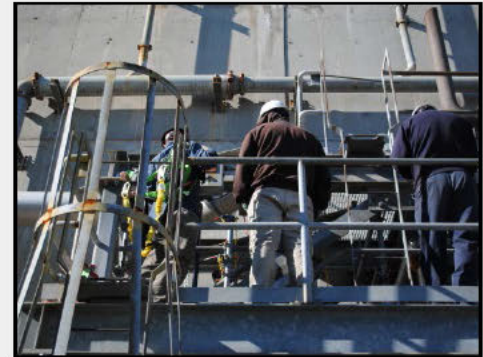


System Plan Revision 20

Pete Hill
SRR System Planning Manager



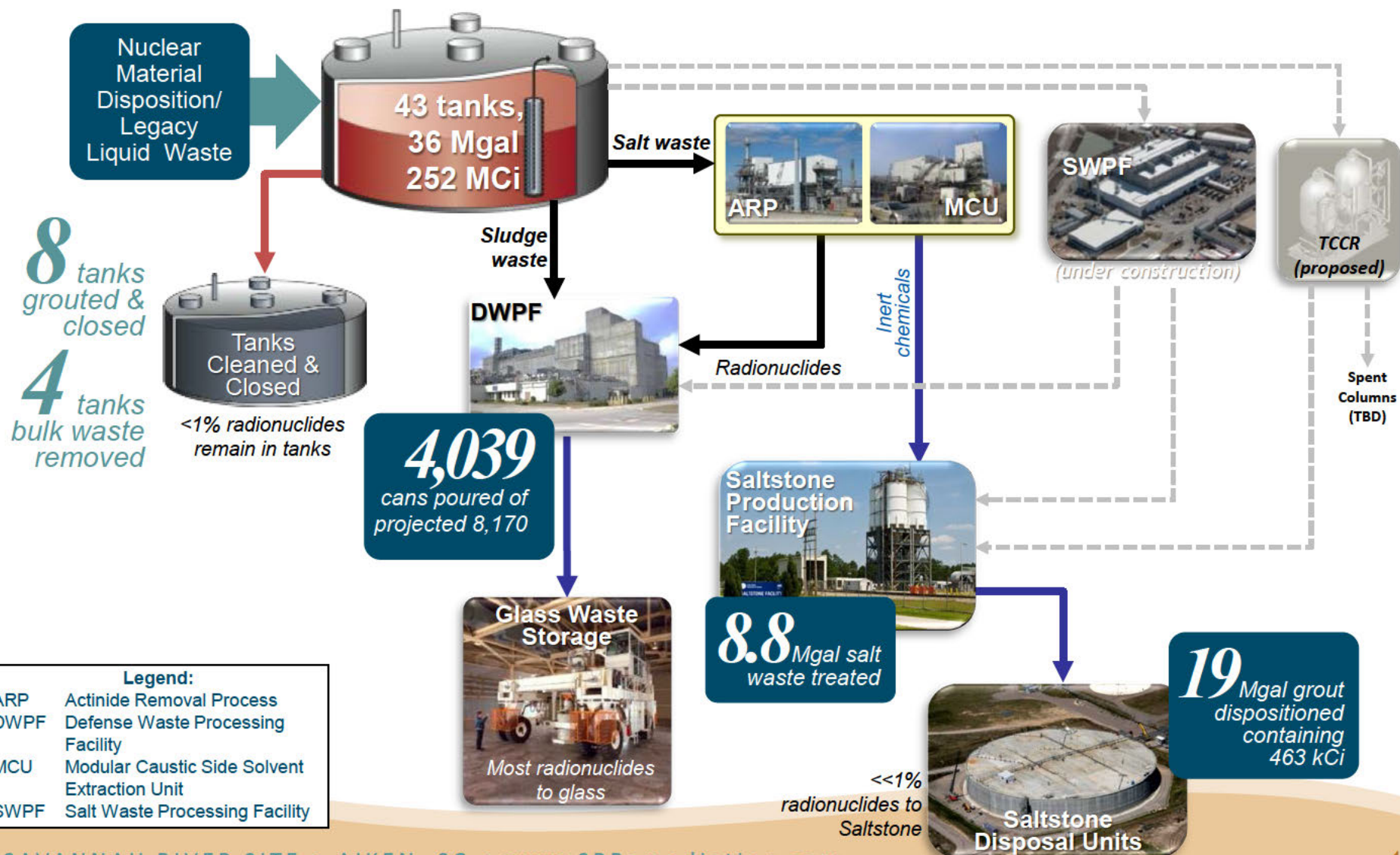
Purpose

- **Fulfill Savannah River Site Citizens Advisory Board request for briefing on Revision 20 of the Liquid Waste System Plan**

