

Section Q
Cumulative Impact Summary

SECTION Q. CUMULATIVE IMPACTS SUMMARY

Introduction

CEQA requires that significant cumulative impacts be discussed. "Cumulative Impacts" refers to two or more effects which, when considered together, compound or increase the impacts of a project beyond the level of significance of either project viewed independently. Developers, resource managers, and others are particularly concerned with the cumulative impacts of urban development.

Section 21083(b) of the state CEQA Guidelines requires an analysis of the effects of past projects, other current projects, and probable future projects. A recent California Court of Appeals decision interpreted that language to include not only those projects that are already approved but also those projects subject to a similar level of analysis in the environmental review process.

The state CEQA Guidelines (Section 15130) establish three elements for an adequate cumulative impact analysis:

- o a list of related projects;
- o a summary of impacts with reference to additional available information; and
- o a reasonable analysis of cumulative impacts.

Projects on the cumulative list are at various stages in the development planning and approval process, and include those for which applications have been received, those with final approvals, and those that are currently under construction. In accordance with a recent court decision (San Franciscans for Reasonable Growth v. City and County of San Francisco [1984] 151 Cal App. 3d. 61) interpreting CEQA with regard to cumulative impact analysis, it is appropriate to consider, at a minimum, all projects for which applications have been submitted.

It is important to note that this cumulative project list fluctuates constantly. The situation at the onset of the analysis period had to be selected in order to prepare this report. Although important changes occur constantly, the June 1987 list nonetheless provides a reasonable context in which to evaluate the cumulative effects of the proposed project.

The portion that would actually build out, and the buildout rate of all of this planned development, is indeterminate. Some projects may be abandoned, some may be revised, some may proceed rapidly, and others will take 10 years or longer to complete. Moreover, other projects would continue to be

proposed. Therefore, the analysis that follows speaks only to the theoretical impacts of adding all of the development that was proposed in 1987 to the current development landscape. This analysis provides a useful context in which to gauge the possible ramifications of the approximate level of growth.

Cumulative Development Projects

Cumulative impacts of future development in north Stockton were analyzed on the assumption that all proposed and approved projects within existing City limits north of the Calaveras River (as identified by City staff), the project site, and five other unincorporated areas for which ballot measures were approved in November 1986 would be developed by 2010.

Under the described cumulative development scenario, the following land use changes would be made:

- o 20,163 new housing units (11,268 low-density, 4,003 medium-density, and 4,892 high-density) would be built on 2,951 acres (2,368, 314, and 250 acres, respectively);
- o commercial and office uses would be developed on 435 and 240 acres, respectively;
- o 742 acres would be developed or preserved for recreational and open space uses;
- o new schools would be developed on 168 acres; and
- o other uses would be developed on 90 acres.

These cumulative land uses are presented in Table Q-1 and Figure Q-1. The cumulative impacts for each relevant issue are discussed fully within each section of the EIR and summarized below.

Analysis of cumulative transportation and fiscal impacts are based on studies prepared for the City by OMNI-MEANS, Ltd. and Recht Hausrath & Associates. Those studies were based on a longer planning period, a larger planning area (the City's sphere of influence), and somewhat different land use projects prepared by City staff. Therefore, cumulative impact assessments for Sections F and K may not correspond directly with those in other sections of the DEIR.

Cumulative Impacts

Land Use/Agricultural Resources

Cumulative development of 4,625 acres in north Stockton for residential, commercial, office, parks and recreation, schools and other uses would convert agricultural land to urban development. The permanent loss of

Table Q-1. Projected Cumulative Land Uses in North Stockton

	Single-Family			Multifamily			Residential (acres)	Commercial (acres)	Office (acres)	Parks/Rec Open Space (acres)	Schools (acres)	Other (acres)
	R-1 (units/acres)	R-2 (units/acres)	R-3 (units/acres)	R-3 (units/acres)	R-2 (units/acres)	R-1 (units/acres)						
Proposed and approved development (includes Oak Grove Estates, Country Greens, Weber Ranch, Sperry Ranch, Twin Creeks, Ferndale Meadows, etc.)	3,631/726	1,588/122.2	900/56.3	904.5	202.1	126.5	N/A	N/A	N/A	N/A	N/A	N/A
Ballot Measures												
Spanos Park	2,914/513	1,890/139	2,656/127	779	48	79	260	46	27	N/A	N/A	N/A
Harbor Cove	625/201	N/A	N/A	201	6.3	N/A	142	9.6	N/A	N/A	N/A	N/A
Morada	1,811/360	N/A	580/29	389	18.5	N/A	17.0	13.5	N/A	N/A	N/A	N/A
Brookside	2,287/567.6	525/52.5	756/37.8	657.9	73.5	35	322.5	53.5	N/A	N/A	N/A	N/A
Christian Life Center	N/A	N/A	N/A	N/A	N/A	N/A						
Stockton Auto Phase II	N/A	N/A	N/A	N/A	86.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nonproject Ballot Measure Aeras	N/A	N/A	N/A	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	11,268/2,367.6	4,003/313.7	4,892/250.1	2,951.4	434.6	240.5	741.5	167.6	90			

Note: N/A = not applicable.

