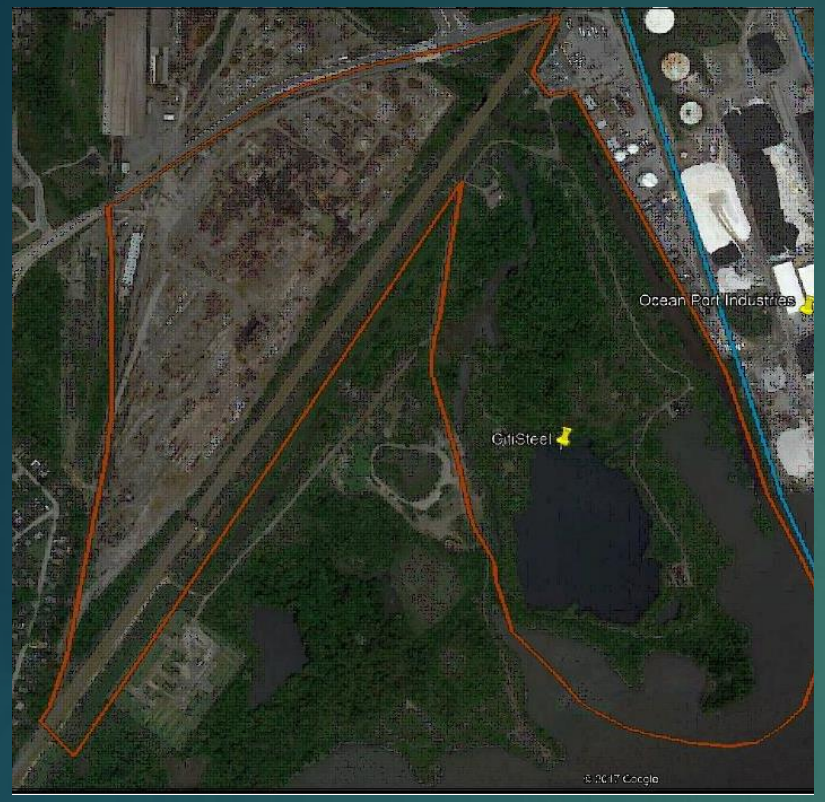


Citi Steel

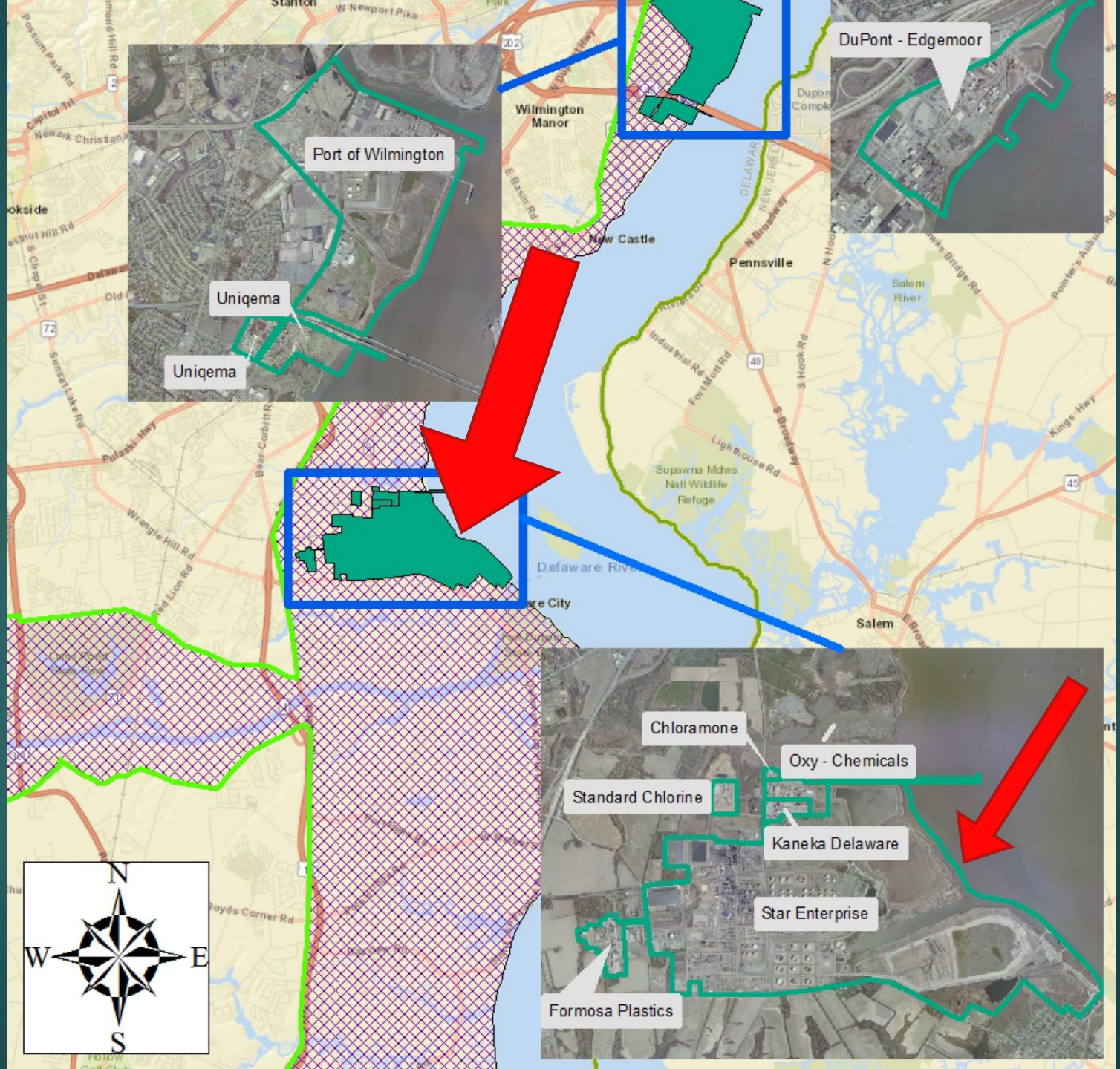
(1999 Site Name and Boundary)

- **Current owner:** ELT (Cleanup responsibility held by a subsidiary of ELT – Claymont Properties, LLC)
- **Type of Site:** Former steel plant
- **Operation Status:** Awaiting redevelopment

Previous Site (Before)

Current Site (After)

- **Infrastructure:** See before and after pictures above
- **Site conditions:** Voluntary Cleanup Program/SIRS; divided into 7 Operable units; various stages of cleanup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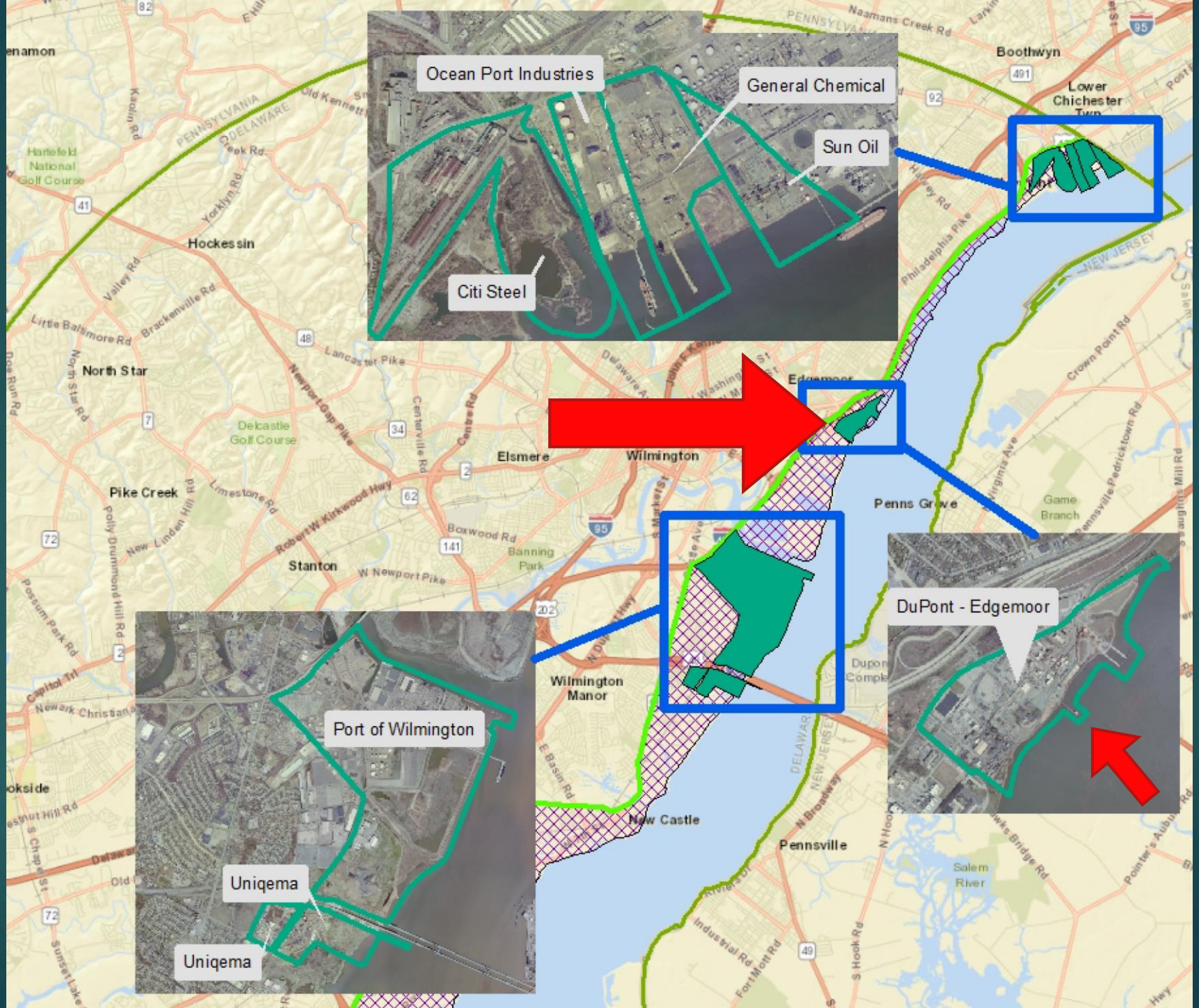
Star Enterprise

