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The California Environmental Quality Act - Volume III - Discussion of Costs and Delays Related to Environmental Review

Environmental Analysis Systems, Inc.

THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

AN EVALUATION
EMPHASIZING ITS IMPACT
UPON
CALIFORNIA CITIES AND COUNTIES
WITH
RECOMMENDATIONS FOR IMPROVING ITS EFFECTIVENESS

VOLUME III – DISCUSSION OF COSTS AND DELAYS RELATED TO ENVIRONMENTAL REVIEW

A REPORT PREPARED
FOR THE
ASSEMBLY COMMITTEE ON
LOCAL GOVERNMENT
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As part of an overall review of CEQA an analysis of costs and delays associated with the implementation of the Act was conducted. This volume discusses the issues associated with cost and provides a detailed description of the approach used at arriving at the cost estimates contained in Volume I.

This Volume is organized according to the following topics.

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III.1 An Overall Structure for Categorizing and Displaying Costs

While a single-number estimate of the cost of environmental review is useful in refining overall percep-

tions of cost-effectiveness, most legislative bodies and many special interest groups will be interested in who is incurring the cost - the public, the developer, or the consumer.

The chart on the following page arrays several cost elements of environmental review against the public and private applicant or consumer. Four principal elements of cost are shown in the chart. These are:

o Document preparation, review, and administration of the overall environmental review process. This category includes preparation of EIRs, N.D.s, and other environmental documents as well as supporting tasks related to conducting the review and administering the review process including ordinance preparation. These costs are incurred by both the applicant and the public on private projects and by the public only on public projects. Estimating these costs involves obtaining budget or cost accounting data. One approach is to estimate an average unit cost per EIR and multiply by total EIRs prepared.

o Delay. The cost of delay may be divided into two components. The first is that of inflation which increases the price of the project as the project is delayed. It may be argued that increases in price due to inflation will be fully passed on to the consumer but represent a "cost" to the consumer but only to the extent that he has not realized a corresponding increase in ability to pay. Thus, during recent years, there has been an inflation "cost" due to delay because construction costs have been rising faster than spendable income.

COSTS OF ENVIRONMENTAL REVIEW

CATEGORY OF COST		FOR PRIVATE PROJECTS		FOR PUBLIC PROJECTS
		COST TO PRIVATE APPLICANT OR CONSUMER*	COST TO PUBLIC	COST TO PUBLIC
Document preparation, review, and administration		Results from supplying information, document preparation, and/or fees.	Document preparation, administration, and review.	Document preparation, administration, review.
Delay	Inflation	Affects price, true affect on cost must take into account increased ability to pay.	NONE	Affects price, true affect on cost must take into account increased ability to pay.
	Carrying or foregone opportunity	Carrying cost during period of delay and foregone opportunity on benefits of use.	NONE	Foregone net benefits from project and carrying cost in certain cases.
Uncertainty		Amortization of sunk costs in denied or abandoned projects; foregone benefits on projects not undertaken.	NONE	Amortization of sunk costs in denied or abandoned projects; foregone benefits on projects not undertaken.
Mitigation		Cost of design or operating changes to mitigate impacts.	Cost to mitigate impacts.	Costs of design or operating changes to mitigate impacts.

*Costs in this column will be absorbed by the developer in the short-run but may be assumed to be passed on to the consumer in the long-run.

In periods of time in which increases in construction costs are less than spendable income, there is a "cost savings" associated with delay from the standpoint of the consumer. In order to attach an inflation cost to construction from environmental review-caused delays, it is necessary to deal with a number of factors which include the rate of inflation of construction costs in relation to increases in spendable income, supply-demand relationships in the market place, and others.

Other costs associated with delay include carrying costs and foregone opportunity on delayed future receipts or benefits. In the case of public projects, there is a foregone opportunity to realize the net benefits associated with the projects. Estimating delay costs requires knowledge of either actual costs or an estimate based on statistics such as average delay time, carrying cost as a function of total project cost, and total project costs for projects subject to delay. For both private and public projects, a delay may result in foregone net benefits or revenues from the project. In cases where cash flows have been closely balanced, funds raised by bonds, or when loan commitments have been made, a delay of sufficient time may create the need for refinancing which, in turn, creates discrete costs in addition to costs which are more or less proportional to the time of delay.

Accordingly, the cost of delay is a complex, non-linear function of time delay, type of project, and overall economic factors such as relative inflationary trends in various segments of the economy.

o Uncertainty. To the extent that environmental review causes uncertainty in the ability to execute a project after the commitment of resources, a higher expected

rate of return will be required by private applicants. Stated differently, the costs of abandoned projects must ultimately be recovered or amortized somehow and this applies to both public and private projects. In addition there are foregone benefits associated with projects never initiated because of uncertainty in project approval.

It may be argued that there is always a cost of either uncertainty or mitigation associated with environmental review, unless the environmental review is serving only for purposes of public information or education.

o Mitigation. These are costs incurred by both the public and private developers and which result from changes in either the design or operating plan for the project in order to mitigate unfavorable impacts. They may take several forms.

a. Planning, engineering, and architectural costs associated with plan revisions to mitigate adverse impacts.

b. Reduced revenues or public benefits caused by changes in operations, density of development, and so forth -- these may occur both during the initial design or conceptualization of the project or during review.

c. Loss of benefits from projects which were never undertaken because mitigation was not feasible or not economical.

In order to estimate the net costs associated with environmental review one must also estimate the monetary benefits associated with mitigation of impacts and other illusive factors such as improved public understanding of the trade-offs in land-use decision-making, increased public participation in the allocation of natural resources,

and so forth.

A discussion of these issues is beyond the scope of this paper and the treatment of these issues on a monetary basis was outside the scope of work for the project.

III.2 Document Preparation, Review and Administration

The approach for estimating this element of cost for local jurisdictions was to estimate unit costs for a workload measure and multiply by total workload. For other agencies, special estimates were formulated.

III.2.1 Cities, Counties and Special Districts

For cities, counties and special districts the workload measure selected was EIRs prepared.

Table III.1 and III.2 show EIR workload estimates for calendar year 1974 and these were used as the basis for estimating total current workload.

It is difficult to readily obtain cost information from lead agencies. In only a few jurisdictions does the implementation of CEQA appear as a separable budget item. With few exceptions, jurisdictions do not accumulate costs against specific EIRs or against an "EIR program" nor do they attempt to estimate applicant costs or applicant delay.

In order to estimate unit costs, a detailed analysis of 20 cities and counties was conducted.

