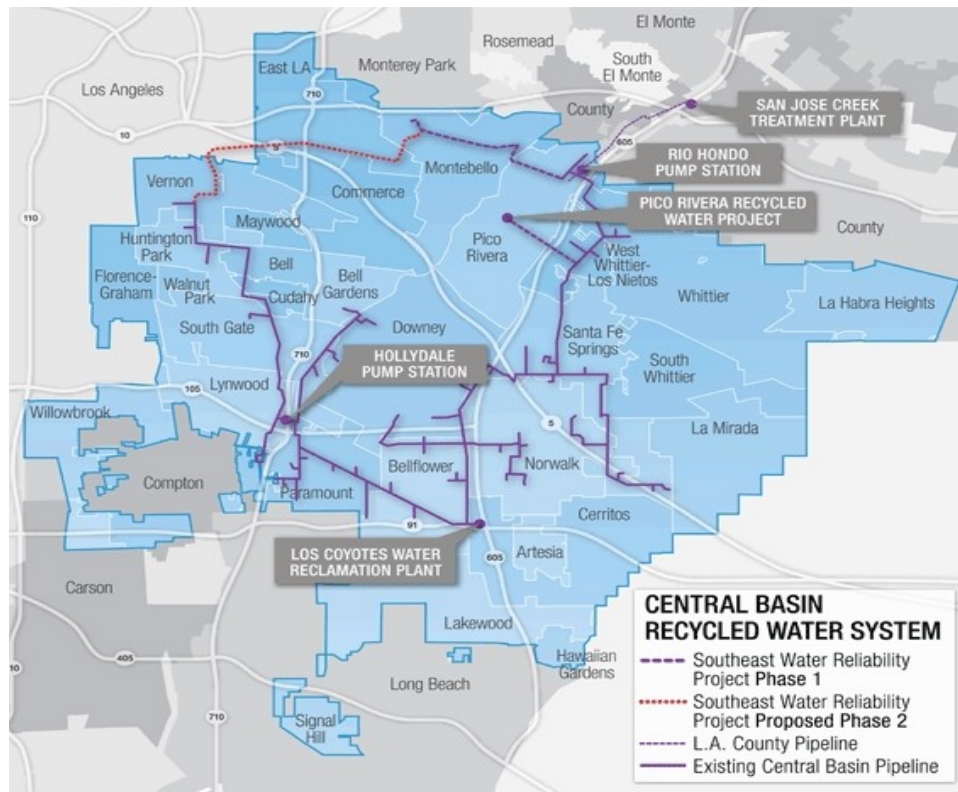


Southeast Water Reliability Project – Phase 1

The Central Basin Municipal Water District (CBMWD) is a public agency that delivers water to more than 2 million people in southeast Los Angeles County. The CBMWD purchases water from Metropolitan Water District of Southern California (MWD) and wholesales the imported water to cities, water companies, investor-owned utilities, and other private entities within its service area.



Source: Central Basin Municipal Water District

The 24-city service area of the CBMWD in southeast Los Angeles County extends from Huntington Park in the west to La Habra Heights in the east, and stretches from East Los Angeles to Signal Hill and Lakewood in the south, as shown in the map. The service area also includes some unincorporated areas of Los Angeles County.

Project Description

The CBMWD is building the Southeast Water Reliability Project (SWRP) as part of its effort to reduce overall dependence on imported water from Northern California and the Colorado River. The 15-mile long pipeline will enhance CBMWD’s ability to deliver recycled water (highly treated wastewater). The project will reduce current demand for imported water by 25 percent and deliver over 5 million gallons of recycled water annually throughout the region. The recycled water will be used for commercial, industrial, and irrigation purposes in southeast Los Angeles County.



Source: Central Basin Municipal Water District

Construction consists of two phases. Phase 1 extends from Pico Riviera to Montebello, and Phase 2, as it is currently proposed, will continue from Montebello to the City of Vernon. As part of SWRP Phase 1, the CBMWD in partnership with the City of Pico Rivera and Los Angeles County Department of Public Works will also build the 2-mile Pico Rivera Recycled Water Project on Mines Avenue in Pico Rivera.

