



Idaho CERCLA Disposal Facility Explanation of Significant Differences Update

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EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

Idaho Cleanup Project

What We'll Cover

- Recap of ICDF purpose
- Existing landfill status
- ICDF proposed Explanation of Significant Differences (ESD)
- Path forward



ICDF Purpose

- ICDF was designed to allow onsite disposal of WAG 3 and CERCLA generated waste at INL
- Consolidation of waste to ICDF reduces risk of exposure of contaminants to human and ecological receptors
- The ICDF provides central containment of waste for long-term protection of human health and environment



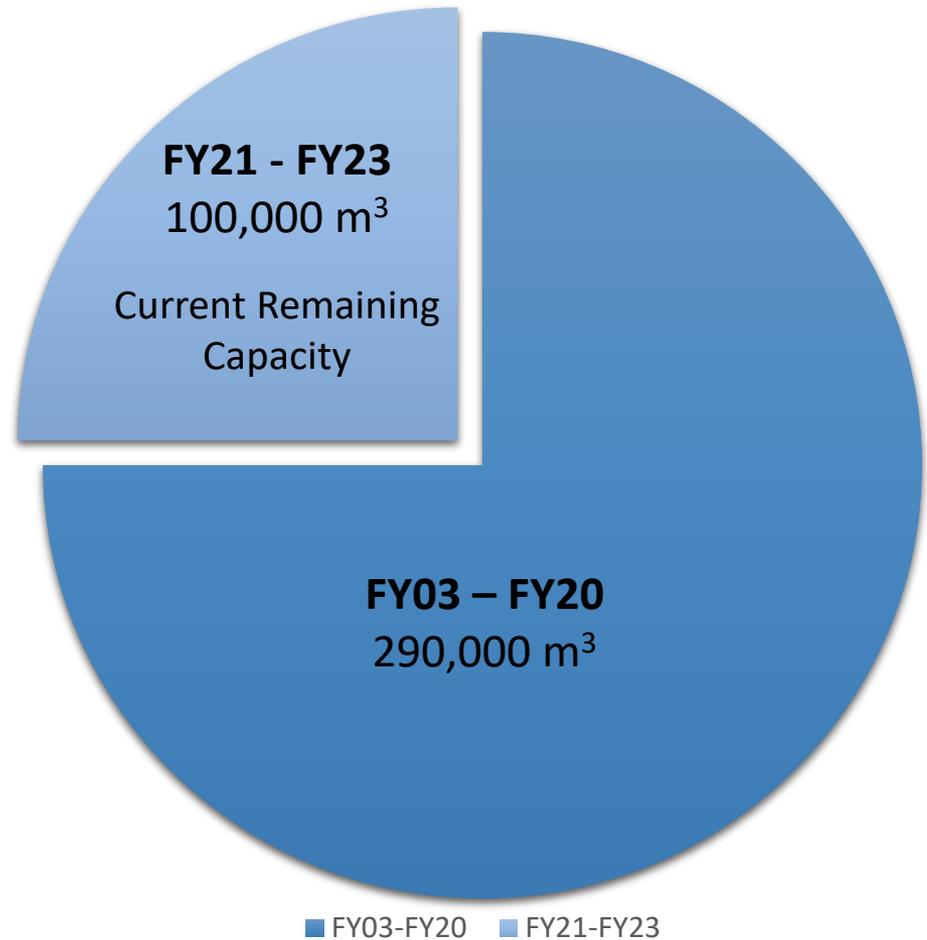
Aerial photo of ICDF looking south taken on September 7, 2021.



ICDF Existing Landfill Status

Existing ICDF Landfill (end of FY2020)

- Capacity 390,000 m³
 - ~75% Full
 - ~100,000 m³ remaining disposal capacity
- More soils than debris



