# THE GOVERNMENT OF THE NORTHWEST TERRITORIES CORPORATE CAPITAL PLANNING PROCESS



JANUARY 2013



#### Prepared By

Infrastructure Operations and Accommodations Asset Management Department of Public Works and Services Government of the Northwest Territories

and

Management Board Secretariat Department of Finance Government of the Northwest Territories

## EXECUTIVE SUMMARY

The Government of Northwest Territories (GNWT) ability to identify, plan and deliver physical capital infrastructure projects is essential for providing quality programs and services to the residents of the North. These investments consist of a wide variety of projects that range from the construction of a new multipurpose office building to a purchase of an airport runway sweeper.

As with all commodities, the demand for infrastructure funds exceeds the available supply. The GNWT's infrastructure is further challenged by the fact that many existing assets are nearing the end of their original life cycle and these assets are now generally in poor physical condition. The cost to maintain and/or build new infrastructure projects remains high because of the economic realities of working in the North.

The current challenge the GNWT faces is how to prioritize capital funding needs with available resources. The corporate capital planning process identifies, categorizes, and prioritizes capital projects that will receive funding for each department within the GNWT, and will provide NWT residents the most efficient and equitable public benefits.

The GNWT is a responsible government with the mandate to maintain a clear and transparent assessment process of distributing capital funds in order to be accountable to the citizens of the North.

This manual will give a complete description of GNWT's Corporate Capital Planning process and the development of the annual Infrastructure Acquisition Plan. This manual does not replace or supersedes FMB direction or legislative prerogative in the capital planning process.

## TABLE OF CONTENTS

EXECUTIVE SUMMARYi				
1.0 INTRODUCTION				
2.0 ORGANIZATION STRUCTURE				
Legislative Assembly2				
Standing Committee on Priorities and Planning (SCOPP)2				
Financial Management Board (FMB)2				
Infrastructure Committee-of-Cabinet2				
Infrastructure Deputy Minister Committee (IDMC)				
The Interdepartmental Working Group (IWG)3				
The Peer Review Committee (PRC)3				
Regional Offices4				
3.0 CORPORATE CAPITAL PLANNING PROCESS				
FMB Approval7				
Draft Capital Needs Assessment (CNA)7				
Update the Capital Needs Assessment7				
Project Sorting and Ranking in the 5-year Capital Plan8				
Project Substantiation Sheets8				
Project Planning Technical Review8				
Planning Study9				
Planning Study Funding Approval9				
IDMC Review and Preliminary Approval9				
Peer Review Committee9				
Prioritization/Ranking Process10				
Projects outside the Prioritization/Ranking Process11				
Core Departmental Priorities12				
Information Technology (IT) Projects13				
GNWT Initiatives13				
Cost Sharing Partnerships14				
Operation & Maintenance (O&M) Funding15				
Development of 5-year Capital Plan16				
Recommend approval of 5-year Capital Plan16				
FMB Approval16				
Standing Committee16				

	IDMC Review (if necessary)17					
	Infrastructure Committee-of-Cabinet Review					
	Legislative Assembly Approval1					
	Project Delivery1					
4.0 GL	OSSARY C	DF TERMS				
5.0 AF	PENDICES					
	Appendix <i>J</i>	A Types of Infrastructure				
	Appendix	B The Interdepartmental Working Group – Terms of Reference27				
	Appendix	C Peer Review Committee – Terms of Reference				
	Appendix	D Typical Schedule for Capital Review				
	Appendix	E Capital Project Substantiation Completion Guidelines35				
	Appendix	F Project Estimate Guidelines51				
	Appendix	G Scope of Work for Planning Studies53				
	Appendix	H Example Planning Study57				
	Appendix	Example Peer Review Presentation65				
	Appendix	J Primary Category Filters71				
	Appendix	K Betterment of Facility Terms of Reference75				
	Appendix	L Typical 5-year Capital Plan85				
List of	Tables					
	Table 1	Payback period20				
	Table 2	Proposed Schedule for Capital Review				
	Table 3	Capital Plan - Large Capital: Project Substantiation				
	Table 4	Capital Plan - Small Capital: Project Substantiation				
	Table 5	Capital Project Priority Ratings – Protection of People40				
	Table 6	Capital Project Priority Ratings – Protection of Assets41				
	Table 7	Capital Project Priority Ratings – Protection of Environment42				
	Table 8	Capitol Project Priority Ratings – Financial Investments				
	Table 9	Capital Project Priority Ratings - Program Need or Requirements.44				
	Table 10	Capital Plan Project Substantiation Form Completion Guidelines45				
	Table 11	Working Definitions and Ranking for Secondary Criteria Rating48				
	Table 12	Typical 5-year Capital Plan – Summary77				
	Table 13	Typical 5-year Capitol Plan – GNWT Priorities				

## 1.0 INTRODUCTION

A capital infrastructure project is defined by the GNWT as a project that meets one or more of the following criteria:

- It is a new construction, expansion or replacement project.
- It is a purchase of major equipment (capital assets).

#### See Appendix A for types of GNWT Infrastructure.

In order to best deliver these capital projects to the NWT, each year the GNWT develops an annual Infrastructure Acquisition Plan that details which infrastructure projects will be funded in a given year. The GNWT uses a Corporate Capital Planning approach to develop the Infrastructure Acquisition Plan to ensure capital projects are selected based on maximizing the public interest. The Corporate Capital Planning process also ensures that the GNWT is being transparent and equitable with their decision making while also being held accountable for the utilization of funds.

The Corporate Capital Planning process is built on the following cornerstones:

- Establishment of clear roles and responsibilities;
- Accurate and timely project planning;
- Justification of capital projects through the capital planning process; and,
- Controlling project cost and risk.

The Corporate Capital Planning process is a committee-based process that has several groups continuously reviewing and monitoring each step of the process to ensure that there is the proper amount of review and oversight to hold the integrity of the process.

The annual schedule for the Capital Planning Process is listed in Appendix D.

In developing the Infrastructure Acquisition Plan, 5-year Capital Plan, and the Capital Needs Assessment, the committees review, rank and prioritize proposed projects according to the following main criteria:

- 1. Protection of People/Deferred Maintenance;
- 2. Protection of Assets;
- 3. Protection of the Environment;
- 4. Financial Investments; and
- 5. Program Need or Requirement.

This document is intended for internal GNWT use only. It is a guiding document meant to help explain the GNWT Corporate Capital Planning process only.

## 2.0 ORGANIZATION STRUCTURE

There are several key groups involved with facilitation of the Infrastructure Acquisition Plan:

## Legislative Assembly

The Legislative Assembly is an elected body that creates and amends law in the Northwest Territories.

The Members of the Legislative Assembly have the final authority to ensure there is an equitable distribution of capital investments as prescribed by the corporate capital planning principles. When all concerns have been addressed to the satisfaction of the Legislature, the budget for the Infrastructure Acquisition Plan is approved during the Fall Session of the Legislative Assembly.

## Standing Committee on Priorities and Planning (SCOPP)

The Standing Committee on Priorities and Planning (SCOPP) reviews the proposed Infrastructure Acquisition Plan, with focus on the first year allocations, then provides recommendations to the Legislative Assembly on how best to best proceed with acquiring and/or delivering capital infrastructure projects requested by the GNWT Departments.

## Financial Management Board (FMB)

The Financial Management Board (FMB) approves the current year's proposed capital planning process and capital planning schedule for transmittal to Standing Committee and the Legislative Assembly. The FMB will also approve Operations and Maintenance (O&M) funding for projects that will undergo the Planning Study process.

## Infrastructure Committee-of-Cabinet

The mandate of the Infrastructure Committee-of-Cabinet is to review, advise and provide recommendations on how the GNWT can best plan, acquire and deliver infrastructure projects. The Infrastructure Committee-of-Cabinet will also review the Corporate Capital Planning process to ensure the policies, approaches, and mechanisms are clear and consistent.

The Infrastructure Committee is focused on three priority areas:

- Annual capital planning process;
- Infrastructure opportunities and issues which may impact the GNWT; and
- Strategies to assist long-term federal infrastructure program.

## Infrastructure Deputy Minister Committee (IDMC)

The mandate of the Infrastructure Deputy Minister Committee (IDMC) is to provide advice and support to the Infrastructure Committee of Cabinet.

Specifically, the IDMC will direct the development of the Corporate Capital Planning process and identify the issues, principles and possible ways to mitigate the shortage of capital funding.

These results include:

- Preliminary compilation of capital needs data;
- Prioritization criteria and rational;
- Confirmation of departmental priorities and strategies;
- List of project anomalies; and
- Proposed 5-year Capital Plan.

The IDMC will also provide the overall direction to the Interdepartmental Working Group (IWG) for development of the GNWT's 5-year Capital Plan and the first year's allocation, for consideration by the FMB. When reviewing the plan, the IDMC may direct the inclusion or exclusion of certain projects based on a higher strategic plan for projects that would rank differently using the current prioritization methods.

## The Interdepartmental Working Group (IWG)

The Interdepartmental Working Group (IWG) is composed of representative members from each department and representatives from Finance. The IWG is responsible for developing the proposed 5-year Capital Plan. The IWG will review and rank the project prioritization as presented by each department, along with the planning studies and substantiation presentations for each proposed project.

The IWG will document the capital review process, including changes to the process and rational for those changes and provide recommendations to the IDMC.

See Appendix B for IWG Terms of References

## The Peer Review Committee (PRC)

The Peer Review Committee's (PRC) role will be to examine the Planning Study of the major capital projects in detail to ensure that the work is complete, and that the design solutions are appropriate. The work of the PRC will ensure that consistent review criteria are applied equally for projects from all departments and in all regions.

Following the review, the PRC would recommend to the IDMC that the projects proceed as planned, proceed with minor modifications, or go back to the planning stage to deal with major unresolved issues.

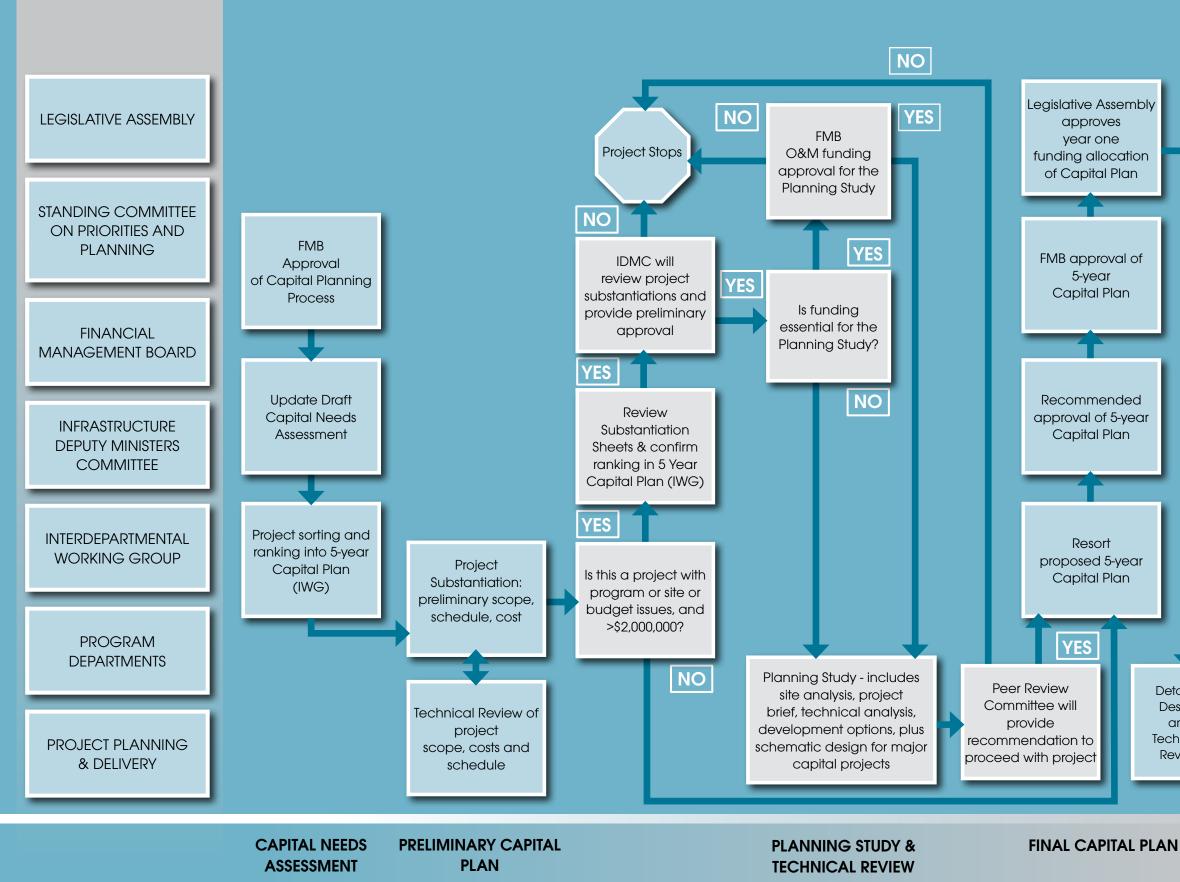
See Appendix C for the Terms of Reference of the PRC.

## **Regional Offices**

The regional offices will conduct the delivery of the project after the Legislative Assembly approves the first year budget allocations in the 5-year Capital Plan.

The client departments and the regional offices have the responsibility for planning, designing, tendering, construction and conducting warranty inspections of their projects.

The diagram on page 5 illustrates the Capital Planning and Project Delivery Process





GNWT CORPORATE CAPITAL PLANNING PROCESS

# Detailed Warranty Design, & and Tender Construction Post Technical Occupancy Review Evaluation **PROJECT DELIVERY**

## 3.0 CORPORATE CAPITAL PLANNING PROCESS

## FMB Approval

The Corporate Capital Planning process begins when the FMB provides direction on the current year's proposed capital planning process and schedule of capital review.

