Naut'sa mawt
TRIBAL COUNCIL

Updated 2021

Preparing a Community Infrastructure Services Plan

Guidance on Financial Management

Contents

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Table of Contents

1. Introduction

This manual was produced by Consensus Infrastructure Solutions Ltd. for the Naut'sa Mawt Tribal Council. It provides high-level guidance on developing the financial management components of a Community Infrastructure Services Plan (CISP).

This guidance should be considered in conjunction with the document *"Preparing a Community Infrastructure Services Plan – User Manual and Sample Plan – 2021"*. Discussing Financial Implications is Step 10 of the 14 step CISP process set out in that Manual.

2. Integrated Community Infrastructure Services Planning – Overview

A Community Infrastructure Services Plan (CISP) supports First Nations in achieving their Community Plan through the successful and efficient delivery of community infrastructure services such as: water supply and distribution; sewage collection and treatment; storm drainage; roads; solid waste management; and community buildings.

The CISP is more comprehensive than and distinctly different to the process described in the Infrastructure Planning Guide (IPG) published by the Naut'sa Mawt Tribal Council in 2019. The IPG is high-level, and is intended to promote infrastructure discussions during preparation of a Comprehensive Community Plan (CCP).

By contrast, as shown in Figure 1, the CISP supports the Comprehensive Community Plan (CCP) by incorporating all strategic, tactical and operational aspects of delivering Community Infrastructure Services. The CISP provides the context for strategic, administrative, financial, operational and capacity building activities. It also provides the basis for getting the right balance between the quantity and quality of service (levels of service), risk and cost.

The CISP process is performance based - as the saying goes, "you can't manage what you don't measure." Performance based planning and management involves: establishing measurable, feasible performance targets; monitoring and measuring actual performance; and developing and implementing strategies and action plans to resolve performance gaps.

The CISP is a cyclical, continuous improvement process that should be updated regularly (at least yearly) to accommodate current year results and new or changing circumstances. In effect, the process represents a rolling 5- to 10-year infrastructure service business plan in which a year is dropped and a year is added with each annual update.

Community Infrastructure Services Plan (CISP):

a. Adopts for direction, the Community Vision and Objectives (outcomes to be achieved).

b. Establishes, for each objective (outcome), one or more measurable, key performance indicators (KPIs) and meaningful performance targets.

c. Identifies the scope and cost of infrastructure services to achieve target performance, including how those services should be delivered.

d. Identifies and scopes capacity building requirements.

e. Identifies multi-year financial requirements (capital and O&M), sources of funds and necessary financial policies and strategies (e.g. debt; user charges; reserves).

f. Documents key strategies and a prioritized action plan for improving performance.

This manual addresses CISP Financial Implications – namely item (e) above. Other aspects of the CISP are set out comprehensively in the document *"Preparing a Community Infrastructure Services Plan – User Manual and Sample Plan – 2021"*.

Figure 1. CISP Structure & Content

Comprehensive Community Plan (CCP)

- A Community led Roadmap to sustainability, self-sufficiency and improved governance
- High level master plan that sets out Community vision, objectives, guiding principles and concepts for planning and development – including lifestyle, economic, social, environmental and cultural expectations

Community Infrastructure Services Plan (CISP)

- Strategic and high level business plan for delivering infrastructure services to enable the Community Plan; CISP projects:

"How much should a FN spend, on what, when and why to ensure sustainable delivery of enough, good quality infrastructure services for the Community at the lowest life cycle cost?"

Service Delivery

What type, quantity & quality of services do we deliver & how?

- Services to be delivered
- Service delivery policies & practices
  - » Levels of service
  - » In-house or contract out
- Service risk management
- Demand forecasts
- Service regulation
- Customer service
- Communications & education
- Capacity Building
  - » Organization structure
  - » HR policies & practices
  - » Staffing & contracting out
  - » Training
- Emergency response
- Insurance
- Service delivery monitoring & reporting
- Service delivery information management

Financial Management

How much money do we need & when? Where will money come from & on what terms & conditions?

- Financial policies & practices
  - » Financial Administration Law
  - » Tangible capital assets
- O&M expenditure projections
- Capital expenditure projections
  - » Existing assets
  - » Future assets
- Financing – amounts, sources, terms & conditions
- Revenues – amounts & sources
- Operating & capital reserves
- Financial risk management
- Financial monitoring & reporting
  - » Income
  - » Balance sheet
    - » Tangible Capital Asset report
  - » Cash flow
- Financial information management

Infrastructure Management

What infrastructure do we require, where & when? How will we manage our infrastructure?

- Infrastructure management policy
  - » Asset management policy
    - » Own vs. rent/contract-out
  - » O&M policies
  - » Safety & security policies
  - » Infrastructure standards
- Asset Management
  - » Asset inventory
  - » Asset monitoring, inspections
  - » Asset replacement forecast
    - » Service life forecasts
- Infrastructure operations & maintenance
- Projected infrastructure additions, deletions, alterations
- Infrastructure risk management
- Infrastructure monitoring & reporting
- Infrastructure information management
  - » O&M
  - » Assets

3. CISP Community of Practice

The CISP vision is for widespread use of the practice among First Nations (FNs) across B.C. and, hopefully, across the Country to promote:

- Greater structure, consistency and accountability in service planning, budgeting and operations.
- Improved efficiency, increased reliability and reduced costs.
- Stronger support for infrastructure investments and priority setting.
- Greater consistency and understanding through common language, terms and methods.
- Better integration & collaboration within and among FNs.
- More focused and effective capacity building.

To that end, all participating FNs are encouraged to adopt a "core" strategic framework that incorporates a set of "core" common objectives and key performance indicators (KPIs). Such a collaborative approach would:

- Reduce the effort required to prepare a CISP and keep it up to date.
- Facilitate work and knowledge sharing.
- Have a valid and more consistent way to benchmark performance with other communities.

Of course, FNs can expand beyond the "core" framework to include objectives and KPIs that reflect special local circumstances.

4. Improving Financial Management - Strategic Drivers

Typical key drivers for improving financial management are:

- FNs are striving for financial sustainability and self-sufficiency.
- FNs face increasing demands from Councils, Members and Stakeholders for improved financial transparency and accountability.
- Chief and Council have competing demands for scarce financial resources and face increasing pressure on own-source-funds to address funding gaps. So, staff must more clearly demonstrate value for money and efficiency.
- FNs require a sustainable funding strategy and policy. Funding is often insufficient to sustain even existing FN infrastructure. There is typically no structured funding (e.g. capital reserves) for infrastructure repairs, replacements and/or upgrades.
- There is insufficient financial information for effective financial management. FNs need more comprehensive details on revenues and expenditures to project financial requirements for specific activities (capital and operating), to manage financial performance and to control costs.
- Asset inventories can increase significantly due to expanded member housing and economic development. Funding requirements will increase commensurately.
- FNs need more effective planning and decision making processes to satisfy their Financial Administration Laws (FALs).

