



ASSEMBLY OF FIRST NATIONS  
OPERATION AND MAINTENANCE EXPERTS MEETING –  
SUMMARY REPORT OF MARCH 27-28

SUBMITTED BY:

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## 1 INTRODUCTION

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First Nations Engineering Services Ltd. (FNESL) was retained by Assembly of First Nations (AFN) to facilitate the discussions regarding Indigenous Services Canada (ISC) current Operation and Maintenance Policy Review.

The current funding formulas and cost indices as identified in ISC Operations and Maintenance (O&M) Policy are outdated, inadequate and do not provide sufficient funding for First Nations to protect and prolong the life of their community assets. The federal government only funds a portion of the estimated costs for the O&M of on-reserve community infrastructure such as buildings, roads and bridges, etc.

AFN Resolution 80/2017 “Support for Review of Canada’s Operations and Maintenance Policy” passed by the Chiefs in Assembly supports the co-development of a new O&M Policy Framework with full involvement of First Nations and/or their organizations, the AFN and the Chiefs Committee on Housing and Infrastructure (CCoHI). Resolution 80/2017 further directs the AFN to jointly develop a Draft Joint Work Plan with ISC.

The AFN is committed to working with First Nations and ISC to identify options for the implementation of a new O&M Policy Framework and formula that will reflect new infrastructure technologies as well as economic and environmental factors that will contribute to addressing the socio-economic gap in First Nations.

The current project has the following objectives;

- Facilitate a 2-day face-to-face meeting to discuss all aspects of O&M funding.
- Review existing policies, including funding formulas, cost indices, and reporting requirements.
- Identify policy gaps and opportunities for improvement.
- Identify disparities between current cost estimates and actual costs required for infrastructure O&M on reserve where possible.
- Provide recommendations on how further review of policies, including funding level options, remoteness factors, cost indices, and reporting requirements should be undertaken.

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## 2 METHODOLOGY

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FNESL was retained by AFN at the end of February 2018 to assist with the O&M Policy Review. AFN is taking a phased approach to this undertaking. The first phase involves collecting input on issues with the existing policy and brainstorming solutions or improvements. To initiate this phase, it was agreed that AFN and FNESL would jointly coordinate a 2-day workshop. The workshop was scheduled for March 27-28, which left the team with a tight deadline to develop the agenda, invite and confirm attendees and coordinate workshop content.

AFN and FNESL worked together to identify and confirm who will be invited to participate as key experts in the workshop. The First Nation delegates were selected for their knowledge of O&M issues at the First Nation level. ISC representatives were selected by the Community Infrastructure Branch (HQ) branch. The AFN was responsible for the final list of invitee’s.

The Experts' Meeting included from across Canada the following representatives:

- Indigenous Services Canada (ISC) Staff (Headquarters and all regions)
- Assembly of First Nations Representatives
- Chiefs Committee on Housing and Infrastructure (CCoHI) technicians
- First Nations' Public Works Managers
- Tribal Council Infrastructure Managers / Engineers
- Provincial Technical Services Organizations (OFNTSC, TSAG)
- Engineering Consultants with First Nations Infrastructure Experience
- Engineering Consultants with Municipal Infrastructure Experience
- Municipal Infrastructure Managers and Facility Managers

AFN with FNESL drafted the workshop agenda, with AFN and ISC review and approval, keeping in mind the importance of building consensus between the various stakeholders. The meeting agenda can be found in the appendices. The general structure of the 2-day meeting consisted of:

- Short presentation by ISC HQs to summarize the existing policy framework
- Regional ISC representatives presented how they allocate O&M
- Focus groups for sharing stories and identifying concerns and challenges
- Presentations of technical briefs by O&M Experts, consisting of First Nation representatives, ISC staff and outside experts.
- Focus groups for policy brainstorming

The purpose of the meeting was to share concerns and challenges and to develop a strategy for moving forward in developing a new National O&M Policy Framework. FNESL staff was available to record the main points of discussion from the meeting, which will be analyzed and summarized in this written report.