Agenda

- **Liquid Waste System Overview/Status**
- **Rev 20 Inputs & Assumptions**
- **Rev 20 Results**
- **Summary**

SRR Liquid Waste Program Operational Highlights



System Planning

- **Changes to System Plans are driven by:**
 - ◆ Advances in Technology
 - ◆ Change in Sequencing
 - ◆ Acceleration Opportunities
 - ◆ Funding Adjustments

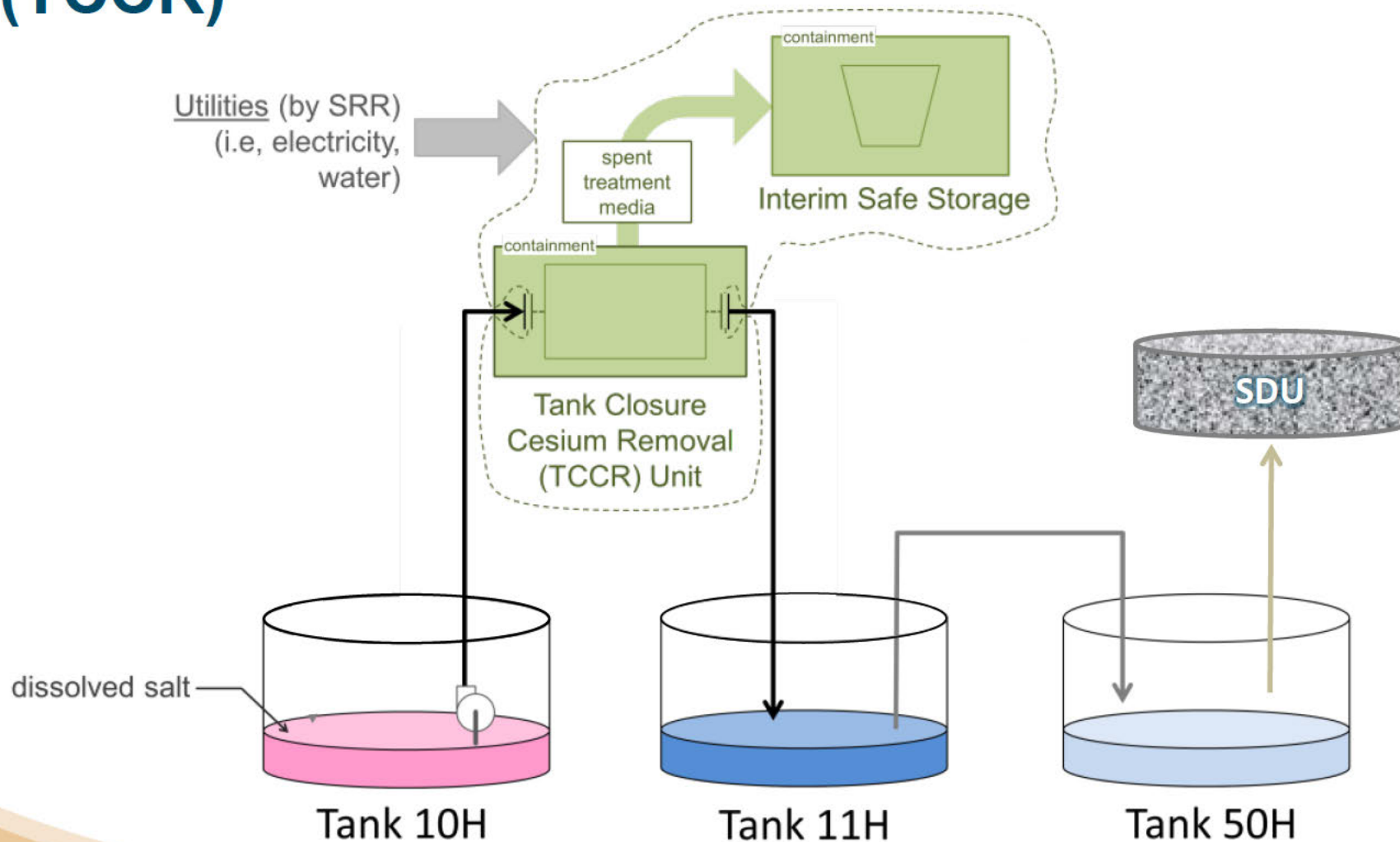
System Planning

- **Changes from Rev 19 to Rev 20:**
 - ◆ Advances in Technology *Tank Closure Cesium Removal*
