

City of Morro Bay
and
Cayucos Sanitary District

JPA Meeting

Oct 14, 2010

**MBCSD WWTP Upgrade -
Estimated Construction Cost**

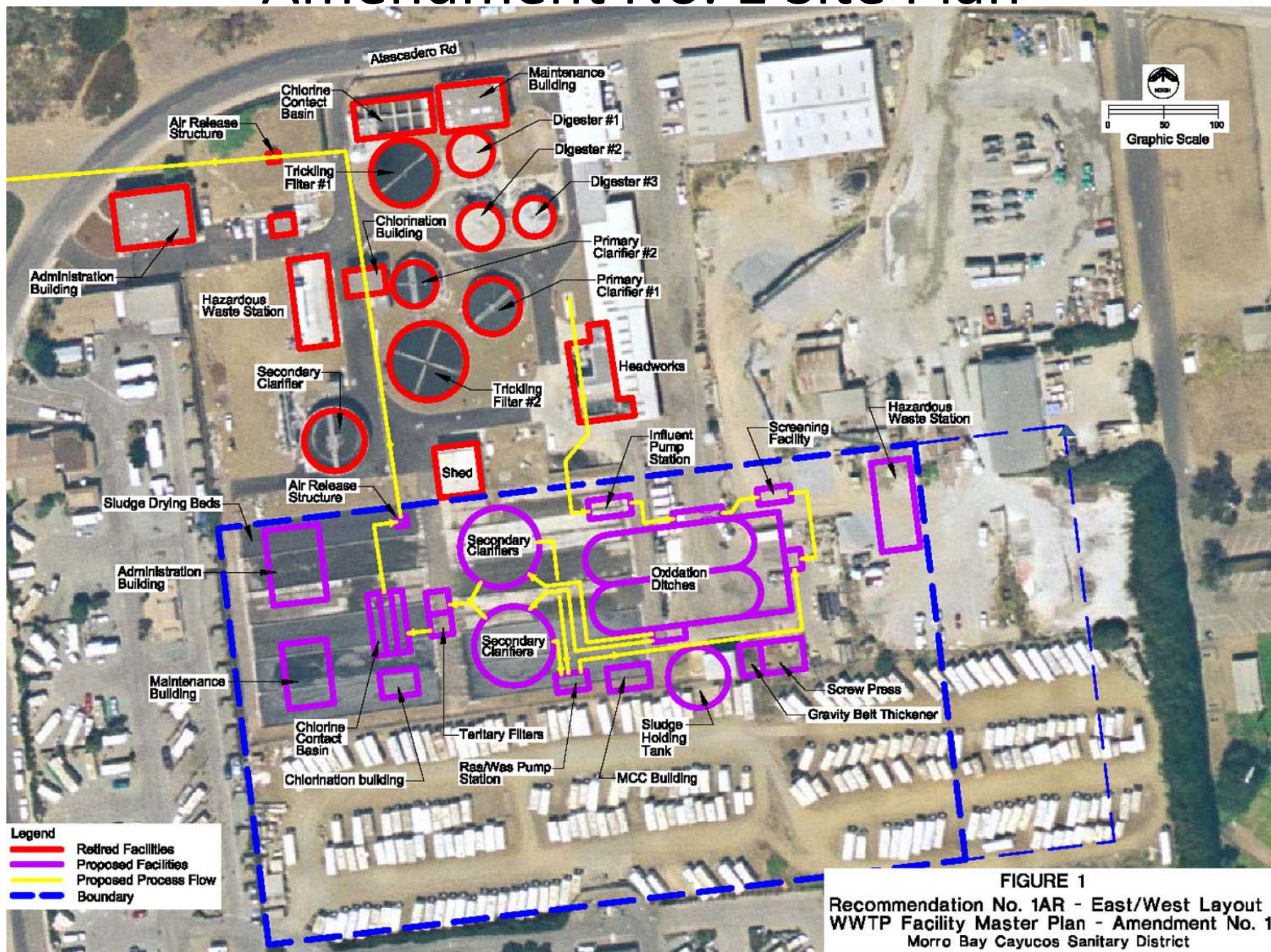
Cost Estimate Background

- Previous estimate prepared Aug 2009 for FMP – Amendment No. 1 (Note Jun 2006 cost basis used to match draft FMP)
- Next estimate originally scheduled with draft Preliminary Design Report in Jan 2011
- Earlier estimate requested by JPA based on conceptual design of FMP - Amendment No. 2