5. First Nation Financial Administration Laws (FALs) – Infrastructure Management Requirements

As part of a concerted effort to improve financial management, First Nations are implementing Financial Administration Laws (FALs). Typical FALs provide guidance on managing infrastructure as follows:

a. General Council Duties

Council will take reasonable steps to ensure that:

- Tangible capital assets are maintained in a good and safe condition and to the same standard as a prudent owner of such assets.
- The rehabilitation or replacement of tangible capital assets is in accordance with an effective life-cycle management program.
- Capital projects for the construction of buildings or other improvements are financed, planned and constructed in accordance with typical good industry practice.

b. Tangible Capital Asset Reserve Fund

- Council will establish a tangible capital asset reserve fund for the purpose of carrying out capital projects.

c. Reporting on Capital Projects

The CAO will regularly report to the Finance Committee on:

- Financing status related to capital projects.
- The status of capital projects.
- The status of work to establish and apply suitable policies and procedures related to planning, design, costing, procuring, constructing and controlling scope, schedule and budget for capital projects.

d. Life-cycle Asset Management

- The CAO will establish, and keep current, a register of all tangible capital assets including comprehensive information on all assets that is relevant for effective asset management.
- On or before the end of a calendar year, the CAO will arrange for the inspection and review of the state of each tangible capital asset to update the information in the asset register including:
  - Asset condition.
  - Suitability for use.
  - Replacement cost.
  - Estimated remaining service life.
  - A comparison of annual operations and maintenance costs for the last 5 years.
  - Amounts and adequacy of insurance coverage.

- On or before January 31 each year, the CAO will prepare:
  - A schedule of routine maintenance for each tangible capital asset for the coming year.
  - Short and long term projected costs for rehabilitation or replacement of tangible capital assets – including a budget for the coming year.

e. Review by Finance Committee

- On or before February 28 each year, the Finance Committee will review the Life Cycle Asset Management information, schedules and budgets (item iv above) submitted by the CAO to:
  - Identify potential efficiencies and/or cost reductions.
  - Understand the effect that the proposed rehabilitation and replacement program will have on operating and maintenance costs in coming years.
- On or before February 28 each year, the Finance Committee will review any plans for new construction of tangible capital assets.

f. Multi-year Financial Plan

No later than March 31 each year, Council will approve a multi-year financial plan that:

- Has planning periods of 5, 10 and 30 years (or longer).
- Is based on projected revenues, expenditures and transfers between accounts – all segregated by significant category.
- Identifies projected deficits and surpluses.

g. Risk Assessment and Management

At least annually, the CAO will:

- Identify and assess any significant risks to tangible capital assets and infrastructure operations.
- Report on risk mitigation activities and plans.

h. Insurance

- Council will procure and maintain in force insurance coverage that is appropriate and commensurate with identified risks.

6. Community Infrastructure Services Plans – Enabling FAL compliance

Key Links between the CISP and FAL compliance are in ***Table 1***.

Table 1. Key Links between the CISP and FAL compliance

FAL Requirement	CISP Function
▪ Maintain Tangible Capital Assets in a good and safe condition ▪ Identify and assess any significant risks to tangible capital assets and infrastructure operations ▪ Rehabilitate or replace tangible capital assets according to an effective life-cycle management program	▪ Monitors asset performance, including health and safety issues and risks ▪ Monitors O&M performance – identifies and addresses deficiencies ▪ Identifies risks and mitigation strategies ▪ Uses a life cycle cost approach to identify most efficient ways to keep assets working well and in good and safe condition ▪ Establishes financial requirements to keep assets in a good and safe condition
▪ Finance, plan and construct capital projects according to typical good industry practice	▪ Monitors backlog of capital maintenance ▪ Projects long-term capital requirements for expanding or upgrading infrastructure to serve current and future demands ▪ Sets priorities based on costs & benefits ▪ Evaluates debt vs. "pay as you go" options to fund infrastructure ▪ Establishes financial requirements and optimal funding methods to keep assets in a good and safe condition
▪ Identify potential efficiencies and/or cost reductions	▪ Recommends O&M adjustments to achieve efficiencies and to improve performance
▪ A schedule of routine maintenance for each tangible capital asset for the coming year	▪ Monitors O&M performance – identifies and addresses deficiencies
▪ Short and long term projected costs for rehabilitation or replacement of tangible capital assets – including a budget for the coming year ▪ Establish a tangible capital asset reserve fund for carrying out capital projects ▪ Understand the effect that the proposed rehabilitation and replacement program will have on operating and maintenance costs in coming years	▪ Projects long term capital requirements for repairing, rehabilitating or replacing existing infrastructure ▪ Establishes financial requirements and optimal funding methods – incl. necessary contributions to Reserves ▪ Recommends adjustments to O&M plans to achieve efficiencies and to reflect asset rehabilitation and replacement – e.g. recommends cost reductions where asset upgrades reduce O&M

FAL Requirement	CISP Function
▪ Establish, and keep current, a register of all tangible capital assets including comprehensive information for effective asset management	▪ Provides key input to information requirements for asset register (inventory) ▪ Uses asset register data to provide strategic and tactical information for infrastructure management
▪ Plans for construction of new tangible capital assets	▪ Provides service demand forecasts ▪ Recommends "supply" vs. "demand" options to handle increased demands – e.g. water conservation vs. expanded water infrastructure ▪ Projects scope and timing of infrastructure expansion or upgrading to handle increased or changing demands
▪ A multi-year financial plan that: » Has planning periods of 5, 10 and 30 years (or longer) » Is based on projected revenues, expenditures and transfers between accounts » Identifies projected deficits and surpluses	▪ Provides comprehensive, long-term O&M and capital financial projections » Revenues – amounts and sources » Expenditures » Yearly deficits and surpluses » Recommended financial strategies & policy
▪ Procure and maintain in force insurance coverage that is appropriate and commensurate with identified risks	▪ Monitors insurance status ▪ Provides basis for asset valuations ▪ Provides basis for deciding scope, amounts and terms of insurance
▪ Report on: » Financial status » Operational performance » Risk mitigation activities and plans » The status of capital projects » The status of work to establish and apply suitable policies and procedures for planning, design, costing, procuring, constructing and controlling scope, schedule and budget for capital projects	▪ CISP reports on all aspects of strategic and tactical infrastructure management ▪ Recommends and monitors capacity building

