

Kewaunee Power Station - Decommissioning Project

The Council of State Governments (CSG)

Midwestern Radioactive Materials Transportation Committee (MRMTC)

October 8, 2024

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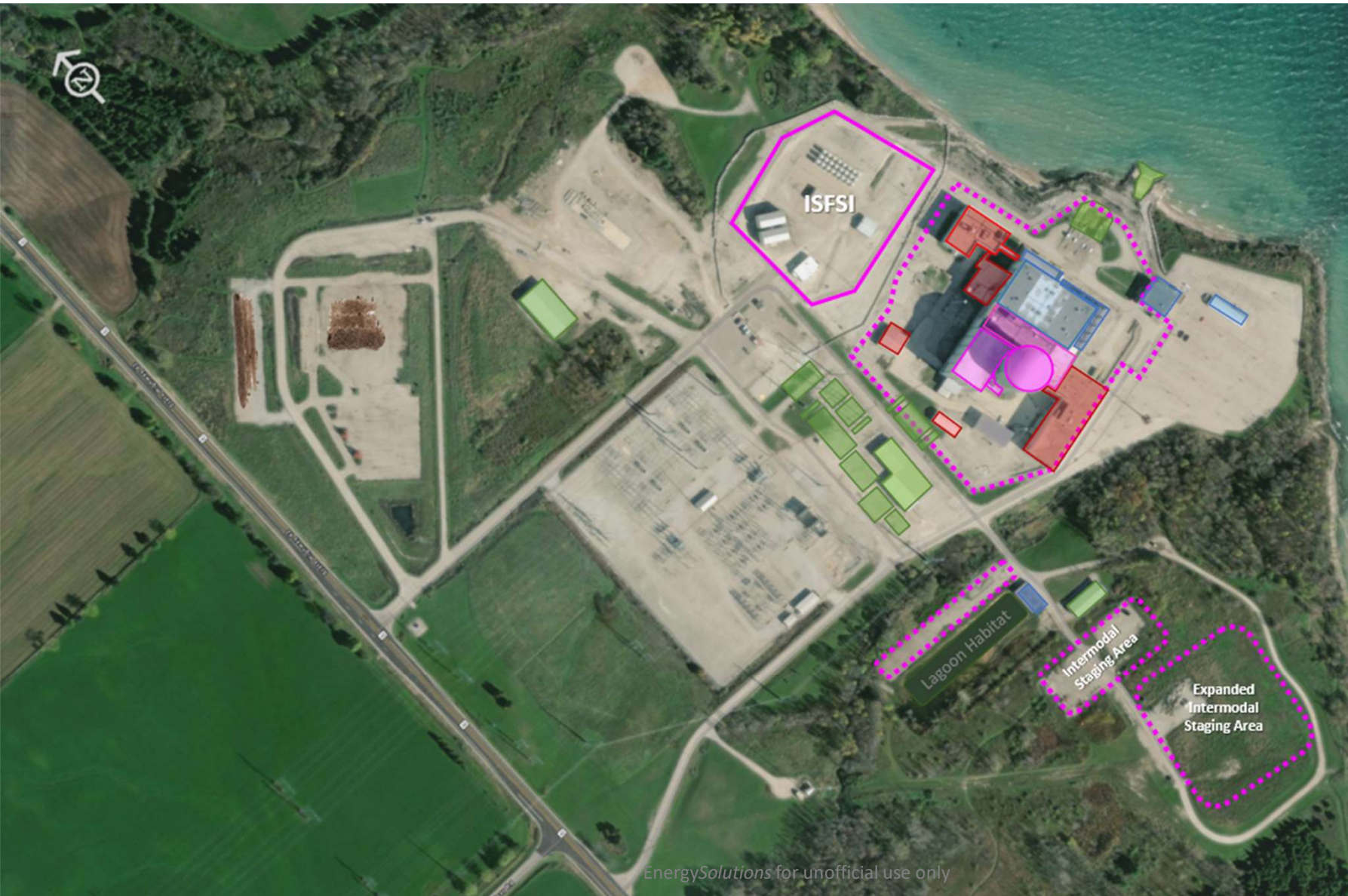
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Kewaunee Power Station Background

