

Planning Methods Overview



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Jon C. Peschong



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How Does a Baseline Get “Certified”?

- A baseline is developed and approved locally. This baseline includes tens of thousands of scope definitions, cost estimates, schedule activities and risks.
- DOE’s Project Management Organization (OECM) hires independent experts to review the baseline (EIR = External Independent Review).
 - Off-site: five weeks to review the baseline material,
 - On-site: approximately a week,
 - Independent experts identify findings and observations,
 - The findings and observations are resolved.
- The independent experts recommend to OECM whether or not to certify the baseline.
- OECM then decides whether to certify the baseline, and formally transmits that decision to DOE-EM.



What Does “Certification” of a Baseline Mean?

- The scope in the contract period:
 - can be accomplished within the stated costs
 - within the established completion dates
 - if funded consistent with the cost profile.
- Beyond five years:
 - Reasonableness has been verified.



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What is “The Certified Baseline”?

For RL:

- ~22,000 activities in the PRC/MSC schedule.
- ~ 54,000 cost elements in the Bases of Estimate.
- Approximately 18,000 pages of WBS Dictionary Sheets.
- “Adders” to direct work are calculated and distributed in Excel - 4 workbooks, ~60 spreadsheets, some spreadsheets have 20,000 rows, 240 columns of calculations and data.

For ORP:

- ~ 7,198 baseline activities
- ~ 22,985 field level schedule activities
- Approximately 34,000 pages of cost estimates

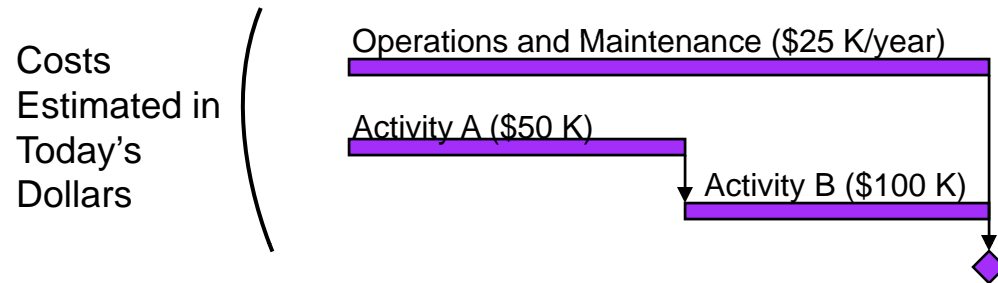


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Planning Fundamentals



Description	Year 1	Year 2	Year 3	Total
Ops and Maintenance	\$25 K	\$25 K		\$50 K
Activities	\$50 K	\$100 K		\$150 K
Management Reserve (Risk)	\$12 K	\$15 K		\$27 K
subtotal	\$87 K	\$140 K		\$227 K
Total With Escalation (2.5%)	\$87 K	\$144 K		\$231 K
Funding	\$35 K	\$90 K		\$125 K
Difference	(\$52 K)	(\$54 K)		(\$106 K)