(1999 Site Name and Boundary)

- **Current owner:** PBF Energy
- **Type of Site:** Petroleum refinery
- **Operation Status:** Currently in operation as heavy industry use

Current Site

- **Infrastructure (current or past):** Active refinery process units, offices, river access, and rail
- **Site conditions:** Remedial Facility Investigation ongoing, closed Hazardous Waste Landfill and Land Treatment Unit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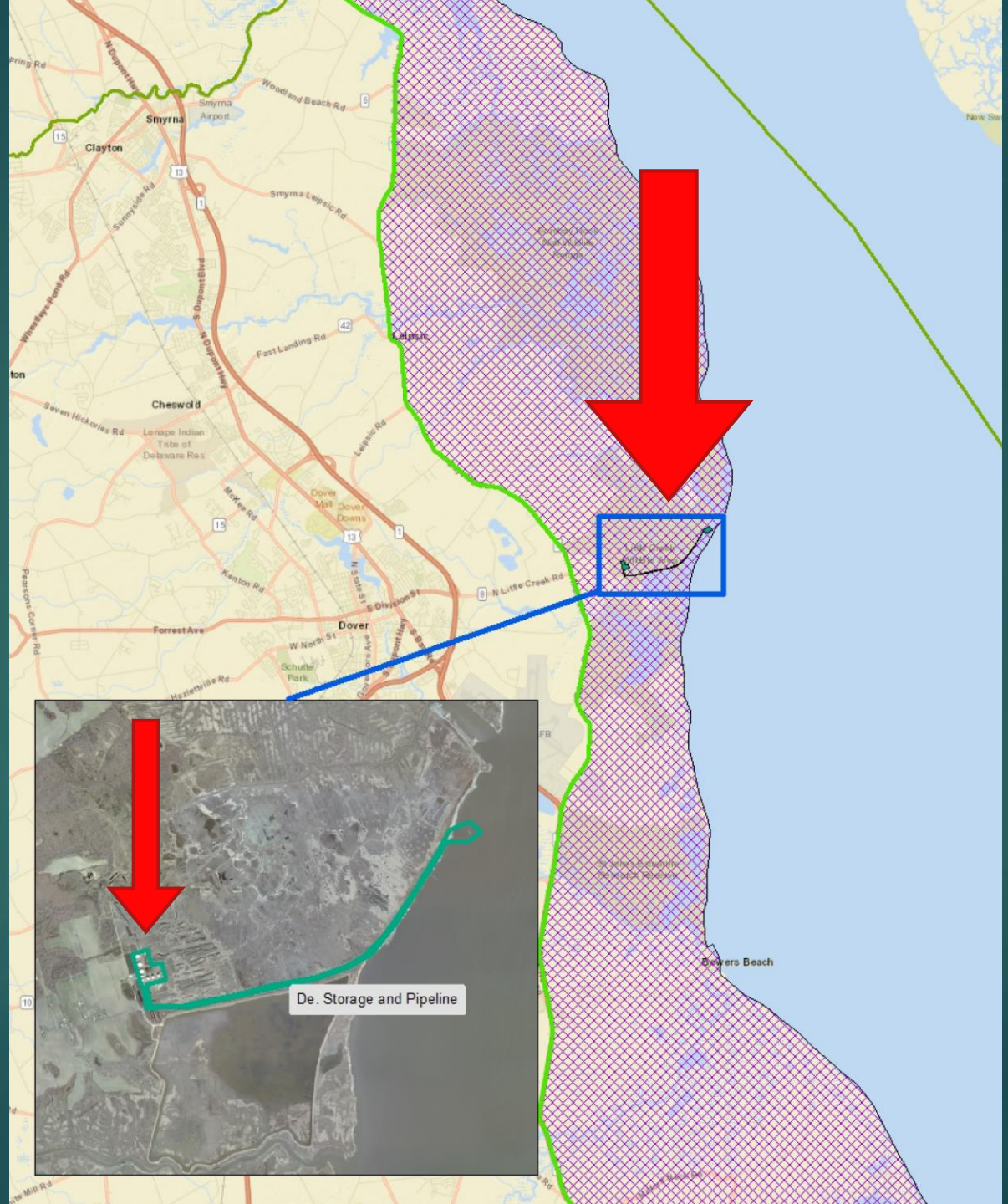
DuPont Edgemoor

(1999 Site Name and Boundary)

- **Current owner:** Diamond State Port Corporation
- **Type of Site:** Former titanium dioxide manufacturing plant
- **Operation Status:** Vacant, under negotiations for container port operations

Current Site

- **Infrastructure (current or past):** Some buildings remain, much of the manufacturing structures have been demolished. River access and rail.
- **Site conditions:** Remedial Facility Investigation, closed former settling ponds


Smyrna
Clayton
Cheswold
Leipsic
Dover
Bowers Beach
De. Storage and Pipeline

Current Site

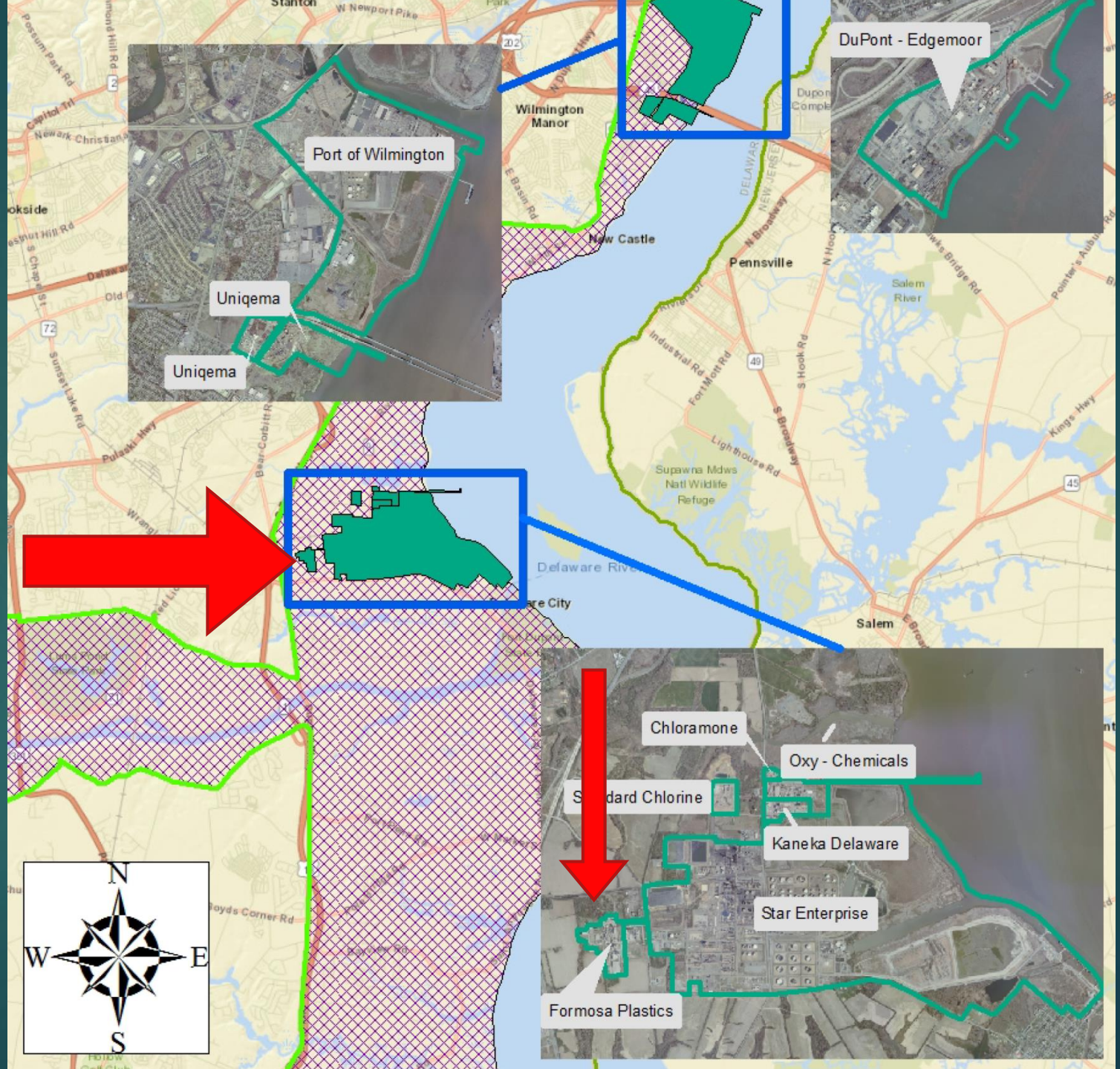
Delaware Storage and Pipeline

(1999 Site Name and Boundary)

