

Potential OSDC At Portsmouth Status Update



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Waste Disposal Options Being Evaluated



- Waste generated before final disposal decision will be shipped off-site.
- Even if on-site is selected as a disposal option, some wastes will always be shipped off-site.

Progress To Date



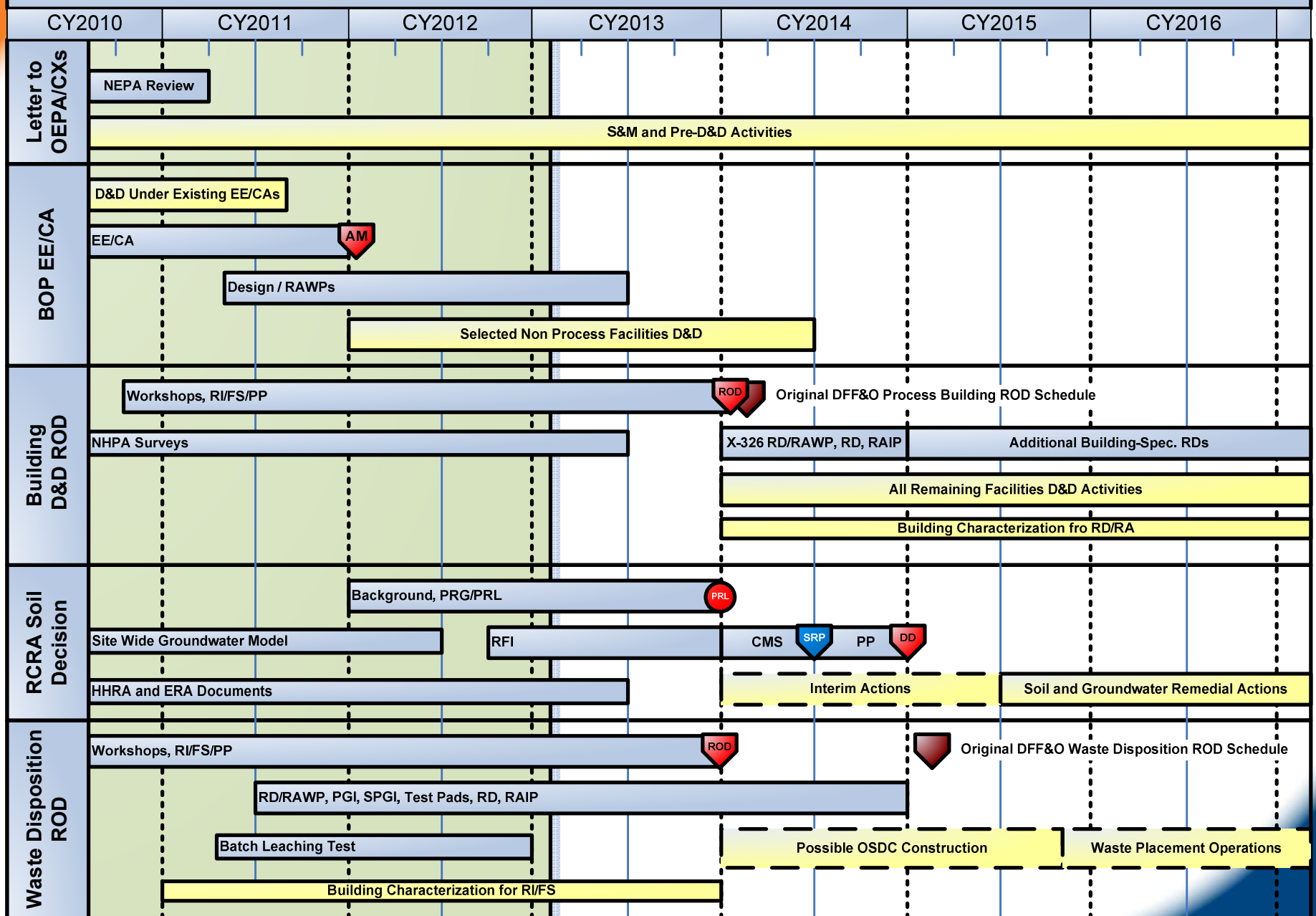
Public Interactions:

- Three SSAB recommendations regarding the on-site disposal option
- Resolutions passed by all four surrounding counties conditionally support the on-site disposal option
- Two fence line neighbors meetings held in Jan. and Jul. 2012
- Four public meetings held in Sep. 2011, Jan. 2012, May 2012, and Oct. 2012
- Seven public tours of the site provided with additional tours planned in 2013
- On-going bi-weekly technical meetings with Ohio EPA

Technical Tasks Conducted To Support Waste Disposition RI/FS:

- Preliminary geotechnical investigations at four sites
- Supplemental geotechnical investigation at one site
- Selected representative site with the best geological conditions
- Completed site wide groundwater model, PGE debris batch leaching test, background soil study, human health risk assessment and risk evaluation methodology document, and ecological risk assessment methodology document
- **Submitted the OSDC Preliminary Design Package to Ohio EPA in Sep. 2012 as an appendix of the RI/FS**

Regulatory Decisions and Document Strategy – Integrated Target Schedule (2/12/13)



Interplay Between the Process Building and Waste Disposition RI/FSs



Process Building:

- Evaluates D&D of Buildings and Structures.
- Prepares D&D wastes for disposal.
- Segmentation of X-330 and X-333 converters for Nickel Removal.
- Segregation of individual wastes streams for recycle/reuse.

Waste Disposition:

- Evaluates on-site vs. off-site disposal options.
- Establishes numerical WAC for the potential on-site disposal facility.
- Transportation of D&D waste to identified disposal location.
- Manages Nickel and other metals for recycle/reuse.
- Evaluates Centralized Treatment for recycle/reuse.
- Disposition of materials for recycle/reuse.