TABLE III.1

APPROXIMATE NUMBER OF EIRS
PREPARED ANNUALLY BY TYPE
OF PROJECT OR ACTIVITY*

Private Housing & Land Sales	1380	37%
Industrial Projects	390	10%
Commercial Projects	740	20%
Public Works Projects by Local Jurisdictions	770	20%
Public Works Projects by State Agencies	200	5%
EIRs Prepared on Policies, Plans, & Ordinances	230	6%
Miscellaneous Institutional Projects (principally schools and hospitals)	90	2%
	3800	100%

TABLE III.2

APPROXIMATE NUMBER OF EIRS
PREPARED ANNUALLY BY TYPE
OF JURISDICTION*

Cities	2200	58%
Counties	1200	32%
Special Districts	200	5%
State Agencies	200	5%
	3800	100%

*Source: Derived from an analysis of CEIRM and State Clearinghouse records during 1974 and an analysis of 185 EIRs from 23 jurisdictions prepared during the period of 1973-1975.

The technique used to estimate costs varied from jurisdiction to jurisdiction. When available, budget figures were adjusted to reflect actual current experience. In other cases, the estimates were worked-up from scratch by estimating man-hours of labor, applying wage and salary rates, adding overhead, and so forth. Applicant costs were estimated from documentation in certain cases and by contacting private applicants in others.

Overall consideration was given to a number of factors including:

- o Agency direct costs.
- o Indirect review costs.
- o Shared planning costs.
- o Extrordinary EIR preparation costs.
- o Private applicant document preparation costs.
- o Agency fees.
- o Costs of supplying miscellaneous information.

The costs of the time of public officials, public and private applicants in hearings and meetings was not included.*

The results of this analysis are displayed in Table III.3. The columns in this table should be interpreted as follows.

(1) Sample Identification: A discussion of the jurisdictions in the sample and the characteristics of the environmental documents prepared by them is presented in detail in Volume II. It is believed that they provide a reasonably representative sample.

(2) Number of EIRs prepared for private projects.

(3) Number of EIRs prepared for public projects.

(4) Total EIRs prepared

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*In certain jurisdications, the cost of the time of elected officials was included in their overhead rate.

TABLE III.3

SAMPLE DATA USED IN CALCULATING AVERAGE COST PER EIR AND RELATED STATISTICS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
SAMPLE #	PRI.	EIRS PUB.	TOT.	NO. N.D. PRI.	PUB.	TOT.	NO. EXEMP.	TOTAL D.A.	AGENCY DIRECT EXPENSE	INDIRECT REVIEW COSTS	SHARED PLANNING COSTS	ALLOWANCE FOR EXTRAORDINARY EIR EXPENSE	REIMBURSEMENTS	AGENCY NET COSTS TOTAL	PRIVATE PROJECTS	PUBLIC PROJECTS
A	139	65	204	160	84	244	1052	1500	$446,500	$ 29,000	$51,000	NONE	$ 33,000	$ 391,500	$ 262,500	$ 129,000
B	25	5	30	175	35	210	N.A.	N.A.	97,000	10,000	NONE	$75,000	15,000	167,000	139,000	28,000
C	17	8	25	100	50	150	N.A.	N.A.	26,000	1,300	NONE	NONE	2,700	24,600	16,500	8,100
D	27	13	40	120	80	200	N.A.	N.A.	69,100	5,200	23,000	NONE	8,300	43,100	18,100	25,000
E	9	3	12	90	30	120	N.A.	N.A.	42,000	INCL	NONE	50,000	1,350	90,650	30,150	60,500
F	1	2	3	3	8	11	N.A.	N.A.	12,000	INCL	4,000	NONE	450	7,550	450	7,100
G	15	5	20	90	30	120	N.A.	N.A.	62,500	INCL	NONE	NONE	4,950	57,550	32,175	25,375
H	8	1	9	131	31	162	241	412	179,100	INCL	53,700	NONE	86,550	38,850	28,850	10,000
I	1	1	2	13	2	15	N.A.	N.A.	2,000	INCL	NONE	NONE	NONE	2,000	1,000	1,000
J	29	3	32	95	10	105	N.A.	N.A.	27,000	4,050	NONE	NONE	2,875	28,175	25,175	3,000
K	12	3	15	48	12	60	N.A.	N.A.	8,450	INCL	NONE	NONE	3,000	5,450	2,400	3,050
L	8	2	10	33	7	40	N.A.	N.A.	34,300	3,400	NONE	25,000	50,200	12,500	5,700	6,800
M	5	5	10	40	30	70	420	500	37,400	INCL	NONE	NONE	1,500	35,900	1,000	34,900
N	75	12	87	775	125	900	250	1237	196,350	INCL	NONE	NONE	139,500	56,850	28,850	28,000
O	5	1	6	50	10	60	200	266	36,585	INCL	NONE	NONE	21,585	15,000	12,000	3,000
P	13	2	15	60	10	70	134	219	43,000	8,600	NONE	7,500	13,000	46,100	34,800	11,300
Q	60	40	100	600	580	1180	N.A.	N.A.	1,496,000	200,000	NONE	NONE	84,000	1,612,000	616,000	996,000
R	11	4	15	130	48	178	60	253	150,000	15,000	NONE	NONE	109,500	55,500	11,000	44,500
S	4	1	5	24	8	32	N.A.	N.A.	4,000	500	NONE	10,000	NONE	14,500	3,700	10,800
T	20	6	26	101	29	130	N.A.	N.A.	20,000	INCL	NONE	NONE	5,000	15,000	11,550	3,450
TOTAL	484	182	666	2838	1219	4057			2,989,285	277,150	131,700	167,500	582,460	2,719,775	1,280,900	1,438,875

TABLE III.3 (CONTINUED)

