

Total Quality Management: Managing the Human Dimension in Natural Resource Agencies¹

Denzil Verardo²

Abstract: Stewardship in an era of dwindling human resources requires new approaches to the way business is conducted in the public sector, and Total Quality Management (TQM) can be the avenue for this transformation. Resource agencies are no exception to this requirement, although modifications to “traditional” private enterprise versions of TQM implementation techniques must be done if success is going to be achieved. The application of TQM within a public resource agency has been the focus of the California Department of Parks and Recreation (DPR) during 1993-94. The lessons learned from the early stages of TQM implementation within the Department; the impact and implications for resource management teams; a candid discussion of the human dimension of implementation (internal and external); and a discussion of traditional TQM versus public agency TQM are addressed.

Although many governmental agencies were complaining about budget reductions in the context of California’s stagnant economy, the California Department of Parks and Recreation (DPR) took a proactive approach to the problem of managing under these reductions. Under the guidance of State Parks Director Donald Murphy, mid-management levels were cut and the Department reorganized eliminating an entire level of bureaucracy that had increased over the years. Not only did restructuring reduce the potential for park closure, but it prevented the lay-off of field employees who directly serve the visitor. This was done while saving valuable, dwindling tax dollars. Already known for their service, park employees such as rangers, lifeguards, and maintenance workers were directed to give renewed emphasis to “customer” expectations as critical to the future of the DPR. Administrative support to those front-line employees was geared toward meeting their customers’ needs; and resource management professionals were decentralized allowing for more rapid and better informed decisions at the field level where the resource issues were occurring.

This restructuring began in early 1992, soon after Governor Pete Wilson appointed Donald Murphy as Director of the California Department of Parks and Recreation, the first field Superintendent to ever become Director. Murphy appointed a committee, called the Phoenix Committee—symbolically named after the mythical bird that rose from its own ashes—to look at the Department’s organizational

structure. His charge to the Phoenix Committee was actually quite simple: simplify the reporting relationships within the DPR and make recommendations for change. Total Quality Management team practices were used by the group in carrying out its mission. The Director was given the duty to implement any recommended changes so that the Department was to carry out its managerial responsibilities—a true “reinventing” of the Department of Parks and Recreation (also referred to in this paper as DPR, State Park System, and California Park Service).

Originally, State Parks were organized into 55 (+) districts that reported to 5 regions; these regions in turn reported to a Sacramento Headquarters chain-of-command in a traditional police/military fashion. As a result of the Phoenix Committee recommendations, the 55 park districts were consolidated into 23, and the 5 regions were eliminated completely. The districts now report directly to a streamlined Sacramento Headquarters operation. Two resource service centers, one in the northern and one in the southern part of California, were created and staffed with specialists who could better meet district and resource needs by being closer to the issues at hand. The number of resource specialists, such as ecologists, was increased to allow their placement directly in the district operation. This consolidation of districts, decentralization of resource specialists, and flattening of the organizational structure saved the DPR 10 million dollars annually while transforming the Department in such a way that quality management applications could be effectively integrated into the “culture” of the organization.

District Superintendents and Departmental Managers were given broader authority to manage their units while being held accountable for maximizing revenue through the practice of sound fiscal management. Instead of levels of approval for even the most routine determination, these managers were delegated the authority to make any and all operational decisions within the scope of their duties.

While businesses in the private sector had undergone similar transformations, the number of public agencies that had looked at the efficiency of their operations and that had actually implemented structural improvements have been few and far between. Motivation is low in government for truly efficient operations, and in fact major structural changes can have a negative side effect to the agency if the political implications are not worked out in advance. When budget reductions occur in government, they traditionally occur “across the board” regardless of any efficiencies one agency may have introduced. However, with proper administrative and legislative support, and with budgetary stresses providing a degree of motivation, efficiency can be achieved in spite of

¹An abbreviated version of this paper was presented at the Second Symposium on Social Aspects and Recreation Research, February 23-25, 1994, San Diego, California.

²Assistant Director for Quality Management, California Department of Parks and Recreation, 1416 9th St., Sacramento, CA 95814.

the opposing pressures to leave the traditional governmental hierarchy in place.