- **Current owner:** Delaware Storage and Pipeline
- **Type of Site:** Bulk transfer of jet fuel facility
- **Operation Status:** Currently in operation

Current Site

- **Infrastructure (past):** removed 3 ASTs and closed 1 AST in 1980’s. No leaks
- **Infrastructure (current):** Pipeline
- **Site conditions:** Currently no active remediation programs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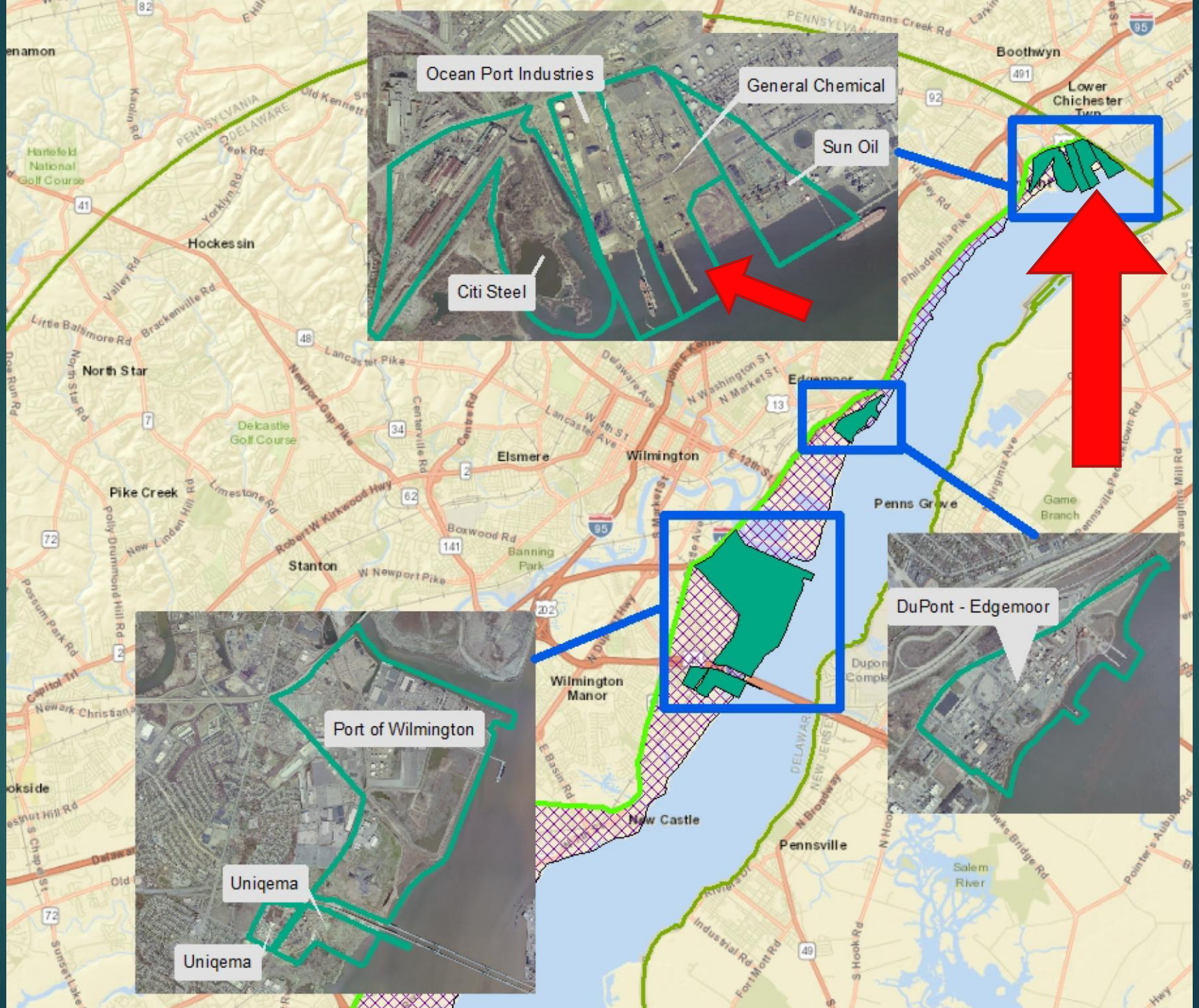
Formosa Plastics

(1999 Site Name and Boundary)

- **Current owner:** Formosa
- **Type of Site:** PVC manufacturing
- **Operation Status:** Operational PVC manufacturing facility

- **Infrastructure:** Manufacturing facility

- **Site conditions:** Part of an EPA-led NPL (Superfund) Site. Cleanup responsibility held by Formosa and past owner, Stauffer. Soil and groundwater contamination. Pump and treat system installed. Municipal water connection for area homes/businesses 2009. The cleanup extends beyond the Formosa plant boundaries.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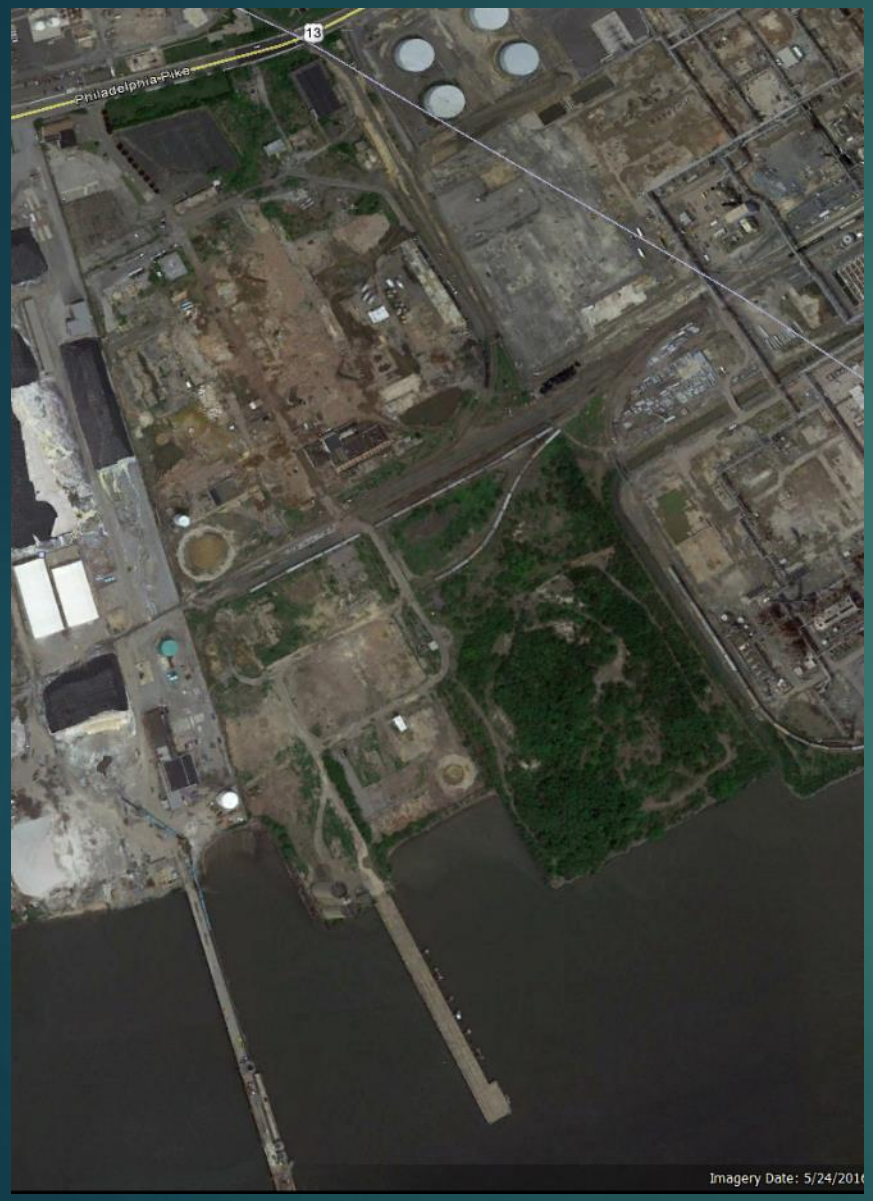


