

additional 90,100 AF of stored water. Combined with member agencies' local water supplies estimated to be available for emergency use, additional storage capacity is projected to meet the county' emergency needs through at least 2030.

**TABLE 1-2
CIP COST SUMMARY BY CATEGORY
(IN \$ MILLIONS)**

PROJECT CATEGORY	FY 00/01 PROJECT COST
Pipeline Projects	\$259.5
System-wide Improvements	\$51.3
Emergency Storage Projects	\$774.5
Water Supply Projects	\$25.8
Flow Control & Pumping Facilities	\$11.0
Reimbursable Projects-Total Cost	\$17.3
Total Costs of Active & Future Projects	\$1,139.4
Less All Reimbursable Costs ¹	\$41.0
Net SDCWA Costs	\$1,180.4

¹There are project costs within the CIP that are considered reimbursable.

The facilities that make up the ESP will be located throughout San Diego County. They will be constructed in phases and include a new 308-foot-high dam (Olivenhain Dam) and 24,000 AF reservoir near Lake Hodges, new pipelines to connect the new reservoir to the Authority's Second Aqueduct and to Lake Hodges, raising San Vicente Dam by 54 feet to provide room to store another 52,100 AF of water, a new pipeline to connect San Vicente Reservoir to the Authority's Second Aqueduct, and additional pump stations and other facilities to move water within the system to meet emergency water needs.

The Authority is currently working on the design for construction of Olivenhain Dam and its associated pipelines. Construction has begun on the main access road for the dam, as did clearing and grading in other areas of the dam site. The estimated cost of the ESP is \$774.5 million. All phases are expected to be complete by 2010.

1.5 SERVICE AREA CHARACTERISTICS

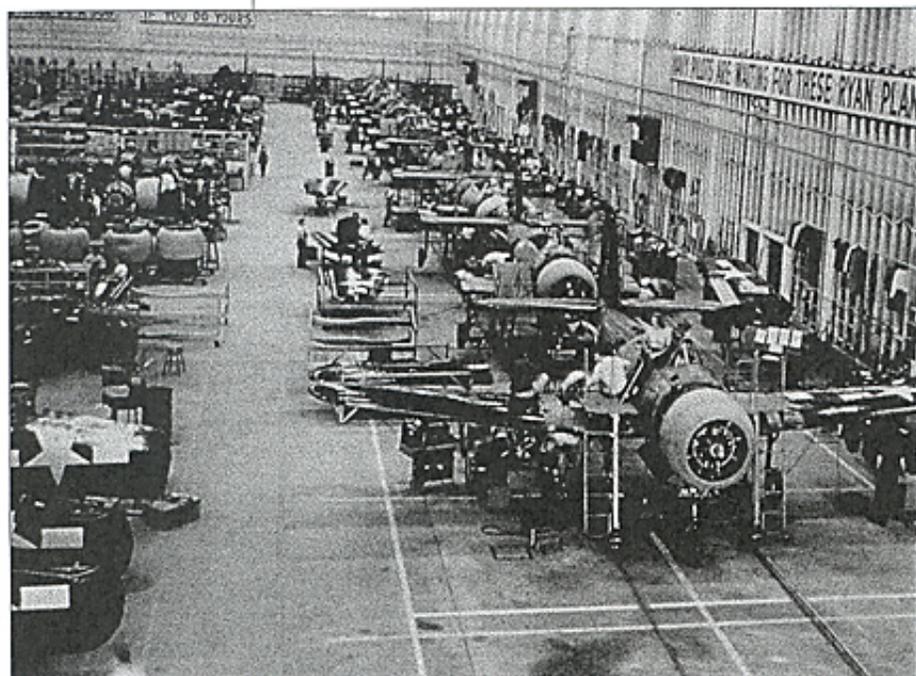
While the Authority's service area contains many land uses, its most prominent aspect is an urban and suburban character. Large amounts of rural lands were converted for urban uses in the past few decades, as the region's population grew by up to 80,000 people a year. San Diego County also has a rich history of agriculture, beginning with the large cattle ranches established in the 18th century and continuing through the diverse range of crops and products grown today, such as flowers, vegetables, nursery plants, turf grass, avocados, and citrus. The latest survey conducted by DWR indicates that the Authority's service area includes 73,769 acres of agricultural production. San Diego County agriculture is a \$1.2 billion per year industry, eighth in farm production value in the state and fourth in value in the county after manufacturing, tourism and military defense. Changing market forces,

including the increasing cost of water, may cause some economically marginal lands to be taken out of production in the future.

1.5.1 Regional Economy and Demographics

From the formation of the Authority in 1944 until 1990, the local economy was driven by defense-related manufacturing, especially in the aerospace sector. Economic growth in the 1980s was fueled by federal spending, as local defense-

related expenditures more than doubled from \$4.6 billion in 1983 to \$9.6 billion in 1987. When this level of federal spending was sharply cut back in the early 1990s, it resulted in layoffs and a recession that lasted until 1995.



San Diego County is now experiencing a strong economic expansion, which increases the region's demand for water. The economy has diversified to include growth in areas such as telecommunications, electronics, computers, software, and biotechnology. San Diego's gross regional product

is forecast to reach \$100.4 billion in 2000. This will be an increase of 6.4 percent over 1999's estimated \$94.4 billion. The number of people actively working, averaged 1,297,000 during 1999 which is expected to rise by 1.7 percent in 2000 to 1,318,900. Compared to the pace of expansion recorded in the 1980s, the current growth is much more moderate, and perhaps more healthy and sustainable.

