

San Luis Obispo County
Master Water Plan
Future Supply Options

This is an evaluation of future water supply options that have previously been studied in the County. Ground water supply augmentation is discussed separately.

Following this introduction is a brief overview of specific water supply options, with information provided in each of the twelve ranking criteria. The criteria previously selected by the WRAC are:

- Cost
- Risk
- Reliability
- Water Rights
- Local Control
- Water Quality
- Timing
- Environmental Impacts
- Agricultural Impacts
- Institutional Constraints
- Recreation
- Hydroelectric Potential

For the most part, information on each of these criterion was available and the source of the information is noted.

Water supply options reviewed here are:

- Nacimiento
- Salinas Dam Expansion
- City of San Luis Obispo Water Reuse
- City of Morro Bay Water Reuse
- Cambria Desalination
- Coastal Dams
- Jack and Santa Rita Creek Dams
- South County Sanitation District Reclamation

Other water supply options for which published information on cost, yield, reliability, etc. was not found include:

- Nacimiento Reservoir Spillway Improvements
- Lopez Dam Enlargement
- Water Conservation
- Use of Unallocated State Water

Each water supply option summary includes a comparative ranking of the criteria listed above. The rankings are based on the following:

Comparative Rankings

Features of water supply options are ranked 1 to 5, with 5 being the best. A “0” implies a fatal flaw which may render the supply option infeasible. The basis of comparison, in general, is:

Cost: The lower the unit cost (\$/AFY), the higher the ranking.

Risk: Primarily a subjective comparison of the potential for project cost escalation.

Reliability: Primarily a comparison of project yield, AFY, during years of below-average rainfall.

Water Rights: A favorable 5 ranking indicates no known problems; a 3 indicates potential challenges; and a 1 indicates known opposition which may stop the project.

Local Control: A favorable 5 indicates physically located in and administered by an agency within the County; a 3 indicates some involvement of outside agencies; and a 1 indicates control from outside the County.

Water Quality: A favorable 5 indicates projects which enhance water quality; a 3 indicates no change; and a 1 indicates a negative impact on water quality.

Timing: A favorable 5 indicates projects with designs complete; a 3 indicates projects for which predesign at least is underway; and a 1 indicates projects for which design is 5 years or more away.

Environmental: A favorable 5 indicates certified EIR in place; a 3 indicates environmental review underway and no significant unmitigable issues identified; and a 1 indicates significant impacts foreseen. A "0" in this category indicates a potential environmental fatal flaw.

Agricultural Impacts: A favorable 5 indicates projects which help agricultural, particularly by reducing competition for ground water and by other means.

Institutional Constraints: Reflects the degree of organizational support. A low ranking is indicative of the need for complex agreements.

Recreation: Reflects the degree to which the project may enhance recreational opportunities. A 3 indicates no direct impact.

Hydroelectric Potential: Indicates the degree to which the project may provide opportunities for hydroelectric power generation. Little information is available regarding hydroelectric power generation opportunities for the supply options examined. In general, options with little or no opportunity for power generation were ranked "1". Options that may expand existing power generation facilities were ranked "3".

At this point, the ranking is subjective and left to the discretion of the author and to the extent of data available for a particular option. WRAC input on the supply source ranking as discussed at the April 1998 meeting has also been included.

Nacimiento

WPA 2, 3, 4, 9a, and 10

The Nacimiento Water Supply Project described herein is described in the August 1997 Draft EIR. It involves construction of over 60 miles of pipelines ranging in size from 33- to 8-inches in diameter, plus pump stations, storage tanks, and outlet works. The project is planned to supply 17,500 AFY to 18 water purveyors from Paso Robles to Coastal San Luis Obispo County.