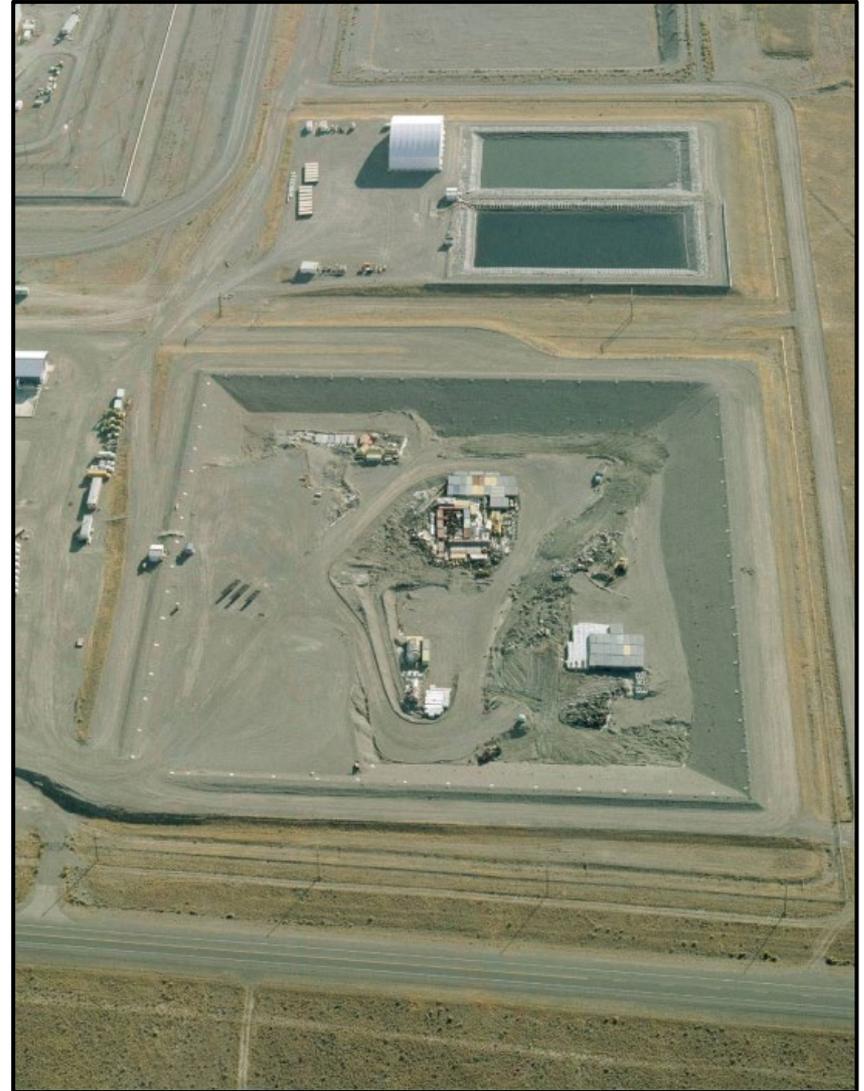
Existing ICDF Landfill Volume



ICDF CERCLA Waste Projection

CERCLA Waste Projections (2020-2050)

- Future considerations will seek to optimize footprint of existing landfill cell and future landfill cell on ICDF complex
- More debris than soils projected
- Receiving debris adds voids requiring additional fill (35% expansion factor)



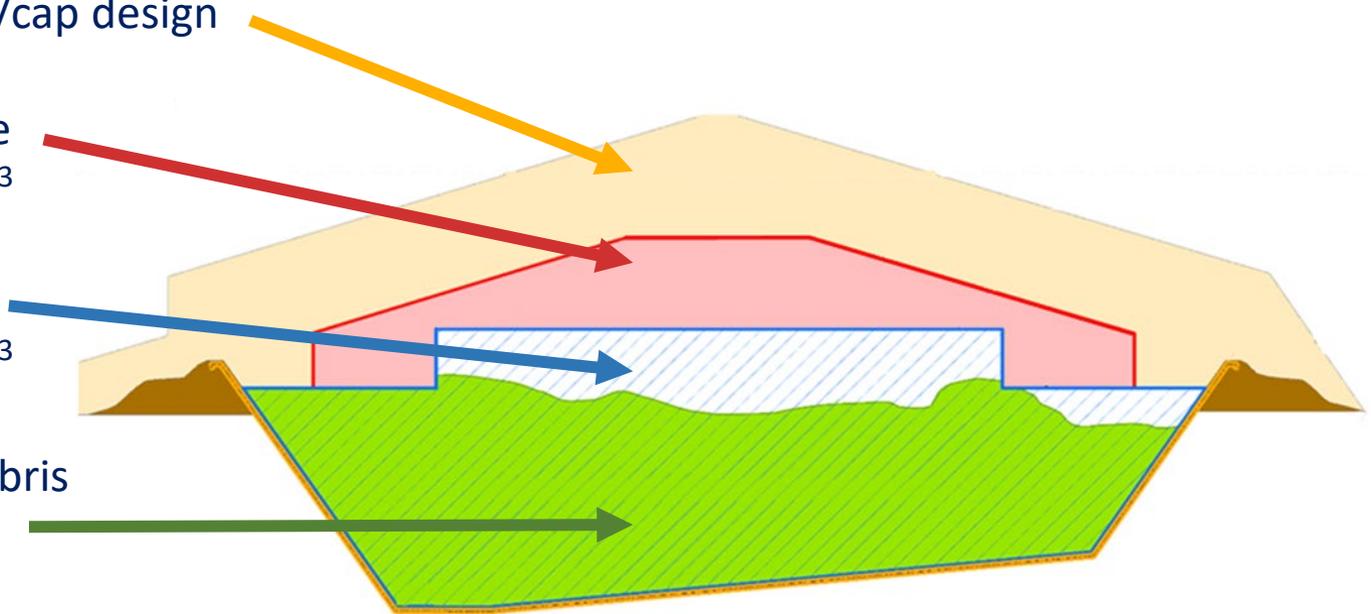
Proposed Explanation of Significant Differences (ESD)

