

5851 Thille Street, Suite 201
Ventura, CA 93003
TEL: (805)644-9704
FAX: (805)642-8277
www.boyleengineering.com

Employee Owned

Brian D. Cullen, President
PACIFIC ENVIRONMENTAL RESOURCES CORP.
17520 Newhope Street, Suite 140
Fountain Valley, CA 92708

July 18, 2007
16232.00-0078

City of Fillmore Water Recycling Project
Request for Cost Comparison

Dear Mr. Cullen:

Transmitted herewith are eight (8) CDs, which include the Fillmore Water Recycling Project Statement of Qualifications (note Section 4 for qualification requirements) and the Request for Proposals (note Section 18 for guarantee requirements), including corresponding addendums.

You are invited to utilize the enclosed spreadsheets to compile a cost comparison. It would be helpful if your firm identifies all the main process equipment manufacturers, inclusive of the MBR (SBR?) system, and provide references (5-year case history) for the proposed equipment. Please provide detailed loading information during dry and peak wet weather periods, inclusive of flux rates. Please identify any proprietary equipment items (both initial construction and operational material and equipment) and how these would be priced (capital and O&M) to the City. Please confirm sales tax is included.

Please contact me at (805) 644-9704 if you have any questions.

Sincerely,

Boyle Engineering Corporation



Glen Hille, PE
Vice President and Director of Engineering

Enclosures: Fillmore WRP RFQ (7 CDs)
Fillmore WRP SOQ (1 CD)
Fillmore WRP Cost Tables (12 pages)

Additional Copies: Bert Rapp, PE – City of Fillmore



(base document revised on 7/3/06, 10:30 am)

| SUMMARY OF FIXED DESIGN/BUILD PRICE | | Team #2 | PERC |
|---|-----------------|----------------------|------------------------|
| Fixed Development Price | | | |
| Permitting Activities | Design | \$ 202,866 | (much higher for PERC) |
| | Construction | 357,463 | |
| Engineering and Design | Design | 2,614,999 | |
| | Construction | 986,890 | |
| Project Management | Design | 567,912 | |
| | Construction | 92,516 | |
| | Subtotal | \$ 4,822,646 | \$ - |
| Fixed Construction Price | | | |
| <i>Site Work</i> | | | |
| Roads, Parking, Site Drainage, Mass Grading & Excavation, etc. | | \$ 1,469,886 | |
| Sespe Creek Levee | | 2,380,943 | |
| Sespe Creek Groins | | 182,443 | |
| Bike Path, Interpretive Overlook, Wood Rail Fencing | | 344,286 | |
| Dewatering | | 597,586 | |
| Landscaping and Irrigation | | 343,186 | |
| Yard Piping | | 3,094,586 | |
| Site Drainage and Storm Drainage Treatment | | 108,286 | |
| Rock Removal | | 155,086 | |
| | Subtotal | \$ 8,676,288 | \$ - |
| <i>Facility and Process:</i> | | | |
| Pump Station and Headworks | | \$ 2,107,086 | |
| MBR Facility and Secondary Equalization | | 6,309,186 | |
| Disinfection | | 2,066,086 | |
| Effluent Storage and Pumping | | 1,574,886 | |
| Aerobic Digestion | | 693,186 | |
| Sludge Dewatering | | 569,686 | |
| Enclosures and Buildings | | 3,385,386 | |
| Electrical | | 3,743,486 | |
| Instrumentation (WRP, Effluent Conveyance, and Effluent Disposal) | | 736,386 | |
| Odor Control | | 386,286 | |
| Emergency Generator | | 276,386 | |
| Environmental Mitigation | | 42,486 | |
| Miscellaneous Maintenance and Mobile Equipment | | 42,486 | |
| Spare Parts | | 460,000 | |
| Other (Specify): Detention pond | | | |
| Other (Specify): Surge tank | | | |
| Other (Specify): Operations building | | | |
| Other (Specify): Equalization tank | | | |
| Other (Specify): Aesthetics & Interpretive Allowance | | | |
| | Subtotal | \$ 22,393,018 | \$ - |
| <i>Off-site Infrastructure:</i> | | | |
| Influent Piping ("C" Street to WRP) | | \$ 1,248,286 | |
| Effluent Piping ("C" Street to WRP) | | 761,186 | |
| Hardness Line ("C" Street to WRP) | | 42,486 | |
| Water (North Side of SR 126 to WRP) | | 783,186 | |
| Access Roads ("C" Street to "E" Street) | | 182,886 | |
| Access Road ("E" Street to WRP) | | 81,386 | |
| Other (Specify): Gas line | | 170,086 | |
| | Subtotal | \$ 3,269,502 | \$ - |