The Consulting Practice of the Los Angeles County Economic Development Corporation (LAEDC) has estimated the total economic impact of Phase 1 spending in the five-county Southern California region. Due to the inter-connected nature of the Southern California economy, the five-county region is the most appropriate geography for analyzing construction impacts. We excluded land acquisition costs and certain fees, which do not create additional economic impacts. The results for economic and fiscal impacts are shown on the next page.

Summary Impact in Southern California

Initial Spending

\$ 22.6 million

- We used initial spending estimates for the project as direct activity, and estimated the direct, indirect and induced effects using models developed with the IMPLAN system (V3 software and 2008 data) from the Minnesota IMPLAN Group, Inc.
- All dollar figures are quoted in 2010 dollars.

Total Output

\$ 49.3 million

- The total economic output includes direct, indirect and induced business revenues.
- **Direct revenues** are captured by construction, architecture and engineering firms hired by CBMWD.
- **Indirect and induced revenues** stem from the purchases made by CBMWD and those generated by the spending of employees whose wages are sustained by both direct and indirect spending.

Total Employment

290 jobs

- **Direct employment** includes the CBMWD workers and other employees hired during the project.
- **Indirect and induced workers** are those whose jobs are sustained by purchases for the project and household purchases funded by project-related wages.
- Job creation estimates are measured on a job-count basis for both wage-earners and proprietors regardless of the number of hours worked.

Total Labor Income

\$ 18.1 million

- Total labor income includes income of direct *and* indirect workers, including any self-employed, and may exceed the initial project spending.
- Income includes wages and salaries *and* benefits, such as health and life insurance, retirement payments, and non-cash compensation.

Total Tax Revenue

\$ 2.0 million

- The proposed projects will generate state income taxes, sales taxes, State Unemployment Insurance (SUI) and State Disability Insurance (SDI) taxes, in addition to permits, property taxes, corporate income taxes, gross receipts taxes and other licenses and fees.

Industry Sector Impacts

The economic impact spills across industries in the Southern California five-county region through indirect and induced effects. The complete list of impacts by industry sector due to spending for this project appears in the table below.

Much of the impact will occur in the construction industry, with over one third of the total (direct, indirect and induced) employment generated by the program. However, other industries are also significantly impacted, including: professional and scientific services; retail trade; accommodations and food services; and manufacturing.

Impact of Project in Southern California by Industry Sector			
Industry	Output (\$ 000)	Jobs	Labor income (\$ 000)
Agriculture	\$ 97	1	\$ 29
Mining	337	1	82
Utilities	361	0	67
Construction	22,453	133	9,382
Manufacturing	5,558	12	819
Wholesale trade	1,451	7	551
Retail trade	1,785	21	761
Transportation and warehousing	832	6	346
Information	1,423	3	302
Finance and insurance	2,196	9	766
Real estate	3,450	8	336
Professional, scientific and technical services	3,916	26	2,140
Management of companies	311	1	142
Administrative and waste management	840	13	447
Education services	221	4	121
Health care and social assistance	1,548	15	856
Arts, entertainment and recreation	333	3	113
Accommodations and food services	730	12	273
Other services	1,039	12	413
Government and non-NAICS	392	2	187
Total *	\$ 49,273	290	\$ 18,133

* May not sum due to rounding
Source: LAEDC

The values in the table should be interpreted as illustrative of the industry effects rather than precise given model and data limitations. A description of these industries is provided in the Appendix.

Discussion

The entire Southern California economy depends on reliable water, which is a challenge in a semi-arid desert. The SWRP makes possible the greater use of recycled water, which increases the quantity and reliability of water available in the region. As a result, the economic importance of the SWRP greatly exceeds the construction impact.

The five-county region of Southern California is the 10th largest economy in the world and home to almost 22 million people. The region’s development was underpinned by imported water, which accounts for 60 percent of supplies overall and up to 90 percent in areas with limited local sources. Driven by natural increase – births exceeding deaths – population growth is expected to add millions more residents by 2030. Securing reliable water supplies for the next generation (and its successors) looms as a significant challenge.

Most of Southern California’s water is imported from three sources: the Colorado River, the California Bay-Delta, and (for the City of Los Angeles) the Owens River Valley. All three sources are under pressure. Supplies from the Bay-Delta and Owens River have already been reduced by restrictions on pumping operations for the protection of endangered species and habitat restoration. Until measures to restore fisheries and a long-term solution for water exports that is compatible with fishery protection are implemented, further cuts appear unavoidable. In any event, current population growth in California and throughout the southwest will place greater demands on these sources just as climate change threatens to reduce their productivity and reliability even further.



