

Evaluation of Strategic Management at Caltrans

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The California Department of Transportation (Caltrans) has completed the first two cycles of an annual strategic management process. In this report, the author documents and evaluates the process through these cycles. First, a background review of the need for this type of management tool is covered. The process, schedule of events, and products that were developed to provide department management with a means for more effective decision making are then outlined. An evaluation of the process at the end of the second cycle includes a discussion of the problems encountered and of where the process fell short in delivering anticipated improvements. This evaluation also includes the benefits derived from the process to date. Finally, the proposed modifications to the process for the start of the third cycle, including changes to the content of the resulting products, are covered.

Strategic management is a proven and valuable management tool. It can be applied effectively in a large, complex public-sector organization, such as a state transportation agency, with substantial benefits.

Outlined in this discussion paper is the strategic management process developed at the California Department of Transportation (Caltrans). The steps in the process, how they evolved, and the products produced are reviewed. The problems encountered in implementing the process during the first two annual cycles are looked at, as well as the iterative nature of development and the benefits to date. The need for flexibility with a change in top management and the change in management style that results are examined. Finally, a new approach to meet the needs of current management and the process and products proposed for the third cycle are presented.

BACKGROUND

Caltrans has a history of almost 100 years of evolution and change. It began in 1895 as a state highway department charged with developing a network of roads to link centers of population with agricultural, timber, and mining areas. It became a large division of highways that built an extensive and world-famous freeway system. It has become a department of transportation that has seen that system aging and being used to capacity in urban areas. Over time, the culture of the organization also evolved, incorporating a professional pride and a sense of accomplishment in providing the kind of highway system that Californians wanted and needed.

It came as somewhat of a cultural shock, then, when in the 1970s some California cities said "No more freeways, at least not here." The resulting slowdown in highway improvements

and the emphasis placed on alternative forms of transportation meant a transition in the role of the department and a change in its culture. With time, it became apparent that the excess capacity built into the highway system in the 1950s and 1960s was being used up and that alternative forms of transportation, although taking some pressure off the highway system, were not the total solution.

Economic activity was expanding, population was growing primarily through in-migration, vehicle ownership was increasing faster than population growth, and vehicle-miles of travel were growing at the fastest rate of all. Population was moving to the suburbs and suburban fringe areas, and business and industry were following. The transportation system that had been developed to serve a radial commute pattern of suburb to central city was operating at or near capacity and was not adequate to address the evolving suburb-to-suburb commute. Nor were the local street networks designed to handle this rapidly growing commuter traffic. Traditional forms of public transit had limited application in a suburb-to-suburb commute pattern, and ridesharing by vanpool or carpool, although effective in the radial system in some areas, did not have widespread application or appeal in developing areas.

At the same time, the department was coming under increasing criticism for not having anticipated these problems, for not providing leadership at the state level, and for not having continued the state highway building program back when land was still available for rights-of-way at a manageable cost.

Under a new state administration, and in response to these criticisms, the department increased its state highway improvements. At the same time, concerns began to surface on the adequacy of resources to address both current and future transportation needs. Although there had been a recent increase in both state and federal gasoline taxes, these increases were primarily in response to the decreasing buying power of existing transportation funding and did not respond to the need for an increase in facilities and services to meet the current and projected growth in economic activity and population.

Thus, the department was faced with increasing pressure to provide both improvements to the state highway system and leadership to address concurrent problems, under the additional constraint of decreasing resources. Further, the department was still struggling to adjust to a recent requirement for legislative budgeting after decades of relative autonomy in administering the constitutionally protected "trust fund" program.

Recognizing this decrease in state level resources, and in response to increasing urban congestion and its perceived effect on the economy of California, local jurisdictions and

the private sector have increased their contributions to state and local transportation financing. County initiatives have been proposed to voters to increase the sales tax. Such increases are earmarked to fund improvements to specific state highway routes or transportation corridors. Further, land developers have voluntarily, or through mitigation requirements of local jurisdictions, contributed funds for improvements to the state highway system. The resulting combination of local initiative financing and developer funding has exerted a significant measure of external influence over the scope and timing of improvements to the state highway system.

This external influence, in addition to the necessity of providing added improvements within constrained state resources, the need to effect cost cutting and to implement extensive efficiencies in program delivery, and the need to justify each budget request for new or redirected resources, produced many more complexities for top management.

Heretofore, an annual budget development exercise had been sufficient to set the direction of the department for the coming fiscal year. However, the department no longer had just one clear and simple directive, to maintain and improve the state highway system. It no longer had a single, predictable, and steadily growing source of funding. It no longer had a stable, homogeneous, and engineering-oriented work force. Probably of equal significance, it no longer seemed to be respected as a professional organization. Decisions were being criticized, programs were being questioned, and suggestions were made that the department no longer knew where it was going or what its responsibilities were.

The department had implemented a form of "zero based budgeting" and "management by objectives." Both of these approaches had generated benefits. But there was a nagging belief that something else was needed, something to provide an overall direction plus a framework within which this new direction could be administered.

STRATEGIC MANAGEMENT AT CALTRANS

Why Strategic Management?

