

Table 4: Wastewater Capital Improvement Program (April 2006 dollars)

| WASTEWATER CAPITAL IMPROVEMENT | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | cross-check totals | |
|---|------------------|------------------|------------------|--------------------|------------------|------------------|------------------|---------------------|------------------|------------------|--------------------|--------------------|--------------------|--------------------|------------------|------------------|------------------|---------------------|--------------------|
| Wastewater Planning (1) | | | | | | | | | | | | | | | | | | | |
| Hydraulic Modeling | | | 50,000 | | | | | 50,000 | | | | | 50,000 | | | | | 50,000 | \$500,000 |
| Flow Monitoring | 25,000 | 25,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | \$1,550,000 |
| Infiltration/Inflow Evaluation | | | | 50,000 | | | | | | | | | | 50,000 | | | | | \$450,000 |
| CDPS Permit Review & Negotiations | | | | 25,000 | | | | | 25,000 | | | | | | 25,000 | | | | \$225,000 |
| Update Master Plan | | | | | 75,000 | | | | | 75,000 | | | | | 75,000 | | | | \$675,000 |
| Total Wastewater Planning | \$25,000 | \$25,000 | \$100,000 | \$125,000 | \$125,000 | \$50,000 | \$50,000 | \$100,000 | \$125,000 | \$125,000 | \$50,000 | \$50,000 | \$100,000 | \$125,000 | \$125,000 | \$50,000 | \$100,000 | \$3,400,000 | |
| Convey Highlands Flows to Vista WWTP (2) | | | | | | | | | | | | | | | | | | | |
| Engineering Design | | | | | | | | | | | | 280,000 | | | | | | | \$630,000 |
| New Highlands Lift Station | | | | | | | | | | | | | 1,024,000 | | | | | | \$2,064,000 |
| Force Main Highlands to Lift Station No. 11 (+/- 15,540 ft) | | | | | | | | | | | | | | 1,280,000 | | | | | \$1,554,000 |
| Upgrade and Expand Lift Station No. 11 | | | | | | | | | | | | | | | | | | | \$2,580,000 |
| Replace Lift Station No. 11 Force Main (+/- 7870 ft.) | | | | | | | | | | | | | | | | | | | \$787,000 |
| Upsize Gravity Sewer, Replace Manholes | | | | | | | | | | | | | | | | | | | \$400,000 |
| Decommission Highlands Plant | | | | | | | | | | | | | | | | | | | \$200,000 |
| Construction Management | | | | | | | | | | | | | 150,000 | | | | | | \$450,000 |
| Highlands and LS 11 Equipment Replacement | | | | | | | | | | | | | | | | | | | \$200,000 |
| Total Convey Highlands to Vista WWTP | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$280,000 | \$2,454,000 | \$0 | \$0 | \$0 | \$0 | \$8,865,000 | |
| Vista WWTP | | | | | | | | | | | | | | | | | | | |
| New Centrifuge | | | | | | | | | | | | | | | | | | | \$210,000 |
| Aerobic digester Improvements | | | | | | | | | | | | | | | | | | | \$900,000 |
| Anaerobic digestion conversion (7) | | | | | | | | | | | | 720,000 | 5,760,000 | | | | | | \$10,530,000 |
| Equipment Replacement Allowance(3) | 75,000 | 75,000 | 120,000 | 120,000 | 120,000 | 120,000 | 120,000 | 120,000 | 120,000 | 120,000 | 120,000 | 120,000 | 120,000 | 120,000 | 120,000 | 120,000 | 120,000 | 120,000 | \$4,200,000 |
| Phase 1A Engineering Design | | | | | | | | | | | | | | | | | | | \$100,000 |
| Phase 1A Step Screen | | | | | | | | | | | | | | | | | | | \$150,000 |