7. Infrastructure Management – Roles and Responsibilities

Effective infrastructure management involves an integrated, team effort with clearly defined roles and responsibilities. For example:

a. Chief Administrative Officer (CAO) – under direction of Council, responsible for all strategic and day-to-day matters involved in planning, operating and administering a First Nation, including its tangible capital assets.

b. Public Works Director - under direction of the CAO, responsible for compliance with the adopted Asset Management Policy including:

- Effective life-cycle management of tangible capital assets.
- Reporting on the status of tangible capital assets.
- Reporting on requirements and priorities for rehabilitation and replacement of tangible capital assets and for projecting future asset requirements.
- Projecting infrastructure requirements to meet current and future service demands.
- Effective implementation of infrastructure projects.
- Efficient and effective O&M.
- Projecting financial requirements for planning, building, operating and maintaining tangible capital assets.

c. Chief Financial Officer - under direction of the CAO, responsible for:

- Setting and administering financial policies and practices.
- Procuring and administering financing.
- Accounting for and reporting on financial activities, related policies and standard accounting practices.
- Internal audit of financial practices.
- Providing overall financial direction on function budgets and financial plans.
- Presenting consolidated (all functions combined) budgets and financial plans.

d. Financial Auditor – responsible for:

- Ensuring compliance with relevant financial policies, practices and standards for accounting and financial reporting.

8. Asset Management Policy

An Asset Management Policy of the form in ***Table 2*** enables effective infrastructure management and compliance with a Financial Administration Law (FAL).

Table 2. Sample Asset Management Policy

Purpose	▪ Enable efficient, effective, enterprise-wide asset management ▪ Enable compliance with the Financial Administration Law ▪ Provide specific policy/procedure guidance to Council, CAO and Staff
Description	Good asset management (AM): ▪ Is performance based ▪ Strives for optimal results through continuous improvement ▪ Involves comprehensive and systematic collection and analysis of asset information to inform all asset management activities
Asset Management Objectives	▪ Comprehensive, complete, accurate and up to date information on all assets ▪ Transparent and accountable asset management practices ▪ Effective financial management ▪ Demonstrated efficiency and effectiveness ▪ Acceptable risk ▪ Stakeholders are engaged and knowledgeable on infrastructure management ▪ Infrastructure services are affordable and financially sustainable over the long-term ▪ Infrastructure performance meets or beats adopted levels of service and KPIs
Guiding Principles:	▪ Good life-cycle management practices are applied to achieve adopted levels of service at the lowest sustainable cost ▪ The community is routinely consulted on decisions related to assets; the community clearly understands the relationship between levels of service, risk and cost ▪ Levels of Service ▪ Adopted levels of service strike, for specific local conditions, an acceptable balance between service quality, risk and cost ▪ Adopted levels of service and service expectations are clearly communicated to the community ▪ The Asset Register: » The First Nation (FN) knows the assets it owns and for which it has responsibility or legal liability; such assets are recorded in one, comprehensive register; information in the register is current, accurate and comprehensive in terms of supporting effective asset management; the First Nation owns and has ready access to the asset register » The asset register includes all FN assets, including those which the FN has contracted out responsibility for O&M; the contractor (e.g. a municipality under MTSA) routinely provides asset management information in the form required by the FN's register » The FN enables the Asset Register through effective business and information systems

Guiding Principles	▪ Financial Management: » The FN applies full-cost, activity-based accounting; the total cost of service delivery is transparently identified and clearly communicated » The FN applies structured processes (e.g. business casing) to identify and evaluate asset investments – for capital, operations and maintenance expenditures alike » Asset Management efficiency is routinely assessed and reported ▪ Risk Management » Assets that are critical to meeting adopted service levels are routinely identified and assessed » Asset related risks and mitigation strategies are routinely identified, assessed and reported; residual risks are well understood and accepted by the FN and stakeholders ▪ Assets, for which responsibility for O&M is contracted out, are handed back at the end of the contract term in equal or better condition than existed at the start of the contract term and with all relevant asset management records and information ▪ The First Nation routinely practices continuous improvement related to asset management
Key Performance Indicators (KPI's) – Asset Management Policy	FNs should regularly assess their compliance with the Asset Management Policy based on the following KPIs: ▪ The asset register is up-to-date, comprehensive and complete ▪ Assets meet or beat adopted Operational levels of service and KPIs ▪ Asset related risks are within target levels ▪ An up-to-date "state of the assets" report is issued annually ▪ An up-to-date Community Infrastructure Services Plan (CISP) is issued annually
Asset Management Practice	**a. Council will:** ▪ On or before February 28 each year, review the Life Cycle Asset Management information, schedules and budgets submitted by Leadership to: » Identify potential efficiencies and/or cost reductions » Understand the effect that the proposed rehabilitation and replacement program will have on operating and maintenance costs in coming years ▪ On or before February 28 each year, review any plans submitted by Leadership for new construction of tangible capital assets ▪ No later than March 31 each year, approve a multi-year financial plan that: » Has planning periods of 5, 10 and 30 years » Is based on projected revenues, expenditures and transfers between accounts – all segregated by significant category » Identifies and addresses projected deficits and surpluses » Establish and maintain, based on Leadership recommendations, a reserve fund sufficient to sustain repair, rehabilitation and replacement of tangible capital assets over the long-term

Asset Management Practice	▪ Procure and maintain in force, based on Leadership recommendations, insurance coverage for tangible capital assets that is appropriate and commensurate with identified risks **b. The Chief Administrative Officer (CAO) will:** » Report to Council, at least twice per year, on: » Financing status related to capital projects » The status of capital projects » Community engagement » Establishing and applying suitable policies and procedures for planning, design, costing, procuring, constructing and controlling scope, schedule and budget for capital projects ▪ On or before the end of a calendar year, inspect and review the state of each tangible capital asset and update information in the asset register including: » Asset condition » Suitability for use » Replacement cost » Estimated remaining service life » A comparison of annual operations and maintenance costs for the last 5 years » Amounts and adequacy of insurance coverage ▪ On or before January 31 each year, prepare: » A schedule of routine maintenance for each tangible capital asset for the coming year » Short- and long-term projected costs for rehabilitation or replacement of tangible capital assets – including a budget for the coming year ▪ At least annually: » Identify and assess any significant risks to tangible capital assets and infrastructure operations » Report to Council on risk mitigation activities and plans » Report to Council on community communications and education on infrastructure issues and activities ▪ On or before January 31 each year, recommend to Council updated reserve fund requirements sufficient to sustain repair, rehabilitation and replacement of tangible capital assets over the long-term ▪ On or before January 31 each year, recommend to Council updated insurance coverage requirements for tangible capital assets that is appropriate and commensurate with identified risks

