Colorado Division
of Parks & Wildlife

Capital Development Work Group Report

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EXECUTIVE SUMMARY

The Capital Program at Colorado Parks and Wildlife is the advisory group responsible for guiding the development and management for all capital infrastructure within the agency. These permanent improvements enable staff and the public to safely access and enjoy a variety of outdoor recreation activities. Since the 1930's, nearly $800 million worth of roads, trails, docks, dams, water and electrical infrastructure, buildings and fences have been constructed on 44 State Parks, 230 State Wildlife Areas, 18 fish hatcheries, and 40 administrative offices. In addition to tracking and assessing the condition of these existing assets, the Capital Program administers the annual appropriations of capital dollars towards the needs of the agency.

What we do:

The combined program staff consists of engineers, landscape architects, an architect, construction managers and support staff of which more than half are licensed professionals within the State of Colorado. The combined agency's yearly average capital budget influx for the past five years has been around 27 million dollars per year with a three year timeline. With a staff of 30, the program advises or manages the planning, selection, design, procurement, contracting, construction, and closeout for around 300 active projects worth about 80 million dollars. The program is also responsible for administering compliance with health department regulations for water and wastewater, State Engineer regulations for dam infrastructure, State procurement statutes, and local or federal building and accessibility regulations. The inclusive cost to the agency for FTE staff and equipment to deliver these services is similar to construction industry standards.

Workgroup efforts:

The Capital Development Workgroup, as assembled by the Transition Team, consists of 10 individuals, two of which are co-chairs. The makeup of the group is 6 engineers, 1 architect, 2 landscape architects and a park manager. The workgroup is charged with identifying potential efficiencies resulting from the merging of State Parks and the Division of Wildlife. Two distinct categories were identified for maximum savings: capital efficiencies that would result from changes to the way infrastructure needs are planned and deployed, and process efficiencies which result from opportunities that might arise from a combined labor force. The following recommendations attempt to identify the components critical to the most efficient deployment of capital dollars:

- *Develop a longer term agency- wide assessment of needs and deploy capital funds to address those needs based on a statewide comparison of projects. A 10 year Capital Improvement Plan will enable a more predictable deployment of funds and will maximize the ability to meet the wider needs of the agency.*
- *Before a long term plan can be created, develop an immediate short term process to separate all capital dollars from operational budgets so the full spectrum of capital needs assessment is understood and addressed by the agency.*

- *Insure that accounting and procurement staff will be dedicated to the management of capital contracts and funds. Specialized knowledge is required to handle the variety of complexities associated with capital projects and having this dedicated staff would streamline the process and enable subject matter experts to focus more on their specific specialties.*
- *Create policies that insure that capital infrastructure receive the proper maintenance and code compliance in order to maximize the lifecycle and minimize overall dollars needed to keep the assets in fair condition. Likewise, policies that insure code compliance will reduce emergency expenditures and liability due to improperly installed capital items (for example, improper building wiring leading to fires, gas explosions, public health emergencies, etc.).*
- *Manage the program centrally but maintain regionally located staff. As an independent advisory role, the Capital Program can advance recommendations that balance statewide resources towards regional needs. Regionally located staff, however, can address the immediate needs of the region and administer the disbursement of capital dollars more effectively by being located within the region.*

Summary

Given the short timeframe associated with making these recommendations, the workgroup has relied on several previous studies done on the program, other State agency models and observations from within the existing program. All of the alternatives were included within the report based on unanimous agreement by members of the workgroup. Other potential efficiencies that have been discussed did not have enough information to base a recommendation on. Until a better understanding of the organization and strategic goals of the combined agency is understood, the attention of the workgroup has been focused on policies that encourage capital investments are disbursed transparently according to statute towards demonstrated needs that align with the agency's wider strategic plan. Insuring these large investments are made wisely will reinforce a message of stewardship, sustainability and preservation to the citizens of Colorado.

BACKGROUND OF THE CORE WORK AREA

DESCRIPTION OF SHARED WORK FUNCTION(S)

The Capital Development Program manages all aspects of the construction and rehabilitation of Agency facilities. The staff is made up of Engineers, Architects, Landscape Architects and other professionals experienced in design, construction, and procurement processes. The core mission is to deliver capital infrastructure and ensure the health and safety of our customers, the general public, agency personnel, and Colorado wildlife. A core value of the program is to minimize life cycle costs for all facilities.

Colorado Division of Wildlife

- *Centrally managed by the Engineering Section with 21 FTE, six of which are construction staff stationed in the Regional Offices but report to the Denver based Construction Manager. The remaining section staff are design engineers, contracts specialists, three supervisors, and support staff located in Denver. Fifteen are registered Professional Engineers.*
- *Projects span the entire spectrum of construction from basic property development, fencing, primitive roads and parking lots, paved roads, agricultural buildings, office buildings, residences, shooting ranges, classrooms, water diversion and irrigation projects, vegetation manipulation, fish hatcheries, dams and reservoirs, ground water extraction, water and wastewater treatment, and remodeling.*
- *Most of the projects are designed in-house with a design staff of nine FTEs. Typically boundary surveys, large projects, and specialty design work is outsourced to private consultants managed by the design staff.*
- *The average annual capital construction budget over the last five years (FY 07-08 through FY 11-12) was $9,000,000 (not including real estate)*
- *During the last 5 years the Section completed an average of 85 projects each year on 391 different properties.*
- *The average project has a budget between $50,000 and $100,000. A few have been in the multi-million dollar range.*
- *The DOW is the state's largest dam owner with over 103 structures. This includes 11 high hazard, 19 significant hazard, and 46 low hazard dams. The rest are a combination of no public hazard, and non-jurisdictional dams. The Engineering Section updates and maintains 30 emergency action plans associated with the high and significant hazard structures.*
- *The Engineering Section manages the Division's Controlled Maintenance Program which maintains 656 buildings, infrastructure on 18 fish hatcheries, and 73 high-capacity ground water wells that are significant to the Division's operations.*
- *The Engineering Section manages the Division's capital construction project selection process. Requested projects are examined by the staff for feasibility and the scope of work is defined with appraised costs. The Chief Engineer then facilitates the project prioritization and selection process among the managers. The Section staff then develops detailed project planning for the selected projects, where the scopes of work and cost estimates are refined prior to the capital budget request.*
- *Signature authority for capital construction funds is limited to the Chief Engineer for projects up to $150,000. The Director's Staff retains authority for all other contract encumbrances. This provides a continuity of work flow and consistent practices statewide.*
- *In summary, the Engineering Section provides a "one-stop-shop" for "turn-key" capital construction projects from inception through feasibility, budget, design, procurement, contract*

management, construction, warranty period, and completion and manages the capital construction, dam safety and controlled maintenance programs.

Colorado Division of Parks and Outdoor Recreation

- *Recently restructured under central management. Staff of ten FTEs, consisting of one capital program manager (licensed architect) in Denver; one program assistant; and eight project managers (three professional engineers, one civil engineer project manager, three licensed landscape architects and one landscape architect pending licensure). All project managers are located in the regional offices throughout the state.*
- *Project types include: visitor centers, residential, roads, parking lots, campsites, accessory buildings, picnic structures, marinas, breakwaters, docks, water and wastewater infrastructure, dam safety and inspections, wells, fences, trails, bridges and vegetation projects.*
- *Project design outsourcing decisions are based on the available resources and work load. The staff is capable of producing many of their own designs, and perform those services when it is feasible. Currently, most projects are designed with the use of consultants and FTEs direct the design and handle project oversight.*
- *Typical yearly capital budgets are between $12 and $16 million dollars for about 30 projects. The capital program typically manages 3 years worth at any given time totaling around $50 million dollars and up to a hundred separate projects.*
- *Project size varies from $20,000 to $5 million. The typical project size is between $200,000 and $750,000.*
- *Total capital value for Parks is approximately: $150 million for slightly over 1,000 buildings and $500 million for infrastructure, 400 miles of road (200 of which are paved) and 4400 campsites.*
- *Parks manages around a dozen or so dams and is responsible for their monitoring, maintenance andrefurbushment. There are six high hazard dams in the inventory.*
- *Controlled maintenance is handled by regional managers and involves capital staff if a project exceeds minimum complexity. This threshold is generally $5,000. Construction projects above this value require a Purchase Order or other formal commitment document. Capital staff involvement is required to ensure DNR purchasing that the State Fiscal Rules are followed.*
- *The Capital Program manages a portion of the capital selection process by assisting with project budgeting, objective ranking and creating a report for Directors Staff.*
- *Project managers have signature authority for field directives and 1st level approval for projects over $5000. The Capital Program manager has 2nd level authority for pay applications and staff expenses. Assistant Directors have signature authority for contracts.*

SUMMARY OF ANY SHARED POLICIES, DIRECTIVES, OR PROCEDURES

BOARD/COMMISSION POLICIES AND ADMINISTRATIVE DIRECTIVES		
Policy or Directive	**Number**	**Title**
Colorado Division of Wildlife		
Procedure	None specified	State Fiscal Rules
Procedure	None specified	General Requirements and Covenants for Capital Construction, amended 2003
Directive	M-5	**Minimum Standards for Building Construction and Individual Sewage Disposal Systems on Division of Wildlife Properties**

Procedure	None specified	All projects shall be in conformance with IBC (International Building Code) 2009 with addendums
Colorado Division of Parks and Outdoor Recreation		
Procedure	None specified	State Fiscal Rules
Procedure	None specified	General Requirements for Construction, 09/03/96, amended 01/01/2002
Procedure	None specified	All projects shall be in conformance with IBC (International Building Code) as adopted by the State with addendums.

STATUTORY AND REGULATORY GUIDANCE

STATUTORY OR REGULATORY GUIDANCE		
Statute or Regulation	**Section Number**	**Title**
Agency Operation		
State statute	24-33-107	Acquisition of state lands by department, interests in land
State statute	24-92-110	Rules and regulations (keep public project records)
State statute	24-113-103	State competition with private enterprise prohibited, exceptions (Parks may compete)
State statute	33-1-117	Assent of state to Pittman-Robertson act
State statute	33-1-117	Assent of state to Dingell-Johnson act
State statute	33-1-119	Federal aid projects income fund
Bidding/Contracting		
State statute	24-30-Part 14	Negotiation of Consultant's Contracts (including prior-existing design/plans and emergency contracts)
State statute	24-50-503/504	Personal Services contracts implicating or not implicating state personnel system
State statute	24-50-513	Contracts of six months or less, permitted
State statute	24-92-102/103	Definitions and Construction of Public Projects, competitive sealed bidding
State statute	24-92-105	Cancellation of invitations for bids
State statute	24-92-106	Responsibility of bidders and offerers
State statute	24-92-107	Prequalification of contractors
State statute	24-92-108	Types of contracts
State statute	24-92-109	Agency of government to submit cost estimate (required over $50k)
State statute	24-93-103/108	Types of contracts (Design-Build project delivery and contracts allowed)
State statute	24-103-202	Competitive sealed bidding
State statute	24-103-204	Small purchases (Shall not artificially divide)

State statute	24-103-206	Emergency Procurements
State statute	24-105	Construction Contracts
State statute	24-105-201/202	Bid security - Contract performance and payment bonds
State statute	24-106	Modification and Termination of Contracts
State statute	38-26-107	Supplier may file statement, notice, withholding funds (claims)
State statute	38-22-101	Liens in favor of whom, when filed, definition of person (State exempt from lien)
Inter-agency	N/A	GRC- General Requirements and Covenants for Capital Construction, Division of Wildlife, 2003
Facility Access and Safety		
Regulation	2 CCR 406-0 Article V	Accommodations for persons with disabilities (DOW)
Federal Law	U.S.C. 12101 et seq.	Title II, Americans with Disabilities Act (ADA) of 1990
Federal Regulation	29 CFR 1910.1025	(OSHA) Toxic and Hazardous Substances, Lead (exposure to employees)
Regulation	6 CCR 1007-2 Part 1	(CDPHE) Regulations pertaining to solid waste sites and facilities (deposal of asbestos)
State statute	25-7 Part 5	(CDPHE) Asbestos Control (asbestos inspection prior to renovation)
Regulation	5 CCR 1001-10 Part B	(CDPHE) The control of asbestos
Federal Regulation	29 CFR 1926	(OSHA) Safety and Health Regulations for Construction
Construction-Easements-Site work-Planning		
State statute	24-82-201	Power to grant, utilities, public streets and highways
State statute	24-82-902	Outdoor lighting fixtures funded by state, standards
State statute	30-28-110	Regional planning commission approval, required when, recording (County location and extents, master plan approval)
State statute	33-10-107	Powers of board (Parks-construction, controlled maintenance)
State statute	33-10-111	Parks and outdoor recreation cash fund created, accounting expenditures for roads and highways (Parks cash funds for roads)
Agency policy	GRCC, 1996 (Parks) 2003 (DOW)	General requirement for Capital Construction
Dam Safety		
Regulation	2 CCR 402-1	Rules and Regulations for Dam Safety and Dam Construction
Building Design		