Source: Central Basin Municipal Water District

Water shortages or disruptions will have far-reaching and, if prolonged, dire consequences for Southern California. The region needs to undertake an urgent program to secure sufficient, reliable water supplies for the coming decades. The solution will have to incorporate a portfolio of water strategies, since no single strategy will provide a “silver bullet” solution to the region’s water needs.

Recycling

Although Southern California has limited local water supplies to meet the needs of its growing population, it consistently sends small rivers of comparatively fresh water into the ocean in the form of treated wastewater. Much of the wastewater could be cleaned up to the same standards as drinking water and returned to the local water supply. Recycled water is fully regulated under Title 22 of the California Code of Regulations, the same title that regulates drinking water standards.

Thus far, water recycling has been largely confined to reclamation for non-potable uses such as landscape irrigation. Attitudes are changing, however. Southern California water agencies have developed several recycling projects with the intent of tapping the large, reliable, local source offered by treated wastewater.

Given the advanced treatment processes available, the shift to viewing wastewater as an asset too valuable to be thrown away is long overdue; the astronauts on the international space station have been drinking recycled water for years. In Southern California, there is much more separation between the source and re-use than on the space station; most recycling projects use the water to recharge underground storage, where it is filtered through sand, gravel and clay before returning to the regional supply.



Source: Central Basin Municipal Water District

A key advantage of recycled water is its reliability. Recycled water is drought-proof because the wastewater treatment facilities produce a steady supply of water even in dry years. In addition, the recycled water is a local source, which lessens reliance on imported water from the Colorado River and the Bay-Delta. The SWRP, which is necessary for the efficient distribution of recycled water, is an important step toward a diversified strategy for long-term water reliability. In this context, the economic importance of the project is thus much greater than the one-time construction impact here described.

Appendix

Methodology

The total estimated economic impact includes direct, indirect and induced effects. **Direct activity** includes the materials purchased and the employees hired by the Central Basin Municipal Water District (CBMWD) and its contractors during the project construction period. Here we account for construction workers which have been added due to the project and the materials purchased for the project. **Indirect effects** are those which stem from the employment and business revenues motivated by the purchases made by the CBMWD and its contractors. For example, indirect jobs are sustained by the suppliers of the office supplies and insurance purchased by contractors hired for the construction. **Induced effects** are those generated by the spending of employees whose wages are sustained by both direct and indirect spending.

We used data supplied by the CBMWD for initial spending, and estimated the direct, indirect and induced effects using models developed with the IMPLAN system (V3 software and 2008 data) from the Minnesota IMPLAN Group, Inc. In all cases, we have proceeded as if the spending will take place within a single year, as is customary in this type of impact analysis. For long-term projects such as multi-year transportation improvement projects, the reader is cautioned to note that the modeling system does not account for changes in prices and wages over time. All dollar figures are quoted in 2010 dollars.

The estimated economic impacts are based on spending within the five-county Southern California region, which includes the counties of Los Angeles, Orange, Riverside, San Bernardino and Ventura. These counties are chosen as representative of the region most affected by the CBMWD's projects. Although most of the employment and economic activity will be in Los Angeles County, we expect that the workforce, the materials purchased, and the businesses that will be impacted by the CBMWD's spending are located throughout the five-county Southern California region.

Data limitations prevent us from estimating how much of the overall construction spending will take place outside of the region; for example, construction materials might be *purchased* locally but be manufactured elsewhere. In some instances, spending related to a project may occur in neighboring counties such as Santa Barbara or Imperial and thus generate *additional* economic impact that spills over from those neighboring counties. This spillover is not captured by our five-county analysis.

Any spending in the budget category denoted as right-of-way acquisition is excluded from economic impact analysis since this is an exchange of assets.

Job creation estimates are measured on a job-count basis for both wage-and-salary workers and proprietors regardless of the number of hours worked.

Description of Industry Sectors

The industry sectors used in this report are established by the North American Industry Classification System (NAICS). NAICS divides the economy into twenty sectors, and groups industries within these sectors according to production criteria. Listed below is a short description of each sector as taken from the sourcebook, *North American Industry Classification System*, published by the U.S. Office of Management and Budget (2007).