Focus groups were set up to identify current issues and challenges with the current policy and a separate focus group was set up to brainstorm policy solutions. Details of the meeting can be found in Section 3.0 of this report. Presentations and technical briefs by O&M Experts also took place during the 2-day meeting. These presentations are summarized in Section 3.0.

This report contains:

- Summary of main points of discussion from Experts' Meeting
- Summary of identified concerns and challenges
- Summary of key findings
- Recommendations
- Draft Joint Work Plan and/or recommendations for Joint Work Plan
- Proposed Next Steps

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## 3 SUMMARY OF MEETING

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Over the 2-day meeting much discussion and sharing took place on the current O&M situation of First Nations across Canada. There was consensus that a holistic approach is required to improve this situation. There was also a consensus that the current national O&M policy needs to be updated and needs to incorporate First Nation's input. The following section outlines and summarizes presentations that occurred during the meeting.

### 3.1 EXISTING POLICY FRAMEWORK

Lorne Younghusband, Manager, Financial Monitoring and Oversight, Community Infrastructure Branch, ISC, presented "The financial and infrastructure cycle".

In summary, ISC supports the reform of the current Operation and Maintenance Policy and agrees it is out dated. ISC suggests that O&M is one piece of Asset Management and must be looked at holistically. Funding approval process consists of an annual allocation by parliament to the department. Infrastructure funding that is approved consists of on-going O&M and band based capital funding as well as **escalators** and new funding which is for specific purposes for a defined period. The presentation explains the approval process for new funding. To obtain new funding, two steps are required:

1. Memorandum to cabinet – higher level which will usually inform a Budget announcement
2. Treasury Board Submission – much more detailed plan

Ministers, Privy Council, Department of Finance, Treasury Board and Secretariat and various Committees are involved and these parties seek substantial justification to support the initiative. Rational for the initiative, results/outcome, controls, risks, reporting, costing are some examples of the justifications.

An overview of current allocations was explained. ISC receives funding from Parliament and most goes directly to regions, with a small contingency held back for emergencies. Funding to regions includes infrastructure, as well as Social, Education and Governance programs. Regions allocate on-going funding across programs.

The department assess and identifies infrastructure needs (including capital and O&M), and strategically plan infrastructure investments in First Nation communities across Canada, using the First Nation Infrastructure Investment Plan (FNIIP). The FNIIP is a First Nation developed proposal and is typically based on projects identified within the community's existing plans such as comprehensive community plans, asset management plans and maintenance management plans.

#### ISC's O&M Guiding Documents

- Capital Facilities & Maintenance Program (CFMP)
- CM-OAM-01 Allocation of O&M funds (June 30, 1989), (Community Infrastructure & Education Facilities Program Directive)
- Band Classification System
- Cost Reference Manual
- Regional Budget Management Regimes (at functional-area level)
- National Priority Ranking Framework (water, wastewater, schools)

- Annual Performance Inspections (water, wastewater)
- Asset Condition Reporting System (ACRS)
- ICMS Annual submissions (due Oct. 15<sup>th</sup>)

The presentation provided some highlights of the Cost Reference Manual (CRM). Of particular interest was the Gross Funding Requirement (GFR) and Net Funding Requirement (NFR). It was noted in the presentation that O&M allocations are based on NFR, which is the amount of money varying between 20 and 100 percent of the GFR. GFR is calculated using the Cost Reference Manual 2005.

ISC presented the list of gaps they observe in the present policy and summarized next steps, which are included in Section 4.0.

### 3.2 REGIONAL ISC ALLOCATIONS OF O&M

Several regions provided a summary of how funding allocations to First Nations are determined. All regions will typically follow the national policy; however, several regions have come up with ways to address gaps in the existing policy:

#### **British Columbia**

The region of British Columbia shares their method of determining O&M funding for water and wastewater plants. For complex plants, a monitoring of a one-year period following commissioning is completed. Maintenance data and expenditures are reviewed and compared with ICMS calculation amounts. Based on this review a funding factor is determined and applied to increase the formula based O&M amount. For less complex plants, the design engineer estimates O&M, ISC will compare to ICMS calculated amounts and the higher will be used.

BC also notes that Municipal Transfer Service Agreements are subsidized 80-90%, for residential services only. Subsidy for businesses and leased land is not provided.

