

# CENTRAL EVERGLADES PLANNING PROJECT



## Water Resource Advisory Committee Meeting

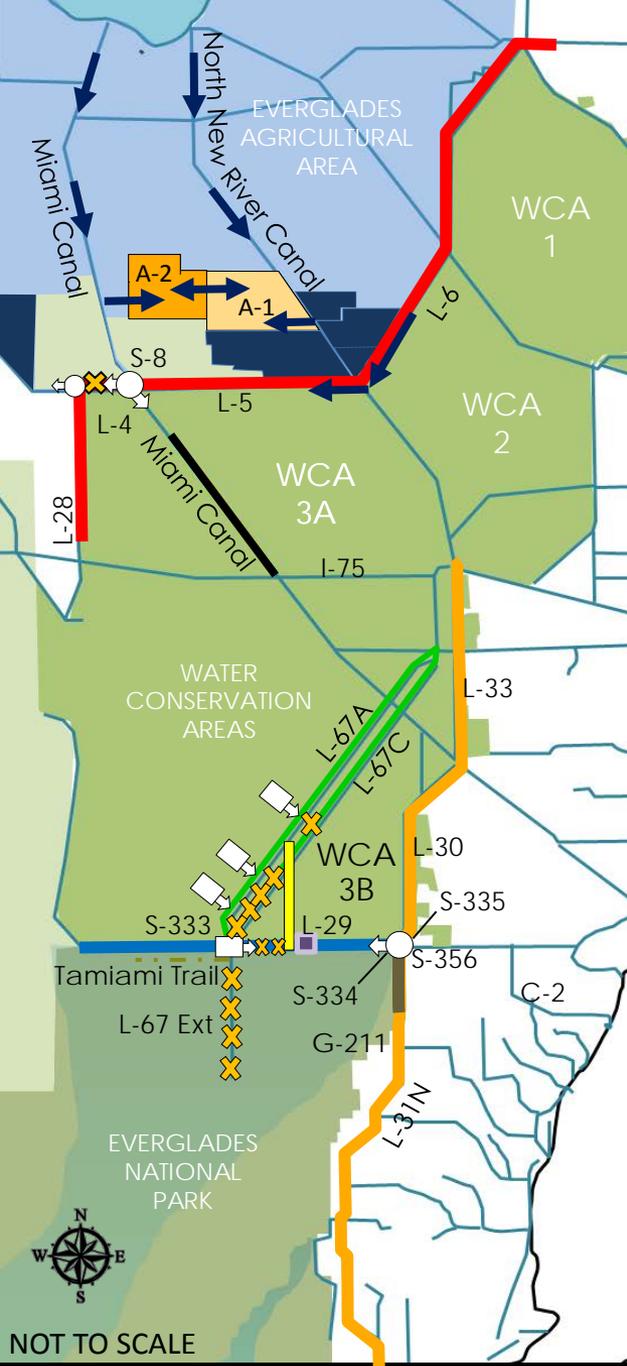
PRESENTED BY

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U.S. Army Corps of Engineers

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# TENTATIVELY SELECTED PLAN



## STORAGE AND TREATMENT

- Construct A-2 FEB and integrate with A-1 FEB operations
- Lake Okeechobee operation refinements within LORS

## DISTRIBUTION/CONVEYANCE

- Diversion of L-6 flows, Infrastructure and L-5 canal improvements
- Remove western ~2.9 miles of L-4 levee (west of S-8 3,000 cfs capacity)
- Construct 360 cfs pump station at western terminus of L-4 levee removal
- Backfill Miami Canal and Spoil Mound Removal ~1.5 miles south of S-8 to I-75

## DISTRIBUTION/CONVEYANCE

- Increase S-333 capacity to 2,500 cfs
- Two 500 cfs gated structures in L-67A, 0.5 mile spoil removal west of L-67A canal north and south of structures
- Construct ~8.5 mile levee in WCA 3B, connecting L-67A to L-29
- Remove ~8 miles of L-67C levee in Blue Shanty flowway (no canal back fill)
- One 500 cfs gated structure north of Blue Shanty levee and 6,000-ft gap in L-67C levee
- Remove ~4.3 miles of L-29 levee in Blue Shanty flowway, divide structure east of Blue Shanty levee at terminus of western bridge
- Tamiami Trail western 2.6 mile bridge and L-29 canal max stage at 9.7 ft (FUTURE WORK BY OTHERS)
- Remove entire 5.5 miles L-67 Extension levee, backfill L-67 Extension canal
- Remove ~6 mile Old Tamiami Trail road (from L-67 Ext to Tram Rd)