SAMPLE DATA USED IN CALCULATING AVERAGE COST PER EIR AND RELATED STATISTICS

(1)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)
	PRIVATE APPLICANT COSTS				TOTAL		UNIT COSTS				
SAMPLE #	EIR PREP. COSTS	FEES	SUPPLYING INFORMATION	TOTAL	PRIVATE PROJECTS	ALL PROJECTS	PRIVATE PROJECTS	PUBLIC PROJECTS	ALL PROJECTS	WT. FACT.	WT'D. COST
A	$ 282,500	$ 33,000	INCL	$ 315,500	$ 578,000	$ 707,000	$ 4,158	$ 1,980	$ 3,465	.306	$1,061
B	212,500	15,000	$ 4,375	231,875	370,875	398,875	14,835	5,600	13,295	.045	598
C	17,000	2,700	INCL	19,700	36,200	44,300	2,129	1,012	1,772	.038	66
D	145,000	8,300	INCL	153,300	171,400	196,400	6,348	1,923	4,910	.060	294
E	36,000	1,350	2,250	39,600	69,750	130,250	7,750	20,166	10,854	.018	195
F	5,500	450	INCL	5,950	6,400	13,500	6,400	3,550	4,500	.005	20
G	52,500	4,950	INCL	57,450	89,625	115,000	5,975	6,343	5,750	.030	172
H	1,600	86,550	INCL	88,150	117,000	127,000	14,625	10,000	14,111	.014	190
I	-0-	-0-	500	500	1,500	2,500	1,200	1,000	1,100	.003	3
J	-0-	2,875	3,825	6,700	31,875	34,875	1,099	1,000	1,090	.048	52
K	75,000	3,000	INCL	78,000	80,400	83,450	6,700	1,017	5,563	.023	125
L	-0-	50,200	INCL	50,200	55,900	62,700	6,987	3,400	6,270	.015	94
M	30,000	1,500	2,000	33,500	34,500	69,400	6,900	6,980	6,940	.015	104
N	131,000	8,500	INCL	139,500	168,350	196,350	2,240	2,333	2,257	.131	294
O	-0-	21,585	2,500	24,085	36,085	39,085	7,217	3,000	6,514	.009	59
P	33,500	13,000	INCL	46,500	81,300	92,600	6,253	5,650	6,173	.023	139
Q	300,000	84,000	14,000	398,000	1,014,000	2,010,000	16,900	24,900	20,100	.150	3,017
R	109,500	INCL	INCL	109,500	120,500	165,000	10,954	11,125	11,000	.023	247
S	8,000	-0-	500	8,500	12,200	23,000	3,050	10,800	4,600	.008	35
T	5,000	-0-	5,000	10,000	21,550	25,000	1,078	575	962	.039	38
TOTAL	1,444,600	336,450	39,950	1,816,510	3,097,410	4,536,285					6,803

(5) Number of N.D.s prepared for private projects.

(6) Number of N.D.s prepared for public projects.

(7) Total N.D.s prepared.

(8) Number of exemptions.

(9) Total number of discretionary actions.

(10) Agency costs for document preparation, review, and all associated administrative expense including fringe benefits and overhead.

(11) Other review costs if not included in (10).

(12) "Shared Planning Costs" - costs included in (10) which were not attributable to CEQA.

(13) An estimate of extraordinary EIR and N.D. preparation and processing costs where it could be projected that they would occur in the future and where they were not included in (10).

(14) Reimbursements from fees and for document preparation on behalf of private applicants or other public agencies.

(15) Total net agency costs being the sum of columns (10), (11) and (13) less the sum of columns (12) and (14).

(16),(17) These columns allocate the total net agency cost according to private and public projects. Column (17) is the total for public projects.

(18) EIR preparation costs for private applicants.

(19) Fees.

(20) Estimates of the cost of supplying information if not included in (18).

(21) Total private applicant costs being the sum of columns (18), (19) and (20).

(22) Total for private projects cost.

(23) Total for all projects.

(24) EIR unit cost for private projects; column (22) divided by column (2).

(25) EIR unit cost for public projects; column (17) divided by column (3).

(26) EIR unit cost for all projects; column (23) divided by column (4).

(27) A weighting factor calculated by dividing the total for column (4) into total EIRs for each sample jurisdiction.

(28) Weighting factor times unit cost of sample column (27) times column (26).

Statistics derived from the Table and used in other sections of the report are as follows:

- o Weighted average EIR unit cost for all projects:
  - $6803 using weighted costs in column (28); $4,536,285 ÷ 666 = $6,811 using total costs and total EIRs; the difference is round off errors in columns (27) and (28).
  - Median based on unweighted samples: $5,700.
  - Average based on unweighted samples: $6,561.*

- o The one standard deviation of the sample is approximately $4,900 and one standard deviation of the distribution of sample means is approximately $1,100.

- o Range in Sample of EIR unit costs:

  $962-$20,100 for all projects.
  $565-$24,900 for public projects.
  $1078-$16,900 for private projects.

- o Weighted average EIR unit cost:

  3,097,410 ÷ 484 = $6400 for private projects.
  1,438,875 ÷ 182 = $7905 for public projects.

- o % agency costs for private projects:

  1,280,700 ÷ 2,719,755 - 47% (net after reimbursements)

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*The average unit cost of $6500 was used in Volume I as a more appropriate statement of "average agency cost" while the weighted average of $6800 was used for estimating total statewide costs for cities and counties.

- o % agency costs reimbursed

  (582,460) ÷ (2,719,775 + 582,460) = 17%

- o % agency cost for private projects reimbursed:

  (582,460) ÷ (1,280,900 + 582,460) = 31%

- o Number N.D.s per EIR:

  4057 ÷ 666 = 6.1

- o Total discretionary actions per EIR:

SAMPLE	EIRS	TOTAL D.A.s
A	204	1500
H	9	412
M	10	500
N	87	1236
O	6	266
P	15	219
R	15	253
	346	4386

4386 ÷ 346 = 13 D.A.s per EIR

A unit cost of $6800 per EIR for cities and counties was selected. The average unit cost for cities and counties on public projects was applied to special districts.* This results in estimated costs of:

Cities and Counties	3400 EIRs @ $6800 = $23,120,000
Special Districts	200 EIRs @ $7900 = $1,580,000

It is assumed that virtually all special district costs are on public projects. The city/county costs were allocated between public and private projects using the statistics derived from Table III.3.

*This may result in an underestimation of special district costs but is not believed significant; does not include special district cost of reviewing other agency environmental documents which is considered later.

	MILLIONS OF $ FROM TABLE III.3	%	ALLOCATION OF CITY/COUNTY COST
Private costs on private projects	1.8	40%	$ 9.2 million
Public costs on private projects	1.3	28%	$ 6.5 million
Public costs on public projects	1.4	32%	$ 7.4 million
	4.5	100%	$23.1 million

In addition to the document preparation and review costs shown above, it is known that there have been a number of extraordinary complex and expensive EIRs prepared by local jurisdictions in the past and they will undoubtedly occur in the future. The allowance for "extraordinary EIR expense" shown in Table III.3 excluded such projects and was an adjustment to account for expected recurring large expenses not included in the other columns. An exhaustive search for these projects was not conducted but they include oil development in Santa Barbara, massive land development proposals in Southern California, power plant siting, large public works projects, and others. In order to account for such large projects an allowance of 10% was added to the above costs. This allowance represents a judgment by the consultant based on a number of known projects but is not the result of a formal analytical treatment of extraordinary expense. Adding 10% yields the following:

	CITIES/ COUNTIES	SPECIAL DISTRICTS	TOTAL
Private costs on private projects	$10.0	-	$10.0
Public costs on private projects	$ 7.2	-	$ 7.2
Public costs on public projects	$ 8.1	$1.5	$ 9.6
	$25.3 mil.	$1.5 mil.	$26.8 mil.