#### **Alberta**

The region of Alberta reports that they use the CRM for each asset in the ICMS asset database. There is no asset code for a solid waste transfer station. Therefore, a costing formula is used which is based on a study completed in the early 2000's. The study examined the costs of existing transfer stations.

It was also brought to the region's attention that funding amounts through Municipal Transfer Service Agreements were lacking. The region addresses these situations on a case by case basis.

The region also reports that there has not been an adequate increase on core allocation. There has been no annual increase since 2012. A Gap Analysis was performed for 2018-2019 and revealed the formula based funding gap requests \$4,744,168. Gaps mentioned include new assets and new O&M funding not being included.

#### **Manitoba**

The region of Manitoba uses a regional formula which considered population and volume. As population increases, so does O&M. The population is based on status living on-reserve as of December 31. The region will also provide 4% of the total O&M to be applied to Maintenance Management.

The region also uses 6 zones to determine the variation in remoteness. Additional funding is allocated to communities with diesel generated electricity and for water cistern tank cleaning. To determine funding for water and sewer trucks the region will use a 40:1 ratio for homes to trucks. The number of homes will be based on self-reported numbers.

O&M funding expenditures are included in unaudited schedules attached to each First Nation's annual consolidated audit which are reviewed by Capital Services, Manitoba Region.

### **Ontario**

The region of Ontario includes the largest First Nation population. As other regions, the O&M allocation is formula based. Specific practices that the region has implemented includes:

- Enhanced Water and Wastewater Model
- Independent Power Authorities
- Electrical Energy Cost Subsidy – to address high energy cost of diesel systems

Fire protection training is a population based formula allocation.

To determine amounts through the enhanced water and wastewater model, municipal water and wastewater treatment system data is used for similarly sized First Nation systems. The annual O&M budget requirement is determined. The difference between the enhanced O&M costs and the Asset Based O&M determines the enhanced O&M funding amount. The region will allocate 80% of this difference to the First Nation through the First Nations Water and Wastewater Enhanced Program.

## **3.3 FOCUS GROUPS FOR SHARING STORIES AND IDENTIFYING CONCERNS AND CHALLENGES**

During the 2-day meeting, breakout sessions were done on two occasions. The first session consisted of three groups of ISC and First Nation representative broken out by regions. Three groups were formed by the following regions:

1. Atlantic/Quebec and Ontario
2. British Columbia/Yukon, and
3. Manitoba, Alberta and Saskatchewan.

The purpose of the discussions was to learn how each region uses the O&M policy framework and to identify the issues each representative has observed or experienced with the current policy. Each group developed their list of issues and presented to the other regions. Many issues were common across the country and are summarized in Section 4.1.

## **3.4 PRESENTATIONS OF TECHNICAL BRIEFS BY O&M EXPERTS**

Throughout the 2-day meeting, presentations by First Nation representatives, O&M Experts and ISC staff shared their experiences with O&M.

### **3.4.1 First Nation Presentations**

The following is a list of First Nation representatives that shared their experiences along with highlights from their presentations. .

- 1. Joe Francis and Jay Benedict – Akwesasne**
  - CPAs retained to develop level of services and capture operation and maintenance historical costs
  - Trying to manage deficit by putting off projects to future years, won't get approved for projects until deficit is improved
  - Admin buildings are not funded by ISC, in the phase of taking these buildings out of service and build new buildings and consolidate staff, easy to maintain facilities vs having too many in place
  - building code compliance, repairs require to meet new building codes
  - standardized job descriptions for all staff, on-call positions to respond
  - quarterly meetings with directors of health, education, etc., we work with them to develop and submit applications, identify funds available from other programs and services
  - no band support funding to offset deficits (band support gets pulled in multiple directions)
  - standard of liability for road maintenance, using MTO standards,
  - 15-20k yearly paid in tolls for maintenance people coming into community, need to pay these fees through O&M
  - Arena operations, 90K in deficit this year
  - Akwesasne is subsidizing the debt incurred with O&M costs
  