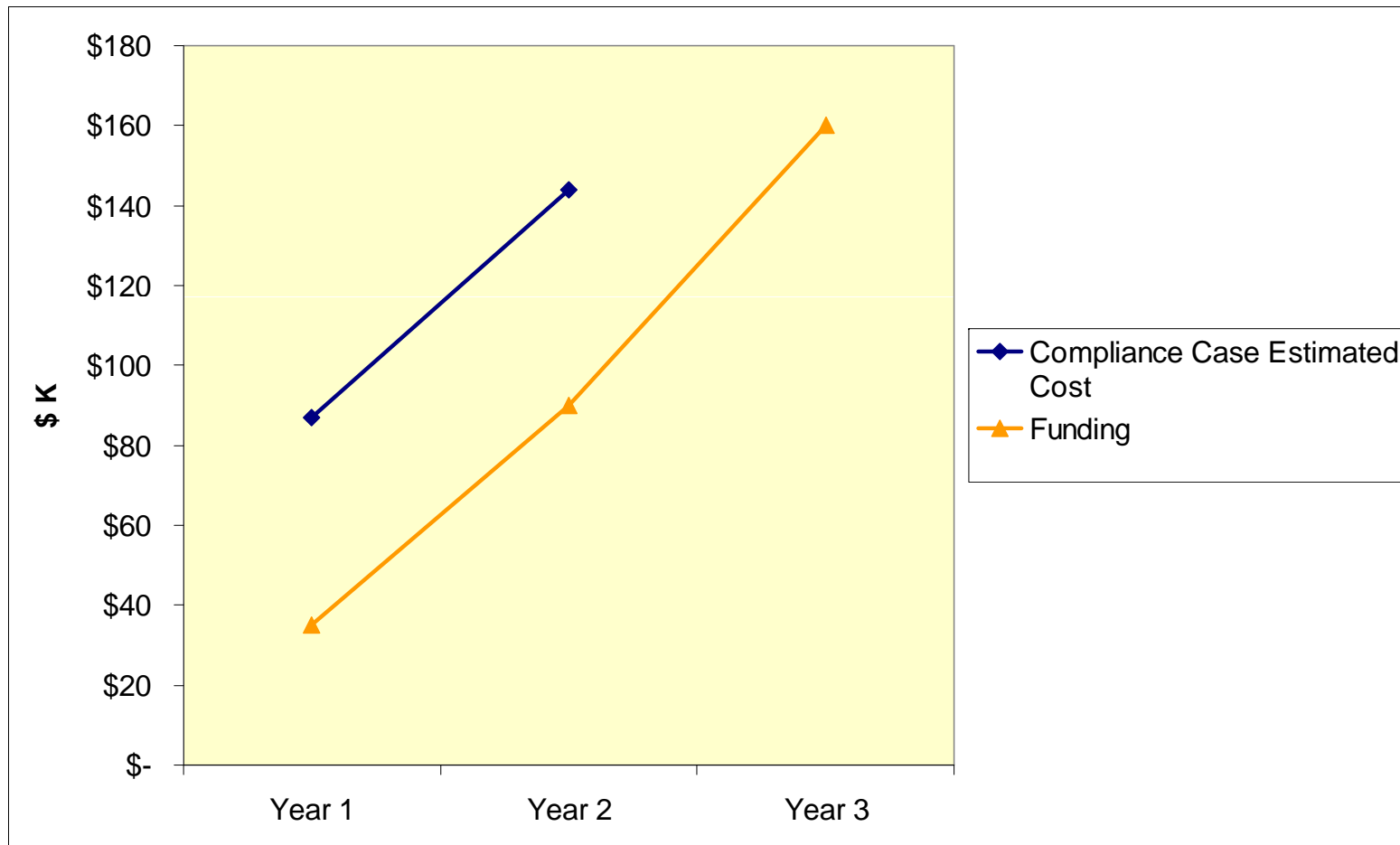
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Overheads & Indirects Omitted for Simplification