| SUMMARY OF FIXED DESIGN/BUILD PRICE (Continued) | Team #2 | PERC |
|--|----------------------|-----------|
| <i>Start-up & Acceptance Testing:</i> | | |
| Start-up Activities | \$ 318,903 | |
| Acceptance Testing Activities | 169,197 | |
| Hydro-pneumatic Test of All Piping | 43,900 | |
| Additional Final Acceptance | 2,300,000 | |
| Subtotal | \$ 2,832,000 | |
| <i>Existing WWTF Demolition</i> | | |
| Demolition of Existing WWTF | \$ 710,653 | |
| Subtotal | \$ 710,653 | \$ |
| <i>Other Direct and Indirect Costs</i> | | |
| Project management- W.M.Lyles | \$ 798,100 | |
| O&M Manuals | 251,920 | |
| Mobilization (not to exceed 2% of the Fixed D/B Price) | 585,700 | |
| Demobilization (25% of the Mobilization Price) | 146,400 | |
| <i>Material Testing</i> | | |
| Concrete | 11,000 | |
| Soils | 127,500 | |
| Other | 10,000 | |
| <i>Administrative</i> | | |
| Shop Drawings | 43,640 | |
| Record Documents/As-Builts | 230,050 | |
| Other | 0 | |
| <i>Factory Testing</i> | | |
| Instrumentation and Controls | 0 | |
| Major Equipment | 0 | |
| <i>Insurance (During Construction)</i> | | |
| Builder's Risk Coverage | 372,300 | |
| Property Damage Insurance | 0 | |
| All other Design/Build Period Insurance | 0 | |
| Performance Bond (direct from Company) | 708,599 | |
| Performance Bond (Dual Oblige Bond) | 245,057* | |
| Other: Commercial General Liability | | |
| Other: Contractor's Pollution liability | | |
| Other: Worker's Comp & Employer Liability | | |
| Other: Excess Liability Insurance | | |
| Other: Electrical power studies | | |
| Other: SCADA Programming | | |
| Subtotal | \$ 3,285,209 | |
| TOTAL FIXED DESIGN/BUILD PRICE | \$ 45,989,316 | |

* Excluded from Subtotal and Total fixed design/build price

| | Team #2 | PERC |
|---|-----------|------|
| Optional Price Adjustments | | |
| Potential deduction for savings by design program | | |
| Type "A" sludge | | |
| UV Disinfection | | |
| Additional facility to meet 5 mg/L TN | | |
| Alt. A: Inst UV in lieu of CCT from beginning of the project | (585,942) | |
| Alt. B: Production of SUB "class B" sludge w/ screwpress | (585,340) | |
| Alt. C: Go directly to "Class A" sludge w/ screwpress and dryer | 297,085 | |
| Alt. D: Provide steel Bldg. instead of block for Dew. Bldg. | (201,032) | |
| Base Add #1 Add dryer in next 5 years | 975,000 | |
| Base Add #2 Add UV (keep CCT) | 734,180 | |
| STEEL AND CEMENT QUANTITY AND COST DATA | | |
| Eligible Reinforcing Steel | | |
| Baseline Amount | 543,629 | |
| Baseline Raw Material Amount (tons) | 726 | |
| Eligible Steel Products other than Reinforcing Steel | | |
| Baseline Amount | 595,296 | |
| Baseline Raw Material Amount (tons) | 795 | |
| (a) pipelines-offsite-steel & ductile piping | 295 | |
| (b) onsite-steel & ductile piping | 350 | |
| (c) misc. metal & structural steel | 125 | |
| (d) conduit | 25 | |
| Eligible Cement | | |
| Baseline Amount | 285,272 | |
| Baseline Raw Material Amount (tons) | 2,800 | |