III.2.2. State Agencies

A listing of State agency projects is shown in Table III.4. The numbers shown in this table are for both N.D.s and EIRs. Based on a survey of 1974 Clearinghouse data it was estimated that approximately 2/3 of the Clearinghouse documents were N.D.s or that State agencies prepared approximately 200 EIRs in calendar 1974.*

At the present time the California State Office of Planning and Research is undertaking a detailed analysis of CEQA costs for State agencies. This information should be available in the near future. In order to get a rough estimate of State agency costs several State agencies were contacted. From Table III.4 it may be seen that over 85% of State agency environmental documents may be attributed to seven organizations and that almost 70% are produced by Caltrans, and the U.C. and State University systems.

Inquiries at U.C. and at the State University indicate that total document preparation and processing which is clearly attributable to CEQA are probably less than $500,000 per year but probably at least $300,000.

Inquiries at Caltrans indicate that recent expenditures for "environmental review and preparation of environmental documents" are on the order of $12.5 million per year. It can be argued however that virtually all these costs would be incurred in meeting Federal environmental review requirements. That is, the incremental cost of meeting CEQA requirements is very low. Pending the OPR analysis of Caltrans costs, we have assumed that costs attributable to CEQA in Caltrans are somewhere between $1

*See Table III.2

TABLE III.4
EIRS AND NEGATIVE DECLARATIONS REPORTED IN
STATE CLEARINGHOUSE RECORDS FOR 1974

AGENCY	PARK	LEASE	FREEWAY ROAD NEW-USED	MAINT. YARD	INTER-CHANGE	WATER RELATED PROJECTS	BLDG. AND/OR COMPLEX	SITE DEV.	MISC.	TOTAL
DWR						13			1	14
HEALTH & WELFARE							1			1
DOT			58	14	18	4	3	2		111
PARK & REC.	14									14
CALIF. STATE UNIV.				1			17	1	2	21
EMP. DEV.							2			2
STATE LANDS COMMISSION		17						3		20
DEPT. OF NAVIGATION	2									2
DEPT. OF HEALTH									1	1
UNIV. CALIF.				5			36	7	3	51
CHP							8			8
HUMAN RESOURCES							4			4
RESOURCE AGENCY									1	1
STATE RECLAMATION									2	2
DMV							7			7
DEPT. OF JUSTICE							2		1	3
PUC							3			3
DEPT. OF FOOD & AGRICULTURE							2		3	5
GENERAL SERV.							2			2
DEPT. OF CONS.						17			3	3
TOTAL	16	17	58	20	18	17	87	13	29	275

million to $6 million and have used a figure of $2 million for purposes of constructing a statewide CEQA cost estimate. In order to verify this estimate, a detailed study of the interrelationships between NEPA and CEQA would have to be conducted and it is assumed that this will be done by OPR in the near future.

For the remainder of the State agencies including the WRCB, State Lands Commission, Parks and Recreation, etc., it was assumed that incremental document preparation costs were on the order of $25,000 per EIR or a total of $1,500,000 and that the total document preparation costs for all State agencies attributable to CEQA is on the order of $4 million. This is a "public cost for public projects".

In addition, there are administrative expenses associated with the Clearinghouse, the Attorney General's office, and agency coordination and these were estimated at $2,000,000. Environmental review of other agency documents by State agencies and certain special regional agencies such as APCDs, RWQCBs, etc., which may be on the order of $1,000,000. This total of $3,000,000 is allocated between public and private projects on the basis that approximately 67% of all environmental documents are private projects.*

Public costs on private projects
$3,000,000 x .67 = $2.0 million

Public costs on public projects
$3,000,000 x 33 = $1.0 million

No separate estimate was made of the expense to the Federal Government from Federal activities in connection

*See Table III.1; totals in columns (1) - (6) of the jurisdictions sampled and shown in Table III.3 indicate that 72% of the EIRs and 69% of the N.D.s are private. A review of all projects during calendar 1974 reported the Monitor and Clearinghouse indicated 67% were private and this figure was used.

with CEQA requirements although at least some of this expense should be included in Table III.3 cost estimates.

III.2.3 Summary

Summarizing we obtain the following:

	COST (MILLIONS OF $)			
ELEMENT	PUBLIC ON PUBLIC PRJ.	PUBLIC ON PRIVATE PRJ.	PRIVATE ON PRIVATE PRJ.	TOTAL
Cities, counties and special dist.	$ 9.6	$ 7.2	$10.0	$26.8
State (doc. prep.)	4.0	-	-	4.0
State and certain special dists. for review and administration	1.0	2.0	-	3.0
	$14.6	$ 9.2	$10.0	$33.8

From a unit cost standpoint, we obtain $33.8 million ÷ 3800 EIRs = $8900 or approximately $9000 per EIR for all types of jurisdictions and all types of projects.

III.3 Delay

As briefly discussed in III.1 the cost of delay is a complex function of foregone benefits, impacts of inflation, carrying costs, and discrete impacts such as refinancing or project abandonment. In addition, while the problem of estimating delay in reaching the discretionary decision may be approached fairly directly, the matter of determining actual delay in project completion cuased by CEQA is an extremely illusive task. For example, one can find many examples of projects where there was indeed CEQA caused delay in reaching the discretionary approval but for which

construction was not initiated within the time interval following initial approval during which the applicant could have easily obtained all subsequent permits.

Nevertheless, one may argue that any delay in reaching the discretionary decision on a project must be assumed to be transmitted consistently to all subsequent steps in the project up to and inlcuding project completion. This assumption may be valid for many projects but is perhaps doubtful for, say, a 1000 unit subdivision which is planned for a build-out of approximately 100 units per year for 10 years and for which the approval of the tentative map was delayed four months due to CEQA. Accordingly, any treatment of the cost of delay problem must take into account the true disruption of cash flows and net benefits through completion of the project. Furthermore, one should really consider these factors over the total life of the project not just through project completion. This refinement is not totally academic when one considers the complex flow of public and private revenues associated with off shore oil leases, and certain public works projects.

For those entities that are funding projects from a backlog of "environmentally cleared" projects, it can be argued that there are no inflation, carrying or foregone opportunity costs associated with delay encountered before they were put in the backlog. This argument is based on the idea that the true cause of delay in executing the project is lack of funding and as long as there is a backlog, all events preceeding entry into the backlog do not affect the rate of project execution. One must also assume that the way projects are selected from the backlog is independent of the net benefits, the cost of the projects, and as-

sociated probabilities of environmental review delay. A thorough investigation of this phenomena was beyond the scope of the project. However, it was assumed most local agency engineering projects and Caltrans projects were in this category and CEQA caused delay did not result in a cost.