The concept of strategic management has been adopted and adapted by public-sector organizations from a process in use by the private sector for some 30 years. Other state transportation departments have successfully implemented strategic management in response to similar complex management problems. The experiences of private business firms in using the process are well documented and some adaptations in the public sector have also been reviewed and reported. It appeared to top management that initiating a strategic management process within the department might provide the form of direction setting and administrative framework necessary to address the increasing complexities they were facing.

Windows of Opportunity

The first step taken by the department was to create an Office of Strategic Management in the Director's Office and to hire a consultant. A series of management level committees was set up and discussions held on critical issues that needed to be resolved. It was decided that congestion on the state's urban freeways was one of the more pressing concerns. In

most urban areas, adding capacity to the existing system or expanding the system was out of the question. The social, economic, and environmental costs were simply too great. A small ad hoc task force was established to investigate advances in new technology that might provide a long-term solution to the problem.

The task force concluded that this was a promising approach, that some new technology was being or had been developed, that some innovative systems could be adopted and tried in limited pilot projects, and that further research in this area could have significant benefits. An Office of Advance Technology was created and directed to continue research into possible applications.

Thus, this early application of strategic management was to select a series of "windows of opportunity" by identifying key issues, to explore potential solutions, and to demonstrate the effectiveness of "strategic thinking" in addressing critical problems. This approach provided valuable insight by focusing on the need for key issue identification. It also demonstrated the usefulness of a task force to explore alternative strategies to resolve such problems. However, this application did not directly address the need for overall direction setting nor did it provide the framework for administering this direction, two specific management requirements.

A More Traditional Process

While retaining the issue-identification/task-force approach as an integral part of the process, the department's management requested that a direction-setting process be established. Relying heavily on the experiences of other public-sector organizations and, particularly, on the experiences of other state transportation agencies, the department adopted a more traditional strategic management process.

The department has completed two annual cycles of this form of continuing strategic management. It seems timely, therefore, to evaluate how effective the process has been to date and to examine what modifications have been proposed for the third cycle.

THE FIRST TWO CYCLES

Overview

The experiences of other public-sector organizations in implementing a strategic management process stress several key features of successful application. Strategic management should

- Be specifically designed to apply to a particular organization;
- Influence the annual budgeting process;
- Be flexible;
- Foster vision and "strategic thinking" throughout all levels in an organization; and
- Be used to convey, both within and outside the organization, a multiyear direction and purpose.

The strategic management process adopted by Caltrans addressed each of these key features. Further, it was implemented in such a way that it

- Was built on existing functions, so that it was relatively

easy to implement because many of the components were already in place;

- Was not necessary to create an elaborate new organizational structure but only to redirect what was already available so that it required few new resources; and
- Has already led to improved internal and external understanding of the department's long-term direction, primarily through distribution of an annual Policy Direction Statement.

Organization and Decision Making Responsibilities

Currently, decision making within Caltrans may be categorized as executive, staff, and line responsibilities. The department is organized into a headquarters office and 12 district offices (Figure 1). Management of the district offices is the responsibility of the district directors, who report to the director of the department, and of their deputy district directors, who have line responsibility within each district for major functional or program areas of departmental operations (for example, maintenance, traffic operations, project development, construction, right of way, planning, and administration).

Executive management of the department is the responsibility of the director of the department, the deputy directors, and the assistant directors. The headquarters office is organized into divisions headed by a division chief who has staff responsibility (i.e., policy, standards, and technical expertise) for a functional or program area of departmental operations. These division chiefs report to their appropriate deputy director.

The division chiefs, with functional responsibility for major program areas, prepare and annually update strategic management plans for their program, in coordination with the other division chiefs, the functional area deputy district directors, and the district directors. These plans are reviewed by the appropriate deputy director. This same management group jointly prepares annual work plans detailing the mutually agreed upon scope of the work to be accomplished during any 1 year, based on the multiyear strategic management plans. From these work plans, resource estimates are developed that result in the department's proposed annual budget. The division chiefs and the district directors also jointly develop performance criteria for each functional area to enable performance evaluations throughout the year, which form the critical feedback loop.

Components of the Process

The key components of the current strategic management process at Caltrans and their interrelationship are shown in Figure 2. These components are discussed in the next sections.

Trends Affecting Caltrans

The first component is a documentation of the results of a scan of the external environment. It provides a broad, general overview of trends and events affecting, or likely to affect, transportation in California and, therefore, the department's policies and programs. Within a short- and long-term time frame, general trends, forecasts, and projections are discussed as they relate to the department. These include population

increases, demographics, changes in life style, economic growth including any new trends in key economic sectors, land development patterns, facilities/system trends, advances in new technology or automation, environmental factors, political/legislative actions, and other similar indicators. Also included is an analysis of "stakeholder" concerns and expectations, as well as information resulting from the "internal" scan.

The concept of "stakeholders" in strategic management has been used to denote one element of the external environment that must be considered. Just as the private sector considers the concerns and interests of its stakeholders (i.e., its customers, its board of directors, and its stockholders), so a public-sector organization must consider the stakeholders to whom it is responsible in providing a public service. In the department's case, such stakeholders include the state administration; the legislature; the FHWA; the California Transportation Commission; the Departmental Transportation Advisory Committee; state, regional, and local agencies; special interest groups; and highway user groups.