## SEEPAGE MANAGEMENT

- Increase S-356 pump station to ~1,000 cfs
- Partial depth seepage barrier south of Tamiami Trail (along L-31N)
- G-211 operational refinements; use coastal canals to convey seepage

Note: System wide operational changes and adaptive management considerations will be included in project



# Project Cost Determination

Final construction cost estimate has **not** been determined yet

- Detailed cost estimate is currently being developed & will be included in Draft PIR.

## DETERMINING PROJECT COST

Comparative cost estimate developed to compare proposed final array of alternatives



- Developed using **regional average prices** to determine a **relative cost** based on historic information.
- **NOT** a construction estimate – serves as a comparative tool.
- Includes a high contingency.

# Comparative Cost Estimate Breakdown

TOTAL CAPITAL COST

**\$2.18 Billion**

CONSTRUCTION

**\$910 Million**

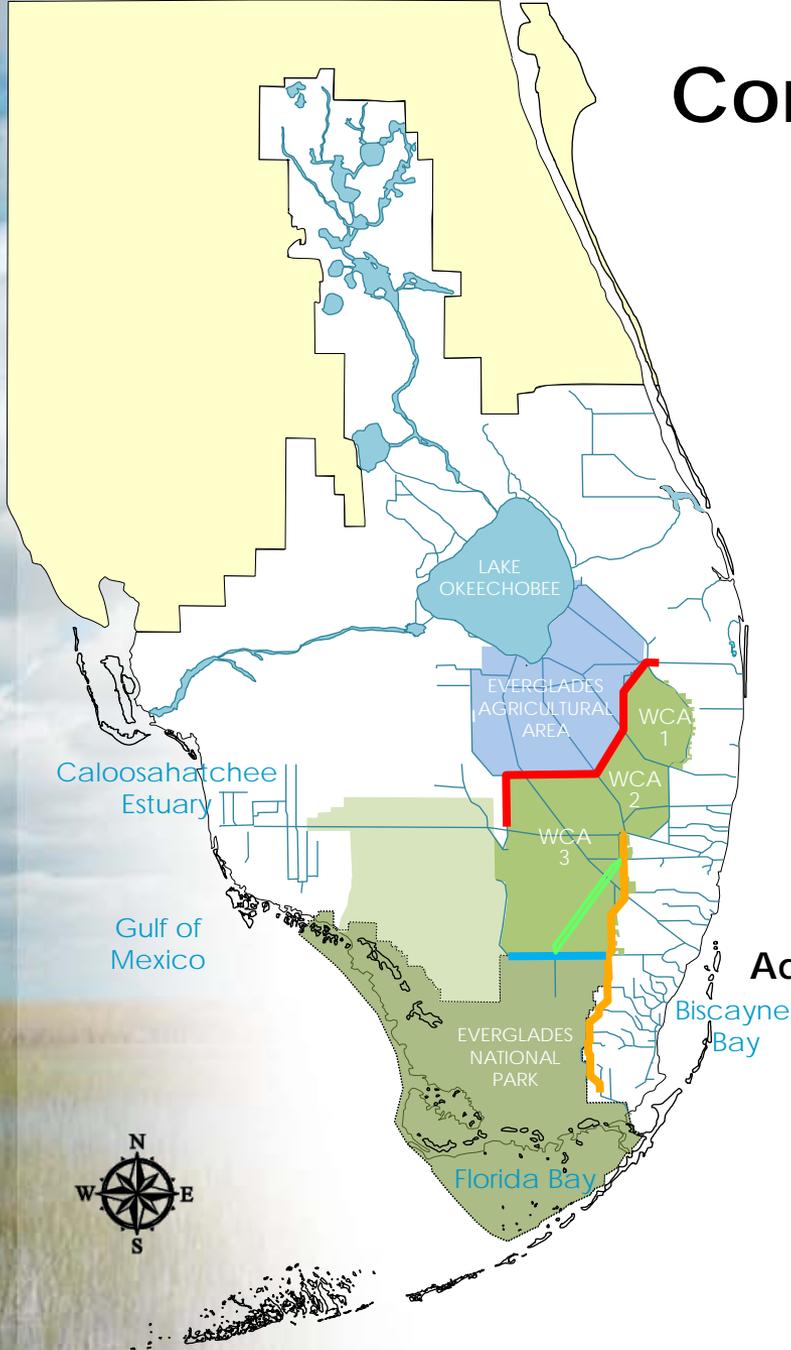
NON-CONSTRUCTION

(Planning Engineering Design, Lands, Supervision & Administration, Engineering During Construction, Lands)