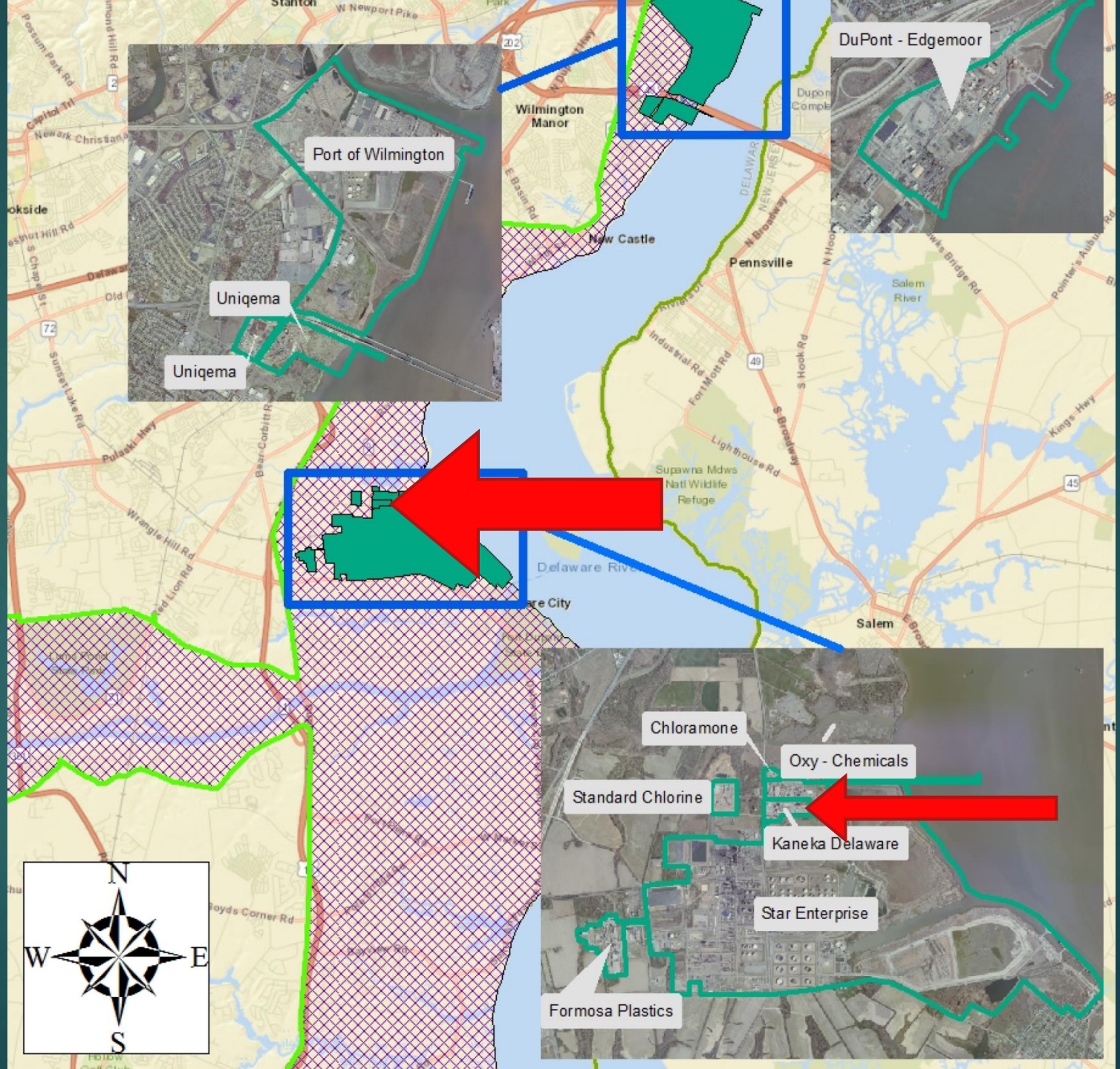
General Chemical

(1999 Site Name and Boundary)

- **Current owners:** Chemtrade and Drawbridge, LLC
- **Type of Site:** Former chemical manufacturing plant
- **Operation Status:** Vacant, portions under redevelopment

Current Site

- **Infrastructure (current or past):** Most former structures have been demolished. Portion of south parcel being prepared for redevelopment. River access and rail.
- **Site conditions:** Remedial Facility Investigation ongoing on north parcel, remedy currently being implemented on portions of south parcel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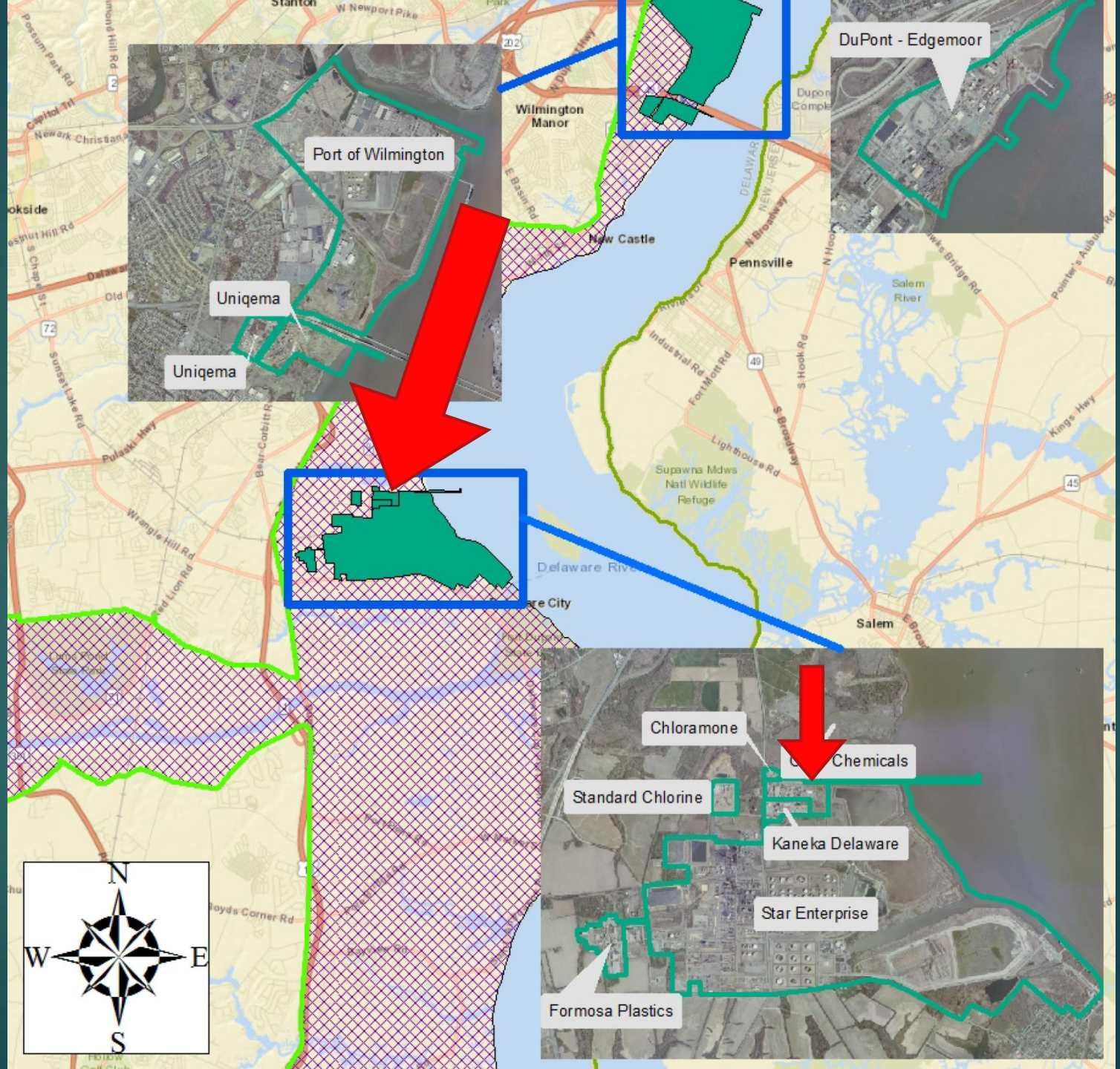
Kaneka Delaware

(1999 Site Name and Boundary)

- **Current owner:** 1715 River Road, LLC (Tri-Supply)
- **Type of Site:** Former plastics manufacturing
- **Operation Status:** Current HQ for Tri-supply. Sell and rent materials and equipment for construction.