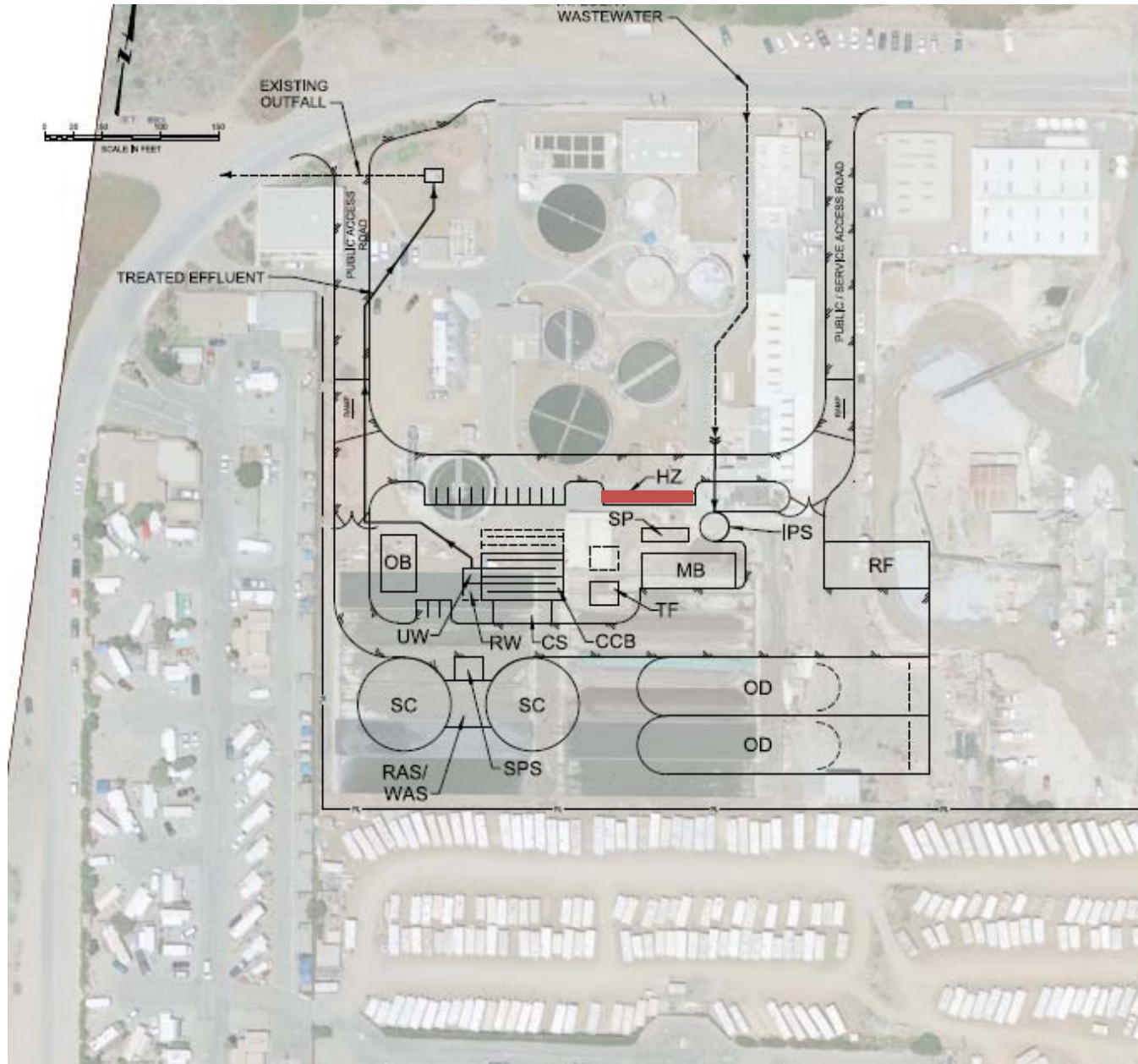
Cost Estimate Approach

- Escalated previous estimate from Jun 2006 to Sep 2010 basis with ENR index
- Prepared new estimate based on conceptual design presented in FMP – Amend. No. 2
- Compared estimates to examine any differences
- Note both estimates based on campus style configuration and Design/Bid/Build

Amendment No. 1 Site Plan



Amendment No. 2 Site Plan



Escalation of Previous Construction Cost Est.