- 2. Warren Brown, O&M Department, Lytton First Nation 705**
  - Stressed communication between staff and management – better budgeting and staff relations
  - Budget management has been the biggest challenge
  - Taking pride in getting things done
  - Recently implemented an asset management program, consisting of a new position under the O&M department to concentrate on the assets
  
- 3. Floyd Provost – Piikani Nation, Southern Alberta**
  - Acting Fire Chief since 1986
  - Budget accountability
  - Stay within a 4% window – 2% surplus and INAC says you didn't do the work, 2% deficit and they say no controls
  - Maintenance Management System in place
  - Moving away from unauthorized landfills
  - Communicating is key to success
  - Objective is to protect lives and property
  - Spoke of the evacuation process for the Fort McMurray fire – recovery and re-entry plans due to dead livestock
  - Importance of mutual aid agreements
  - Southern Alberta has three seasons freeze, flood and burn – need emergency plan for all - identify at risk groups
  - Suggested to eliminate small sums under ACRS – under 500
  - Recommendation to keep working at it
  
- 4. Randy Roy and Gary Naponse – Waabnoong Bemjiwaang Association of FN – First Nation**



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### **Property Asset Reporting System**

- Work for a tribal council with 6 first nations
- Challenges – no clear standards, supporting policies, lack of tools, data collection, lack of technical expertise and funding
- First step is compiling an inventory and consolidating information in digital format, spatial referencing and aerial imagery, GIS, platform for information, document cost associated with each asset, understand the level of service provided and the actual costs for assets
- Benefits – improved financial performance, documenting the full cost for each asset

#### **5. Craig Linklater – Interlake Reserves Tribal Council**

- Also works for a tribal council with 6 first nations
- Emergency services
- Discussed the 2001 flood, communities were completely flooded out and still haven't been able to return home.
- Includes pipeline ruptures
- Partnered with Red Cross Canada and Save the Children
- Importance of land use plans
- Operation budget each year from ISC does not include emergencies
- Climate change effects/extreme events have damaged infrastructure

#### **6. Frank Bighead, Prince Albert Grand Council**

- Track actual costs to determine funding levels, compare these funding levels to costs
- Increase costs for northern communities for services ie. Electrician
- ISC: Difference between regions, unit price review was undertaken, results of regional review would report to HQ

#### **7. Ken Perley, Tobique First Nation**

- Can't sustain important positions within the community
- 50% funding is for pre-planned: reactive approach
- 50% funding is for reserved fund: can only be proactive with limited funding
- Don't want to take funding away for O&M to fund a position
- Incurring debt leading to a deficit, leads to third party management, can't catch up to the deficit the following fiscal year
- Pre-planning is required based on what services that needs to be delivered to the community.
- Definition of O&M, do we have a shared understanding? O&M costs are going towards other community needs. One program is picking up another for assumed services.

#### **8. Lorri Bova – Six Nations**

- Worked at Akwesasne and now at Six Nations

- New water plant – the monthly hydro bill is more than the annual O&M funding received from the ISC formula funding
- Noted that new O&M funding for WTP was not received until 2 years of being in operation

### 3.4.2 ISC O&M Presentations

1. A presentation on Solid Waste Operation and Maintenance was prepared by Jim Steeves titled, **“Exploratory Funding Options for Solid Waste O&M”**, however due to time constraints it was not presented. In summary the presentation explains that the current policy does not fund all required operation and maintenance items for a proper solid waste management system. The ICMS is outdated and does not include waste related assets. For example, a composting digester would not receive O&M funding. Also, the CRM does not reflect the actual cost increases of operating a solid waste management program. The presentation goes on to identify the potential risks of an underfunded program, including environmental impacts, health and safety risks to First Nation members, loss of economic development opportunity and impacts to land use planning. The presentation notes that costs of properly operating a landfill is insignificant compared to the costs of cleaning up a landfill that is improperly managed.

In an attempt to identify the funding shortfall, ISC engaged 2 professional consultants in 2016 and 2017, to review O&M funding of ISC funded waste related infrastructure and assets. Based on this review, ISC is considering 2 options:

- Option 1 – fix the current formula to expand fundable items list from 10 to 38.
- Option 2 – Annual lump sum to be allocated based on number of households on reserve or per capita as opposed to facility based.