Asset Management Practice	▪ On or before February 28 each year, report to Council on the Life Cycle Asset Management information, schedules and budgets to: » Identify potential efficiencies and/or cost reductions » Understand the effect that the proposed rehabilitation and replacement program will have on operating and maintenance costs in coming years ▪ On or before February 28 each year, submit plans to Council for new construction of tangible capital assets ▪ No later than March 31 each year, submit to Council an up-to-date Community Infrastructure Services Plan including a multi-year financial plan that: » Has planning periods of 5, 10 and 30 years » Is based on projected revenues, expenditures and transfers between accounts – all segregated by significant category » Identifies and addresses projected deficits and surpluses

9. The CISP Financial Management Cycle

Figure 2 shows the CISP Financial Management Cycle; ***Table 3*** is a summary description.

Financial decisions and budgets should be based on findings from the up to date CISP.

The Work Warehouse is the prioritized inventory of all known work (current and projected requirements for capital, operations and maintenance) based on the current CISP and for the full financial planning period. Priorities are usually based on balancing risks and costs resulting from performance gaps.

For example, work can be grouped into one of the three following categories for each type of service (water, sewer, roads, etc.):

- Priority one work (projects and operating improvements) - address circumstances which create significant efficiencies and savings, put the FN at significant financial risk, involve a high likelihood of detrimental public or environmental health impacts, and/or create a serious safety hazard.
- Priority two work (projects and operating improvements) - address circumstances which create moderate efficiencies and savings, put the FN at medium financial risk, involve a moderate likelihood of detrimental public or environmental health impacts, and/or create a moderate safety hazard.
- Priority three work (projects and operating improvements)- address circumstances which create some efficiencies and savings, put the FN at some financial risk, involve some likelihood of detrimental public or environmental health impacts, and/or create some safety hazard.

Each year, FNs should prepare an up-to-date multi-year (at least 5 years) annual budget based on the workload and priorities in the Work Warehouse. Cost information should be reasonably accurate given the short time span.

All work in Year 1 should have a supporting business case in a form and with content according to FN policy. Work for years 2 to 5 should have at least a preliminary proposal and estimated confidence level on costs and other factors. Beyond 5 years, costs and other information will be less accurate.

Costs should be based on the estimated funding to keep assets operating properly and in good condition throughout their life cycle. A comprehensive asset management practice should establish relevant service lives and operations and maintenance requirements.

There will usually be too much work for available funding. When Council sets the "line" for funding, all work above the line proceeds to implementation. All work below the line goes back to the Work Warehouse for future consideration.