See Appendix D for Schedule of Capital Review.

## Draft Capital Needs Assessment (CNA)

Departments review and update their Capital Needs Assessment (CNA). This process consists of:

- Consultation with MACA and the NWTHA;
- Continual updating of departmental CNA; and
- Co-ordination with other GNWT departments to ensure that government priorities are addressed on a system wide level.

The NWT Housing Corporation and MACA are funded outside the Corporate Capital Planning process. However, NWTHC and MACA projects are considered when assessing capacity and infrastructure requirements.

Inflation and escalation values of projects should be accounted for in future years.

## Update the Capital Needs Assessment

The CNA is an inventory of every GNWT asset that requires funding over the next 20 years. Each year, Departments update their CNA, to account for changes in:

- Internal technical assessments;
- Change in government priorities; and
- Change in departmental priorities.

The CNA is a snapshot of the Infrastructure Acquisition Plan (IAP) for the next 20 years, but the focus of updating the plan is the first five years. The projects that are requesting funding in the first five years of the CNA make up projects in the 5-year Capital Plan.

## Project Sorting and Ranking in the 5-year Capital Plan

At the first meeting of the IWG, projects for consideration in the 5-year Capital Plan are divided into Large and Small Capital Projects.

- Large capital projects have an estimated capital cost greater than \$400,000.
- Small capital projects are those with an estimated capital cost between \$50,000 and \$400,000.

See Appendix E for Capital Project Substantiation Matrix and Completion Guidelines.

#### See Appendix F for Project Estimate guidelines.

After each department has updated their CNA and identified their highest priority projects, the CNA is submitted to the Chair of the IWG for the initial review and ranking by priority. The sorted CNA is then sent to the IWG for verification of each projects rating and ranking.

### **Project Substantiation Sheets**

Program departments provide a draft project substantiation sheet for each of their highest ranked proposed projects that are requesting funds in the following fiscal year. The contents of the Project Substantiation Sheet will include at a minimum:

- Preliminary scope of work;
- Class "D" cost forecast;
- Preliminary schedule; and
- Preliminary Priority Ranking.

Required funding for multi-year projects will take into account estimated inflation and escalation.

### Project Planning Technical Review

Project Planning Departments review submitted Project Substantiation Sheets to Technical Support Services (TSS) for technical merit and feasibility.

As a project is being developed, client departments have an opportunity to further refine scope and budget on the each project's substantiation sheet. The IWG will meet again at a later date to sort all the projects based on the more detailed project substantiation sheet before the final capital plan is sent to the IDMC.

The final version of the project substantiation sheet must be signed off and approved by Departmental Deputies before project inclusion in the 5-year Capital Plan.

## Planning Study

Projects that undergo a Planning Study are generally large, and complex to deliver and manage. The Planning Study is intended to ensure that the scope of the projects are clearly defined, and that enough information is available to develop credible cost estimate and schedule for each project before proceeding.

A Planning Study is required for all proposed vertical infrastructure projects with an estimated capital budget of over \$2,000,000. The Planning Study can be completed by departments in-house, along with PWS, or for more complex projects, third party design consultants can brought into assist.

The Planning Studies will include:

- Needs analysis;
- Operational plan;
- Project brief; and
- Schematic design, including Class C cost estimate.

See Appendix G for Planning Study Terms of Reference.

See Appendix H for Planning Study example – Hay River Health Centre.

## Planning Study Funding Approval

If funding is needed for the planning study, the FMB will approve O&M or Capital funding for the Planning Studies for Legislative Assembly consideration.

### IDMC Review and Preliminary Approval

IDMC will confirm the project will require a planning study and provide preliminary approval to proceed.

## Peer Review Committee (PRC)

A Peer Review Committee (PRC) will review the completed the Planning Study to ensure the report is appropriately detailed and that the review criteria are applied equally for all projects from all departments and in all regions.

The PRC will then make a recommendation to the IDMC to proceed as planned with the project, proceed with minor modifications, or go back to the planning stage to deal with major unresolved issues.

Once a project has been approved as a capital project, the scope of the project cannot be altered without approval from the PRC.

See Appendix I for Peer Review – Hay River Health Centre presentation.

## **Prioritization/Ranking Process**

Projects are ranked and prioritized on the 5-year Capital Plan using the following criteria:

#### Large Capital Projects (LargeCap) – Capital Budget over \$400,000.

Proposed Large Capital Projects are categorized according to a "primary criteria filter," from #1 to #5:

- 1. Protection of people/Deferred Maintenance;
- 2. Protection of Assets;
- 3. Protection of the Environment;
- 4. Financial Investments; and
- 5. Program Need or Requirement.

See Appendix J for more detailed description of Priority Category Filter Terms.

After they are categorized, a secondary set of criteria filters are applied to each project. The secondary criteria filters are as follows:

- Scale of impact;
- Severity of the impact;
- Urgency; and
- Mitigation.

See Appendix E for Capital Project Substantiation Matrix and Completion Guidelines.

Projects are given a score and the results are sent to the IWG to verify that the categorization ratings have been applied appropriately. The projects are then ranked in order of priority from highest to lowest.

#### Small Capital Projects (SmallCap) – Capital Budget under \$400,000.

Small Capital Projects are allocated and reviewed on an annual basis to accommodate for emerging issues or changing priorities.

The determination of SmallCap allocations are calculated by summing the funds requested from a department over a three fiscal year period and dividing those needs by the sum of the total needs of the GNWT over the same three year period. This percentage of the department funding needs is multiplied by the GNWT's available block allocation in a given year.

ITI example:

Department - 3 Year Needs = \$21,073,000 All GNWT 3 Year Needs = \$118,149,000 Department % of Needs = 17% Fiscal Year FY 2013/14 Small Capital Allocation = \$12,000,000 Department Allocation = 17 % of \$12.0 million = **\$2,060,000** for FY 2013/14, 2014/15, 2015/16

## Projects outside the Prioritization/Ranking Process

Other Fund allocations in the Capital Plan are further categorized by:

- a) Previously Approved Projects;
- b) Core Department Priorities;
- c) Information Technology (IT) Projects;
- d) GNWT Initiatives; and
- e) Cost Sharing Partnerships.

#### Previously Approved Projects

Allocations of funds for Previously Approved Projects have priority over new projects for inclusion in the annual Infrastructure Capital Plan.

Previously approved projects must have a minimum capital budget of \$50k and meet at least one of the following criteria:

- Demonstrable actual work in progress;
- An existing legal construction/erection contract in place for the current fiscal year (including the potential of significant penalties for cancellation or delay);
- An existing cost sharing agreement with another level of government that contributes a minimum of 49% of the total value of the project;
- An existing "other" legal agreement or instrument (e.g. including land claim/ treaty obligation); and
- Cabinet and/or Financial Management Board direction.

The definition of a "previously approved" capital project does not (necessarily) include:

- Political statement, commitment or promise;
- Projects identified in departmental "Strategic Plans";
- Projects identified in departmental "Business Plans" beyond the current year;
- Pre-feasibility planning/study/design work;
- Design work (Architectural/Engineering) that is not part of the proposed construction/erection work;
- Negotiated contracts; and
- Potential commitment of/to a cost-shared project with another level of government that contributes less than 49% of the total value of the project.

#### Capital Carry-Over

It is common for large Infrastructure projects to be planned and completed over several fiscal years due to the size and complexity of their construction requirements. Project appropriations may also lapse due to a variety of other unforeseen delays. Although financial obligations associated with these projects may exist for the subsequent years, lapsed appropriations are not automatically added to the subsequent year's appropriation. Departments must seek Legislative approval through the supplementary appropriation process for the "carry-over" (re-approval) of the lapsed appropriation info the next fiscal year.

For a construction contract to be approved for a carry-over, two conditions must be met:

- A contractual or financial commitment must already exist; and
- Substantial work has commenced on the project and it cannot be completed within the planned time frame.

Projects where no contractual or financial commitment exists and work has not commenced will be resubmitted through the capital planning process.

## Core Departmental Priorities

#### Red Flagged Projects

Projects that can demonstrate significant strategic benefits to the overall business plan of a department, that do not rank high enough for their inclusion into the annual IAP under the primary criteria filters, can be identified as a Red Flagged Projects with approval from a department's Deputy Minister.

A Red Flagged project would not be prioritized through the regular priority category filter, and would automatically receive the highest possible rating for inclusion in the capital plan.

#### Transportation Core Priorities

Projects from the Department of Transportation (DOT) determined to be a "Core Priority" are transportation infrastructure projects that are vital to the Territories mobility. Block funding of \$10 million annually is provided for three core program areas:

- Bridges Programs;
- Highway Chipseal Overlay Program; and
- Culvert Replacement Program.

#### **Biomedical Equipment Evergreening**

Funding for the Department of Health and Social Services includes the evergreening or replacement of biomedical equipment.

A block funding of \$3.25 million annually for five years starting in FY 2012/13 and sunsetting in 2016/17 has been established in the Infrastructure Acquisition Plan.

## Information Technology (IT) Projects

Information Technology projects are allocated an annual amount of \$5 million from the capital plan.

The Informatics Policy Committee reviews all departments Five-Year Capital IT Plans. IT recommendations are submitted to the FMB for approval at the same time as departmental Business Plans are under consideration. The DMSC has agreed to allocate \$5 million annually from the capital plan for IT projects. The allocation will be reviewed annually and adjusted to meet changing targets and priorities.

## **GNWT** Initiatives

#### Capital Asset Retrofit Fund & Biomass Funding

The Capital Asset Retrofit Fund (CARF) was established to upgrade existing GNWT buildings and assets to be more energy efficient. This program will assist the government in reducing building operating costs and greenhouse gas emissions in the Northwest Territories.

The Department of Public Works and Services has continued to undertake numerous energy efficiency activities in planning, designing, building, maintaining, and operating government-funded buildings and facilities in support of the Government of the Northwest Territories 2007 Energy Plan and Energy Priorities Investment Plan.

CARF and Biomass Funding are considered separate from the prioritization of the CNA. The cost savings from operating the new CARF asset are used to offset additional costs of acquiring new CARF and Biomass asset.

#### Deferred Maintenance

Deferred Maintenance is the practice of postponing prudent but non-essential maintenance and/or repairs to capital infrastructure in order to save costs in the present. In the GNWT, maintenance competes for funding with other programs and is often deferred because appropriations are not available or were redirected to other higher priorities projects.

Postponing scheduled or recommended maintenance can result in:

- Increased accrued costs;
- Asset failure;
- Loss of program delivery; and
- Health and Safety Implications.

#### VFA.facility (VFA) – Facilities Capital Planning and Management Software

The VFA database is a capital planning and management tool to help identify and organize the deferred maintenance requirements of the GNWT. This software establishes a complete inventory of GNWT Capital Assets and determines the probable condition of the asset using an industry standard methodology for an asset of that particular type and age and observed condition.

VFA then calculates a Facility Condition Index (FCI) for each asset that compares the facility condition to a baseline of normal condition of each building.

FCI = Deferred Maintenance / Current Replacement Value

The GNWT considers an asset with a FCI under 0.15 as being in good condition, and is not in need of repair. An FCI score of over 0.15, the GNWT identifies this asset in poor condition and is in possible need of upgrading or replacement.

Deferred Maintenance projects can be ranked in priority by their FCI score.

An annual block funding of \$5 million is currently allocated from the Capital Plan to Deferred Maintenance projects.

#### **Betterments**

Betterments are a result in one or more of the following conditions:

- Extension of the estimated useful life of the asset; or
- Enhancement of the service potential of the asset.

If neither criterion is met, all costs proposed must be recorded as operating expenses in the period incurred.

Since betterment extends a facility past the original life cycle, a betterment project would not normally be considered a deferred maintenance project.

See Appendix K for Betterment of Facility Terms of Reference

## **Cost Sharing Partnerships**

#### Interdepartmental Partnerships

Municipal and Community Affairs (MACA) and the Northwest Territories Housing Corporation (NWTHC) do not receive funds through the Corporate Capital Planning process.

Opportunities for cost sharing projects or situations where project delivery due to economies of scale due to planned infrastructure capacity (e.g. Planned project planned to take place in community) can result in mutual advantageous situation for the GNWT. Cost sharing projects that involve at least a 50/50 split of infrastructure funds would receive consideration outside the corporate Capital Planning Process.

#### Intradepartmental Partnerships

Additional funding opportunities for projects exist outside the corporate capital planning process through partnerships with other Federal/Provincial/Territorial organizations.

Examples of Intradepartmental programs that the GNWT have often used in the past include the Building Canada Fund, Infrastructure Stimulus Fund, Municipal Rural Infrastructure Fund, RCMP, and Government Canada & Public Government Works.

Cost sharing projects that involve at least a 50/50 split of infrastructure funds would receive consideration outside the corporate Capital Planning Process.

14

#### Public Private Partnerships (P3)

A Public Private Partnership (P3) is a cooperative venture between public and private sector entities. This type of cost sharing partnership utilities the expertise of each partner that best meets the public needs through the appropriate allocation of resources, risks and rewards.

A P3 offers a range of potential benefits, including the opportunity for public-sector agencies to make use of private-sector ideas and innovations. However, the chief advantage is its potential for risk transfer. Because the private sector is required to provide an asset and a service, the GNWT using this alternative procurement method may be able to transfer to the private partner some or all of the risks in areas such as site, design, construction, financing, market, operations, industrial relations and ownership.

