
April 12 Update**Identify, Analyze & Implement Technology & General Administrative Improvements - Initiative #7**

(STRATEGIC GOAL 1: Develop Excellent Management Systems)

Problem Statement

Like most state agencies, the Department of Parks and Recreation has, for many decades, lagged behind private industries in the implementation of new business technologies. Failure to keep pace with modern business systems and technology upgrades has placed many of the department's business and administrative systems in an outdated technology mode. The department's limited budget favors Visitor Services needs over technology and business systems upgrades.

The impact of these budget driven decisions, while maintaining the department's minimum standards for visitor services, has eroded the department's internal business systems and concurrently failed to keep pace with the modern technology Park visitors and employees have come to expect as commonplace in environments outside of the Park system. As a result, the department daily operates with antiquated business controls and is incapable of developing the business analytics it so desperately needs to make fully informed and timely management decisions. The Parks Forward Initiative final report of February 2015 commented on the department's current business systems capabilities as follows:

The Department relies upon outdated, ineffective, and underutilized systems and tools that significantly limit its ability to manage core functions. Its inability to measure performance, generate information on the extent and type of its ongoing costs, and manage for cost efficiency makes any effort to prioritize activities and investments unreliable.¹

Initiative Description

"The Technology and Administrative Improvements Initiative" will identify and analyze outdated technologies that can be upgraded to the best systems available and quickly move the Parks department to the 2017 Desired Future State. It is anticipated that the department will retain outside expert consultants in collaboration with DPR experts to aid in the evaluation of the current systems, together with the committee members, recommend, and implement strategic improvements to both the department's business systems and public technology interface over the next two years.

This initiative will also research, analyze and identify archaic administrative policies, procedures, guidelines and practices and recommend specific changes to modernize and unify systems. Other modernization projects could include reaching outside of the business systems model and look towards areas such as increasing the number of campsites with

¹ A New Vision for California State Parks; Recommendations of the Parks Forward Initiative; February 2015; Page 20

hookups including Internet connectivity. Far-reaching solutions for out years in keeping with the 2017 Desired State could include technologies aligned with energy-use improvements and alternative-energy opportunities.

Anticipated Benefits of this Initiative

As the Technology and Administrative Improvements Initiative is implemented, it will enable the department to:

1. Improve its business operations so that new analytics and reporting systems will facilitate the gathering and reporting of financial data in real-time to make informed and defensible decisions that support the mission and service levels established in the Service Based Budgeting Initiative system,
2. Allow Districts and Divisions to more effectively manage funding by having real-time revenue and expenditure data that is consistent department-wide, thereby avoiding disputed figures (between Headquarters and the Field) and preventing the end-of-the-year uncertainties that often result in large amounts of unspent funds and/or large over-expenditures,
3. Streamline the flow of business information throughout statewide operations in an effort to unify business and operations models across all operating units,
4. Facilitate a new model to improve collection, reporting, and reinvestment of Park Revenue Generation programs,
5. Invest in technological improvements. Long term return on investment will outweigh the initial high cost,
6. Introduce modern management systems that will automate repetitive tasks resulting in a significant recovery and reallocation of staff hours available to perform more valuable levels of work throughout the department,
7. Compile and integrate global data in such a way that allows for real-time reporting for decision-makers,
8. Implement modern consumer technology in Parks where appropriate to market to all generations of Park users who are used to and expect connectivity and informative interactive systems,
9. Develop programs that will maintain and upgrade IT systems and infrastructure to allow the department to take advantage of emerging technologies especially as it relates to media, environmental monitoring, infrastructure management, energy management, building automation, and development.

Anticipated Implementation Challenges and Missing Data

The State Park system is large and diverse and the Mission is very broad. There are 280 units of the State Park system. The purpose of these units varies depending on their

individual classifications (there are six major classifications) and their individual park purpose statements.

1. Attempting to unify a business or technology system(s) that meet the needs of all the Park units represents a monumental challenge.
 - a. Some units have millions of visitors each year while others have a few thousands,
 - b. Some units have a year-round season while others experience only a few months of high-volume visitation,
 - c. Some units are responsible for maintaining priceless cultural artifacts and protecting endangered or rare habitats and species, while others manage few sensitive resources – with most falling somewhere in between,
 - d. Many units are located in harsh environments while others are less severe,
 - e. Many units are remote and isolated from basic technology infrastructure or other forms of high-speed digital communication.

These issues represent a daunting challenge for unification of a statewide modern technology system.

Implication: Any modernization system will need to be flexible enough to accommodate all the diverse factors of the 280 units and the centralized administrative centers, and nimble enough to facilitate accurate data entry. To maintain the 2017 Desired State, ongoing maintenance and upgrades are essential to prevent future collapse back into outdated systems or models.