In addition to addressing the external influences on Caltrans, strategies must be developed to address the department's internal capabilities, its strengths and weaknesses, and the resources it can deploy now and in the future.

This Trends Affecting Caltrans document provides a common base of assumptions for departmentwide direction setting and for individual program direction.

Policy Direction Statement

The annual Policy Direction Statement is the "vision" statement, by the director, of the long-term direction of the department, a statement of where the department is heading in consideration of the trends and events described in the Trends Affecting Caltrans document. The Policy Direction Statement provides the framework within which both departmental and program direction and decision making are developed, and it states the goals and objectives the department has adopted to support its future direction. Thus, it provides a means to convey this "vision" of future direction to those inside and outside the department.

Strategic Management Plans

Strategic management plans for each major program area include the programs' objectives, strategies, and performance measures. These documents are prepared jointly by the division chiefs and the district directors to describe the objectives and the strategies they have developed for each major program area to implement the goals and objectives contained in the Policy Direction Statement. In addition, these plans provide a program-by-program look at trends and events as they may affect individual program areas.

Performance Measures

Proposed performance measures are an essential part of each program area's strategic management plan. Evaluation of the effectiveness of strategies in reaching specific objectives is a key element in the cycle, both from a program development standpoint and from an effective management one. A form

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

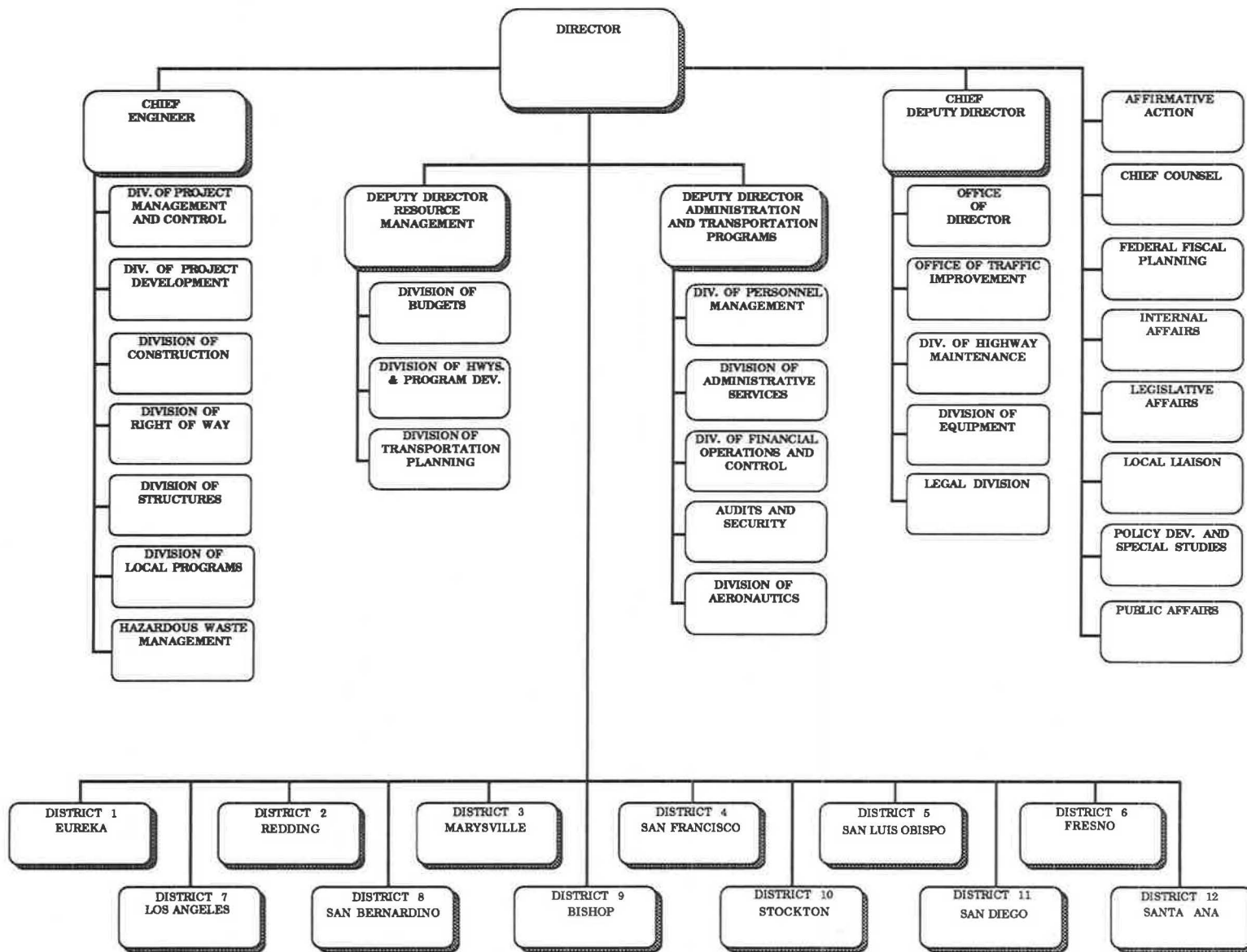


FIGURE 1 Organization.