There are three phases of the P3 assessment process:

Feasibility Analysis – With a determination of project's P3 potential, an Opportunities Paper is prepared that provides evidence that the project has sufficient potential to provide value-for-money when compared to a traditional procurement and delivery process.

Business Case Analysis – If the feasibility analysis determines that there is sufficient potential, an in-depth business case analysis is undertaken to provide evidence that the project should proceed as a P3 project.

Consultation Process – With FMB approval for the project will be referred to Standing Committee for review and comment. This will allow for Regular Members to review the merits of the proposed P3 project, review the feasibility and business case documents and any other supporting documents, and provide comments and recommendations.

Upon completion of the consultation, and the agreement of the Standing Committee, the P3 procurement process will be initiated.

The GNWT has developed a policy guide that must be followed when assessing and acquiring capital infrastructure through a Public Private Partnership as directed by FMB.

### Operation & Maintenance (O&M) Funding

O&M funding is considered as a separate funding source to the continued maintenance of Capital Assets that are delivered by the Corporate Capital Planning Process. Although not part of the Corporate Capital Planning Process, the O&M of a capital project should be taken into consideration when calculating the viability and feasibility of a project on their substantiation sheet.

## Development of 5-year Capital Plan

After the projects with planning studies are completed, a decision will be made to either include or not include that project in the IAP. Departments will then update all their substantiation sheets for all newly proposed and ongoing projects. The IWG will then re-review and re-prioritize each Department's proposed projects in the 5-year Capital Plan and confirm their project ranking.

Once the funding level for the Infrastructure Acquisition Plan is determined, the IWG prepares a draft 5-year Capital Plan. The plan will consist of:

- An acquisition plan (capital investment expenditure appropriations); and
- Infrastructure contributions (operations expenditure appropriations).

See Appendix L for 5-year Capital Plan Example.

### Recommend approval of 5-year Capital Plan

After the IWG has completed their assessment of ranking of the proposed projects in the draft 5-year Capital Plan, the recommended draft plan is then submitted to the IDMC for their consideration, paying particular attention to the projects that require funding in the next fiscal year. The IDMC will ensure that the criteria have been applied properly and consistently, and that the draft plan makes strategic sense to the GNWT as a whole.

Projects are then forwarded to the Infrastructure Committee-of-Cabinet to confirm the new ranking of the 5-year Capital Plan.

### **FMB** Approval

The draft 5-year Capital Plan will then go to the FMB for their review:

- Do the proposed projects address government priorities?
- Are public commitments adequately addressed?

After review of the draft 5-year Capital Plan and all the FMB's concerns have been addressed, the Capital Plan is approved and provide to the Standing Committee for their consideration.

#### Standing Committee

The draft 5-year Capital Plan is submitted to the Standing Committee on Priorities and Planning (SCOPP), for review in conjunction with the Business Plans and the Main Estimates. Standing Committee will ensure there is an equitable distribution of capital investment they will have an opportunity to question the rationale or justification for proposed projects. Standing Committee will provide recommendations to Government. Government will consider the draft plan and make adjustments if necessary. The plan will be sent to the Legislature for approval as an Appropriation Bill. If the Standing Committee has any outstanding concerns, the plan will be send back to the IDMC for revisions.

## IDMC Review (if necessary)

Deputies will review all recommendations from the Standing Committee, if any, and provide direction to the IWG if changes are required.

## Infrastructure Committee-of-Cabinet Review

Infrastructure Committee-of-Cabinet will review and evaluate the GNWT infrastructure planning, acquisition and delivery policies, approaches and mechanisms to ensure there was a clear and consistent corporate perspective on this year's Infrastructure Acquisition process.

## Legislative Assembly Approval

When all recommendations and changes have been addressed in the draft 5-year Capital Plan by the IWG and IDMC, the plan is re-presented to the Legislature for review. Should the Legislature approve of the draft 5-year Capital Plan at this point, the Legislature will approve the first year funding allocation as an Appropriation Bill. After the approval of the Bill, the funds are pre-encumbered to be available to the regional offices to deliver the project.

## Project Delivery

After the funds are committed, the client departments and regional offices will develop and conduct the RFP, tender, construction of the project through to the completion stage and handover stage.

## 4.0 GLOSSARY OF TERMS

#### Betterments

Results in one or more of the following conditions:

- 1. Extension of the estimated useful life of the asset; or
- 2. Enhancement of the service potential of the asset.

If neither criterion is met, all costs proposed must be recorded as operating expenses in the period incurred.

#### **Capital Projects**

Projects established for the purchase or construction of capital assets. Typically a capital project encompasses a purchase of land or equipment and/or the construction of a building or other facility.

#### Capital Needs Assessment

A projection of the GNWTs capital requirements over the next 20 years. The capital projects identified during the needs assessment are prioritized to determine which projects should be submitted for approval in the 5-Year Capital Plan.

#### Carry-Over

The portion of an appropriation approved in a fiscal year which, owing to construction or other delays, could not be expended within a fiscal year.

#### Cash Flow

A schedule of estimated revenues and /or expenditures over time.

#### Corporate Capital Planning Process

a process for the GNWT to establish capital investment targets with all Departmental projects competing for available funding. Projects are prioritized on a government wide basis according to specific ranking criteria.

#### Class of Estimate

The categories of cost estimates used by the Government of the NWT to forecast budget requirements. Estimates are refined from the initial Class D estimate to the final Class A estimate.

#### Contingency

Reserves for unplanned events or alternative solutions, usually money incorporated into the project budget.

#### **Contract Documents**

The detailed scope of the contract between the contractor and the owner. For a construction contract this would include the working drawings, specifications, amendments, general conditions, contract change orders, site instructions and the signed articles of agreement.

#### Department

Organizational entity established by Cabinet to deliver programs and services within a specified mandate.

#### **Design Development**

The phase following schematic design during which preliminary drawings and outline specifications are developed.

#### Due Diligence

A measure of prudence, activity, or assiduity, as is properly to be expected from, and ordinarily exercised by, a reasonable and prudent person under the particular circumstances. Alternatively, due diligence means to identify and take into account all relevant factors before making a decision, taking action or taking no action.

#### **Functional Program**

A description of the facility required to support a specific program, including objectives, operational plans and physical requirements.

#### Inflation

A rise in the general price level (e.g. as measured by the Construction Industry taking into consideration plant and materials costing); also described as a general decrease in purchasing power of a given amount of funds. Project cost estimates should take into account inflation, as illustrated below.

#### Infrastructure

The permanent facilities and organization structure in place for the purpose of delivering government programs.

#### Infrastructure Acquisition Plan

A detailed plan for the GNWT to deliver or acquired infrastructure projects in a given fiscal year.

#### Infrastructure Contribution

A contribution made to a third party by the GNWT to purchase, construct, develop or acquire a Tangible Capital Asset, where the ownership of the asset is retained by the third party.

#### Large Capital

Capital projects as defined in the Infrastructure Acquisition Plan as projects with an estimated capital cost of over \$400,000.

#### Life Cycle Cost

The sum of the total capital cost plus the cost of operating and maintaining a facility over its anticipated life span.

#### Needs Assessment

An evaluation of the services required to meet client program objectives.

#### Net Present Value (NPV)

A comprehensive investment analysis method to determine which comparable option is best. The NPV is determined by calculating the difference between the sum of the discounted cash flows which are expected from the investment of a project and the capital costs which was initially invested.

The NPV expresses how much value an investment will result in over the life of the investment. If the NPV method results in a positive amount, the project should be undertaken. If the NPV is negative, the project should not be undertaken.

#### **Payback Period**

20

An initial investment analysis method which finds the length of time between the initial project investment and the date when the value of the future savings equals the initial investment. In the following example, the payback period on the \$1,000,000 investment is 4 years.

## Table 1 – Payback period

Year	Initial Investment	Annual savings	Cumulative Cost (savings)
0	\$1,000,000		\$1,000,000
1		(\$150.000)	\$850,000
2		(\$250,000)	\$600,000
3		(\$300,000)	\$300,000
4		(\$300,000)	\$0

If future savings are going to be uniform each year, the payback period can be simply calculated by dividing the investment by the annual savings; e.g. \$1,000,000/\$200,000 = 5 years.

#### **Planning Studies**

Studies completed by departments to plan capital projects, which include information about:

- Needs analysis (population projections, demographics, service standards).
- Operational planning (staffing, hours of operation, service delivery).
- Functional program (building size, rooms and areas).
- Evaluations of existing facilities.
- Site (alternative locations, preferred site).
- Schedule (including milestones for design, mobilization and construction).
- Development of the schematic design.
- Cost (including design, construction, site development, engineering reports, furniture and equipment, management costs, risk factors etc).
- Project delivery alternatives (design/bid build, construction management, design/build, repeat design, prefabrication etc).

#### Preliminary Design

A design solution illustrating the general arrangement of spaces and systems. This may also be called schematic design.

#### Post-Occupancy Evaluation/Inspection (POE)

A survey and/or inspection taken after project completion to assess end users' level of satisfaction with the various aspects of the facility. A POE is also used to determine whether any value engineering achieved its objectives. These reviews will provide a mechanism for audit and accountability to ensure that projects have met the conditions of their approval. It is also important to ensure that 'lessons learned' are incorporated into the capital planning and project delivery process.

#### **Pre-Approved Projects**

Projects that have a minimum total value of \$50K meet one or more of these criteria:

- Demonstrable actual work in progress (i.e. including continuation of a multiyear project that is in progress);
- Existing legal construction/erection contract in place for the current fiscal year (including the potential of significant penalties for cancellation or delay);
- Existing cost sharing agreement with another level of government that contributes a minimum of 49% (see FAM 303) of the total value of the project;
- Existing "other" legal agreement or instrument (i.e. including land claim/treaty obligation); and
- Explicit Cabinet and/or Financial Management Board direction or Record of Decision.

#### **Project Brief**

A document that describes the requirements of a project, including the functional program, budget, cash flow, schedule, and special technical requirements.

#### Project Management

The management of all the steps and procedures necessary to take an idea of a facility or need from a program through to a building or facility on the ground in the community.

#### Small Capital Projects

Small capital projects are defined as projects with a capital cost of under \$400,000. \$12 million annual is currently allocated from the capital budget for small capital projects. This allocation is reviewed annually to meet the government's priorities.

#### Shop Drawings

Drawings and submittals from contractors that communicate the contractor's intent to supply products, as well as how they will be fabricated and, in many cases, installed.

#### Tangible Capital Asset (TCA)

is a non-financial asset having physical substance that:

- are held for use in the production or supply of goods and services, for rental to others, for administrative purposes or for the development, construction, maintenance or repair of other tangible capital assets;
- have useful economic lives extending beyond an accounting period;
- are to be used on a continuing basis; and
- are not for sale in the ordinary course of operations.

#### Tangible Capital Asset Cost

The gross amount of consideration given up to acquire, construct, develop or better a tangible capital asset, and includes all costs directly attributable to acquisition, construction, development or betterment of the tangible capital asset, including installing the asset at the location and in the condition necessary for its intended use.

#### Useful Economic Life

Is the estimated time period over which a tangible capital asset is expected to be used by a government, or the number of production or similar units that can be obtained from the tangible capital asset by a government. The life of a tangible capital asset, other than land, is finite, and is normally the shortest of the physical, technological, commercial and legal life.

#### Value Engineering (VE)

An organized effort to analyze the functions of systems, equipment, facilities, services, and supplies for the purpose of achieving the essential functions at the lowest life cycle cost consistent with required performance, reliability, quality, and safety. VE seeks to lower life cycle costs, while maintaining the same level of system service (performance, reliability, quality, and safety). Another definition of VE is to generate design alternatives that maintain the cost level while increasing the level of service.

#### Work In Progress

22

Records the value of capital assets under development or construction and not yet substantially complete or in service.

## 5.0 APPENDICES

## APPENDIX A – TYPES OF INFRASTRUCTURE

#### Vertical Infrastructure

Vertical infrastructure is defined by the GNWT as capital assets typically in the form of a building or vehicle in only one location per facility. Examples of vertical infrastructure that are part of the GNWT Capital Plan are: health centers, schools, office buildings, loaders, etc.

#### Horizontal Infrastructure

Horizontal infrastructures are capital assets that typically extend over a long distance. Examples of a horizontal infrastructure are highways, bridges and airport landing strips (including lighting and drainage).

#### Tangible Capital Asset

Means a non-financial asset having physical substance that is acquired, constructed or development and:

- Is held for use in the production or supply of goods, delivery of services or program outputs.
- Has a useful life beyond one fiscal year;
- Is intended to be used on a continuing basis;
- Is not intended for resale in the ordinary course of operations; and,
- Cost is equal to or greater than \$50,000.

#### Airstrips, Aprons, Taxiways

Includes formation works, geometric structure, drainage works, culverts, lighting, paving, fencing and required infrastructure related to the airstrip, aprons and taxiways. Associated airport buildings and mobile equipment are not included in this category.

#### **Buildings**

Includes office buildings, airport terminal buildings, housing, recreational complexes, warehouses, correctional facilities, campsite buildings, etc.

Most institutional buildings can be assumed to have an economic life of 60 years (GNWT asset accounting assumes a useful life of 40 years for amortization purposes, but this is not related to actual building life). Over the life of the building, there are 3 significant investments:

- Initial construction;
- 20-year period for a building retrofit; and
- 40-year period for a building retrofit.

In addition to these investments, there are numerous smaller investments, which are captured under operational and maintenance costs.

#### Ferries

All freshwater ferries and including ferry landings and dry docks.

#### Fuel Distribution Systems

Includes all fuel handling equipment such as fuel tanks, piping, pumps, dispensers, loading racks, etc. Note that these assets must be recorded individually when the \$50,000 threshold is met, and not aggregated as a single "Tank Farm" asset.