**\$310 Million**

CONTINGENCY

**\$960 Million**



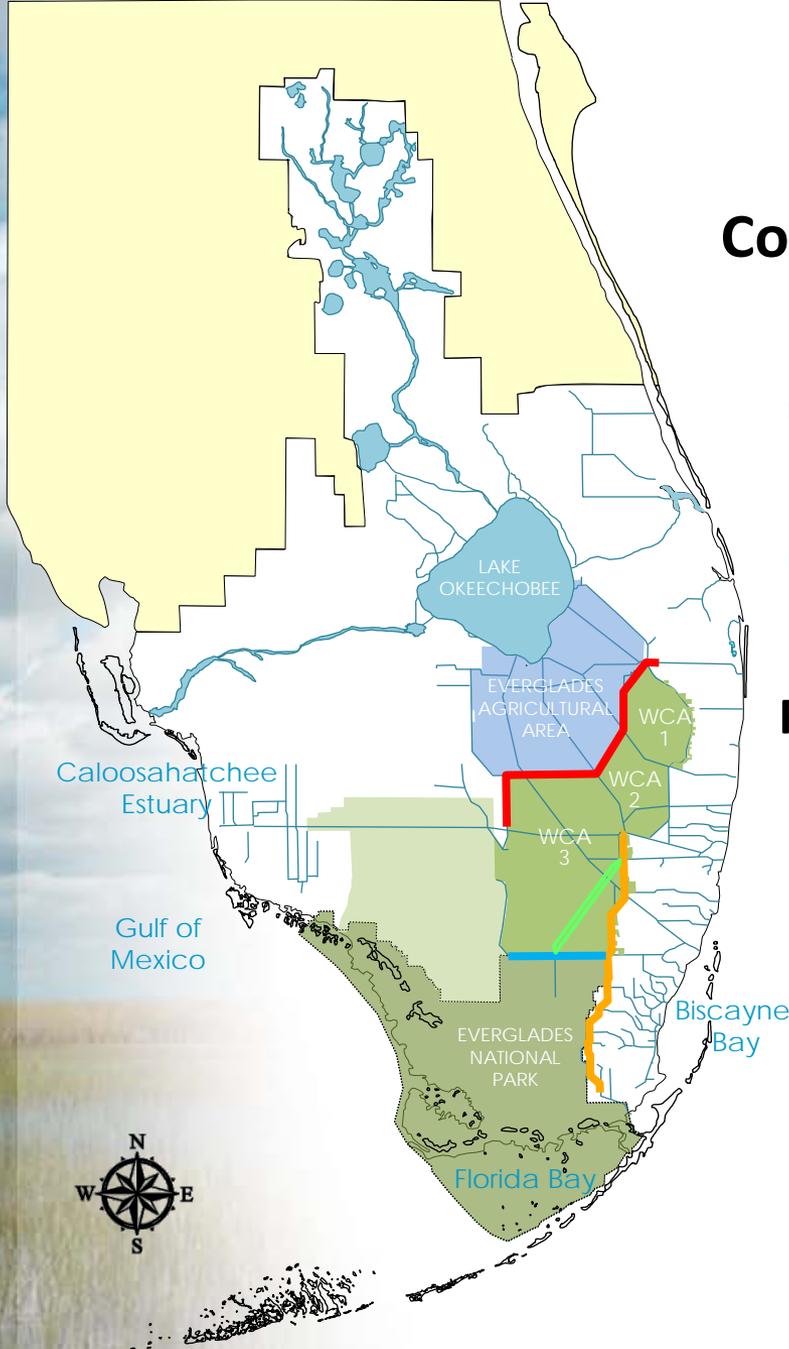
# Contingency Costs

**Contingencies = unknowns that may impact total project cost**

- Account for the “what ifs” that may occur during project implementation
- Plans for costs beyond actual construction & non-construction costs