Figure 2. CISP Financial Management Cycle

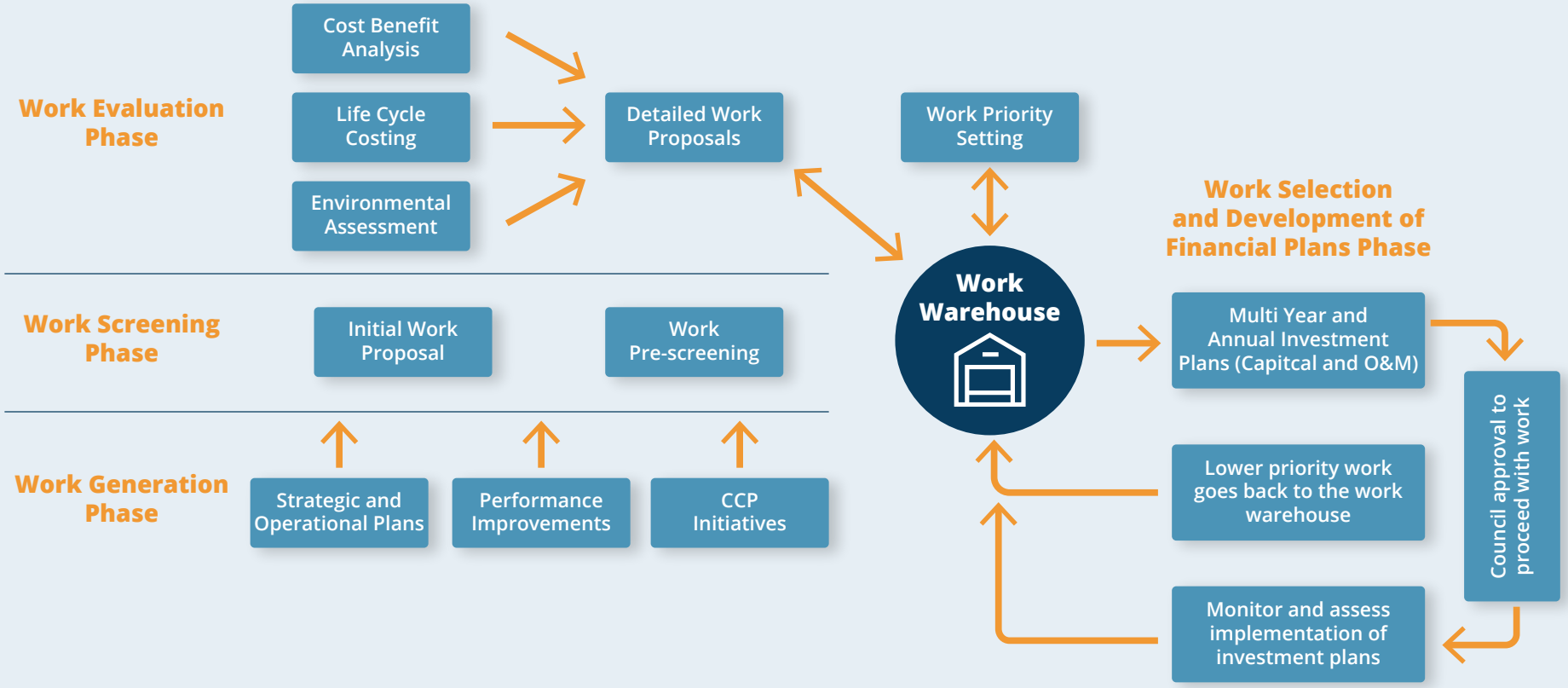


Table 3. CISP Financial Management Cycle - Key Phases

Phase*	Purpose/Function
Setting Objectives & Evaluation Criteria	Taken from the Community Infrastructure Services Plan (CISP). Establishes the desired outcomes and connects individual work items to the Community Plan.**Forms the basis for evaluating work proposals, making financial decisions and setting priorities.**
Work Generation	Prepare a list of work proposals from a variety of sources – e.g. from strategic planning; operational planning; and/or asset management. All work proposals address one or more service performance gaps and can be for capital, for operations and maintenance or for a combination of both. For example, work can include one or more of: capacity building initiatives; policy development; system planning; capital projects; and operational improvements. The structure and content of work proposals should conform to a consistent format and address requirements for work evaluation and priority setting in Phase 4.
Work Screening	Select worthwhile work proposals. Proposals, which meet criteria, move on to a more detailed evaluation. Proposals which need more information for a proper evaluation are sent back to the proponent for follow up. Remaining work proposals are rejected at this stage.
Work Evaluation	Determine the costs and benefits of a project/program or O&M activity over its life cycle. Assess non-monetary impacts. Determine the most cost-effective option, from a range of options, to achieve the desired performance improvement.
The Work Warehouse	A prioritized inventory of all planned work (i.e. "investment needs"). Covers the full financial planning period.
Multi-year and Annual Budgeting	Organizes work in order of priority. Sets out projected revenues, expenditures and sources of funding. For available funds, selects the most cost-effective program of projects and operational improvements. Allocates available funds based on priorities.

*= see ***Figure 1***

During the budget year, FNs employ an effective process for managing program scope, cost and schedule. Routinely, at least quarterly, FNs assess status and address any variances.

Where planned work is under budget, FNs can seek approval to take the next priority work from the Warehouse for implementation. Where planned work exceeds budget, lower priority work must be returned to the Warehouse to stay on budget; alternatively, FNs can seek additional funding if there is sufficient justification.

Each year, the CISP financial management cycle repeats to update financial plans using results from the current year and new or adjusted financial requirements.

10. Financial Planning and Reporting

Figure 3 shows the typical structure for enabling the Financial Management Cycle through effective financial management and reporting.

At the core of the structure are the multi-year Financial Projections which present actual and estimated revenues, expenditures and assets for 10 or more years – the longer the better within reason. Key components of these projections are:

- The Income Statement – details on all operating revenues, summary level operating expenses and amounts for asset depreciation. Projections provide for changes (+/-) over time due to, for example, inflation, system expansion, increased services and/or increased operating costs as assets age.
- The Balance Sheet – details on liabilities plus financial and non-financial assets. Projections document changes (+/-) over time due to changes in debt, depreciation, revaluations (+/-) and asset additions/deletions.
- The Cash Flow Statement – documents all incoming and outgoing cash. The key distinction between Income and Cash Flow Statements is that the latter includes capital as well as operating revenues and expenditures.

Typical financial reporting follows the same three (3) component structure. Figures for each year represent the annual budget – actual or estimated – for that year.

Key building blocks for financial projections are:

- **Operations and Maintenance** – detailed, projected revenues and expenditures for each activity and sub-activity. Section 11, below, provides details on an appropriate structure for activity based budgeting and accounting.

  Revenues and expenditures will change (+/-) year over year to reflect, for example, inflation, system expansion, increased services and/or increased operating costs as assets age.

  Where a capital project replaces a worn out asset, for example, costs for maintaining that new/upgraded asset could be less than the typically high cost of maintenance immediately prior to replacement (i.e. by investing capital, O&M costs are reduced).

  Alternatively, if the sewer system, for example, is extended to a new subdivision, the operations and maintenance budget should be increased to reflect the additional assets.

- **Capital Plan** – driven, primarily, by the comprehensive asset management process, the capital plan includes total and year-by-year capital expenditures for projects to repair/replace, upgrade and/or expand assets to sustain performance.

  Demand forecasts identify current and future service requirements. Based on the extent, condition and capacity of existing systems, upgrades and/or extended infrastructure may be required.

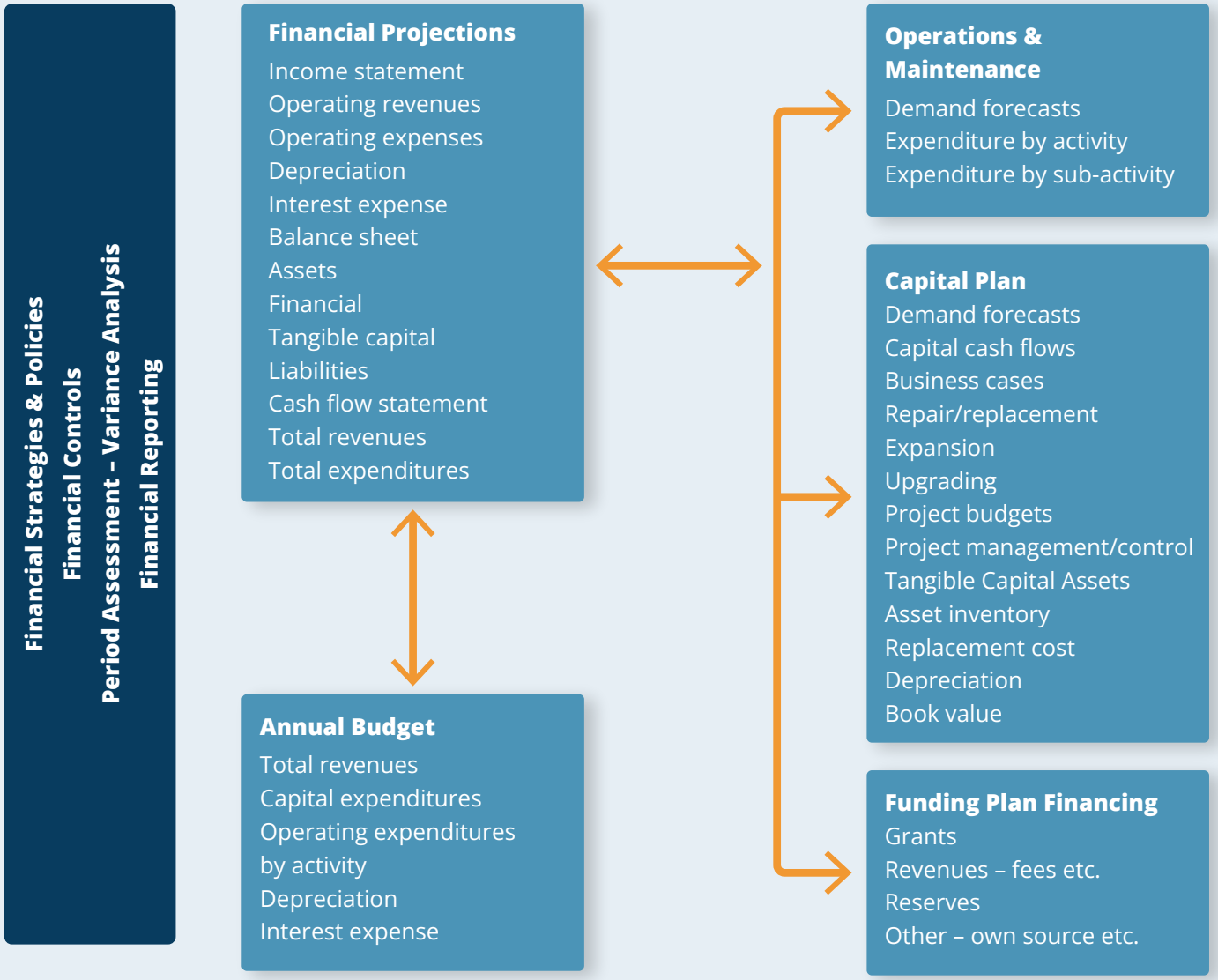
  Business cases use a life cycle cost approach to evaluate options for investment and to identify best value for money.