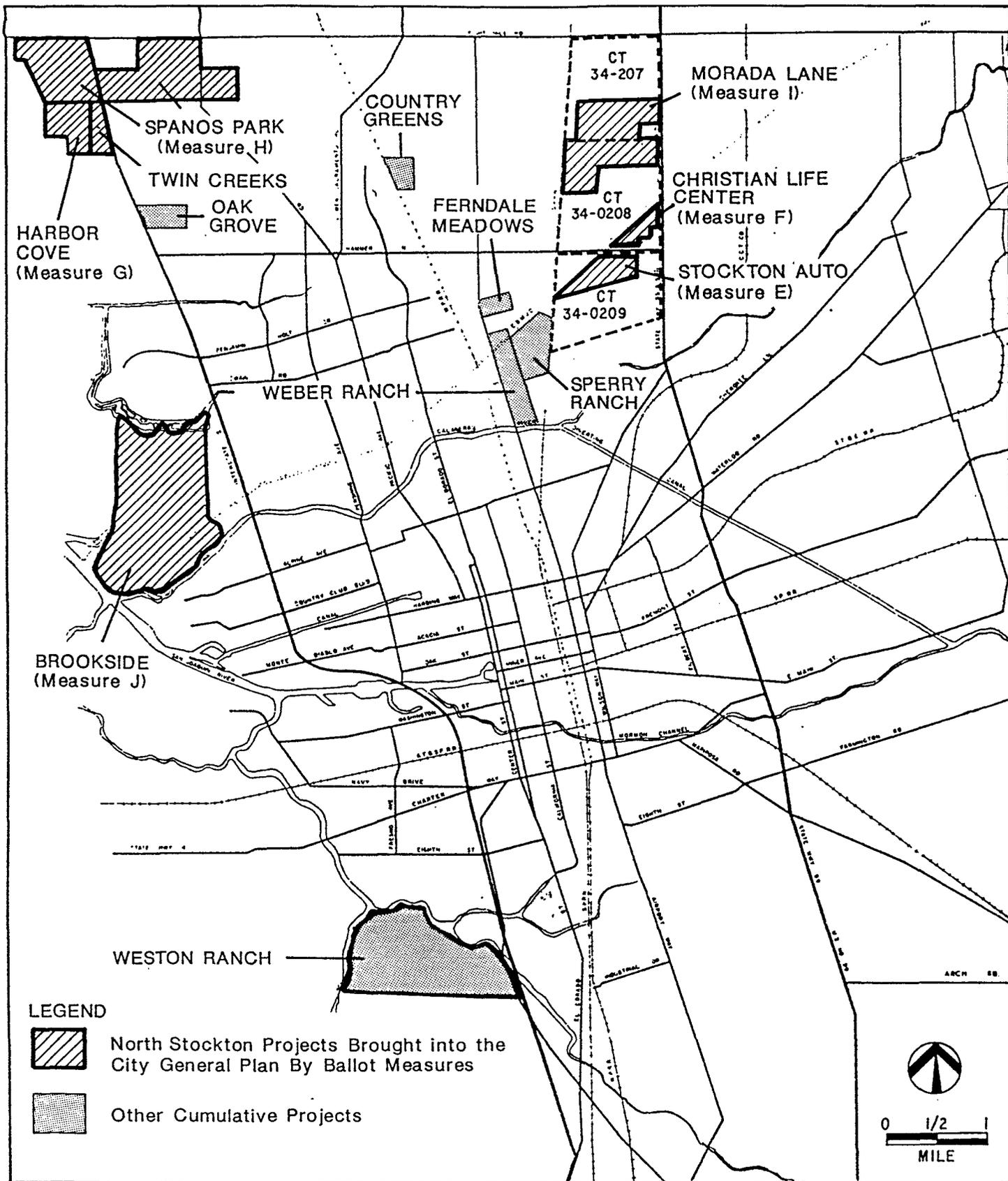


FIGURE Q-1. CUMULATIVE PROJECTS

Source: Niblock pers. comm.; Jones & Stokes Associates, Inc. 1987

agricultural land would be a significant and unavoidable impact, assuming urbanization proceeded.

The cumulative developments projected would intensify and expand conflicts between urban and agricultural land uses, be inconsistent with policies of the Stockton General Plan, San Joaquin County General Plan, and the San Joaquin County LAFCO. These impacts are considered significant and/or significant and unavoidable. Refer to Section A, "Land Use," and Section B, "Agricultural Resources," for a complete discussion of cumulative impacts and mitigation measures.