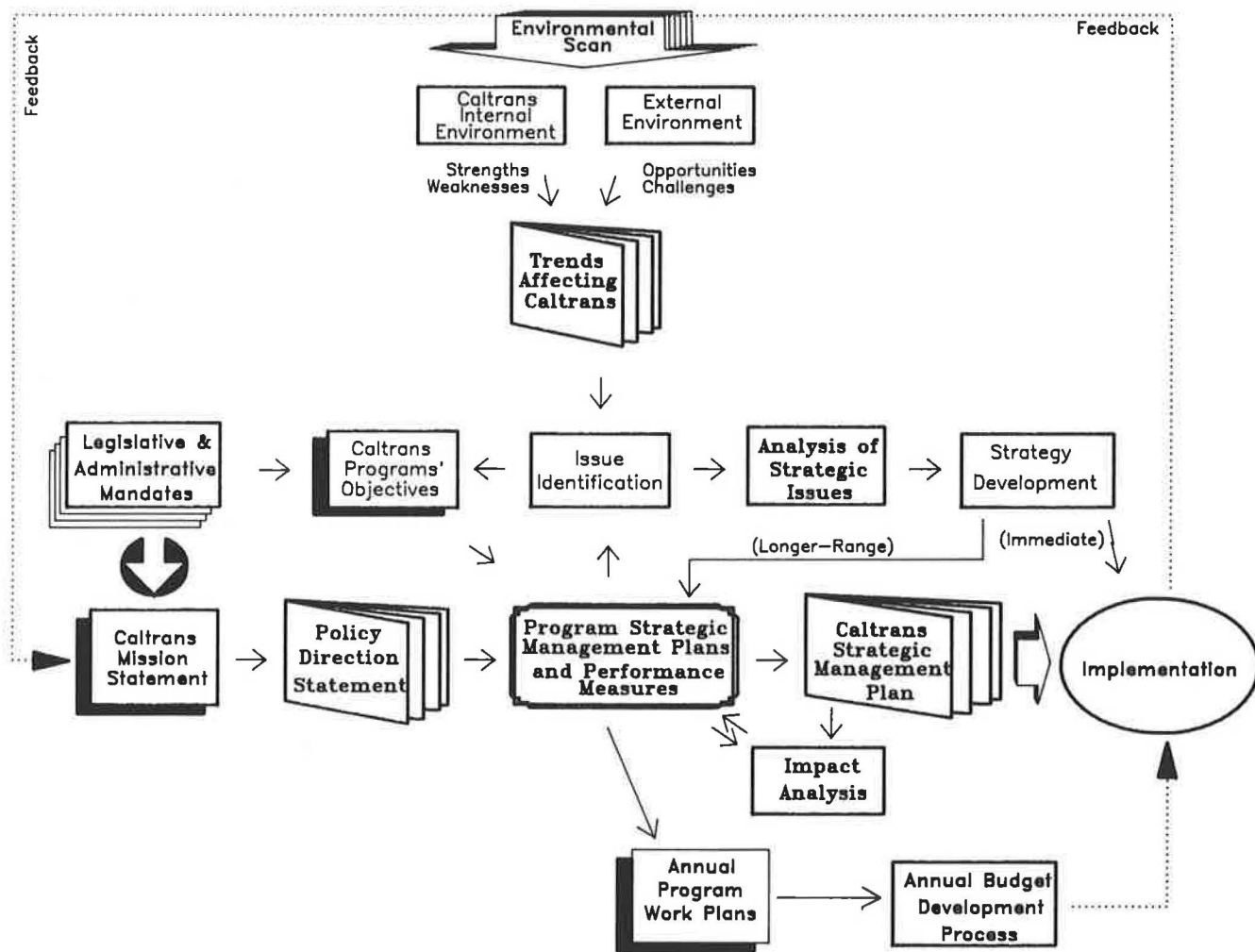


FIGURE 2 Caltrans' strategic management process.

of pilot project or demonstration project may be an effective tool in evaluation, particularly when implementation on a statewide basis could be costly in terms of resources. However, the functional managers, at both the division chief and district level, are usually the best judges of appropriate performance measures and methods. Evaluating the effectiveness of the existing program, or at least documenting results of prior evaluations, is also desirable when recommending new strategies that may take resources from the existing program or when augmentation is requested. This feedback loop is critical in evaluating the effectiveness of the strategic management plans and provides the necessary input to make updates to the plans meaningful management tools.

Caltrans Strategic Management Plan

The individual strategic management plans are the key to implementing the future policy direction of the department and, when aggregated into the Caltrans Strategic Management Plan, provide the objectives and the strategies the department intends to employ to address the challenges of the future. The Caltrans Strategic Management Plan is one

of the final documents in the annual strategic management cycle and, as such, incorporates a summary of the significant factors from each of the preceding components.

Issue Identification and Analysis

Issues of critical concern to the department may have been identified through trend analysis (i.e., the external/internal scan) or by the division chiefs and district directors in their Strategic Management Plans. If, in the opinion of department managers, such issues are indeed critical and need to be addressed, then a request is made for an analysis of the issue, the development of alternatives, and a recommendation for either program strategies or departmental policies to address these concerns.