It is noted that ISC is not committed to just these options and is open to feedback or suggestions from other stakeholders.

2. Danny Higashitani Sr. from the ISC BC Region presented **“The Importance of Information and Community Engagement in the Decision-Making Process for Asset Management”**. In summary the presentation notes that capacity is required to develop and implement an asset management program. It is suggested that incentives and dedicated funding is needed for asset management planning. It is also suggested that thorough and accurate information system is required to enable decision making. Information systems may include:

- Asset Inventory (description, age, design life, cost and replacement value)
- Record drawings and GIS data
- Community history, Staff and Community knowledge
- Air photos

The presentation also highlights that stakeholders need to consider the cost of failure. If assets continue to be neglected, potential consequences would include impacts to the First Nations financial health (repair costs, damage to other property). Social related consequences would include loss of service, health and safety risks and public confidence. Impacts to the environment are also a potential consequence to

underfunded operation and maintenance. The presentation highlights the importance of risk identification.

It was noted that ISC BC is working with consultants to develop a prioritization process for First Nation communities. Generally, it would involve determining community goals and collecting community member input to prioritizing those goals. This is expected to assist in decision making at the First Nation level.

The presentation suggests that a focus on a sustainable future take place and not just short-term growth. Maintenance of current core assets must take precedence over building new assets. The costs of O&M for new assets must be considered in the cost benefit analysis. Also, a greater community understanding and a holistic approach to asset management is suggested.

### 3.4.3 O&M Experts

The following representative were invited to present on their expertise and experience in asset management.

1. Elmer Lickers, OFNTSC presented **“First Nation/INAC O&M Cost Comparison Analysis”**, . In summary the presentation consisted of sharing the comparison completed. The comparison was conducted to demonstrate that a funding disparity exists between First Nation actual O&M expenditures of government funded assets and the formula funding provided by ISC. Data was collected from several First Nation’s annual O&M expenditures and compared to similar assets from neighboring municipalities. Four northern Ontario First Nations, and five southern Ontario First Nation participated in the comparison, while three northern municipalities and six southern municipalities participated. Five years of data was examined. O&M cost elements were taken from the current definitions in the Cost Reference Manual, for Building, Water System, Roads, Firetruck and Landfill Site.

The findings demonstrated that INAC’s GFR is significantly less than both First Nation’s actual O&M costs and municipal actual O&M costs in most asset types. The results support that the current O&M formula funding methodology is antiquated.

It was concluded that the lack of adequate funding and a structured asset management plan eventually lead to a higher maintenance and repair, costs and prevents assets from achieving their full life cycle. In comparison, neighboring municipalities have consistent expenditures from year to year. It is assumed that structured asset management strategies and predictable budgets contributed to this.

2. Reg Andres, P.Eng., FCSCE, FEIC, President of R.J. Andres & Associates Infrastructure Management Corporation presented **“Operations & Maintenance...an asset management perspective”**. In summary the presentation reviewed the national perspective of asset management and operation and maintenance in an asset management perspective. A review of how asset management has evolved over the last 4 decades was discussed. Currently Asset Management is embedded in the business of managing community infrastructure through drivers, enablers and implementers. Drivers are forcing the implementation of asset management (i.e. legislation). Enablers are assisting in the process (i.e.

government grants, tools and guiding documents, associations). Implementers are learning from users of the Asset Management processes (i.e. benchmarking initiatives, completion of community plans). Asset Management is being accepted as the right way to manage infrastructure.

The presentation led into the discussion of what is expected for the future of First Nation's asset management. The future expectations are as follows:

- Asset Management being practiced in all First Nation communities as a basis for a new approach to rationalize funding for capital and O&M needs.
- First Nation funding for capital and O&M is based on community Asset Management Plans with INFC and ISC working with a common funding approach/model.
- First Nation creates Asset Management for First Nation as a community of practice supporting First Nation communities with how to implement Asset Management.