| Phase 1A VTSI Influent Pump | | | | | | | | | | | | | | | | | | | \$188,000 |
| Phase 1A Aerated Grit Chamber | | | | | | | | | | | | | | | | | | | \$194,000 |
| Phase 1A UV Disinfection (3mgd) | | | | | | | | | | | | | | | | | | | \$167,000 |
| Phase 1 Construction Management | | | | | | | | | | | | | | | | | | | \$65,000 |
| Phase 2 Engineering Design | | | | | | | | | | | | | | | | | | | \$160,000 |
| Phase 2 Oxidation Ditch | | | | | | | | | | | | | | | | | | | \$2,364,000 |
| Phase 2 Blower | | | | | | | | | | | | | | | | | | | \$280,000 |
| Phase 2 Construction Management | | | | | | | | | | | | | | | | | | | \$80,000 |
| 2046 new WWTP | | | | | | | | 36,400,000 | | | | | | | | | | | \$36,400,000 |
| Total Vista WWTP | \$75,000 | \$75,000 | \$120,000 | \$120,000 | \$120,000 | \$120,000 | \$120,000 | \$36,520,000 | \$120,000 | \$120,000 | \$120,000 | \$840,000 | \$5,880,000 | \$120,000 | \$120,000 | \$120,000 | \$120,000 | \$55,988,000 | |
| Biosolids Reuse/Disposal (4) | | | | | | | | | | | | | | | | | | | |
| Acquire Land for Biosolids Disposal (10) | 20,000 | 20,000 | 40,000 | 40,000 | 40,000 | 40,000 | 40,000 | 40,000 | 40,000 | 40,000 | 40,000 | 40,000 | 40,000 | 40,000 | 40,000 | 40,000 | 40,000 | 40,000 | \$1,225,000 |
| Allowance for engineering and permitting | | | | | | | | | | | | | | | | | | | \$343,750 |
| Total Biosolids Reuse/Disposal | \$20,000 | \$20,000 | \$40,000 | \$40,000 | \$40,000 | \$40,000 | \$40,000 | \$40,000 | \$40,000 | \$40,000 | \$40,000 | \$40,000 | \$40,000 | \$40,000 | \$40,000 | \$40,000 | \$40,000 | \$40,000 | \$1,568,750 |
| Collection System Improvements (5) | | | | | | | | | | | | | | | | | | | |
| Sewer Line Replacement Vista & Highlands (See Note #12) | | 100,000 | | 100,000 | | 100,000 | | 100,000 | | 100,000 | | 100,000 | | 100,000 | | 100,000 | | | \$3,845,000 |
| Vista I/I Inspection & Sealing (see Note #13) | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | \$2,200,000 |
| Vista I/I Inspection & Slip Lining (see Note #14) | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | \$4,400,000 |
| Vista I/I Manhole Repair | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | \$765,000 |
| Highlands I/I Inspection & Sealing (see Note #15) | 50,000 | | 20,000 | | 20,000 | | 20,000 | | 20,000 | | 20,000 | | 20,000 | | 20,000 | | 20,000 | | \$1,160,000 |
| Highlands I/I Inspection & Slip Lining (see Note #16) | | | | | | | | | | | | 1,600,000 | | | | | | | \$2,600,000 |
| Highlands I/I Manhole Repair (see Note #17) | | | | | | | | | | | | 10,000 | | | | | | | \$380,000 |
| Lift Station Capacity Upgrades (see Note #18) | | | 10,000 | | 10,000 | | 10,000 | | 10,000 | | 10,000 | | 10,000 | | 10,000 | | 10,000 | | \$8,795,255 |
| Force main Replacement (see Note #19) | | 125,000 | | 2,306,850 | | | 143,750 | | | | | | 143,750 | 2,998,905 | | | | 143,750 | \$1,306,250 |
| Lift Station Equipment Replacement | | 25,000 | | 26,500 | | 26,500 | | 26,500 | | 26,500 | | 26,500 | | 26,500 | | 26,500 | | 26,500 | \$585,500 |
| Lift Station Generators | | | 169,000 | | | | | | | | | | 219,700 | | | | | | \$718,700 |