- Increase Existing Landfill
 - Add 140,000 m³ waste capacity for potential use
 - No change in cover/cap design
 - Meets ARARs (Applicable Relevant and Appropriate Requirements)
- Add New Landfill
 - Same design as existing landfill
 - Adds 530,000 m³ to future disposal capacity
 - Same cover/cap design
 - Meets ARARs
- Expand ICDF Complex
 - Area of operation expanded from ~45 acres to ~97 acres
 - Buffer area expanded from ~70 acres to ~123 acres
- Extend Operational Life of ICDF Complex
 - From 2025 to 2050



Proposed Increase to Existing Landfill

- No change in cover/cap design
- Add potential waste capacity $\approx 140,000 \text{ m}^3$
- Remaining disposal capacity $\approx 100,000 \text{ m}^3$
- Placed Soils and Debris Waste $\approx 290,000 \text{ m}^3$



ICDF Landfill Waste Placement Utilization Profile (North to South)

- Existing landfill planned disposal capacity $\approx 390,000 \text{ m}^3$
- Proposed debris waste placement capacity $\approx 140,000 \text{ m}^3$
- Soils and Debris Waste placed as of FY-2019 $\approx 290,000 \text{ m}^3$
- Primary geomembrane liner
- Planned ICDF landfill cover
- Land surface

NOTE: Z-factor has been exaggerated by 4.3 times for illustration purposes.
Vertical datum NGVD-29



GIS Analyst: Dan Mahnami
Date Drawn: 3/15/2021
Path: X:\gis_projects\icdf\maps\Landfill_Utilization_EDP\2020_WPU_EDP\Graphics
File Name: LRF_30_49548_Profile_Scenario_w_Cap_Rep2019-af_v2.mxd



Profile Cross-section (September 22, 2019)