## Factors include:

- Potential for adding additional elements to project features
- Potential modifications to construction contracts
- Potential severe weather impacts to construction schedule
- Potential inflation of material and equipment costs throughout the project lifecycle



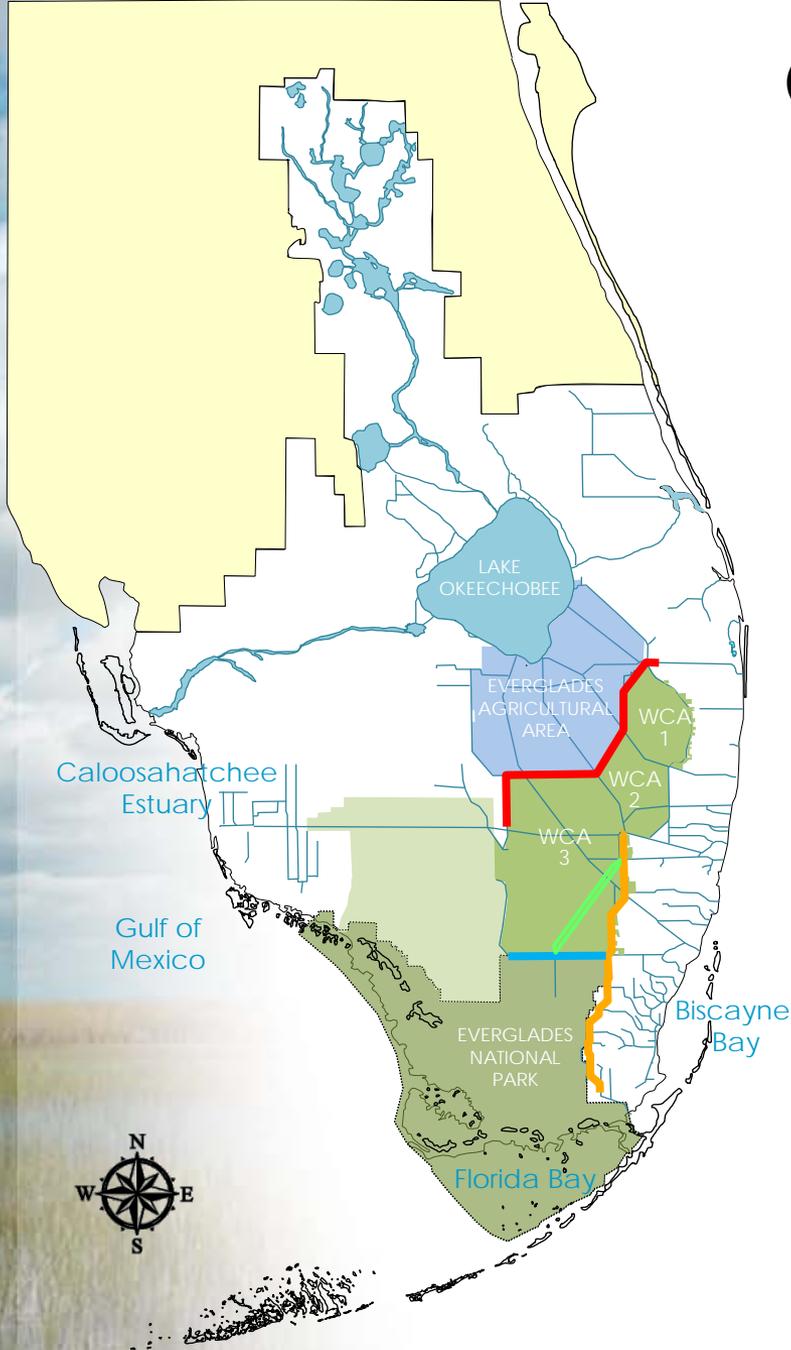
# Contingency Costs

Higher contingency costs have to be factored in as a result of planning to:

- Implement multiple CERP components
- Across a large geographic area.

CEPP aims to streamline the Corps' planning process

- By accepting higher levels of uncertainties on the front-end of the project, contingency costs will be higher.