Hydrology and Water Quality

Buildout of cumulative north Stockton developments would increase demand on regional drainage capabilities during severe storms and the demand for regional surface water supplies. These impacts are considered significant and significant and unavoidable, respectively.

The cumulative impact of development on groundwater quality would depend on the relative amount of groundwater pumping for domestic and irrigation water. Given the current concerns about overdraft of the groundwater table and the uncertainty of the actual amounts of groundwater that would be required, this impact is considered significant. Refer to Section D, "Hydrology and Water Quality," for further discussion of cumulative impacts and mitigation measures.

Vegetation, Wildlife, and Aquatic Resources

Cumulative development would convert 4,625 acres of agricultural fields, freshwater marsh, open-water aquatic and scattered tree habitat to urban land uses. The statewide loss of these habitats is considered significant. Cumulative development in north Stockton would also contribute to the general decline in Delta fisheries that has in part been adversely affected by land reclamation, dredging, water development projects, and water pollution. Refer to Section E for a further discussion of cumulative vegetation, wildlife and aquatic resources impacts, and mitigation measures.

Traffic and Circulation

The cumulative development scenario for the traffic analysis assumes existing and already approved developments, plus development on all remaining vacant land within the City limits, and development of the six ballot measure projects in north Stockton. The cumulative scenario also includes analysis with and without the proposed project. A peak hour intersection analysis without and with the proposed project indicates that the number of intersections that operate at LOS E or F increases from five to 13 when the proposed project is considered. These impacts are considered significant.

The daily critical roadway segment analysis indicates that nine critical roadway segments would deteriorate to LOS E or F with or without the proposed project. The peak hour freeway ramp analysis indicates that four

ramps at Benjamin Holt Drive and March Lane would deteriorate to LOS E or F without the proposed project, while seven ramps with the proposed project would deteriorate to unacceptable LOS. These impacts are considered significant. The impacts at Benjamin Holt Drive southbound on-ramp and the March Lane southbound on-ramp are considered significant and unavoidable. Refer to Section F for further discussion of cumulative traffic and circulation impacts and mitigation measures.

Air Quality and Noise

Under the cumulative development scenario with the proposed project, carbon monoxide (CO) concentrations could exceed state standards at several intersections. This impact is considered significant and unavoidable. Refer to Section G for further analysis of cumulative air quality impacts and mitigation measures.

Cumulative noise levels are not expected to substantially increase noise levels near the proposed project. This impact is considered less than significant.

Public Services and Utilities

Water. Cumulative water demand in north Stockton would be approximately 16,500 af/yr (15 million gpd). Given the magnitude of the projected demand, water supply constraints, and competition for available supplies, this impact is considered significant and unavoidable.

Cumulative impacts on groundwater supply could be substantial if development proceeds without conjunctive use of the New Melones Reservoir surface water supply. This impact is considered significant. Refer to Section J, "Water," for additional information on cumulative groundwater impacts and mitigation measures.

Wastewater. Cumulative development would generate 7.9 MGD of average dry weather wastewater flows. Estimated peak flows indicate that wastewater generation could exceed the maximum design capacity of the treatment plant by 22 percent. Refer to Section J, "Wastewater," for additional information on cumulative wastewater impacts and mitigation measures.

Solid Waste. Cumulative development projected in north Stockton would generate more than 500 tons per day of additional solid waste, nearly doubling the current daily intake of the Austin Road landfill. This is considered a significant impact.

Schools. Cumulative development would increase K-12 enrollment by approximately 15,000 students. Due to the magnitude of the projected enrollment, current overcrowding of school facilities, and difficulty of obtaining necessary funding for school housing, this impact is considered significant.

Police and Fire. An additional 78-112 officers would be needed to provide adequate police services. Due to existing staff and budget constraints, an increase of this magnitude would represent a significant impact.

Additional staff and two new fire stations would be required in north Stockton to reduce the expected cumulative impact on the Fire Department. Due to existing staff and budget constraints, this impact is considered significant.

Fiscal Impacts

Under the cumulative development scenario, operating costs for police, fire, parks and recreation and general government would increase, but could be adequately funded with revenues collected from new developments.

Capital facility costs in the north Stockton study area are expected to be approximately \$202 million in 2005. This impact is considered significant. Facility costs would be financed by requiring developers to build the infrastructure needed to serve their project or provide a pro rata share for the revenue needed to construct the required improvements. Refer to Section K for an additional analysis of cumulative fiscal impacts and mitigation measures.

Aesthetics

Cumulative development projects would decrease the amount of land available to buffer urban and rural communities. Since the Stockton General Plan 2000 provides recommendations for preserving open space agricultural land as an aesthetic buffer to frame and separate urban areas, this impact is considered significant and unavoidable.

Q-8

C - 0 6 5 4 8 7

C-065487