- **Infrastructure (current or past):** The site has been an industrial site since the mid 1960s and contained office buildings, chemical storage and process areas, a wastewater treatment plant, roads, railroad tracks, and parking lots.
- **Site conditions:** Voluntary Cleanup Site - SIRS. Responsibility for groundwater cleanup is with Kaneka; ongoing O&M responsibility that includes groundwater monitoring is with EcReCon (Del City Industries).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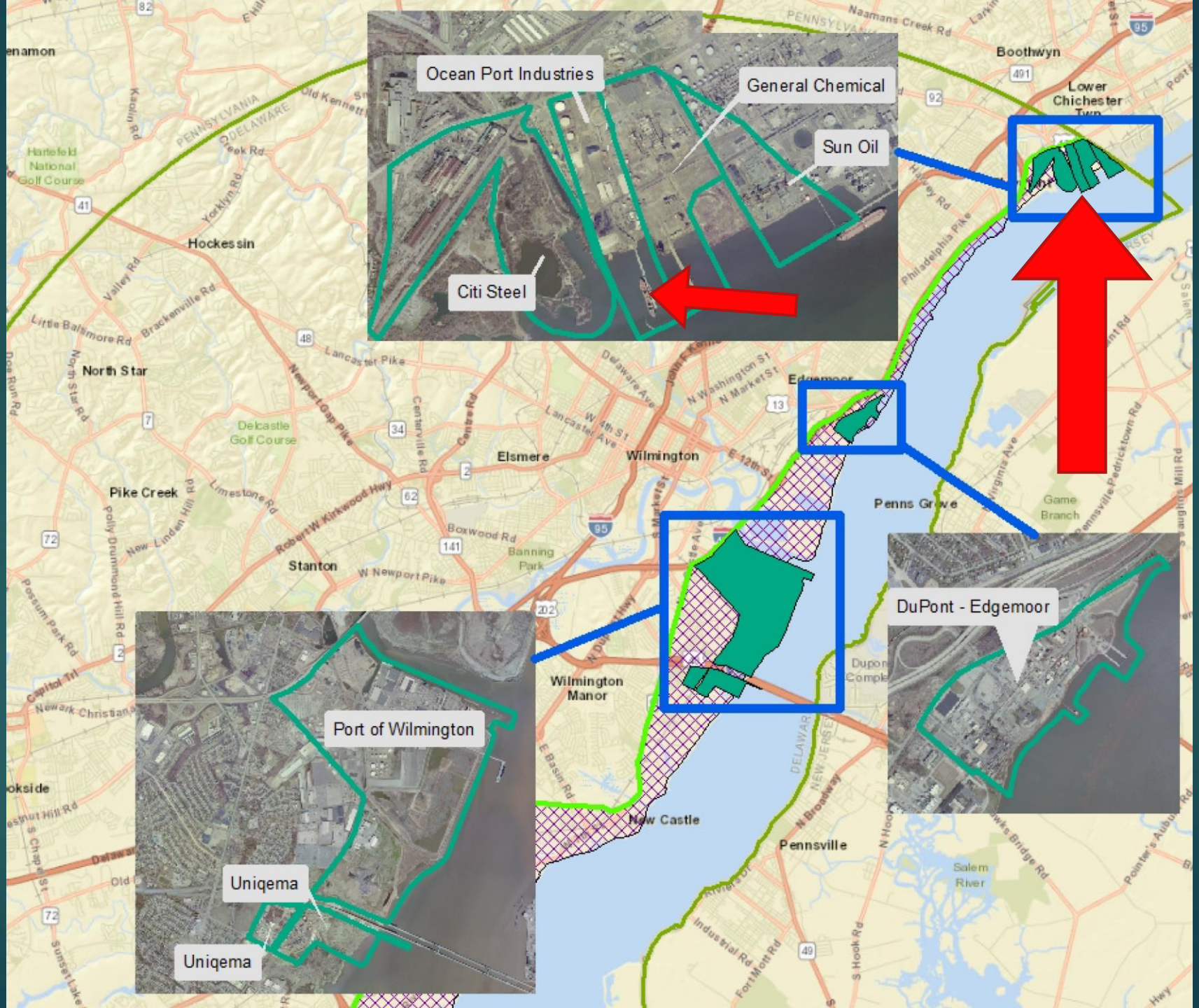
Oxy Chemicals

(1999 Site Name and Boundary)

- **Current owner:** Occidental Chemical Corporation
- **Type of Site:** Former chemical manufacturing plant
- **Operation Status:** Vacant

Previous Site

- **Infrastructure (current or past):** Generally vacant with few buildings and groundwater-treatment system structures. River access and rail.
- **Site conditions:** Investigation is complete, active remediation and monitoring being implemented on portions of the site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Ocean Port Industries

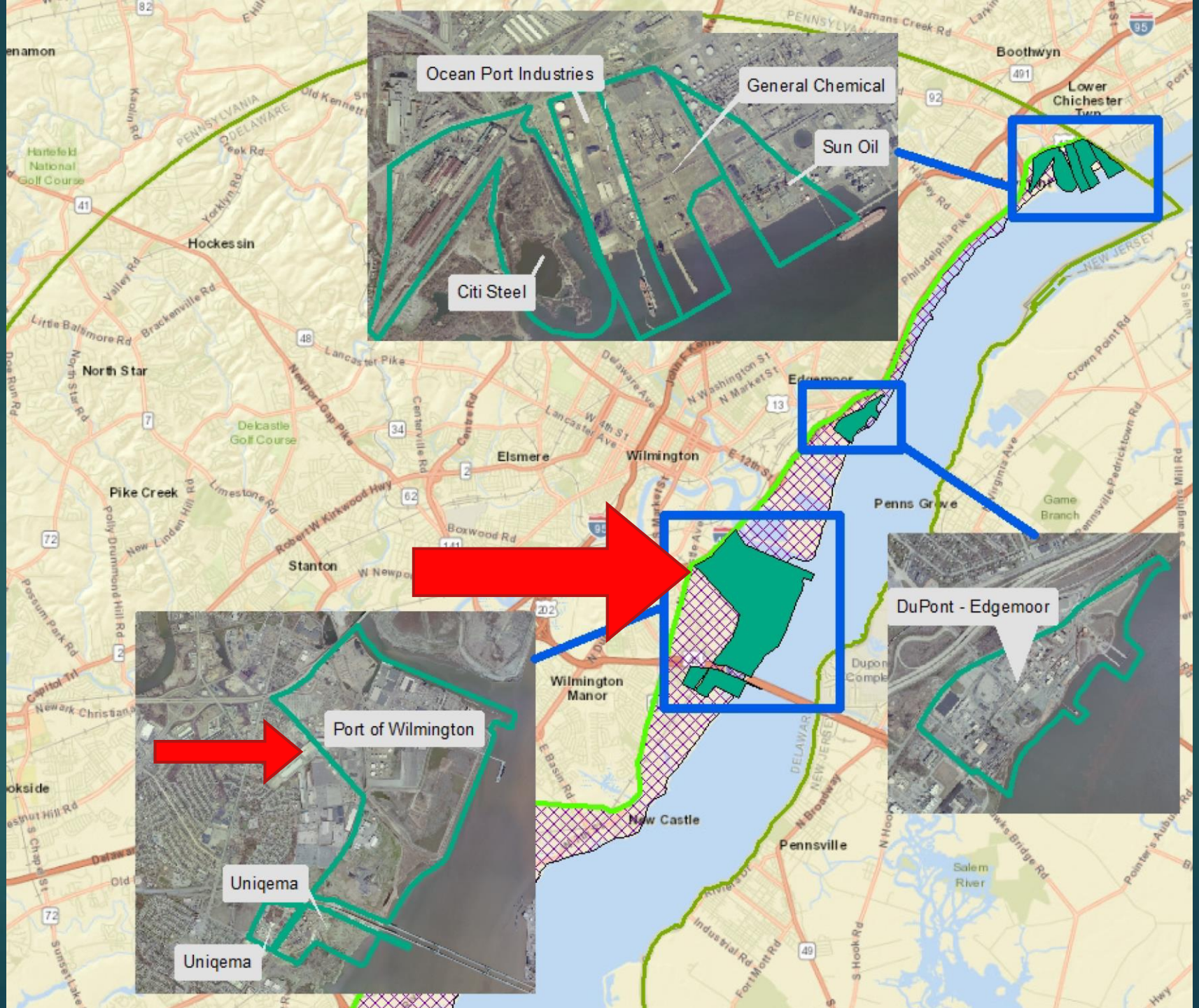
(1999 Site Name and Boundary)

- **Current owner:** Oceanport Industries
- **Type of Site:** Former Texaco bulk storage facility; currently a bulk salt storage facility
- **Operation Status:** Currently in operation