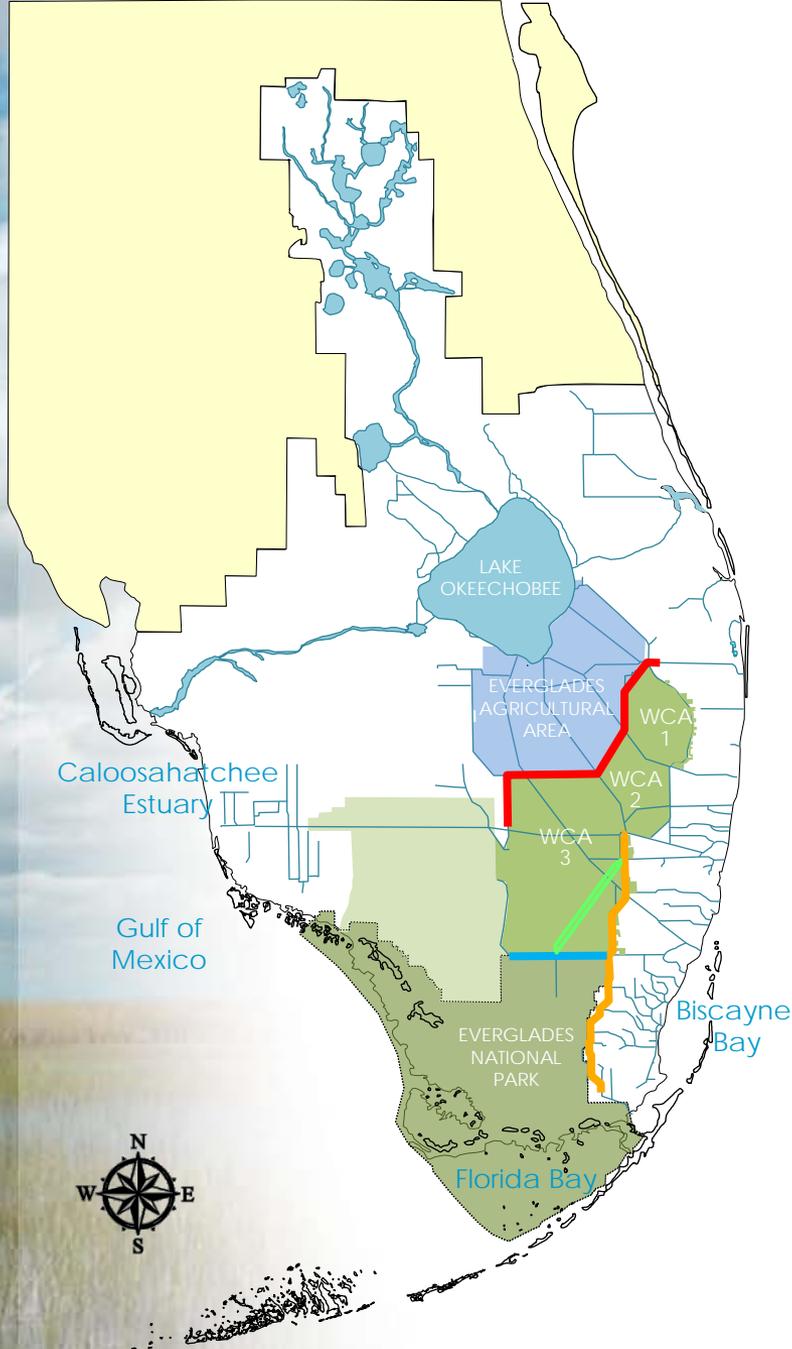


# The Yellow Book

## Comparable Yellow Book Components

**\$ 1.65 Billion (FY13 \$)**

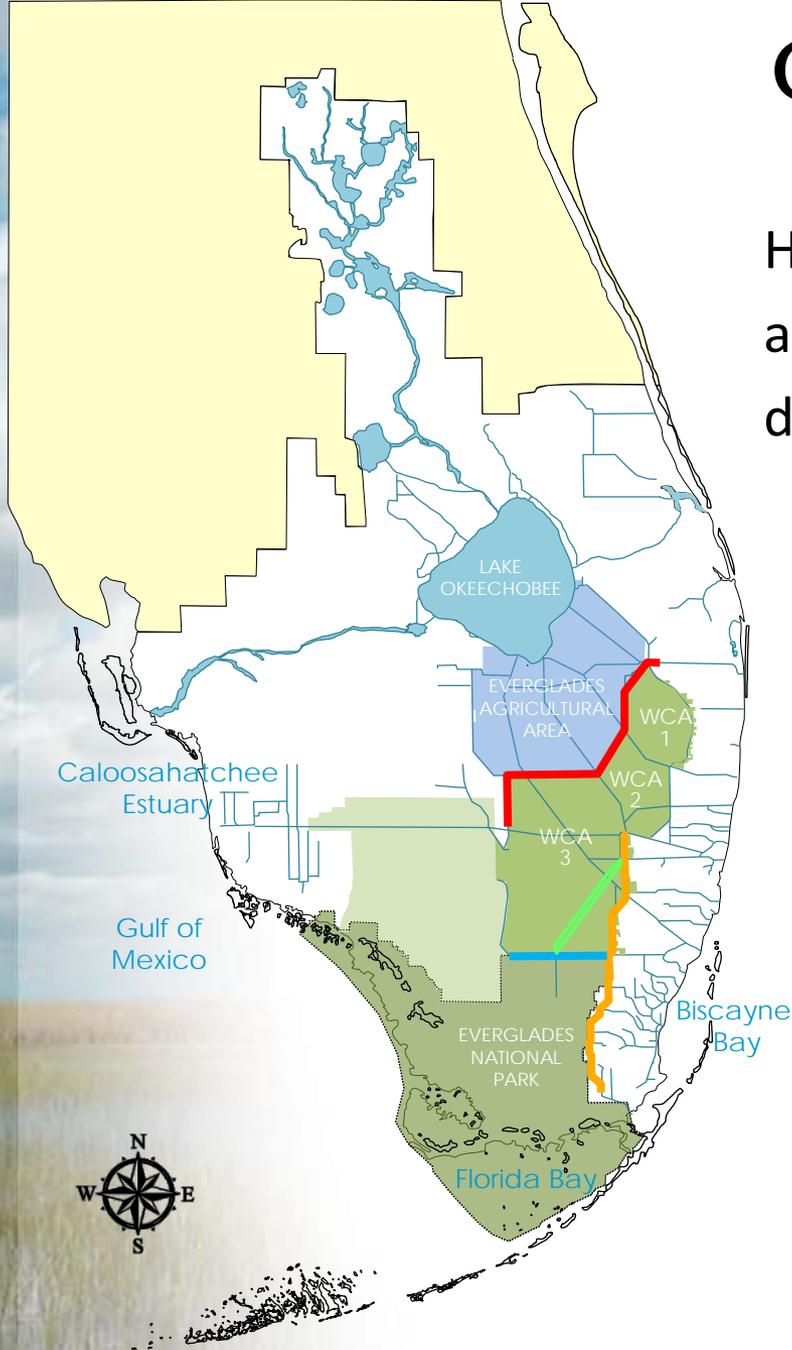
**Total Yellow Book Costs  
\$ 12.7 Billion (FY13 \$)**



# Contingency Costs

Higher than normal contingencies were anticipated at the beginning of study during project scoping phase due to:

- Limited site specific data and analyses
- Level of design and limited field investigation data
- Risks associated with non-detailed construction schedule and contract acquisition plan.



# CONTINGENCY Evaluation Factors

		Risk Level				
		Low	Moderate	High	High	High
Likelihood of Occurrence	Very Likely	Low	Moderate	High	High	High
	Likely	Low	Moderate	High	High	High
	Unlikely	Low	Low	Moderate	Moderate	High
	Very Unlikely	Low	Low	Low	Low	High
		Negligible	Marginal	Significant	Critical	Crisis
Impact or Consequence of Occurrence						

# Detailed Cost Estimate

- A detailed construction cost estimate is being developed.
  - Will incorporate project-specific data, including:
    - Labor
    - Materials
    - Equipment
    - Site specific assumptions
- USACE and SFWMD have met to study the estimate and to concur on the assumptions that are to be used as a basis for the final construction estimate.

# Path Forward

- The detailed construction estimate will continue to be refined incorporating site specific assumptions and knowledge.
- A project schedule, Cost and Schedule Risk Analysis (CSRA) and a Total Project Cost Summary (TPCS) will also be developed to accompany the estimate.
- As more details are included in the estimate, the direct cost will more than likely increase, but at the same time the contingency will decrease.

# Questions