For purposes of obtaining a rough estimate, there are a number of estimating approaches that may be used. One approach is to conduct a detailed cost of delay investigation on a sample of projects and extend the sample results to all projects. Other approaches involve estimating average delay and converting this to dollars by applying estimates of average carrying costs, and so forth.

The approach used by the consultant took the following form.

(1) Average delays in reaching the discretionary decision due to preparation and processing of environmental documents were estimated for cities, counties and special districts.

(2) This was expressed in units of "project-months" of delay for different types of residential, commercial, industrial and public works projects based on workload data developed during the project.*

(3) "Project-months" was converted to "$-months" using average project cost estimates based on actual current statewide construction cost estimates.

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*One "project-month" of delay is one project delayed one month.

(4) Monthly carrying costs and inflation "costs" were expressed as a function of project cost and multiplied by "$-months" of delay to estimate cost of delay.

(5) Based on an analysis of 23 jurisdictions an estimate was made of the degree to which project completion as opposed to project approval was actually delayed and used to adjust the results obtained in step (4).

(6) State agency delay costs were briefly reviewed to provide a rough estimate pending completion of the OPR study.

III.3.1 Average Delay in Reaching Discretionary Decision

Average delay in reaching the discretionary decision was estimated by estimating average delay in 23 jurisdictions and computing a weighted overall average based on the relative workloads of the jurisdictions.* The results were:

> Average delay in reaching a discretionary decision for all projects in cities and counties:
>
> 3.87 months for EIRs
> 1.79 months for N.D.s

By comparison the arithmetic mean (non-weighted) averages were 3.15 months for EIRs and 1.03 months for N.D.s and the median values were 2.5 months for EIRs and 1.0 months for N.D.s. The weighted average was selected as most appropriate for cost estimates using the approach adopted. However, it may be more appropriate to state

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*For profile of the jurisdictions used see Volume II.

"average delay" in terms of the median or simple arithmetic values. In Volume I the unweighted mean of 3.15 months was presented.

It was assumed that these average delays were also applicable to special districts.

III.3.2 Project Months of Delay

Using workload figures shown in Table III.2 and the ratio of N.D.s to EIRs developed from Table III.3, we may estimate that there are approximately 6.1 x 3370 = 20,600 or approximately 21,000 N.D.s being produced by cities, counties and special districts.*

Table III.1 provides an estimate of how the workload is distributed across projects. Removing State public works projects and EIRs prepared on policies, plans and ordinances; combining miscellaneous institutional projects with public works projects by local jurisdictions; and assuming that N.D.s are generated in proportion to EIRs for all classes of projects, we obtain:

CATEGORY	EIRS	%	APPROX. N.D.s
Housing and Land Sales	1380	41%	8,600
Industrial/Commercial	1130	34%	7,100
Public Works by Local Jurisdictions (including Institutional projects)	860	25%	5,300
	3370	100%	21,000*

Finally, project months of delay in the discretionary decision is estimated by multiplying numbers of project months by average project delay.

*Note this does not include N.D.s on policies, plans, and ordinances nor State projects for which the cost of delay was estimated separately.

CATEGORY	APPROXIMATE ANNUAL PROJECTS-MONTHS OF DELAY DUE TO EIRs*	N.D.s**	TOTAL
Housing/Land Sales	5,300	15,400	20,700
Industrial/Commercial	4,400	12,700	17,100
Public Works	3,300	9,500	12,800
	13,000	37,600	50,600

III.3.3 Average Project Cost

Research reports of the Construction Industry Research Board, the Census Bureau, Security Pacific Bank, and data appearing in the California Builder and Engineer were used in developing the following average project costs. Data is representative of calendar year 1974 and the first six months of 1975.

III.3.3.1 Residential

Annual construction expenditures for 2,327 residential projects with cost greater than $100,000 were estimated at approximately $1.06 billion per year or approximately $455,000 per project. Similarly, 47,112 projects under $100,000 are estimated at $2.63 billion or approximately $56,000 per project and the overall average project construction cost was $75,000.

From a sample of 185 EIRs in 23 jurisdictions it was found that 22% of all "residential projects" were land development projects rather than projects leading directly to construction. Since it was impossible to distinguish between land development and housing construction projects

*Number of EIRs x 3.87

**Number of N.D.s x 1.79

from Monitor and Clearinghouse records which were the basis for the estimates of total projects,* this 22% figure was used to estimate that there were:

1,380 x .22 = 300 land development projects
1,380 x .78 = 1,080 housing construction projects

N.D.s were similarly estimated at 1,900 and 6,700 respectively.

As is discussed below, it is easier to express carrying costs, foregone opportunity cost, and inflation "cost" factors in terms of finished project cost. From recent studies conducted by the Construction Industry Research Board the following estimates of construction costs as a percentage of finished project cost were obtained:

Single and multiple family dwellings	62%
Commercial projects	64%
Industrial projects	72%
Land and land improvement as % of finished cost	25%

Applying these percentages to the average construction cost figures above we obtain:

Average project cost for projects with construction costs greater than $100,000: $455,000 ÷ .63 = $720,000.

Average project cost for land development projects $722,000 x .25 = $180,000.

The distribution of project cost by EIRs and N.D.s were not available and in the calculations which follow

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* See Table III.1

approximate cost figures of $720,000 for housing and $180,000 for land development projects were used for projects subject to EIRs. For projects subject to N.D.s the statewide average project construction cost of $75,000 was adjusted to obtain an average value of $120,000 for housing and land development costs were estimated at approximately $100,000.*

III.3.3.2 Commercial/Industrial

Of the 15,200 commercial and industrial construction projects undertaken in calendar year 1974, the 4,419 with a construction cost over $100,000 had a total cost of approximately $2.2 billion or an average of $490,000 per project. Adjusting this figure to reflect finished project cost we obtain $490,000 ÷ .64 = $770,000 which is used for projects subject to EIRs. For projects subject to N.D.s the average construction cost of $50,000 was inflated to obtain a price of $70,000.

III.3.3.3 Public Works

Using bid statistics compiled from the California Builder and Engineer an average project cost for non-State engineering type projects over $100,000 was estimated at approximately $730,000 and this was used for EIRs. For N.D.s the average project cost of $40,000 was used.

*From Monitor statistics it was determined that an EIR on residential projects involved an average of approximately 200 units. Assuming an average unit price of $30,000, finished project price would be on the order of $6,000,000 for the average project. Of this, approximately 12% or $720,000 would be for land. For most projects, carrying costs would be applied to the $720,000 figure while inflation and opportunity costs would be applied to the $6,000,000 figure. The effect of using average actual yearly construction costs as a basis for estimating average project cost is to apply any net inflation and foregone opportunity costs to only the first years build-out price for those projects which are executed over more than one year. Alternatively, one can calculate that with $30,000 per unit and with 200 units that total housing price subject to CEQA under EIRs alone is on the order of $6 billion per year. This is of course ridiculous since this figure exceeds the total cost of residential housing for the State as a whole. In order to estimate average project cost, actual construction costs were used as a basis for estimating EIR and N.D. project price.

