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Infrastructure Planning Guide and Toolkit

A Practical Approach to Infrastructure
Planning for First Nations

VERSION 1.0 2018

OVERVIEW SHEET

This sheet (right) provides an overview of the Infrastructure Planning Guide and Toolkit. Tear this sheet out and keep it somewhere visible—pin it to your bulletin board or tape it to your door. The sheet serves two purposes: 1) to help you keep track of where you are in the process; and 2) to raise awareness of the steps involved in infrastructure planning.

Infrastructure Planning Guide and Toolkit *Overview*

The purpose of the Infrastructure Planning Guide and Toolkit is to support First Nations with infrastructure planning so that it helps achieve the community's vision and goals.

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- IMPLEMENTATION**
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First Nations Infrastructure Investment Plan Checklist

The Infrastructure Planning Guide and Toolkit will help you...

Gain a better understanding of the community's infrastructure

Lead or support infrastructure planning in the community

Identify the community's infrastructure needs

Make sure the community's infrastructure helps achieve the community's vision and goals and is affordable over the long term

Prioritize the community's infrastructure needs



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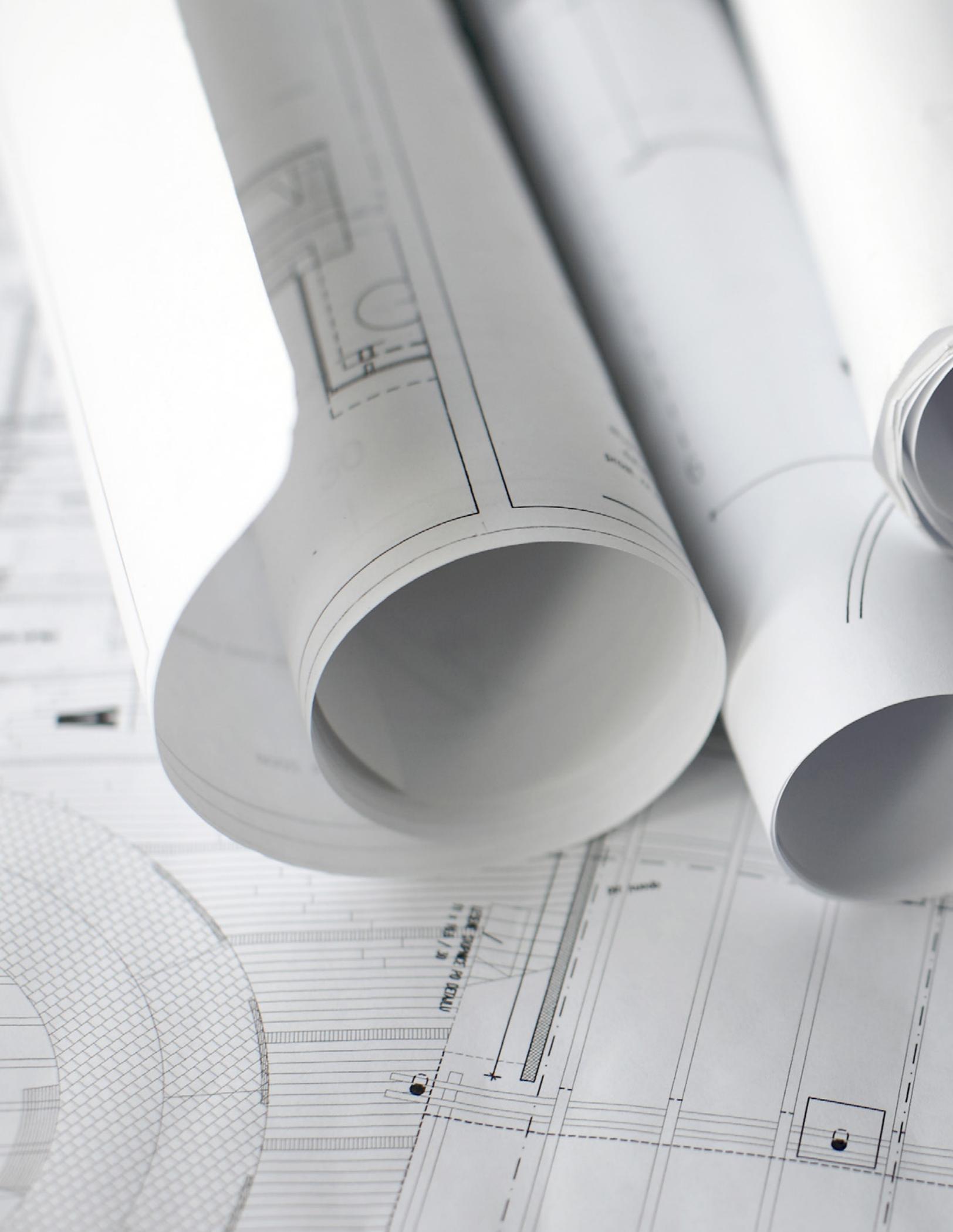
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PART 1