1.5.2 Climate

Climatic conditions within the service area are characteristically Mediterranean along the coast, with mild temperatures year round. Inland areas are both hotter in summer and colder in winter, with summer temperatures often exceeding 90 degrees and winter temperatures occasionally dipping to below freezing. More than 80 percent of the region's rainfall occurs in the period between December through March (Figure 1-2). Average annual rainfall is approximately 9.9 inches per year on the coast (Figure 1-3) and in excess of 40 inches per year in the inland mountains.

FIGURE 1-2
SAN DIEGO CLIMATE 30-YEAR AVERAGE

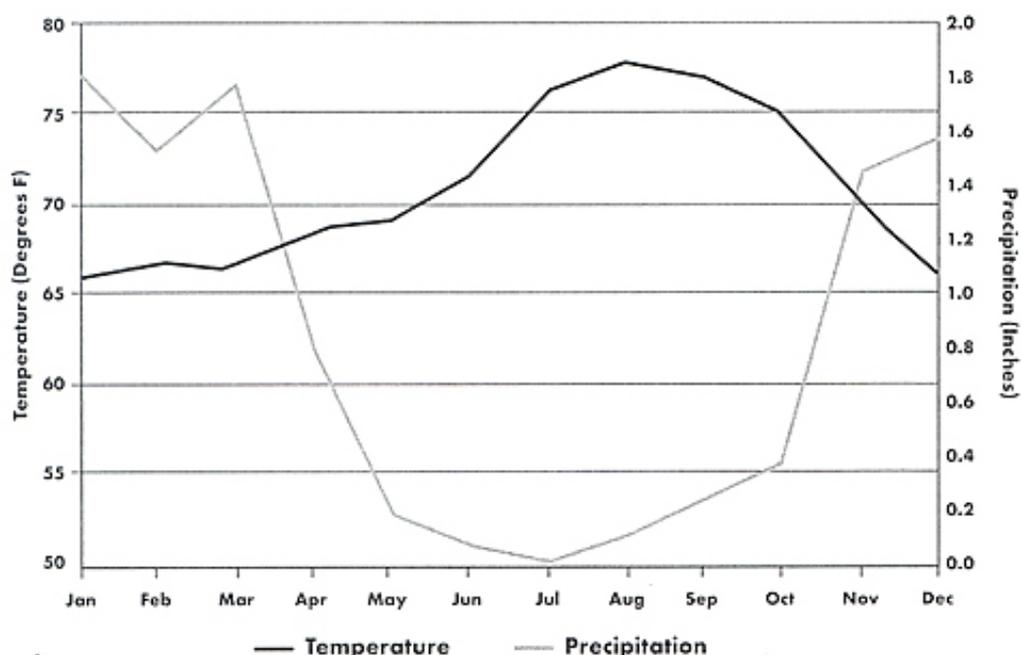
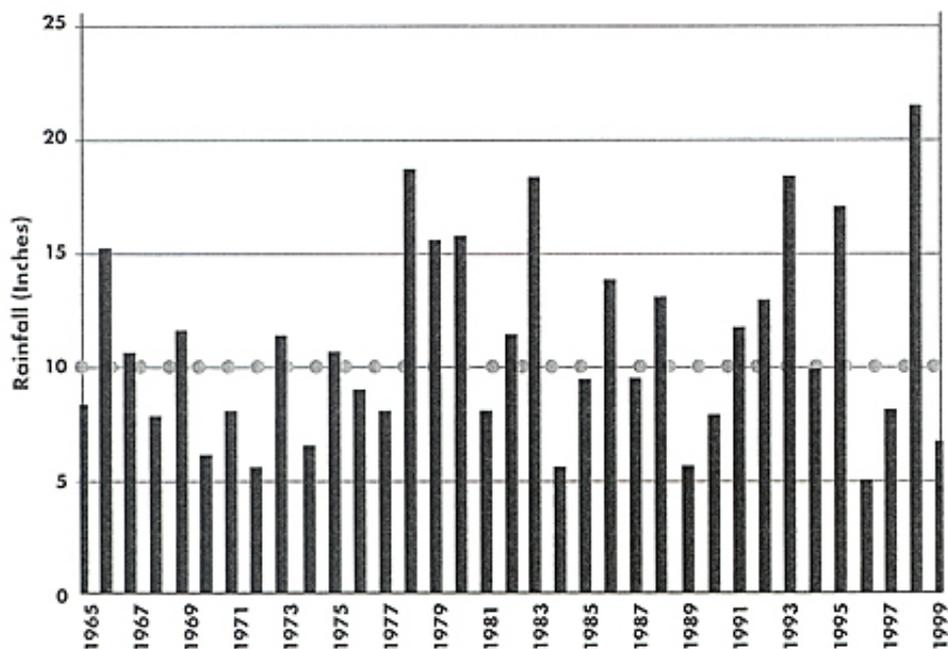


FIGURE 1-3
ANNUAL RAINFALL
(LINDBERG FIELD STATION)



Variations in weather affect short-term water requirements, causing demand spikes during hot, dry periods and reductions in use during wet weather. It is generally accepted in water demand forecasting that hot, dry weather may generate urban water demands that are about 7 percent greater than normal and agricul-