- Located in the Town of Carlton, WI (Kewaunee County)
- 2-Loop Westinghouse PWR (590 Mwe/1650 MWTH)
- Commercial Operation - 1974
- Dominion Purchase - 2005
 - Power Purchase Agreement, Dec. 2013 Expiration
- ISFSI Constructed - 2008
- Shutdown Announced – Oct. 22, 2012
- Permanent Shutdown – May 7, 2013
- Permanent Fuel Offload – May 14, 2013
- Completed ISFSI Campaign – June 15, 2017
- KPS Purchase by EnergySolutions Complete June 28, 2022
- KPS Transitioned from SAFSTOR to DECON (NRC Terminology) – April 1, 2023





Phase 1 (Start May '23)

- Annex Warehouse
- Vehicle Maintenance Garage
- Decon/Fab Building
- Technical Support Center
- Admin/Training Facility

Phase 2

- Turbine Building
- Transformer Bays
- Administration Building
- Gatehouse
- 9-Stall Garage
- Sewage Treatment Plant

Phase 3 (All Rad)

Phase 3a

- Auxiliary Building
- Fuel Handling Building

Phase 3b

- Containment Building
- IMC Storage/Staging Areas
- Waste Handling Facility
- Containment Waste Structure
- Concrete (including slabs), Asphalt Surface Soils Inside Industrial Area
- Underground SSCs

Phase 4 (All Clean)

- Intake/Discharge Structures
- Warehouse 1
- Site Services Building
- Woodshed
- Office Trailer Complex
- Concrete (including slabs), Asphalt Surface Soils and Misc. Stuff Outside Industrial
- Underground SSCs
- Remediation
- Fill to Level Grade