About the
Infrastructure Planning
Guide and Toolkit

What is the purpose of the Guide and Toolkit?

The purpose of the Infrastructure Planning Guide and Toolkit (Guide and Toolkit) is to support First Nations with infrastructure planning so that it helps achieve the community's vision and goals.

Infrastructure is a means to an end. Communities don't build pipes, roads, and buildings because the end goal is to have pipes, roads, and buildings. Rather, communities build infrastructure to help achieve their vision and goals. For example, pipes might be needed to provide safe drinking water, which supports a goal to improve community health. Roads might be built to open up a new residential subdivision, which supports a goal to provide housing for all members. Buildings might be built to enable community gatherings, which supports a goal to celebrate the community's culture.

Ideally, a community's vision and goals have a strong connection to the community's infrastructure.



By following the Guide and Toolkit, you will help the community ensure its infrastructure helps achieve the community's vision and goals. In terms of tangible outputs, this Guide and Toolkit will help you generate a list of infrastructure needs for the community. For each identified infrastructure need, you will be able to:

- Show how it helps the community achieve its vision and goals
- Provide information needed to undertake infrastructure feasibility studies

Once the community has this list of infrastructure needs, the community can then move forward with more detailed infrastructure planning.

A Definition of “Infrastructure”

“Infrastructure” in the community development context is a broad term that represents all the basic physical structures necessary to meet community needs. It includes, but is not limited to:



TRANSPORTATION INFRASTRUCTURE

such as roads and bridges



BUILDINGS

such as schools, administrative offices, health centres, youth centres, and buildings that support economic development activities



HOUSING

for community members



UTILITIES

such as water, wastewater, and drainage systems as well as electrical power networks



PARKS

such as playgrounds, sports fields, and trails

Why should you think about the vision and goals of the community when you plan for infrastructure?

All First Nations have a community vision. For some it is well-defined and documented, while for others it is just emerging. In all instances, realizing that vision depends, in large part, on being able to provide needed infrastructure.

But what happens if infrastructure is planned without considering the community's vision and goals? Not considering the community's vision and goals is risky. It increases the possibility that infrastructure projects get built that:

- Don't help achieve the community's vision and goals
- Don't have the capacity to meet the community's future needs
- Aren't affordable over the long term
- Aren't priorities for the entire community

This can lead to a number of problems for the community, such as:

- Inefficient land use
- Land use conflicts
- Increased exposure to hazards
- Inability to realize economic and social development
- Inability to provide needed services
- High costs

Ultimately, this can leave the community unable to achieve its vision and goals.

Using the Guide and Toolkit

Who should use the Guide and Toolkit?

The Guide and Toolkit is for practitioners who are typically involved in developing and implementing community plans, and for those involved in planning and developing community infrastructure. This includes, but is not limited to:

- Comprehensive community planning coordinators
- Finance managers
- Public works managers
- Housing managers
- Lands managers
- Administrators

Of the people listed above, it is essential to have a Project Leader to champion the infrastructure planning process. More about this can be found on pages 10 and 11.



When should the Guide and Toolkit be used?

