

2019  
Jurisdictional Scan: Park Maintenance Budgets

**Does your jurisdiction have any decision-making tools or advice for effectively estimating annual maintenance budgets for park systems?**

JURISDICTION	REPLIED	YES/NO	CONTACT NAME
B.C PARKS	X		
ALBERTA PARKS	✓	YES	<a href="#">Hiju Song</a>

**COMMENTS:**

I am sure you are aware that most maintenance programs should have varied strategic methodologies/approaches. To any maintenance program requires an understanding of the activities, optimal usage and type of assets within the organization.

Alberta Parks has 472 separate land bases in eight classes. To manage this we use a combination of the 4 maintenance/funding strategies to deal with the varied categories/types of assets within the Parks in our capital and maintenance renewal program.

- **Routine Maintenance (RM):** These activities are daily/weekly/monthly/seasonal functions that must be performed. Depending on the usage and service delivery level for an asset, its usually 10-30% of the operational budget. Alberta Parks uses operational funding for routine maintenance. Each of the 5 regions sets these targets based on their operational budget level, Park assets, usage and levels of service desired, etc..
- **Time-based Maintenance (TbM):** These activities are usually set at a fixed interval or seasonal depending on the asset. Alberta Parks has established a budget category called the Life Cycle Maintenance LCM). Approximately 25-30% of the Capital Budget is set aside for LCM and equipment replacement/purchases.
- **Condition-based Maintenance (CbM):** These activities are determined by the type/condition of the asset and usually can be quantified/qualified by its phase of life. These are usually larger than LCM projects to improve the longevity of the asset by either refurbishing it, enhancing it or replacing it with new. For example, renovation and enlargement of shower building, campground loop refurbishment, trail replacement, program to replace vault toilets in a region over 5 years, program to replace primary/secondary roads in a region, electrify and wifi a campground, etc. Alberta Parks has established a scoring matrix to determine what projects get approved and when it gets completed. Each year all 5 regions submit a list of projects and the CMR committee scores/ranks them. Based on the capital budget a list of approved projects are set. We have a rolling 5 year project list that we establish at least 2-3 years in advance and make adjustments if required 3 months prior to fiscal start.
- **Capital Replacement Investments:** Assets that require large scale investment, such as completely retrofitting a building or improving/establishing a park we submit a separate capital investment ask, such as Canmore Nordic Centre for \$30m and William Watson Lodge for \$10m; Lower Athabasca Regional Plan implementation for \$5m for 5 years, South Saskatchewan River Plan implementation for \$10 for 5 years and Castle Provincial Park implementation for \$2m for 5 years.

Alberta Parks budget is made up of two types of funding – Operational Budget (01 funding) and Capital Budget (05 funding). The TbM and CbM come from the Capital budget and we call it Capital Maintenance and Renewal (CMR). Alberta Treasury Board sets the capital budget and in the past 10 years its been anywhere from \$2m to \$30m. As far as I can see it's not based on any formula or industry best practice of setting 2-3% of replacement asset value. As in other jurisdictions, a large percentage of deferred maintenance that needs to be addressed immediately and we have a number of initiatives to re-strategize our approach to maintaining our parks.

<b>SASKATCHEWAN PARKS</b>		NO	<a href="#">Bruce McCannel</a>
---------------------------	---	----	--------------------------------

COMMENTS:  
 After some discussion with our Infrastructure and Capital Planning Branch we don't have much to offer in terms of decision-making tools or formulas.  
 Our annual capital budget is \$9.5M for capital projects and \$1.6M specifically for preventive maintenance expenses. The majority of our capital project funding is allocated to infrastructure renewal each year (80+ percent) with the remaining funds allocated for expansion and growth opportunities.  
 Our annual funding puts us on the low end of the 2-4 percent replacement value that is typically recommended.