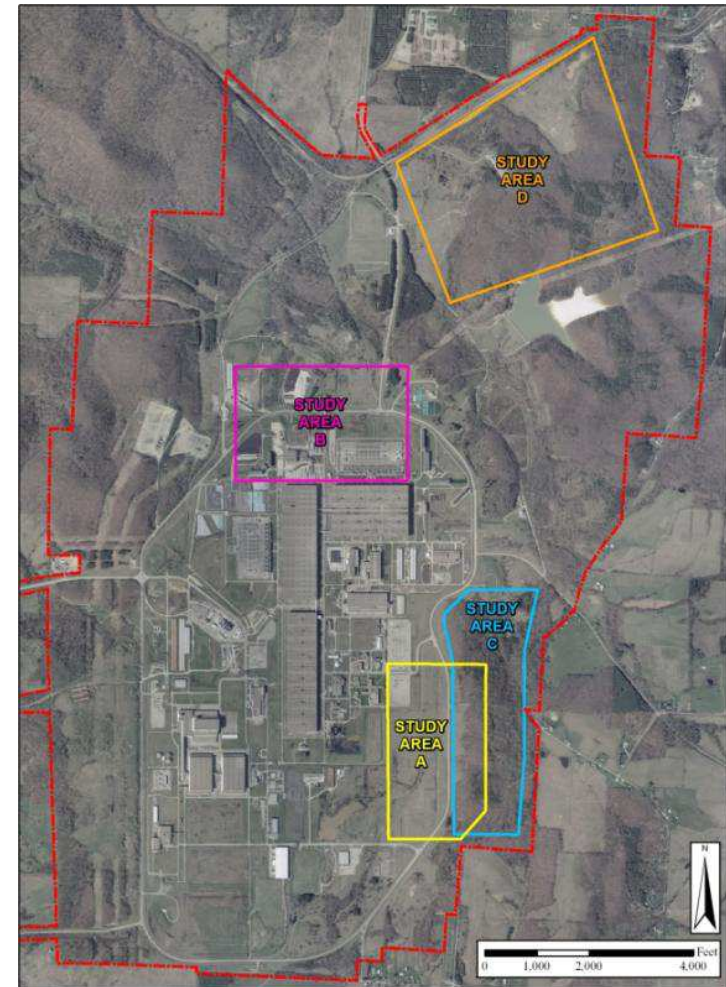
Identified Potential Site for OSDC



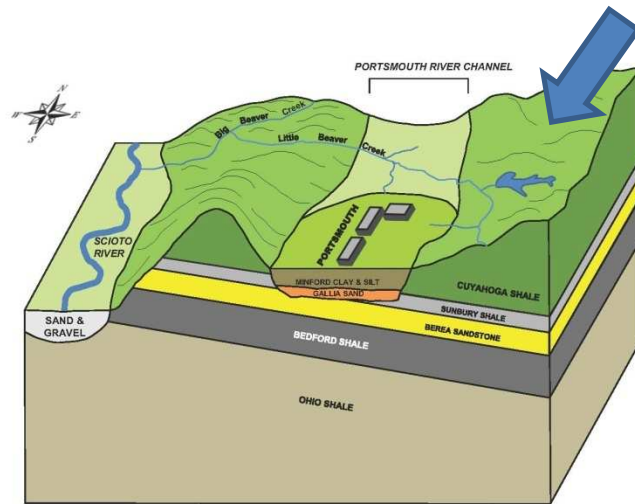
Evaluation	A	B	C	D
Meets all siting requirements	No	No	No	Yes
Over ideal geology for 5 M cy capacity*	No	No	Partial	Yes
In contaminated area	No	Yes	No	No

- Site D represents Sites C & D in FS, Sites A & B no longer considered.

**5 million cy allows for additional remediation waste addressed as a sensitivity analysis to the site-wide case volume*



Representative Option

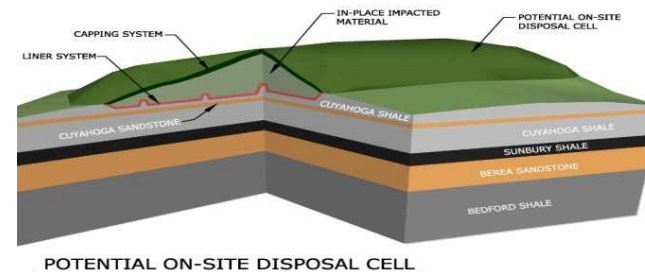


NOT TO SCALE



NER SYSTEM

CAPPING SYSTEM



POTENTIAL ON-SITE DISPOSAL CELL

Location Factors

- **Best available geology**
- Compliance with the regulations
- Compatible with future site uses
- Cost
- Logistics