  The inventory of Tangible Capital Assets reports on key physical and financial asset information including age, type, construction cost, replacement cost, accumulated depreciation, revaluations and book value.

- **The Funding Plan** – presents current and expected sources of funding for both capital and operations and maintenance. Typical funding sources include: bank debt; grants; user fees; and capital reserves.

A comprehensive system of financial strategies, policies, controls and reporting should underpin and enable the financial management process.

Figure 3. Structure – Financial Management & Reporting



11. Activity Based Budgeting and Accounting

To meet objectives for improved transparency and accountability, FNs should budget, account for and report financial performance for each separate service and for each separate key activity within a service.

For example:

- General Management – represents "indirect" costs and revenues for managing the overall operation:
  - » Costs should be recovered from individual service accounts to promote "full-cost accounting".
  - » Costs should be allocated to service activity accounts using an appropriate formula established by policy.
- Services – represent "direct" costs and revenues separated by service and by each key service activity; to promote "full-cost accounting, costs should include the "indirect" cost allocation for General Management. Typical services include:
  - » Water services.
  - » Sanitary Sewer services.
  - » Storm Drainage services.
  - » Solid Waste Management services.
  - » Community Buildings.
  - » Grounds, including grounds maintenance at Buildings.
  - » Roads, including bridges and street lights.
- Special Projects - revenues and costs should be separated by project and should include the appropriate allocation of "indirect" costs for General Management.

A draft service account structure is in ***Table 4*** for reference.

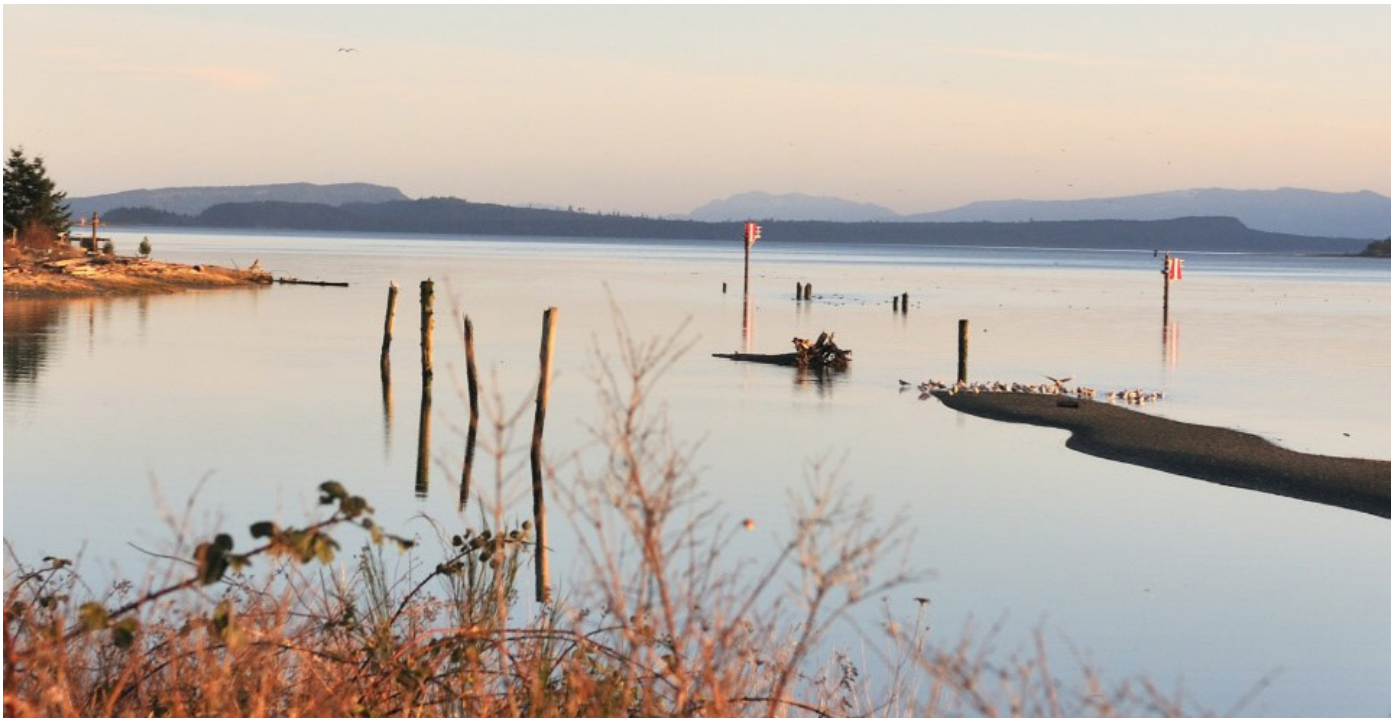


Table 4. Sample Service Account Structure

Account	PW Services	General Admin	Water	Sanitary Sewer	Storm Drainage	Solid Waste	Roads	Buildings
Revenues	Indigenous Services Canada							
	Taxation							
	Band Subsidy							
	User fees							
	Total Revenues							
Expenditures	**Central administration**							
	MTSA bills							
	Transportation							
	Water							
	Sanitary sewer & drainage							
	Solid waste							
	FN Operations & Maintenance							
	Capacity building							
	Office – supplies, phone							
	Vehicles							
	Equipment purchase							
	Equipment rental							
	Materials and supplies							
	Repairs and maintenance							
	Utilities							
	Contracts							
	Insurance							
	Salaries & benefits							
	Recovery - General Admin							
	Total Expenditures							
	Surplus/deficit							

12. Infrastructure Management – Service Life Considerations

Asset service life assumptions significantly affect capital funding requirements for infrastructure and should be considered very carefully.