2. The diverse needs of the Department's core programs hamper the ability to efficiently communicate with the public in a modern and accessible manner. A significant upgrade in the Department's technology infrastructure is needed to implement relevant and flexible programs and systems.
 - a. Implementing a business analytics system in a centralized location is a challenge even if the universe of existing systems is well known. Within the 280 units of the Park system and the additional centralized units such as the Sacramento headquarters, Acquisition and Development, Off Highway Vehicle and Boating and Waterway Divisions, the universe of business systems has fallen into a state of "work-arounds" to accommodate the lack of a unified system. The actual number of independent systems in the department is unknown at this time.
 - b. Many of the "work-arounds" are sophisticated and high performing, many are simplistic and just meet the short-term need; many fail to provide little more than the minimum necessity to maintain the perceived services. None are interconnected and as a result it is virtually impossible to globally query a reliable status or history report necessary to articulate the status of the department as a whole at any point in time and consequently for any historical period.

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- c. Implementing Data Classification protocols so we stop saving everything will be a challenge in such a diverse work environment.
 - d. As previously stated, a significant number of Park units are located in remote areas away from modern infrastructure and services. Any system envisioned as “system wide” will require scalability within the technology infrastructure as well as the user interface to accommodate the variety of working environments.
 - e. The information requirements across the entire Park system needed to adequately communicate the multiple core mission programs to the public are complex. Internally, no two Park units are perceived as the same therefore no two programs are identical either. Programs have been developed over many years to speak to the specific and unique attributes of the unit in which they are presented.
 - f. Mandatory reporting on many levels is inadequate and needs to be updated.

These issues pose an overwhelming challenge to implementing a unified and standard modern technology system on a statewide basis. The diversity of the Park units, central services, proximity to infrastructure and individual park programs is immense.

Implication: Establishing and maintaining modern technology standards and installations that can efficiently operate in a diverse and scaled infrastructure while maintaining a high level of data accuracy and sophisticated messaging will require ongoing commitment beyond the two-year term of the Transformation Team.

- 3. Technology changes at such an alarming rate, it is hard to imagine a State entity that can keep pace with the technology world at large; bureaucratic processes hinder government from being nimble and quickly responsive like the private sector. Additionally, the cost of implementing a system wide technology infrastructure could be enormous.
 - a. Infrastructure needs, hardware, operating systems and programs all need to be modernized.
 - b. Off-the-shelf software to meet the department’s diverse needs may not exist; therefore, some form of enterprise system will in all likelihood be required. However, before spending large sums of money on enterprising new systems, best management practices require that we fully evaluate current software that can be used “Off the Shelf” (Buy before Build) to resolve internal issues.
 - c. The State’s current success rate for implementing enterprise computer systems is dismal at best. Failed, under-performing, difficult-to-use, grossly over budget and late-delivery of technological systems is the norm.
 - d. New systems will require in-depth training for virtually all Park employees that interface with the systems. Therefore training of Staff is essential for success.
 - e. User Interface of current systems are antiquated and difficult to use which makes clear and accurate data collection difficult.
 - f. Rent or lease hardware rather than purchasing to allow the department to always utilize the newest technology and to prevent waste via obsolescence.

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- g. Create open and flexible systems that strive to find the “sweet spot” of flexibility.
 - h. Search for Consumer technology that will serve/enhance the Visitor experience.
- Implication: Best management practices for these systems development are not enough to ensure a successful outcome. The best path to success **MUST** engage the most knowledgeable subject matter experts throughout the Park system to lead the design and development of any new system implemented statewide. This will require a significant commitment from Park staff and managers in addition to sophisticated and dedicated technology partners.*
4. Establishing what is “standard” across the statewide Park system is a subjective and sensitive matter that could easily become a victim of Paralysis of Choice. Additionally, what one unit perceives as “standard” will undoubtedly not be universally accepted by all other units leading to the inevitable dilemma of defining what should be acceptable department standards. The questions then follow:
- a. Who determines what an acceptable technology standard of service is? (Consultants? District Superintendents? Park Specialists and Planners? Park Users? Elected Officials? Technology Consultants? State Technology guidelines and requirements?)
 - b. Are some standards already set by a governing or accreditation authorities such as State IT oversight authorities, federal net neutrality standards etc.?
 - c. Much of the departments data pushed outside of the Park System is frequently out dated and not compliant with other Agencies or consultants data systems. How can that be fixed?
 - d. Is there an appropriate industry standard model that can be followed?
 - e. Have other agencies or organizations such as NPS or other state agencies conducted some version(s) of system wide technology upgrades that we can learn both the good and bad from?
 - f. Should the modernization standards for mission-based service components be inherently different from those services that could be considered value-added and are not necessarily a legislatively mandated duty of the State Park System?
 - g. We **MUST** understand the What AND the Why of implementing new systems and engage everyone in the reasoning and benefits behind the implementation. How will that be accomplished?
 - h. Will the department invest in the users of any new system rather than allowing an outside consultant to dictate our operating methods
 - i. How can we develop a modern file transfer system to seamlessly accommodate large document sharing in and outside of the Department?
 - j. Can licensing fees be shared with other departments?
 - k. Can the department change to an electronic signature system on documents?