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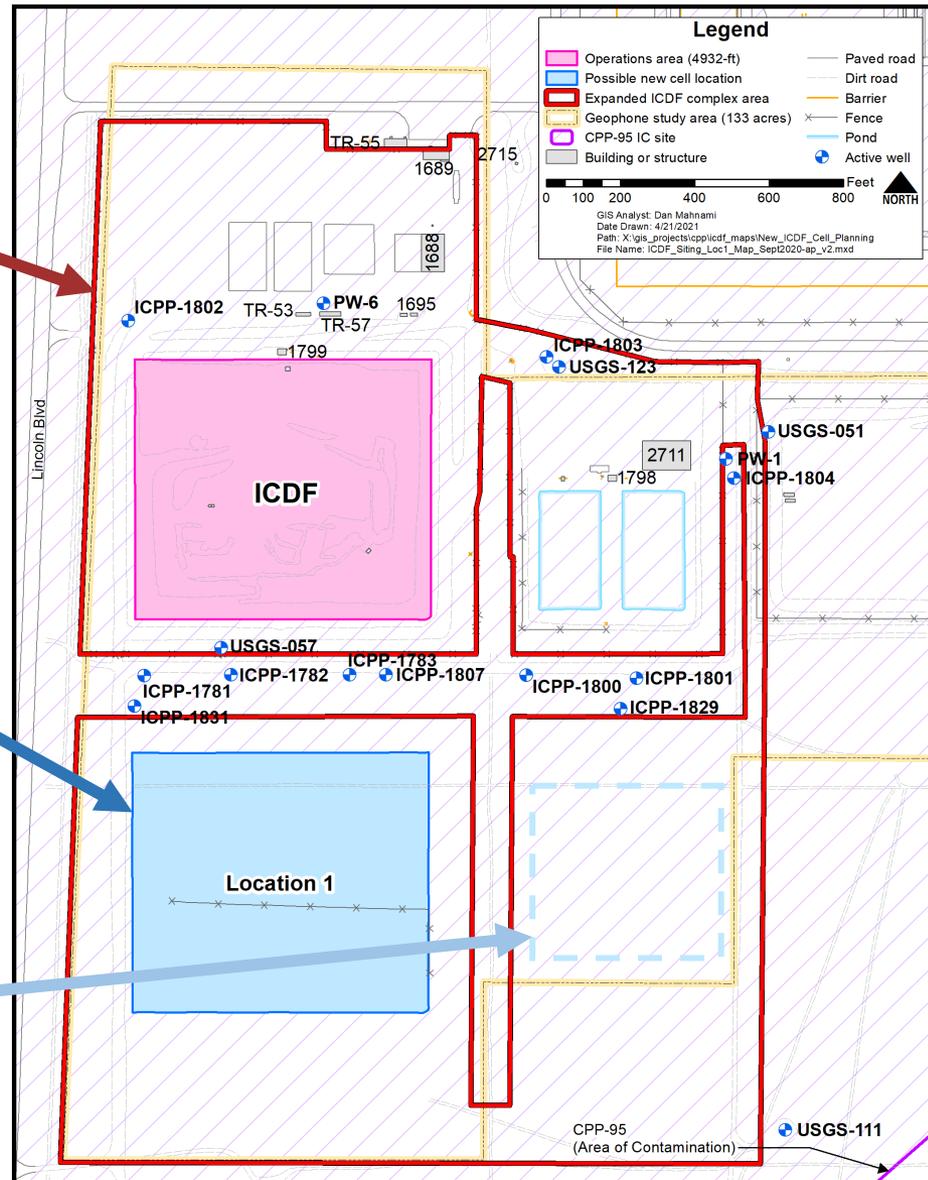
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