For context, ***Table 5*** shows recent combined (total of 7 community buildings) asset replacement cost figures from ACRS for a Vancouver Island First Nation; using the group provides better results by averaging variations among buildings.

Table 5. Recent combined (total of 7 community buildings) asset replacement cost figures from ACRS for a Vancouver Island First Nation.

Building Component	Service Life	Total Replacement Cost (for 7 buildings)	Annual Cost	% of Total
Demolition	**25**	**$1,398,100**	**$55,924**	**9%**
Site development	40	$901,327	$22,533	4%
Site services	40	$1,351,990	$33,800	5%
Inspection/fees	25	$3,850	$154	0%
Sub-structure	75	$457,723	$6,103	1%
Structure	50	$2,393,316	$47,866	8%
Roof Structure	50	$265,925	$5,319	1%
Exterior cladding	35	$1,819,254	$51,979	8%
Roof surface	35	$202,139	$5,775	1%
Interior partitions	40	$1,056,651	$26,416	4%
Vertical movement	25	$82,921	$3,317	1%
Interior finishes	25	$878,082	$35,123	6%
Fitting and equipment	20	$934,213	$46,711	8%
Electrical	30	$1,337,126	$44,571	7%
Mechanical	20	$2,991,930	$149,597	24%
Sub-total		$16,074,547	$535,187	87%
Soft costs		$2,411,182	$80,278	13%
Total		$18,485,729	$615,465	100%
Area - square metres		5,084	3.3%	
Unit cost - $/metre		$3,636	30-year weighted average service life	

The following should be noted:

- ACRS reports General Life Expectancy for these Community Buildings at 50 years.
- ACRS also reports Life Expectancy for individual building components from 20 to 75 years.
- The Weighted Average Life Expectancy (based on individual components) is 30 years

In this case, using the ACRS General Life Expectancy (50 years vs. 30 years) to project capital funding for major repair, rehabilitation or replacement would understate requirements by about 40%.

Results of a similar weighted average approach to life expectancy for other assets are in ***Table 6***.

Table 6. Results of a similar weighted average approach to life expectancy for other assets.

Estimated Service Life	ACRS General Life Expectancy	Weighted Average of all Components
Buildings	50	30
Gravel Roads	100	56
Surface Improved Roads	100	47
Paved Roads	100	54
Sewer mains	100	80
Pump stations	50	30
Septic Fields	50	25
Water mains	100	80
Water storage	35	35
Water wells	80	35
Disinfection systems	25	20

To provide meaningful and consistent projections, First Nations should work collaboratively to establish appropriate benchmark service life assumptions for effective asset and financial management. Such service lives should be consistent among Finance and Public Works for accounting and Tangible Capital Asset Reporting.

13. Key Performance Indicators – Financial Management

Financial metrics are part of the full suite of strategic and tactical and operational metrics used by a Community Infrastructure Services Plan (CISP) to evaluate operational and financial performance – see ***Appendix A***.

The financial management KPIs in ***Table 7*** can be applied to infrastructure management:

Table 7. The financial management KPIs.

Management Issue	Performance Metric
Are revenues sufficient to cover annual infrastructure service operating costs?	**Cost Recovery Ratio (CRR): (total annual revenues eligible for O&M / total annual infrastructure operating costs) > 1.0** ▪ Revenues are from all sources and must be eligible for O&M expenditures ▪ Costs are all annual infrastructure direct & indirect expenses plus depreciation **If total annual eligible revenues don't cover total annual infrastructure operating costs, then any planned annual maintenance will typically need to be deferred to a future period when additional revenue is available. This deferral can result in reduced future service quality and premature infrastructure deterioration**
Are revenues sufficient to cover annual infrastructure service operating and debt costs?	**Debt Service Ratio:** (Total annual revenues / (total annual infrastructure operating + debt service costs)) > 1.0 ▪ Revenues are from all sources and must be eligible for O&M and capital expenditures ▪ Costs are all annual infrastructure operating direct & indirect expenses plus interest and principal repayments for long-term debt ▪ Ratio value depends on debt policy and should be adjusted accordingly If revenues are insufficient to cover costs then work, typically annual maintenance, must be deferred to match income – resulting in reduced service quality and premature infrastructure deterioration. Also, obligations to lenders may not be met.
Is enough being invested to keep existing infrastructure in good condition and to meet requirements for its ongoing repair and replacement?	**Capital Investment Ratio:** (Total annual capital investment/total replacement cost of existing infrastructure) – 5-year rolling average > 0.02 ▪ Capital investment is total amount of capital spent, or contributed to reserves, for the current, or future, repair, rehabilitation or replacement of existing infrastructure ▪ Total replacement cost is the estimated current cost of replacing all existing infrastructure today to an equivalent standard Insufficient reinvestment results in one or more of: reduced service quality; premature infrastructure deterioration; higher costs; spikes in funding requirements.

Management Issue	Performance Metric
Is enough being invested to keep existing infrastructure in good condition and to meet requirements for its ongoing repair and replacement?	The value – 0.02 – represents a 50-year weighted average infrastructure service life. Each First Nation should adopt a target specific to its community based on the weighted average service life of its infrastructure portfolio; for example, if the weighted average service life is 40 years, the target would be 0.025 (1/40). This would establish an annual capital investment target of at least 1/40th of the estimated replacement value of the First Nations infrastructure. **Deferred Capital Maintenance Ratio: (Total net book value of existing infrastructure + total committed funding for repairing/replacing existing infrastructure) / total replacement cost of existing infrastructure) – 5-year rolling average > 0.95** ▪ Deferred capital maintenance (commonly known as "backlog") is the total, accumulated liability (in current dollars) for the repair, rehabilitation or replacement of existing infrastructure ▪ Total replacement cost is the estimated current cost of replacing all existing infrastructure today to an equivalent standard ▪ In terms of Tangible Capital Asset (TCA) accounting: » Net book value is the undepreciated capital cost of existing infrastructure (net of any impairment recorded) measured relative to original construction cost (i.e. "cost base") » Accumulated depreciation is the proportion of existing infrastructure capital cost "consumed" in providing services to the current date, measured in terms of service life and "cost base" ▪ The difference between total book value and total replacement cost of existing infrastructure represents an accumulated liability to be funded as and when infrastructure repairs, rehabilitation or replacement are required ▪ Total Committed Funding means the amount of secure capital that a FN can readily access as and when required for infrastructure repairs, rehabilitation and replacements – e.g. capital reserves; access to approved debt **To sustain existing infrastructure, First Nations must have ready, secure access to sufficient financial capital as and when required to cover costs for infrastructure repairs, rehabilitation and replacements. So, Total Committed Funding should be as close as practical to the difference between total replacement cost and total book value.**