#### Land

Includes land, which is purchased, developed or acquired for value, for parks and recreation and building sites. Land also includes land improvements where the government develops vacant land for recreational and economic pursuits.

Typical costs would include all costs intended to bring the land into its intended use whether or not they can be linked directly to a building on the site such as:

- Site surveying;
- Architectural and engineering fees;
- Clearing and grubbing;
- Sculpting the land;
- Removing or planting trees; and,
- Seeding grass, etc.

Expenditures on land improvements where land is being returned to its natural state are not capitalized. Examples of this would be contaminated land cleanup projects, mining reclamation projects; etc. which return land to its natural condition. Another example would be the activities required to develop and prepare timber sites including forest health surveys, planting, brushing, etc. Land developed and held for resale must not be capitalized.

#### Park Improvements

Includes vacant land developed for recreational, environmental preservation, and economic pursuits. Examples of individual components would include camp sites and associated access roads. Note that when assessing the threshold value for capitalization, the total cost of building the camp sites would be utilized, not the individual cost of each camping stall.

#### Roads and Bridges

Includes formation works, road structure, drainage works, bridges, culverts, tunnels, underpasses and overpasses, river protection works and surfacing costs including paving, traffic facilities, fencing, lighting, etc. associated with the infrastructure. Geographical descriptions should be maintained for the various major components

The significant milestones for a typical highway infrastructure include:

- Initial construction;
- 15-year period for re-paving;
- 30-year period for a re-paving;
- 45-year period for a re-paving and sub-base rehabilitation; and
- 60-year period for a re-paving.

24

#### Leasehold Improvements

Are improvements performed in a building over and above the provision of basic space requirements. Leasehold improvements carry an amortization period of the current building lease plus the renewal option period or less if it can be substantiated by historical precedence.

#### Information Technology System (ITS) Investments

Includes computer hardware and software that is purchased, developed and/or configured. (See FAM 2210)

#### Medical Equipment

Includes major hospital equipment, lab equipment, etc.

#### Other Equipment

Includes miscellaneous equipment used in operations such as radar and satellite equipment.

#### Heavy Equipment

Includes all mobile equipment and typical equipment such as large trucks, trailers, buses, graders, and pick-up trucks with a G.V.W. over 1 tonne, etc.

#### Motor Vehicles

Includes all other mobile equipment such as cars, vans, and light trucks up to 1 tonne G.V.W., etc. The total cost of a motor vehicle purchase must be under \$50k to be considered for O&M funding.

#### Water/Sewer Works

Includes the formation works, reservoirs, pumping facilities, tanks and associated infrastructure.

## APPENDIX B – THE INTERDEPARTMENTAL WORKING GROUP (IWG) – TERMS OF REFERENCE

## 1. Introduction

The Financial Management Board (FMB) approved the Terms of Reference for the Interdepartmental Working Group (IWG) January 8, 1992.

### 2. Membership

Members of the Committee include representatives from:

- a) Finance (FMB)
- b) Department of Transportation (DOT)
- c) Education, Culture and Employment (ECE)
- d) Environment and Natural Resources (ENR)
- e) Industry, Tourism and Investment (ITI)
- f) Health and Social Services (HSS)
- g) Justice
- h) Public Works and Services (PWS)
- i) Municipal and Community Affairs (MACA)
- j) Housing Corporation (NWTHC)

The Corporate Capital Planner (PWS) will chair the IWG meetings.

### 3. Terms of Reference

- a) Review first three years of the 5-year Capital Plan's proposed projects, by community, to ensure indirect support capital is in place prior to construction a facility (i.e. lot development, water/sewer and sufficient fuel capacity). A cursory review of years four and five should be conducted.
- b) Review proposed year one through three projects for scheduling and timing, bearing in mind other work scheduled for a given community, and availability of local labour and equipment.
- c) Review proposed year one and two projects to ensure an application for a site has been completed.
- d) Review proposed year one through three projects to ensure costing and the yearly cash flows for multi-year projects are correct and have been provided by PWS. Costing is to include all capital costs (i.e. land, site, preparation, foundation, etc). The review should also ensure O&M impacts have been identified.
- e) Confirm a cost benefit analysis has been completed on all major projects and identify projects that could be more cost efficient if built jointly to ensure regional resources are optimized.
- f) Recommendations and unresolved issues are to be referred to the Infrastructure Deputy Minister Committee (IDMC).

## APPENDIX C – PEER REVIEW COMMITTEE – TERMS OF REFERENCE

## 1. Introduction

The Cabinet and Financial Management Board have approved changes to the capital planning process in order to control costs, confirm that the needs for projects are well defined, and ensure that design solutions provide good value.

To help meet these objectives, a Peer Review Committee (PRC) was set up to conduct peer review of Planning Studies for major capital projects.

## 2. Role of the Peer Review Committee

The PRC will have a distinct and well defined role in the capital planning process. The Interdepartmental Working Group (IWG) and the Infrastructure Deputy Ministers Committee (IDMC) will continue to screen potential projects and establish priorities. The PRC's role will be to examine the planning studies for major capital projects in detail to ensure that the work is complete, and that the design solutions are appropriate. The work of the PRC will ensure that consistent review criteria are applied equally for projects from all departments and in all regions.

Following the review, the PRC would recommend to the IDMC that the projects proceed as planned, proceed with minor modifications, or go back to the planning stage to deal with major unresolved issues.

### 3. Composition

The PRC has a distinct and well defined role in the capital planning process. The PRC's role is to examine the planning studies for major capital projects (excluding vertical construction projects) over \$2.0 million in detail to ensure that the work is complete, and that the design solutions are appropriate and on-going operations and maintenance implications are well defined. The work of the PRC is guided by the IDMC to ensure that consistent review criteria are applied equally for large capital projects.

The PRC consists of one representative from five GNWT Departments; Transportation, Public Works and Services, Justice, Finance and Environment and Natural Resources. One representative serves as chair and is appointed by the IDMC.

#### 4. Duration

The PRC functions according to an April-March fiscal year and approved Capital Planning schedule. PRC members are evaluated by the IDMC each year and will be sustained, discontinued, or revised as needed.

#### 5. Term of Service

Chair and Committee Members: As approved by the IDMC.

#### 6. Appointment Process

**Chair:** Recommendations for the Chair are sought from the PRC for review and approval of the IDMC membership.

**Peer Review Members:** A total of 5 members (includes the chair) appointed by the IDMC with nominations sought from Departments. When determining appointments, the IDMC will select a diverse group of senior individuals from Departments but will not establish a formal representational scheme. Appointments are staggered to ensure that not all members appointments sunset in the same year.

Alternate Members: named by the Departmental Deputy Ministers and approved by the IDMC.

### 7. Reporting

Subsequent to Peer Review project approval, a written report is submitted for consideration and information during the scheduled IDMC meetings. The IDMC may ask for clarification and request other reports throughout the year.

- Reporting Template:
- Project name:
- Department representatives:
- Executive summary:
- Brief description of the project:
- Development option(s):
- Building gross area estimate:
- Capital budget requirements:
- Incremental utility and maintenance:
- Incremental operations (staff, equipment):
- Recommendations:

Planning Studies are part of the Capital Planning process and do not obligate the GNWT to construct facilities. If approved, the project could proceed as planned or with minor modifications, or go back to the planning stage to deal with major issues.

### 8. Roles and Expectations

**Chair:** The Chair is responsible for guiding the PRC to accomplish their charge. Activities include communicating with a Peer Review members, setting meeting agendas, encouraging participation by all members, enlisting the assistance of support staff, producing reports, and ensuring that minutes are taken, approved, and filed.

**Peer Review Members:** The PRC members role is to examine the planning studies for major capital projects in detail to ensure that the work is complete, and that the design solutions are appropriate. The work of the Committee will ensure that consistent review criteria are applied equally for projects from all departments and in all regions.

Committee members represent all departments in the development of the corporate capital plan. Thus each representative is expected to gather input from all relevant departments. A committee member (or their DM) may designate a proxy to participate in place of the appointed member (for example, participate in meetings).

### 9. Operations

Meetings will be undertaken to coincide with the completion of the Planning Studies and the approved annual capital planning process and on an as and when basis.

Departments wishing to present planning studies to the PRC must contact the Chair and schedule a meeting for that purpose.

Following the review, the Chair recommends to the IDMC that the projects proceed as planned, proceed with minor modifications, or go back to the planning stage to deal with major unresolved issues.

### 10 Administrative Support

Planning for meeting space, handouts, catering, etc. will be the responsibility of the Department of Finance.

# APPENDIX D - SCHEDULE FOR CAPITAL REVIEW

### Table 2 – Typical Proposed Schedule for Capital Review

DATE	PLANNING PHASE	SCOPE OF WORK
Jan	Financial Management Board (FMB)	• Approval of the Capital Planning Process and Schedule.
Feb	Departments Prepare / Submit Capital Needs Assessments	<ul> <li>Update Capital Needs Assessment (CNA) and incorporate priority criteria.</li> <li>Confirmation of projects in the Infrastructure Acquisition Plan.</li> <li>Complete initial sort.</li> <li>Identify proposed Planning Study Projects.</li> </ul>
2 <sup>nd</sup> Week April	1 <sup>st</sup> Meeting of Interdepartmental Working Group (IWG)	<ul> <li>Review of the CNA.</li> <li>Review of the Infrastructure Acquisition Plan the next five fiscal years.</li> <li>Allocation/Review Small Capital.</li> <li>Previously Approved Projects.</li> <li>Red Flagged/Priority Projects.</li> <li>H&amp;SS Biomedical Equipment – Evergreening.</li> <li>CARF and Biomass funding.</li> <li>Planning Studies.</li> <li>Inflation/Escalation.</li> <li>Substantiation Sheets for current FY.</li> <li>Recommendations to the Infrastructure Deputy Ministers Committee (IDMC)</li> </ul>

3 <sup>rd</sup> Week of April	Infrastructure Committee-of-Cabinet	Review and incorporate IDMC recommendations.
4 <sup>th</sup> Week of April	Infrastructure Deputy Minister Committee (IDMC)	• Final realignment of a (draft) 5-year Capital Plan.
3 <sup>rd</sup> Week of May	2 <sup>nd</sup> Meeting of IWG	Review and incorporate IDMC recommendations.
4 <sup>th</sup> Week of May	IDMC	• Final realignment of a (draft) 5-year Capital Plan.
Last Week of June	FMB	• Final Approval of Capital Plan.
1 <sup>st</sup> Week of July	Standing Committee	• Submit draft Capital Plan to the Standing Committee on Priorities and Planning.
Early August	IDMC	• Deputies to review recommendations from Standing Committee, if any and to provide direction to the working group.
Late August	Standing Committee	Release of Capital Plan to Standing Committee for review.
September	Standing Committee	• Standing Committee conducts formal review of Capital Plan.
October	Legislature Approvals	• Approval of first year funding allocation of Capital Plan.

# APPENDIX E – CAPITAL PROJECT SUBSTANTIATION COMPLETION GUIDELINES

### New Assets

Evaluation of capital budget program requests include, but are not limited to, analysis based on the following criteria:

- Is the project consistent with operating budget requests?
- Why this project is the preferred alternative?
- How this project addresses the described need?
- Cost of project in relation to other projects of a similar nature. Baseline will come from projects both within and outside of the NWT.

Other project funding and approval request considerations:

- Link to priority criteria;
- Drivers;
- Thresholds important vs. urgent;
- Financing;
- Strategic investment upside vs. downside; and
- Total Asset Life Cycle costs (i.e. Capital costs + life time O&M).

### **Existing Assets**

Evaluation of capital budget program requests include, but are not limited to, analysis based on the following criteria:

- Program impact of deferral;
- Condition of asset as described in the facility inventory/maintenance system;
- Cost of preservation vs. replacement; and
- Total Asset Life Cycle costs (i.e. Capital costs + life time O&M).

### Table 3 – Capital Plan - Large Capital: Project Substantiation

Department:	Asset Number:
Activity:	Project Number:
Project Title:	Approval Status:
Community:	FY Approved:
Land Availability:	Multiyear:
Site Development:	PWS (Y/N):
Class Estimate:	NTPC:
Previously Submitted:	PPD:
Fiscal Year:	Facility Condition Index Score:
Replacing an Existing Asset (Y/N)	Federal Fund (Y/N):
	Date Prepared:

#### PROJECT COST ESTIMATE

		Fiscal Year Expenditure						
Category	Prior	2014/15	2015/16	2016/17	2017/18	2018/19	Future	Total
Capital Costs	0	0	0	0	0	0	0	0
Recoveries/ Revenue	0	0	0	0	0	0	0	0
O&M: Program Costs	0	0	0	0	0	0	0	0
O&M: Building/ Utility Costs	0	0	0	0	0	0	0	0

#### BACKGROUND

Summary of Planning Study (if completed):

Linkages to Strategic Plan and/or Business Plan:

#### PROJECT SCOPE

Description of Tangible Capital Asset(s) (TCA) to be acquired, and identify he amount of project costs which do not meet the criteria in FAM policy 2201 to be considered a cost of the TCA.

Description of Betterment to an existing Tangible Capital Asset(s), including:

- How many years is the TCA's useful life being extended beyond the original estimate; or
- Describe and quantify how the work will enhance the service potential of the TCA.