State statute	24-30-1301	High Performance Buildings, exempt
State statute	24-30-1303	Separation from State Buildings
State statute	24-30-1304	Life-cycle cost, legislative findings and declaration
State statute	24-30-1305	Life-cycle cost, application, high performance standards, report
State statute	24-82-602	Required energy performance goal
State statute	HB-1349	State Parks self electrical energy self-sufficient by 2020
Water - Construction		
State statute	SB-40 or 33-5-101 to 107	Fishing stream protection
Regulation	COR030000	(CDPHE) SWMP- Storm Water Management Plan for Stormwater Discharges associated with construction activity
Regulation	COG070000	(CDPHE) Construction Dewatering
Regulation	5 CCR 1003-1	Colorado Primary Drinking Water Regulations
State statute	25-8-501 to 505	Colorado Water Quality Control Act
Federal Regulation	33 U.S.C. §1251 et seq. (1972)	Clean Water Act Section 404 - discharge of dredged or fill material into waters of the United States
Federal Regulation	33 U.S.C. §1251 et seq. (1972)	Clean Water Act National Pollution Discharge Elimination System (NPDES)
Federal Regulation	7 U.S.C. §136, 16 U.S.C. §1531 et seq.	Endangered Species Act Section 7 - Interagency Cooperation or consultation with Fish and Wildlife Service
Water - Wells		
State statute	37-90-105	(SEO) Small Capacity Wells
State statute	37-90-107	(SEO) Application for use of ground water
State statute	37-90-137	(SEO) Permits to construct wells outside designated basins
State statute	37-92-602	(SEO) Exemptions (for well use, capacity, etc.)
Regulation	2 CCR 402-2	Rules and Regulations for water well construction, pump installation, and monitoring….
Regulation	2 CCR 402-4	Rules for small capacity well permits in designated ground water basins
Water - Potable Standards		
State statute	25-1.5-202	(CDPHE) Water - minimum general sanitary standards
Governor Directives		
Directive	D-011-07, D-006-10, -2010-006	Reduce energy consumption, greenhouse gas emissions

Agency Directives		
Inter-agency	M5	Minimum Standards for Building Construction and Individual Sewage Disposal Systems on Division of Wildlife Properties

RELEVANT STRATEGIC PLAN ELEMENTS

State Parks Strategic Plan:

- *Goal 1: Connect People to the Outdoors by Providing Quality Outdoor Recreation Opportunities and Settings*
  - *Quality outdoor recreation opportunities depend on the careful delivery of the infrastructure that supports it. It is the policy of the Capital Program at parks to deliver projects that reflect the unique surroundings they are set into while serving the widest range of the public as possible. These practices and more increase the quality of the facilities used by the public.*
- *Goal 2: Conserve, Enhance, Manage and Interpret Natural, Cultural, and Scenic Resources*
  - *Policies within State Parks encourage a review of these resources prior to construction. Enhancing this would be the existence of a long range capital plan that attempts to balance resource preservation with public use.*
- *Goal 3: Foster and Actively Promote Excellence in our Workforce*
  - *State selection processes encourage excellence when new members join the Capital Program. Yearly performance objectives for all staff encourages continued professional development and excellence in our workforce.*
- *Goal 4: Stabilize and Strengthen Colorado State Parks' Financial Condition*
  - *The Capital Program encourages the specification of products and materials that minimize maintenance cost and maximize lifecycle performance.*
- *Goal 5: Strengthen Outreach and Partnerships*
  - *Many projects within the Capital program are partially funded through a cost-share mechanism of grants or other agreements. Staff within the Capital Program supports this through assistance in grant applications, reprioritizing project schedules to accommodate grant influx, and creating material for educational, outreach and funding solicitations.*

Wildlife Strategic Plan:

1. *Wildlife conservation, use and enjoyment including the rich traditions of fishing, hunting and wildlife viewing are part of Colorado's outdoor heritage, economic future, and overall quality of life.*
   a. *During the design and the construction scheduling process this is taken into account and incorporated into the designs themselves, when developing schedules and during construction so as to not impact the critical hunting and fishing seasons.*
2. *A primary consideration in wildlife management decisions is to maintain healthy, diverse and abundant wildlife.*

a. *The projects we work on are usually in direct support of this management principle. Whether it is a new wildlife friendly fence line to help manage livestock damage or a fish barrier to prevent non-native species from entering water bodies we are continually working to support this critical principle.*

3. *The quality, quantity, and conservation of wildlife habitat are essential to maintaining the state's diverse wildlife population and wildlife related uses.*

    a. *Design works with the each region to provide them with the facilities they need to maintain and support the local state wildlife areas. During each design we work with the local property technicians to ensure that their particular goals and needs are met through the design and construction of the project.*

4. *Science-based management decisions are essential to the conservation and management of Colorado's wildlife. Wildlife management decisions will include consideration of impacts to local communities as well as other social and economic information.*

    a. *As part of this principle we strive to develop solutions that both meet the local area needs as well as providing a value engineered solution which spends the allocated dollars in the most efficient way possible.*

5. *Partnerships and the involvement of private property owners, other agencies, local governments, public and private groups, citizens and volunteers are critical to the protection and management of Colorado's wildlife and wildlife habitat.*

    a. *Our group is in constant contact during the project development process and construction with several outside agencies and organizations including the US Army Corps of Engineers, Local Jurisdictions, other State Agencies and citizens. We work to build these relationships with the understanding that they are part of the overall wildlife management process.*

6. *Wildlife education and information enhances the public's ability to be wise stewards of wildlife, exhibit a strong conservation ethic, and support sound principles of wildlife management.*

    a. *This is particularly important during the construction process where we are working directly on the various State Wildlife Areas and in most cases within the habitats themselves. Whether it is in the development of the construction schedule to help minimize negative impacts to the wildlife, or educating contractors on the importance of keeping the work site and equipment clean to help avoid damaging the habitat's, we are continually working as wildlife educator's in our own unique way.*

7. *Quality customer service is vital to the Divisions' success.*

    a. *Customer service is not only an external function between the Division of Wildlife and the general public but is just as critical between the internal groups that serve the agency. We work to develop good customer service relationships with each individual we come in contact with and take pride in what we do.*

8. *The Division will manage itself and its wildlife areas to be models of effective, efficient, responsible and responsive public service.*

    a. *The design and construction staff works with each customer to understand their needs and attempt to develop designs that meet those needs in the most efficient and financially prudent way possible.*

9. *Hunting and fishing license fees are expected to continue to be the major source of revenue for wildlife programs in Colorado. The Division recognizes that new and different funding sources are, however, critical if the Division is to fulfill its mission. The division will allocate funds, consistent with law, based upon priorities established to maximize the Division's ability to fulfill its mission.*
    a. *Several of the Capital Improvement projects are funded using grant money or other sources of revenue. We work with the funding liaisons to make sure that we are in conformance with their requirements and provide the necessary documentation to assist with obtaining those critical funds.*
10. *The Division respects and values its employees and will endeavor to enhance their performance and success in service to the people of Colorado.*
    a. *Our team of designers, regional engineers and support staff work together on a daily basis to help the overall agency by providing the infrastructure and support needed to perform their tasks. The customer service oriented mindset and passion for what we do reflects in the projects we provide and the relationships we build both internally to our section as well as between the other regions and departments.*

ISSUES/CONSIDERATIONS

HISTORICAL CONSIDERATIONS

Organization charts from 1937 show an Engineering, Construction and Maintenance Section within the Game and Fish Department. Some drawings date back to around 1900, so exactly when it was formally established is unclear.

1940-1960's

The section primarily constructed dams along with other state projects, with two construction crews statewide.

Around 1960

The Association of General Contractors complained to the legislature about the Division constructing work in-house instead of bidding this work out to the private sector. Laws were then established requiring work to be bid out publicly. The construction crews were disbanded and equipment divided among regions. Currently, Wildlife has two heavy equipment operators, one in the SE Region and another who works in both the NW and SW Regions.

1966

The agency developed the professional staff to design and manage construction projects.

1972

Big changes to the agency occurred with the creation of the Department of Natural Resources, dividing the Division of Wildlife (DOW) and Division of Parks and Outdoor Recreation (DPOR) within the Department. State Buildings was also created, but the DOW, DPOR and CDOT were separated as their own entities for capital construction. This was due to the different types of projects these agencies

constructed compared to the ones State Buildings managed. Although the two new Divisions were created in 1972, the Capital Program remained combined until 1983.

1979

CRS 24-30-1303 (3) was adopted which exempted DOW, DPOR and CDOT from the State Buildings program. All agencies were in support of this change, due to the differences in their activities. State Buildings handles almost all architectural projects for college campuses, state office buildings, hospitals and the capital complex. This includes typical "vertical" construction such as office buildings, dormitories and classroom buildings. DOW, DPOR and CDOT perform more general civil engineering or "horizontal" projects such as highways, dams, reservoirs, fish hatcheries, camp grounds, primitive roads, cattle fencing and general site development. State Buildings did not have the expertise on staff to provide review or oversight of these types of projects.

1984

Various constituency groups complained about the intermingling of capital funds, and the Capital Program was separated in 1984. With the change, 9 Landscape Architects and Engineers moved to the DPOR and 17 Engineers went over to DOW. DPOR staff contracted most design work out to the private sector while DOW did most design work in-house. Both program groups remained centralized in Denver.

1995

The centralized Capital Program at DPOR was disbanded and placed under the supervision of four Regional Managers. This decentralization led to inefficient delivery of capital development services.

Also in 1995 DOW Field Engineering was placed under the centralized supervision of the Construction Manager in Denver as recommended by the 1995 Management Review. This change has been a success by maintaining the field engineers' office locations in the 4 DOW regions to provide direct support of the regional managers and their staff, while enabling increased efficiencies in contracting and construction management. In addition, the field engineering resources are now able to be leveled across the state to address the imbalance of construction projects from one region to the next.

2010

As a result of the Parks Division audit in 2008, the Capital Program was centralized in Denver with satellite regional offices for efficient delivery of regional projects. This has allowed the DPOR Capital Program to address several issues identified by the audit including better supervision over construction projects and contracts.

COMMONALITIES/SYNERGIES BETWEEN AGENCIES

Parks and Wildlife have several commonalities between their capital programs.

- *Both programs strive to provide cradle to grave services for their respective capital programs*
- *Both programs have field staff stationed proportionally in the respective regions of the state.*
- *Both programs have a centralized management organizational structure*
- *Both programs are responsible for dam safety*

POTENTIAL SHARED ASSETS

Both divisions have similar IT requirements, field equipment and the potential ability to combine regional office requirements. Additionally, each division brings with it various individuals with in-house design skill sets (landscape architecture, civil engineering) which could be combined and leveraged on multidiscipline projects.