	FMP - Amend 1	
	<u>(ENR 7700)</u>	<u>(ENR 8800)</u>
Demolition	\$1,150,000	\$1,300,000
Subsoil Stabilization	\$1,180,000	\$1,400,000
Sitework	\$2,570,000	\$2,900,000
Influent Pump Station	\$260,000	\$300,000
Residuals Handling	\$1,670,000	\$1,900,000
Secondary Treatment	\$6,400,000	\$7,300,000
Tertiary Filtration & Disinfection	\$1,680,000	\$1,900,000
Standby Power	\$260,000	\$300,000
Maintenance / Electrical Building	\$780,000	\$900,000
Operations Building	\$960,000	\$1,100,000
Household HW Station	\$0	\$0
Construction Contingency	<u>\$3,380,000</u>	<u>\$3,900,000</u>
Est. Construction Cost Total	\$20,300,000	\$23,200,000

Jun 2006 ENR = 7700 → Sep 2010 ENR = 8800

Comparison of Construction Cost Estimates

Description	FMP – Amend 1 (ENR 8800)	FMP – Amend 2 (ENR 8800)	Difference
Demolition	\$1,300,000	\$1,300,000	\$0
Subsoil Stabilization	\$1,400,000	\$1,400,000	\$0
Sitework	\$2,900,000	\$3,300,000	\$400,000
Influent Pump Station	\$300,000	\$800,000	\$500,000
Residuals Handling	\$1,900,000	\$3,700,000	\$1,800,000
Secondary Treatment	\$7,300,000	\$7,900,000	\$600,000
Tertiary Filtration & Disinfection	\$1,900,000	\$2,300,000	\$400,000
Standby Power	\$300,000	\$500,000	\$200,000
Maintenance / Electrical Building	\$900,000	\$1,000,000	\$100,000
Operations Building	\$1,100,000	\$1,200,000	\$100,000
Household HW Station	\$0	\$200,000	\$200,000
Construction Contingency	<u>\$3,900,000</u>	<u>\$3,900,000</u>	<u>\$0</u>
Est. Construction Cost Total	\$23,200,000	\$27,500,000	\$4,300,000

Comparison of Construction Cost Estimates

Description	Difference	Comments
Demolition	\$0	
Subsoil Stabilization	\$0	
Sitework	\$400,000	Engineered fill, paving
Influent Pump Station	\$500,000	Increased flow and head
Residuals Handling	\$1,800,000	Upper floor, 3 walls, added grit, deleted sludge thickening
Secondary Treatment	\$600,000	Added secondary pump station
Ter. Filtration & Disinfection	\$400,000	Added 2-compartment CCB
Standby Power	\$200,000	
Maintenance / Elec. Building	\$100,000	
Operations Building	\$100,000	
Household HW Station	\$200,000	Not included in FMP
Contingency	<u>\$0</u>	
Total Difference	\$4,300,000	

Next Steps

- Refinement of process sizes, equipment selection, and sitework
- Reduction in contingency
- 30% Cost Estimate Mar 2011
- 60% Cost Estimate Jun 2011
- Final Cost Estimate Nov 2011

Comparison of Project Cost Estimates

	Amend 1 <u>(ENR 8800)</u>	Amend 2 <u>(ENR 8800)</u>	Difference
Est. Construction Cost Total	\$23,200,000	\$27,500,000	\$4,300,000
EIR (a)		\$375,000	
Project Management		\$255,000	
Design Services (b)		\$2,700,000	
Construction Management (c)		\$2,100,000	
MBCSD Staff & Consultants		\$1,375,000	
Engineering/Admin/Legal	<u>\$8,100,000</u>	<u>\$6,800,000</u>	<u>-\$1,300,000</u>
Total Estimated Project Cost	\$31,300,000	\$34,300,000	\$3,000,000

(a) Includes flood study.

(b) Includes FMP – Amendment No. 2, geotechnical, surveying, and engineering services during construction.

(c) Includes materials testing, specialty inspection, and O&M Manual.

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