Proposed New Landfill

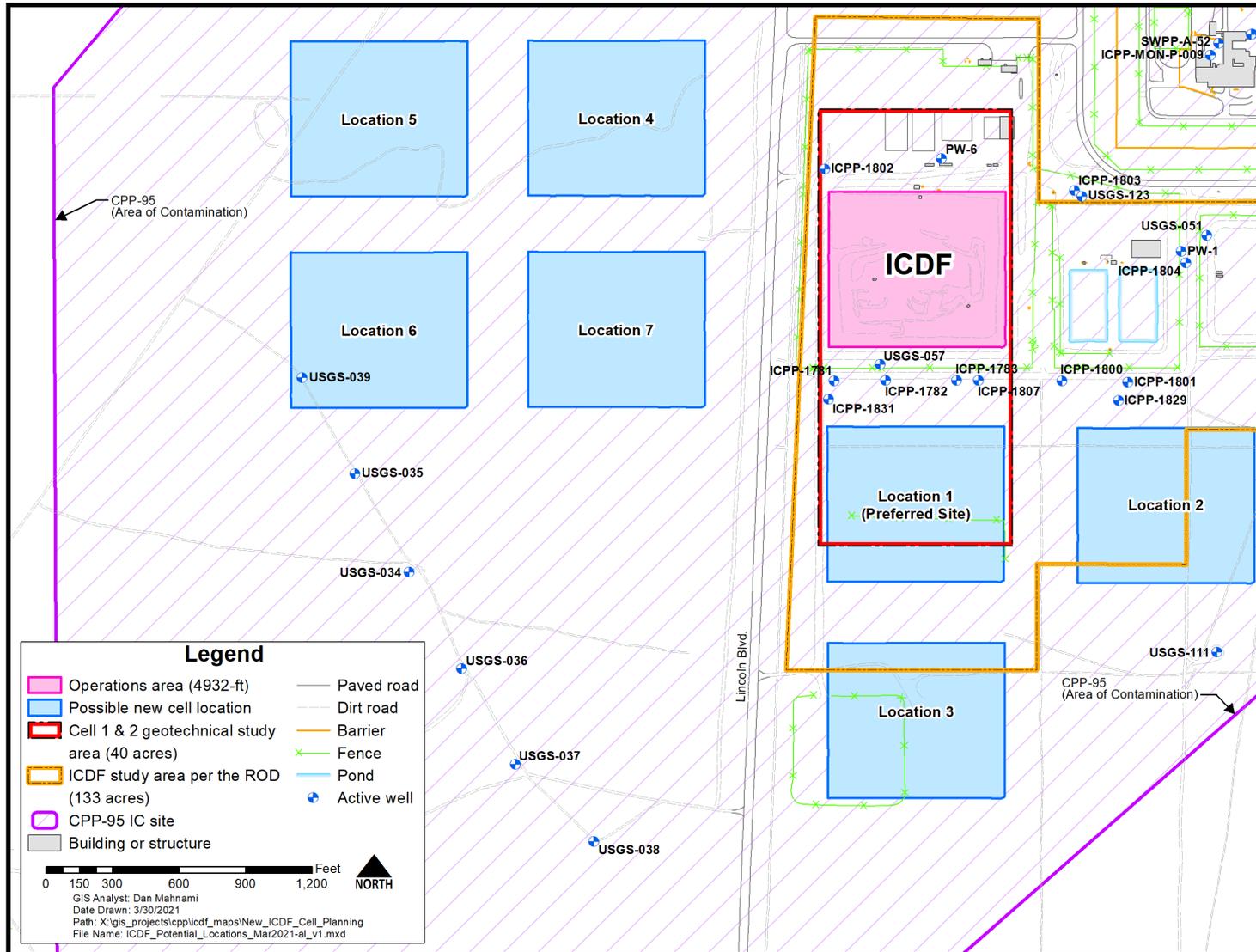
Expand ICDF Complex Area
From ~45 to ~97 acres