 - ◆ Change in Sequencing *Prioritize F-Tank Farm Isolation*
 - ◆ Acceleration Opportunities
 - ◆ Funding Adjustments *Improved funding profile*

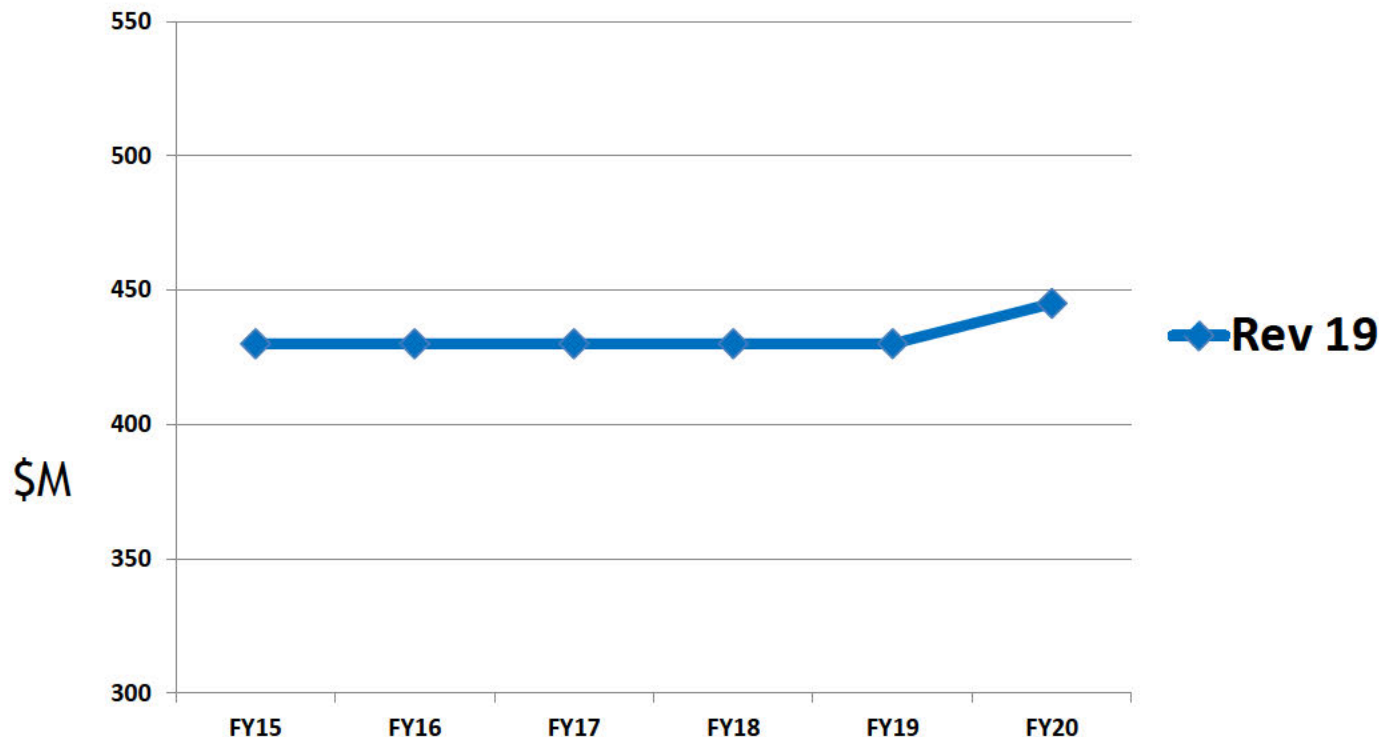
Significant Inputs

- **SWPF Start Up December 2018**
- **H-Canyon operates thru 2025 with flushing in 2026**
- **Double-Stacking of GWSB #1 increase canister storage capacity by 2,270 storage locations**
- **TCCR will be demonstrated on Tank 10 salt waste**