Depending on the complexity of the issue, the analysis may be either relatively straightforward or fairly involved. If the issue affects only one program area, the analysis will likely be completed by the program area's staff. If it affects more than one program area, a small ad hoc task force formed across programs, as was described earlier, is more appropriate.

Although the above issue analysis process has implied

sequential products, in practice the process is more likely to be a continuum with products (policies and strategies) feeding into the process when available or when appropriate.

Impact Analysis

The combined Impact/Issue Analysis Report is a companion document to the Caltrans Strategic Management Plan. It incorporates an identification of key issues from the trends document, plus those highlighted in the individual strategic management plans, with an identification of potential cross-program impacts from an analysis of the strategies proposed for each major program area.

Sequence of Events—Second Cycle

The time line shown in Figure 3 outlines the sequence of events and the products produced during the second cycle (FY 1987–88).

The cycle began with the preparation of the trend analysis report, or environmental scan, Trends Affecting Caltrans. During the first cycle a brief trend analysis report was prepared from information developed by planning program personnel for their ongoing strategic planning. Caltrans managers and staff indicated that such information was useful in devel-

oping program objectives and strategies and as a starting point for “brainstorming” discussions. As a result, for the second cycle a more comprehensive analysis was prepared.

An executive summary of this trend analysis was prepared and distributed to the department’s deputy directors along with copies of the prior year’s Policy Direction Statement (1987). An off-site meeting was scheduled with the deputy directors to discuss direction setting and to develop policies to guide the department’s activities during FY 1987–1988. A draft of key policies and significant discussion points resulting from this off-site meeting was prepared for review by the deputies. After approval, this draft was circulated to the division chiefs and district directors for their review and comment. Appropriate suggestions were incorporated and a consensus obtained on a final draft, which was given to the deputy directors for approval.

Copies of the trend analysis and the draft policy direction statement were provided to the division chiefs, district directors, and key staff members as input to the preparation of strategic management plans for each major program area. These plans were prepared and presented along with annual work plans and budget proposals to the deputy directors. In addition, an impact analysis report was prepared, based on the strategic management plans, and also presented to the deputy directors.

Based on the presentations to the deputy directors of the plans along with the budget proposals, preliminary decisions

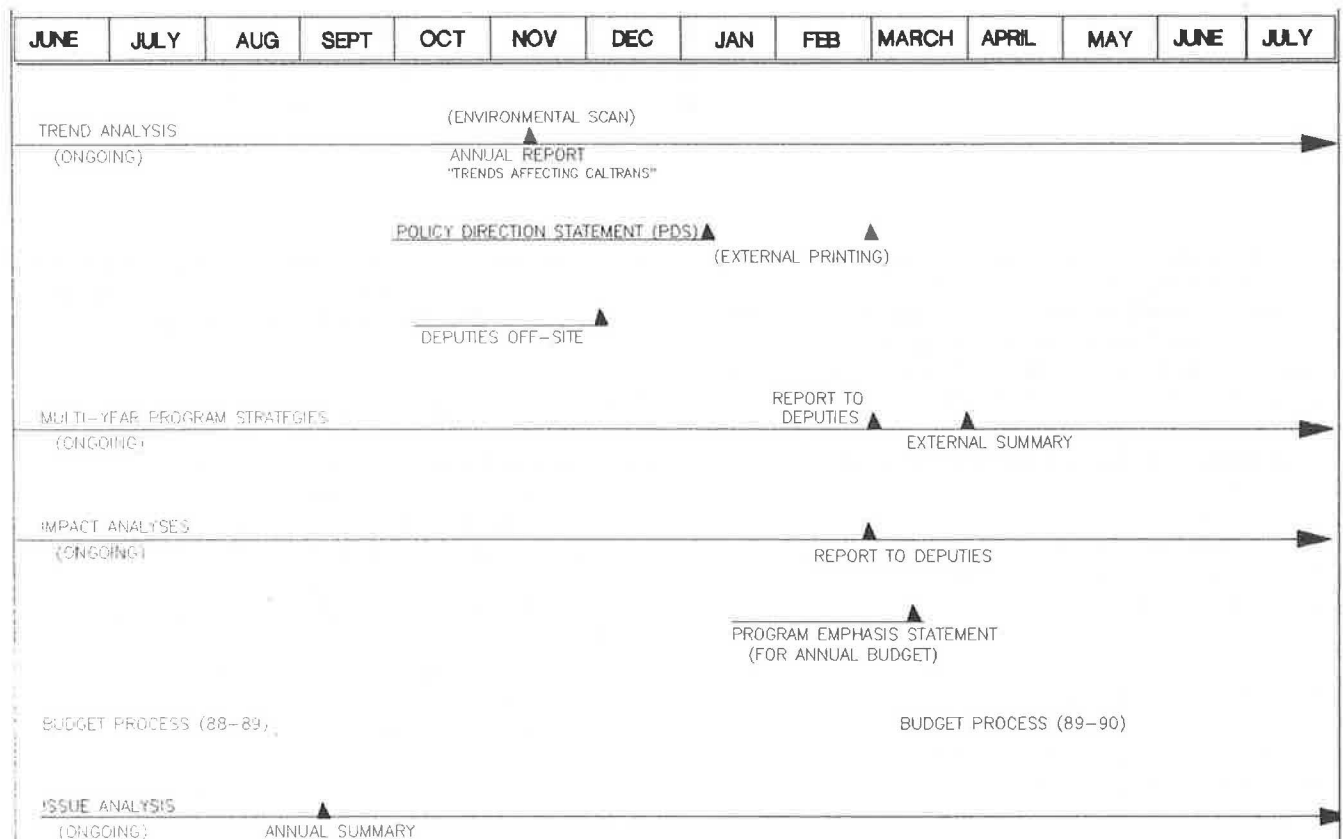


FIGURE 3 Caltrans’ strategic management work plan (1987–1988 fiscal year).