Using Bureau of Census and Security Pacific Bank research reports average project construction cost for public works buildings was estimated at $880,000. Adjusting this to reflect finished project cost we obtain $880,000 ÷ .64 = $1,400,000.

Using data from the Monitor and Clearinghouse coupled with 1974 estimates of total numbers of public buildings constructed it was estimated that the public works projects by local jurisdictions and institutional projects subject to EIRs and N.D.s shown in Table III.1 were distributed as follows:

	EIRs	N.D.S
Buildings	170	1060
Engineering	690	4240
	860	5300

III.3.4 $-Months Delay

Using the above average project costs, delay times, and numbers of projects we obtain the following estimates of "$-months" of delay.*

Residential Housing

Average project cost subject to EIR; $720,000
Average project cost subject to N.D. 120,000

EIRS: 1,080 projects @ $720,000 = 804 million @ 3.87 mo. delay = $3000 million-months delay.

N.D.S: 6,700 projects @ $120,000 = 804 million @ 1.79 mo. delay = $1400 million-months delay.

$4,400 million-months delay

*One "$-month" of delay is $1 worth of project delayed one month.

Residential Land Development

Average project cost subject to EIR $180,000
Average project cost subject to N.D. 100,000

EIRs: 300 projects @ $270,000 = $81 million @ 3.87 mo. delay = $310 million-months delay.

N.D.s: 1,900 projects @ $100,000 = $190 million @ 1.79 mo. delay = $340 million-months delay.

$650 million-months delay

Commercial/Industrial

Average project cost subject to EIR $770,000
Average project cost subject to N.D. 70,000

EIRs: 1,130 projects @ $770,000 = $870 million @ 3.87 mo. delay =$3,400 million-months delay.

N.D.s: 7,100 projects @ $70,000 = $500 million @ 1.79 mo. delay = $890 million-months delay.

$4,300 million-months delay

Public Works Projects (Building)

Average project cost subject to EIR $1,400,000
Average project cost subject to N.D. 80,000

EIRs: 170 projects @ 730,000 = $124 million @ 3.87 mo. delay = $480 million-months delay.

N.D.s: 1060 projects @ $80,000 = $85 million @ 1.79 mo. delay = $150 million-months delay.

$630 million-months delay

Public Works Projects (Engineering)

Average project cost subject to EIR $730,000
Average project cost subject to N.D. 40,000

EIRs: 690 projects @ $730,000 = $504 million @ 3.87 mo. delay = $1950 million-months delay.

N.D.s: 4240 projects @ $40,000 = $170 million @ 1.79 mo. delay = $300 million-months delay.

$2250 million-months delay

TOTAL $12,230 million-months delay

The above average project cost and numbers of projects involve approximately $4 billion in total project cost or the equivalent of $2.6 billion in construction cost. This is approximately 25% of total construction costs for 1974 in the State of California.

III.3.5 Costs of Carrying and Inflation

Table III.5 presents statistics related to the cost of delay prior to construction and expressed as a percent of project sales price. With respect to the values shown in this table:

(1) Median holding costs were based on a 12% opportunity cost on the land investment and a 3% allowance for taxes, assessments, insurance, and maintenance for a total of 15% per year. These percentages were adjusted by the percentage raw land cost to finished project price to yield the "holding cost" percentage shown in Table III.5.

(2) The inflation costs shown in the "Low" column of the table are 50% of a 1973-1974 estimate for the State of California; the medium and high values represent 75% and 100% of the 1973-1974 estimates for California.

(3) The overhead costs shown in the table represent those continuous somewhat fixed costs associated with doing business and were based on a survey of 989 firms conducted by the Associated General Contractors of America and supplemented by recent surveys conducted by the Construction Industry Research Board. A median estimate of 6% was used in all categories.

For purposes of calculating the cost of delay for CEQA, average medium holding costs were used. The

TABLE III.5

COST OF DELAY PRIOR TO CONSTRUCTION*
(Stated as a % of Project Sales Price
per year except where noted)

TYPE OF DEVELOPMENT	LOW	MEDIUM	HIGH
Residential-Single Family			
Holding Costs	1.2%	1.8%	2.2%
Net Inflation	6.5	9.8	13.0
Overhead	6.0	6.0	6.0
Combined Annual Effect	13.7%	17.6%	21.2%
(average monthly effect)	(1.1%)	(1.5%)	(1.8%)
(average daily effect)*	(0.04%)	(0.05%)	(0.06%)
Residential-Multi-family			
Holding Costs	1.2%	1.8%	2.2%
Net Inflation	6.4	9.7	12.9
Overhead	6.0	6.0	6.0
Combined Annual Effect	13.6%	17.5%	21.1%
(average monthly effect)	(1.1%)	(1.5%)	(1.8%)
(average daily effect)*	(0.04%)	(0.05%)	(0.06%)
Commercial			
Holding Costs	1.5%	2.2%	2.7%
Net Inflation	7.0	10.4	13.9
Overhead	6.0	6.0	6.0
Combined Annual Effect	14.5%	18.6%	22.6%
(average monthly effect)	(1.2%)	(1.6%)	(1.9%)
(average daily effect)*	(0.04%)	(0.05%)	(0.06%)
Industrial			
Holding Costs	1.7%	2.6%	3.1%
Net Inflation	6.0	9.1	12.1
Overhead	6.0	6.0	6.0
Combined Annual Effect	13.7%	17.7%	21.2%
(average monthly effect)	(1.1%)	(1.5%)	(1.8%)
(average daily effect)*	(0.04%)	(0.05%)	(0.06%)

*SOURCE: Construction Industry Research Board, Cost of Delay Prior to Construction, April, 1975

overhead cost was not included since doing so would require an assumption that over the long run, fewer projects were being built as a result of CEQA and, if so, to what extent. Information on this issue was not available and it was assumed that while CEQA would delay projects it would not affect the total number completed per unit time.

For public projects, a foregone opportunity cost to the public of 12% per year was assumed. While there are no known studies relating to this statistic specifically for the State of California, Federal standards, e.g., OMB Circular A-94, require a 10% minimum attractive rate of return on federal projects. It may be assumed that the average project is higher than 10% and it is believed that 12% per year or 1% per month represents a fair estimate of net benefits to the public on public projects. Holding costs on public buildings were assumed to be the same as commercial/industrial projects. A 6% inflation rate was assumed for all projects.