The Guide and Toolkit can be used:

- **As part of the Comprehensive Community Plan (CCP) process.** If the community is about to develop a CCP, using this Guide and Toolkit from the beginning of that process will help ensure that infrastructure needs are considered when the community's vision and goals are established.
- **When an introduction to infrastructure planning would be helpful.** You will also find the Guide and Toolkit to be helpful if you are relatively new to your position, or if the community is relatively new to infrastructure planning.
- **At the start of any infrastructure planning process.** Regardless of whether the community has a CCP or plans to develop one, the Guide and Toolkit can be used at the start of any infrastructure planning process. Use this Guide and Toolkit when you are:
 - Developing physical development plans and neighbourhood plans
 - Considering economic development opportunities
 - Planning specific infrastructure projects

How should the Guide and Toolkit be used?

If the community is about to develop a CCP or is in the process of developing one, use the Guide and Toolkit as a companion to the *CCP Handbook: Comprehensive Community Planning for First Nations in British Columbia Third Edition*. It is a good idea to review both the *CCP Handbook* and the Guide and Toolkit in their entirety before beginning the planning process. Then, as you work through the stages and steps in the *CCP Handbook*, work through the corresponding stages and steps in the Guide and Toolkit. Notes have been included throughout the Guide and Toolkit that show how a given step relates to the CCP process.

If the community is working through another infrastructure planning process, you will find different parts of the Guide and Toolkit to be relevant depending on where you are in the process. Scan through the steps and tools to determine what best meets your needs, and use what is most helpful for you.

Complete each step and tool in the Guide and Toolkit as best you can. Don't worry if you can't complete every detail of each step—the community may not have all of the necessary information. In these instances, use the best information you have at hand and then move on to the next step.

Symbols Used in the Guide and Toolkit



There is designated space for you to take notes about each step.



This symbol will help connect you with the correct tool to complete each step.



Take a closer look when you see this symbol to learn more about a topic.



This symbol indicates additional tips related to certain steps.

How is the Guide and Toolkit organized?

The Guide and Toolkit is organized into four parts and a toolkit:

GUIDE	
<p>PART 1: ABOUT THE INFRASTRUCTURE PLANNING GUIDE AND TOOLKIT</p> <p>This is a primer to the rest of the Guide and Toolkit and should be reviewed before you move on to Part 2.</p>	<p>PART 2: STEP-BY-STEP GUIDE TO THE INFRASTRUCTURE PRE-PLANNING STAGE</p> <p>A step-by-step guide to help you get ready for infrastructure planning. Includes specific things to consider if you are getting ready to develop a CCP.</p>
<p>PART 3: STEP-BY-STEP GUIDE TO THE INFRASTRUCTURE PLANNING STAGE</p> <p>A step-by-step guide to help you identify the infrastructure needed to address infrastructure-related issues and to help achieve the community's vision and goals.</p>	<p>PART 4: IMPLEMENTATION STAGE</p> <p>This part provides guidance on the ongoing implementation process.</p>
TOOLKIT	
<p>Includes tools such as templates, checklists, fillable tables, and examples that will help you work through each of the steps.</p>	

PART 2

Step-by-Step Guide to the Infrastructure Pre-Planning Stage



Before You Get Started

Make sure you have identified a **Project Leader** for the infrastructure planning process. This person will act as a champion for the process and as a leader for the broader Infrastructure Planning Team.

The Project Leader will be responsible for:

- Leading the broader Infrastructure Planning Team through the steps, and using the tools in the Guide and Toolkit
- Communicating with Chief and Council
- Coordinating and delegating work among the Infrastructure Planning Team, staff, and others who may be involved in the process
- Providing support to others on the Infrastructure Planning Team as they complete their work
- Managing risks to the infrastructure planning process so that it is completed on time and on budget

A CLOSER LOOK



Characteristics of a Good Project Leader

Good people skills. The Project Leader should be a good listener and communicator, and enjoy working with others. He/she can effectively build trust and lead a team, and can navigate relationships and manage conflict well.

Technical knowledge and experience. Technical infrastructure planning knowledge and experience will greatly help the team work through the infrastructure planning process. Infrastructure design, construction, and operations knowledge and experience are also valuable.