#### PRIORITY RATING

	Primary Criteria		lary Criteria	Ratings (A	A, B or C)
			Severity Impact	Urgency	Mitigation
	Protection of People				
	Protection of Assets				
	Protection of Environment				
	Financial Investments				
	Program Need or Requirement				

### IMPACTS ON OTHER INFRASTRUCTURE

### DEFERRED MAINTENANCE IMPLICATIONS (if applicable)

	Current		After	Project	
	Facility	Total Deferred	Facility	Total	Scope of Work
	Condition	Maintenance	Condition	Deferred	
	Index (FCI)		Index (FCI)	Maintenance	
Total					

### STATUS OF COMMUNITY CONSULTATIONS

#### ATTACHMENTS

- Project Priority Rating Sheets
- Other (specify): \_\_\_\_\_\_
- Other (specify):
- Other (specify): \_\_\_\_\_\_

### DEPUTY MINISTER APPROVAL

Deputy Minister Signature

Date

### Table 4 – Capital Plan - Small Capital: Project Substantiation

Department:	Asset Number:
Activity:	Project Number
Project Title:	Approval Status:
Community:	FY Approved:
Land Availability:	Multiyear:
Site Development	PWS (Y/N)
Class Estimate:	NTPC:
Previously Submitted:	PPD:
Fiscal Year:	Facility Condition Index Score:
Replacing an Existing Asset (Y/N)	Federal Fund (Y/N):
	Date Prepared:

#### PROJECT COST ESTIMATE

		Fiscal Year Expenditure						
Category	Prior	2014/15	2015/16	2016/17	2017/18	2018/19	Future	Total
Capital Costs	0	0	0	0	0	0	0	0
Recoveries/ Revenue	0	0	0	0	0	0	0	0
O&M: Program Costs	0	0	0	0	0	0	0	0
O&M: Building/ Utility Costs	0	0	0	0	0	0	0	0

#### BACKGROUND

Results of Needs Assessment (if completed):

Linkages to Strategic Plan and/or Business Plan:

#### **PROJECT SCOPE**

Description of Tangible Capital Asset(s) to be Acquired, and identify the amount of project costs which do not meet the criteria in FAM policy 2201 to be considered a cost of the TCA.

Description of Betterment to an existing Tangible Capital Asset(s), including:

- How many years is the TCA's useful life being extended beyond the original estimate; or
- Describe and quantify how the work will enhance the service potential of the TCA

#### PRIORITY RATING

	Primary Criteria		dary Criteria	a Ratings (A	A, B or C)
			Severity Impact	Urgency	Mitigation
	Protection of People				
	Protection of Assets				
	Protection of Environment				
	Financial Investments				
	Program Need or Requirement				

### IMPACTS ON OTHER INFRASTRUCTURE

### DEFERRED MAINTENANCE IMPLICATIONS (if applicable)

	Current		After	Project	
	Facility	Total Deferred	Facility	Total	Scope of Work
	Condition	Maintenance	Condition	Deferred	
	Index (FCI)		Index (FCI)	Maintenance	
Total					

### STATUS OF COMMUNITY CONSULTATIONS

#### ATTACHMENTS

- Project Priority Rating Sheets
- Other (specify):
- Other (specify):
- Other (specify):

DEPUTY MINISTER APPROVAL

Deputy Minister Signature

Date

### Table 5 – Capital Project Priority Ratings – Protection of People

Project Number

Department

Project Title

Community

Primary Cr	iteria: Protection of People
Substantiat	tion
	SECONDARY CRITERIA RATINGS
	CRITERIA: Direct Impact
А	Affects most/all the population in the region or community
В	Affects groups of people
С	Affects individuals
Substantiat	tion
	CRITERIA: Severity Impact
А	Potential for loss of human life
В	Potential for chronic or long-term human health impacts
С	Potential for injury
Substantiat	ion
	CRITERIA: Urgency
A	Capital Plan Fiscal Year 1
В	Capital Plan Fiscal Year 1 to 2
С	Capital Plan Fiscal Year 3 and future
Substantiat	ion
	CRITERIA: Mitigation
А	No mitigation possible without complete loss of program function
В	Mitigation possible at partial loss of program function and increase in O&M costs less than 50% of proposed project cost
С	Mitigation possible without undue impact to program and increase in O&M function of proposed project cost
Substantiat	

## Table 6 – Capital Project Priority Ratings – Protection of Assets

Project Number	
Department	
Project Title	
Community	

Primary	Criteria: Protection of Assets
Substan	tiation
	SECONDARY CRITERIA RATINGS
	CRITERIA: Direct Impact
А	Project used by most of the population in territory wide basis
В	Project used by most of the population on regional wide basis
С	Project used on community basis
Substan	tiation
	CRITERIA: Severity Impact
А	Asset provides only available means to deliver product
В	Other assets can be used to deliver part or all of product
С	Program can be delivered without asset
Substan	tiation
	CRITERIA: Urgency
А	Capital Plan Fiscal Year 1
В	Capital Plan Fiscal Year 1 to 2
С	Capital Plan Fiscal Year 3 and future
Substan	tiation
	CRITERIA: Mitigation
А	No mitigation possible without complete loss of program function
В	Mitigation possible at partial loss of program function and increase in O&M costs less than 50% of proposed project cost
С	Mitigation possible without undue impact to program and increase in O&M function of proposed project cost
Substan	tiation

### Table 7 – Capital Project Priority Ratings – Protection of Environment

Project Number

Department

Project Title

Community

,	teria: Protection of Environment
Substantiati	on
	SECONDARY CRITERIA RATINGS
	CRITERIA: Direct Impact
А	Issue impacts environmental health on regional basis
В	Issue impacts community are environment
С	Issue impacts environment on local basis
Substantiati	on
	CRITERIA: Severity Impact
А	Direct link to human potential impacts
В	Long term impacts to human health probable
С	No perceived impact on human health
Substantiati	on
	CRITERIA: Urgency
А	Capital Plan Fiscal Year 1
В	Capital Plan Fiscal Year 1 to 2
С	Capital Plan Fiscal Year 3 and future
Substantiati	on
	CRITERIA: Mitigation
A	No mitigation possible without complete loss of program function AND potential for fines or legal/liability costs in defense of charges greater than project cost
В	Mitigation possible at partial loss of program function and increase in O&M costs less than 50% of proposed project cost AND minimum impact from fines
С	Mitigation possible without undue impact to program and increase in O&M function of proposed project cost AND no potential fines
Substantiati	on

42

### Table 8 – Capitol Project Priority Ratings – Financial Investments

Project Number

Department

Project Title

Community

Primary Criter	ria: Financial Investments			
Substantiation	1			
	SECONDARY CRITERIA RATINGS			
	CRITERIA: Direct Impact			
А	Alternative funding greater than 80% OR payback period less than 3 years			
В	Alternative funding greater than 49% OR payback period less than 10 years			
С	Alternative funding less than 49% OR payback period greater than 10 years			
Substantiation	1			
	CRITERIA: Severity Impact			
А	Complete loss of opportunity for the asset development			
В	Partial loss of opportunity			
С	No loss of opportunity			
Substantiation	1			
	CRITERIA: Urgency			
А	Capital Plan Fiscal Year 1			
В	Capital Plan Fiscal Year 1 to 2			
С	Capital Plan Fiscal Year 3 and future			
Substantiation	1			
CRITERIA: Mitigation				
А	Alternative funding in place for current year only OR investment potential tied to current market; i.e.: potential for revenue recovery is short.			
В	Alternative funding in place for up to 5 years OR investment potential has long term potential; i.e.: potential for revenue recovery is short term			
С	Alternative funding program will be in effect for more than 5 years			
Substantiation				

### Table 9 – Capital Project Priority Ratings – Program Need or Requirements

Project Number			
Department			
Project Title			
Community			

Primary C	Criteria: Program Need or Requirement		
Substantiation			
	SECONDARY CRITERIA RATINGS		
	CRITERIA: Direct Impact		
А	Program used on territorial wide basis		
В	Program used on regional basis		
С	Program used at community level		
Substanti	ation		
	CRITERIA: Severity Impact		
А	Program forms integral part of departmental mandate		
В	Program meets national standard		
С	Program exceeds current national standard		
Substanti	ation		
	CRITERIA: Urgency		
А	Capital Plan Fiscal Year 1		
В	Capital Plan Fiscal Year 1 to 2		
С	Capital Plan Fiscal Year 3 and future		
Substanti	ation		
	CRITERIA: Mitigation		
А	Asset provides only available means to deliver program		
В	Other assets can be used to deliver part or all of program		
С	Program can be delivered without asset		
Substanti	0		
-			

44

# Table 10 – Capital Plan Project Substantiation Form Completion Guidelines

Main Heading	Subheading	Completion Guidelines
Department		Enter department name
Activity		Enter SAM activity code
Project Title		Enter short title for project
Community		Enter name of community where asset is being delivered
Land Availability		From the drop-down menu select either "Reserved", "Reserve Pending" or "N/A" to indicate the availability of land for the project.
Site Development		From the drop-down menu select either "Developed", "Undeveloped (gravel required)" or "N/A" to indicate extent of site development.
Class Estimate		Select the class of project cost estimate that was completed.
Previously Submitted	Fiscal Year	Select the class of project cost estimate that was completed.
		See Appendix F "Project Estimate Guidlines".
Asset Number		Enter Asset Number.
Project Number		Enter the project number
Approval Status		Select either "NEW", or "APPROVED" to indicate whether the project is new or was previously approved.
FY Approved		If the project was previously approved, enter the fiscal year it was approved.
Multiyear		Select "YES" or "NO" to indicate whether the project will take more than one fiscal year to complete
PWS		Select either "YES" or "NO" to indicate whether PWS is going to provide project management services.
NTPC		Select either "YES" or "NO" to indicate whether the proposed project impacts the NWT Power Corporation.
		If "YES", describe impact in "IMPACTS ON OTHER INFRASTRUCTURE" Section.

PPD Project Cost Estimate		Select either "YES" or "NO" to indicate whether the proposed project impacts PWS Petroleum Products Division. If "YES", describe impact in "IMPACTS ON OTHER INFRASTRUCTURE" Section. Enter the major project phases (e.g. planning, design, construction, etc.) and the estimated capital costs for each fiscal year. Cost estimates should include inflation. See definition in the 4.0 Glossary:
Project Substantiation	BACKGROUND Results of Needs Assessment Linkages to Strategic Plan and/or Business Plan	Summary of the results of the needs assessment that was completed, if an assessment was completed Include an explanation of why the project is the preferred alternative and how the project addresses the described need. Note: the needs assessment report should be attached. Explain how the proposed project supports accomplishment of the departments strategic plan and/or business plan
Project Scope	Description of TCA to be acquired, and identify the amount of project costs which do not meet the criteria in FAM policy 2201 to be considered a cost of the TCA Description of Betterment to an existing TCA.	Describe the proposed asset(s); e.g. size/ capacity, economic life, special features/ design innovations, etc. If you are uncertain of the classification please consult the Office of the Comptroller General. Description of Betterment to an existing Tangible Capital Asset(s), including: How many years is the TCA's useful life being extended beyond the original estimate; or Describe and quantify how the work will enhance the service potential of the TCA.
Priority Rating	Primary Criteria	Check-off the primary criteria that the proposed project meets, Note: Project Priority Ratings Sheets must be attached to the substantiation.

Priority Rating	Secondary Criteria	Select either "A, B or C" to indicate the secondary criteria ratings. Note: Project Priority Ratings Sheets must
		be attached to the substantiation.
Impacts on other Infrastructures		Indicate any impacts the proposed project will have on other infrastructure providers such as NWTPC, PPD, NWTHC, etc.
		If the project is replacing an existing asset, indicate what will be done with the asset – e.g. demolition, donation to community, etc.
Deferred Maintenance		Before construction indicate asset FCI.
Implications		Cost of Outstanding Deferred Maintenance.
		After construction indicate asset FCI.
		Remaining amount of Deferred Maintenance.
		List scope of work that is Deferred Maintenance.
Status of		Outline the results of community
Community Consultations		consultation and how the results have
Consultations		been addressed in the proposed project. For example, indicate if there has been
		a Band or community government
		resolution in support of the project.
Attachments	Project Priority Rating Sheets	Attach the rating sheets that were completed to support the rating summary.
Attachments	Other	List any other related documents attached to the submission – e.g. needs assessments, studies, etc.