Tank Closure Cesium Removal (TCCR)



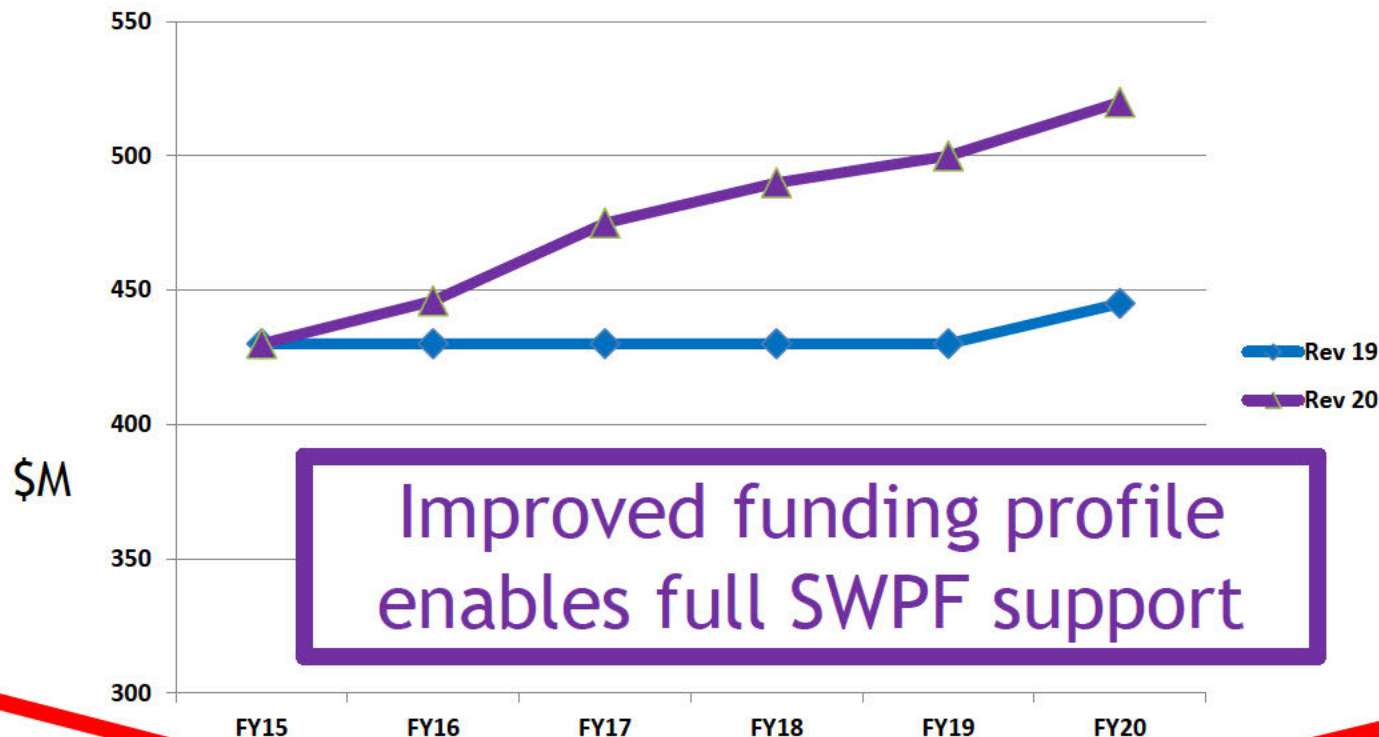
Background



Impacts of the lower Rev 19 funding levels were realized:

- ◆ SWPF is not supported at its rated capacity upon startup
 - ◆ Sufficient salt batch blend tanks not available at SWPF startup
 - ◆ ARP/MCU operations limited due to **funding** and SDU space
 - ◆ **Funding** for DWPF enhancements not available until FY20 with completion in 2022
 - ◆ ELAWD II enhancements and increased staffing at Saltstone not **funded** until FY24
 - ◆ Inability to **afford** sludge waste removal at a pace sufficient to support desired canister and salt throughput
 - ◆ Limited canister storage locations prior to completion of the GWSP (**funding**)

