INS AND OUTS
STRUCTURING THE SCOPE PORTION
OF A COMPLEX CONSTRUCTION
PROJECT PEER REVIEW

Ivan Graff
2020 Project Management Symposium
Ins and Outs

STRUCTURING THE SCOPE PORTION OF A COMPLEX CONSTRUCTION PROJECT PEER REVIEW
70% of projects fail due to scope
- CHAOS Report 2014 (Standish Group)

31% of projects fail to deliver intended benefits
- State of Project Management Report 2016 (Wellington Group)

52% of projects completed in 2017 experienced uncontrolled changes to scope
- Pulse of the Profession 2018 (Project Management Institute)

40% of projects do not have a scoping document
- State of Project Management Report 2017 (Wellington Group)

Change in priorities:
-:

Change in project objectives:
-:

Inaccurate requirements
-:

Uncontrolled scope.
- Pulse of the Profession 2018 (Project Management Institute)
How might one understand, and determine the completeness of, the scope prior to setting the baseline?
About your presenter

Responsible for capital asset acquisition **project policy** at the U.S. Department of Energy.

Agency budgets $3 to $5 billion on capital asset acquisition projects annually.

**Previously employers:** National Science Foundation, Smithsonian Institution, USDA, and the University of Maryland College Park.

- M.S., Civil Engineering (Construction Management), UMCP.
- B.S., Bioresource Engineering (Structures), Rutgers University.

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**Ivan Graff**
P.E., PMP, CCP, CFM, LEED-AP
ivangraff@yahoo.com

The views expressed by the speaker do not necessarily reflect those of his employer.
Scope Baseline:

1. Scope Statement
2. Work Breakdown Structure
3. Work Breakdown Structure Dictionary

PROJECT MANAGEMENT INSTITUTE
PROJECT MANAGEMENT BODY OF KNOWLEDGE, 6TH ED.
SECTION 5.4.3.1
Schedule = $f$ (Scope)
Cost = $f$ (Scope, Schedule)

Based on a Tom Toles cartoon (June 2007)
Purpose of a Project Peer Review

1. Reduces the likelihood of a project failure by identifying existing or potential problems.

2. Evaluates –
   a. **Capacity** — quality and quantity of assigned resources
   b. **Compliance** — with internal rules, code or record, commitments to oversight entities
   c. **Fidelity** — to stakeholder expectations
   d. **Thoroughness** — comprehensiveness of planning
   e. **Efficiencies** — leveraging others
   f. **Maturity** — readiness for the next stage or phase
Typical Reviewer Roles

Who’s in charge of scope?

- Management and Acquisition
- Project Controls
- Cost Estimating
- Design
- Technology Readiness
- Risk Management
- Environment, Safety, Health, and Security
- Scheduling
- Transition to Operations

Who’s in charge of scope?
Indicators of Complexity

- Number and kinds of . . .
  - Capital assets acquired or improved
  - Performing entities
  - Stakeholders
  - Schedule activities
  - Risks

- Maturity of . . .
  - Technologies
  - Project processes

- Surrogate: Cost of the Project
• Does not exist. 😞

• GAO has no plans to write this.
Best Practice #1, Capturing all activities.

- Capturing All Effort
- Work Breakdown Structure
- Activity Codes
- Best Practices Checklist: Capturing All Activities
- Appendix III Best Practice 1 Capturing All Activities
From the perspective of a cost estimate:
Pin down the technical scope. (p.33)

- Purpose, Scope, and Schedule
- Technical Baseline Description
- Work Breakdown Structure
Solution No. 1

TOOL TO ORGANIZE THE SCOPE STATEMENT AND THE SECTION OF THE PROJECT REVIEW REPORT SUMMARIZING THE PROJECT SCOPE
PROPOSED CONSIDERATIONS FOR A SCOPE STATEMENT

33 C’s

Regions:
- Attributes
- Basis
- Circumstances

33 “c”arat SCOPE gem
Solution No. 2

TOOL TO VALIDATE THE SCOPE
## Requirements Traceability Matrix

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<th>Description</th>
<th>Justification</th>
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Questions?

Please type your questions in the chat box.