The presentation then reviewed six questions of Asset Management:

1. What have you got? (i.e. ICMS/ACRS)
2. What is it worth? (i.e. PSAB database)
3. What condition is it in? (i.e. ACRS)
4. What do you need to do to it? (i.e. replace, rehabilitate, operation and maintain)
5. When do you need to do it? (i.e. end of life, continuous)
6. How much will it cost? (i.e. look at historical/actual costs)

The presentation then provided the following recommendations:

- Review O&M budget policies and practices and make sure O&M budgets keep pace with acquisition of new assets.
- Review O&M investment levels relative to rate of deterioration to determine optimum O&M funding.
- Ensure the right questions are being asked, and the correct information is being collected.

In conclusion, Asset Management is valued and accepted by senior governments. Asset Management is used to rationalize capital and Operation and Maintenance budgets. It is used to optimize O&M spending, optimize lifecycle investments for infrastructure and links level of service with level of investments.

3. Patrick Brisson, M.A.Sc., P.Eng., Program Manager, Comprehensive Asset Management for the City of Ottawa, presented on the "**Canadian Network of Asset Managers: Introduction of CNAM**". In summary the presentation provides an overview of CNAM. The group's vision and mission are as follows:

Vision: Fostering excellence in public infrastructure asset management

Mission: To advance the value of asset management practices through, Leadership, Innovation and Collaboration.

Through networking, sharing, advocating and collaboration, the group attempts to achieve their mission. The benefits of the CNAM, include meeting like-minded people, connecting with Asset Management

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Leaders from across the country, gaining confidence in that you're not alone, being exposed to the latest Asset Management developments and learn from other's mistakes.

Mr. Brisson concluded his presentation by sharing what the City of Ottawa has done in regards to Asset Management, since 2001 and into the future.

### 3.5 FOCUS GROUPS FOR POLICY BRAINSTORMING

The second breakout session that occurred during the 2-day meeting consisted of two groups, the first group consisted of ISC representatives and the second group consisted of First Nation representatives. In this session each participant was asked to share what they would like to see changed with the existing policy. A summary of the potential solutions from the brainstorming of ideas can be found in Section 5.1.

## 4 SUMMARY OF DISCUSSIONS/FINDINGS

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### 4.1 ISSUES IDENTIFIED

#### 4.1.1 ISC list of gaps in policy:

- ISC presented statistics that show only a little over half of the newly constructed schools will reach their intended design life
- Net funding requirement, is based on the concept that First Nations are responsible for a partial cost of the O&M funding of the capital asset. In some instances, this element of the policy is not being followed.
- Cost indices/asset definitions are dated/unclear and some assets are missing
- O&M escalators may not be reflective of aging assets or inflation
- The department reallocates infrastructure funding to other priorities
- Adaptability of policy in relation to the movement towards 10-year grants.
- Lack of information for block funding/self-government agreements
- Lack of policy direction for back up operators for water treatment plants
- When new assets are built, full asset life cycle costs are not taken into account
- First Nation maintenance management plans are not always kept up to date/complete or even exist
- Lack of compliance with building codes, legislative frameworks, reporting requirements etc.
- In some regions, the only reporting on O&M is through information gathered through inspections (Asset Condition Reporting System)
- In some cases, O&M funding is being used to address crisis and emergencies and not being used for preventative maintenance.
- Some communities lack capacity
- Lack of environmental considerations, particularly regarding solid waste
- Additional capital funding requests to Treasury Board do not necessarily include the associated additional O&M funding requirements
- Short term basis for planning detrimental for asset management

#### 4.1.2 Issues identified by First Nations:

Each region had the opportunity to share their experiences and concerns. The following are common issues throughout with an expansion of each issue.