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Planning Fundamentals

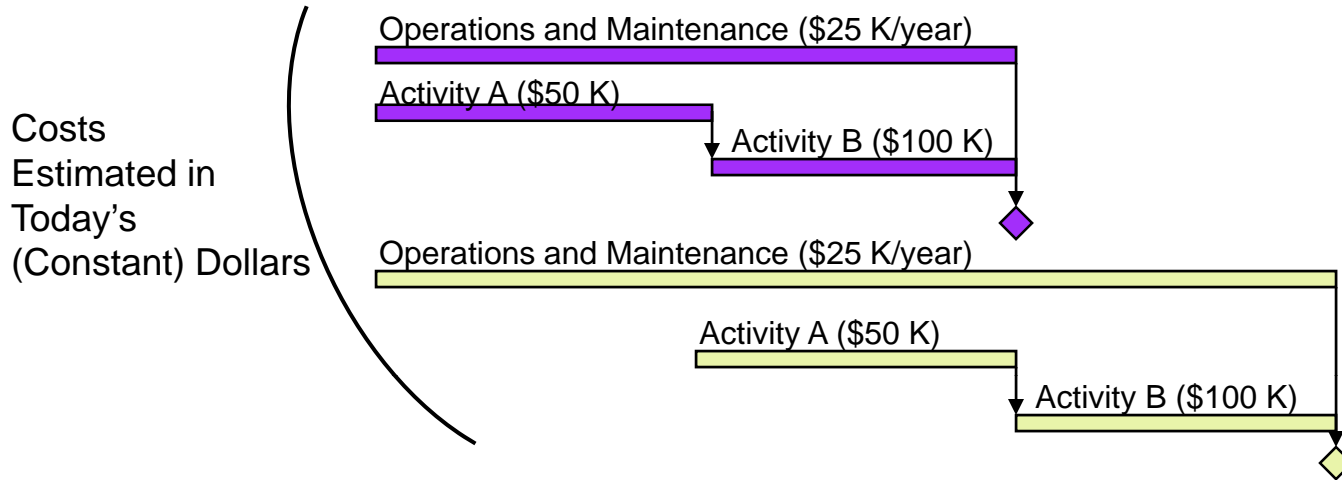


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Planning Fundamentals



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Total With Escalation	\$87 K	\$144 K		\$231 K
Ops and Maintenance	\$25 K	\$25 K	\$25 K	\$75 K
Activities	-	\$50 K	\$100 K	\$150 K
Management Reserve	\$5 K	\$12 K	\$15 K	\$32 K
subtotal	\$30 K	\$87 K	\$140 K	\$257 K
Total With Escalation	\$30 K	\$89 K	\$147 K	\$266 K