<b>MANITOBA PARKS</b>			
-----------------------	---	--	--

<b>ONTARIO PARKS</b>		SOMEWHAT	<a href="#">Doug Barrett</a>
----------------------	---	----------	------------------------------

COMMENTS:  
 Well you would think it would be that simple. I have spoken with our Operation's Specialists and Managers of Park Operations in the Park Zone offices at different times. They do not have a formula or set procedure for Allocating funding specifically for maintenance to each park but I sent out the question to them just in case. One response came back from the Zone that others say pretty much sums it all up...

*We do not have a set % or \$ value that we use. Pessimistically speaking, our plant is not in good enough condition to (successfully) use a predictive/formulaic allocation model; we are compelled to make prioritization decisions in conjunction with the parks. Nor can we know/understand current conditions at the park level down to that fine a detail.*

*We generally ask for prioritized lists from the parks that represent as deep a list of needs/wants as they can provide at the time of the ask (it is not unusual that the total ask across the zone is 7 to 8 M).*

*In determining actual allocations; we consider a hierarchy of needs and allocate on that basis. The hierarchy always starts with immediate/immanent threats to human health and safety and flows down from there, terminating (usually) in new equipment acquisitions.*

*This can/has result(ed) in individual parks getting no cap expense allocation in a given year.*

*To be clear though; because of the scope of issues that arise; there is a great deal of discussion and decision making throughout the fiscal year. Consistency may not be optically evident year over year.*

*Until recently, we have allocated an amount to each cluster based on the number of operating parks for "health and safety" related costs. This amounted to a quasi- discretionary spending*

amount allowing the parks to respond to emergencies and breakdowns independently. There was no formula for that amount; it was based on current allocations, pressures and to some degree historical norms. The value shrank in accordance with the zone allocation; this fiscal that amount was zero.

Depending on the size of the zone allocation; I may also choose to send nothing out to the park level, instead, holding the full allocation at the zone and responding to unexpected breakdowns, emergencies and pressures as they arise. The remainder (if any) allocated out after the close of the operating season.

Not very scientific but does permit us to be flexible and appropriately reactive.

All of the Managers do the best they can with limited Capital Expense funding (see Capital Allocations attachment). Our overall Capital Expense is almost \$6.0M and the amount is divided up for the Zone Capital Expense projects. Most of that allocation is for renewal/replacement of various Assets under Capital Expense projects. Most of that allocation is for renewal/replacement of various Assets under the \$90.0K threshold... as anything over that is considered Tangible Capital Assets and funded out of the TCA pot.

- The Capital Allocations spreadsheet depicts the high level formula for splitting the remaining portion of CapEx (\$3.234M) between the Zones after the portion of the allocation (\$2.732M) is removed for special projects etc.
- Using our Visitation Stat's for each Zone (Day-Use, Camper Nights and Interior Camper Nights) and taking a 3yr average we've determined the % of Visitation for each Zone and this is applied to 30% of the allocation available.
- Then using the Long Term Infrastructure Plan (LTIP) data Stat's we come up with the % of Assets for each Zone and this is applied to 70% of the allocation available.
- The two \$ amounts are added to create the Zone Allocation Total and represents approximately 15% of the total Capital Allocation (CapEx and CapAsset).

	Asset Value		Visitation		Total	% of Total Allocation
Northwest	19.3%	\$ 437.5	7.11%	\$ 69.0	\$ 506.5	2.4%
Northeast	23.9%	\$ 541.6	16.04%	\$ 155.7	\$ 697.3	3.3%
Algonquin	15.4%	\$ 347.6	12.11%	\$ 117.6	\$ 465.2	2.2%
Southwest	18.8%	\$ 426.5	36.72%	\$ 356.3	\$ 782.8	3.7%
Southeast	22.6%	\$ 511.1	28.02%	\$ 272.0	\$ 783.1	3.8%

When we look at the broad picture:

- The total estimate for Assets is \$1.47B with an Annual Maintenance Cost (Industry Standard) at 3% of the Asset Value that would equate to \$44.2M.
- But out of the \$1.47B there is approximately \$588.2M of the Assets in Defective or Very Poor Condition and these require renewal.
- In between these two (New Assets and those in Defective or Very Poor Condition) are approximately \$586M worth of the Assets which are:
  - C: Fair Condition: Functioning as intended; normal deterioration and minor distress observed; maintenance will be required within the next five years to maintain functionality.
  - D: Poor Condition: Not functioning as intended; significant deterioration and distress observed; maintenance and some repair required within the next year to restore functionality.
- Therefore at 3% what we actually require is approximately \$17.9M in funding just for

maintenance and repairs alone.

What is noticeable is that the current \$5.97M of CAPEX allocation is used for renewal and replacement as well as for maintenance and repair of the minor Tangible Capital items so this small pot is further divided for uses other than just repair and maintenance.

Therefore you might surmise that if, based on the Asset value, we require \$17.9M just to maintain and repair Assets and our allocation is actually \$5.97M there is already a funding gap of almost \$12.0M every year. Again if half of the \$5.97 is used for renewal/replacement of the existing minor Assets then the gap is more like \$15M below what it should be each fiscal... just to maintain and repair items before they get to the state where a major Betterment or an entire Renewal of the Asset is required.

- When I apply \$17.9M to the equation and subtract the \$2.7M, already allocated, the figures change drastically (see below) and the Zone Allocation Total represents approx. 46.3% of the total Capital Allocation (CapEx and CapAsset).

	Asset Value		Visitation		Total	% of Total Allocation
Northwest	19.3%	\$ 2,055.8	7.11%	\$ 324.0	\$ 2,379.8	7.2%
Northeast	23.9%	\$ 2,545.1	16.04%	\$ 731.4	\$ 3,276.5	10.0%
Algonquin	15.4%	\$ 1,633.3	12.11%	\$ 552.4	\$ 2,185.7	6.7%
Southwest	18.8%	\$ 2,004.2	36.72%	\$ 1,674.3	\$ 3,678.4	11.2%
Southeast	22.6%	\$ 2,401.7	28.02%	\$ 1,277.9	\$ 3,679.6	11.2%

**Operational Funding:** Then we get into the Operational Funding or Other Direct Operating Expenses (ODOE). Most of that funding per park has been provided from Historical allocations and if there are increases required to the allocations, of specific aspects of the funding, then Business Cases (BC's) are prepared and submitted to explain the increase and why it's required for Other Direct Operating Expenses (ODOE) on a park by park basis.

And Finally it's one thing to have such a large pot of money and quite another to put it to good use with the staffing levels. Increasing the funding available also requires increasing FTE's to deal with the additional load for resources, procurement, etc.

<b>SEPAQ (QUEBEC)</b>	<span style="color: red;">X</span>		
<b>NEWFOUNDLAND &amp; LABRADOR PARKS</b>	<span style="color: green;">✓</span>	NO	<a href="#">Geoff Bailey</a>

**COMMENTS:**

Our Government recently implemented a Zero Based Budgeting approach for all Departments and Divisions. Each Division has to identify all anticipated expenditures for the upcoming fiscal year based on the previous year's budgetary allotment and justify those expenditures. I review all previous year expenditures and identify areas for savings, continued expenditures and possible areas for reallocation of funds. Any projects not identified in the submission require Treasury Board Approval before the funds can be spent. We currently have no capital investment budget so we are sticking mainly to maintenance.

We prioritize work based on input from our field staff and from the public (outside of staffed camping parks). Any large maintenance jobs are sent for my approval since our staff only have approvals to expend up to \$500 at one time. I prioritize work based on available funds from our Zero Based Budget submission, pressing need or whether it represents a public

safety/staff safety risk.  
 We don't have a formal asset management tool that we use for planning.