Working Definitions and Ranking for Secondary Criteria Rating

Weighting for the 4 criteria are equal: A = 24; B = 17; C = 8

		Eviden	ce Based Risk	Assessment	t Framework
Primary Category	Scale Rating	Direct Impact Scale (How many)	Severity Impact (What Impact)	Urgency (When)	Mitigation (What Else can be done)
	А	Affects most/all the population in the region or community	Potential for loss of human life	Next Fiscal Year	No mitigation possible without complete loss of program function
Protection of People	В	Affects some groups of in the community	Potential for chronic or long term human health impacts	More than two Fiscal Years	Mitigation possible at partial loss of program function, and/or the increase in the O&M costs to be less than 50% of the proposed project cost
	С	Affects only certain individuals in the community	Potential for injury	More than three Fiscal Years	Mitigation possible without undo impact to program and the increase in the O&M costs to be less than 20% of the proposed project cost
	А	Project used by the majority of the population on territorial wide basis	Asset provides only available means to deliver program	Next Fiscal Year	No mitigation possible without complete loss of program function
Protection of Assets	В	Project used by majority of the population on regional wide basis	Other assets can be used to deliver part or all of program	More than two Fiscal Years	Mitigation possible at partial loss of program function and/or the increase in the O&M costs to be less than 50% of the proposed project cost
	С	Project used by majority of population on a community basis	Program can be delivered without asset	More than three Fiscal Years	Mitigation possible without undo impact to program and the increase in the O&M costs to be less than 20% of the proposed project cost

# Table 11 – Working Definitions and Ranking for Secondary Criteria Rating

48

		Eviden	ce Based Risk	Assessment	t Framework
Primary Category	Scale Rating	Direct Impact Scale (How many)	Severity Impact (What Impact)	Urgency (When)	Mitigation (What Else can be done)
	A	Issue impacts the environment on a regional basis	Direct link to human health potential impacts	Next Fiscal Year	No mitigation possible without complete loss of program functions and/or Potential for fines or legal/liability costs in comparison to charges greater than project costs
Protection of Environment	В	Issue impacts the environment on community basis	Long term impacts to human health probable	More than two Fiscal Years	Mitigation possible at partial loss of program function, and less than 50% of the proposed project cost and/or Minimum impact from fines
	C Issue impacts environment on local basis	environment on	No perceive impact on human health	More than three Fiscal Years	Mitigation possible without undo impact to program at a cost less than 20% of the proposed project
					and/or No potential for fines

		Eviden	ce Based Risk	Assessment	t Framework
Primary Category	Scale Rating	Direct Impact Scale (How many)	Severity Impact (What Impact)	Urgency (When)	Mitigation (What Else can be done)
	A	Alternative funding greater than 80% or Payback period less than 3 years	Complete loss of opportunity for the asset development	Next Fiscal Year	Alternative funding in place for current year only or Investment potential tied to current market
Financial Investments	В	Alternative funding at greater than 49 or Payback period between	Partial loss of asset opportunity	More than two Fiscal Years	Alternative funding program in place for up to 5-years or Investment potential has long term potential
	С	3 to 10 years Alternative funding less than 49% or Payback period more than 10 years	No loss of asset opportunity	More than three Fiscal Years	Alternative funding program will be in effect for more than 5-years
	A	The project used on territorial wide basis	The project is an integral part of the departmental mandate	Next Fiscal Year	The project is the only reasonable available means to deliver service
Program Need or Requirement	ed or <sup>B</sup>	The project used on regional wide basis	The project meets national standard	More than two Fiscal Years	The project is one of several options reasonably available to deliver service
	С	The project used on a community wide basis	The project exceeds current national standards	More than three Fiscal Years	The project is one of many different reasonably equally available to deliver service

# APPENDIX F – PROJECT ESTIMATE GUIDELINES

At the different stages of the Capital Planning Process, a cost estimate is calculated for each prospective project. As each proposed project is further developed, a more reliable cost estimate can be determined.

The class of cost estimation in the Corporate Capital Plan are defined at the following levels:

### Class "D" or "Level 1" – Order of Magnitude

This level of cost forecasting is often prepared based on historical information with adjustments made for specific project conditions. Project information required for estimates at this level might include a general functional description, geographic location; size expression of the building area, numbers of potential users and intended use.

Based upon a statement of requirements, and an outline of potential solutions, this estimate is of a Rough Order of Magnitude of the final project cost. The level of estimate should allow the client representative to rank all the proposed project options. This estimate is usually prepared by the Owner/Client representative.

### Class "C" or "Level 2" - Conceptual / Schematic Design

At the preliminary design stage, a cost estimate is based on schematic designs such as a building program, schematic drawings, sketch renderings, conceptual plans, elevations, section and preliminary specification. Information is typically supplemented with descriptions of soil and geotechnical conditions, utility requirements, foundation requirements, construction type/size determinations and any other information that may have an impact on the estimated construction cost.

Based on a full description of the preferred option, construction/design experience, and market conditions, this estimate should be sufficient for making the correct investment decision, and obtaining preliminary project approval.

This estimate is usually prepared by a third party design consultant.

### Class "B" or "Level 3" - Design Development

Estimates prepared at this level are used to verify budget conformance as the scope and design are finalized and final materials are selected. Information required for this level typically include not less than 25% complete drawings showing floor plans, elevations, sections, typical details, preliminary schedules (finishes, partitions, doors and hardware, etc.), engineering design criteria, system single line diagrams, equipment layouts and outline specifications. This estimate provides for a greater amount of accuracy, made possible by better-defined and detailed design documentation.

The detail of this level of cost estimates could be used to obtain project approval or add value engineering applications before completion of specifications and design drawings.

### Class "A" or "Level 4" – Construction Documents – Pre-tender Documents

A class A estimate is based on completed tender drawings and specifications, and prepare prior to calling public tenders.

This level of cost estimate can be used to confirm funding allocations, to again verify the construction cost as design is being completed, for assessment of potential value engineering opportunities before publication of the final project design documentation for bids, and to identify any possible "design creep" items, and their costs, caused by modifications during the completion of the construction documents. A class A cost estimate can be used to evaluate the received tender bids for completeness of the bids.

# APPENDIX G – SCOPE OF WORK FOR PLANNING STUDIES

The GNWT capital planning process ensures that projects are properly defined and planned before proceeding into detailed design and construction. Planning studies are an important part of this new process.

The main components of the planning study are; a Needs Analysis, an Operational Plan, a Project Brief, and a Schematic Design.

### 1. Needs Analysis

This is normally the responsibility of the program department. The scope of the needs analysis will depend on the type of project, but will generally include the following:

- a) The range of services to be delivered based on legislation, policy, and territorial or national standards (e.g. what services will available to patients in a health centre; diagnosis, imaging, in-patient and out-patient treatment, emergency services, referral, wellness clinics, mental health programs, dental care, social services etc);
- b) The area to be served (territorial, regional, community);
- c) Population projections and demographic data;
- d) Characteristics of the population to be served;
- e) Recent trends in service delivery;
- f) Estimated volume of use (e.g. enrolment for a school, the number of visits by service category in a health centre, estimated case load for a courthouse etc);
- g) The community where the facility will be located; and
- h)Optimum and maximum utilization or occupancy rates.

### 2. Operational Plan

When the needs analysis is complete, the program department will develop an operational plan including:

- a) Mission statements, core values, guiding principles, and objectives;
- b) Daily routine and schedule (a day in the life of the facility);
- c) Hours of operation;
- d) Administrative structure and staffing;
- e) Security and supervision;
- f) Facility support services (janitorial, maintenance);
- g) Relationships and potential partnerships with other service providers;
- h) Possible community use of the facility;
- i) The site chosen for the project; and
- j) Estimated annual operating and maintenance costs, including incremental costs.

### 3. Project Brief

The project brief describes the facility needed to accommodate the services and operations, with the following information:

- a) Reference to GNWT capital standards, or standards in other jurisdictions;
- b) Functional program (lists of net room areas; description of functional zones, and relationships between zones; gross up factors for circulation, mechanical and electrical services area, washrooms, janitorial rooms, and structure; site development such as parking, service yards, social and recreation areas, detailed room data sheets);
- c) Description of the site including legal and topographic surveys and geotechnical reports;
- d) Functional and technical analysis of existing buildings (where applicable);
- e) Possible development strategies that have been considered (new construction, renovation, addition, lease etc.), along with reasons for selecting the preferred strategy;
- f) Suitable technical standards;
- g) Energy conservation and environmental design;
- h) Disposal of existing facilities (if any);
- i) Comprehensive project cost estimates;
- j) Overall project schedule;
- k) Qualitative design considerations (simplicity, economy, scale, image etc); and
- 1) The project delivery method (design/bid/build, construction management, design/build).

### 4. Schematic Design

After the project brief is complete, design consultants would be to do the preliminary design, consisting of conceptual alternatives followed by schematic design of the preferred alternative. This would include:

**Conceptual Alternatives** 

- a) Code analysis;
- b) Site analysis including topography, drainage, buildable areas, access to utilities, sun, wind, views etc;
- c) At least 3 options, with plans and sections and elevations, showing different internal layouts and site relationships; and
- d) Cost comparison between the options.

#### Schematic Design

- a) Site plan;
- b) Floor plans;
- c) Furniture layouts;
- d) Building sections and elevations;
- e) Reflected ceiling plans;
- f) Simple mechanical and electrical schematics;
- g) Mechanical room and fan room equipment layouts and sections;
- h)Written description of materials, components and systems;
- i) Preliminary design calculations for mechanical and electrical systems; and
- j) Class C cost estimate.

# APPENDIX H – EXAMPLE PLANNING STUDY

### Hay River Health and Social Services Authority Capital Planning Study



September 2009



### HAY RIVER HEALTH AND SOCIAL SERVICES AUTHORITY CAPITAL PLANNING STUDY

#### **EXECUTIVE SUMMARY**

Purpose	<ul> <li>This Capital Planning Study documents:</li> <li>The rationale for a capital project in Hay River;</li> <li>The operational plan for the new facility;</li> <li>The space requirements for the new facility;</li> <li>Site development options for the new facility; and</li> <li>An estimate of construction cost for the capital project.</li> </ul>
Needs Analysis	<ul> <li>The analysis of <u>health needs</u> of the Hay River Health and Social Service Authority (HRHSSA) found that:</li> <li>The incidence of chronic disease is high and will increase over the next 20 years;</li> <li>Mental health problems (with and without the compounding factor of addiction) are common and will increase over the next 20 years; and</li> <li>Rates of infectious disease are high and are expected to increase.</li> </ul>
	<ul> <li>The analysis of <u>service demand</u> in HRHSSA projects that:</li> <li>The proportion of older people is expected to grow, shifting the demand for health services toward complex primary care, chronic disease management, community-based support services and long-term care;</li> <li>The demand for primary care and for mental health and addictions services will increase by 2-3% per annum;</li> <li>The demand for acute care services will grow at less than 1% per annum. At the same time, the demand for hospital services for chronic disease (especially cancer-related services) will increase faster than the growth in population, driven by the aging of the population;</li> <li>Hospital facilities must be designed to accommodate bariatric patients in a manner that protects patients and care providers;</li> <li>The need for medical isolation to contain and treat infectious disease will increase; and</li> <li>The demand for Home Care and residential long-term care will grow at 3% per annum or more.</li> </ul>
	<ul> <li>HRHSSA provides health services in four buildings. <u>The analysis of hospital and the medical clinic</u> showed that:</li> <li>Both buildings suffer from a wide range of space and design problems that impair good practice, patient/visitor/staff safety, and operational efficiency;</li> </ul>
Blackwel	The HH Williams Memorial Hospital has serious structural, mechanical, electrical problems that render it obsolete: it must be     Page i

replaced; and

- The Medical Clinic can be renovated but will have significant space and functional limitations that will not meet future needs.
- **Operational Plan** HRHSSA was planned as a regional centre for primary and selected secondary health services (a Level C facility in the ISDM). Services that will be provided in Hay River will include:
  - Primary care that will be provided by nurses working to full scope of practice and by General Practitioners who will focus on the needs of complex or acutely-ill patients;
  - Chronic disease management programs to promote optimal levels of health, wellness, personal accountability and control for those living with chronic disease;
  - Midwifery-led obstetrical service for a full range of pre-natal, intra-natal and post-natal services. In-community birthing services will be limited to low-risk deliveries;
  - Stabilization and treatment/transfer of patients who present for Emergency care;
  - Low-intensity inpatient care (convalescent, rehabilitative, palliative, respite, and infirmary care) in 14 Community Support Beds with capacity for medical isolation and the ability to accommodate bariatric patients;
  - Day surgery with a focus on dental surgery;
  - Ambulatory services including a medical clinic, hemodialysis, selected specialist physician services, and some day medicine programs;
  - Diagnostic services (lab, general radiology, ultrasound, mammography);
  - Home Care;
  - Public Health Nursing services;
  - Facility-based long-term care;
  - Rehabilitation services (physical therapy, occupational therapy, speech language pathology);
  - Primary-level services in mental health and addictions; and
  - The full range of primary-level child and family social services.

Technology will be used to provide:

- Telehealth services for access to assessment, treatment, and consultation with specialists in Yellowknife and other centres;
- Readily-accessible, reliable, comprehensive health and social service information, probably in the form of an Electronic Medical Record or Electronic Health Record;
- Monitoring and surveillance of frail or high-risk clients (Tele-Home Care) to encourage safe, independent living for as long as possible;
- PACS and Digital Radiology (DR) for remote interpretation of imaging exams; and
- Security technologies to improve the safety of staff and clients.