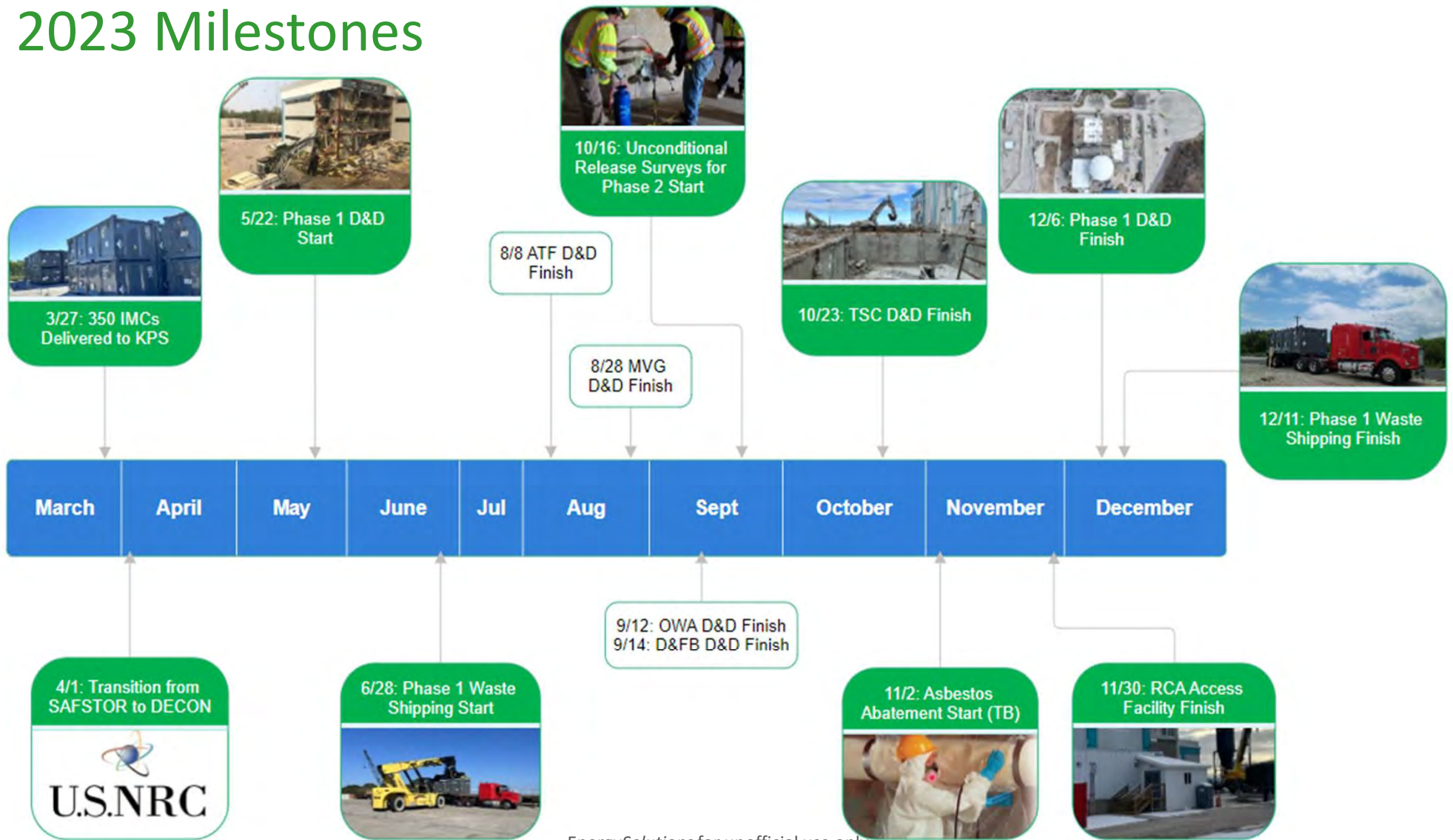
ISFSI

Lagoon Habitat

Intermodal Staging Area

Expanded Intermodal Staging Area

2023 Milestones



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Phase 1 D&D



August 24, 2021



December 7, 2023

Phase 1 D&D

- **Administration & Training Bldg.**

May 22 - June 27, 2023

- **Office Warehouse Annex**

July 11 - September 12, 2023

- **Vehicle Maintenance Garage**

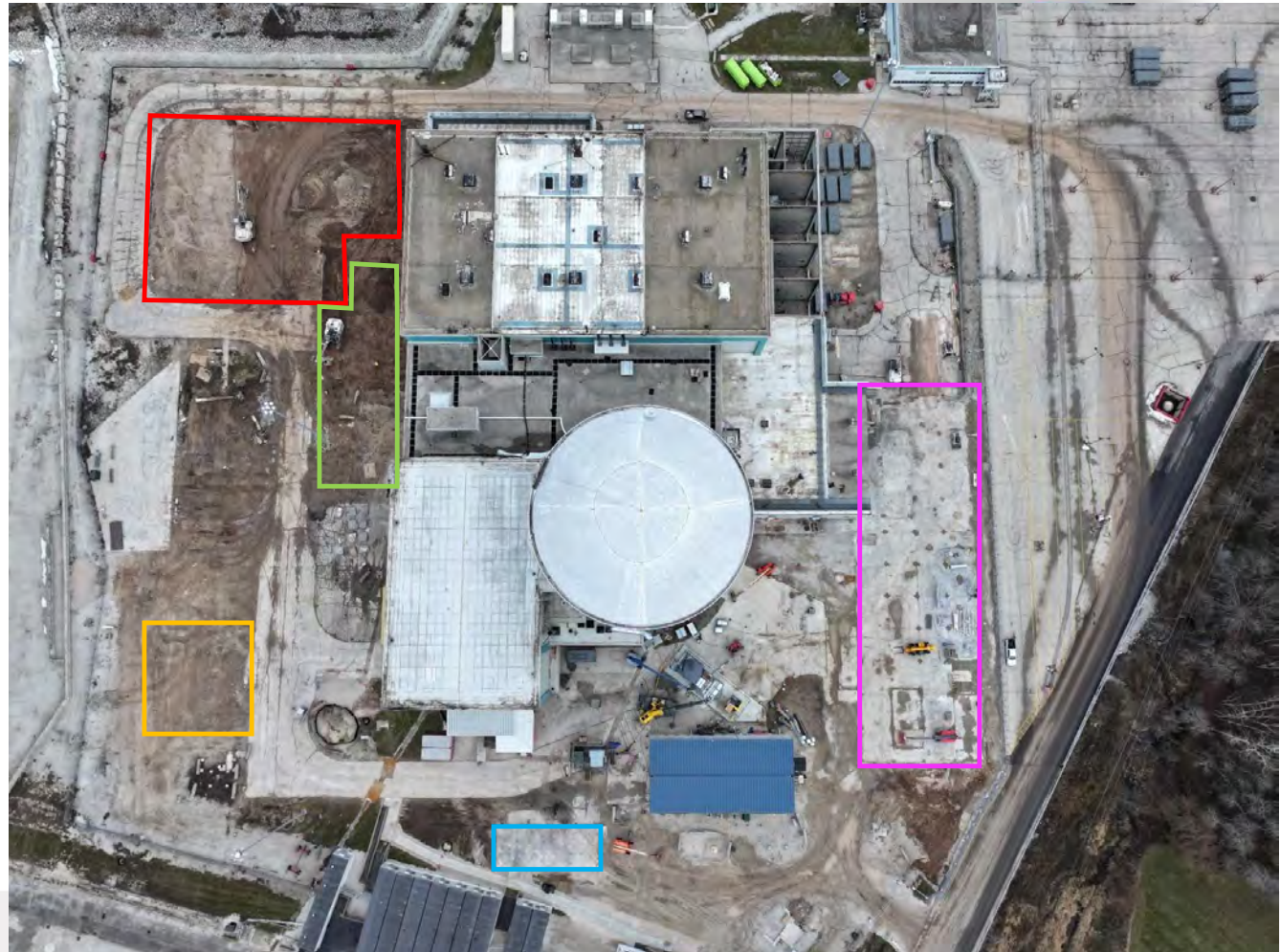
August 24 - 28, 2023

- **Decon Building**

September 13 - 14, 2023

- **Technical Support Center**

September 26 - October 23, 2023



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Administration & Training Facility



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Office Warehouse Annex



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Debris Pile



Segregation



Loading

Phase 1 Waste Path



EnergySolutions' Clive LLRW Disposal Facility



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Waste Stream Metrics

- 2023 Shipment Information
 - 607 Intermodal Containers Shipped
 - 20,146,905 Pounds Net Waste Weight
- Shipment Methods and Routing
 - Transloaded (Road / Rail - KPS to Oshkosh, WI to Clive, UT)
- Types of Waste (by Classification) being shipped
 - Low Level Radioactive Waste, Class A Waste