Proposed location
of New Landfill

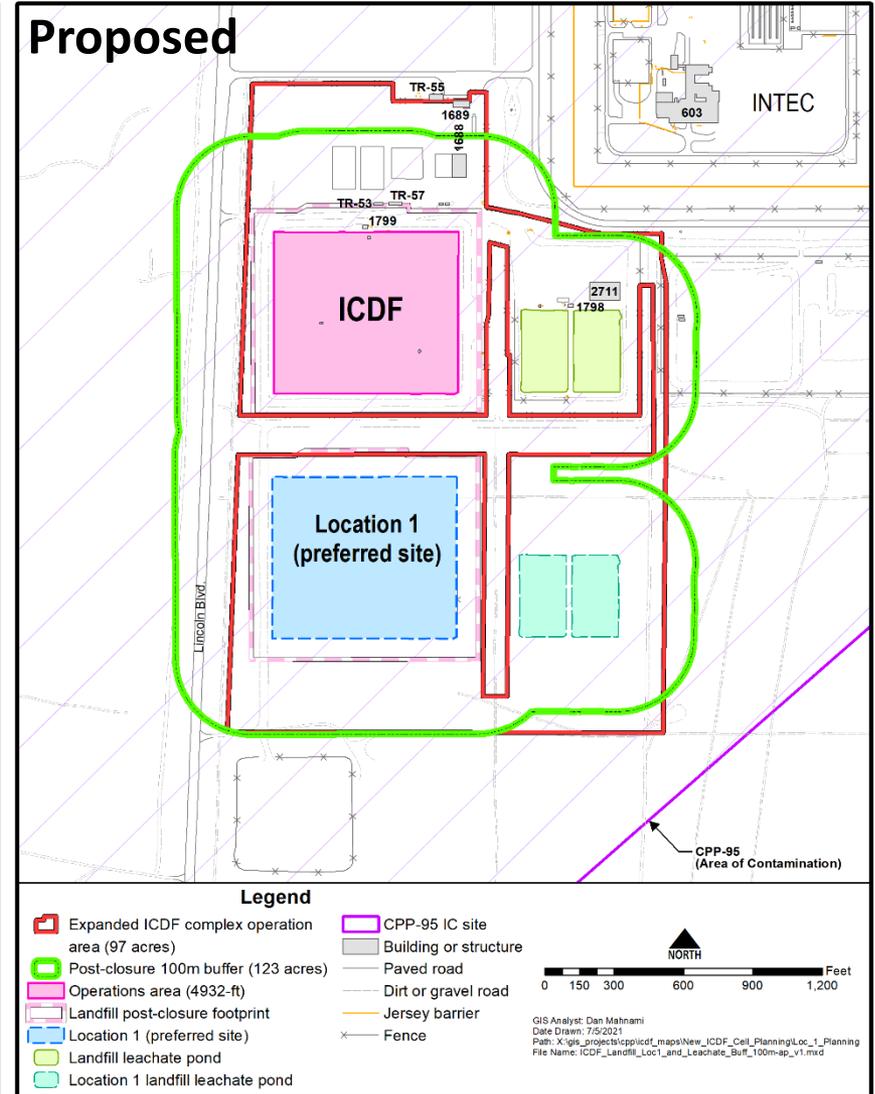
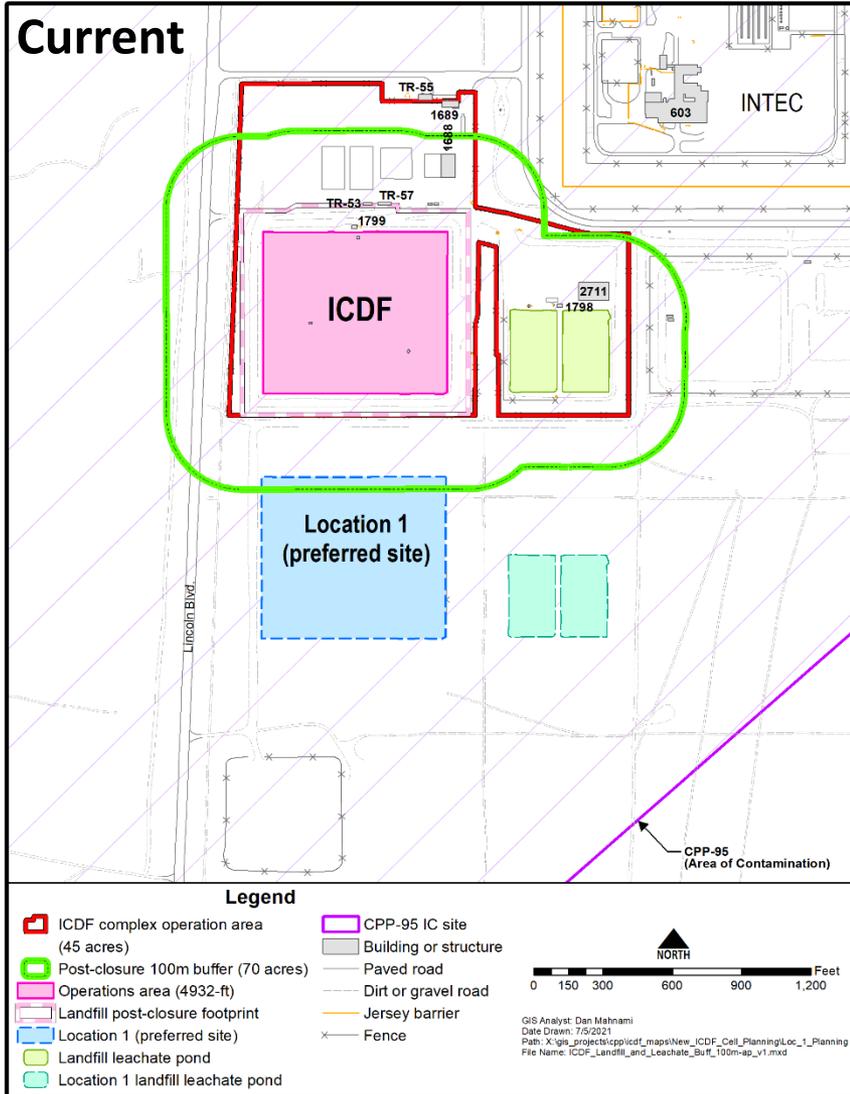
Possible location for
landfill leachate
management area



Locations Considered for New Landfill



Expanded Buffer Area



Path Forward

- Preliminary Preparation
 - Field Sampling Plan for Geotechnical Studies
 - Engineering evaluations
 - Environmental requirements

- Anticipated Timeline
 - The Explanation of Significant Differences to be completed FY22
 - Cost and schedule for follow-on design and siting will be developed in FY22



Questions?