<u>Category</u>	<u>Remarks</u>	<u>Comparative Ranking</u>
Cost ¹	<ul style="list-style-type: none"> ▪ \$120 million project cost. <li style="padding-left: 20px;">WPA 2: \$625 - \$1,097 per AFY <li style="padding-left: 20px;">WPA 3: \$1,167 - \$2,198 per AFY <li style="padding-left: 20px;">WPA 4: \$669 - \$1,135 per AFY (SLO City) <li style="padding-left: 20px;">WPA 4: \$2,488 - \$3,783 per AFY (Others) <li style="padding-left: 20px;">WPA 9a: \$368 - \$1,000 per AFY <li style="padding-left: 20px;">WPA 10: < \$200 per AFY (opinion; cursory estimate). 	4
Risk ^{2,3}	<ul style="list-style-type: none"> ▪ Long distance conveyance – risk of delivery interruption ▪ EIR seismic evaluation - “Insignificant after mitigation”. ▪ Cost sensitive to participation level. ▪ Moderate risk of construction cost escalation. ▪ Forecasted deliveries can be maintained even with a planned 1-month annual maintenance outage. 	4
Reliability ^{2,3}	<ul style="list-style-type: none"> ▪ 17,500 AF yield even through 1987-1991 drought. ▪ Complements groundwater supply in planning areas 3, 4, and 9a. 	5
Water Rights ³	<ul style="list-style-type: none"> ▪ Strong contractual position with Monterey County. ▪ Pending legal challenge originating in Monterey County. 	3
Local Control ⁴	<ul style="list-style-type: none"> ▪ Watershed and dam within SLO County, operated by Monterey County Water Resources Agency. ▪ Potential Monterey County and Division of Safety of Dams issues. 	4
Water Quality ⁴	<ul style="list-style-type: none"> ▪ Limited data indicates favorable quality. 	3
Timing ⁴	<ul style="list-style-type: none"> ▪ High participation needed to advance. ▪ Minimum 3 years for delivery. ▪ Little opportunity for staging (matching supply with demand). 	2

Nacimiento (cont'd)

<u>Category</u>	<u>Remarks</u>	<u>Comparative Ranking</u>
Environmental Impacts ²	<ul style="list-style-type: none"> ▪ Long term significant residual impacts to recreation and growth inducement. ▪ Cumulative impacts in areas of water resources and fisheries. ▪ Short-term impacts on traffic, air quality and biological resources. ▪ Helps minimize potential overdrafts in regions 9a, 3, and 4. 	2
Agricultural Impacts ²	<ul style="list-style-type: none"> ▪ No short- or long-term significant residual impacts. ▪ Reduces competition between urban and agricultural groundwater users. 	4
Institutional Constraints ⁵	<ul style="list-style-type: none"> ▪ Usual permitting process for similar pipeline projects. ▪ High project participation required. 	3
Recreation ²	<ul style="list-style-type: none"> ▪ Associated lake-level impacts may negatively affect recreation. 	2
Hydroelectric Potential ⁴	<ul style="list-style-type: none"> ▪ Reduce power generation capability at the dam by < 10 percent. ▪ No new hydro potential identified along pipeline. 	1

Salinas Dam Expansion

WPA 4

The Salinas Dam Expansion project examined herein is based on the May 1997 Revised Draft EIR. The project involves installation of the flood gates at the existing dam which would result in a greater storage capacity as well as an increase in annual yield.

<u>Category</u>	<u>Remarks</u>	<u>Comparative Ranking</u>
Cost	<ul style="list-style-type: none"> ▪ \$16 million (\$10 million for project, including relocation of recreation area; plus \$6 million for biological mitigation) 	4
Risk ⁶	<ul style="list-style-type: none"> ▪ Recent studies established seismic stability of dam. ▪ Moderate conveyance risk associated with 50-year-old system. ▪ Envir. mitigation cost uncertain (wide range, est. at \$6 million). 	4
Reliability ⁶	<ul style="list-style-type: none"> ▪ 1,650 AFY yield 	3
Water Rights	<ul style="list-style-type: none"> ▪ Additional rights to benefit City of SLO ▪ Potential downstream challenges (State Water Resources Control Board hearing pending) 	3
Local Control	<ul style="list-style-type: none"> ▪ Watershed and dam within SLO County. ▪ Potential transfer of ownership from Army COE to SLO Co. Flood Control District. 	3
Water Quality	<ul style="list-style-type: none"> ▪ Long history of favorable water quality. 	3
Timing	<ul style="list-style-type: none"> ▪ Potential permitting delays due to downstream challenges. ▪ +/-5 years to delivery after Council direction to proceed. ▪ Little opportunity for staging (matching supply with demand). 	3
Environmental Impacts ⁷	<ul style="list-style-type: none"> ▪ Potentially significant residual impacts: 1) water resources, 2) vegetation, 3) wildlife, and 4) aquatic ecology. ▪ Increases shoreline habitat. 	3
Agricultural Impacts	<ul style="list-style-type: none"> ▪ None anticipated. If North County participates, ground water basin recharge would be enhanced, thus benefiting ag pumpers, too. 	3