Waste Stream Metrics

- 2024 Shipment Information to Date

Year to Date:

- 908 Intermodal Containers Shipped
- 7 large Components
- 31,694,530 Pounds Net Waste Weight

- Additional Planned Shipments in 2024

- 208 Additional Intermodal Containers
- 5 Additional Large Components

- Shipment Methods and Routing

- Transloaded (Road / Rail - KPS to Oshkosh, WI to Clive, UT)
- Road (KPS to Clive, UT)

- Types of Waste (by Classification) being shipped

- Low Level Radioactive Waste, Class A Waste



Large Components

Direct Ship by Truck

5/2/24 – Shipment of the First Reactor Coolant Pump (RCP) Motor,

5/9/24 – Shipment of the Second RCP Motor,

5/16/24 – Shipment of the Third RCP Motor

6/26/24 – Shipment of the Pressurizer

9/16/24 – Shipment of the Steam Generator (SG) Upper Assembly Segments (6 weeks)

Truck to Rail Shipments

10/14 & 17/24 – Shipment of the SG Lower Assemblies to Oshkosh, Depart Oshkosh 10/23/24

Large Components (Cont'd)



Proposed Transportation Route for SGLA:



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Phase 2 D&D Planning

- Asbestos Abatement/Hazardous Waste Removal
- Demolition Sequence
 1. Turbine Building
 2. Administration Building
 3. Transformer Bays
 4. Gatehouse
 5. 9-Stall Garage
 6. Sewage Treatment Plant