Current Site

- **Infrastructure (past):** 10 Aboveground Storage Tanks removed/closed prior to 2008, 1 Underground Storage Tank removed 2007

- **Infrastructure (current):** No ASTs/USTs on site
- **Site conditions:** Petroleum contamination in groundwater, currently monitoring to assess extent of impact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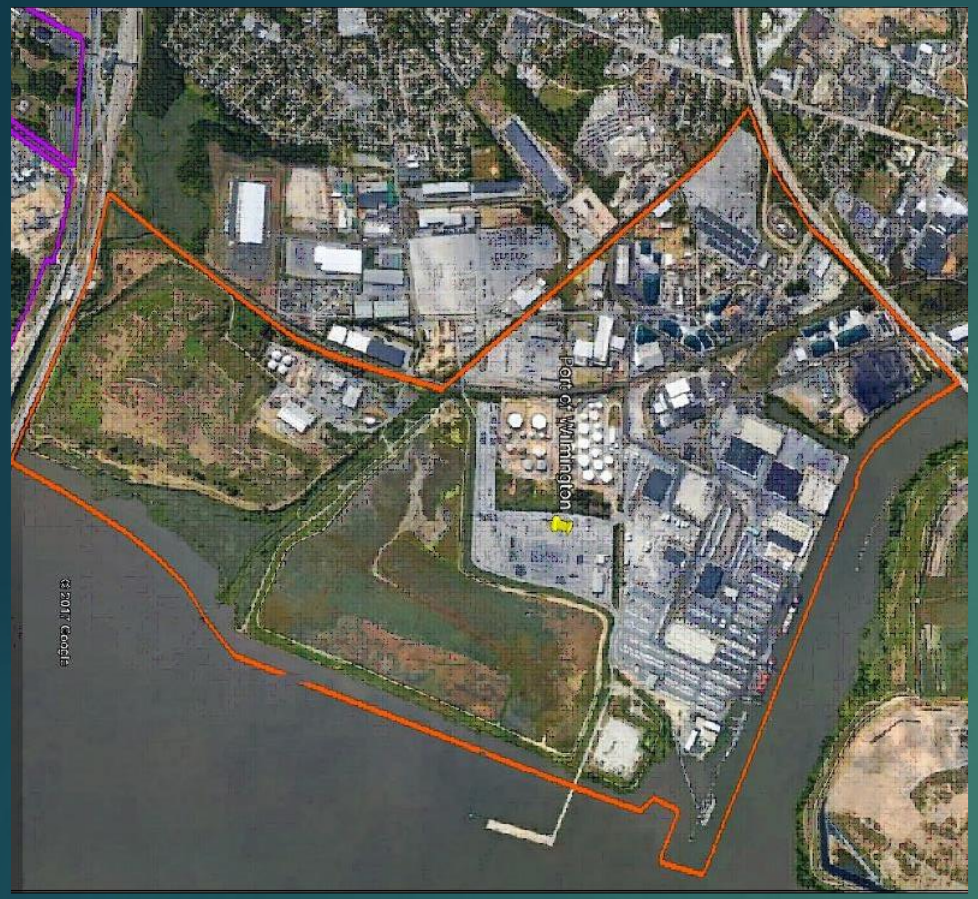
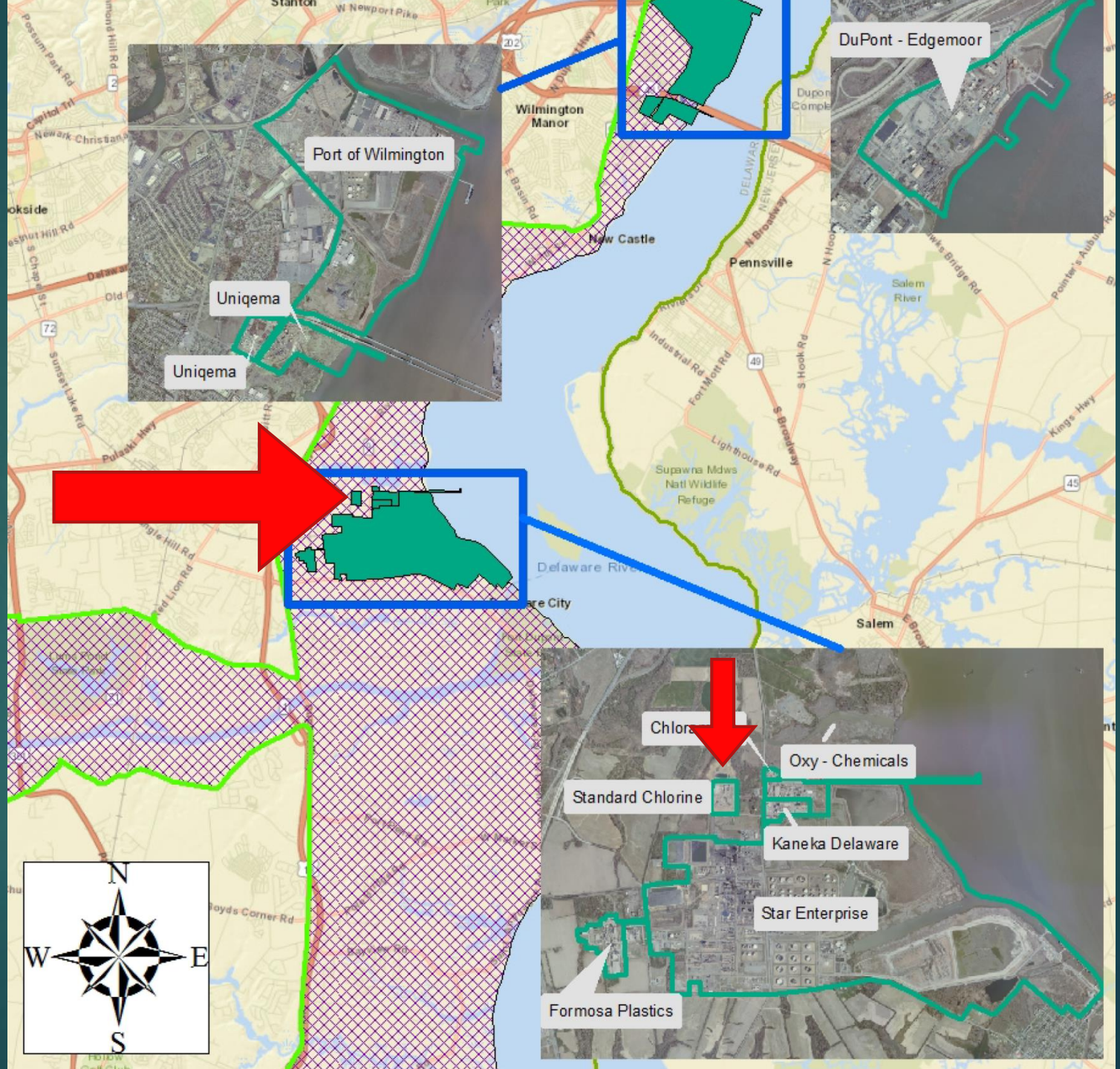


Port of Wilmington

(1999 Site Name and Boundary)

- **Current owner:** Diamond State Port Corporation
- **Type of Site:** Commercial/industrial shipping port
- **Operation Status:** Operational as a port

- **Infrastructure:** Commercial buildings
- **Site conditions:** Voluntary Cleanup Program – SIRS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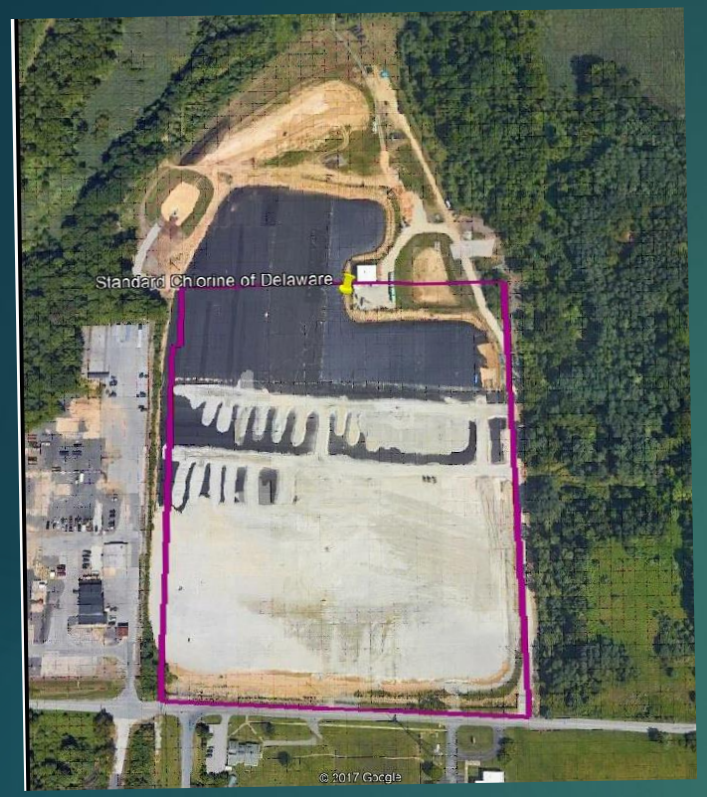