SSAB Members Visited Test Pit #1 in Feb, 2012

Size/Volume Factors

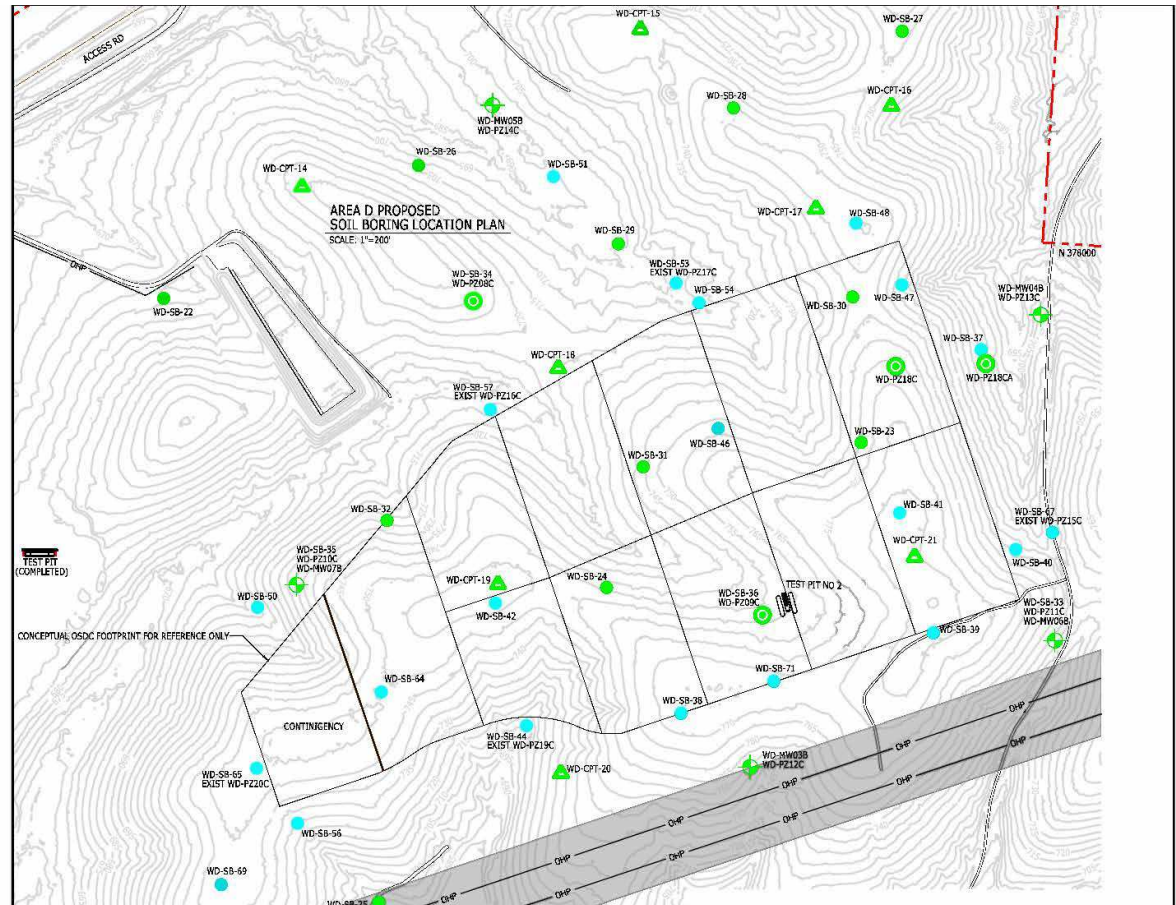
- **Volume of non-recyclable contaminated debris**
- **Amount of soil to mix with debris for structural stability**
- Desire to consolidate existing landfills
- Waste Acceptance Criteria
- Desired height