PHASE 2 D&D

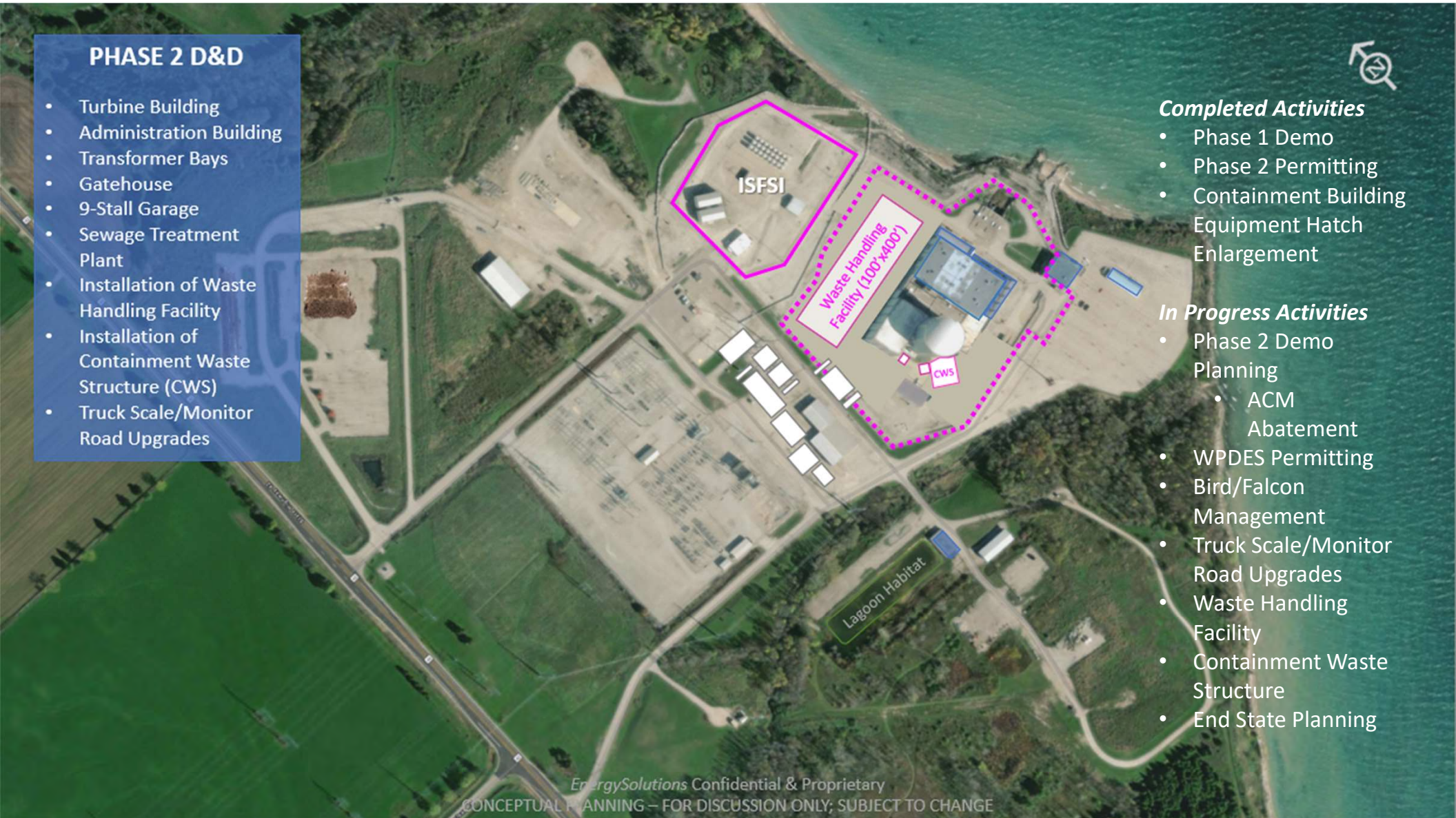
- Turbine Building
- Administration Building
- Transformer Bays
- Gatehouse
- 9-Stall Garage
- Sewage Treatment Plant
- Installation of Waste Handling Facility
- Installation of Containment Waste Structure (CWS)
- Truck Scale/Monitor Road Upgrades

Completed Activities

- Phase 1 Demo
- Phase 2 Permitting
- Containment Building
- Equipment Hatch Enlargement

In Progress Activities

- Phase 2 Demo Planning
 - ACM Abatement
- WPDES Permitting
- Bird/Falcon Management
- Truck Scale/Monitor Road Upgrades
- Waste Handling Facility
- Containment Waste Structure
- End State Planning