Overheads & Indirects Omitted for Simplification

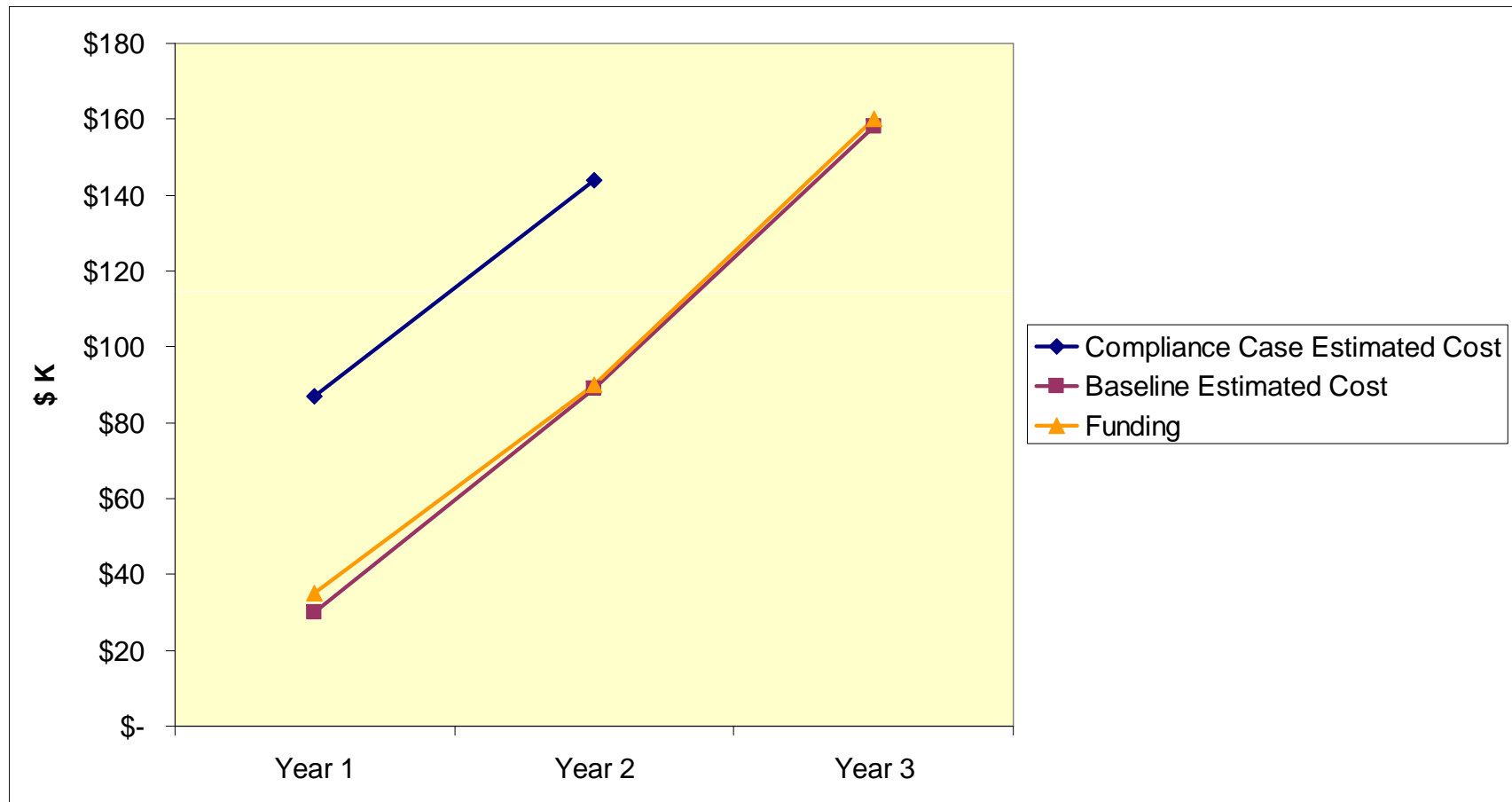


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Planning Fundamentals



Risk Management Definitions

- Risk management. The process that balances costs and risks of an activity or project to maximize success.
- Risk event. A potential event that would have undesirable affect (if it occurs) such as a schedule delay or cost increase.
- Risk probability. The probability that a risk event will occur.
- Risk consequence. The estimated impact that a risk event will have if it occurs. (length of schedule delay or amount of cost increase)
- Risk mitigation. Preventive measures designed to reduce or eliminate the probability or consequences of risks.



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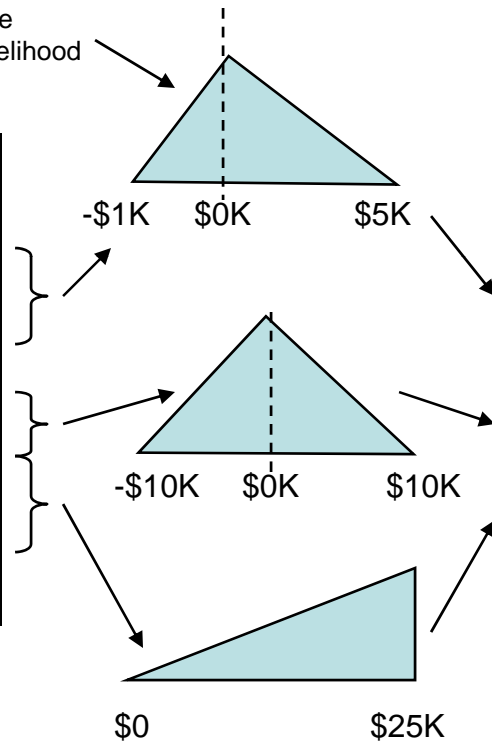
Risk Management Example

Year 1 Only

Description	Estimate	Probability of Occurrence?
Ops and Maintenance	\$25 K	
Risk 1 – Diesel price different than estimated (estimating uncertainty)		Yes (estimating uncertainty)
Activity A	\$50 K	
Risk 2 – Levels of contaminants found are different than estimated.		Moderate
Risk 3 – Remedy is more costly than assumed		Low
Activity B	\$0 K	
Total	\$75 K	

Consequence

Height of line indicates likelihood



Run #1	Run #2	Run #3	Run...
\$25 K	\$25 K	\$25 K	...
-\$1K	\$4K	\$2K	...
\$50 K	\$50 K	\$50 K	...
\$8	\$0K	\$0K	...
\$23K	\$10K	\$0K	...
\$0K	\$0K	\$0K	...
\$105K	\$89K	\$77K	...

