



Hanford River Corridor Closure and Sludge Removal Projects

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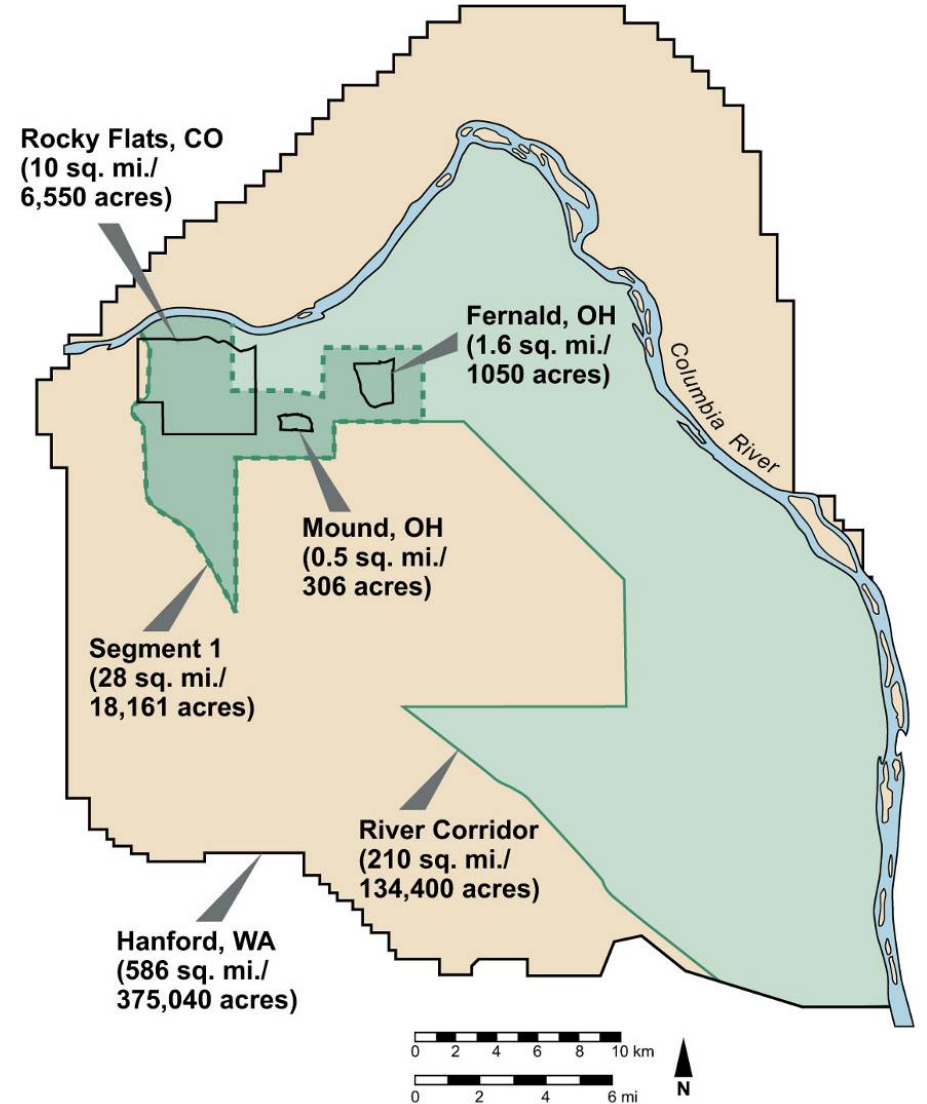
River Corridor Closure Project

- Mission: Cleanup 220 square miles of the Hanford Site adjacent to the Columbia River.
- Contract awarded to Washington Closure Hanford, LLC, in 2005
- Diverse scope, including:
 - D4 of nuclear and industrial facilities, including 2 test reactors and 2 hot cell laboratories
 - 51 burial grounds
 - reactor hardware burial grounds in each reactor area containing highly radioactive debris and some spent nuclear fuel
 - 618-10 burial ground – supported 300 Area laboratory operations – remote and contact handled wastes in many forms
 - Place two reactor into interim safe storage (cocooned)
 - Remediation of soil waste sites
- CD-4: Nov. 2018 - \$69M under budget (\$1,850M) and 15 months ahead of schedule



Comparison to other Closure Projects

COMPARATIVES OF EM CLOSURE PROJECTS				
Project	Size (sq. miles/acres)	# of Buildings and Structures Demolished	# of Waste Sites	Tons Disposed
HANFORD-River Corridor	220/134,400	345	593	12,000,000
FERNALD	1.6/1050	232	3 silos 6 waste pits	1,250,000
MOUND	.5/306	64 demolished 9 transferred for re-use	73	72,100
ROCKY FLATS	10/6550	800	360	1,260,000





100-N Reactor Area



2005



2015



300 Area



2005



2016



Complexities/Challenges

- Cost Plus Incentive Fee contract – first at Hanford
- Contract true-up modification not approved until 4 years into contract.
- CAP/Operations split in 2009. Further chunking of CAP was proposed.
- Additional funding provided/6 subprojects established during ARRA.
- Significant cultural resources issues due to the Columbia River being the traditional homeland to several tribes.
- DOE changing approach defined by contractor (300 Area) due to late release of facilities
- Dealing with unknowns: new waste sites discovered, legacy facilities
- Performance Baseline Deviation required due to scope that could not complete by approved CD-4 date. ESAAB reset CD-4 date and TPC.



Sludge Removal Project (SRP) - Challenges

- Originally executed as an operations activity vs. capital asset project.
- 2014 - identified SRP as a Congressional Line Item CAP
- Worked with EM/PM to develop a POAM to obtain CD-2/3 approval.
- CD-2/3 approved by the Project Management Executive – June 2016
- Startup required a DOE Operational Readiness Review – first at Hanford in many years
- Project finished \$21M under budget and 18 months ahead of schedule
- First sludge shipment completed June 2015 – 11 completed to date



What Worked

- RCCP was a large project - allowed grouping similar work together (soil remediation, D4) and enabled flexibility
- Contractor had control of baseline from cradle to grave
- Early engagement and partnering with regulators built trust and understanding
- Strong teaming with contractor
- Consistency in project/contract leadership
 - 3 FPDs and 3 COs in first 3 years created uncertainty
- Created a strong project team
 - Capitalized on IPT member strengths
 - Encouraged collaboration with other organizations
 - Use all the resources available – internal and external
 - Bring in expertise where needed
 - Have fun!



FPD Perspective - Man in the Arena

It is not the critic who counts; not the man who points out how the strong man stumbles, or where the doer of deeds could have done them better. The credit belongs to the man who is actually in the arena, whose face is marred by dust and sweat and blood; who strives valiantly; who errs, who comes short again and again, because there is no effort without error and shortcoming; but who does actually strive to do the deeds; who knows great enthusiasms, the great devotions; who spends himself in a worthy cause; who at the best knows in the end the triumph of high achievement, and who at the worst, if he fails, at least fails while daring greatly, so that his place shall never be with those cold and timid souls who neither know victory nor defeat.

Theodore Roosevelt - 1910