FUNCTIONAL DIFFERENCES

Parks and Wildlife have some distinct differences between their capital programs:

- *Each agency has developed project delivery models that best suit typical project types, funding mechanisms and leadership structure of each agency.*
- *Wildlife provides in-house design services utilizing a staff of eight designers and one manager centrally located in the Denver office. Parks currently outsources a greater percentage of the design services as workload has increased or shifted to other areas within the program. Historically, about 25% of the total design need has been contracted out, but this ratio currently exceeds 80% of projects.*
- *The Parks development team is centrally managed from the home office in Denver, with project managers are located at the three regional offices. Project managers handle all aspects of capital development and controlled maintenance projects, from initial scoping through design, bidding, and construction. The Wildlife engineering section is centrally located at the home office in Denver, with regional engineers located at five field offices. The regional engineers assist in initial scoping and oversee construction. The projects are designed, bid, and managed from the home office. In both models, the personnel in the field offices are involved with the start and finish of projects. A Wildlife project includes a handoff to the home office for design, contracting, and administrative support; and then is transferred back to the field office for construction oversight and management until final acceptance. A Parks project will stay with the Project Manager throughout the process.*
- *Wildlife has a centrally managed Controlled Maintenance Program where all projects are selected through a state wide needs-based prioritization system. Parks has a dispersed program with projects selected individually in each of the three regions. Wildlife facilities include large areas of habitat, 18 fish hatcheries, and a number of offices and maintenance shops which are not generally open to the public. Parks facilities include the typical infrastructure of a small village, such as paved roads, water and wastewater systems, electrical grids, and public buildings. The nature of Controlled Maintenance projects is significantly different between Wildlife and Parks.*
- *Parks dams are managed by the project managers in the respective regions while Wildlife has a centrally managed Dam Operations and Maintenance Program.*
- *Wildlife has a dedicated staff to perform accounting and contracting functions which support the needs of the capital program directly while Parks has no such dedicated staff. These functions are distributed amongst the Parks Capital Program staff and a Parks contracting officer who handles all the Agency's needs.*

- *The Wildlife Development Program facilitates the capital project prioritization process with technical support during the initial scoping and budgeting process. The Chief Engineer then moderates two statewide meetings with field managers, where the projects are ranked and selected based on the available budget. The Parks Development Program supports the capital project process at several levels. The staff provides technical support to Field and Region Managers during the initial scoping and budgeting process. The Region Managers then recommend projects for approval by the Division Director based on the descending criteria of safety or legal requirement, facility preservation or planning need, and improved service or revenue enhancement. The Capital Programs Manager independently ranks the projects using the same descending criteria. The Division Director then selects the projects for approval by the Parks Board. The Parks Development staff provides similar support to the Region Managers for controlled maintenance projects, which are budgeted separately from the Capital Program.*

SWOT Analysis of Merging Core Functions

Table 1. SWOT Analysis of Merging Core Work Functions

	Positives	*Negatives*
Internal and often Associated with existing or past conditions	**Strengths**	**Weaknesses**
	• Highly competent group of capital programs staff dedicated to the success of the agency mission. • General processes for both Parks and Wildlife Capital programs share many commonalties allowing the merger to occur with minimal adjustment of individual programs. • Highly qualified staff, focused on problem solving, and experienced in design, construction, and facility maintenance. • Demonstrated ability to manage large capital development projects, using either the Wildlife or Parks models. • Financial and contracting procedures recently revised, based on external audits of both former agencies. • Contracting process works well for the needs of the Wildlife and Parks capital programs. • Good relationships and communication with internal and external customers. • Adequate resources to perform field operations and communication.	• Lack of a long-term property development planning process makes it difficult to structure an efficient organization to complete the Agency's missions. Result is that capital projects are sometimes selected based on the strength of an individual champion's goals, rather than the long-term needs of the Agency. • Communication between newly merged Capital Program staff and balance of clients in new Parks/Wildlife combined agency is not standardized. Communication protocol will need to be centralized with combined reporting functions and point of contact consolidation. • Parks capital accounting process shares assets with other portions of the Agency, resulting in a lack of efficiency. Wildlife has addressed this issue by having their accountants as part of the capital projects team. • Selection of Capital Projects is a competition for scarce resources among multiple players. At Wildlife, there are 16 needs lists addressing everything from hatcheries to habitat restoration and office renovation. At Parks, there are 42 parks with needs addressing health and safety as well as revenue enhancement. The priority of this process has the potential to become more complex in the merged Agency • Loss of asset value due to deficient controlled maintenance on capital asset. • Wildlife capital staff is responsible for daily facility operations and maintenance at the Wildlife HQ campus (6060 Broadway). This function has a significant time impact on section resources and does not efficiently utilize the professional skill sets of the capital staff.

External and often associated with future conditions	**Opportunities**	**Threats**
	• Potential for combined agency to utilize Wildlife's design group on Parks projects. This would provide the opportunity to streamline both cost and time for small to medium sized projects. A potential side effect of this is that additional Wildlife projects would need to be outsourced to free up Wildlife's design resources. • Wildlife has a centralized electronic library for project specifications that could be shared to the newly combined section with assistance from OIT. • Projects of similar nature (i.e. fencing, vault toilets, road maintenance) to both divisions could be combined with tasks order agreements. • Dam Operations and Maintenance Program could be combined and centralized under a single individual program. • A comprehensive asset management program is under development for both Wildlife and Parks, but it is not yet complete. In Parks, agency assets are maintained individually, rather than under a comprehensive program. Maintenance/Repair/Renovate/Replace decisions are more reactive than preventative, resulting in higher costs and service interruptions. In Wildlife the program is farther along, with maintenance projects managed centrally and initiated proactively. • Specialized software application (AutoCAD, GIS) licensing used by both parks and wildlife can be shared utilizing "network" style licensing structure.	• General compliance with health/safety codes on improvements/developments performed without involvement of Capital Workgroups. Threat of personal injury and or of property due to a controllable capital asset failure or malfunction. • The potential for existing cultures in the combined Agency resisting change or new ways of implementing the capital development process. • Accountability for sources of funding, and compliance with conditions of funding. • Stability of procurement policies and processes.

WORK GROUP SCOPE OF WORK

Scope of work :

Identify potential changes to the division, program or process to gain efficiency and or lower capital lifecycle costs while adhering to applicable statutes and agency strategic goals.

WORK GROUP ALTERNATIVES

There are several subjects which could be addressed to improve our efficiency in delivering services to the Agency. In order of priority, they are:

1. *The development of a 10 Year Capital Improvement Plan*
2. *Capital Selection/Prioritization Process*
3. *Accounting and Contracts Interface with Financial Services*
4. *Controlled Maintenance and Code Compliance*
5. *Project Management and Delivery of Services to the Agency*

ALTERNATIVES:

1. Development of a Long Range Capital Improvement Plan(LRCIP)

The current process of identifying needs on a yearly basis lacks the ability to forecast issues vital to the long term management and growth of our Agency. Capital infrastructure is useful for decades. Using a guided approach will optimize the efficiency of deployment, will provide a more stable alignment with our long-term strategic goals, will minimize spending on non-essential assets, and will create a transparent plan that can be analyzed by funding partners and policymakers. A long range plan will provide our leadership with a clear understanding of the resources needed for a sustainable system.

DESIRED OUTCOME AND MEASURE FOR SUCCESS

The desired outcome is a more predictable understanding of how the agency intends to grow, what facilities are needed for long-term support, and how large the capital program should be. Capital improvements are long-term investments to meet agency goals and provide services to the public. The permanence of these investments transcends the tenure of any single manager, administrator, director or commission. Therefore, capital program decisions should be aligned with agency goals, reflect broad agreement on the need for the facility or asset, be supported for use well into the future, and be developed through a transparent process.

The plan would have three major components:

A. *Determine the baseline of what would be required to maintain the nearly $800 million dollars worth of assets currently owned.*

This would entail using asset inventories from the Controlled Maintenance Programs

of Parks and Wildlife along with Life Cycle Cost Analysis to produce a long term forecast of the capital asset maintenance needs for the agency. This forecasted amount would be annualized and built into the base annual capital construction budget. Wildlife currently has a program (Asset Maintenance and Repair operating fund) currently in place although it does not include all Division assets at this point.

B. *The plan would identify the process for adding new assets to the inventory within the current infrastructure capacity.*

   A series of checks and balances would be in place to filter each prospective new project for alignment with Property/Area/Region development plans. Property Development Plans would need to be developed on the front end of this process. This would be a one-time effort to build the Property Development Plans and they would act as a steering document for capital improvements on parks, wildlife areas, hatcheries and administrative areas. The basic concept of creating a PDP would involve generating a list of needs for each for each property. This list would then be vetted by a planning group possibly consisting of a representative of financial services, biologists, capital programs, and a Regional Manager. This is not a master plan but rather best attempt to look as far into the future as practical and reflect the future development needs of the property.

   At a broader level, Regional Construction Plans would also be developed which would establish the goals of the region in order to ensure that various parks and wildlife areas would contribute to the future needs/demands of the public.

C. *Understand the long term capital investment goals and scope of development for all the properties owned by the agency.*

   This would be summarized in a statewide Long Range Construction Plan. It would most likely have three tiers, a 1-2, 3-5 and 6-10 years. The 1-2 year plan would consist of projects on the forefront of the capital development timeline and would reflect an ability to adjust to changing needs of the agency. This plan would most likely have small adjustments annually. The 3-5 and 6-10 year plans would be more of a long term vision of capital goals and allow time for project related activities such as funding sources, and market analysis to occur well in advance of the actual construction activities.

   The timeline for the creation of the complete Long Range Capital Improvement Plan along with all the Property Development Plans would most likely take on the order of 3 years to complete.

D. *Emergency or other urgent needs would be addressed with different process and budget that would be able to immediately respond to the need.*

An illustrative example of the entire process follows in figure 1:

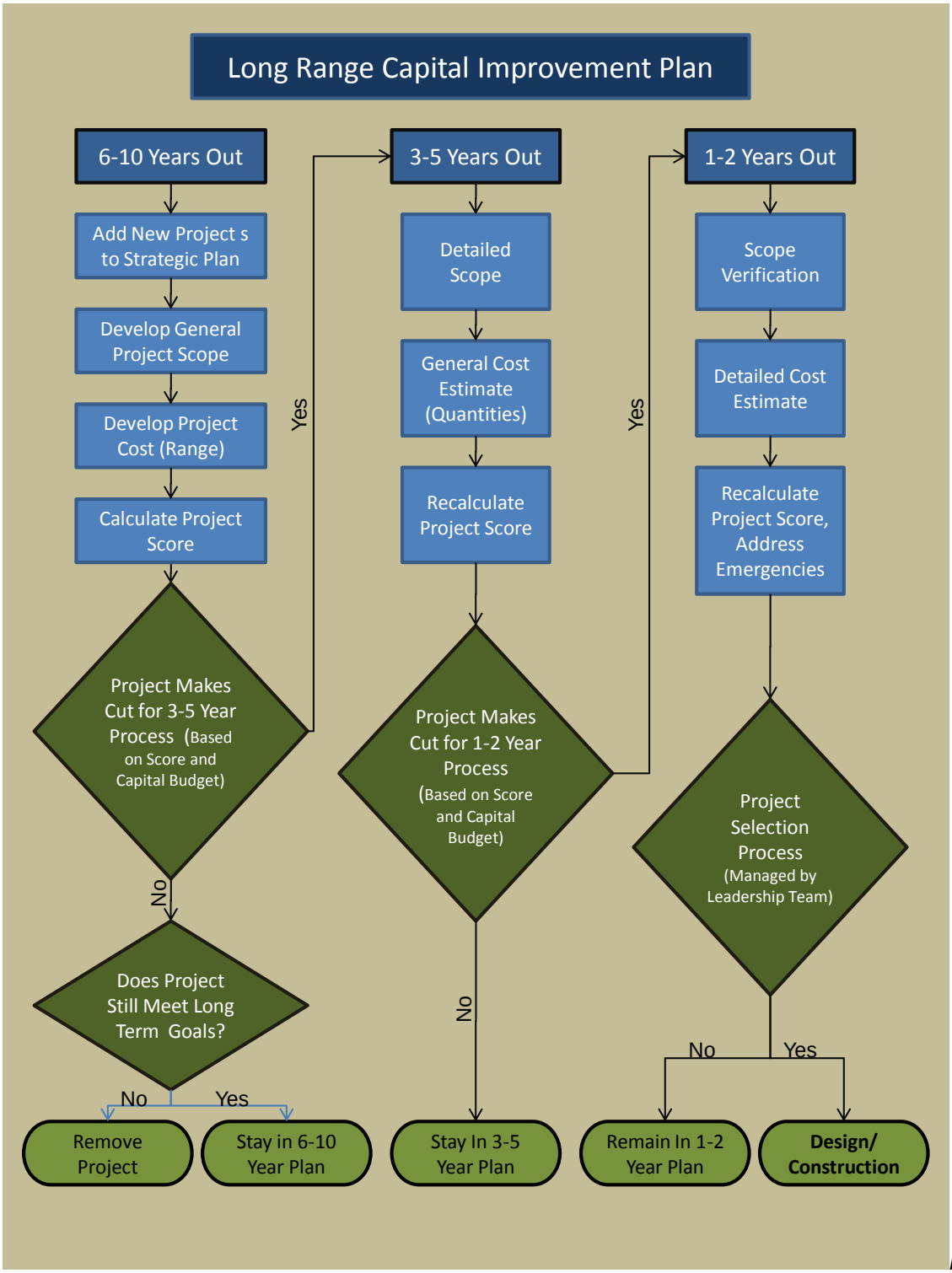


Figure 1

A breakdown description of the steps in the above process can be found in Appendix A