Assuming a 12% rate of return, foregone opportunity costs were estimated at 0.12% per month. It was assumed that public works engineering projects were coming from environmentally cleared backlogs resulting in a zero percent cost.

Summarizing these cost of delay factors we obtain:

	% PER MONTH OF COMPLETED PROJECT COST		
	HOLDING	FOREGONE OPPORTUNITY	INFLATION
Housing	0.15%	0.12%	0.50%
Residential Land development	1.80%	0.12%	0.50%
Commercial/Industrial	0.20%	0.12%	0.50%
Public Works - Building	0.20%	1.00%	0.50%

III.3.6 Costs of Delay

Applying these carrying, inflation and foregone opportunity costs to the "$-month" delay costs developed in the preceeding section we obtain:

CATEGORY	(BILLIONS) $-MONTHS DELAY	(MILLIONS) CARRYING	FOREGONE OPPORTUNITY	INFLATION
Housing	$ 4.4	$ 6.6	$ 5.3	$22.0
Land Development	.7	12.6	.8	3.5
Commercial/ Industrial	4.3	8.6	5.2	21.5
Public Building	.6	1.2	.7	3.0
Public Engineering	2.2	0	0	0
	$12.2	$29.0	$12.0	$50.0

These estimates would represent the cost of delay associated with projects in local jurisdictions if the average delay in discretionary decision applied to the average project, and, most importantly, if actual project completion was delayed to the same extent as the enabling discretionary decision. Assuming that the preceeding estimates of number of projects by category, average delay to discretionary decision, average project cost estimates, and average carrying, inflation, and foregone opportunity costs discussed above are accurate, the above numbers represent an upper bound on delay costs.

An analysis of the true causes of delay in completion of a project or initiation of project construction cannot be undertaken using superficial statistics regarding characteristics of projects subject to CEQA.

There are, however, two approaches to this problem:

(1) Undertake a statistical experiment in which start of construction on projects subject to EIRs, and N.D.s is compared with projects not subject to EIRs or N.D.s. The problems of being able to formulate the acceptable control populations are formidable because of the relationships between project size and other characteristics and environmental review. As a minimum, a fairly extensive factor analysis approach would be required and the likelihood of practical results would be low.

(2) Undertake detailed start-to-finish case studies of a sample of projects to determine the true costs of CEQA caused delay in initiation and completion of the project. Assuming a representative and properly stratified sample was constructed the delay costs could be extended to all projects under CEQA. Because of the significant differences between local jurisdictions and types of projects, hundreds of samples would be required. Moreover, detailed investigations of delay in several jurisdictions during the course of the project demonstrated that a simple questionnaire or brief interview technique can only be used with very low reliability and validity. The information necessary is not documented and for private projects is not generally known by public officials or staff. Nevertheless judgments can be made.

Neither of these approaches were feasible within the resources of the project. However, estimates were formulated by the consulting team on the basis of reviewing several hundred EIRs and discussions with staff from over 30 jurisdictions and private applicants.

The results of this are as follows:

(1) <u>With regard to housing projects</u>: More than

half but probably less than 75% of the projects leading directly to construction were delayed because of CEQA. It was estimated that approximately 60% of the projects leading to housing construction were delayed.

(2) With regard to land development projects: It was estimated that actual initiation of the project was delayed in approximately one-third of the cases.

(3) With regard to commercial/industrial projects: Here delay was estimated at approximately three-fourths of the projects.

(4) With regard to public works projects: There are significant differences between jurisdictions on this issue as well as between types of projects. This results from the fact that EIRs are prepared and processed at different stages in the project design process. It was estimated approximately one-third of the non-engineering type projects were delayed.

Applying these estimates to the preceeding table we obtain:

DELAY COSTS ATTRIBUTABLE TO CEQA (MILLION)

CATEGORY	CARRYING & FORE-GONE OPPORTUNITY	INFLATION	TOTAL
Housing (60%)	$ 7.1	$13.2	$20.3
Land Develop. (33%)	4.4	1.1	5.5
Comm./Ind. (75%)	10.3	16.0	26.4
Public Works (33%)	.6	1.0	1.6
	$22.4	$31.4	$53.8

III.3.7 State Agencies

In developing an estimate of delay costs for

State agencies several considerations must be taken into account.

o Caltrans, a principal source of potential delay cost, currently has a backlog of environmentally cleared projects. Accordingly, it may be assumed that there is no significant foregone opportunity cost to the public if it can be assumed that there are no significant differences between the net public benefits of projects in the environmentally cleared backlog and those projects being delayed from entering the backlog. In any event, the delay from NEPA requirements may cause CEQA delays to have very little incremental cost.

o Inquiries at the universities indicate that environmental documents are prepared and processed in parallel with other planning activities and would be prepared in any event, leading to the conclusion that little if any delay cost is likely.

o A potential source of foregone public benefits is with the State Lands Commission. Foregone benefits on oil leases are a prime future consideration but an analysis of the near-term foregone benefits in terms of future resource depletion and other complex factors was beyond the scope of this study. It was estimated the current net costs in terms of foregone benefits may be quite low if it is assumed that the benefits are deferred rather than lost.

o Overall it is believed that a delay cost attributable to CEQA would be less than $10 million and that inflation effects would be less than $10 million as well.

o Summarizing delay costs we obtain:

	COSTS OF CARRYING AND FOREGONE OPPORTUNITY	INFLATION EFFECT
Public Projects by Local Jurisdictions	$ 600,000	$ 1,000,000
State Projects	10,000,000	10,000,000
Housing	7,100,000	13,200,000
Land Development	4,400,000	1,100,000
Commercial/Ind.	10,300,000	16,000,000
Total Private	$21,800,000	$30,300,000
TOTAL	$32,400,000	$41,300,000

III.4 Uncertainty

The cost of uncertainty due to CEQA is due to two phenomena.

(1) Projects abandoned due to considerations raised in the EIR.

(2) Projects never initiated because of the likelihood of project denial.

On the basis of the 185 EIR sample it was estimated that projects are either denied or withdrawn for environmental reasons in 7% of private projects. While there are a number of both State and local projects which have been abandoned because of factors brought to light during either NEPA or CEQA reviews, it is not known to what extent this is occurring throughout the State or what it is costing. No instances of the abandonment of public projects were encountered in the 185 EIR sample.

In order to obtain a rough estimate of the costs of project abandonment a weighted average project cost for residential housing, land development and commercial/industrial projects using the average projects costs under EIRs developed above was used.