Field Investigations

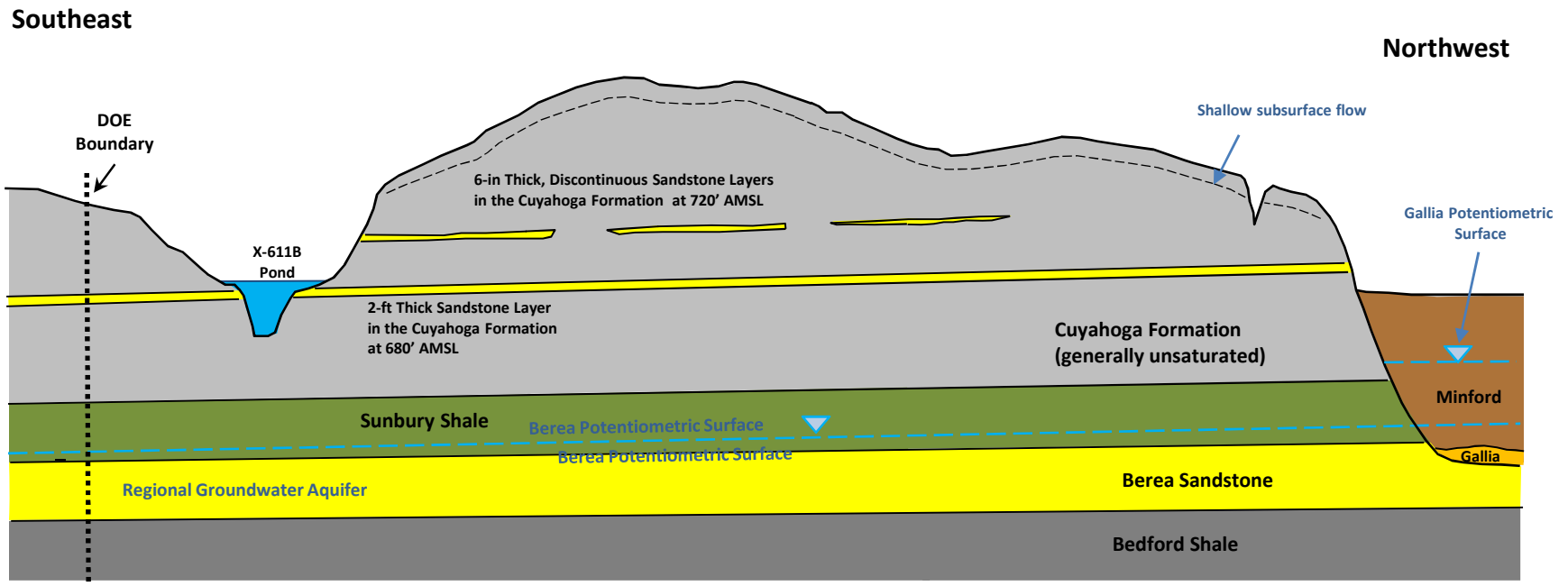
Conducted to Date in Study Area D



- 8 CPTs
- 50 Borings
- 14 Piezometers
- 5 Wells
- 14 Pump Tests
- 2 Test Trenches
- 272 Samples



OSDC Conceptual Site Model – Pre Construction



Not to Scale

OSDC Conceptual Site Model – Post Construction



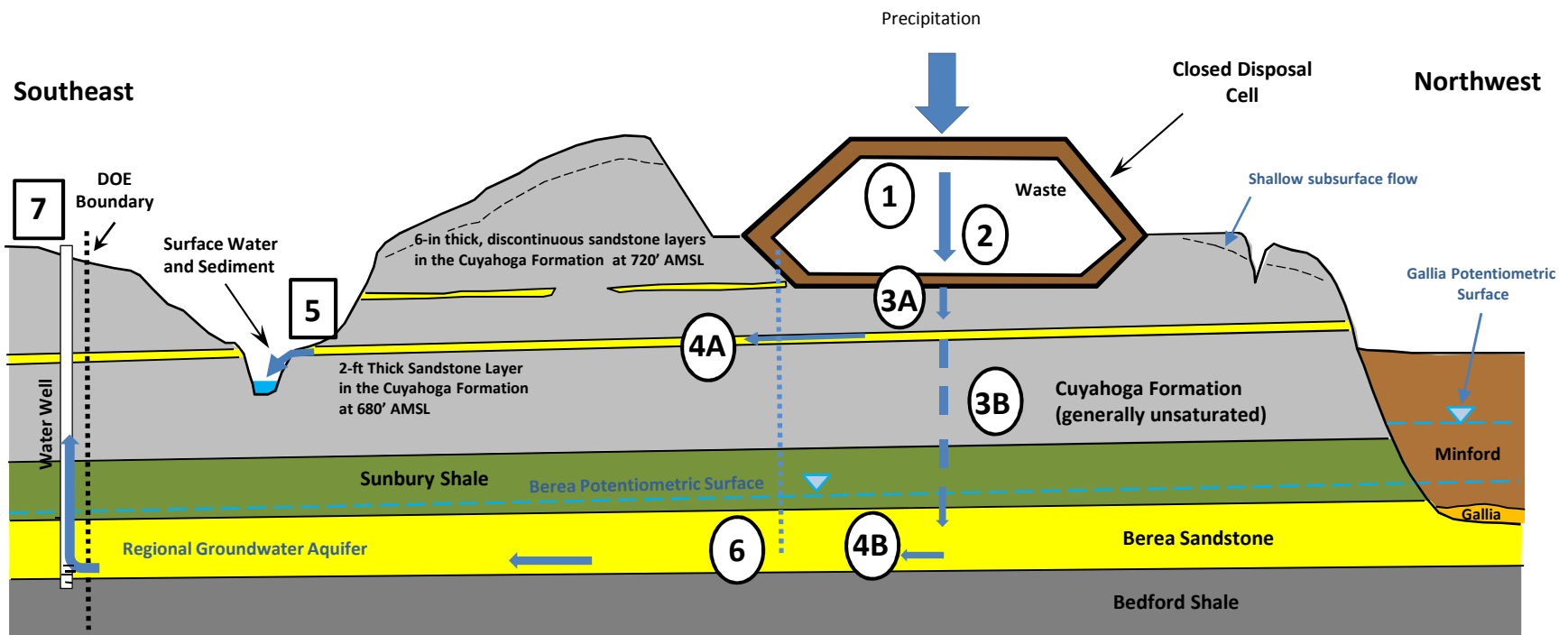
5 and 7. Point of Assessment (POA) Evaluation