<b>NOVA SCOTIA PARKS</b>		NO	<a href="#">Matt Parker</a>
--------------------------	---	----	-----------------------------

COMMENTS:  
 For NS we are given a budget to work with, and always have more projects than what can be done. So, what we do is try to prioritize our annual maintenance projects based on, does it affect visitor experience, has it failed, is its critical infrastructure, etc. We also do a cost estimate for each project and then try to get as many of the highest priority items done each year.

We keep a running spreadsheet of all projects and if we get extra money or a project cost less, we go back to this spreadsheet and pick the next project with the highest priority and fits the budget. We also use this money to try and get more money.

FYI our infrastructure maintenance budget is approximately \$350,000 and our capital improvement (larger projects) is \$1.0 million annual.

This is spread across 20 camping parks and 110 day use parks. We estimate our maintenance backlog is at least \$60 million.

<b>PARKS NEW BRUNSWICK</b>			
<b>P.E.I PARKS</b>			
<b>GOVERNMENT OF NORTHWEST TERRITORIES PARKS</b>	Inquiring Jurisdiction		<a href="#">Evan Walz</a>

COMMENTS:  
 NWT Parks is reviewing maintenance funding levels for all parks in their system. The goal is to ensure adequate budgets are available to properly maintain and protect infrastructure investments.

The NWT would like input from other jurisdictions on maintenance funding levels and whether or not a formula or funding model is used to establish parks maintenance budgets. The information gathered may be used to help establish something similar in the NWT. It is important to recognize the scope of this exercise, and more importantly, of the NWT Parks System: The NWT Parks System is used seasonally from May to October, has approximately 245 assets in 33 parks across the Territory, with a total value of \$45 million.

If CPC directors are able to assist with the collection of this information, they, or their relevant staff, are asked to contact Evan Walz, Director of Tourism and Parks, their relevant staff, are asked to contact Evan Walz, Director of Tourism and Parks, Government of the NWT at [evan\\_walz@gov.nt.ca](mailto:evan_walz@gov.nt.ca). NWT Parks Managers will follow up directly.

<b>NUNAVUT PARKS</b>			
----------------------	---	--	--

YUKON PARKS	X		
PARKS CANADA	✓		<a href="#">Davina Brown</a>

**COMMENTS:**

High level maintenance budgets may be estimated by converting an asset's useful life into an annual reinvestment rate.

The annual maintenance and repair (M&R) reinvestment rate is determined by dividing one (1) by the useful life.

For a building with a uselife of 50 years, 1/50 (or 2%) of the total asset value should be budgeted each year (on average) for M&R. Useful lives for other asset types are noted at the bottom of this email

The 2% annual maintenance reinvestment rate for a building is an average. For a new asset, the annual investment in M&R will be lower than 2% / year however as the assets age, the rate is typically higher.

The annual capital reinvestment rate roughly equals the annual maintenance reinvestment rate for an asset.

**Some definitions/explanations that may be useful.**

**Useful Life** is the estimate of the period over which an Asset is expected to be used. It should take into consideration factors such as expected future usage, effects of technological obsolescence, expected wear and tear from use or the passage of time, the Maintenance and Repair program, studies of similar items retired, and the condition of existing comparable items.

- An Asset's Useful Life is reached through required Maintenance and Repairs.
- An Asset's Useful Life is extended through Capital interventions (Renewals).
- For contemporary Assets, a number of Renewal interventions may take place, such that an Asset constructed to last, say 50 years, lasts 150+ years. At some point however, it will reach the end of its Useful Life when the Asset is determined not to be fit for its intended purpose (e.g. obsolescence). At that point, assuming it has not been categorized as heritage, the Asset is either Replaced, Divested or Demolished. A new Useful Life is generated for an Asset that has been Replaced.
- For heritage Assets, the goal is to extend the Asset's Useful Life for as long as possible through Capital interventions (Renewals).