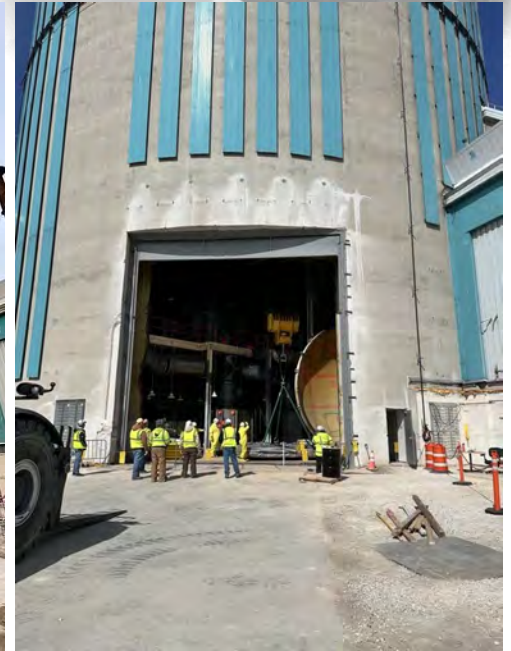


Phases 2 and 3 D&D Prep

- Interferences Removal
- Asbestos Abatement
- Large Components Interference Removal in Containment
 - Reactor Coolant Pump Motors
 - Pressurizer
 - Steam Generator Upper Assemblies
 - Steam Generators Lower Assemblies
- Waste Handling Facility
- Containment Waste Structure