Page ii

#### **EXECUTIVE SUMMARY**

#### Functional The Functional Program is a detailed planning document that includes: Program The planning assumptions that drive space requirements, physical design or the use of technology in each department or component: A narrative description of space requirements including major furnishings and equipment needs: A summary of space needs (Schedules of Accommodation) for each component, each cluster of services, and for the facility as a whole; and Narrative descriptions and graphic illustrations of functional relationships and dependencies between departments or components. The Functional Program calls for just over 7600 BGSM of space. This does not include Community Service Programs (planned for leased space) or long-term care programs (which were not included in the scope of work for this project). **Capital Plan** Data from the Functional Program were used to create block schematic drawings that illustrated one- and two-storey options for the new facility. The one-storey option was selected as the preferred option and three sites were evaluated to determine which offered the best development option for the project. The "River Site" was selected as the preferred location for the new facility. Construction The estimated construction cost of the new facility in Hay River is approximately \$39.9M in September 2009 dollars. **Cost Estimate**



60

HRHSSA CAPITAL PLANNING STUDY

Page iii

#### HAY RIVER HEALTH AND SOCIAL SERVICES AUTHORITY CAPITAL PLANNING STUDY Table of Contents

#### **Executive Summary**

### Part 1: Needs Analysis

1.1	1.1.1 1.1.2 1.1.3	Needs and Health Service Utilization Catchment Population and Demographics Non-Medical Determinants of Health Health Indicators Historical Health Service Utilization	1 1 2 8 12
1.2	Conditie 1.2.1	on and Capacities of HRHSSA Facilities HH Williams Memorial Hospital Building Design and Functionality Structural Integrity of the Building Mechanical Building Systems Electrical Building Systems Architectural Assessment	14 14 18 19 21 22
	1.2.2	Medical Clinic Building Design and Functionality Structural Integrity of the Building Mechanical Building Systems Electrical Building Systems Architectural Assessment	24 24 25 25 26 27
	1.2.3	Woodland Manor Building Design and Functionality Structural Integrity of the Building Mechanical Building Systems Electrical Building Systems Architectural Assessment	28 28 29 30 31
1.3	1.3.1	Health Needs, Service Demand, and Facility Requirements. Health Needs Service Demand Facility Requirements	32 32 32 32

### Part 2: Operational Plan

2.1	Introduction to the Operational Plan	34
2.2	Role Statement for HRHSSA Services Provided by HRHSSA Services Provided in Yellowknife Territorial Services Provided by HRHSSA	34 34 35 35
2.3	The Model of Service Delivery in HRHSSA	35

Blackwell

2.4	Proposed Health Programs and Services	
	Ambulatory Services2.4.1Emergency Department2.4.2Primary Care Clinic2.4.3Chronic Disease Management Program2.4.4Specialist Clinics2.4.5Medical/Surgical Day Care Unit	37 41 44 46 49
	Inpatient Services2.4.6Community Support Beds2.4.7Midwifery Program2.4.8Renal Program	52 55 58
	Surgical Services2.4.9Operating Room and Post-Anesthetic Recovery Room2.4.10Supply Processing and Distribution	60 62
	Public Health and Home Care2.4.11Public Health Nursing2.4.12Environmental Health2.4.13Home Care	64 67 68
	Diagnostics and Therapeutics2.4.14Diagnostic Imaging2.4.15Laboratory2.4.16Rehabilitation2.4.17Pharmacy	71 73 76 79
	Continuing Care 2.4.18 Continuing Care	81
	Clinical Support Services2.4.19Admitting2.4.20Food Services2.4.21Health Records2.4.22Infection Prevention & Control / Occupational Health2.4.23Medical Travel2.4.24Morgue2.4.25Quality Improvement and Risk Management2.4.26Social Work2.4.27Spiritual Care2.4.28Staff Development	87 89 93 96 98 99 100 103 104 105
	Corporate Services2.4.29Administration2.4.30Finance2.4.31Human Resources2.4.32Information Technology and Telehealth	107 109 112 115
	Facility Services2.4.33Communications Centre2.4.34Facilities Management2.4.35Housekeeping2.4.36Laundry2.4.37Lobby2.4.38Material Management2.4.39Staff Services	117 118 123 125 127 128 131



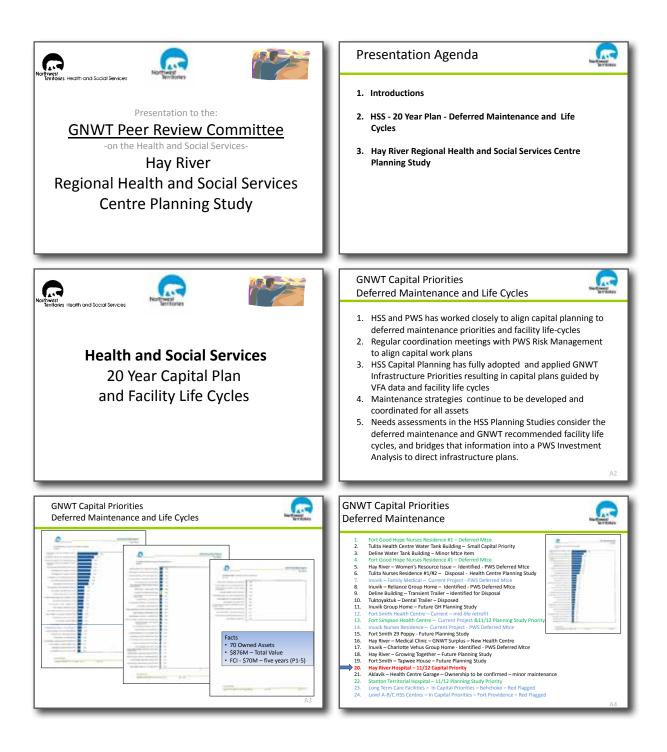
62

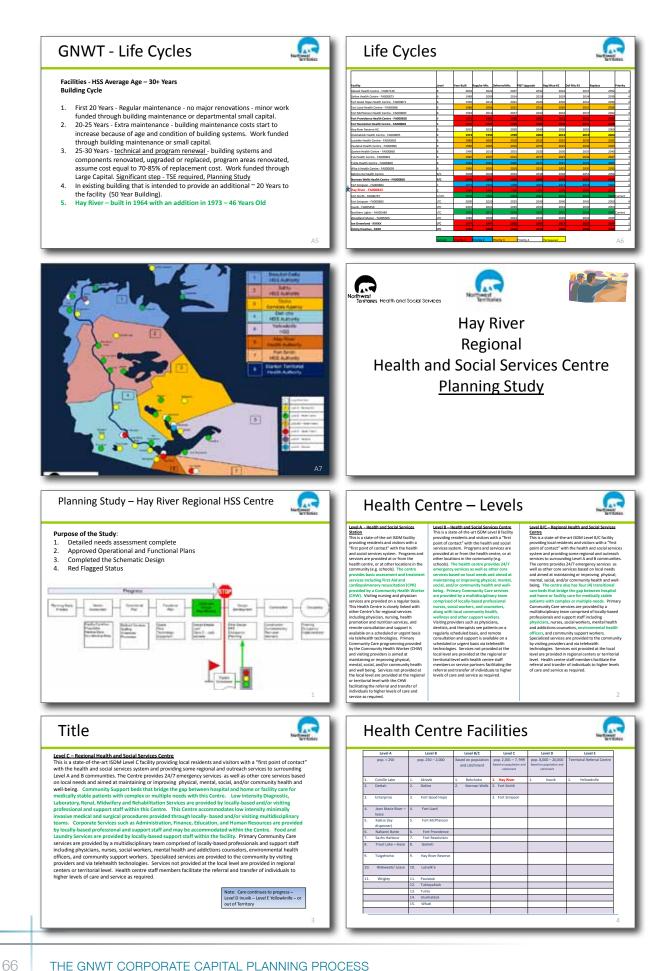
Proposed Health Programs and Services			36
	Ambula 2.4.1 2.4.2 2.4.3 2.4.4 2.4.5	tory Services Emergency Department Primary Care Clinic Chronic Disease Management Program Specialist Clinics Medical/Surgical Day Care Unit	37 41 44 46 49
	Inpatien 2.4.6 2.4.7 2.4.8	<b>It Services</b> Community Support Beds Midwifery Program Renal Program	52 55 58
	<b>Surgica</b> 2.4.9 2.4.10	I Services Operating Room and Post-Anesthetic Recovery Room Supply Processing and Distribution	60 62
	2.4.11 2.4.12	<b>lealth and Home Care</b> Public Health Nursing Environmental Health Home Care	64 67 68
	2.4.14 2.4.15	stics and Therapeutics Diagnostic Imaging Laboratory Rehabilitation Pharmacy	71 73 76 79
	<b>Continu</b> 2.4.18	i <b>ng Care</b> Continuing Care	81
	2.4.19 2.4.20 2.4.21	Support Services Admitting Food Services Health Records Infection Prevention & Control / Occupational Health Medical Travel Morgue Quality Improvement and Risk Management Social Work Spiritual Care Staff Development	87 89 93 96 98 99 100 103 104 105
	2.4.29 2.4.30 2.4.31	ate Services Administration Finance Human Resources Information Technology and Telehealth	107 109 112 115
	Facility 2.4.33 2.4.34 2.4.35 2.4.36 2.4.37 2.4.38 2.4.39	Services Communications Centre Facilities Management Housekeeping Laundry Lobby Material Management Staff Services	117 118 123 125 127 128 131