Measures of success would include the following:

A. *Better alignment of projects with agencies strategic goals*
B. *Maximizing sustainable life of capital investments via placing them in a framework where long term operation needs are understood and anticipated.*
C. *Reduce amount of annual time staff spends on prioritization process*
D. *Ability to ascertain the total capital demand and size capital funding program appropriately*
E. *Contracting strategies could be put in place and savings gained via maximizing economy of scale by bundling projects on common properties. Additionally projects of similar nature could also be grouped and bid by area or region.*
F. *More efficient capital program staffing geared to meet future demands of program funding.*
G. *Emergency fixes are minimized.*

IT CONSIDERATIONS

Implementation of an online system for project requests and progress tracking. Would allow for on-demand project rankings so that Regional Managers could determine approximate project timelines based on current budget projections and project scoring.

Conversion of existing project schedules and process databases into an SQL based system that is integrated with the Engineering Bid System. The current system is Microsoft Access based and will need to be redesigned to integrate the Long Range Capital Improvement Plan ranking system.

SHORT TERM CONSIDERATIONS

Short term include an interim process that attempts to address some of these concerns through an objective project selection process for any capital project for both agencies.

LONG TERM CONSIDERATIONS

Long term considerations would include creating the program or committee that will help establish the process and create the plan. This committee will consist of staff from several levels of the agency including director's staff, regional managers, parks managers, hatchery managers, area wildlife managers and capital program staff. Critical to this process is how the plan is supported and maintained into the future.

In order to create the Property Development Plans, a consultant will be engaged to help with the process. It will take several years to accomplish with over 40 parks, 300 wildlife areas, 18 hatcheries and 40 administrative sites to account for.

Once the Property Development Plans and Regional Construction Plans are in place along with the long term capital plan, an on-going effort will be needed to ensure that all the respective

plans are updated at appropriate intervals. This may result in the designation of one or more FTE's to provide the needed support.

STATUTORY CHANGES

Internal policies should be established, but statutory changes are not required.

ORGANIZATIONAL STRUCTURE CONSIDERATIONS

A planning framework to enable long term planning will require a team representing each facet of the Division to function properly. Once the recreational, marketing, natural resource, wildlife, fiscal and political needs are identified and quantified, the Capital Program could recommend infrastructure to support those needs.

In addition to a planning framework, clearly identifying the roles of staff within the agency but outside the program is essential for clear decision making and efficient deployment of capital funds. These roles should be defined, communicated, understood and respected among all staff for the efficiency to be realized. This insures that decisions regarding capital infrastructure are made as efficiently as possible.

2. Capital project identification/prioritization/selection/implementation process:

The process currently works as follows: At Wildlife, the scope of work and screening-level budgets are developed by the Capital Program and Region field staff. The Chief Engineer then mediates the selection of approved projects with the Region/Section Managers in a competitive and comparative process. At Parks, for projects over $150,000, the Region Managers prioritize projects based on their goals, and the Capital Programs Manager ranks their priority based on Health/Safety/Welfare/Other criteria. In both cases, the resulting lists are then submitted to the Assistant Director for final selection based on available resources and goals. Projects below $150,000 at Parks are not evaluated this way. They are selected by the Regional Managers with input from the Capital Development field staff and approved by the Director of Operations. Objective ranking for those projects statewide does not occur.

Until a longer term plan is developed, aligning a similar strategy for both agencies will result in several efficiency gains. This includes better alignment with agency strategic goals, full understanding of operational and capital costs associated with the selected projects, better ability to bundle similar types of work, and increased transparency of the full scope of capital improvements.

Analysis

The following table helps to understand the pros/cons of the current processes:

Capital Project Selection Process

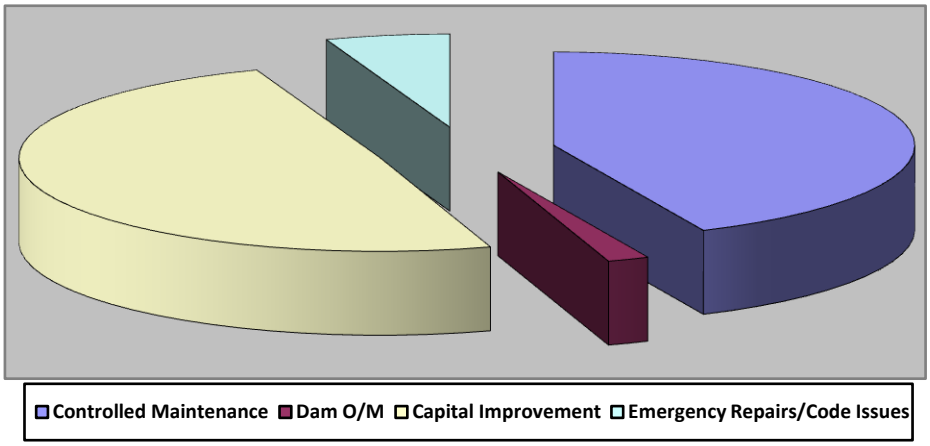
Strengths	
Wildlife Process	Parks Process
• Formal Project Request which ensures standardization of collected information • Managers Preferred Process – for" “apples to apples” comparison. Projects are sub-group in lists similar categories such as “boat ramps” “employee housing” or “SWA Improvements” making it easier to prioritize projects against one another • Statewide Process ensures equity and helps to identify the true needs of the agency regardless of location • Conceived with Rough Budget (Allows the ability evaluate scope versus budget – limits scope creep) • Well Documented – for cost and scope • Realistic Budget Values (Engineer’s Estimate) from detail second evaluation by engineering once project is identified as “likely to be funded”. This help s limits project costs from escalation one the project is bid for construction. • Allows for Face-to-Face Interaction across branches which ensures a clear understanding of the statewide needs of the agency by all involved with the process • Controlled Maintenance (Secure Funding) has a dedicated amount of funding annually to help ensure the agency does not fall behind on maintenance needs and jeopardize the asset life cycle.	• Formal Project Request which ensures standardization of collected information • Project Scoring Process (Life/Health/Revenue) • In Conformance with Performance Audit Recommendations • Cooperative Project Ranking between Capital Program Project Manager and Regional Managers • Well Documented – for cost and scope • Realistic Budget Values which help in the delivery of a project which satisfies the original objective set by the requestor. • Controlled Maintenance (Funding Blended with other line item)
Weaknesses	
• Puts capital staff in the middle of scoping adjustments making it difficult to provide input without appearances of bias. • Lack of Long Term Plan (Strategic Plan). The current process only plans one year at a time leading to lost opportunities gain efficiencies on many areas	• Lack of Face-to-Face Interaction across branches • Requires Commission/Board Review and Approval (would modify budget without input). This leads to unsatisfied customers who believe the project does not meet their original expectations due to inevitable scope cuts. • Lack of Long Term Plan (Strategic Plan) The current process only plans one year at a time leading to lost opportunities gain efficiencies on

	many areas

Recommendation

To improve the effectiveness and efficiency of the process, recommendations for selecting capital projects are:

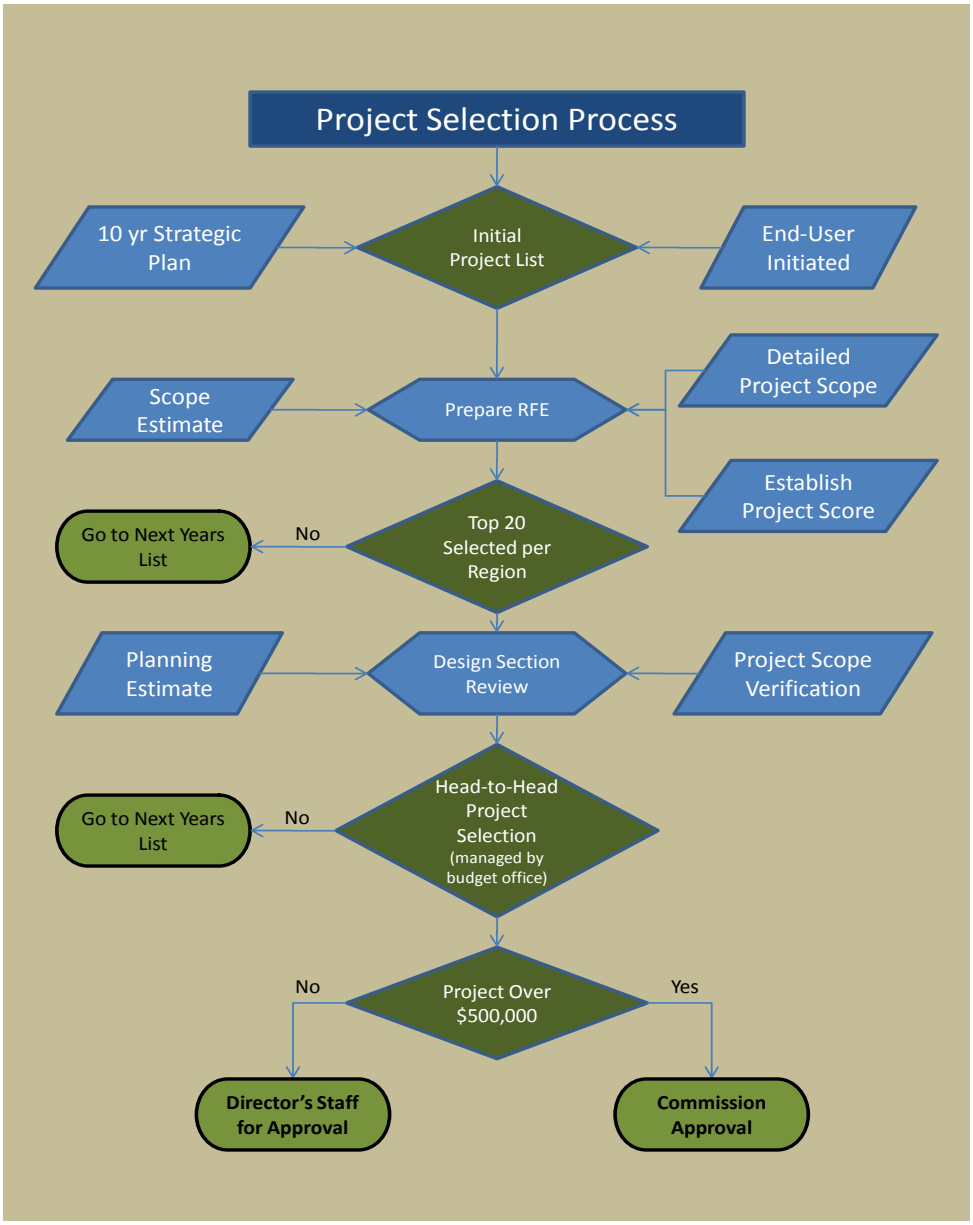
a. *With two different funding mechanisms for each agency, preserve two distinct systems for appropriating those funds. This ensures that capital funds are not appropriated or split between agencies.*
b. *Prior to the creation of a longer term capital development plan, develop a screening process for all capital projects where field staff and Region Managers establish initial priorities and recommendations, the Capital Program Manager then ranks the projects based on objective criteria, and finally, the Director of Operations or the Leadership Team selects the slate of projects for the fiscal year. For projects that are derived from cash funds at Wildlife, a process that would enable the Program Manager to objectively rank projects would be created. The results of the ranking would then be evaluated and selected by Directors Staff on an annual basis. The main goal would be to have a transparent system to analyze all capital projects, regardless of dollar value, from a needs based perspective, which would be scored objectively, and finally selected by Directors Staff.*
c. *Adequate Budgets for capital projects, controlled maintenance and operations would be separate and distinct. By keeping these separate, transparency is maintained and can be analyzed within the needs of each component. If these budgets are intermingled, there is no accountability and actual needs assessment is obscured. A current budget for capital and controlled maintenance The figure below illustrates the budget allocation of capital construction and maintenance:*



DESIRED OUTCOME AND MEASURE FOR SUCCESS

The desired outcome of this item is more consistent and stable delivery of capital infrastructure. Benefits for this include: stable brand identity, capital savings through planned deployment, reduced operational and maintenance costs, predictable budget estimates, and increased staff and public safety.