Salinas Dam Expansion (cont'd)

<u>Category</u>	<u>Remarks</u>	<u>Comparative Ranking</u>
Institutional Constraints	<ul style="list-style-type: none"> ▪ COE and County approvals required as owner and operator, respectively. ▪ Potential ownership transfer from COE to a local agency. ▪ DSOD approvals anticipated. ▪ Potential objections from downstream users. ▪ Participation limited to City of San Luis Obispo. ▪ Potential permit constraints from government agencies (404 permits, Fish & Wildlife and Fish & Game permits, etc.) 	2
Recreation	<ul style="list-style-type: none"> ▪ No swimming permitted now or with planned expansion/ boating uses to be affected. ▪ Relocation/reconstruction of recreation facilities. 	3
Hydroelectric Potential ⁷	<ul style="list-style-type: none"> ▪ Little opportunity for hydroelectric generation at the dam; need the head to get flow to the booster station. 	3

City of San Luis Obispo Water Reuse Project

WPA 4

The City of San Luis Obispo water reuse project examined herein is as defined in the December 1995 Draft EIR. This involves utilization of tertiary treated wastewater for irrigation primarily to parks and other areas that currently receive potable water off of the City system. The Water Reuse project also involves planned irrigation of some areas that currently use ground water (i.e. not currently on the City system).

<u>Category</u>	<u>Remarks</u>	<u>Comparative Ranking</u>
Cost ⁸	<ul style="list-style-type: none"> ▪ \$9,300,000; \$600 to \$900 per AF. 	5
Risk	<ul style="list-style-type: none"> ▪ No unusual design or construction issues. ▪ Uses commonly applied engineering and construction techniques. ▪ Low risk of construction cost escalation. ▪ California Inland Surface Water Program (CISWP) requirements may increase treatment costs but this would occur with or without the Water Reuse Project.⁸ 	5
Reliability ⁸	<ul style="list-style-type: none"> ▪ 1,233 AFY yield 	3
Water Rights ⁸	<ul style="list-style-type: none"> ▪ Petition filed and water right protests have been dismissed by SWRCB, some remaining environmental issues. 	5
Local Control	<ul style="list-style-type: none"> ▪ Only the City of SLO would be involved. 	5
Water Quality	<ul style="list-style-type: none"> ▪ Disinfected tertiary treated water would be distributed with a chlorine residual. ▪ Using effluent for reuse irrigation may help nitrate and phosphate levels in SLO Creek.⁸ 	4
Timing	<ul style="list-style-type: none"> ▪ Currently under design. ▪ EIR shows 4 years from CEQA review completion to Phase II construction. 	3
Environmental Impacts ⁸	<ul style="list-style-type: none"> ▪ Residual impacts determined insignificant after mitigations. 	4
Agricultural Impacts	<ul style="list-style-type: none"> ▪ Reduces agricultural and urban competition for ground water. Natural water is sufficient to support ag although some wells may have to replace stream diversions. 	3

City of San Luis Obispo Water Reuse Project (continued)

<u>Category</u>	<u>Remarks</u>	<u>Comparative Ranking</u>
Institutional Constraints	<ul style="list-style-type: none"> ▪ City and State policies encourage water reuse.⁸ ▪ EIR completed and certified. ▪ CEQA approval received. ▪ CISWP may require more stringent discharge standards. ▪ Resolve Fish & Game issues 	4
Recreation	<ul style="list-style-type: none"> ▪ No positive or negative impacts identified. 	3
Hydroelectric Potential	<ul style="list-style-type: none"> ▪ Not applicable. 	1

City of Morro Bay Reuse WPA 3

The City of Morro Bay water reuse project examined herein is as defined in the October 1996 feasibility study performed as part of the Community Development Block Grant funding. The reuse project envisions construction of a satellite wastewater treatment plant that would divert approximately 40% of the wastewater flow from the existing Morro Bay-Cayucos treatment plant. Water reclaimed at the proposed satellite plant would be used to both sustain year-round flow in Chorro Creek as well as to supply some irrigation users in the vicinity of the proposed plant.

