St. Maries Creosote Site
Remedial Action Overview
A Tribal Engineer’s Thoughts

August 17, 2017
Site History

- **Late 1930s to 1960** – Operated as wood treating facility
- **1965 to April 2003** - Operated as pole storage, peeling, and sorting facility
- **Dec 1998** – City of St. Maries reported sheen on riverbank and in St. Joe
- **Jan 1999** - Unilateral Administrative Order (UAO) issued by USEPA
- **Feb 1999** – Removal action of bank material
- **Jul 2007** – Record of Decision (ROD) provided by USEPA – VRP & PRP agreement
- **October 2009** – Consent Decree and Statement of Work (SOW) issued by USDOJ
Major Design Components

- Upland Excavation & In-Situ Soil Solidification (ISS)
- Sheetpile Enclosure
- Dredging and Backfill
- Bank Excavation and Reconstruction
- Thermal Treatment
- Waste Water Treatment
Cleanup Plan

- In-Water Remedy Nearshore (Phase II, Summer 2015)
- In-River Remedy Offshore and Thermal Treatment (Phase III, 2016 - Present)
- Upland Remedy (Phase I, Complete April 2015)
PHASE I Construction

Began August 2014
Finished May 2015

- Stormwater pipe relocation
- Soil excavation
- Installation of ISS perimeter wall
- In Situ Solidification (ISS)
- Wastewater treatment
PHASE 1 Site Preparation

Phase 1 Pad
WWTP Set-up
PHASE 1 Stormwater Pipe

48” & 20” Existing Wood Stave Pipe
48” HDPE Stormwater Pipe
20” HDPE Pressure pipe
Both 391’ Long
PHASE 1 Site Work

10’ Upland Excavation
HESCO Barrier Install
Slurry Wall construction
PHASE 1 Site Work

Slurry Wall construction
PHASE 1 Site Work

ISS Bucket Mixing
ISS Auger Mixing
PHASE 1 Site Work

ISS Bucket Mixing
Phase II: In-Water Construction

Installation of sheetpile enclosure and downstream silt curtain
In-water debris removal
Nearshore dredging and backfill within enclosure
Riverbank excavation and reconstruction
Treatment of dewatering effluent
Phase II: In-Water Construction

Installation of sheetpile enclosure and downstream silt curtain
Phase II: In-Water Construction

Installation of sheetpile enclosure
Phase II: In-Water Construction

Dredging Activities
Phase II: In-Water Construction

Dredging Activities
Phase II: In-Water Construction

Dredging Activities - Offloading
Phase II: Soil Preparation

Phase 2 Pad Mixing
Phase III: In-Water Work & Thermal Treatment

Installation of downstream silt curtain
In-water debris removal
Offshore dredging and backfill
Treatment of dewatering effluent
Thermal treatment of contaminated soils
Phase III: In-Water Work & Thermal Treatment

Offshore Dredging
Phase III: Thermal Treatment
Lessons from an Engineer

What didn’t work

Communication with VRP
Jurisdictional Issues – Who is in charge?
Political Issues
Regulations – What regulations?

What did work

Cultural training/awareness
Water quality
TERO
Departmental Coordination
Keep it simple!

Inter-Departmental Coordination

Interagency Coordination

Female Project Managers

Hire help – supporting consultants

Rely on others when needed – be humble

Keep at it. Don’t give up. Stay strong.
What do you want to leave behind?

Who is left when the project is over?

Traditional Knowledge – Now and future

Future elders – Teach, Train, Replace
Q&A