An illustrative example of the entire process is as follows in figure 2:



A breakdown description of the steps in the above process can be found in Appendix B .

Measures for success include greater understanding of deliverables, reduced operational and maintenance budgets.

IT CONSIDERATIONS

IT assistance may be needed in developing a merged project selection application. Strategic Planning should have a GIS component as well as ability to edit plan online.

SHORT TERM CONSIDERATIONS

Short term goals would be to develop a framework how this plan will be created as capital staff should be involved with the development of the 10 year plan. This includes changing the way projects are prioritized and selected for all Wildlife projects and Parks projects under $150K.

LONG TERM CONSIDERATIONS

Long term considerations will include deliberation and creation of a planning committee that can weigh short term needs with long term goals.

STATUTORY CHANGES

None

ORGANIZATIONAL STRUCTURE CONSIDERATIONS

None

3. Accounting and Contracts Interface with Financial Services and Procurement:

The capital program handles hundreds of purchase orders, pay sheets, documented quotes, agreements and contracts on an annual basis. Currently, the Wildlife capital program includes dedicated staff to process accounting and contracts functions. The Parks program uses administrative support that is shared with other Agency programs. The result is that the Parks professional staff spends considerable time outside of their area of expertise handling administrative functions such as tracking funding codes, processing contracts, grant applications and summary reports, processing paysheets, and filing.

To improve the effectiveness and efficiency of the process, we recommend that construction contracting, professional services contracts, and all capital projects accounting should be handled by dedicated staff for the combined capital program.

DESIRED OUTCOME AND MEASURE FOR SUCCESS

The desired outcome is to have licensed professionals and project managers focused as closely as possible on the skill sets other staff are not equipped to perform. Having in-house staff dedicated to accounting, budget tracking, grant and contracting functions would allow the professionals to focus on their specific areas of specialty.

IT CONSIDERATIONS

Will require incorporation of some of Parks processes into the Engineering Bid System which may require modification to the existing program and database structures.

SHORT TERM CONSIDERATIONS

The existing support staff within Wildlife will need to become familiar with Park's project program and current processes. Inversely, the Parks staff will need to have training on the use of the Engineering Bid System as well as the existing Wildlife process of contract and payment processing.

LONG TERM CONSIDERATIONS

As the contract and processing is transferred from the design team to the support staff additional resources may need to be shifted to accommodate the change in duties and responsibilities.

STATUTORY CHANGES

None

ORGANIZATIONAL STRUCTURE CONSIDERATIONS

The efficiency of the capital program would be improved if trained and dedicated accounting and procurement staff was provided..

4. Controlled Maintenance and Code Compliance:

The combined Agency field staff performs a broad range of maintenance tasks. The Wildlife property technicians operate much like ranchers, with fences, rangeland, and irrigation ditches under their care. Parks resource technicians operate much like resort town employees with water and wastewater systems, paved roads, and public facilities under their care. Both groups have buildings and dams to maintain. They do not always need the assistance of Capital programs staff, but we do work together.

Currently, both capital programs are also involved with controlled maintenance projects. For Wildlife, this is work generated by a statewide program based on condition assessments of the assets that has made it through the project screening process, and which requires engineering services. In the Parks system, capital staff is involved with any construction activity that will

spend more than $5,000. This is a result of our recent audit, and ensures that the staff follows the State Fiscal Rules.

Both programs are also involved with correcting self-help projects that may have resulted in violations of building codes or permitting requirements. This may include electrical or plumbing work, wetlands permitting, or septic system installation. These issues may create safety hazards or reduce the useful life of Agency assets.

To improve the effectiveness and efficiency of the process, we recommend a comprehensive controlled maintenance program. In addition, we recommend that any repair or modification to existing infrastructure be coordinated with regional capital staff. This will ensure that any code or State Fiscal Rules issues are identified at the outset. . Capital staff will provide outreach and education to the field staff and their management, and establish a system to quickly evaluate and advise on proposed work. This will include identification of subject matter experts within the Capital Program staff that can efficiently handle the issues. Funding for this would be through a separate budget from capital or operations.

DESIRED OUTCOME AND MEASURE FOR SUCCESS

The desired outcome would be planned deployment of maintenance cycles with a budget that is not subject to reallocation to other operational needs. This methodology would avoid having repairs due to lack of maintenance or emergency repairs that are more costly.

The Capital Program should serve a regulatory function for administering policies for and enforcing building code compliance. Alterations that are made in the field that ignore the code increase the risk for catastrophic and expensive failures or lawsuits related to accessibility. Statute requires that all plumbing and electrical work must be permitted and inspected by the State Electrical and Plumbing Inspectors. Otherwise, there is no formal method to assure code compliance with work performed by agency maintenance staff. We recommend that all alterations by staff be reviewed by Capital Development Staff. In addition, all of the work in the following list of items should be reviewed and approved by the Capital Development Staff.

- *Structural Modifications or additions.*
- *Roof replacement*
- *Siding replacement*
- *New construction of any type*
- *Demolition of any structure*
- *Modification that involves any structural component.*
- *Modifications to plumbing, gas, electrical, water, wastewater infrastructure.*

Local Permits may be required in addition on a case by case basis.

If the recommendations above are implemented, the followings positive impacts will result:

- *Reduction in the amount of projects which have health/safety impacts. Examples of this include unsupervised electrical wiring modifications which have been discovered after*

the fact and have cost additional expenses to remove and correct. Several of these examples have been dealt with in recent history in shop type buildings.

- *Increased life cycle performance of improvements. Consulting capital program staff prior to construction can benefit to the long term life cycle and reduce the maintenance needs of the improvement. This can be achieved with proper components including selection of roofing materials, site drainage patterns, and concrete mixes among others. Selection the proper materials up front usually involves a slight increase in initial construction cost, but results in a longer life cycle and reduced maintenance costs over the long term.*

IT CONSIDERATIONS

In association with the asset inventory, controlled maintenance may be enhanced with software that catalogs, tracks and sets alerts for maintenance intervals. While not required, this may increase the efficiency of dollars applied to building maintenance. Implementation of an online interface would assist with customer service request and tracking of project maintenance needs. The addition of a simple user interface to add area upgrades by the end user would allow for simpler asset condition tracking.

SHORT TERM CONSIDERATIONS

Parks and Wildlife inventory databases should be combined or have a single interface to view all assets.

LONG TERM CONSIDERATIONS

Continue to maintain a comprehensive asset inventory, inspections and recommendations for future controlled maintenance work. As the combined asset inventory continues to age the need for increased funding to maintain those resources will be become necessary. Newer facilities have less maintenance costs than facilities that are 20 plus years old. This is particularly critical since Park's has newly commissioned several new parks over the last several years.

STATUTORY CHANGES

None

ORGANIZATIONAL STRUCTURE CONSIDERATIONS

None

5. Project Management and Delivery of Services to the Agency:

Currently, the Capital Development program is operating under two different models to deliver project management and services to the Agency. The 21 FTE at Wildlife provide a centrally-managed, turn-key design and construction management service, using in-house resources. A

majority of their program staff is located in Denver, with six Regional Engineers and a Dam Operations Engineer in field locations. The 10 FTE at Parks provides a centrally-managed design and construction program, but the staff is located in the three Region offices and managed by the Capital Programs Manager in Denver. Parks utilizes consultants for most, but not all, of their design services, as well as for some of the construction management activities. Both programs are organized and have evolved to meet the needs of their respective agency under the guidance of Directors staff based on several outside auditsWe are currently reviewing the capital development organizational structures of other states that have combined parks and wildlife agencies. Avoidance of diversion is a key driver in those programs, and we anticipate it will be for us in the future. The need for a 10-year capital development plan is another key issue to efficiency with the other state programs. We have found that either of the service models currently used by the Colorado Parks and Wildlife capital development teams work effectively, given proper support. Further analysis may also indicate that both delivery models have specific advantages that suit particular project types, funding mechanisms or Leadership structures.

To minimize disruption of current project implementation, we recommend that the current organizational structure and process for each agency be maintained for the next 2 years. This will minimize disruption as the Agency is reorganized and prevent diversion of dedicated funding sources. We will pilot test the integration of our systems for mutual support by identifying and potentially combining core functions, begin utilization of internal subject matter experts and potentially steering projects towards specific ideal delivery methods. We will use that experience to optimize our delivery of services as the new management structure is implemented.

Within the agency, the Capital Program serves an advisory as well as a support role. The basic components of the Program include: Administrative Services, Contracting, Construction Management, Project Management, Planning and Design Services, and Support Services. In order to maximize the effectiveness offered by these services, the program should be centrally organized under a single program manager or Chief, with centralized support and design services, and regional staff to implement projects within reasonable proximity of the satellite offices. Other States have organized the Capital Program with the program manager supervised by the Director while others have placed this function under an Assistant Director, usually of support services. Regardless of this, the intent is to preserve the independent advisory role of the program to advance the coordinated interest of the entire agency. Likewise, insuring that whoever supervises or otherwise guides capital recommendations and staff has the proper skill-sets, training or professional credentials proportional to the complexity of these systems. Finally, budgets for capital maintenance or repairs should not have to compete with other operational needs such as equipment. Operations budgets should be adjusted to meet operational needs. Budgets for infrastructure maintenance are predictable and it is cheaper to maintain those assets than it is to have them fail or cause wider scale damage through a fire, flood or structural failure. If these budgets are intermingled, it is too easy to ignore what appears to be, at the time, a more pressing need. A separate budget also allows for accurate reporting on where the money is applied which is important for an agency striving to demonstrate stewardship of its resources, assets and transparency on how that budget is applied.

DESIRED OUTCOME AND MEASURE FOR SUCCESS

Both project delivery methods have benefits and each tends to suit the majority of project types the two agencies currently produce. A desired outcome would be to retain the benefits for both methods while enabling the sharing of skill sets with the overall goal of having the project type dictating the delivery method instead of each agency limited to one or the other. Measures for success include a more streamlined process for producing in-house designs on small park projects and the Total Project Management process for larger wildlife projects.

IT CONSIDERATIONS

The current hardware should be adequate for supporting this recommendation. Collaborative software may enhance the interactivity of staff and provide greater transparency.