Dealing with the human dimension of reorganization was a factor that was planned in advance, but planning can only mitigate, not eliminate resistance to change. “Upgrades,” “downgrades,” job changes, and relocation require management sensitivity as well as a sense of purpose. Communication, no matter how frequent or thorough, is never sufficient in the eyes of those impacted, and with complete restructuring almost everyone is impacted in one way or another. Special weekly bulletins, “The Insider,” were issued by the DPR to keep all employees notified of the rapid changes that were occurring. Relocations were published, and new job assignments distributed so that everyone had information shortly after changes were initiated. Morale still suffered as individuals—the human dimension—were impacted. One lesson learned from the reinvention of the Department was never to underestimate the impact any change will have on morale, especially in an organization with a traditionally close-knit internal culture, such as the type that is prevalent in virtually all resource agencies. However, once all transitions were in place, and the transformation completed, morale increased as employees looked with a degree of enthusiasm at their new roles and responsibilities in a more vigorous organization.

Total Quality Management as Defined by the California Park Service

Concurrently with the restructuring efforts of the California Park Service, and orientation to Total Quality Management (TQM) took place with every employee participating. Customer service, coupled with the concepts of continuous improvement—important premises of TQM—and employee empowerment became the framework for the new management structure. The implementation of TQM within a resource agency required a hard, realistic look at what we were, what we stood for, and where we wanted to be. At the same time the DPR had to get TQM beyond the jargon stage and into the fabric of the organization’s management systems to institutionalize it in the culture. This process was by no means easy, and it certainly is not complete.

TQM Application

“Total Quality Management” is a set of management principles and methods by which decisions are made. It is based on the concept of “customers” defining quality for the organization. Quality is everything of value to a public service organization, such as wise use of resources, service, etc. Customers come in two basic categories: (1) external—the visitor to the State Park System, as well as any stakeholder in the system such as concessionaires, non-profit organizations, legislators, other resource agencies, and; (2) internal—employees whose job is served by other employees. Basically, the next person down the line to deal with a service (or product) is an internal customer. Personnel and accounting

section staff and resource specialists, are all examples of workers who at some point in time have internal customers to serve. In the implementation of TQM within the California Department of Parks and Recreation, constant awareness is given to the fact that TQM could lose relevance for those who focus on end-user satisfaction, working with publicly intangible organizational services such as payroll transactions. Although resource specialists deal with more tangible service, TQM relevance must be couched in terms balancing efficiency and equity, a subject discussed more fully later in this paper. Customer feedback provides one method of determining the needs of the customer. Visitors need to give feedback, informally and formally through specially developed, measurable instruments, to the organization. Employees need to give feedback to supervisors and managers. Feedback is required to learn how our needs are changing, and how quality can be improved. However, while customer-driven quality is a premise of TQM, the DPR is driven by influences other than the customer’s expectations. The needs and demands of the State Legislature, the regulations imposed by State control agencies, and the essential “public-ness” of the government arena are examples of forces that impact customer driven quality decisions. Unless carefully and skillfully managed, these forces could pose a threat to the creative interaction necessary to institute change in general, and TQM specifically.

Data collection is another important feature inherent in TQM. Customer feedback, problem solving and sorting, eliminating the causes of problems and inefficiency, monitoring the progress of improvement, are but a few of the items requiring valid data to base decisions. Resource agencies often collect resource data, but not the type of data that would actually focus on a specific problem so that it could be mitigated or “fixed.” One simple example of such a problem, a fictitious scenario from the DPR, is one that might have occurred on a guided tour of a resource area. A specific tour guide could not be heard well. Complaints from the public resulted in a counseling session with the guide—a typical, previous management reaction when dealing with complaints. However, applying the tools of TQM to gather and process real data actually solved the problem. The tour guide in question was responsible for half of all the complaints issued. Upon analysis the complaints were found to be generated from only one part of the tour—the part he conducted. The counseling may have ended with the guide talking louder, but real data showed that re-routing the tour permanently solved that problem, because the real problem was excessive noise from external sources at that one portion of the tour. But complaints still occurred because only half of them were attributable to the cause investigated. In a TQM organization the next step would be to determine what was producing the next largest number of complaints and then focus on that problem through developed problem solving, and data collecting processes. According to Dr. Edwards Deming (1986), one of the founders of the quality movement, this method “constantly and forever improve(s) the system of production and service.”

Continuous process improvement is a fundamental requirement of TQM. Keeping some processes stable, and improving others that cause the most problems, is how we achieve better results. Constantly adapting to these changes, and continuously improving the processes by which we work, will begin to improve the entire organization. The method by which to identify these processes and select those which need improvement is taught in the California Park Service Park Quality Management Training Program.