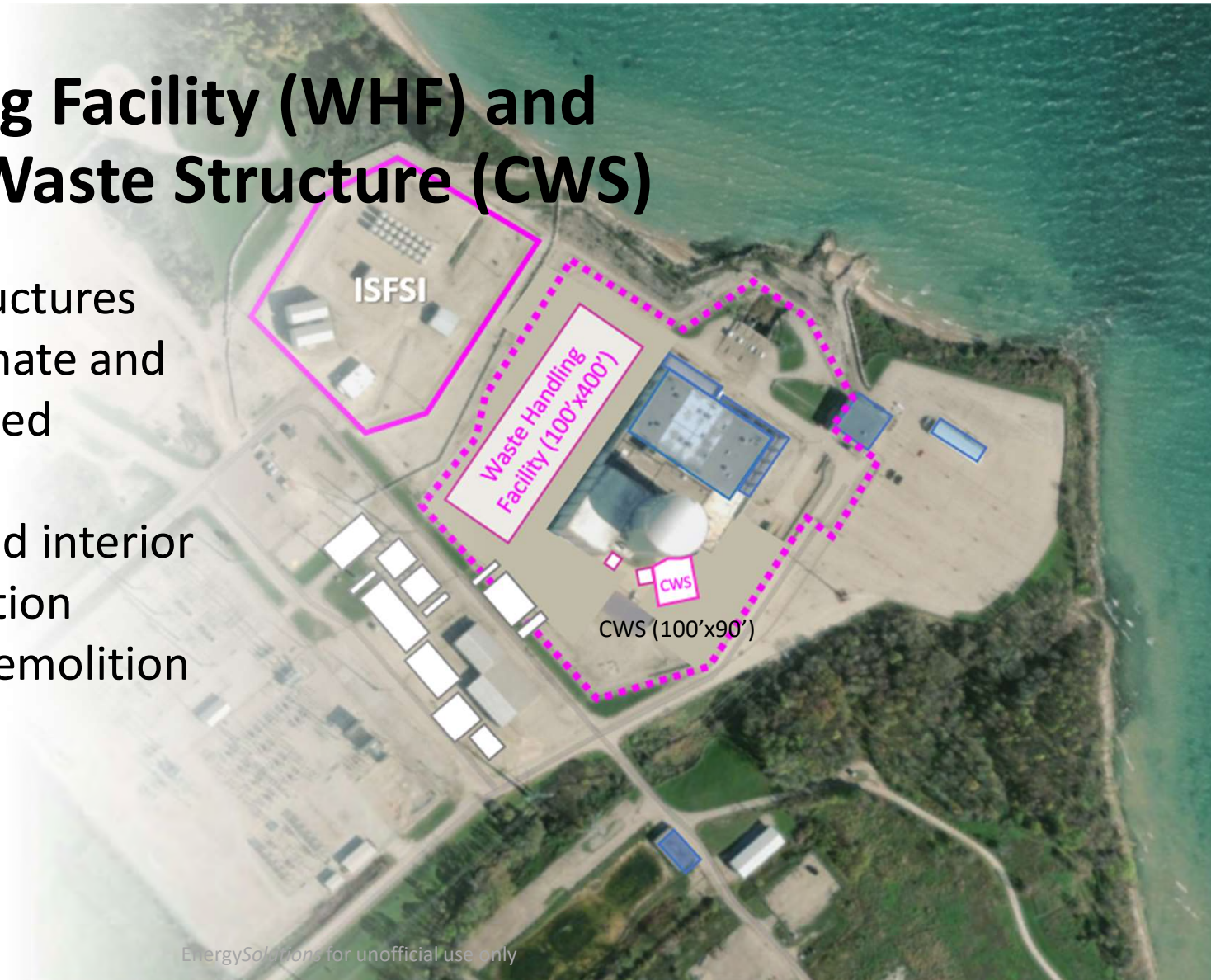


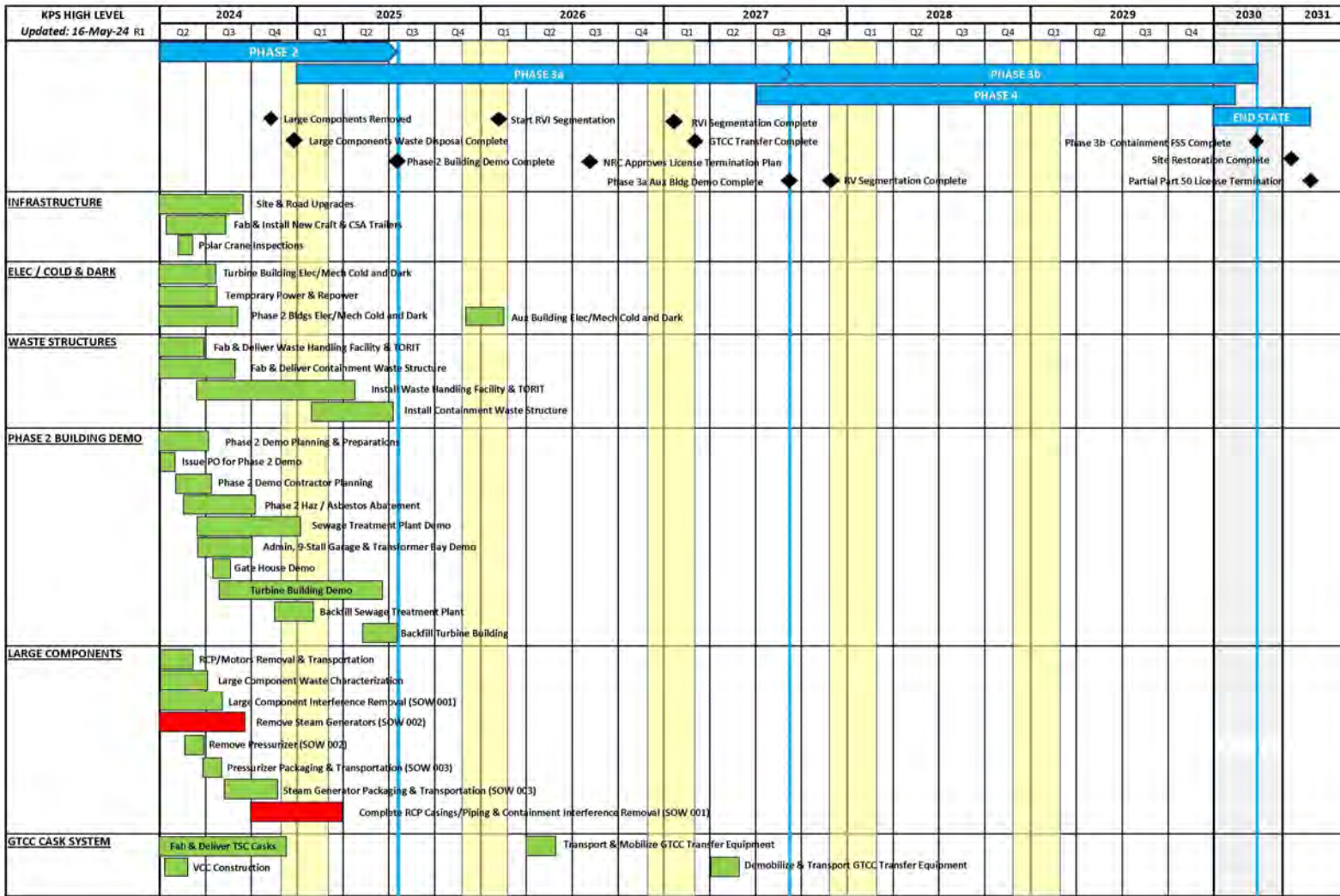
Large Components Prep

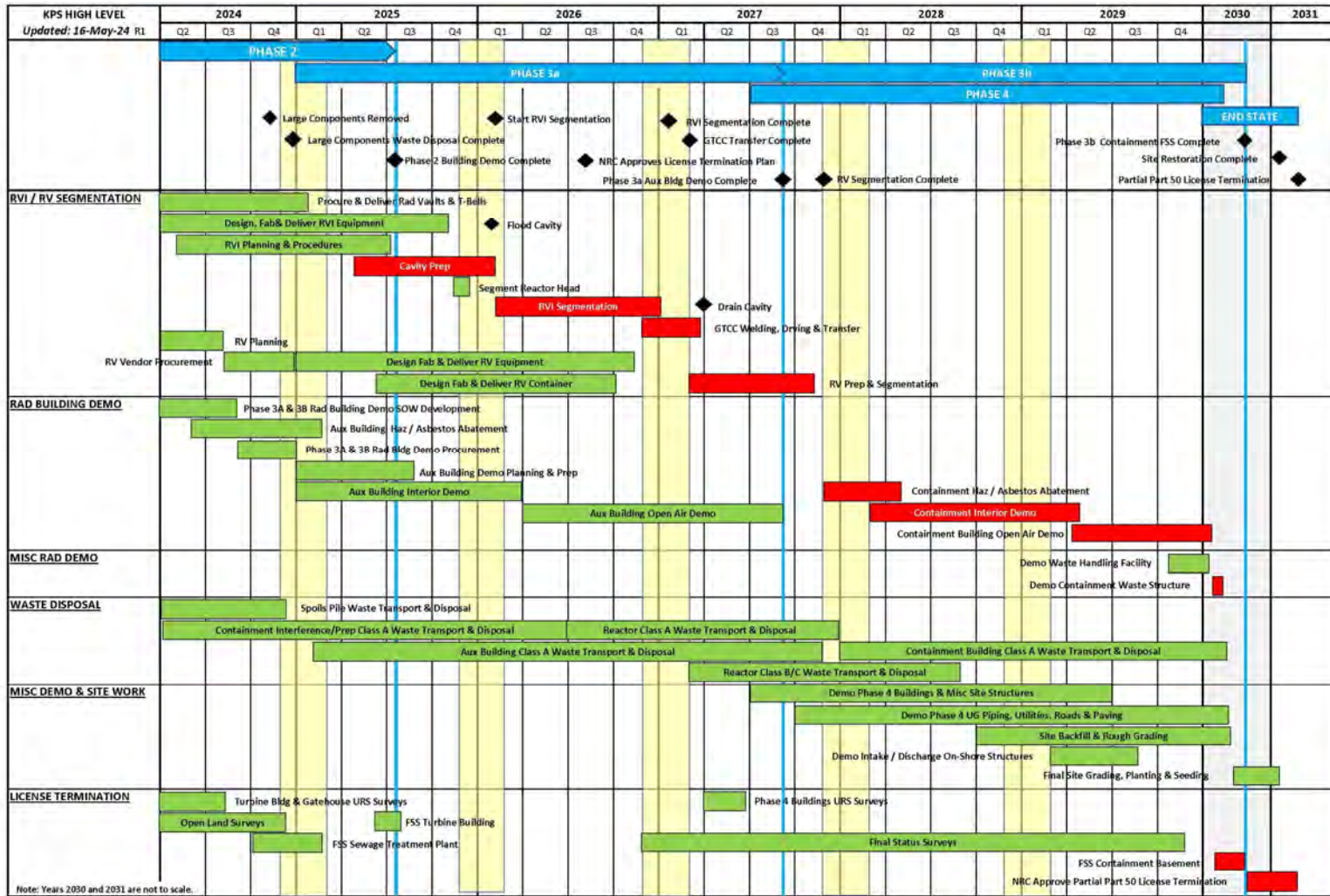


Waste Handling Facility (WHF) and Containment Waste Structure (CWS)

- Large, tent-like structures
- Fully enclosed, climate and ventilation controlled
- CWS for Reactor Vessel/Internals and interior demolition disposition
- WHF for Phase 3 demolition debris processing







UTIONS



Q & A