1. Lack of funding for Operation and Maintenance
  - a. Causes:
    - New assets not being captured
    - Funding becomes a melting pot at the First Nation level
    - 2% annual increase is not applied consistently
    - GFR and NFR formulas do not provide an accurate picture of the First Nation infrastructure O&M needs – Maintenance components that First Nations need to spend money on are not included in the GRF/NFR formula meaning the unfunded portion of asset maintenance is much higher than the policy split (50/50 – 80/20 – 70/30)
    - Cost Reference Manual needs to be updated
    - Asset Condition Reporting System and Annual Performance Inspections do not provide accurate picture of the funding needs to maintain assets in a sustainable manner
  - b. Effects:
    - Difficult to retain qualified staff with minimal funds for salary
    - Assets are not properly maintained; no preventative maintenance
    - First Nations are forced to prioritize what will be addressed each year at the expense of other community assets
    - Assets not meeting their design life expectancy
2. Capacity Issues
  - Circuit Rider type programs are seen as a very positive feature of the existing policy and should be maintained in a new policy
  - Circuit Rider workload is high and pay level is inconsistent
  - Political changes disrupt continuity of programs, services and staff
  - Retaining qualified staff requires healthy budgets
3. Allocation of funding not effective
  - Water and wastewater should be based on population and flow, as opposed to building size
  - Each First Nation is unique in size and geographic location, however only one base amount is available for solid waste facility on-reserve
  - O&M allocation does not include reserve funds or emergencies (flooding, fire, etc.)
  - Definition of eligible costs under O&M needs to be redefined or improved (i.e. Dedicated salary for Capital Managers, capacity training)
  - Unspent money must be sent back and cannot be retained for savings
4. Lack of support from ISC in Asset Management Planning

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- Maintenance Management Plans are required but not funded
  - First Nation Infrastructure Investment Plan proposals take years for approval, if ever
  - ACRS deficiency costs are not realistic, making it difficult to properly maintain current assets
  - No allocation for reserve funds
5. Policy and Cost Reference Manual Outdated
- Was not developed with input from First Nations
  - Does not take into account new assets (i.e. Recreational assets, Pressure Reducing Valve Chamber)
  - Pricing indices are not realistic, and do not consider actual costs

## 4.2 SUMMARY OF KEY FINDINGS

In review of the issues identified by both stakeholders (ISC and First Nations) the following commonalities are observed:

- Policy and its tools are outdated and do not provide an accurate picture of needs
- Amount of funding for O&M is inadequate
- There are capacity and retention issues at the First Nation level, due to lack of funds for salaries and training
- Difficult to separate governance from operations
- Allocation of funds is inconsistent at ISC Regional level and First Nation level
- A more effective approach to asset management is required

## 5 RECOMMENDATIONS

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### 5.1 SUGGESTED SOLUTIONS

A number of suggestions and ideas were shared amongst the group at the Experts Meeting, the following is a summary of the common themes of potential solutions:

1. There was unanimous consensus that we should institute an asset management approach for O&M that incorporates the full cost of maintaining the assets

What is an asset management approach? Asset management is defined as the combination of management, financial, economic, engineering, and other practices applied to physical assets with the objective of providing the required level of service in the most cost-effective manner. It includes the management of the entire lifecycle—including design, construction, commissioning, operating, maintaining, repairing, modifying, replacing and decommissioning/disposal—of physical and infrastructure assets. (<http://www.lgam.info/asset-management>)

2. Pilot projects on a regional basis

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For example, 5-6 liaisons to help communities to fill in the templates, capacity cost factors, incremental steps to a plan, not a one off prior to election time, need steps in place, borrow asset management plans and strategies and making it First Nations specific and pilot within the communities.

3. Determine O&M funding requirements for the pilot projects using existing benchmarks (outside of ISC formulas, possibly from the municipal level)

Reg Andres presentation identifies the following existing benchmarks:

- National initiative (Canadian National Water and Wastewater Benchmarking –started in 1998)
- PT initiatives (e.g. Ontario Municipal Benchmarking Initiative -OMBI)

OFNTSC has also collected data from several First Nations, which can provide some benchmarking.

4. Capacity building – training – hub model focus

As mentioned, representatives are satisfied with the results of the Circuit Rider Program. It was also noted that the retention of qualified staff is difficult without a healthy budget.

5. Consultation with First Nations is recommended, for input on improvements and bringing awareness of the issues and plans for improvements

The existing framework did not take into account input from First Nations.

6. Use existing models and templates that work for industry, and modify to suit First Nations

There are a number of asset management plan models or software that can be considered. Each has varying complexity and costs. Perhaps a comparison or review of these models/templates can be examined to determine their suitability for First Nation communities.

7. Governance issues need to be addressed as well

Further consultation with First Nations would be required to properly identify and address these issues.