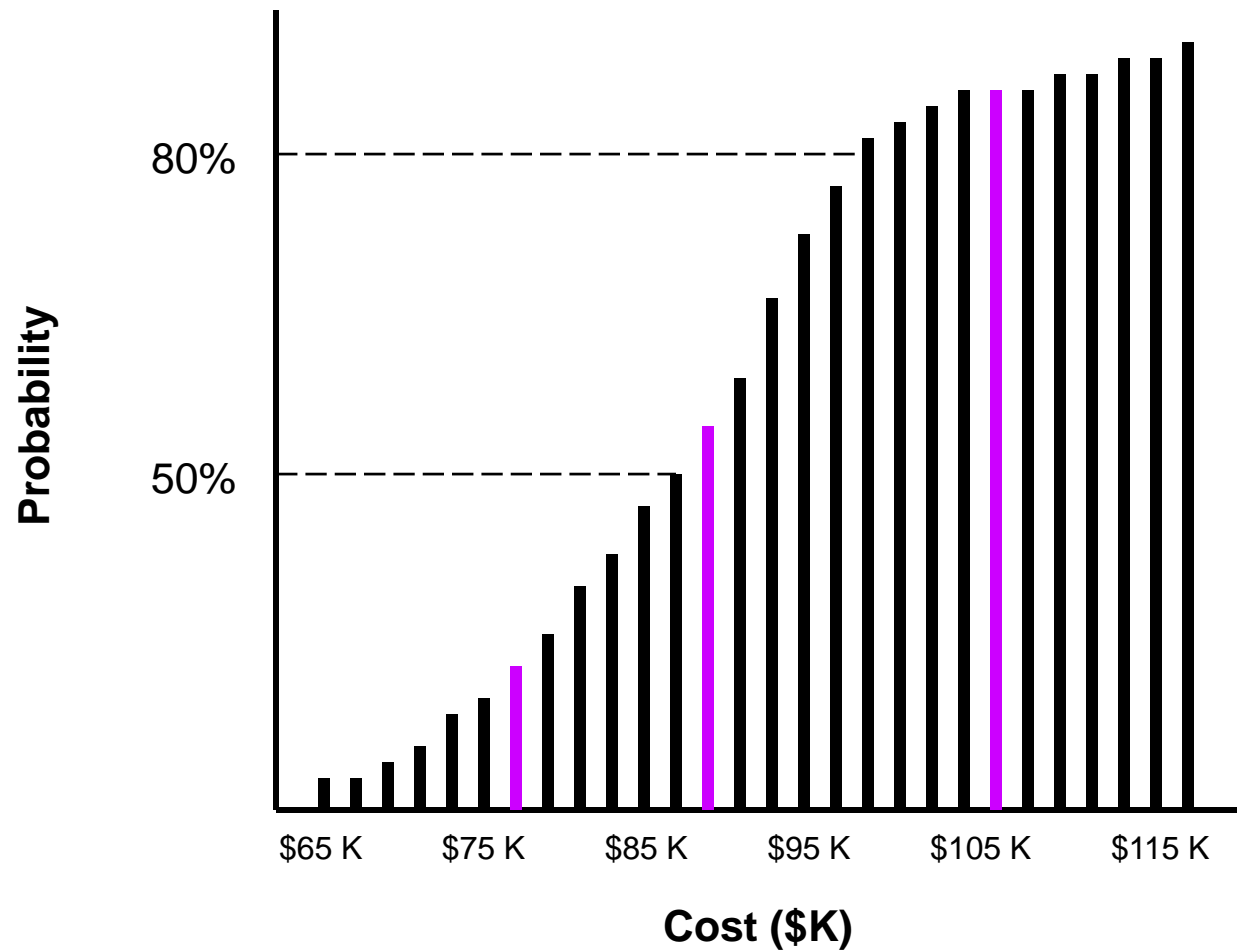


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Risk Management Example

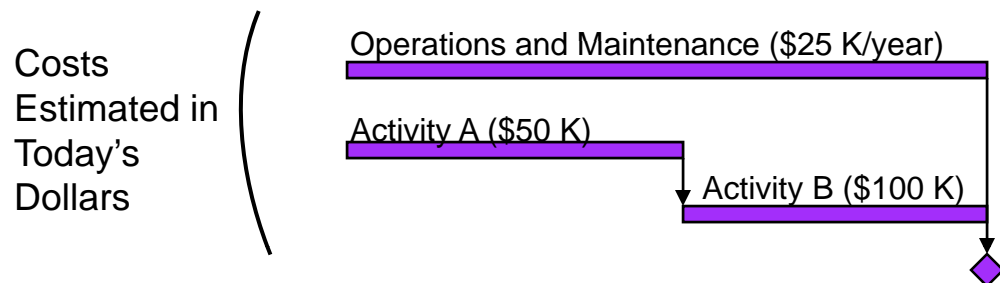


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Risk Management Example



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Total With Escalation (2.5%)	\$87 K	\$144 K		\$231 K
Funding	\$35 K	\$90 K	\$160 K	\$285 K
Difference	(\$52 K)	(\$54 K)	\$160 K	\$54 K



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