Agriculture, Forestry, Fishing and Hunting: Activities of this sector are growing crops, raising animals, harvesting timber, and harvesting fish and other animals from farms, ranches, or the animals' natural habitats.

Mining: Activities of this sector are extracting naturally-occurring mineral solids, such as coal and ore; liquid minerals, such as crude petroleum; and gases, such as natural gas; and beneficiating (e.g., crushing, screening, washing and flotation) and other preparation at the mine site, or as part of mining activity.

Utilities: Activities of this sector are generating, transmitting, and/or distributing electricity, gas, steam, and water and removing sewage through a permanent infrastructure of lines, mains, and pipes.

Construction: Activities of this sector are erecting buildings and other structures (including additions); heavy construction other than buildings; and alterations, reconstruction, installation, and maintenance and repairs.

Manufacturing: Activities of this sector are the mechanical, physical, or chemical transformation of material, substances, or components into new products.

Wholesale Trade: Activities of this sector are selling or arranging for the purchase or sale of goods for resale; capital or durable non-consumer goods; and raw and intermediate materials and supplies used in production, and providing services incidental to the sale of the merchandise.

Retail Trade: Activities of this sector are retailing merchandise generally in small quantities to the general public and providing services incidental to the sale of the merchandise.

Transportation and Warehousing: Activities of this sector are providing transportation of passengers and cargo, warehousing and storing goods, scenic and sightseeing transportation, and supporting these activities.

Information: Activities of this sector are distributing information and cultural products, providing the means to transmit or distribute these products as data or communications, and processing data.

Finance and Insurance: Activities of this sector involve the creation, liquidation, or change of ownership of financial assets (financial transactions) and/or facilitating financial transactions.

Real Estate and Rental and Leasing: Activities of this sector are renting, leasing, or otherwise allowing the use of tangible or intangible assets (except copyrighted works), and providing related services.

Professional, Scientific, and Technical Services: Activities of this sector are performing professional, scientific, and technical services for the operations of other organizations.

Management of Companies and Enterprises: Activities of this sector are the holding of securities of companies and enterprises, for the purpose of owning controlling interest or influencing their management decision, or administering, overseeing, and managing other establishments of the same company or enterprise and normally undertaking the strategic or organizational planning and decision-making of the company or enterprise.

Administrative and Support and Waste Management and Remediation Services: Activities of this sector are performing routine support activities for the day-to-day operations of other organizations, such as: office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services.

Educational Services: Activities of this sector are providing instruction and training in a wide variety of subjects. Educational services are usually delivered by teachers or instructors that explain, tell, demonstrate, supervise, and direct learning. Instruction is imparted in diverse settings, such as educational institutions, the workplace, or the home through correspondence, television, or other means.

Health Care and Social Assistance: Activities of this sector are operating or providing health care and social assistance for individuals.

Arts, Entertainment and Recreation: Activities of this sector are operating facilities or providing services to meet varied cultural, entertainment, and recreational interests of their patrons, such as: (1) producing, promoting, or participating in live performances, events, or exhibits intended for public viewing; (2) preserving and exhibiting objects and sites of historical, cultural, or educational interest; and (3) operating facilities or providing services that enable patrons to participate in recreational activities or pursue amusement, hobby, and leisure-time interests.

Accommodation and Food Services: Activities of this sector are providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption.

Other Services (except Public Administration): Activities of this sector are providing services not specifically provided for elsewhere in the classification system. Establishments in this sector are primarily engaged in activities, such as equipment and machinery repairing, promoting or administering religious activities, grant-making, advocacy, and providing dry-cleaning and laundry services, personal care services, death care services, pet care services, photofinishing services, temporary parking services, and dating services.



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This report was prepared by the Economic and Policy Consulting Practice of the Los Angeles County Economic Development Corporation (LAEDC).

As the Southern California region's premier economic development organization, the mission of the LAEDC is to attract, retain and grow businesses and jobs in the regions of Los Angeles County.

The LAEDC Consulting Practice offers unbiased, fee-based custom economic and policy research for public agencies and private firms. The Consulting Practice focuses on economic impact studies, regional industry analyses, economic forecasts and issue studies, particularly in water, transportation, infrastructure and environmental policy. Projects are selected based on their relevance to the *L.A. County Strategic Plan for Economic Development* and the potential for the research to shape policy that supports the LAEDC mission.