8. Recapitalization of the asset needs to be incorporated

Implementing an asset management approach would address this.

9. Decision making process in funding allocation needs to consider the cost of doing nothing

As discussed in the presentation over the 2-day meeting, there are increasing costs to the O&M budget when assets are not properly maintained. For example, an improperly maintained waste disposal site will lead to other cost impacts, such as environmental clean-up, loss of land use or loss of economic development opportunities.



## 5.2 NEXT STEPS

The AFN, First Nations and ISC representatives were unanimous in the concept of entraining the asset management approach for ISC's capital and O&M program. Federally, provincially and municipally, this approach has been adopted to ensure that the full life cycle cost of an asset is captured at the initial project approval stage. Thus, long term capital planning in conjunction with appropriate annual O&M funding is essential for assets to meet their design life. Premature recapitalization is chronic with on reserve capital assets. Thus, for First Nations and ISC to move forward with this approach the following is recommended:

1. It is recommended that at least two pilots of asset management planning occur in each region over the next two to three months. This piloting will give insight into how quickly the asset management strategy can be undertaken by all First Nations. Some First Nations are already moving towards this strategy and they would be able to implement asset management for all of their assets relatively quickly. ISC Ontario Region has funded eight hub models based on a tribal council basis, regarding the operation and maintenance of water and wastewater treatment plants. These hub model initiatives are developing actual O&M budgets for the specific plants, preparing cost estimates for any capital upgrade requirements to meet ISC's water treatment design manual standards and operator training plans. Essentially asset management plans are being prepared for the water and wastewater treatment plants. These hub model budgets typically incorporated a manager position. Thus including all First Nations assets into the existing model could occur relatively quickly. The Piikani Nation in Alberta has a detailed Maintenance Management System in place, however real O&M costing has not been developed for the community assets. Piikani's O&M budget is based on what they receive from the current ISC O&M funding policy. Thus, there are opportunities where the piloting of asset management can occur quickly.
2. The pilot program scope and template to ensure consistency must be developed over the next month. Potential First Nation candidates for piloting must also be identified.
3. It is recommended that engagement also be undertaken on a tribal council basis once a draft revised O&M policy Framework has been developed. The concept of asset management contemplated in a revised O&M Policy Framework will be explained at these sessions along with First Nation implementation strategies. One or two sessions at each region with tribal council representatives should take place. These sessions could be scheduled to take place in the over the next six months.

4. Further Consultation regarding the recommended change to the ISC's revised O&M policy framework must be undertaken. The AFN would ensure that this would occur at the appropriate First Nations political sessions.
5. AFN is to work with ISC representatives regarding the drafting of a Memorandum to Cabinet regarding the budget request for revising ISC's O&M policy framework. With the knowledge that the current O&M policy framework is underestimating the true O&M costs and how the existing framework excludes a number of assets that need O&M funding, a strategy must be developed quickly that can provide realistic O&M costs. We believe that there are enough current O&M bench marks available at the Federal, First Nation and municipal level that can be used to provide more accurate O&M estimates for all asset classes. ISC had a draft consultant report prepared in 2012 that provided updated O&M costs for the various asset categories. This would be a useful starting point. In conjunction with the ISC Capital Asset Inventory System (CAIS), an O&M funding estimate can be prepared to be used in the Memorandum to Cabinet that more accurately reflects what the full life cycle cost of all assets should be. This could be developed in the next two months.

Cabinet will have expectations of positive performance indicators regarding asset conditions within the next three to four years. However, this will be difficult to achieve when asset design life can be up to 90 years e.g. watermains. However, with an improved approach to the Asset Condition Reporting System (ACRS), positive indicators could be shown in the next five (5) to six (6) years. ACRS is currently on a three-year cycle. The improved approach to the ACRS exercise would extend the ACRS cycle from three (3) years to five (5) or six (6) years, incorporate the asset management strategy, do a better job of determining what capital renewals are required and when the upgrades should be completed.

6. ISC must incorporate the asset management concept into all future capital requests to Cabinet thus when a capital request is submitted, the corresponding long-term O&M funding must also be requested at the same time.
7. The AFN should create a working committee to guide the implementation of the above plan.