**Maintenance and Repair** expenditures are incurred through actual work performed against an Asset to keep it in an acceptable condition and to preserve its ability to deliver a defined level of service over the Asset's Useful Life. Maintenance typically refers to activities aimed at retaining an Asset's functionality whereas repair typically refers to activities aimed at restoring an Asset's functionality. They include:

- Cyclical Maintenance such as preventative maintenance, condition inspections and component replacements.
- Repairs or Reactive/Corrective Maintenance such as replacement of damaged components so that the Asset can be brought back to a normal operating condition.
- Catch-up Maintenance to address Deferred Work.
- Examples of maintenance and repair activities include... (to be added).

- For heritage assets, maintenance and repairs includes conservation treatments related to restoration, preservation, rehabilitation or stabilization.

**Capital** refers to capitalized expenditures related to the acquisition or construction of New Assets and the Betterment (Renewal, Improvement and/or Replacement) of existing Assets.

- **New Assets**, acquired or constructed, have been assessed as necessary through a rigorous strategic assessment that takes into account contribution to program objectives, Whole-of-life Costs and impact on current Maintenance and Repair and Capital requirements.
- **Renewal** A capital intervention involving the reconstruction or replacement of enough components such that the asset's useful life is appreciably prolonged. It improves the condition of the asset and may result in an enduring increase to the value of the asset.
- **Replacement** A capital intervention involving the replacement of an asset with another having the same function. Where the intervention results in an asset that is appreciably different from the original, then the asset is considered new, versus replaced.
- **Recapitalization** A capital intervention involving renewal or replacement of an existing asset.
- **Improvement** is a capacity, change of use or functional improvement or retrofit to an existing asset that results in an enduring change to the purpose of an asset or increase to the functionality, capacity or value of an asset which may or may not significantly extend its useful life. Improvement expenditures are capitalized and include, but are not limited to:
  - capacity improvements such as building additions, campground and parking lot expansions;
  - change of use improvements such as the repurposing of a building from operational use to visitor use;
  - functional improvements such as mechanization of locks, campground reconfigurations, energy efficiency improvements; and,
  - retrofits such as code compliance upgrades and barrier free access upgrades.
- For heritage Assets, Renewal includes one or more conservation treatments such as **restoration, preservation, rehabilitation or stabilization**.
- For contemporary Assets, Renewal includes interventions such as major component **replacements, partial reconstruction, or stabilization**.

**Here are some of the useful lives we have been using at Parks Canada**

<b>Asset</b>	<b>Annual Capital Reinvestment Rate 2018</b>	<b>Useful Life 2018</b>
Buildings	2.0%	50
Bridges	1.7%	60
Fortifications	1.7%	60
Heritage Structures and Vessels	1.7%	60

Improved grounds	4.0%	25
Roads	n/a	n/a
Roads: Pavement (0.25 CRV)	10.0%	10
Roads: Sub-surface (0.75 CRV)	2.0%	50
Highways	n/a	n/a
Highways: Pavement (0.25		10

Highways: Sub-surface (0.75 CRV)	2.0%	50
Marine Assets	n/a	n/a
Marine: Dams, Water-retaining Structures, Marine Walls, Navigation Channels	1.3%	80
Marine: Locks, wharves, docks, boat launches, breakwaters, boom and safety barriers, buoys, other marine structures	2.5%	40
Presentations (Exhibits)	10.0%	10
Utilities	2.5%	40

**Response Rate: 6/14 for 43%**

**Key Findings:**

- Alberta:
  - 4 maintenance/funding strategies to deal with the varied categories/types of assets within the Parks:
    - Routine Maintenance (RM): 10-30% of operational budget
    - Time-based Maintenance (TbM) , also known as Life Cycle Maintenance (LCM): 25-30% of capital budget
    - Condition-based Maintenance (CbM): From capital budget. Each year all 5 regions submit a list of projects and the CMR committee scores/ranks them. Based on the capital budget a list of approved projects are set. We have a rolling 5 year project list that we establish at least 2-3 years in advance and make adjustments if required 3 months prior to fiscal start.