In TQM, problem solving utilizes team approaches. Of all governmental entities, resource agencies are especially good candidates for widespread use of team problem solving using the specific scientific approaches offered in TQM applications. The DPR is not unique among its sister agencies in having a variety of resource specialists, rangers, and managers who, when a problem is identified, all have a piece of the solution. By carefully selecting a true team of individuals to apply TQM's tools in a problem solving process, solutions are developed with a degree of accuracy and thoroughness not otherwise possible. Not all work is done in teams though, and to imply that under TQM all work is done by teams is a common misinterpretation of Total Quality Management applications. However, to utilize team approaches to solve a problem—real team approaches not just a group of people coming together to discuss an issue—has been extremely successful for the DPR even during the initial stages of our TQM journey.

One of the more important concepts in TQM is the “total” part of Total Quality Management. “Total” implies the involvement of all sections within an organization. The cooperation of many parts of an organization to solve problems, to work together and resolve issues, to achieve continuously improving levels of quality for the customer, is essential to meet any agency's goals, let alone its mission. Yet a weakness of the DPR, and indeed most resource agencies, is a lack of “systems thinking.” Resource specialists, rangers, maintenance workers and administrative staffs have traditionally had a degree of friction, sometimes bordering on jealousy or outright animosity, towards each other. Working together for the common good—systems thinking—to achieve the mission and vision of the Department requires a change of internal culture, one we are committed to achieve both for the effectiveness of TQM and for our organizational survival. Achieving a vision can only be done with a total quality effort.

Employee empowerment, the ability to effect change within an employee's sphere of influence as well as the ability to collaborate to “fix” problems, is important to the Department. Empowerment is a powerful word, and an even more powerful concept. Like TQM, empowerment is easy to describe at a jargon level, but requires commitment to practice. Creating an atmosphere that enhances employee self-esteem, and that requires staff to take personal responsibility for an agency's success, leads to a quality organization. Empowerment is not TQM. TQM can lead to true empowerment, however. The concepts are mutually

inclusive when empowerment is applied appropriately and when managers and supervisors know the power behind the concept and do not see it as a threat to their position. The DPR has encouraged employees toward empowerment, and to take responsibility for their own actions. At the same time, even after hours of training for all individuals in the organization, the concept is still misunderstood to a degree. Perhaps another lesson learned from our implementation of TQM is that we should have let our quality journey progress a bit farther before introducing the concept of empowerment as organizational policy. The DPR had to “catch up” to empowerment because we did not have the structures in place to take full advantage of, or to adequately define, the concept.

Individuals within the DPR prior to the implementation of TQM, had often stated that, “we are already doing a lot of TQM.” Although our commitment to public service was unquestionable, we did not realize how little we were practicing the quality tenets of TQM. Focus on the customer, as we have defined them, data collection for problem solving, the concept of continuous process improvement, team problem solving with attention to results, and systems thinking, combined with employee empowerment, were not unified as a strategy within the Department of Parks and Recreation prior to our TQM efforts. Such unification is hardly achieved through jargon.

Public & Private Sector Differences

The focus of this paper has been to specifically define Total Quality Management within the context of the DPR. However, it is important to note that there are some fundamental differences between the public and private sectors, as well as some differences within the public sector between resource and other types of agencies, that need to be taken into account when implementing TQM.

Management turn-over occurs differently in the public and private sectors. One of Deming's “Deadly Diseases” is management mobility (Deming 1986). In the public sector, top management generally changes with each election cycle. In the private sector, this disease that impacts the efficiency of organizations is not based on factors of governmental politics. In the private sector management mobility is to a degree controllable. The public sector organization does not influence upper management's mobility. Fortunately in resource agencies, levels of management below the appointed management staff may be promotionally mobile, but they often stay with their respective Departments for entire careers. This mitigates the impact of Deming's disease of management mobility.

Customer identification is more difficult in the public sector. In the business world, customers can be readily identified, both internally and externally. Quality and customer satisfaction levels can likewise be determined fairly quickly and easily. Success is measured by their “bottom line.” This is not possible in the public sector,

“where not only is there no bottom-line profit, but most public employees are hesitant, or even reticent to call those whom they serve customers” (Verardo 1993). Resource agencies such as the DPR provide services that cannot be easily measured statistically, and our clients have little choice but to remain customers because of few alternatives. However, as difficult as the statistical measurement of service might be, it is imperative that it be done. The collection of real data to solve problems is the only viable means by which to analyze customer expectations.

