

Scope Creep...

Or Is it?

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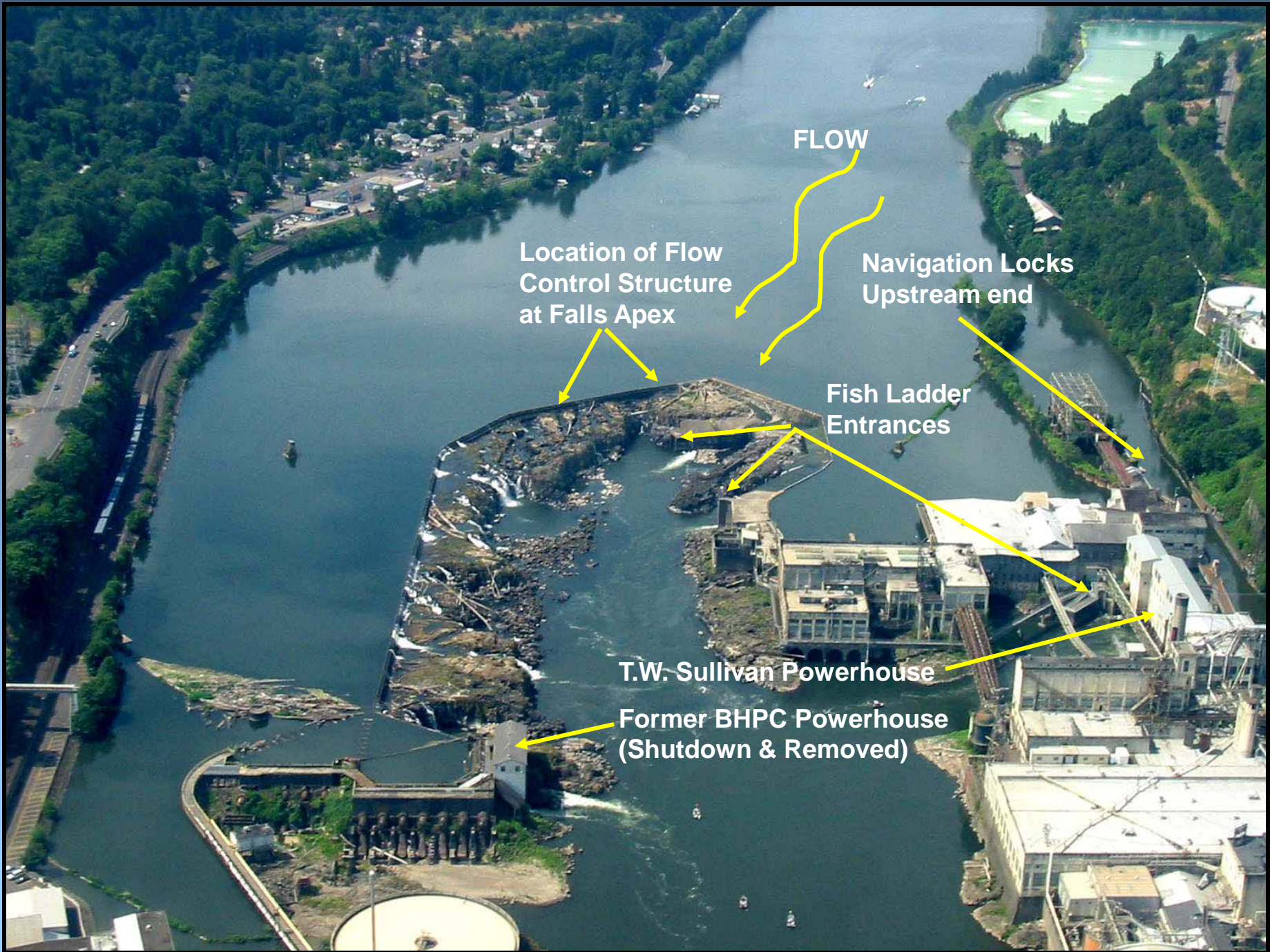


Scope Creep? Or ...