Standard Chlorine

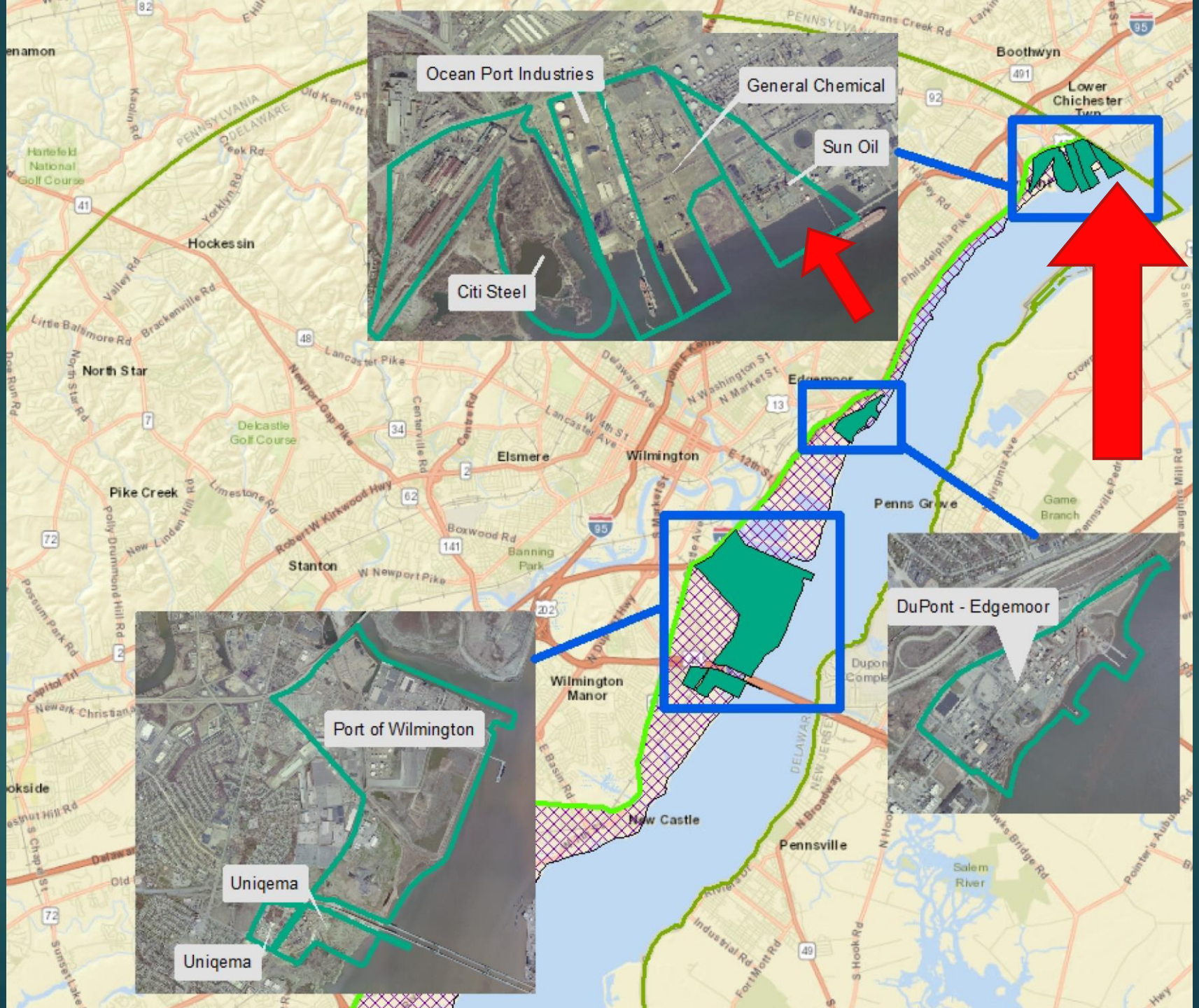
(1999 Site Name and Boundary)

- **Current owner:** Custody and control by U.S. EPA/DNREC
- **Type of Site:** Former chlorobenzene products manufacturing
- **Operation Status:** Awaiting redevelopment but not for heavy industry use

Previous Site

Current Site

- **Infrastructure:** Formerly processing equipment
- **Site conditions:** EPA Superfund site, 1995. Remedial actions are divided into operable units. Remedial actions for OU-1 and OU-3 have been completed. This includes a sub-surface slurry wall to contain and treat groundwater, and a multilayer cap that will prevent contact with the contaminated soil at the site, along with capturing and treating any soil gas that may come from the soil. Following completion of the cap, EPA and DNREC are exploring options for creating a solar photovoltaic system to power the groundwater and soil gas treatment system at the site.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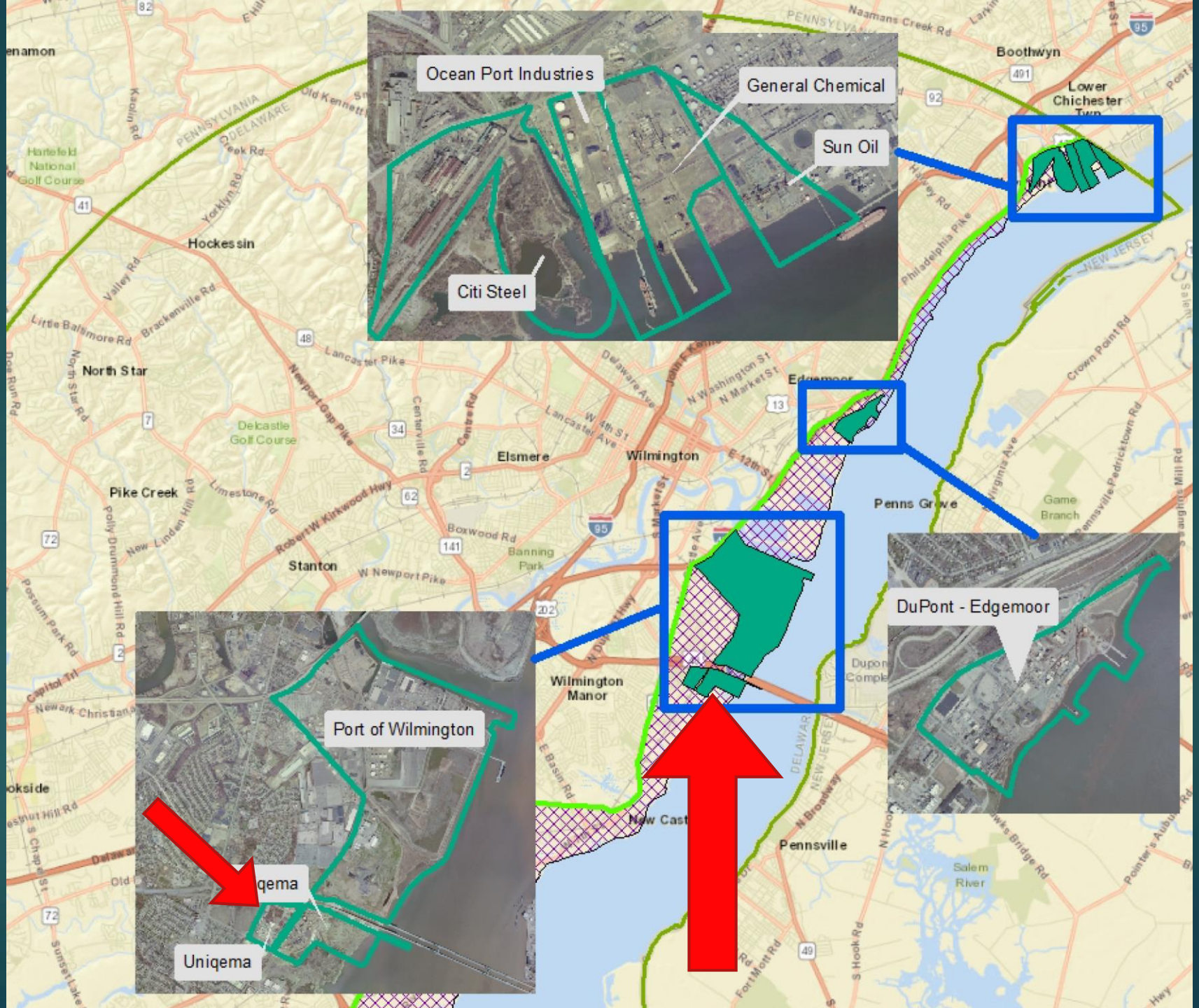
Sun Oil

(1999 Site Name and Boundary)

- **Current owner:** Sunoco Logistics
- **Type of Site:** Former petroleum refinery
- **Operation Status:** Currently used as heavy industry use, no active operations

Current Site

- **Infrastructure (past):** Former ethylene complex including tanks, flares, river access, and rail
- **Infrastructure (current):** All remaining regulated ASTs being closed in place
- **Site conditions:** Remedial Facility Investigation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Uniqema

(1999 Site Name and Boundary)

- **Current owner:** Croda and Fujifilms
- **Type of Site:** Former manufacturing plant producing chemical based products
- **Status:** Currently in operation as heavy industry use

- **Infrastructure:** Manufacturing process buildings
- **Site conditions:** Voluntary Cleanup Program – SIRS. Contaminated sediments removed in 2014-15 under EPA TSCA program. Groundwater extraction and treatment system operational for on and off site impacts.