Finally, the public sector and resource agencies must keep this concept before them: equity is more important than efficiency (Deming, personal conversation). TQM is geared toward efficiency. Decisions made are based on customer-driven input and data within a structure that can quickly react to a changing environment. But no matter what the impact on the organization, the DPR and other resource agencies have a responsibility to be equitable rather than efficient, if that is the choice. Equal access to parks for all people, or protection of irreplaceable resources for future generations regardless of current public demands are issues of equity which are inherent in our mission, and are not violable by the concept of efficiency. Unfortunately, issues of equity are often used as an excuse not to be efficient

thereby weakening the ability of resource agencies to modernize their management processes.

The fact that there are forces other than the customer that impact quality, such as control agencies, the legislature, and the open field upon which public agencies must play, has already been mentioned and need not be dwelt upon further.

Steps in Implementing TQM, Cycle I: Strengthening the Organizational Structure and Planning for Change

Carr and Littman (1990) have constructed a flowchart that illustrates the Quality Journey of the California Park Service (*figure 1*). The major concepts required in a quality management program are printed at the top of the chart: Assessment, Planning, Implementation and Institutionalization. The boxes show what we have done and where we are going. Although TQM can be implemented by using numerous models, this model is the only one which allowed dual tracks to be pursued simultaneously. The California Department of Parks and Recreation is making some rapid short-term improvements, while instituting and planning for long-term change. Another important feature of this model is that it allows cycling back through the process, illustrating

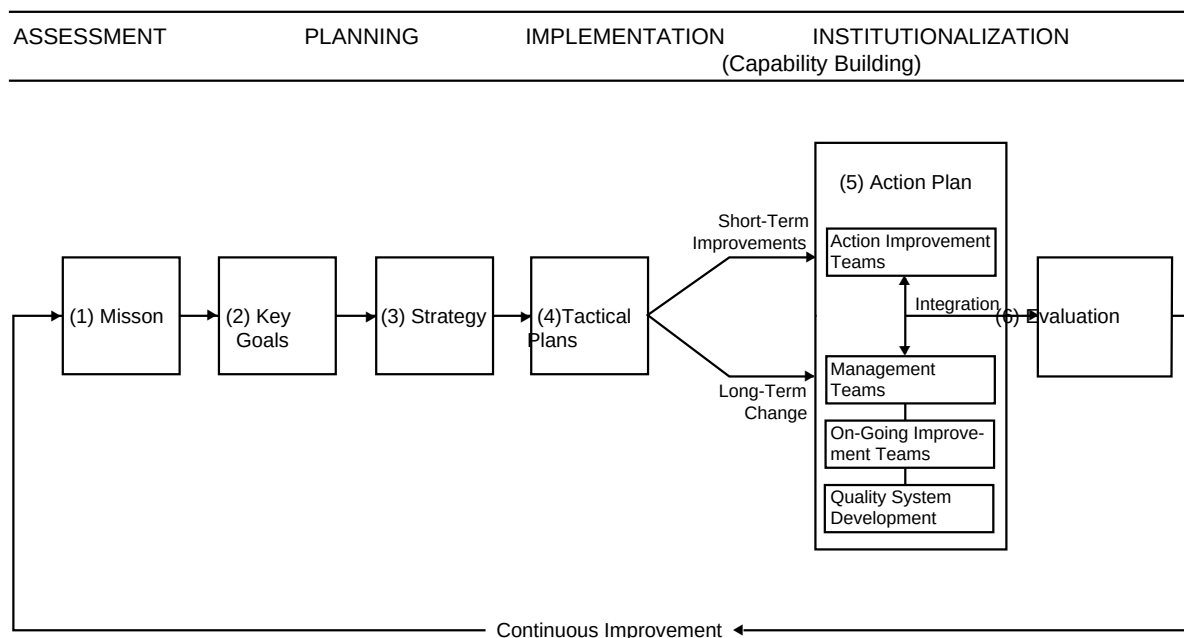


Figure 1—Road map of the quality journey (California Department of Parks and Recreation [California Park Service])

that TQM is a journey, not a destination. The DPR is in its second cycle of this model.