were made on the forthcoming annual budget. From this point, the annual budget development process followed.

EVALUATION OF THE FIRST TWO CYCLES

There is a tendency when evaluating the effectiveness of a "new" management tool either to gloss over the problems of implementation or to become frustrated when the process does not produce all of the benefits that were anticipated. However, it must be remembered that change usually occurs slowly and incrementally, particularly in large public-sector organizations. One of the key attributes of the concept of strategic management is its flexibility. One of the key requirements for strategic management to be effective is that it fit within the existing organizational structure and meet the management needs of the individuals who will use it.

Problem Areas

One of the errors we made at Caltrans was trying to integrate too much of the process too quickly. Another related error was to link the strategic management process too closely with the annual budget development cycle.

At a series of scheduled meetings we had an opportunity to talk with each of the division chiefs responsible for developing a strategic management plan for a major program area. However, these discussions came too late in the sequence of events. In addition, the discussions became too complex when we tried to cover, not only a review of the concepts of strategic management and its benefits, but also the instructions for developing the plans and instructions for budget development, as well.

Although the managers had developed strategic management plans the previous year, the process had since been modified. These modifications were an attempt to address inconsistencies and were in response to a joint evaluation of the effectiveness of the prior year's effort. In addition, changes were made to the formats of the plans and to the budget development activities. All of these changes may have improved the process and products, but they added to the managers' workloads and to the complexity of the process. As a result, managers needed to develop their updated and longer-term strategic management plans at the same time that they were developing annual work plans and annual budget proposals. Understandably, the tendency in some cases was to incorporate and emphasize strategies or contingency plans linked to current or short-term budget resource needs, but not necessarily within the context of the longer-term program objectives.

Further, the presentations to executive management were complex, in that they combined the presentations of the updated strategic management plans with presentations of annual work plans and budget resource requirements. The combined presentations, although logical from a hierarchical sequence, were not effective.

Rather than making budget decisions within the context of the overall objectives of the program as described in the strategic management plans, budget decisions more often reflected and supported short-term strategies. Not that these budget decisions were necessarily in conflict with the longer-term

program objectives, but it was apparent that strategic management was, at best, only indirectly contributing to the decision making process.

An additional "problem" occurred with the retirement of the director of the department. Until such time as a new director was appointed, it was difficult for the executive team to know what goals and objectives the new director would propose. As a result, the Policy Direction Statement was primarily a modification of the prior year's document, incorporating those policy changes enacted by the legislature and those specifically expressed by the state administration. However, it did not contain clear-cut goals and objectives for departmentwide direction.

Observations on the Process

For the most part, those managers responsible for preparing and updating strategic management plans have expressed a willingness and desire to continue the strategic management process, albeit with some significant modifications. Most managers decided that a formal presentation of their individual program's plans to the executive management group served no useful purpose as a lead-in (hierarchical sequence) to budget development and decision making. Rather, they propose discussing their long-term program objectives and strategies with their individual deputy directors outside and ahead of the budget development cycle.

Some managers expressed the view that, even if the strategic management plans and the process itself were not used directly for executive level decision making, they found the process and the products useful in managing their individual programs.

Some managers felt that the amount of work involved was not justified if it did not influence final decision making. It was pointed out by other managers that the influence was there, but indirect. Each manager was responsible for the degree to which his or her work plan and budget proposal implemented or contributed toward long-term program objectives. Further, decisions at the executive level on these work plans and budget proposals were, indirectly, decisions on the strategies and objectives in the strategic management plan for the program area, insofar as the individual manager had integrated them.

One of the more interesting observations to come from working with the department's managers in this area over the past 2 years was that many of them were already applying the concepts of strategic management and had been doing so for some time. The challenge came in assuring these managers that what we were proposing was not new, but rather a more formalized approach to their existing management style. In other instances where it appeared that the managers were not applying a strategic management approach, the challenge came in attempting to demonstrate that such an approach would be effective and was applicable to their program area. This was particularly true in the support area functions. These managers were providing a level of support that was determined by the level of workload in other program areas, or by statutory mandate, or executive order. While the question of "what was provided" was determined outside of their program area, "how it was provided" was very much their man-

agement responsibility, one that lent itself to a strategic management approach.

Benefits

The benefits of the process to date can be categorized into the three areas discussed in the next three sections.

