
Potable Water System Upgrades Project

Lessons Learned

July 22, 2008



This document has been reviewed by a Y-12 ADC/
UCNI RO and has been determined to be
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PWSU Scope: Area 0



- Construct two 2,000,000-gallon, 220-ft-tall water tanks, transmission piping, and pumping station to increase water pressure margin
- Design/Build Subcontractor



PWSU Scope: Area F and Area P

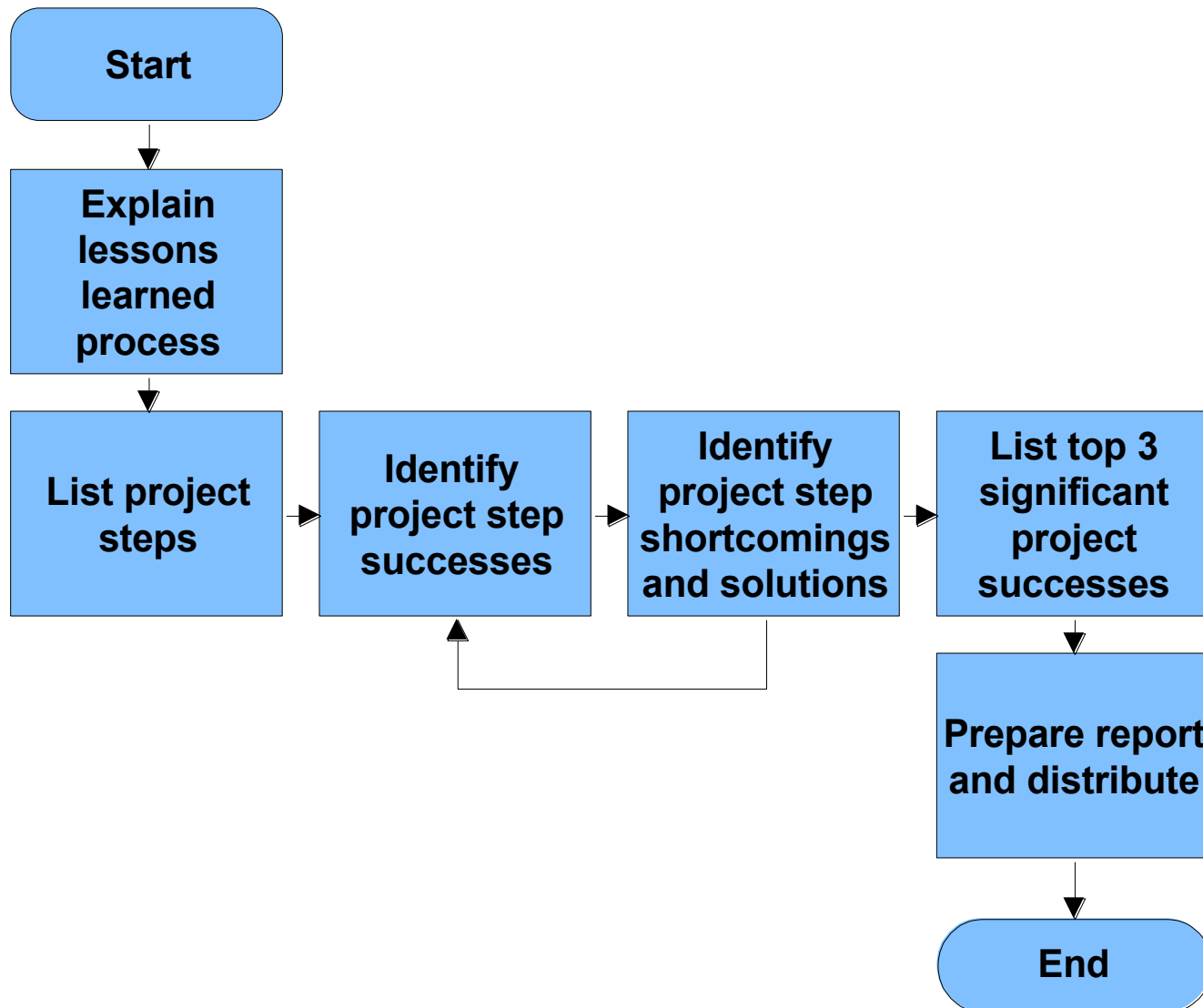


- Replace/repair 9,000 ft of 60-year old cast iron water lines and hydrants
- Direct Hire Construction

- Correct potential cross connections in ~100 antifreeze-containing fire suppression systems



Lessons Learned Process



Lessons Learned: Critical Decisions

- Request CD-2/3a to allow for *early procurement* in the event of a CR
- Define support costs *with activity* they support
- Include Finance during review of estimate assumptions to ensure *accounting rules* are followed
- Allow 6 weeks to obtain subcontract *approval* by DOE-HQ and Service Center



Lessons Learned: Areas F and P

- *Trust but verify* 'Out of Service' tags
- Ensure thrust block protection is installed on water lines *prior to cutting*
- Provide time in schedule to conduct final constructability reviews *at end of design*
- Identify outage impacts *during constructability reviews* and outage minimization requirements in design criteria



Lessons Learned: Area O

- Resolve *all* 50% comments prior to 100% design
- ‘*Trust but verify*’ all ‘accepted’ comments
- Ensure Seller follows *own* QA plan
- Confirm communication *among* Seller design subcontractors
- Provide local municipalities *all* design documents during review and include schedule activity for review and approval to ensure *timely receipt* of state permits



Lessons Learned: Area O Contract

- Ensure tax clause requires (by law) construction contractors to pay sales tax on *materials* that when installed become *real property*
- Ensure Seller *field-verifies* existing conditions *prior* to beginning design and require submittal report
- Ensure Seller derivative classifier is *in place* within 2 weeks of award and provide *submittal* documentation
- Clearly define ‘*authorized*’ if entire scope is not ‘authorized’ during contract award
- Clearly define ‘*red-line*’ versus ‘*design change*’



Good Practices: Project

- Developed a *project-specific* safety basis supplement *versus* revising *facility-specific* documents
- Meet *weekly* with operations managers and *monthly* with stakeholders
- Use Expedition to track all *submittals*



Good Practices: Area F / Area P

- Used construction *craft* during *design*
- *Practiced* fire hose hookup on non safety basis facility prior to working in a safety basis facility
- Began construction *outside* Protected Area
- *Recycling* propylene glycol
- Project Manager *invited* to attend Construction weekly construction status meeting



Good Practices: Area O

- Documented *every* question asked by Seller and *every* direction given by Company via the Request for Information process
- Identified quality issues with 100% design *immediately* and met with Seller
- Discussed *all* comments during 100% design review comment resolution
- Made revisions *real-time* during CFC review
- *Pushed back* local municipality on design changes