SHORT TERM CONSIDERATIONS

LONG TERM CONSIDERATIONS

STATUTORY CHANGES

None

ORGANIZATIONAL STRUCTURE CONSIDERATIONS

Increased interactivity between staff may help reduce the reliance of consultants. However, the fairly stable statutory funding mechanism for capital projects will depend on staff to deliver these projects. The current cost of the program compared as a percentage to the total the dollar value administered aligned with industry standard. As a governmental agency, the additional burden of transparency and compliance with a myriad of specific laws inevitably adds a percent or two to comparative private sector rates. Reducing staff levels would likely result in the need to hire consultants to deliver the projects. The cost of hiring consultants is apparently similar to in-house staff with the higher wages of consultants balancing out the long term costs of staff. However, consultants cannot protect this interest of the agency, be as transparent, deliver the specific skill sets needed, or reflect the goals of leadership as effectively. Therefore changes to the organizational structure should be approached with great care to insure value to the agency is not lost and the interest of the public is not compromised.

ALTERNATIVE SUMMARY TABLE

Alternative Summary Table (adjust to 11”x17” if needed)

Strategy/Alternative	Potential for Staffing Savings (low, med, high, none)	Potential Operations Savings	Potential Capital Cost Savings	Capital Investment Required (if any)	Impact on IT and Other Work Groups (high, med, low, none)	List of Implementation Requirements and Anticipated Hurdles	List of Related “enhancements” such as added value or improved customer service
1. The development of a long range capital improvement plan	Low	Thousands	$100,000 to millions	May require a onetime investment to have a consultant lead the effort to develop Property development plan.	Low to Medium – would require involvement from several groups for development and input during creation of plan. Depending on amount of online interface that is determined to be needed will dictate IT involvement.	1. Create Property Development Plans 2. Rank master list of projects from all property development plans. 3. Build long range plan based on rankings and annual capital construction budget s available	1. Would be a valuable tool for the budget office in order to plan annual capital budget needs in years out. 2. Would allow capital programs section to better fill future vacancies to match the forecasted needs of the capital construction program
2. Capital Selection/Prioritization Process	None	$ 0	Thousands	$0	Low	Refine/ combine process	Balanced approach to capital selection
3. Accounting and Contracts Interface with Financial Services	Low	$50,000 /year	$0	$0	Medium	See report section	Increased productivity

4. *Controlled Maintenance and Code Compliance*	Low	Thousands	High	None	Medium/high	See report section	Minimized code infraction, emergencies Increased service life of infrastructure
5. Project Management and Delivery of Services to the Agency	Low	Low	High	None	low	See report section	Increased productivity

ADDITIONAL AREAS FOR FUTURE CONSIDERATION

A greater understanding of how the agency will be structured both physically in regions and financially through funding streams will help derive the optimal structure for Capital Development. The existing framework has the ability to respond to a variety of scenarios, but fine-tuning this to the structure of the Commission, Leadership, Regional Managers, and funding constituencies will result in an efficient, transparent and predictable Capital Program.

From a capital perspective, there exists a need for long range planning that can analyze the needs of the agency that forecasts future budgets, weighs operational, marketing, biological, recreational and public issues and guides decision-making and selection of projects and programs that fit the mission. Without these guidelines or a balanced approach to the growth of the agency, the ability to correct course or deploy capital is limited to solutions that don't anticipate long term goals. Short term needs fulfillment that is not coordinated will lead to ad-hoc results, a weaker brand identity, inconsistent quality and ultimately, questions regarding the professional stewardship of the State's resources.

Other subjects for future consideration include:

- *Diversion avoidance.*
- *Adoption of material, design, specification standards.*
- *Update and revise the Construction Covenants for the combined agency.*
- *Process for pilot testing projects through the joint agency.*
- *Merging the asset management system.*
- *Develop a work order system for maintenance.*
- *Refine the project selection process or roll this into the long range capital plan.*
- *Organizational structure changes.*

CONCLUSION

Key concepts to realizing efficiencies within the Capital Program include differentiating and addressing the two major areas where efficiencies can be found. Capital efficiencies will be derived from optimal planning and result in greater energy savings, strategic goal alignment, lower maintenance costs and optimal application of Capital dollars. Operational efficiencies within the program can be realized by combining shared components, maximizing skill sets within the team, and clarifying the roles of other programs as they relate to the Capital Program. In terms of magnitude, Capital efficiencies could be far greater than Operational efficiencies; however both work in tandem to be maximally effective in delivering these services.

Glossary:

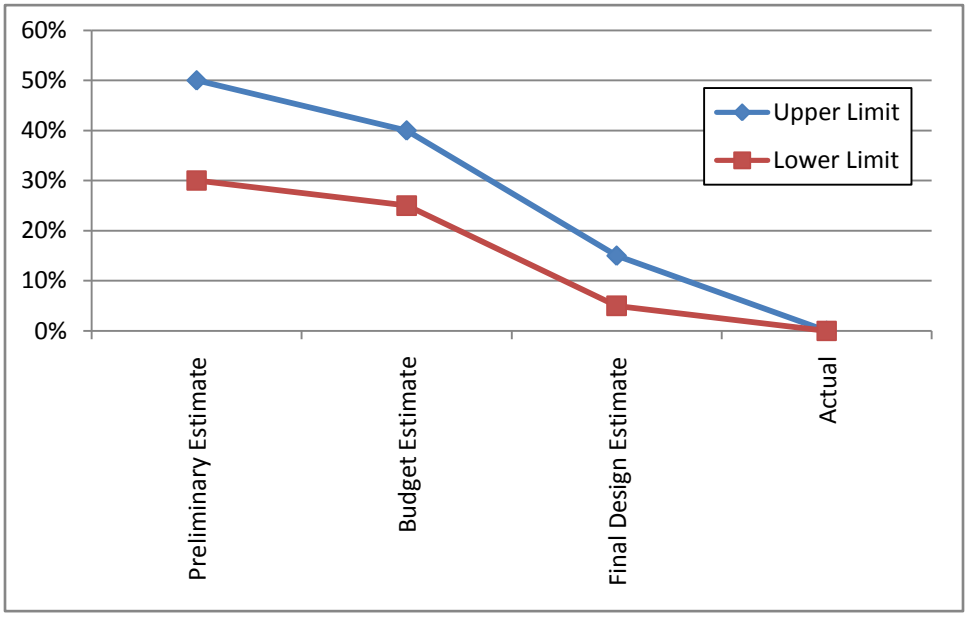
***ADA**: Americans with Disabilities Act*

***Asset Management:** is a systematic process of operating, maintaining, and replacing physical infrastructure to maximize the service life, minimize costs, and provide acceptable levels of service.*

***Capital Program:** is the process to build new facilities and rehabilitate or replace existing facilities. This includes offices and headquarters, marinas, dams, etc.*

***CDPHE**: Colorado Department of Public Health and Environment*

***Contingency:** is a specific provision for unforeseeable elements of cost within the defined project scope. Contingency is particularly important where previous experience relating estimates and actual costs has shown that unforeseeable events which will increase costs are likely to occur (as defined by American Association of Cost Engineers). For additional detailed information the reader should reference the Department of Energy's Chapter 11 (Contingency) which outlines various contingencies and their recommended percentages. The following figure is from Chapter 11.*



***Controlled Maintenance:** is the planned replacement of major infrastructure components that are owned by the agency on a scheduled basis. This includes large scale anticipated maintenance of roads, buildings, utilities, and other infrastructure.*

***Diversion:** is the use of Federal Aid wildlife funds and wildlife cash for non-wildlife purposes.*

***Engineering Bid System:** is the data system currently used by wildlife to manage the administration of capital projects. It includes tracking of funds, payments, contracts, and other items necessary to the business. It provides a single location to track the progress of all projects and funds.*

Engineer's Estimate: *is the project estimate established by the designer at various phases of design. The estimate is based o the best available information at the time regarding construction costs as associated to the market and locality adjustments. Project contingency is included as a separate line item in the estimate and varies based on level of design and complexity.*

Final Design Estimate: *is the project estimate established by the designer upon completion of the final design. The estimate is based on the best available information at the time regarding construction costs as associated to the market and locality adjustments.*

High Hazard Dam: *is a dam for which loss of human life is expected to result from failure of the dam.*

Life Cycle Cost Analysis: *is a summary of an asset's cost over its service life. This includes the initial capital investment, annual maintenance, and rehabilitation costs for the complete service life. It allows comparison between potential assets based on the complete cost, providing an "apples to apples" comparison.*

Long Range Capital Improvement Plan (LRCIP): *incorporates both the LRCP and the Controlled Maintenance Program.*

Long Range Construction Plan (LRCP): *outlines the construction plan for the entire agency within a 5-year and 10-year framework. The shorter time frame addresses all the projects that are underway or entering the active phase. The longer time frame presents the vision of capital goals and allows for adequate planning.*

Low Hazard Dam: *is a dam for which loss of human life is not expected, and significant damage to structures and public facilities as defined for a "Significant Hazard" dam is not expected to result from failure of the dam.*

No Public Hazard (NPH) Dam: *is a dam for which no loss of human life is expected, and which damage only to the dam owner's property will result from failure of the dam.*

Non-jurisdictional Size Dam: *is a dam creating a reservoir with a capacity of 100 acre-feet or less and a surface area of 20 acres or less and with a height of 10 feet or less.*

OIT *: Office of Information Technology*

Operations: *The process of keeping facilities and programs running. This includes cleaning toilets, plowing snow, cutting grass and hay, routine facility, equipment and grounds maintenance or repair. Purchase of equipment and supplies.*

OSHA*: Occupational Safety and Health Act*

Planning Contingency: *also referred to as the preliminary or budget contingency, this is the specific provision set aside during the scoping and design phases of the project. The amount of contingency will be based on project type and level of design.*

Project Contingency: *also referred to as the Final Design or Construction Contingency, this is the specific provision set aside for unforeseen conditions during the construction phase of the project. The amount*

of contingency will be based on the project type and complexity. Typically projects involving underground construction such as pipelines will have a larger contingency due increased potential for unforeseen conditions.

Property Development Plan (PDP): *addresses the facility and infrastructure capacities and needs for a given property. It addresses the age and condition of what is there, and how it meets the current and future needs of the Agency. This is a subset of the Facility Master Plan, and is focused on how the property can achieve the goals defined in the master plan.*

Regional Construction Plans (RCP): *outline the 5-year construction plan for an entire region, based on the Agency's goals as stated in the 10-Year Capital Plan. The RCP addresses scheduling and budgeting realities, and provides managers with a framework for their projects to proceed.*

Request for Engineering (RFE): *is a formal application whereby the requestor in cooperation with the Regional Engineer or Manager establishes the scope for the project as well as checking off a set of predetermined items such as property ownership. The RFE is used throughout the process for determining budgets and summarizing the work to be completed as part of the project.*

Scoping Estimate: *a general price estimate of a project.*

SEO*: State Engineer's Office*

Significant Hazard Dam*: is a dam for which significant damage is expected to occur, but no loss of human life is expected from failure of the dam.*

APPENDICES

A. *Long range capital improvement plan*

B. Capital Selection/Prioritization Process

C. 2008 Report to the State Auditor for Parks:

(copy can be found at P:\Capital Development\Workgroup Report Appendices\CSP 2008 Audit.pdf)

D. 2010 Division of Engineering Section Management Study:

(copy can be found at P:\Capital Development\Workgroup Report Appendices\DOW 2011 engineering management study.pdf)