Budget Development

Over the past two cycles there has been considerable improvement in the budget development process, in general, and the review of the department's budget by external agencies, in particular. The credit for these improvements is due primarily to the staff of the Budget Division and to those functional managers who are responsible for presentations and justifications for increases or changes in program resources. However, the strategic management process can be credited, in part, for fostering an increased awareness of the reasons behind the need for increased or reallocated resources. Working together with the district directors and their staffs to develop program objectives and the strategies necessary to reach those objectives and developing work plans and resource requirements needed to implement those strategies has provided the functional managers with logical and well-prepared background information and justifications.

Strategies To Address Key Issues

As mentioned earlier, the preliminary approach to strategic management resulted in the creation of an Office of Advance Technology. The continuing research of the staff of this office into potential applications has resulted in several significant benefits. They have been instrumental in creating a consortium to pursue studies and demonstration work in automated highways. The consortium consists of other state departments of transportation, the University of California, the FHWA, and the private sector, including automobile manufacturers.

In another example, the Maintenance Division and the Office of Advance Technology are working together to develop applications of robotics to the more dangerous or disruptive maintenance work.

Other key issues have been identified through the continuing strategic management process and strategies have been developed to address them. Two of these strategies, the Metropolitan Freeway Task Force and proactive planning, are discussed in the following paragraphs.

The Metropolitan Freeway Task Force was initially created to address the issue of the feasibility of changing design standards to reduce, or perhaps eliminate, the need for some maintenance activities on high-volume urban area freeways. The time period during which maintenance can be performed on metropolitan freeways without major disruption of traffic, that is the "window" for maintenance, is becoming smaller all the time. Maintenance Division personnel identified this as an issue during the second cycle development of their strategic management plan. They proposed an ad hoc task force involving staff from Design and Operations, as well as district maintenance staff, to address the issue. Preliminary work by

the task force identified related issues, such as traffic management during lane closures for both maintenance and rehabilitation/reconstruction, and the charge to the task force was expanded accordingly. Further, the task force went into the field to interview district maintenance supervisors and crews. This resulted in an extensive set of pragmatic recommendations, as well as some innovative suggestions worthy of further investigation.

The task force is currently preparing its draft report proposing short- and long-term strategies to address current and future problem areas. In addition to demonstrating a strategic management approach to a major problem area, this task force provided an example of both a matrix organizational approach, albeit temporary, and an entrepreneurial opportunity for field personnel to become directly involved in developing strategies and policies for use departmentwide.

Proactive planning also evolved out of the strategic management process. The Planning Program's strategic management plan included a discussion of the issue of increasing the coordination between land use planning and transportation planning. While the Planning Program had been using a strategic planning approach for years, the annual strategic management plan provided them with an opportunity to develop support for additional resources to address this particular issue. This resulted in the ability to implement several demonstration projects, involving a cooperative effort with local and regional agencies in coordinating early planning for both land development and the transportation system needed to serve that development.

Improved Coordination and Communication

As mentioned previously, several of the managers had already prepared strategic management plans before the institution of the more structured annual cycles. Planning Program personnel obviously had a head start in this respect. They had fully involved the deputy district directors for planning in the development of strategies, through scheduled formal discussions at their biannual functional meetings and more informally throughout the year. In addition, the functional manager of the Planning Program incorporated the program's goals and objectives developed through this process as his own management objectives. Further, the program had twice been through a zero-base budget evaluation to demonstrate both the validity of the strategies and the need for resource augmentation. Thus, this program incorporated two of the ongoing management tools into the strategic management process.

The Maintenance Division had also developed its own long-range maintenance plan before the formal process, borrowing the environmental scanning material from the Planning Program.

In addition, the Operations Division had developed a long-range operations plan and had developed and implemented several of the resulting strategies to improve traffic operations on the existing highway system.

By discussing among themselves these strategic management plans along with those of other program areas, managers were able to communicate more readily with each other from both the district and division perspective. This improved their understanding of each other's problem areas and the strategies

to address these problems and enabled them to be more aware of the potential impacts that a decision in one program area might have on other program areas. For example, the Operations Division's long-range plan called for the development of specific new and advanced traffic operations technology, and the Office of Advance Technology was able to, and continues to, assist in this research. The installation of new traffic operations high-tech equipment would require new and more sophisticated maintenance, which the Maintenance Division needed to incorporate into its program area plan. This operational strategy would also require personnel with different skills, which the Administration Divisions needed to incorporate in their training/retraining programs for existing staff and in their recruiting program.

THE THIRD CYCLE

In developing modifications to the strategic management process for the third cycle, we wanted to ensure that the department retained and built on the benefits derived during the first two annual cycles. Further, we wanted to retain those benefits derived from the issue-identification/task-force approach or "windows of opportunity," developed before the more formal traditional cycles. At the same time, there were several major problem areas that needed to be addressed to increase the effectiveness of the process and to reduce the work load on the managers.

The primary consideration, however, was to develop a process that met the management needs of the new director and provided him with opportunities to incorporate "front end" and "tops down" direction on major policy issues. We recognized that the strategic management process developed at Caltrans was tailored to the management style of the previous director and his executive team. With a new director and a somewhat different executive management style, the process needed to be modified. However, we felt it essential to retain some continuity to the process.

