

**Estimated Costs for Alternative 2B
Best Apparent Regional Plan, w/ Regional Tertiary Plant (\$1,000s)**

Source: EPA Cost Curves and Actual Costs for Facilities in Northern California
ENR CCI = 7300

	Total Present Worth Cost (20-year basis)	Total Capital Cost	Treatment Capital Cost	Conveyance Capital Cost (a)	Land Acquisition	Disposal Capital Cost (m)	Total O&M, Present Worth (b)	Total Annual O&M	Annual Treatment O&M (n)	Annual Conveyance O&M (0.4% of construction cost) (n)	Annual Disposal O&M (3% of construction cost) (k) (n)
Combined Total	\$256,900,000	\$200,800,000					\$56,100,000	\$4,500,000			
Jackson	\$60,000,000	\$46,200,000	\$24,400,000	\$14,100,000	\$2,700,000	\$5,000,000	\$13,800,000	\$1,100,000	\$803,000	\$57,000	\$149,000
New 8.0 Mgal/d Martell Plant (2.42 Mgal/d share) (e) (l) (y)			\$24,319,158		\$75,625				\$802,031		
Treated effluent 21-inch gravity from Jackson Hills site to Mokelumne River seasonal surface discharge, 1.0 Mgal/d (e) (p) (q) (r)			\$1,872,179		(aa)	\$452,238				\$7,489	\$13,567
Reclaimed water 21-inch gravity (Martell to Gold Rush Subdivision) (1.42 Mgal/d share) (e)				\$1,684,961						\$6,740	
Reclaimed water 27-inch gravity to Jackson Valley (2.42 Mgal/d share) (e)				\$4,309,805						\$17,239	
Raw Influent Pump Station & 20-inch force main, 2.42 Mgal/d (Jackson to Martell)				\$4,263,902						\$17,056	
Treated effluent pump station & 12-inch force main, 1.0 Mgal/d (Martell to Jackson Hills) (2.42 Mgal/d share) (e)				\$1,086,775						\$4,347	
Jackson Valley Reclamation (2.42 Mgal/d share) (e) (h) (s)					\$1,890,625	\$2,401,094					\$72,033
Jackson Valley Disposal Capacity (2.42 Mgal/d share) (e) (s) (z)					\$268,638	\$2,095,377					\$62,861
Jackson Valley Reclamation Storage (e) (i) (t)				\$831,875	\$378,125					\$3,328	
Sutter Creek/Amador City	\$53,500,000	\$42,300,000	\$21,000,000	\$14,000,000	\$2,200,000	\$5,100,000	\$11,200,000	\$898,000	\$690,000	\$56,000	\$152,000
New 8.0 Mgal/d Martell Plant (2.08 Mgal/d share) (e) (l) (y)			\$20,902,417		\$65,000				\$689,349		
Raw influent pump station and 18-inch force main (S. C. to Martell) 2.08 Mgal/d				\$6,247,067						\$24,988	
Reclaimed water 21-inch gravity (Martell to Gold Rush Subdivision) (2.08 Mgal/d share) (e)				\$1,448,231						\$5,793	
Reclaimed water 27-inch gravity to Jackson Valley (2.08 Mgal/d share) (e) (r)				\$3,704,295	(aa)					\$14,817	
Treated effluent Pump Station & 12-inch force main (Martell to Jackson Hills site) (2.08 Mgal/d share) (e)				\$934,088						\$3,736	
Treated effluent 21-inch gravity from Jackson Hills site to Mokelumne River seasonal surface discharge, 1.0 Mgal/d (2.08 Mgal/d share) (e) (p) (q) (r)				\$1,609,146	(aa)	\$388,700				\$6,437	\$11,661
Additional disposal area in Lone (~10 acres) (v) (y)					\$250,000	\$780,000					\$23,400
Jackson Valley Reclamation (2.08 Mgal/d share) (e) (h) (s)					\$1,625,000	\$2,063,750					\$61,913
Jackson Valley disposal capacity (2.08 Mgal/d share) (e) (s) (z)					\$230,896	\$1,800,985					\$54,030
Jackson Valley Reclamation Storage (e) (i) (t)				\$715,000	\$325,000					\$2,860	
AWA - Martell	\$76,400,000	\$57,700,000	\$34,600,000	\$12,800,000	\$3,200,000	\$7,100,000	\$18,700,000	\$1,500,000	\$1,200,000	\$51,000	\$212,000
New 8.0 Mgal/d Martell Plant (3.44 Mgal/d share) (e) (l) (y)			\$34,569,382		\$107,500				\$1,140,078		
Reclaimed water 21-inch gravity (Martell to Gold Rush Subdivision) (3.44 Mgal/d share) (e)				\$2,395,152						\$9,581	
Reclaimed water 27-inch gravity to Jackson Valley (e)				\$6,126,335	(aa)					\$24,505	
Treated effluent Pump Station & 12-inch force main (Martell to Jackson Hills site) (3.44 Mgal/d share) (e)				\$1,544,838						\$6,179	
Treated effluent 21-inch gravity from Jackson Hills site to Mokelumne River seasonal surface discharge, 1.0 Mgal/d (3.44 Mgal/d share) (e) (p) (q)				\$2,661,280	(aa)	\$642,850				\$10,645	\$19,286
Jackson Valley Reclamation (3.44 Mgal/d share) (e) (h) (s)					\$2,687,500	\$3,413,125					\$102,394