APPENDIX A – Long Range Capital Improvement Plan

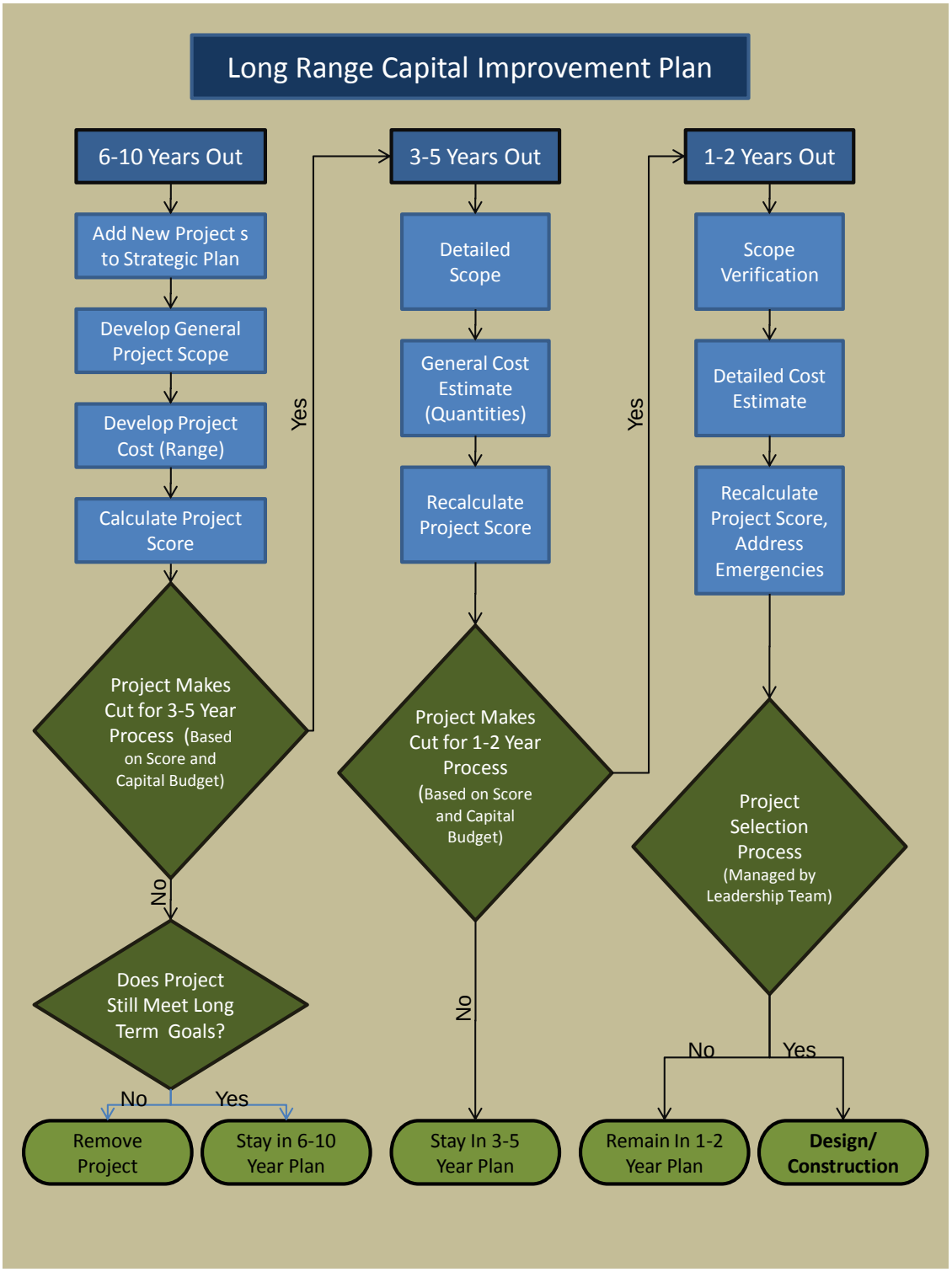
DEVELOPMENT

- **Develop Multi-Disciplinary Review Team**
  - Review Team would review Plan Bi-Annually for new projects.
  - Possible Members would Include:
    - Member of Director's Staff or Leadership Team
    - Field Operations
    - Parks Manager
    - Hatchery Manager
    - Biologist
    - Parks Planner
    - Design
    - Law Enforcement
- **Hire Consultant**
  - Inventory Existing Facilities and Associated Capital Infrastructure
  - Perform Interviews with Shareholders
  - Develop Standard Templates
    - Project Templates would establish improvement type and quantities based on a predetermined set of factors such as 1 maintenance building per every X,XXX acres of Wildlife Area or 1 boat ramp per XXX boats per year.
    - Templates would establish the baseline for project establishment on the Strategic Plan. This would allow for some form of uniform development statewide with regional exceptions as needed.
  - Develop Project Scoring Criteria
    - Hatcheries
      - Species Conservation
      - Cost/Benefit Ratio
      - Revenue Generation/Enhancement
    - State Wildlife Areas
      - Habitat Preservation/Improvement
      - Revenue Generation/Enhancement
      - Public Health/Safety
    - Parks
      - Revenue Generation/Enhancement

        - Public Health/Safety
    - Develop Regional Infrastructure Plan (Strategic Plan)

IMPLEMENTATION

- **Long Range (6 to 10 years):**
    - Update Periodically (bi-annually) Based on Division Goals and Objectives
    - Calculate Project Score (Based on a Predetermined Set of Criteria)
    - Cost Range Data (No detailed estimates)
    - General Scope Description on Items
    - Would include areas of interest for property acquisition.
        - Purpose would be to help plan regional improvements around potential needs for maintenance.
- **Medium Range (3 to 5 years):**
    - Detailed Project Scope Established
    - General Cost Estimate (Would Include General Quantities)
- **Short Range (1 to 2 years):**
    - Detailed Cost Estimate and Ranking Determined.
    - Year 1 and 2 projects would be included in the initial project selection process. Projects would be ranked by Regions as part of the Project Selection Process.


Long Range Capital Improvement Plan
6-10 Years Out
Add New Project s to Strategic Plan
Develop General Project Scope
Develop Project Cost (Range)
Calculate Project Score
Project Makes Cut for 3-5 Year Process (Based on Score and Capital Budget)
Yes
No
Does Project Still Meet Long Term Goals?
No
Yes
Remove Project
Stay in 6-10 Year Plan
3-5 Years Out
Detailed Scope
General Cost Estimate (Quantities)
Recalculate Project Score
Project Makes Cut for 1-2 Year Process (Based on Score and Capital Budget)
Yes
No
Stay In 3-5 Year Plan
1-2 Years Out
Scope Verification
Detailed Cost Estimate
Recalculate Project Score, Address Emergencies
Project Selection Process (Managed by Leadership Team)
No
Yes
Remain In 1-2 Year Plan
Design/ Construction

APPENDIX B – Capital Selection/Prioritization Process

I. Project Initiation

I. From Capital Improvement Plan

II. End-user initiated project

II. Request for Engineering Completed

I. Project Scope

II. Scope Estimate (initial - include scope contingency of 30%)

III. Project Score - based on pre-established ranking criteria

III. Project Manager/Engineer to set priorities with Regional Manager (only top 20 projects move forward)

IV. Project Planning

I. Projects which initially make cut-off are reviewed by Design Section and more detailed estimates developed (Include design contingency of 15%).

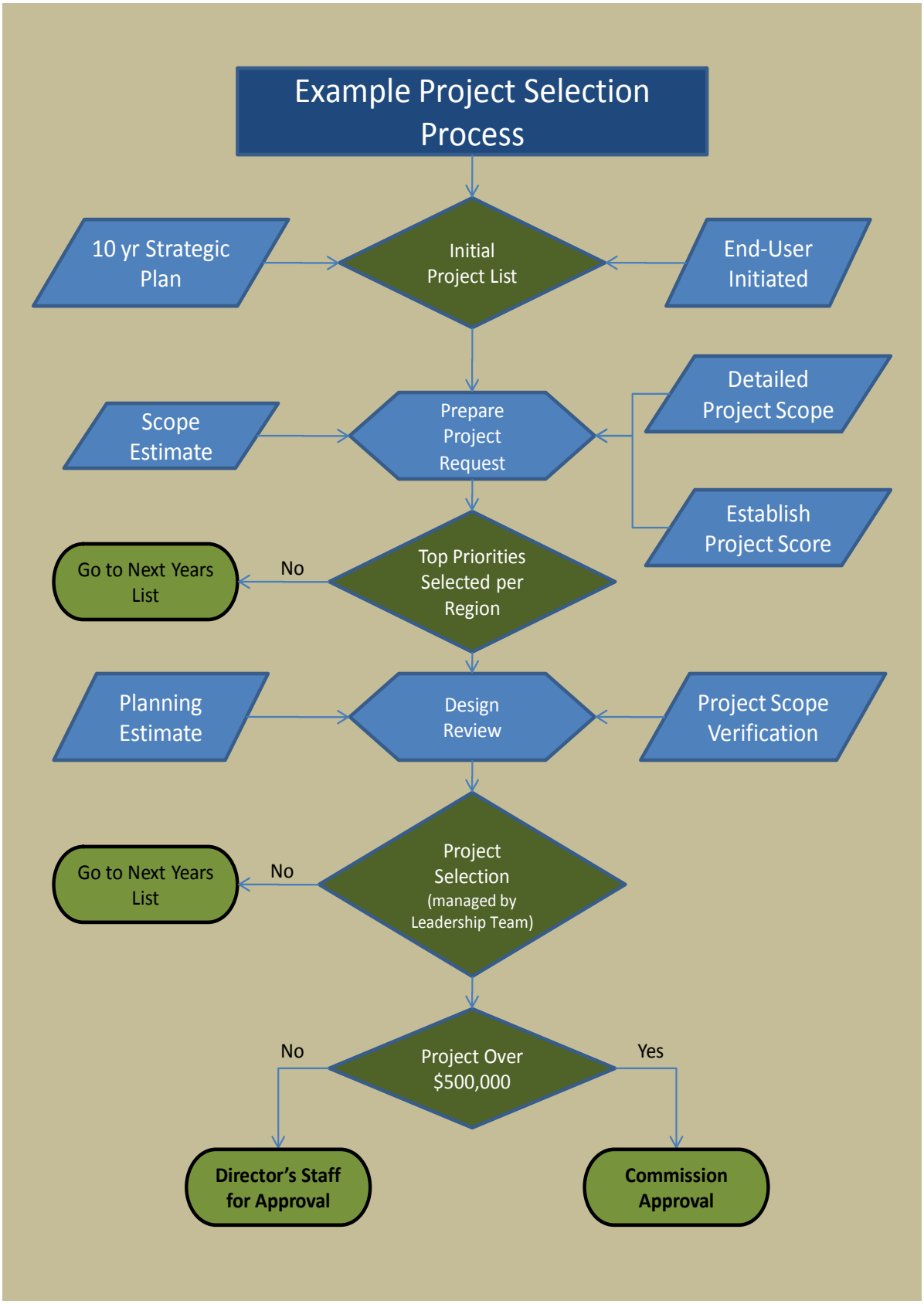
II. Updated cost estimates and scopes.