**PRICE PROPOSAL FORM P-2 (base document revised on 7/3/06, 10:30 am)
FIXED COMPONENT OF SERVICE FEE**

| SERVICE FEE | TEAM #2 | | PERC | |
|---|--------------------------|------------------|--------------------------|-----|
| | Influent Parameter Group | | Influent Parameter Group | |
| | One | Two | One | Two |
| FIXED COMPONENT ITEMS⁽¹⁾ | | | | |
| Labor | 690,567 | 690,567 | | |
| Materials & Supplies | 208,621 | 208,621 | | |
| Chemicals | 42,349 | 64,703 | | |
| Subcontracts | 149,650 | 149,650 | | |
| Off-Site Sludge Hauling/Disposal | 224,650 | 274,232 | | |
| On-Site Residuals Management | 0 | 0 | | |
| Utilities (excluding electricity) | 8,706 | 8,706 | | |
| Operation and Maintenance of Effluent Storage, Conveyance, and Disposal Systems | 5,570 | 5,570 | | |
| Collection System – Cleaning, Videoing, and Recommendation of Repairs PVC pipe ⁽⁶⁾ | 103,106 | 103,106 | | |
| Collection System – Cleaning, Videoing, and Recommendation of Repairs other pipe ⁽⁶⁾ | Included above | Included above | | |
| Other (specify) | 0 | 0 | | |
| NON REPAIR AND REPLACEMENT FIXED COMPONENT TOTAL | 1,433,219 | 1,505,155 | | |
| Present worth for 20 years at 3% inflation and 5% interest | 24,102,213 | | | |
| Adjustment for Type "A" Sludge | (150,716) | (220,000) | | |
| Adjustment for UV Disinfection | 18,318 | 30,000 | | |
| Extra Power for UV disinfection | | | | |
| Extra Maintenance for UV (Bulbs) | | | | |
| CPI ADJUSTMENT FACTOR MODIFIER⁽²⁾ | | 100% | | |

| COLLECTION SYSTEM MARK-UP(3) | | |
|---|------|------------|
| TEAM #2 | PERC | percentage |
| | | |
| | 15% | |
| Preparation of plans and specifications for collection system repairs | | |
| | 15% | |
| Construction management services for collection system repairs | | |

| UNIT PRICE PER YEAR TO BE ADDED TO THE REPAIR AND REPLACEMENT FIXED COMPONENT | | |
|---|--|------------|
| TEAM #2 | PERC | percentage |
| | | |
| | \$49.00 | |
| Unit price increase for additional length of sewage collection system: | | |
| | \$_ per 1,000 feet of additional (any size) PVC pipe | |
| | \$_ per 1,000 feet of additional (any size) other pipe | |

THE CAPITAL AND ANNUAL OPERATING COSTS ARE ZERO (0) FOR ALL THREE TEAMS

| ENHANCED STANDARD | ENHANCED STANDARDS | TEAM #2 | | PERC | |
|---|--------------------|------------------------------|---------------------------------------|------------------------------|---------------------------------------|
| | | CAPITAL COSTS ^(B) | ANNUAL OPERATING COSTS ^(B) | CAPITAL COSTS ^(B) | ANNUAL OPERATING COSTS ^(B) |
| Biochemical Oxygen Demand (BOD ₅ 20°C) | 5 mg/L | \$ -0- | \$ -0- | \$ -0- | \$ -0- |
| Total Suspended Solids (TSS) | 5 mg/L | \$ -0- | \$ -0- | \$ -0- | \$ -0- |
| Nitrate + Nitrite (NO ₃ -N + NO ₂ -N) | 5 mg/L | \$ -0- | \$ -0- | \$ -0- | \$ -0- |
| Nitrite - Nitrogen (NO ₂ -N) | 0.5 mg/L | \$ -0- | \$ -0- | \$ -0- | \$ -0- |
| Turbidity | 0.2 NTU | \$ -0- | \$ -0- | \$ -0- | \$ -0- |
| Total Nitrogen | 8 mg/L | \$ -0- | \$ -0- | \$ -0- | \$ -0- |