5. On-site sandstone outcrop (POA-1)

7. Offsite residential well (POA-2)

1. Source estimate

2. Infiltration/leaching rate through waste



Not to Scale

3A. Vertical migration through liner to potential lateral pathway in Cuyahoga shale

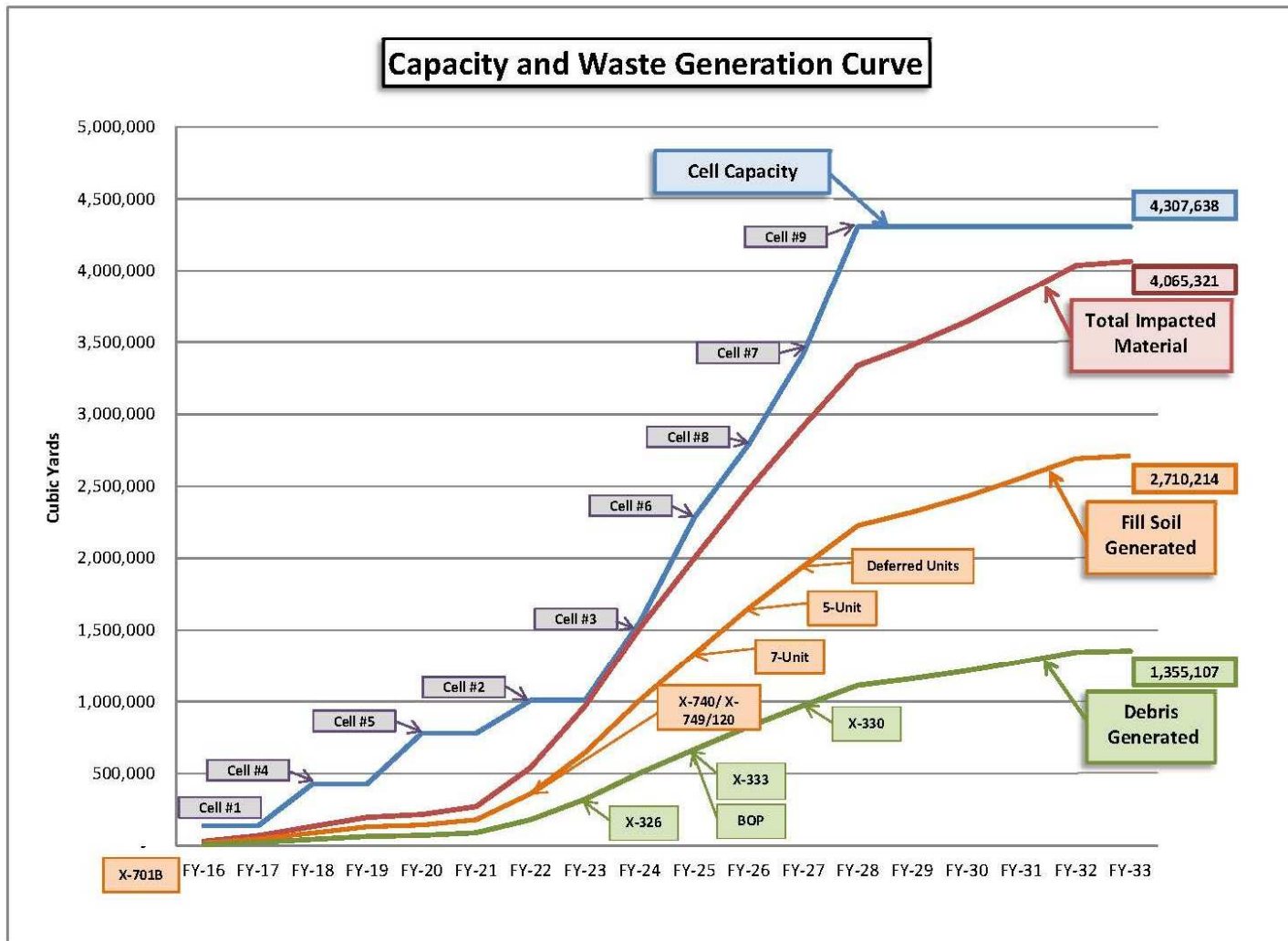
3B. Potential vertical migration through shale to lower confined saturated zone in Cuyahoga shale