**Estimated Costs for Alternative 2B (Continued)
Best Apparent Regional Plan, w/ Regional Tertiary Plant (\$1,000s)**

Source: EPA Cost Curves and Actual Costs for Facilities in Northern California
ENR CCI = 7300

	Total Present Worth Cost (20-year basis)	Total Capital Cost	Treatment Capital Cost	Conveyance Capital Cost (a)	Land Acquisition	Disposal Capital Cost (m)	Total O&M, Present Worth (b)	Total Annual O&M	Annual Treatment O&M (n)	Annual Conveyance O&M (0.4% of construction cost) (n)	Annual Disposal O&M (3% of construction cost) (k) (n)
Jackson Valley disposal capacity (3.44 Mgal/d share) (e) (s) (z)					\$381,866	\$2,978,552					\$89,357
Jackson Valley Reclamation Storage (e) (i) (s) (t)				\$1,182,500	\$537,500					\$4,730	
<u>lone</u>	\$48,800,000	\$39,900,000	\$37,000,000	\$0	\$695,000	\$2,200,000	\$8,900,000	\$709,000	\$643,000	\$0	\$66,000
Expand lone secondary to 3.60 Mgal/d (j) (w)			\$36,919,707						\$642,355		
Additional disposal capacity (3.6 v. existing, including COGC via COWRP) (j) (w) (y)					\$694,590	\$2,167,119					\$65,014
<u>Plymouth</u>	\$17,400,000	\$14,700,000	\$13,800,000	\$0	\$210,000	\$654,000	\$2,700,000	\$216,000	\$196,000	\$0	\$20,000
Expand Plymouth secondary			\$13,778,551						\$195,144		
Additional disposal capacity (0.77 v. existing) (y)					\$209,328	\$653,104					\$19,593

Notes:

- (a) Includes only large trunk sewers not local collection.
- (b) O & M present worth based on 5%, 20-yr period.
- (c) New plant assumed to be sited at or near proposed Jackson Hills golf course. Assumed to be advanced secondary plant with capacity to provide 1.0 Mgal/d Title 22 reclaimed water to golf course seasonally.
- (d) Assumes treatment expansion to provide secondary-23 recycled water.
- (e) Cost share based on flow contributed.
- (f) This analysis assumes disposal at Gold Rush golf course is reserved for the City of Sutter Creek; therefore the entire benefit (hence cost) belongs to Sutter Creek. Does not include any credit for developer's cost share.
- (g) Assumes 1.0 Mgal/d of flow goes to an expanded Sutter Creek WWTP.
- (h) Capital costs include field preparation & tail water return system. Storage not included.
- (i) Costs based on construction in valley/canyon site.
- (j) Costs based on estimates in November 2004 Wastewater Treatment Plant Master Plan scaled to build-out flows.
- (k) Includes monitoring and reporting costs.
- (l) Title 22 treatment facility costs include redundant treatment capacity as required by those regulations (Article 10, Title 22), as opposed to additional storage.
- (m) Includes cost for construction of improvements related to disposal/reuse options. Storage and conveyance costs are separate.
- (n) Incremental increase only.
- (o) Permanent disposal capacity, for this alternative.
- (p) Costs include both effluent pipeline (conveyance) and outfall (disposal).
- (q) Capital costs reported for disposal relate to outfall & monitoring station construction. Based on Estimate in November 2004 Lone Wastewater Treatment Plant Master Plan, which was scaled from cost of City of Lincoln outfall recently constructed and put into operation.
- (r) Estimate easement \$/s.f. for long pipelines.
- (s) Assumes \$10,000/acre for land costs.
- (t) Assumes \$22,000/acre to develop storage facilities. Land costs also assume \$10,000/acre.
- (u) This analysis assumes disposal at Jackson Hills golf course & to Mokelumne River is reserved for the City of Jackson; therefore the entire benefit (hence cost) belongs to Jackson. Does not include any credit for developer's cost share.
- (v) Assumed to be temporary/interim disposal capacity until Regional Plan is fully implemented.
- (w) Assumes lone will utilize COWRP/COGC treatment/disposal capacity when Regional Plan is fully implemented.
- (x) Assumes 2.52 Mgal/d seasonal reclamation (5.52 Mgal/d less 1.0 Mgal/d on ARSA outfall, 1.0 Mgal/d at Gold Rush golf course, and 1.0 Mgal/d of existing AWA raw water users west of Martell area).
- (y) Assumes \$25,000/acre land cost.
- (z) Assumes worst case 7.0 Mgal/d ADWF.

(aa) Conveyance pipelines assumed to be in public right-of-way wherever possible. Costs for purchasing right-of-way not estimated at this time.