| EFFLUENT SYSTEM ADJUSTMENT COST FOR OPERATION AND MAINTENANCE OF EFFLUENT REUSE AND DISPOSAL SYSTEM | | | | |
|---|---|-----------|---|--|
| ITEM NO. | DESCRIPTION | QUANTITY | TEAM #2 PRICE PER MONTH ⁽⁶⁾ | PERC PRICE PER MONTH ⁽⁶⁾ |
| 1 | Sespe Creek Levee Construction Mitigation Area Irrigation | 12 Months | 100 | |
| 2 | Santa Clara River Levee Construction Mitigation Area Irrigation | 12 Months | 50 | |
| 3 | River Walk Park | 12 Months | 50 | |
| 4 | "C" Street City Park | 12 Months | 100 | |
| 4A. | Central Park and Central Avenue | 12 Months | 100 | |
| 5 | "E" Street WRP Site | 12 Months | 100 | |
| 6 | Heritage Valley Park Phase 1A (2.1 acres) | 12 Months | 50 | |
| 11 | Sespe Elementary School | 12 Months | 50 | |
| 12 | San Cayetano Elementary School | 12 Months | 50 | |
| 13 | Fillmore Middle School | 12 Months | 100 | |
| 14 | Fillmore High School | 12 Months | 100 | |
| 15 | Ball Fields North of Fillmore High School | 12 Months | 100 | |
| 16 | Telephone Road – RR ROW | 12 Months | 50 | |
| 18 | Existing Wastewater Treatment Plant | 12 Months | 50 | |
| 21 | Santa Clara Levee west of SR-23 | 12 Months | 50 | |
| | Subtotal | 12 Months | 1100 | |
| Added public lands for year 2009 | | | | |
| 7 | Heritage Valley Park Phase 1B (24.8 acres) | 12 Months | 250 | |
| 8 | Heritage Valley Park Phase 2 (Included in 7) | 12 Months | 50 | |
| 9 | Heritage Valley Park Phase 3 (Included in 7) | 12 Months | 50 | |
| 22 | Santa Clara Levee west of Pole Creek | 12 Months | 50 | |
| 23 | Santa Clara Levee east of Pole Creek | 12 Months | 50 | |
| | Subtotal | 12 Months | 450 | |
| Added public lands for year 2010 or 2 years after WRP oprational | | | | |
| 10 | Heritage Valley Park Phase 4 (5.9 acres) | 12 Months | 50 | |
| 24 | Sespe Levee at "C" Street | 12 Months | 100 | |
| | Subtotal | 12 Months | 150 | |
| Added public lands for year 2012 or 3 years after WRP oprational | | | | |
| 17 | Business Park Green Belt (4.3 acres) | 12 Months | 50 | |
| | Subtotal | 12 Months | 50 | |
| | TOTAL | 12 Months | 1750 | |
| Total Present Worth @ 3% inflation and 5 % interest | | | | |

| PUBLIC LANDS FOR LANDSCAPE MAINTENANCE | | | | |
|--|---|-----------|--------------------------------|--------------------------------|
| | | | TEAM #2 | PERC |
| ITEM NO. | DESCRIPTION | QUANTITY | PRICE PER MONTH ⁽⁶⁾ | PRICE PER MONTH ⁽⁶⁾ |
| 1 | Sespe Creek Levee Construction Mitigation Area Irrigation | 12 Months | N/A | N/A |
| 2 | Santa Clara River Levee Construction Mitigation Area Irrigation | 12 Months | N/A | N/A |
| 3 | River Walk Park | 12 Months | N/A | N/A |
| 4 | "C" Street City Park | 12 Months | N/A | N/A |
| 4A. | Central Park and Central Avenue | 12 Months | N/A | N/A |
| 5 | "E" Street WRP Site | 12 Months | N/A | N/A |
| 6 | Heritage Valley Park Phase 1A (2.1 acres) | 12 Months | N/A | N/A |
| 11 | Sespe Elementary School | 12 Months | N/A | N/A |
| 12 | San Cayetano Elementary School | 12 Months | N/A | N/A |
| 13 | Fillmore Middle School | 12 Months | N/A | N/A |
| 14 | Fillmore High School | 12 Months | N/A | N/A |
| 15 | Ball Fields North of Fillmore High School | 12 Months | N/A | N/A |
| 16 | Telephone Road – RR ROW | 12 Months | N/A | N/A |
| 18 | Existing Wastewater Treatment Plant | 12 Months | N/A | N/A |
| 21 | Santa Clara Levee West of SR-23 | 12 Months | N/A | N/A |
| | Subtotal | 12 Months | N/A | N/A |
| Added public lands for year 2009 | | | | |
| 7 | Heritage Valley Park Phase 1B (24.8 acres) | 12 Months | N/A | N/A |
| 8 | Heritage Valley Park Phase 2 (Included in 7) | 12 Months | N/A | N/A |
| 9 | Heritage Valley Park Phase 3 (Included in 7) | 12 Months | N/A | N/A |
| 22 | Santa Clara Levee West of Pole Creek | 12 Months | N/A | N/A |
| 23 | Santa Clara Levee east of Pole Creek | 12 Months | N/A | N/A |
| | Subtotal | 12 Months | N/A | N/A |
| Added public lands for year 2010 or 2 years after WRP operational | | | | |
| 10 | Heritage Valley Park Phase 4 (5.9 acres) | 12 Months | N/A | N/A |
| 24 | Sespe Levee at "C" Street | 12 Months | N/A | N/A |
| | Subtotal | 12 Months | N/A | N/A |
| Added public lands for year 2012 or 3 years after WRP operational | | | | |
| 17 | Business Park Green Belt (4.3 acres) | 12 Months | N/A | N/A |
| | Subtotal | 12 Months | N/A | N/A |
| | TOTAL | 12 Months | | |
| Total Present Worth @ 3% inflation and 5 % interest | | | | |