2.4

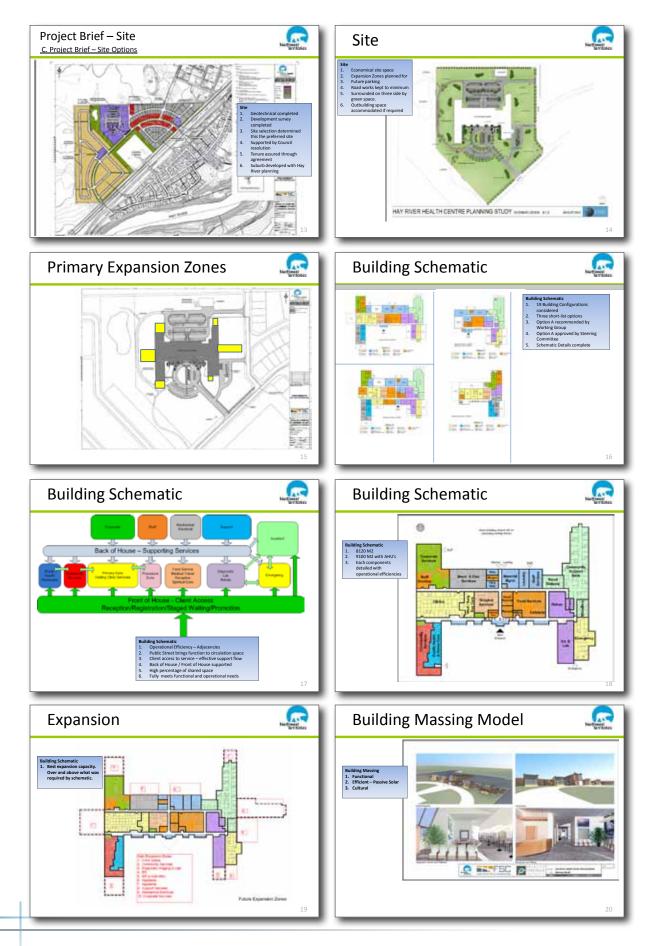
Blackwell

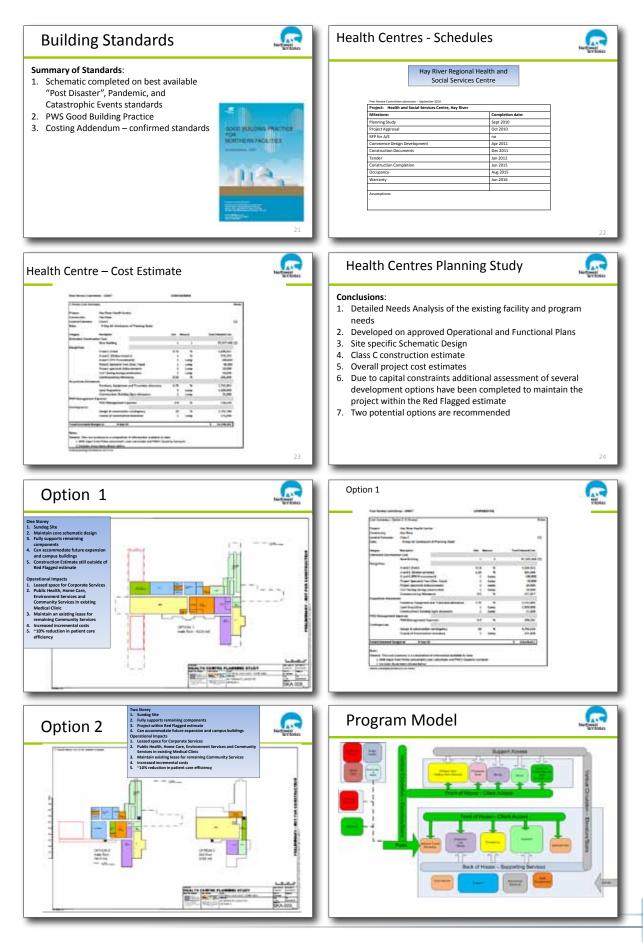
# APPENDIX I – EXAMPLE PEER REVIEW PRESENTATION





#### **Needs Assessments** Health and Social Service Needs 1 The analysis of **health needs of the Hay River Health and Social Service Authority** (HRHSSA) found that: 1. The incidence of chronic disease is high and will increase over the next 20 years; 2. Mentai health problems (with and without the compounding factor of addiction) are common and will increase over the next 20 years; and 3. Rates of infectious disease are might and are expected to increase. Conclusions: 1. Operational plans will be based on a Territorial Integrated Service Delivery Model for primary community health and social services care 2. Based on the review and analysis of demographic, health indicators, The analysis of service demand in HRHSSA projects that: 1. The proportion of older people is expected to grow, shifting the demand for health services toward complex primary care, chronic disasse management, community-based support services and long-term care; 2. The demand for primary care and for mental health and addictions services will increase by 2-3% per and determinates of health that community health and social services will continue to increase and change 3. That Hay River Hospital based on age, condition and the program renewal requirements must be a HSS priority annum; 3. The demand for acute care services will grow at less than 1% per annum. At the same time, the demand for hospital services for chronic disease (especially cancer-related services) will increase faster than the growth in population, driven by the aging of the population; 4. Facilities must be designed to accommodate bariatric patients in a manner that protects patients and care 4. PWS investment analysis clearly demonstrated that replacement will better serve the residents of the GNWT for these facilities The need for medical isolation to contain and treat infectious disease will increase; and The demand for Home Care will grow at 3% per annum or more. Primary Care Focus – focus on the development and maintenance of healthy communities through well planned and organized promotion, prevention and early intervention activities "Our vision is a Northwest Territories where our children will be born healthy and raised in a safe far which supports them in leading long, productive, and self reliant lives." - GNWT – Foundation for Change A NAME North ment **Operational Plan Core HSS Operations** <text><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item> tional Plan - Hay River (Ideal State) FTE's Total Budget 142.83 14.299,181 104.00 9,402,157 38.83 4.897.025 Note: The Ideal State positions were budgeted at a step 4 as per the MBB position costing (April 110). The current state has been budgeted according to the 2011/12 PSAC hourly rate of pay, step 3. The 201011 main estimates position listing was used to determine the funded position and step. As par 2010/11 Main Estimates Does not include Call Back, Standby, Relet, or OT 2009/10 actuals for: Caliback \$13,055 Standby \$145,654 Relet/OT \$363,257 ational Plan - Hay River Incremental Non Labour O&M Funding rational Plan - Hay River (Ideal State) ent State 2010/11 Budget <sup>(1)</sup> 2,503,174 5,300,791 Note: Hary Filver has Internal IT staff but TSC chargeback included in p. Note: Minor expenditures were not included in costing (under 55,000) Mitte: Costing dates not included minor or mater resolutions Note: Honor Card Maska or Winesh en Induded Note: Lease Cost needs to be confirmed and adjusted. (Further endrial & Supplies: Also incl s/Pharmaneuticals: Also Notimet **Project Brief** Project Brief – Existing Facilities A.C. <u>C. Project Brief - Functional Program</u> <u>1</u>. Net/Gross factor determined Functional Program requirements based on detailed Needs Analysis and Operational Plan Daily Operation defined in the Operational Plan, 1. Technical and functional evaluations of existing facilities deemed that new facilities are required Investment analysis clearly demonstrated that life cycle cost of renovation and program changes is a more costly option than new construction Daily Operation derined in the Operational Plan, includes staffing model Functional relationships fully defined and based on effective and efficient process considerations Outdoor requirements identified and detailed in the schematic design TSE Report for existing HH Williams TSE Report for Medical Clinic 4. Reuse of existing HH Williams facility is not possible for delivery of the 5. 3. approved program Detailed Room Data Sheets completed 6. 7. Capital Construction of purpose built facility is most economical alternative Errata issued for changes made in schematic 5. PWS process for disposal of existing facility will be followed planning Project Brief - Site North and Schematic Design A.C. C. Project Brief – Site Options C. Schematic Design – Hay River Regional HSS Centre – Level C Several base building design options were reviewed and assessed Preferred option was selected based on program efficiencies and expansion capacity and 1. 2. 1. Over 20 sites considered through a Free revolution was selected usaed on program enclendes and expansion capacity and client access Schematic Design was developed for Sundog site Includes code analysis and systems descriptions – PWS Good Building Practice HSS has signed off that schematic design fully supported HSS operational and functional selection Committee 3. 4. 5. Three sites short-listed 3. Existing site cannot accommodate building 4. River site although deemed ideal would requirements require relocation of existing GNWT departments 5. Sundog site selected as preferred site Saut of Pharty -





The Index (and the Own?			
place Services		100	Conclusions:
August San Band San B	_	-	<ol> <li>Detailed Needs Analysis of the existing facility and program needs</li> </ol>
-		<b>Automation</b>	2. Developed on approved Operational and Functional Plans
Concept Longence Lost		4.41.44.55	3. Site specific Schematic Design
Angelia Anti Samorani Anti Samorani Angel Samorani Angel Samorani Angel Samorani Angel Samorani	11. 11.	1401.001 00.000 00.000 00.000 00.000	<ol> <li>Class C construction estimate</li> <li>Overall project cost estimates</li> </ol>
Disable control Manhanet		101.187	6. Cost saving options
Institution Constant of Constant	1 1000	1,000,000	0. Cost saving options
Attitutes		101.08*	Thank you
They bearing a figure	1.2	5.00.00 00,000	
Destroyed They .		6. Interview	
Nacional Second American Constraints of Constraints 1. State Appl Transmission Constraints on Constraints 1. State Appl Transmission Constraints on Constraints 1. State Constraints on Constraints 1. State Constraints on Constraints 1. State Constraints on Constraints 1. State Constrain			

# APPENDIX J – PRIMARY CATEGORY FILTERS

# Primary Category Filters

For the purposes of ranking capital projects in the 5-year Capital Plan, primary category filters have been developed by the GNWT. The five criteria are:

- 1. Protection of People/Deferred Maintenance
- 2. Protection of Assets
- 3. Protection of the Environment
- 4. Financial Investments
- 5. Program Need or Requirement

## Definitions and Application Guidelines

### 1. Protection of People

Projects that alleviate health hazards or reduce risks to GNWT staff or the public (must clearly demonstrate imminent danger and/or risk) – usually associated with one or more of the following:

- a) An improvement order from authority having jurisdiction; and
- b) Legislation which has the authority to close down infrastructure or impose penalties.

#### 2. Protection of Assets

Infrastructure projects that will protect GNWT assets, projects could include existing, enhanced or new assets. These projects should address site-specific emergencies where a system failure and/or existing condition will require an immediate response to alleviate potential and demonstrable damage to assets and/or property. These actions could be a result by natural disaster, fire, accident, or court order.

The protections of assets are usually the result of one or more of the following:

- a) Imminent structural failure; Infrastructure is critical to program delivery and demonstrated risk from inaction;
- b) Catastrophic equipment (mobile or fixed) failure;
- c) Severe fire, flood or storm damage;
- d) Requirement for demolition of hazardous infrastructure;
- e) Advanced age of infrastructure; and
- f) Essential Legislative service.

NOTE: Projects driven by demographic growth would not likely receive priority under this present ranking process. The DMSC directed the IWG to rank these projects the same as Protection of Assets. Thus, there are two categories under the Protection of Asset criteria:

- i Projects required to "Protect the Asset"; and
- ii. Projects that are driven by demographic (forced) growth that are not being addressed through the current application of the prioritization criteria. Projects with imminent (within the current 5-year Capital Plan) capacity shortfalls should be ranked using the criteria as Protection of Asset and as the lesser criteria of Program Need or Requirement.

#### 3. Protection of the Environment

This category filter focuses on projects that alleviate or mitigate direct threats to the environment. It is understood that these direct effects could potentially have an indirect effect on the health of people. Projects should be associated with one or more of the following:

- a) Energy conservation/efficiency achievement;
- b) Environmental protection achievement (i.e. Greenhouse gas emissions reduction); and
- c) Demonstrable environmental risk from inaction.

#### 4. Financial Investments

Infrastructure projects that reduce the cost of service delivery (namely maintenance and/ or staff); or, that create or enhance a revenue stream that recovers the full project cost usually within five to seven years. Financial investment projects are usually associated with one or more of the following:

- a) Potential return on investment through increased revenues or cost avoidance;
- b) Formal agreements for investment which require matching funds from other jurisdictions;
- c) Avoidance of costs for major repairs or replacements;
- d) Avoidance of costs for environmental remediation; and
- e) Cost savings which exceed investment and payback period of five to seven years.

## 5. Program Need or Requirement

Infrastructure projects that accommodate existing shortfalls/deficiencies, enhanced and/ or new programs, improve service delivery, maximize federal or other aid, or meet space needs that are the result of program expansion – usually associated with one or more of the following:

- a) New or expanded or adapted infrastructure to meet forced growth usually associated with demonstrated growth in demographics or demonstrated growth in demand for programs and services;
- b) Community infrastructure capacity projected to be exceeded by the end of the project;
- c) Failure to adequately meet demonstrated program requirements;
- d) New or expanded or adapted infrastructure to meet forced growth usually associated with:
  - i. Restructuring;
  - ii. Technological innovation and/or aesthetic improvements;
  - iii. Service level improvements;
  - iv. Limited or no potential for cost savings; and
  - v. Increased client demands and/or expectations.

# APPENDIX K – BETTERMENT OF FACILITY TERMS OF REFERENCE

# Betterment of a Tangle Capital Asset (TCA)

### Betterments - results in one or more of the following conditions:

- a) Extension of the estimated useful life of the asset; or
- b) Enhancement of the service potential of the asset.

If neither criterion is met, all costs proposed must be recorded as operating expenses in the period incurred.

## Arguments Against Betterment Treatment

Compliance with legislated information requirements is required of all departments of the GNWT as part of ongoing operations. Compliance is unrelated to the service potential of the tangible capital asset.

Expenditures that help the TCA to reach the end of its originally estimated economic useful life are not betterments. They are operations expenses since the work done does not result in an extension of the useful life of the TCA beyond its original estimate.

## Examples of Betterment vs. Operating Expense Treatment

A couple of examples are provided to illustrate the application of different accounting treatments for seemingly similar activities.

*Scenario* 1 – Enhancements and modifications are made to a building to bring it into compliance with current fire codes.

*Scenario 2* – Enhancements and modifications are made to a building to provide barrier-free access to the building for persons with disabilities.

In scenario 1, there is no increase in service potential of the building (i.e. the asset) since the size, shape and usefulness of the building have not changed. The building may better prevent a fire, slow down the rate at which it burns, or allow quicker response by the fire department, but the building is still used for the same purpose by the same number and type of persons that used it previously. The enhancements and modifications would not be considered a betterment for financial accounting purposes.

In scenario 2, there is an increase in the service potential of the building since the layout and usefulness of the building have been enhanced. The building is now accessible by more members of the public who previously could not use the building. The potential output level (number of users) has increased. The enhancements and modifications would be considered a betterment for financial accounting purposes.

## **General Comments**

A distinction needs to be made between those activities which are necessary to maintain the existing functions to meet existing legislated requirements and those activities that are undertaken to enhance the service potential of a TCA.

### Excerpts from FAM policy 2203 – Betterments

## FAM 2203 Betterments

#### 1. Introduction

Betterments versus Repairs: Any cost incurred to ensure the existing service potential of a TCA is maintained is considered repairs and maintenance. The cost incurred to enhance the service potential of a capital asset is a betterment. Service potential may be enhanced when there is an increase in the previously assessed physical output or service capacity, associated operating costs are lowered, the useful life is extended, or the quality of output is improved.

#### 4.3 Examples of betterments:

- a) A betterment can be the replacement of a major component of a TCA with a significantly improved component such as the replacement of an old shingle roof with a modern fireproof tile roof or the installation of a more powerful engine in a ship.
- b) A betterment can be a renewal, which is normally a large, non-recurring expenditure that increases the utility or service life of an asset beyond the original estimate e.g. major overhauls to equipment and strengthening of a building foundation.
- c) A betterment can be an addition that is an integral part of an existing TCA, e.g. an extra wing or room added to a building or the addition of a production unit to an existing machine or a software module addition or upgrade.

# APPENDIX L - 5-YEAR CAPITAL PLAN

# Table 12 – Typical 5-year Capital Plan - Summary

	2013/14	2014/15	2015/16	2016/17	2017/18	Totals
Target						
Additional Funding Available						
Capital Asset Retrofit & Biomass Funding						
Building Canada Plan (BCP)						
Total Budget						
Allocated to:						
Previously Approved Projects:						
Large Capital Projects						
Building Canada Plan (BCP)						
Capital Asset Retrofit & Biomass Funding						
Total Previously Approved						
IT Capital Equipment						
Small Capital						
Deferred Maintenance						
	T	1	1	1	<u> </u>	
Total Available Budget						
Departmental Priorities - Red Flagged Projects						
DOT Priority Programs						
Bio-Medical Equipment/ Evergreening						
NWT Housing Corporation						
Capital Asset Retrofit & Biomass Funding						
Available Pudget					1	
Available Budget						
Stanton Hospital						
Available Budget						
École Allain St Cyr School Addition						
École Boréale Addition						

# Table 13 – Typical 5-year Capitol Plan – GNWT Priorities

DEPT.	СОММ.	Project Name	Prior Year Cost	13/14	14/15	15/16	16/17	17/18	FIVE YEAR SUB TOTAL
Large Capital Projects									
HSS	Behchoko	Jimmy Erasmus Seniors Centre-replacement							
HSS	Fort Providence	Health Centre - Replacement							
HSS	Fort Smith	Health Centre - Renovation							
HSS	Hay River	H.H. Williams Memorial Hospital							
HSS	Norman Wells	Health Centre - Replacement							
PWS	Tulita	PPD-Tank Farm - Capacity Increase/Code Upgrade							
Building Canad	la Plan (BCP)								
PWS	Yellowknife	New 6,000m <sup>2</sup> General Purpose Office Building							
DOT	Various	Hwy 1 km 188-457 (CSIF)& (BCP)							
DOT	Various	Hwy 4 km 0-69.2 (CSIF) &(BCP)							
DOT	Various	Hwy 8 km 0-259 (CSIF)&(BCP)							
DOT	Various	Hwy 3 km 239 - 338.9 Rehab (BCP)							
Capital Asset R	etrofit & Biomass	Funding							
PWS	Various	Capital Asset Retrofit Program - Accumulated Operational Savings							
PWS	Various	Capital Asset Retrofit Program - Additional Requirements							

DEPT.	СОММ.	Project Name	Prior Year Cost	13/14	14/15	15/16	16/17	17/18	FIVE YEAR SUB TOTAL
Deferred Main	ntenance								
PWS	Various	Deferred Maintenance							
Departmental	Priorities / Red F	lags							
ENR	Fort Simpson	ENR Laboratory							
JUS	Yellowknife	NSCC Full Perimeter Fence							
HSS	Yellowknife	Stanton Territorial Hospital - Deferred Maintenance Priorities							
PWS	Fort Simpson	PWS Shop							
DOT	Various	Hwy 7							
HSS	Fort Resolution	Health Centre - Replacement							
JUS	Fort Smith	Territorial Women and Girls Correctional Centre (TWGCC)							
DOT Priority	Projects								
DOT	Various	Various Bridges Programs							
DOT	Various	TBD							
DOT	Various	Various Highway Chipseal Overlay Program							
DOT	Various	Culvert Replacement Program							
Bio Medical E	quipment Evergree	ning							
HSS	Various	Bio Medical Equipment Evergreening							
NWT Housing	Corporation								
HSS	Various	NWT Housing Corporation							
Stanton Hosp	ital								
HSS	Various	Stanton Hospital							





Photo: Bill Braden

# THE GOVERNMENT OF THE NORTHWEST TERRITORIES CORPORATE CAPITAL PLANNING PROCESS