Implication: Establishing a “Standard” model for business analytics, reporting and messaging the core Park mission programs will require a vision of what the “standards” are. When a standards list is created, it is certain that some if not many will feel underserved or underrepresented. You cannot please everybody all the time and the current Park culture fosters individual creativity and a willingness to do what needs to be done with whatever resources you have at hand. Therefore, Park employees across the state are deeply invested in their current systems and programs and will be hard pressed to let them go for a “standardized” model that could dilute their specific messaging. This needs to be acutely and specifically kept in mind and in place where appropriate while building new systems.

Process

1. People
 - a. Committee members
 - 1) Andy Vasquez (co-chair), Orange Coast District Admin Officer
 - 2) Ron Birkhead (co-chair), Chief, Northern Service Center
 - 3) Phil Minas – DPR CIO
 - 4) TBD - DPR IT Representatives
 - 5) TBD – DPR Admin Services Representatives
 - 6) TBD – Technology Consultants
 - 7) TBD – Social Media Consultants
 - 8) TBD –
 - b. Subcommittee Members
 - TBD - DPR IT Representatives
 - TBD - District Representatives
 - TBD – Outside Consultants
 - c. Key Contributors (or participating organizations)
 - TBD - District Representatives
 - TBD – Communications Consultants
 - TBD –
 - d. Other Resources Needed
 - TBD – similar public or private entities performing similar services as DPR
 - TBD –
 - TBD –
2. Committee Structure – *The Committee structure is expected to be dynamic and nimble allowing for fluctuations associated with the change in the types of work needed as the tasks are identified and prioritized into the Committee work plan.*
 - a. **Committee** – The Committee will remain a small focused work group of ten or less people overseeing and participating in the subcommittee work groups. The Committee members will be responsible for ensuring all new systems and upgrades existing systems are in compliance with State guidelines and policies

and are representative of best management practices and not subject to short-term obsolescence.

- b. **Subcommittees** – Subcommittees are task and subject matter focused work groups. They will be comprised of one or more of the committee members and subject matter experts from within and outside the Department. The Subcommittee members will include both full commitment members and on demand contributors depending on the tasks being worked on and the resources both needed and available to complete the research, analysis and development of solutions ready for final evaluation and eventual implementation. Potential/Initial Subcommittee work groups could include:
 - i. **Infrastructure**
 - ii. **Revenue Systems**
 - iii. **Visitor Information Systems – Interp & Ed, Marketing**
 - iv. **Internal Document Controls**
 - v. **DPR Labor Streamlining – Timesheets and Shift Planning**
 - vi. **Department Wide Database Integration**
 - vii. **Budget and & Job Cost Reporting Systems (tie to Budget Committee)**
 - c. **Peer Review** – An independent group of Subject Matter Experts will be tasked with evaluation of the work generated by the Subcommittees to ensure the proposed solutions follow State, Departmental and industry standards and best management practices for the. Peer Review will occur at specified milestones along the development pathways prior to final recommendations being presented.
3. *Initial Tasks - The development of a task list requires more research into existing systems and capabilities before the true need can be understood, much less articulated. As such, the initial task list establishes how we might start the fact-finding, rather than attempting to articulate the mission from start to finish.*
- a. Cross reference and synchronize all 31 initiatives that impact the Modernization initiatives to determine interdependent relationships impacting all delivery schedules,
 - b. Research inventory of known DPR Subject Matter Expert resources statewide,
 - c. Analyze the results of past efforts to consolidate the Departments many data collection and storage systems.
 - d. Develop a compelling Five-Minute Drill presentation representing the Modernization initiatives for introduction to interested internal and external parties,

- e. Call-Out to identified resources seeking interest in participation in preliminary fact finding and to determine potential committee, subcommittee, contributor and peer review memberships,
- f. Call-Out department-wide for known existing databases maintained remotely seeking the format, operating system, purpose, use and scope of the captured data,
- g. Call-Out to DPR IT for known databases being maintained locally and all current implementations active within the department,
- h. Research and approach available and interested external sources,
- i. Match potential funding to the engagement of external sources,
- j. Assemble and collate Call-Out results.