| REPAIR AND REPLACEMENT FIXED COMPONENT FOR THE INITIAL PLANT | | |
|---|------------------|------|
| Year | TEAM #2 | PERC |
| 1 | - | |
| 2 | 58,679 | |
| 3 | 20,553 | |
| 4 | 36,544 | |
| 5 | 358,725 | |
| 6 | 207,496 | |
| 7 | 529,664 | |
| 8 | 206,033 | |
| 9 | 157,028 | |
| 10 | 586,853 | |
| 11 | 230,247 | |
| 12 | 275,429 | |
| 13 | 230,935 | |
| 14 | 605,662 | |
| 15 | 225,366 | |
| 16 | 45,492 | |
| 17 | 254,653 | |
| 18 | 247,917 | |
| 19 | 237,769 | |
| 20 | 1,282,320 | |
| Total Present Worth @ 3% inflation and 5 % interest | 4,523,072 | |

| REPAIR AND REPLACEMENT FIXED COMPONENT FOR THE EXPANDED FACILITY | | |
|---|----------------|------|
| Year | TEAM #2 | PERC |
| 1 | 102,000 | |
| 2 | 102,000 | |
| 3 | 102,000 | |
| 4 | 102,000 | |
| 5 | 102,000 | |
| 6 | 102,000 | |
| 7 | 102,000 | |
| 8 | 102,000 | |
| 9 | 102,000 | |
| 10 | 102,000 | |
| Total Present Worth @ 3% inflation and 5 % interest | 758,238 | |

PRICE PROPOSAL FORM P-3 (base document revised on 7/3/06, 10:30 am)

EXISTING WWTF INTERIM OPERATIONS SERVICE FEE

| | TEAM #2 | PERC |
|--------------------------------|----------------|----------------|
| | MONTHLY AMOUNT | MONTHLY AMOUNT |
| INTERIM OPERATIONS SERVICE FEE | 45,580 | |

PRICE PROPOSAL FORM P-4

LOADING AND FLOW ADJUSTMENTS OF SERVICE FEE (ANNUALY)

| | TEAM #2 | | PERC | |
|--|-----------|-----------|-----------|-----------|
| | Group One | Group Two | Group One | Group Two |
| BOD ₅ (\$/mg /l-MG) | 0.04 | 0.04 | | |
| TSS (\$/mg /l-MG) | 0.11 | 0.11 | | |
| TKN(\$/mg/l-MG) | 0 | 0 | | |
| Flow (\$/MGD) | 925 | 925 | | |
| Present worth for 20 years at 3% inflation and 5% interest | 1,386,746 | | | |

| Influence Parameter group | Group One | Group Two |
|---------------------------|-----------|-----------|
| BOD ₅ (mg /L) | 335 | 335 |
| TSS (mg/L) | 375 | 375 |
| TKN(mg/L) | 55 | 55 |
| Flow (MGD) | 1.3 | 1.8 |

* Calculated based on SCE TOUB-SOP schedule

| | Delivery | | generation rate | | Total |
|----------------------------------|----------|-----------|-----------------|-----------|-------|
| | total | URC (75%) | DWR (25%) | | |
| Summer on peak (peak) | 0.01611 | 0.15469 | 0.10369 | 0.15805 | |
| Summer mid-peak (off peak) | 0.01611 | 0.0523 | 0.10369 | 0.0812575 | |
| Summer off-peak (super-off peak) | 0.01611 | 0.02194 | 0.10369 | 0.0584875 | |
| winter mid-peak | 0.01611 | 0.05831 | 0.10369 | 0.085765 | |
| winter super off peak | 0.01611 | 0.02194 | 0.10369 | 0.0584875 | |

GUARANTEED MAXIMUM ELECTRICITY USAGE

For Facility less Effluent Pumping

| | TEAM #2 | PERC |
|-----------------------------|---------|---------|
| Parameter Group | Two | Two |
| SUMMER Subtotal (\$/Season) | 71,966 | One |
| WINTER Subtotal (\$/Season) | 137,502 | |
| Total (\$/Year) | 209,468 | 238,459 |

For Effluent Pumping Only

| | TEAM #2 | PERC |
|-----------------------------|---------|--------|
| Parameter Group | Two | Two |
| SUMMER Subtotal (\$/Season) | 17,563 | 24,064 |
| WINTER Subtotal (\$/Season) | 36,766 | 51,346 |
| Total (\$/Year) | 54,329 | 75,410 |

Facility + Effluent Pumping

| | TEAM #2 | PERC |
|-----------|---------|------|
| One | Two | One |
| 263,797 | 313,869 | |
| 7,963,231 | | |

TOTAL MAXIMUM ELECTRICITY USAGE (\$/year)

Present worth for 20 years at 8% electricity inflation and 5% interest