<u>Category</u>	<u>Remarks</u>	<u>Comparative Ranking</u>
Cost ⁹	<ul style="list-style-type: none"> ▪ \$7.5 to 9.1 million (1996) depending on treatment site and type of use. 	3
Risk	<ul style="list-style-type: none"> ▪ Moderate risk of construction cost escalation. ▪ Potential changes to discharge permit requirements. ▪ Uses commonly applied engineering practices. 	3
Reliability ⁹	<ul style="list-style-type: none"> ▪ 1.5 MGD or 1,680 AFY. 	3
Water Rights	<ul style="list-style-type: none"> ▪ No anticipated problems with filings. 	5
Local Control	<ul style="list-style-type: none"> ▪ Project will be owned and operated by Morro Bay. 	5
Water Quality	<ul style="list-style-type: none"> ▪ Treatment process to be selected based on quality goals/requirements. 	3
Timing	<ul style="list-style-type: none"> ▪ Design and permitting process would take at least 2 years. Earliest on-line date would be about 2003. 	3
Environmental Impacts ⁹	<ul style="list-style-type: none"> ▪ Positive impact on downstream fisheries in Chorro Creek. 	4
Agricultural Impacts	<ul style="list-style-type: none"> ▪ Reduces competition between urban and agricultural groundwater users. 	4
Institutional Constraints	<ul style="list-style-type: none"> ▪ Discharge permits will determine level of treatment. ▪ Reduced flows at existing wastewater plant will affect current cost sharing arrangement with Cayucos. 	3
Recreation	<ul style="list-style-type: none"> ▪ No identified impacts. 	3
Hydroelectric Potential	<ul style="list-style-type: none"> ▪ Not applicable. 	1

Cambria CSD Desalination Facility

WPA 1

The Cambria CSD desalination facility examined herein is as set forth in the construction documents dated May 1996. The project involves construction of a seawater intake structure, caisson pumping plant, reverse osmosis treatment facility, and ocean outfall facility for brine disposal.

<u>Category</u>	<u>Remarks</u>	<u>Comparative Ranking</u>
Cost	<ul style="list-style-type: none"> ▪ \$10,000,000.¹⁰ 	1
Risk	<ul style="list-style-type: none"> ▪ Moderate to high risk of construction cost escalations. 	3
Reliability ¹¹	<ul style="list-style-type: none"> ▪ May not be operable for 3 days after heavy rain due to spikes in turbidity. ▪ Phased to roughly match demand growth. ▪ Three phases of implementation with ultimate capacity of 565 AFY with 6 months of operation. 	3
Water Rights	<ul style="list-style-type: none"> ▪ Uses seawater, therefore surface water rights not required. 	5
Local Control	<ul style="list-style-type: none"> ▪ Project would be owned and operated by Cambria CSD. 	5
Water Quality	<ul style="list-style-type: none"> ▪ All drinking water standards would be satisfied and it is anticipated consumer satisfaction would be high. 	4
Timing	<ul style="list-style-type: none"> ▪ Design and permitting completed. ▪ Construction could be completed in 18 months.¹² 	5
Environmental Impacts ¹¹	<ul style="list-style-type: none"> ▪ No long-term unavoidable adverse impacts identified. ▪ Temporary air and noise impacts during construction. 	5
Agricultural Impacts	<ul style="list-style-type: none"> ▪ Reduces competition between urban and agricultural groundwater users. 	4
Institutional Constraints	<ul style="list-style-type: none"> ▪ All permits completed in early 1997. ▪ Currently exploring utilization of beach wells on State Park property. 	3
Recreation	<ul style="list-style-type: none"> ▪ Not applicable. 	3
Hydroelectric Potential	<ul style="list-style-type: none"> ▪ Energy recovery on brine stream within plant reduces overall electrical consumption. 	2

Coastal Reservoirs

WPA 1

The coastal reservoirs examined herein are based on the July 1987 alternative water resources report prepared for Cambria CSD. Alternative reservoir sites were identified conceptually only at Santa Rosa Creek, Lower San Simeon Creek, and Upper Steiner Creek. The investigation involved conceptual analysis of safe annual yields, capital and annual costs, and project constraints for each alternative.