| Total Collection System Improvements | \$240,000 | \$420,000 | \$369,000 | \$2,603,350 | \$200,000 | \$296,500 | \$343,750 | \$296,500 | \$200,000 | \$296,500 | \$1,800,000 | \$440,250 | \$419,700 | \$3,295,405 | \$200,000 | \$296,500 | \$293,750 | \$26,755,705 | |
| Other Alternative Energy Needs (8) | | | | 5,750 | | | | | | 5,750 | | | | | 5,750 | | | | \$47,250 |
| Total Alternative Energy Needs | | | | 5,750 | | | | | | 5,750 | | | | | 5,750 | | | | \$47,250 |
| Total Wastewater CIP (Subtotal) | \$360,000 | \$540,000 | \$629,000 | \$2,894,100 | \$485,000 | \$506,500 | \$553,750 | \$36,956,500 | \$490,750 | \$581,500 | \$2,010,000 | \$1,650,250 | \$8,893,700 | \$3,586,155 | \$485,000 | \$506,500 | \$553,750 | \$96,624,705 | |
| Unlisted Items at 20% of subtotal | 411,169 | 411,169 | 411,169 | 411,169 | 411,169 | 411,169 | 411,169 | 411,169 | 411,169 | 411,169 | 411,169 | 411,169 | 411,169 | 411,169 | 411,169 | 411,169 | 411,169 | 411,169 | \$9,324,941 |
| Grand Total | 771,169 | 951,169 | 1,040,169 | 3,305,269 | 896,169 | 917,669 | 964,919 | 37,367,669 | 901,919 | 992,669 | 2,421,169 | 2,061,419 | 9,304,869 | 3,997,324 | 896,169 | 917,669 | 964,919 | 115,949,646 | |
| Allocation to Growth (within current boundaries) | 593,800 | 732,400 | 800,930 | 2,545,057 | 690,050 | 706,605 | 742,988 | 28,773,105 | 694,478 | 764,355 | 1,864,300 | 1,587,293 | 7,164,749 | 3,077,939 | 690,050 | 706,605 | 742,988 | 89,281,227 | |
| Allocation to Existing (6) (within current boundaries) | 177,369 | 218,769 | 239,239 | 760,212 | 206,119 | 211,064 | 221,931 | 8,594,564 | 207,441 | 228,314 | 556,869 | 474,126 | 2,140,120 | 919,385 | 206,119 | 211,064 | 221,331 | 26,668,418 | |
| Allocation to Growth divided by projected 2055 addt eu's (21,207) | 771,169 | 951,169 | 1,040,169 | 3,305,269 | 896,169 | 917,669 | 964,919 | 37,367,669 | 901,919 | 992,669 | 2,421,169 | 2,061,419 | 9,304,869 | 3,997,324 | 896,169 | 917,669 | 964,919 | 115,949,646 | |
| NOTES: ASSUMPTION I/I PEAKING FACTORS VISTA 2.5 & HI | | | | | | | | | | | | | | | | | | | |
| (1) Master Plan updated every 5 years; ongoing flow monitoring | | | | | | | | | | | | | | | | | | | |
| (2) Per preliminary hydraulic modeling by Brillam; 70 percent of se | | | | | | | | | | | | | | | | | | | |
| (3) Allowance for pump, blower, oxidation ditch mixer, clarifier mec | | | | | | | | | | | | | | | | | | | |
| (4) Allowance for land purchase for land farming of dewatered bios | | | | | | | | | | | | | | | | | | | |
| (5) Adapted from estimates presented in PAWSD 20 Year CIP anc | | | | | | | | | | | | | | | | | | | |
| (6) In 2011 Highlands WWTP flow is conveyed to the Vista WWTF | | | | | | | | | | | | | | | | | | | |
| (7) This conversion would allow for production of methane gas an | | | | | | | | | | | | | | | | | | | |
| (8) This line item is intended to study other alternatives for energy | | | | | | | | | | | | | | | | | | | |
| (9) Only expenditures expected to yet be made in 2006 have been | | | | | | | | | | | | | | | | | | | |
| (10) This line assumes a biosolids study in 2007, land purchase in | | | | </ | | | | | | | | | | | | | | | |