We had originally proposed to begin the cycle earlier in the calendar year to allow more time to elapse between the development of updates to the strategic management plans and the beginning of the budget development process. But with a change in the department's executive team, some time elapsed before the commitment to continue the strategic management process was clarified.

With this clarification and a firm expression by the new director of his support for management planning, plans and proposals for the third cycle could be developed.

The environmental scanning document Trends Affecting Caltrans has been updated and circulated to the division chiefs, district directors, and their staffs for review and comment.

The Policy Direction Statement will be changed to enable the director to outline his goals and objectives for the department. We hope to be able to work closely with the director to develop this document through a series of iterations until we capture his ideas to his satisfaction. We have set a target date of mid-January 1989 for a final document.

In addition to this Policy Direction Statement, the director has requested a document covering the department's ongoing policies. We have started to prepare such a report with a working title of Operational Policies. The director commented that the majority of Caltrans' employees are working

on the department's ongoing activities and need a document they can relate to, one that spells out the policies they need to be familiar with in their day-to-day activities. They also need to know if there have been recent changes made to these policies, such as those changes related to increased efficiencies in the project development process, for example, or changes to maintenance procedures that might result from the Metropolitan Freeway Task Force study. Only a small percentage of Caltrans' staff, the director believes, can relate to the future direction of the department in their day-to-day work, or to its goals and objectives.

It is anticipated that the functional area managers and the district directors will develop objectives for each major program area that complement and expand on the director's departmentwide objectives and that they will develop strategies to attain these program objectives. It is also expected that they will jointly propose performance measures with which to determine progress of their strategies toward the program's objectives. We will request that these program level strategic management plans be brief, containing only the most critical program objectives with a few key strategies and performance measures for each objective.

Once the strategic management plans are prepared, they should be discussed with the appropriate deputy director and a firm consensus reached. After deputy approval of the program's strategic management plans, the division chiefs and the district directors would develop work plans for the coming fiscal year. These work plans should spell out in some detail the ongoing work of the department plus any new tasks to be undertaken to address the program areas' longer-range strategies. The budget development process follows the approval of the work plans.

The strategic management plans will be aggregated and summarized into Caltrans' Strategic Management Plan, incorporating the departmental goals and objectives from the Policy Direction Statement and the program objectives, strategies and performance measures from the individual strategic management plans.

Obviously, this is still a proposal and all of the usual caveats apply. However, one of the advantages of the concept of strategic management is its flexibility. The challenge will be to meet the needs of the director for an adequate and appropriate management planning process that fits his management style but, in order to incorporate some continuity with the prior process, to retain and build on those benefits already achieved.

CONCLUSIONS

After a little more than 4 years, Caltrans seems to be well on its way to institutionalizing a strategic management process. The process and its products may change over time to keep pace with changing management needs. However, there is a firm commitment of support from the new director and acceptance of the process by many of the division chiefs. Thus, the concept of strategic management should continue to be an integral part of management decision making.

The benefits to Caltrans of using this management tool could be substantial and cumulative. We have already seen benefits as a result of the identification of key issues from the environmental scan. The use of ad hoc task forces, with mem-

bers selected from several program areas, has produced pragmatic and innovative strategies to address such issues.

In addition, improved communications among managers and their staffs have resulted from joint involvement in the process. This has provided a cohesiveness that seemed lacking in the past. The opportunity to review the objectives and strategies of other program areas has made managers more aware of the need to minimize the impacts of one program's strategies on another and to work more closely to develop joint or complementary strategies.

The complexities of the external environment and the broader role and responsibilities of the department point to the need for this type of management system, and the benefits to date seem to warrant further effort. The documents resulting from the process provide a means of communicating Caltrans' goals and objectives and give employees, as well as stakeholders, a sense of the department's future direction and the knowledge that there is a well-thought-out plan behind management decisions.

There are those who argue that strategic management cannot work in a large public-sector organization such as Caltrans. They believe that such organizations are constrained by the political process, by the short time frame of 2 to 4 years for political decisions, by the statutes and regulations governing the organization's duties and responsibilities, and by the need to meet resource requirements through a process of consensus building at local, state, and federal levels.

Although such conditions exist for most public-sector organizations, experience has shown that other organizations have successfully implemented an effective strategic management process that includes not only longer-term direction setting for the organization, but also strategies to address political constraints.

The statutory mandates governing Caltrans' roles and responsibilities are relatively broad and allow the department considerable flexibility in implementation. Consensus building is a part of the political process in which the department has had, and continues to develop, significant experience and success, particularly at the district level. The magnitude of the transportation problem at both the national and state levels is such that the political process can only address the issue of resources incrementally, within a longer-term framework of state and national goals and objectives.

It is seldom that the political process itself develops long-range goals, objectives, and strategies for a public-sector organization. This normally results from decisions of management professionals within the organization itself. They bring a strategic "vision" to the role and responsibilities of the organization because they have a professional commitment to these responsibilities that extends well beyond the political time frame.

It will be a continuing iterative and development task to institute a fully integrated strategic management process at Caltrans, one that provides the department's managers with the tools they want and need. However, with sufficient flexibility and adaptability as an inherent aspect of the process, strategic management should continue to change and evolve, as will Caltrans itself.

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