4A. Lateral migration in potential lateral pathway in sandstone layer

4B. Lateral migration in the regional groundwater aquifer (Berea Sandstone)

6. Point of Compliance (POC) Evaluation in regional groundwater aquifer (Berea Sandstone)

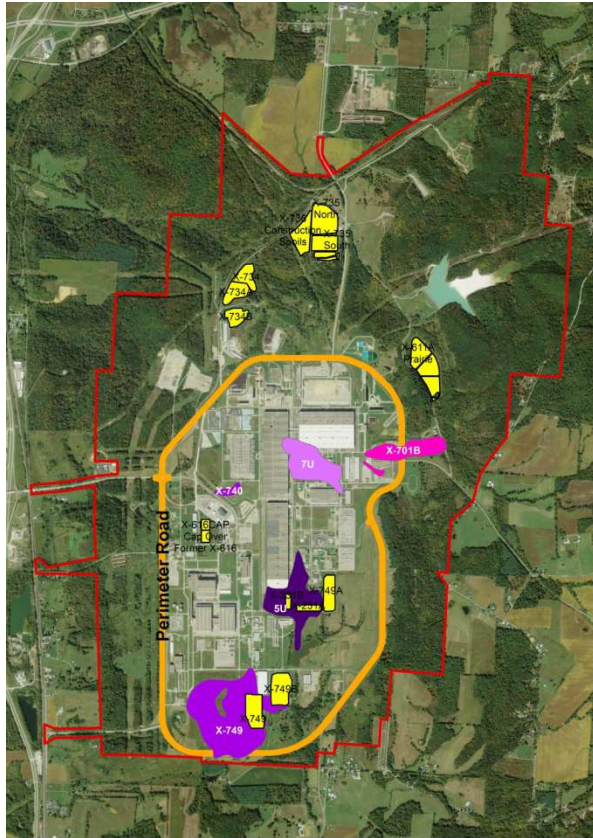
Cells Construction And Waste Placement Schedule



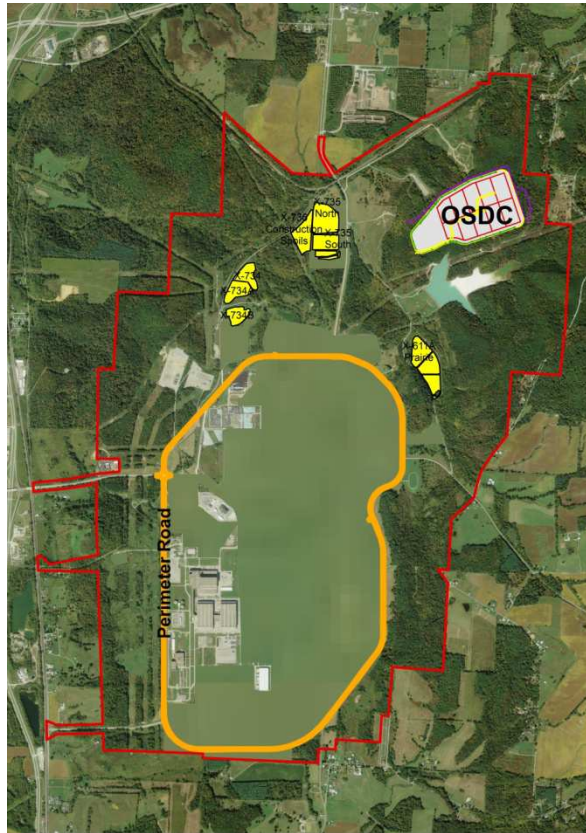
Potential Future Portsmouth



Today



Post Remediation



Future Industrial Park