The First Journey

Our Mission (1) was well-defined, although it was reviewed and tested as part of a visioning process. Key Goals (2) were developed from assessments and planned recommendations supplied from the Department's Phoenix Committee. A Transition Team was formed to plan the DPR restructuring effort including costing out all relocation and assessing the organizational impact of reductions at the mid-management level. The resulting Strategy (3) led to Tactical Plans (4) that were implemented, resulting in both short-term improvement--the saving of 10 million dollars annually through the reductions--and the longer term change triggered by the formation of an entirely new, less hierarchical, park service structure. During this rapid initial phase of implementation, a steering committee made up of the Director and his immediate management staff, initiated orientation sessions for all Departmental managers in TQM and Empowerment. The steering committee's Action Plan (5) further called for the training of Action Improvement Teams consisting of selected trainers from each district as well as each headquarters office in the Department. This phase of training was conducted at the William Penn Mott, Jr. Training Center in Pacific Grove, the Department's centralized training facility. These management teams and improvement teams then oriented every employee within the Department to the goals of the organization with regard to TQM and Empowerment. The results of these orientation sessions, and the implementation of the concurrent restructuring were evaluated (6) and the process began again at a more methodical level: one which would focus on institutionalizing the changes made, and one which would implement Total Quality Management throughout the DPR.

The Second Journey

The first journey through the improvement cycle concentrated on restructuring the Department and on orienting employees to a new way business would be conducted in the future. The second journey would be to change those business methods by involving increasing numbers of employees. By using this approach, the DPR is unique among organizations. "TQM has been most successful when tailored to the unique needs of specific entities" (Verardo 1993). The DPR has tailored its implementation of TQM to meet its organizational needs, and not to meet the needs of theoretical practices.

In private industry, and with traditional TQM theory, reorganization of the business is a logical end-product of TQM implementation. The structure of the organization is carefully studied, and customer responsiveness assessed through a variety of data gathering and problem solving techniques. With the California Department of Parks and Recreation, an immediate budgetary crisis forced innovation. That the DPR was a hierarchical government bureaucracy required little study, let alone full TQM integration. It did need a quality

team effort (the Phoenix Committee) to decide what structure would be the most responsive and most efficiently address all customers' needs. Increasing the organizational responsiveness of the DPR by downsizing mid-management assured greater success with TQM implementation.

Steps in Implementing TQM, Cycle II: Initial Integration of TQM Practices

In March, 1993, I was appointed as Assistant Director for Total Quality Management of the DPR. The purpose of the position was both to assist with, and to drive, the implementation of TQM within the Department. A member of the Director's staff, I was not in charge of a division of employees but instead was to formulate policy and institute change throughout the entire organization and across all departmental boundaries. The new position had among its duties the charge to work with each Deputy Director and Division Chief to institute necessary changes, and to carry out the Director's commitment to integrate TQM throughout the entire Department.

Visioning

A logical starting point to enculturate TQM into any organization is to begin with its mission and values, and create a vision based on a realistic projection of that organization's desired future state. This "visioning" is a necessity if TQM is going to focus on improvements and quality efforts geared toward achievable results. TQM application without vision could result in some operational efficiencies, but it certainly will not have any long-term substance or long-term quality improvements for resource agencies. W. Edwards Deming himself stressed the requirement that vision be developed to focus an entire organization on improvement (Deming 1986).

The California Department of Parks and Recreation, like most resource agencies, has a historic mission rooted with overtones of preservation ethic:

The mission of the California Park Service is to provide for the health, inspiration and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high quality recreation.

But was the mission current? Could a Vision be realistically projected based on the mission's goal of success for the organization and stewardship of the resources entrusted to the California Department of Parks and Recreation? Murphy and Verardo set out to test the mission and goals of the Department through a vision audit that included an evaluation, the scope, and the context of the future state of the DPR (Nanus 1991). The "Vision Evaluation" charted the movement of the Department towards the proposed vision by evaluating and checking the vision against a template of questions. The "Vision Scope" set the boundaries to the vision by defining the scope of what was achievable, and the

“Vision Context” attempted to identify important future developments that could affect the DPR. The audit led to a series of meetings, including a two-day off-site meeting, of the full staff (all division chiefs and Director’s staff members). The subject of the meetings was a “visioning” effort based on the data collected. The future of California’s resources under the stewardship of the DPR, the seemingly contradictory recreational emphasis, the plight of the Department within the economic context of California were all explored during visioning and the end-result published under the title *The Seventh Generation*. One of the most important documents to come out of the Department, *The Seventh Generation* is the strategic vision of the DPR. It embodies the heritage, mission, values, goals, and vision of the Department. All employees were sent a copy and a leaflet published for public distribution that enumerated some of the basic tenets of *The Seventh Generation*.