- Scope Management, or maybe Scope Adaptation
- Not unlike managing expectations or managing risk
- Settlements/licenses predict years out
 - If details included, the further out the action
 - the more conservative the details
 - the more complex the studies/construction, and
 - associated cost exposure increases.
- “What If” settlement/license language tends to be:
 - more vague
 - develop details later ‘...in consultation with...’, and
 - Include some acceptable bounds
- When later comes, some parties may see the details implementing less than expected and others more than expected.

What to Do?

- Manage the scope as it evolves so participants' expectations are addressed (may or may not be satisfied) and risk of excessive creep (cost escalation) is understood and acceptable.
- 2 examples:
 - Adult Pacific Lamprey Upstream Passage Research
 - Downstream smolt passage survival through Flow Control Structure at Falls Apex



FLOW

Location of Flow Control Structure at Falls Apex

Navigation Locks Upstream end

Fish Ladder Entrances

T.W. Sullivan Powerhouse

Former BHPC Powerhouse (Shutdown & Removed)

Flow Control Structure (FCS) at Apex of Falls

Three 10' high by 50' wide inflatable bladder gates



Adult Pacific Lamprey Upstream Passage Research

Background

- Lamprey are an important resource but not well understood.
- Initial focus was for passage structures to be built, but without information, what structure should be built and where?
- Instead, a 2-year research program was developed to learn where and how adult lamprey passed upstream, and identify future passage enhancements based on known behavior.

What changed?

- The 2 year research program became 3 years with an associated cost increase.

Adult Pacific Lamprey Upstream Passage Research

What Happened

- Study Plan identified conditions to assess lamprey passage.
 - 2005 → Pre- FCS with powerhouse operating followed by extended shutdown for construction activities
 - 2007 → Passage after the FCS was constructed
- License uncertainty caused a one year delay of the powerhouse shutdown
 - 2005 testing had begun, but due to the delay, only half the data was obtainable.
 - With extended powerhouse shutdown now scheduled for 2006, a limited-scale year of testing (~\$100k) was developed to gather passage data in 2006
- 2006 testing was completed. Post FCS construction testing is just wrapping up.
- The additional year of research did obtain required data agreed to in the study, albeit at added cost.

Scope Creep?

Downstream Smolt Passage Survival through Flow Control Structure at Falls Apex

Background

- Typical post-construction performance testing of a new fish passage structure.
- Three year testing program envisioned
 - Described in settlement agreement
 - Only a conceptual design and operation of the FCS, and
 - Multiple testing methodologies identified.

Dowstream Smolt Passage Survival through Flow Control Structure at Falls Apex

What Happened

- Hi-Z Balloon tag testing selected
 - Release piping system needed to get test fish out to all three bays.
 - Release structure could not be left in place during high flows
 - Testing restricted to the fall (install low summer flow, remove before winter flows)
 - Spring replicate testing not physically possible.
- Fall 2008 testing performed
 - Tested under conservative conditions
 - Achieved sufficient precision to satisfy passage standards...but....
 - Only a single test.

What to do!

Dowstream Smolt Passage Survival through Flow Control Structure at Falls Apex

Options

- Argue testing is DONE!
- Repeat testing just for sake of repeating (no value)
- Psuedo replicate testing in Spring (limited value)

Or....

- Explore opportunity to obtain other, but related information, desired by resource managers (ie, how does FCS affect passage routes).
 - Not a required study element ('neat' to know, not 'need' to know).
 - But, is there a study methodology to get that information as well as passage performance information to expand previous balloon tag testing.

Dowstream Smolt Passage Survival through Flow Control Structure at Falls Apex

Result

- 2010 Study planning underway
 - Will likely involve RT methodology
 - Fish released above project with passage routes determined
 - Detection array and control fish releases to provide some metric of passage survival (not to statistical precision as the prior balloon tag testing)

Scope Creep?

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