Management Issue	Performance Metric
Is enough being invested to keep existing infrastructure in good condition and to meet requirements for its ongoing repair and replacement?	**The lower the Deferred Capital Maintenance (DCM) Ratio, the bigger the funding gap and the harder it becomes to catch up with sufficient funds to keep infrastructure in good enough condition to deliver services of the quality the community requires** **For context:** ▪ DCM Ratio in the range 0.95 to 1.00 is good ▪ DCM Ratio in the range 0.90 to 0.95 is fair ▪ DCM Ratio in the range 0.70 to 0.90 is poor ▪ DCM < 0.70 is critical **Deferring capital maintenance results in one or more of: reduced service quality; premature infrastructure deterioration; higher future costs; unplanned spikes in funding requirements**

Appendix A

Sample - CISP Strategic Framework

Infrastructure Service Vision:

"Our Community Infrastructure Services are affordable and sustainable; services provide good value for money; we provide excellent customer service; we are innovative, transparent and accountable; we are good stewards of our lands and the environment; and we apply good management and operational practices."

CO #1 – Services are viable and sustainable over the long term

CO #2 – Services enable sustainable economic development and prosperity

CO #3 – A thriving community

Sufficient infrastructure services	▪ 100% of residents and businesses are connected to water and sewer ▪ Water and sewer assets have capacity to handle > 5 years of planned growth in the Community ▪ Drainage has capacity for the 10-year storm without property damage ▪ Garbage pickup once/two weeks ▪ Green waste pickup once/week ▪ Recycling pickup once/week ▪ Buildings are aesthetically pleasing ▪ Buildings provide the right amount and quality of space to meet current and future demand ▪ All development is readily accessible by road
Reliable infrastructure services	▪ Assets for each service have a combined condition index > 7 ▪ < 7 water main breaks/100km ▪ < 3 blocked sewers/100km ▪ Potholes > 8 cm repaired once/year ▪ Cracks > 5 cm sealed once/year ▪ Street lights repaired within 1 month of failure ▪ Buildings may be occupied 364 days/year ▪ Assets are protected against damage, unwanted access and theft ▪ All community infrastructure meets current earthquake standards
Meet infrastructure service levels at the lowest sustainable cost	▪ Unplanned maintenance costs < 15% of total maintenance costs ▪ Water O&M < $450/residential unit/year ▪ Sanitary sewer O&M < $260/residential unit/year ▪ Drainage O&M < $90/residential unit/year ▪ Garbage disposal < $160/residential unit/year ▪ Road maintenance < $9,000/lane km/year ▪ Street light O&M < $TBD/head/year ▪ Building maintenance < $160/sq.m/year ▪ Building energy < $TBD/sq.m/year
Infrastructure services are financially viable long term	**Cost Recovery Ratio (CRR):** (total annual revenues eligible for O&M / total annual infrastructure operating costs) > 1.0 ▪ Revenues are from all sources and must be eligible for O&M expenditures ▪ Costs are all annual infrastructure direct & indirect expenses plus depreciation

	Debt Service Ratio: ▪ (total annual revenues / (total annual infrastructure operating + debt service costs)) > 1.0 » Revenues are from all sources and must be eligible for O&M and capital expenditures » Costs are all annual infrastructure operating direct & indirect expenses plus interest and principal repayments for long-term debt » Ratio value depends on debt policy and should be adjusted accordingly
Infrastructure services are financially viable long term	**Capital Investment Ratio:** (total annual capital investment/total replacement cost of existing infrastructure) – 5-year rolling average > 0.02 » Capital investment is total amount of capital spent, or contributed to reserves, for the current, or future, repair, rehabilitation or replacement of existing infrastructure » Total replacement cost is the estimated current cost of replacing all existing infrastructure today to an equivalent standard
	Deferred Capital Maintenance Ratio: (Total net book value of existing infrastructure + total committed funding for repairing/replacing existing infrastructure) / total replacement cost of existing infrastructure) – 5-year rolling average > 0.95 » Deferred capital maintenance (commonly known as "backlog") is the total, accumulated liability (in current dollars) for the repair, rehabilitation or replacement of existing infrastructure. » Total replacement cost is the estimated current cost of replacing all existing infrastructure today to an equivalent standard » In terms of Tangible Capital Asset (TCA) accounting: » Net book value is the undepreciated capital cost of existing infrastructure (net of any impairment recorded) measured relative to original construction cost (i.e. "cost base") » Accumulated depreciation is the proportion of existing infrastructure capital cost "consumed" in providing services to the current date, measured in terms of service life and "cost base" ▪ The difference between total book value and total replacement cost of existing infrastructure represents an accumulated liability to be funded as and when infrastructure repairs, rehabilitation or replacement are required ▪ Total Committed Funding means the amount of secure capital that SFN can readily access as and when required for infrastructure repairs, rehabilitation and replacements – e.g. capital reserves; access to approved debt

Protect public health	▪ 100% compliance with public health standards ▪ Zero health hazards
Protect public safety	▪ Lost hours due to field accidents < 5/1000 field labour hours ▪ 100% compliance with Worksafe BC ▪ Zero safety hazards
Strong management organization and practices	▪ Effective organization structure ▪ Effective service policies and practices ▪ Effective working relationships among relevant Depts. ▪ Effective capacity building ▪ Staff are qualified for their jobs ▪ > 60% of service labour hours are by SFN Members

CO #4 – Services sustain lands and the environment over the long term

Infrastructure services meet land management policies and standards	▪ 100% compliance with land management policies and standards
Infrastructure services meet environmental standards	▪ 100% compliance with environmental standards

CO #5 – The Community is pleased with community services

The community is satisfied with infrastructure services	▪ Surveys show > 75% satisfaction with Infrastructure Services
The community is knowledgeable and current on infrastructure services	▪ Community members can readily access up-to-date information on infrastructure services
The community is actively engaged in key infrastructure service decisions	▪ Key infrastructure serve policies and projects are subject to sufficient community input