	NO. PROJECT	PROJECT COST	WEIGHT	WTD. COST
Residential Housing	1080	$720,000	.43	$310,000
Land Development	300	180,000	.12	33,000
Commercial/Industrial	1130	770,000	.45	247,000
	2510			$679,000

This provided a weighted average private project cost subject to EIRs of approximately $680,000. Assuming that approximately 2% of project cost had been committed and was not recoverable at time of abandonment, the cost of abandonment for an average private project subject to an EIR would be approximately $14,000. If, overall, 7% of projects are being abandoned then 2510 x .07 = 175 projects are being abandoned per year. At an average cost of $14,000 this suggests a cost of abandonment of approximately $2,000,000 per year.

No basis was available for estimating the foregone benefits of projects not undertaken. Obviously this is a rather complex issue and any costs would be extremely difficult to attribute to CEQA.

III.5 Mitigation

From the 185 EIR sample it was estimated that there were mitigating steps taken in approximately 50% of the EIRs. A review of the likely cost of mitigation suggests that it is less than $5,000 in most instances and in many cases virtually zero. An analysis of the 185 EIR sample suggested that average mitigation costs due to

impacts identified in the EIR and which would probably not have otherwise been implemented led to an average cost of mitigation of no more than $2,000 per project.

Assuming 50% of all private projects are changed to mitigate adverse impacts we obtain:

2510 projects x .50 = 1255 projects mitigated
@ $2,000 per project = $2.5 million.

Mitigation costs on major public works, especially State projects may be substantial but were not investigated. Here again, the incremental cost associated with CEQA over NEPA must be considered.

III.6 Summary

The impact of inflation is a principal source of confusion in making statements regarding the cost of CEQA. While delay clearly affects price, the "cost impact" on the consumer or public must take into account increased ability to pay. Assuming that the consumer's ability to pay will keep pace with inflation and that therefore there is no "cost" impact associated with inflation, it was estimated that the overall cost of impelmenting CEQA is in the neighborhood of $50 million to $75 million per year. This sum is less than 0.8% of total construction costs and on the order of 0.5% of total project cost, for the State. It is in the neighborhood of $2 - $3 per capita. The chart on the following page summarizes the various elements of cost in the same format as the chart introduced in Section III.1.

TABLE III.6

ESTIMATED APPROXIMATE INCREMENTAL
COSTS OF IMPLEMENTING CEQA
(MILLIONS OF $)

CATEGORY OF COST		FOR PRIVATE PROJECTS: COST TO PRIVATE APPLICANT OR CONSUMER	FOR PRIVATE PROJECTS: COST TO PUBLIC	FOR PUBLIC PROJECTS: COST TO PUBLIC
Document preparation, review, and administration		$10 million	$9 million	LESS THAN $15 million
DELAY	Inflation Effect	$30 million impact on price	NONE	Less than $11 million impact on price
	Carrying or foregone opportunity	$21 million	NONE	Less than $11 million
Uncertainty		Perhaps $2 million due to project abandonment; remainder unknown	NONE	Unknown but believed to be low
Mitigation		Less than $2.5 million	Unknown but believed low	Unknown but may be substantial

The principal difficulty in making the estimate more precise has to do with the complexities of evaluating the true, incremental cost of delay, mitigation, and uncertainty attributable to CEQA. Since the benefits of CEQA cannot be monetized, it is unlikely that a more precise estimate of CEQA costs would be of utility in judging the cost-effectiveness of the Act. However, the following observations should be made:

o Document preparation costs are a major element of total cost. They can be reduced by eliminating EIRs and N.D.s on projects for which there is no utility in providing a detailed evaluation of impacts, and by reducing the depth of analysis where detailed technical evaluations cannot aid either the decision-maker or the public.

o To the extent that public agencies can create "environmentally cleared" backlogs of public projects, foregone opportunity and inflation costs will be reduced. This conclusion applies to private developers except the opportunities for creating such a backlog are limited.

o The delay costs at the time of initiation of the Act and following the Friends of Mammoth decision were significantly higher than at present. This was due partly to confustion and partly to processing backlogs in local jurisdications. It also prompts a word of caution: For those jurisdictions that prepare the draft EIR on private projects for the applicant, a sharp increase in development activity may create processing backlogs and consequent delays that will have significant cost impacts. Contingency plans can and should be made.

o On the average, documentation costs appear to be lower in jurisdictions where the agency staff prepares the preliminary draft EIR rather than a consultant. This is partly due to lower labor costs but is also due to uncertainty on the part of consultants as to scope and depth of information that will be ultimately required. To the extent that agencies can reduce this uncertainty, private applicant costs will be lowered.

o Delays on projects due to environmental review vary widely between jurisdictions and within jurisdictions and are dependent on the expertise of the applicant, the complexity of the project, the degree to which other approval processes are proceeding concurrently, the degree of controversy surrounding the project, and the backlog in the reviewing agency. It is possible to cite projects for which overall delay due to the preparation and review of the EIR has approached or exceeded a year. It is also possible to find a number of jurisdictions where delay has been virtually eliminated by concurrent processing.

o Many factors influence applicants perception of delay. In one jurisdiction the result of a detailed study of permit processing delays showed that private applicants over-estimated the true delay caused by CEQA. Conversely, in the same jurisdiction, officials understated the delay by stating processing time in terms of that which is theoretically possible rather than that which was actually occurring. In this same jurisdiction it was found that other factors (hearing continuances, backlog in plan check for building permits, resubmitting plans for corrections during final map approval, confusion in interpreting community plans, delaying tactics by special in-

terest groups which would have occurred one way or the other regardless of CEQA, the Coastal Commission, etc.) were responsible for delaying start of construction much more than CEQA. In this particular jurisdiction CEQA had become the whipping boy for a collage of planning, political, and workload factors which simultaneously impacted the permit issuance process during 1972 and 1973.

A statistic of some recent interest in the State has been the impact of CEQA on the cost of a residential unit. From Table III.6, if it is assumed that cost impact to the private sector is on the order of $35 million and that approximately 55% is incurred in residential projects (See Table III.1) then one might conclude that approximately $20 million is incurred on residential projects. Assuming that current construction of residential units is on the order of 125,000 units per year, one obtains a cost of approximately $150 per unit. This does not include inflation effects. Clearly, this statistic is of limited utility in reaching conclusions as to the social-economic impact of CEQA since it is unclear to what extent any incremental housing cost attributable to CEQA is being absorbed by the developer versus the purchaser, and, perhaps more importantly, how it is distributed across low to high cost housing.

o For projects in which there is a great deal of public controversy, there is a tendency to delay the completion of the EIR so as to thoroughly cover every possible point. While this may be justified in many instances, there are also instances in which further analysis or debate over the adequacy of the EIR is simply postponing the point in time at which a "political" decision has to be made. In these cases, the EIR becomes a tool to delay a decision

that must be resolved at the political level. A recognition of this phenomena is helpful in assessing the extent to which CEQA, per se, should be charged with delay on controversial projects.