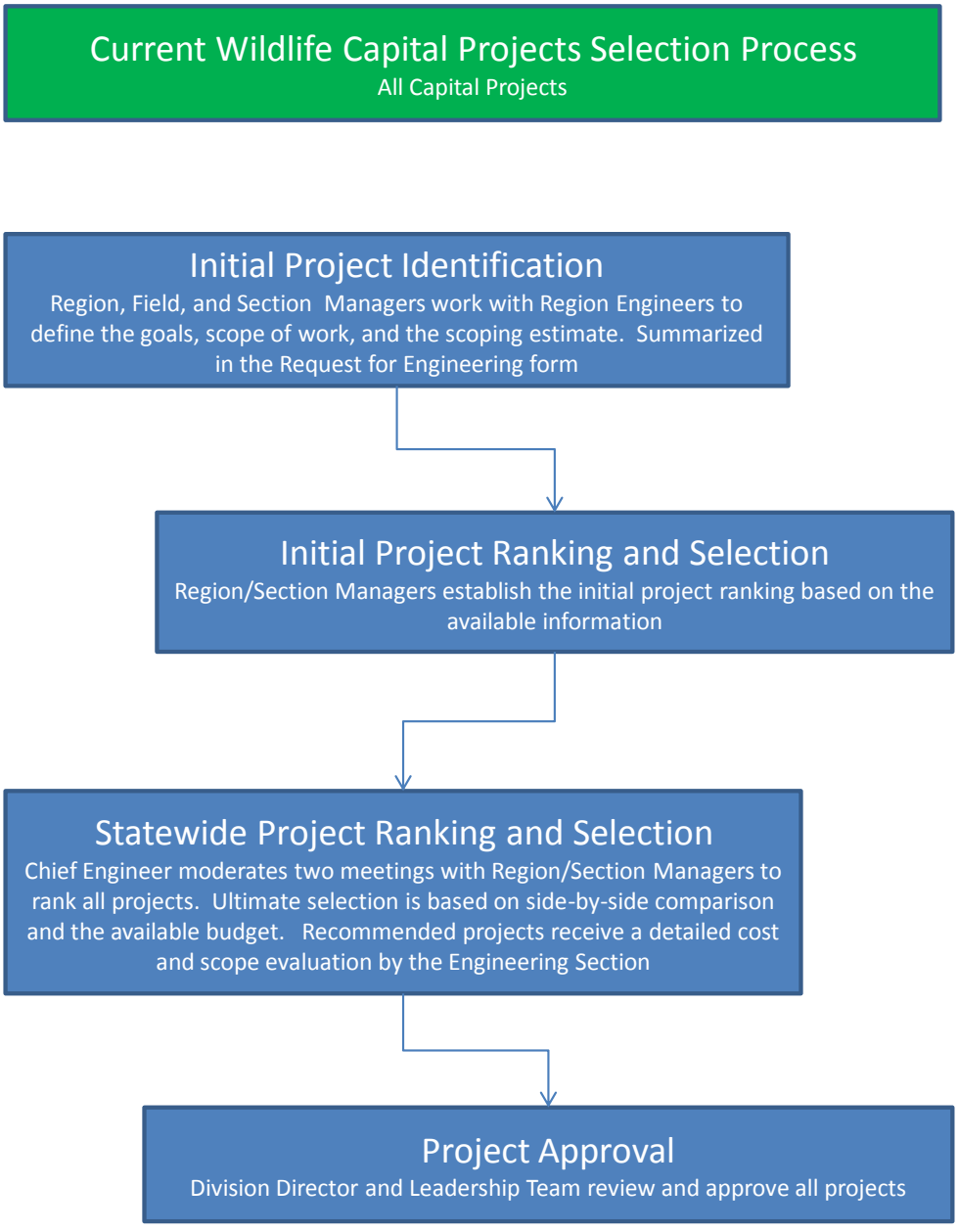
V. Project Ranking Process (Head to Head statewide)

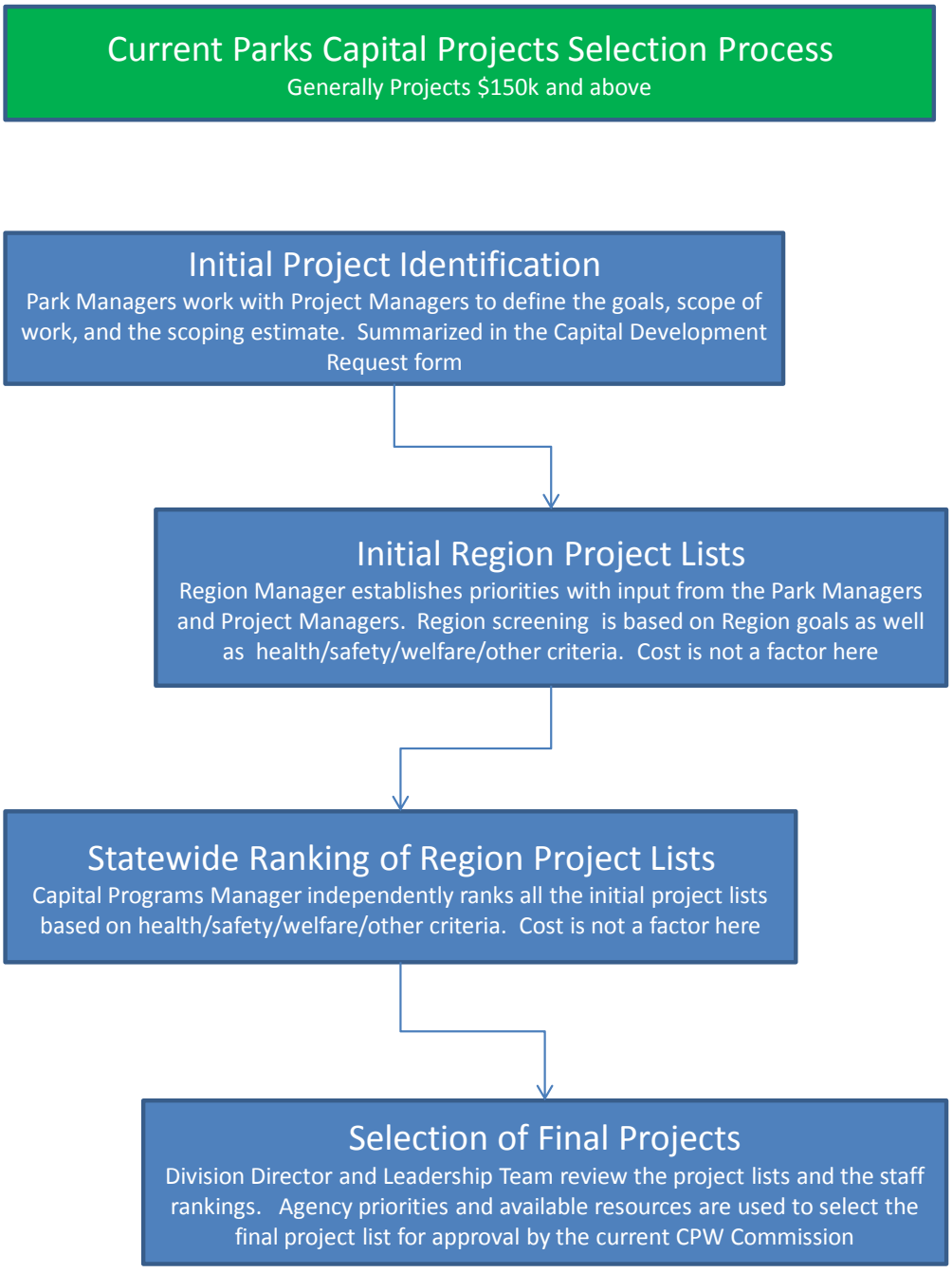
I. Projects are ranked and approximate cut-offs determined.

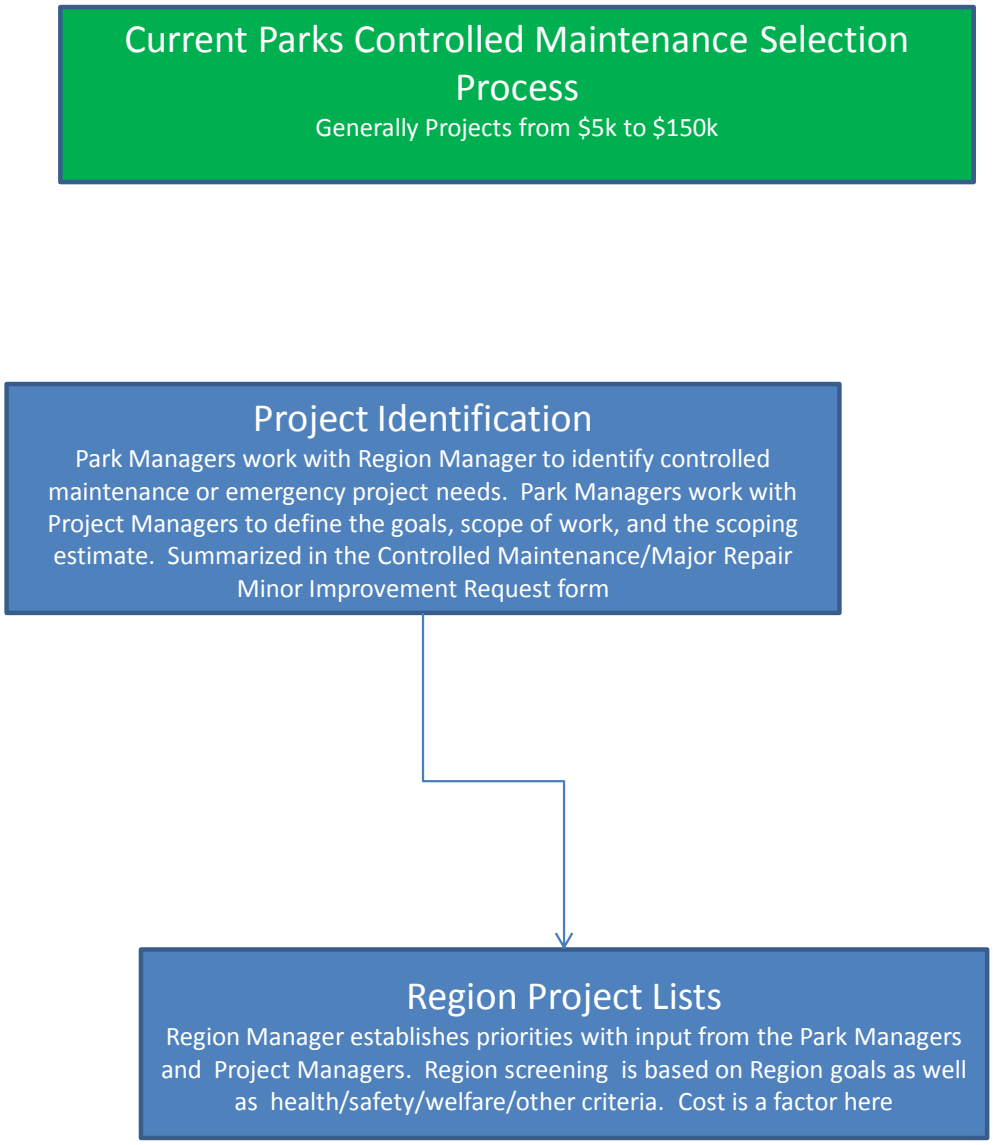
II. Process is mediated by Budget Office.

VI. Project list goes to Director's Staff for review and approval of projects under $500,000. Goes to Commission for projects $500,000 and larger.


Example Project Selection Process
10 yr Strategic Plan
Initial Project List
End-User Initiated
Scope Estimate
Prepare Project Request
Detailed Project Scope
Establish Project Score
Go to Next Years List
No
Top Priorities Selected per Region
Planning Estimate
Design Review
Project Scope Verification
Go to Next Years List
No
Project Selection (managed by Leadership Team)
No
Project Over $500,000
Yes
Director's Staff for Approval
Commission Approval


Current Wildlife Capital Projects Selection Process
All Capital Projects
Initial Project Identification
Region, Field, and Section Managers work with Region Engineers to define the goals, scope of work, and the scoping estimate. Summarized in the Request for Engineering form
Initial Project Ranking and Selection
Region/Section Managers establish the initial project ranking based on the available information
Statewide Project Ranking and Selection
Chief Engineer moderates two meetings with Region/Section Managers to rank all projects. Ultimate selection is based on side-by-side comparison and the available budget. Recommended projects receive a detailed cost and scope evaluation by the Engineering Section
Project Approval
Division Director and Leadership Team review and approve all projects


Current Parks Capital Projects Selection Process
Generally Projects $150k and above
Initial Project Identification
Park Managers work with Project Managers to define the goals, scope of work, and the scoping estimate. Summarized in the Capital Development Request form
Initial Region Project Lists
Region Manager establishes priorities with input from the Park Managers and Project Managers. Region screening is based on Region goals as well as health/safety/welfare/other criteria. Cost is not a factor here
Statewide Ranking of Region Project Lists
Capital Programs Manager independently ranks all the initial project lists based on health/safety/welfare/other criteria. Cost is not a factor here
Selection of Final Projects
Division Director and Leadership Team review the project lists and the staff rankings. Agency priorities and available resources are used to select the final project list for approval by the current CPW Commission


Current Parks Controlled Maintenance Selection Process
Generally Projects from $5k to $150k
Project Identification
Park Managers work with Region Manager to identify controlled maintenance or emergency project needs. Park Managers work with Project Managers to define the goals, scope of work, and the scoping estimate. Summarized in the Controlled Maintenance/Major Repair Minor Improvement Request form
Region Project Lists
Region Manager establishes priorities with input from the Park Managers and Project Managers. Region screening is based on Region goals as well as health/safety/welfare/other criteria. Cost is a factor here

Recommended Parks and Wildlife Capital Projects Selection Process