Funding Comparison

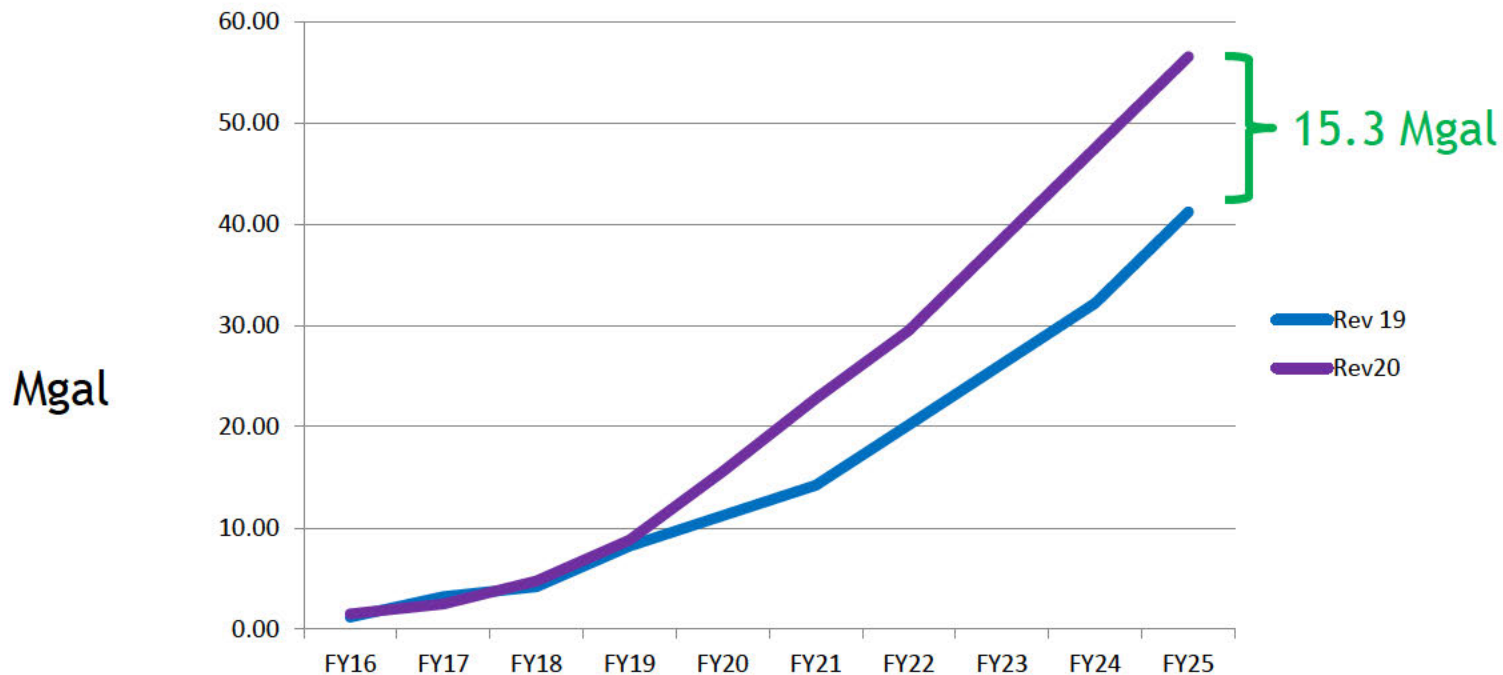


Improved funding profile enables full SWPF support

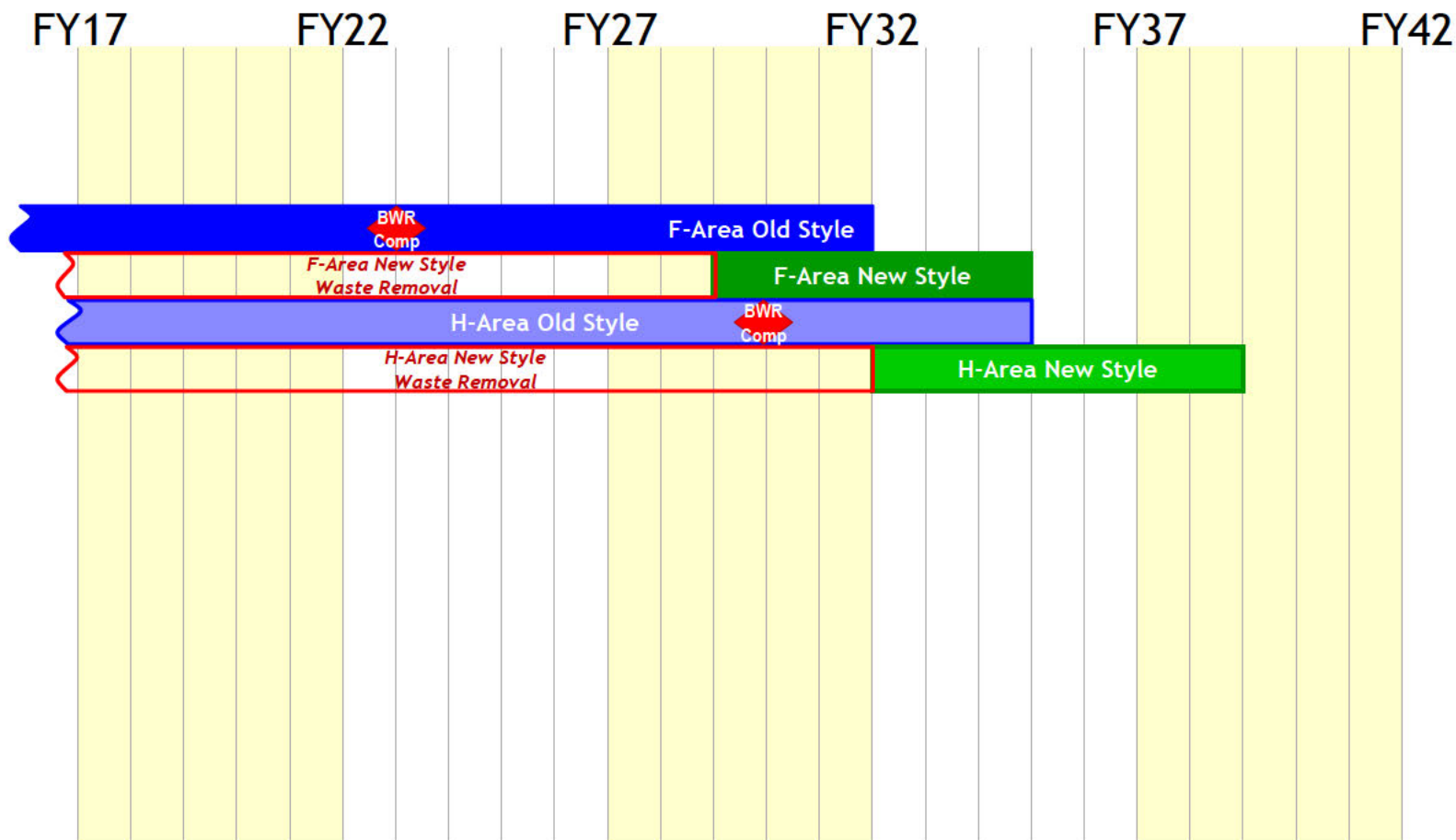
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- ◆ Inability to **afford** large waste removal at a pace sufficient to support desired canister and salt throughput
- ◆ Limited canister storage locations prior to completion of the GWSP (**funding**)

Salt Processing Comparison (Cumulative)