<u>Category</u>	<u>Remarks</u>	<u>Comparative Ranking</u>
Cost ¹³	<ul style="list-style-type: none"> ▪ Capital costs range from \$9.1 to \$78 million (1987 dollars). ▪ Unit costs \$365-2750/AFY (1987 dollars) 	2
Risk	<ul style="list-style-type: none"> ▪ High potential for construction cost escalations. ▪ Relatively high risk from geologic conditions. 	1
Reliability ¹³	<ul style="list-style-type: none"> ▪ 500 to 18,500 AFY depending on size and location of reservoir. 	3
Water Rights	<ul style="list-style-type: none"> ▪ No known water rights filings. 	1
Local Control	<ul style="list-style-type: none"> ▪ Watershed and dam sites within WPA 1. 	5
Water Quality ¹³	<ul style="list-style-type: none"> ▪ Potential water quality issues downstream of dams. 	3
Timing	<ul style="list-style-type: none"> ▪ Long lead time would be required for permitting design, and construction activities which would likely render projects infeasible. 	1
Environmental Impacts	<ul style="list-style-type: none"> ▪ Major impacts at reservoir sites likely. ▪ Some sites may impact species on the threatened or endangered list. 	0
Agricultural Impacts ¹³	<ul style="list-style-type: none"> ▪ Some sites would displace active farms. 	1
Institutional Constraints	<ul style="list-style-type: none"> ▪ Complex permitting process including DSOD approvals and impacts to private property. ▪ Coastal Zone restrictions may render some sites infeasible. 	0
Recreation	<ul style="list-style-type: none"> ▪ Some small-scale opportunities may exist. 	3
Hydroelectric Potential	<ul style="list-style-type: none"> ▪ None identified. 	1

Lower Jack and Santa Rita Reservoirs WPA 9a

The potential reservoir sites examined herein are based on information contained in the March 1986 DWR Master Water Plan Update prepared for the County of San Luis Obispo. Reservoir sites were identified conceptually at Lower Jack Creek (gross storage of 15,000 to 28,000 acre-feet) and Santa Rita Creek (gross storage of 10,000 to 23,500 acre-feet). Several alternative reservoir sites were conceptually identified with an estimated gross storage of 7,000 to 12,200 acre-feet.

<u>Category</u>	<u>Remarks</u>	<u>Comparative Ranking</u>
Cost	<ul style="list-style-type: none"> ▪ Capital Costs ranging from \$10.4 to \$18.5 million (1984). ▪ Average unit costs range from \$200 to \$463/AF (1984). ▪ Environmental mitigation costs not quantified. 	5
Risk	<ul style="list-style-type: none"> ▪ High risk of construction cost escalation. ▪ Geologic conditions at sites may present significant risk.¹⁴ 	1
Reliability ¹⁴	<ul style="list-style-type: none"> ▪ Safe yields range from 2,700 AF to 6,000 AF for reservoirs ranging in size from 10,000 AF to 28,000 AF. 	3
Water Rights	<ul style="list-style-type: none"> ▪ No known active filings. 	1
Local Control	<ul style="list-style-type: none"> ▪ Watersheds and dam sites within WPA 9a. 	5
Water Quality ¹⁴	<ul style="list-style-type: none"> ▪ Generally good stream quality. 	3
Timing	<ul style="list-style-type: none"> ▪ Long lead time for permitting may render projects infeasible due to costs. 	1
Environmental Impacts	<ul style="list-style-type: none"> ▪ Potential major adverse local impacts at the reservoir sites. ▪ Potential problems with maintaining in-stream flows. 	0
Agricultural Impacts	<ul style="list-style-type: none"> ▪ Impacts may occur at reservoir sites. 	2
Institutional Constraints	<ul style="list-style-type: none"> ▪ DSOD approvals needed. ▪ Complex permitting process may render projects infeasible. 	0
Recreation	<ul style="list-style-type: none"> ▪ May offer small scale opportunities at reservoirs. 	3
Hydroelectric Potential	<ul style="list-style-type: none"> ▪ None identified. 	1

South County Sanitation District Reclamation WPA 6

The south county reclamation project examined herein is based on the February 1998 Plan of Study submitted to the California State Water Resources Control Board by the South San Luis Obispo County Sanitation District. The project includes upgrade of the existing wastewater treatment plant from oxidized secondary treatment to disinfected tertiary treatment. It also includes construction of transmission facilities to deliver water to area golf courses, highway landscaping, schools, and City parks.