Strategic planning was begun by translating the goals and tactics identified in *The Seventh Generation* into operational terms. This first strategic plan was a “top-down” plan, although it did account for input. The DPR could not implement a TQM “bottom-up,” data-driven strategic plan because training and implementation in actual TQM tools had not yet taken place. Yet the DPR strategy for the future had to be initiated without delay, both for the benefit of the organization and to capitalize on the creative momentum of *The Seventh Generation*. The next strategic plan of the Department will be one in which the goals of the field, generated through the use of TQM techniques integrated into operations, are coupled with the goals of upper management—a 50-50 bottom/top generated strategic plan. The third strategic plan will be a “bottom-up” plan taking the data and goals generated by the field using TQM techniques and turning them into the strategy for the DPR. Strategic plans are a blueprint of Department operations for the future. As the needs of the organization change, and as TQM becomes more integrated within the operation of the DPR, the strategic plan, or portions of it, will change annually to meet progress toward the vision expressed in *The Seventh Generation*.

Training

Concurrently with the visioning process, the California Department of Parks and Recreation began planning for TQM training, and a timeline for the implementation of the various stages of integration of TQM. Because no other resource agencies had embarked on TQM, the Department had to consult with individuals who could at least shed light, offer suggestions, and provide some direction based on their efforts. Keith Smith of the California Bureau of Automotive Repair; Miles Ennis, strategic planner for the Department of Finance; and private consultant David Jones of Sentient Systems provided valuable advice and assistance to the DPR. The various training programs and trainers available were monitored and evaluated to assess whether they would meet the training needs of the Department based on the curricula and the training model that the organization had developed.

The model was driven by the decision that management would be intensively trained in TQM basics, followed by joint sessions with “trainers” from each organizational unit. By using this method, the DPR would begin to have operational management buy-in while at the same time trainers would assist in enculturating field personnel to TQM techniques and team approaches. The trainers would also be a resource to the managers for whom they work. Once management and trainers were trained, administrative officers and higher level supervisors would receive TQM training tailored to their respective levels and duties.

After numerous evaluations, Ron Black, a consultant with Meta Dynamics, was selected to provide lead instruction to managers and trainers in the application of TQM, team roles in a TQM environment, and the tools of the TQM trade. The California Department of Parks and Recreation contracted with the Training Source, a Sacramento-based adult education provider affiliated with the Los Rios Community College District with whom Ron Black was associated, to obtain his services. The resulting Park Quality Management Program became a framework for increasing TQM implementation throughout the Department. Future training programs will supplement, not repeat, materials presented during the initial year of Park Quality Management Training.

Developmental Stages

Meanwhile, several DPR pilot programs and projects were instituted on an experimental basis throughout the state. Those that worked well would provide information for the new teams and projects. The programs that did not would provide valuable lessons for those that followed. One effort was selected by the Governor’s Task Force on Quality as a “pioneer project,” and received support from the Governor’s Office on Planning and Research, the only resource agency project selected.

Quality systems development began when the DPR was chosen as one of four state agencies to participate in a pilot program to switch from line-item to performance-based budgeting. Performance-based budgeting lends itself more readily to the application of TQM techniques than does line-item, although one does not necessitate the other. Moreover, the pilot departments will receive a degree of freedom to operate outside the parameters normally established and monitored by regulatory agencies of state government.

Meaningful customer feedback requires surveys, among other instruments, based on meaningful data. Simply surveying visitors, employees or the myriad of other stakeholders such as concessionaires does not necessarily provide meaningful data. Satisfaction surveys must be correlated with the relative importance of the information received (relative importance from the customer’s viewpoint) in order to provide statistics that can be meaningfully analyzed. The DPR uses a visitor survey that can be statistically correlated with “importance” to provide insight into which problems need to be addressed, and in what relative order. The methodology of this survey will be extended to other surveys in the near future.

The Future of TQM, Cycle III

The California Department of Parks and Recreation is committed to continuing its quality journey. The vision is of an efficient, responsive organization whose planning efforts will provide “customer delight” to future generations. The results of that vision are that we will have been successful stewards of our resources for those generations. Total Quality Management, with all its implications, is the only method by which to realistically achieve that goal.

References

- Carr, David; Littman, Ian. 1990. Excellence in government. Arlington, VA: 368 p.
- Deming, W. Edwards. 1986. Out of the crisis. Cambridge, MA: 507 p.
- Nanus, Bert. 1991. Visionary leadership. Los Angeles, CA: 398 p.
- Verardo, Jennie. 1993. Total quality management and its potential as a management program in the public sector. Unpublished draft supplied by author.