ISSUES

Developing the RAC Scope of Work

What are key areas for recommendations?

- Definitions
- Evaluating and Balancing Economic Effect and Environmental Impact
- Requirements for Financial Assurance
- Foundations of the Offset Program
- Reporting Requirements
- Community Engagement

Evaluating Economic Effect

- What should be included in the scope of economic effect (beyond what is required in statute)?
- How are short-term and long-term effects reconciled?
- Should there be a threshold that would be considered “enough” to make the project viable?
- Should annual reporting be required?
- Who should conduct the economic effect review?

Evaluating Environmental Impact

- What should be included in the scope of environmental impact (beyond what is required in statute)?
  - *Does "environmental impact" only include permitted emissions or also include secondary and cumulative impacts?*
  - *What is the scope of information required?*
- How is environmental impact measured/calculated?
- Where is the footprint or boundary of the impact drawn?
- Should there be thresholds for impacts?

Offset Program

- How is “more than offset” defined?
- Should the offset program normalize across media, account for varying toxicity, etc.?
- What will be accepted for offsets?
- How should “directly benefit Delaware” be interpreted?
- Should offsets be able to address neighboring community concerns?
- Verification – How often and by whom?
- Should the program account for potential climate change preparations?

Financial Assurance

- For what scale of “incident” will financial assurance need to be provided?
- What types of securities will be acceptable in providing financial assurance?
- How does risk to public health and safety factor into the calculation?
- Does financial assurance from one program count for CZA or should it stand on its own?

Bulk Products

- What documentation is necessary to determine whether bulk products are “necessary for and fully utilized in” the Coastal Zone? (imports)
- What documentation is necessary to determine whether bulk products are “produced by one or more facilities within” the Coastal Zone? (exports)
- What is the process for DNREC to verify this information?
- What should be routine reporting regarding shipments and use of bulk products?

Sea-Level Rise & Coastal Storm Plan

What defines an acceptable plan?

Application Process

- Should the application process mimic the process for existing (i.e., standard) CZA permits?
- What requirements should there be regarding meetings with community members?

Overarching Issues

- What is the appropriate baseline to use?
- Defining “previous use” and “most recent heavy industry use”
- How should economic effect and environmental impact be balanced or weighed?
- Can environmental and economic conditions be described by a common denominator, such as dollars?

Work Groups

Role of Work Groups

- Provide the RAC with technically sound options
  - Regulatory approach
  - Language, where appropriate

Timeframe

- Start: August
- End: December

Consultant-Supported Technical Work Groups

- Economic Effect
- Environmental Impact
- Financial Assurance
- Offsets

Role of Consultants

- Research
- Technical Expertise and Guidance
  - Methodologies
- Prepare Work Group Outputs
- Provide Technical Expertise to the RAC

Role of Work Group Members

- Bring expertise and knowledge to the table
- Guide and engage with the technical consultant
- Explore the issues and complexities of the topic
- Prepare a reasonable # of options
  - Pros & Cons
- Report to and keep the RAC informed

Work Group Members

- Technical or Professional Expertise
- Based on the Issues
- Diversity of Experience, Interests and Sectors
- Gaps

Discussion

- Assigning Issues to the Work Groups

Community Engagement

Concept Plan for RAC Review

Ian Yue
Delaware DNREC

CZCPA RAC Meeting #2
July 12, 2018

Recap: *RAC Community Engagement Goals*

- To help communities near the 14 sites become aware of the development of the Conversion Permit program;
- To engage communities by learning of their interests and concerns regarding potential development at these sites; and
- To gather input from these communities to inform both the RAC and DNREC in the regulatory development process

Recap: *RAC Ideas for Community and Public Engagement*

- Face to face interactions
- Utilizing existing communication networks within the RAC
- Creating a short document explaining the importance of this effort, tailored to different stakeholders for outreach and communication
- Reaching out for assistance to specific organizations already invested in communities
- Considering various format(s) for engaging and informing the public
- Considering various format(s) for gathering input
- Researching demographics of the Coastal Zone and associated communities to better tailor communication strategies
- Partnering with organizations and community members to help with communication and engagement efforts

How can we best meet the goals?

1. Create resources outlining RAC goals, roadmap, and milestones

2. Compile a list of community organizations with whom the RAC / DNREC should engage

3. Pursue two rounds of community engagement (*which would complement the topics and timeline of Public Workshops*)

Action #1: *Resources Outlining Goals, Roadmap, Milestones*

- Handout/brochure outlining the RAC process
  - *What is the purpose of this process?*
  - *When can I anticipate engaging in the process?*
  - *When are the decisions/recommendations expected to be put forth?*
- Potential Supplemental Video
  - Determining feasibility and resource availability

Action #2: *List of Community Organizations*

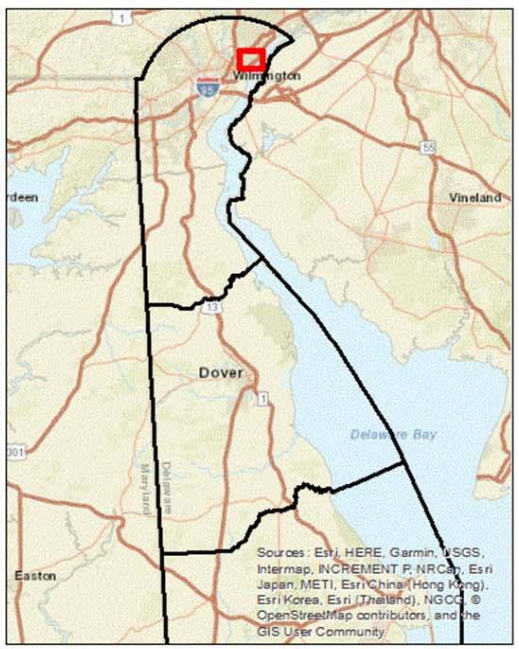
- Focus: Directly-impacted fenceline communities

Delaware Communities Near Heavy Industry Use Sites

Legend

- Delaware Communities
- Heavy Industry Sites

The communities included in this visual representation reside in Delaware and are within a mile radius of the 14 approved heavy industry use sites.



Action #2: *List of Community Organizations*

- Focus: Directly-impacted fenceline communities
- Compile community lists from existing sources
  - DNREC Divisions and other state agencies
  - City/county outreach lists
- RAC member identification of community groups
- Community information submission form on DNREC's website

Action #3: *Community Engagement*

- Round #1: Attend existing community organization meetings to outline RAC process and understand community concerns
  - How do you (or your community) view/feel about [*neighboring heavy industry use site(s)*]?
  - How would you (or your community) feel if this site was re-developed for heavy industrial use?
  - What overarching concerns do you (or your community) have about your living environment, both natural and physical?

Action #3: *Community Engagement*

- Round #2: Attend existing community organization meetings to gather feedback on RAC recommendations and draft regulations
  - Recap/acknowledge feedback from prior meetings
  - Look at practical examples/scenarios that take into account recommendations from the RAC
  - Look into environmental issues affecting the community that may be considered for offsets

Rough Timeline

- *July – August 2018*
  - Produce Goals/Roadmap/Milestones document
  - Collect community group information and initiate contact with groups
  - Start compiling information for video(?)
- *September – December 2018*
  - Round #1 of outreach to communities (via groups' existing meetings)
  - Round #1 of Public Workshops
  - Produce video(?)
- *January – March 2019*
  - Round #2 of outreach to communities (via groups' existing meetings)
  - Round #2 of Public Workshops

Next Steps?

- Diverse RAC representation means we should utilize RAC members' existing networks/connections to reach a broad base of communities
- Given a compressed RAC timeline and limited outreach capacity amongst DNREC and RAC members, efforts should be prioritized
- DNREC is asking RAC members to provide input on groups we should be engaging

RAC Feedback

- Thoughts on this Community Engagement Concept Plan?

- **RAC Input on Groups to Engage:**

Thinking specifically about fenceline communities directly impacted by one of the 14 sites, what organizations/groups should we engage *that you could provide an introduction to*?