<u>Category</u>	<u>Remarks</u>	<u>Comparative Ranking</u>
Cost ¹⁵	<ul style="list-style-type: none"> ▪ \$4.95 million to \$16.17 million depending on capacity of tertiary train, plus an estimated \$2.03 million transmission costs. ▪ Est. unit costs range from \$840 to \$1,011/AFY plus transmission costs 	4
Risk	<ul style="list-style-type: none"> ▪ Construction cost estimates based on feasibility level study only; possibility of escalation. 	3
Reliability ¹⁵	<ul style="list-style-type: none"> ▪ Est. yield ranges from 1,100 to 4,400 AFY depending on capacity of planned tertiary train and no. of days in use annually. 	3
Water Rights	<ul style="list-style-type: none"> ▪ Current treated effluent disposal to ocean; “downstream” protests not anticipated. ▪ Potable water generated by two cities and one community services district. 	3
Local Control	<ul style="list-style-type: none"> ▪ Two cities, one community services district, and one overlying sanitation district involved. 	3
Water Quality	<ul style="list-style-type: none"> ▪ Disinfected tertiary treated water would be distributed with a chlorine residual. ▪ Demineralization may be needed depending on end user quality requirements. 	4
Timing	<ul style="list-style-type: none"> ▪ Grant application submitted in Feb 1998; final facilities plan due in 1999. ▪ No estimate of delivery date provided. 	3
Environmental Impacts	<ul style="list-style-type: none"> ▪ Yet to be studied. 	3
Agricultural Impacts	<ul style="list-style-type: none"> ▪ Benefits ag by reducing competition for ground water supplies. 	4
Institutional Constraints	<ul style="list-style-type: none"> ▪ CEQA process yet to be initiated. 	3

South County Sanitation District Reclamation (continued)

<u>Category</u>	<u>Remarks</u>	<u>Comparative Ranking</u>
Recreation	<ul style="list-style-type: none">Provides alt. Source of irrigation supply to area parks.	3
Hydroelectric Potential	<ul style="list-style-type: none">Not applicable.	1

References

- ¹ “Lake Nacimiento Water Supply Project Financing Analysis” by Leifer Capital for San Luis Obispo County Flood Control Water Conservation District, December 1997.
- ² “Draft EIR Nacimiento Water Project” by Ogden Environmental and Energy Services for County of San Luis Obispo, August 1997.
- ³ “Preliminary Evaluation for the Nacimiento Water Supply Project, Reliability Evaluation” by Boyle Engineering Corporation for San Luis Obispo County Flood Control Water Conservation District, 1992.
- ⁴ “Nacimiento Water Supply Project EIR preparation Phase Engineering Draft Report” by Carollo Engineers for County of San Luis Obispo, July 1996.
- ⁵ “Nacimiento Water Supply Project Permit Outline” by Boyle Engineering Corporation for San Luis Obispo County, 1997.
- ⁶ “Phase I Report, Salinas Reservoir Expansion Project; Part I: Geotechnical Seismicity and Dam Safety Evaluation; Part II: Hydrology, Reservoir Yield and Evaluation of Alternatives” by Woodward-Clyde, 1989 (Revised in December 1990).
- ⁷ “Revised Draft EIR for Proposed Salinas Reservoir Expansion Project” by Woodward-Clyde for City of San Luis Obispo, May 1997.
- ⁸ “City of San Luis Obispo Water Reuse Project Draft EIR” by staff for City of San Luis Obispo, December 1995.
- ⁹ “City of Morro Bay CDBG Wastewater Reclamation Feasibility Study Phase 1” by Boyle Engineering Corporation for City of Morro Bay, October 22, 1996.
- ¹⁰ “Cambria Desalination Project Bid Summary” by North Coast Engineering for Cambria CSD, February 1997.
- ¹¹ “Cambria Desalination EIR” by Robert Bein, William Frost & Associates for Cambria CSD, December 1994.
- ¹² “Cambria Desalination Project Timeline” by Greg Luke and Associates for Cambria CSD, January 13, 1997.
- ¹³ “Economic Analysis Alternative Water Resources Development” by Boyle Engineering Corporation for Cambria CSD, July 1987.
- ¹⁴ “San Luis Obispo County Master Water Plan Update” by Department of Water Resources for San Luis Obispo County, March 1986.
- ¹⁵ Plan of Study prepared by South San Luis Obispo County Sanitation District for the Ca. State Water Resources Control Board dated February 1998.