Timeline



Other dates of interest

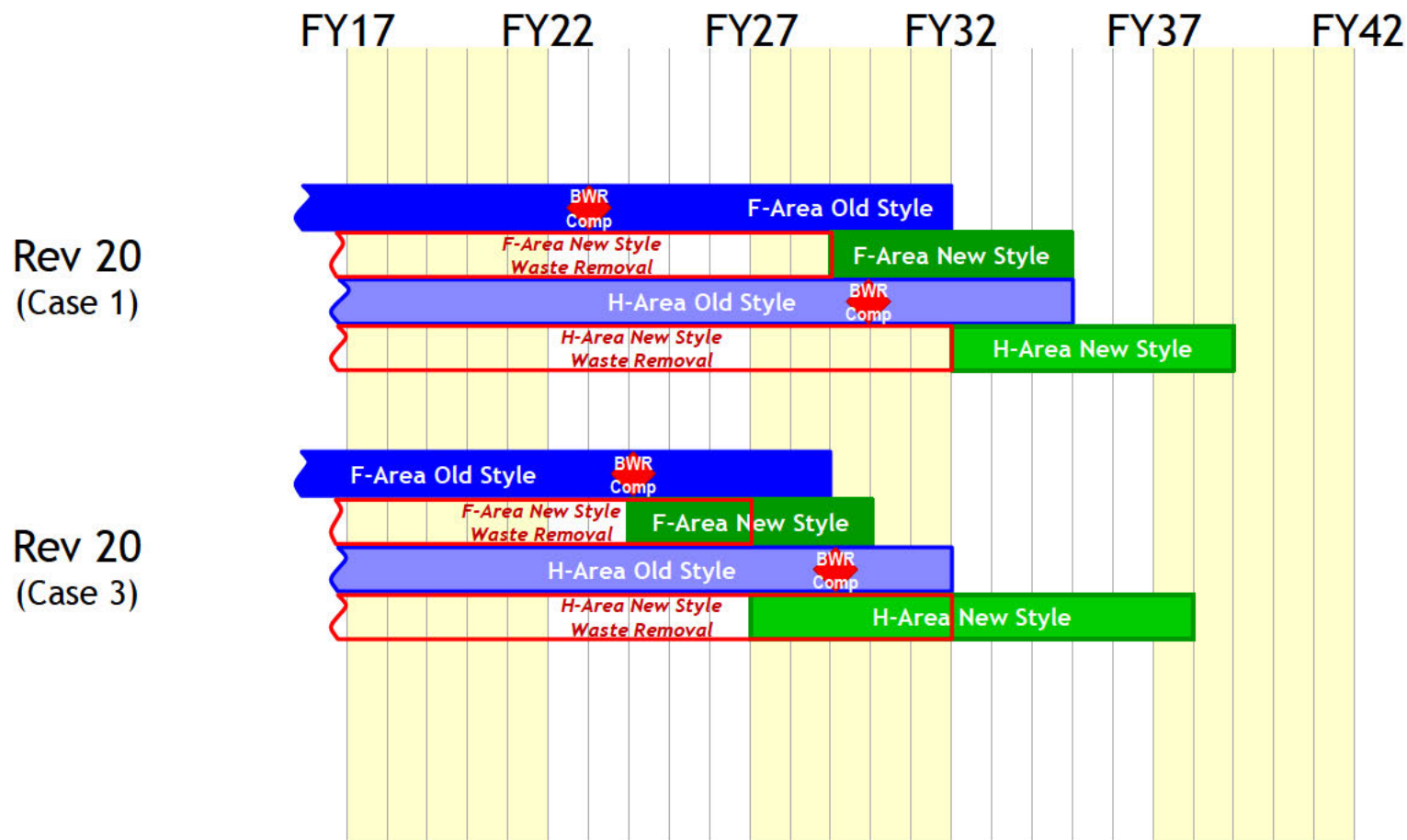
- **SDU 6 needed January 2018**
- **SDU 7 needed November 2020**
- **Additional canister storage required November 2029**
- **Next Generation Solvent Deployed at SWPF in FY2022**

Alternative Cases

- **Case 2 – SWPF startup in January 2021 – Same funding profile as Case 1**

- **Case 3 – SWPF startup in December 2018 with additional funding**
 - Deploy 2nd TCCR
 - Accelerate FTF Isolation
 - Deploy NGS at SWPF in year earlier (FY21)

Tank Closure



Summary

- **Improved funding profiles enables SWPF to operate at rated capacity**
- **Additional funding (above provided profile) could enable accelerated isolation of FTF and overall program acceleration**

Acronyms

ARP	Actinide Removal Process
BWRE	Bulk Waste Removal Efforts
DOE	Department of Energy
DOE-EM	Department of Energy – Environmental Management
DWPF	Defense Waste Processing Facility
ELAWD	Enhanced Low Activity Waste Disposal
FFA	Federal Facilities Agreement
FY	Fiscal Year (October 1st – September 30th)
GWSB	Glass Waste Storage Building
LWSP	Liquid Waste System Plan
MCi	Million Curies
MCU	Modular Caustic-side Solvent Extraction Unit
Mgal	Million Gallons
NGS	Next Generation Solvent
SDI	Salt Disposition Integration
SDU	Saltstone Disposal Unit
SRR	Savannah River Remediation, LLC
STP	Site Treatment Plan
SWPF	Salt Waste Processing Facility
TCCR	Tank Closure Cesium Removal