Dedication and availability. The Project Leader needs to be dedicated to leading and completing the infrastructure planning process, and also have adequate availability to do so for the duration of the planning process.

Ability to get things done. The Project Leader should have the ability to identify what needs to be done and find the most effective way to do it. This takes strong focus on priorities and on achieving results, and the ability to stay organized while juggling multiple things at once.

Dedication to getting better. The Project Leader should value personal and professional growth and development. He/she recognizes that infrastructure planning is about continuous improvement, and is willing to learn from experience and improve how things are done moving forward.

The rest of the Guide and Toolkit is directed at the Project Leader and the Infrastructure Planning Team they are leading.

Infrastructure Pre-Planning Stage

The Infrastructure Pre-Planning Stage is about getting ready for the actual planning process. It is a critical but often overlooked stage in infrastructure planning.

The key tangible outputs of this stage are:

- A terms of reference for the Infrastructure Planning Team
- A list of individuals and groups that have knowledge of infrastructure in the community
- A detailed work plan for the infrastructure planning process
- A list of individuals and groups who have a stake in the community's infrastructure

Making your way through the steps in this stage will set you up for a successful planning process, and will help you avoid these common pitfalls in infrastructure planning:

- Viewing infrastructure planning as only one person's job
- Confusion or uncertainty over what each team member's role is
- Difficulty getting future buy-in from Council for a plan or project
- Not having the skills or expertise required for infrastructure planning
- Trouble moving forward in the planning process

TIP:



Is the community about to develop a CCP, or is it in the process of developing one? Follow the steps in the Guide and Toolkit as you work through the Pre-Planning Stage of the CCP Process—see pages 17 to 25 in the *CCP Handbook*. Use the tools in both resources as you make your way through each step. This will help set you up to consider infrastructure in the Planning Stage of the CCP process.

STEP 1

Assess Community Readiness

Determine if the community has the necessary skills, capacity, awareness, and political support to plan for infrastructure in a way that helps achieve the community's vision and goals.

Use the Community Readiness Checklist in the Step 1 Toolkit to assess the community's readiness for infrastructure planning. This tool points to aspects of the community and the Infrastructure Planning Team that should be considered before planning gets underway.

It's okay if you are unable to check 'YES' to every question in the Community Readiness Checklist—it doesn't mean the infrastructure planning process has to stop altogether. What it means is that you may have to go through some additional readiness steps before you proceed. The Community Readiness Checklist provides direction on specific steps you can take to get ready.

TO COMPLETE STEP 1:



- Go to the Step 1 Toolkit
- Use the Community Readiness Checklist

STEP 2

Build an Infrastructure Planning Team

Assemble a team with clear roles and responsibilities to conduct the infrastructure planning process.

Step 2A: Identify individuals who are knowledgeable about the community's infrastructure

Identify all individuals who have knowledge of the community's infrastructure using the Individuals with Infrastructure Knowledge Table in the Step 2 Toolkit. These individuals may currently work for the First Nation or be past employees of the First Nation. They may be community members who have significant knowledge of the community's infrastructure. They may also be consultants or other trusted advisors who work closely with the community. Completing this step will highlight knowledge gaps that will need to be filled during the planning process.

If the community is in the process of developing a CCP, it is important that the CCP Planning Team includes individuals who understand how infrastructure is planned, designed, operated, and financed. If the planning team does not include representatives with this type of knowledge, you may risk overlooking important infrastructure considerations.

TO COMPLETE STEP 2A:



- Go to the Step 2 Toolkit
- Use the Individuals with Infrastructure Knowledge Table

Step 2B: Create an Infrastructure Planning Team

Using the information gathered in Step 2A, identify the key people you think should be part of the Infrastructure Planning Team. Typically, this team will include the managers of public works, housing, finance, lands, economic development, and planning.

It is critical that someone is assigned the role of Project Leader to champion the process and build the Infrastructure Planning Team. If this hasn't yet been done, go back to page 11 of the Guide and use the guidelines to identify a suitable person.

When selecting individuals for the Infrastructure Planning Team, try to choose individuals who are:

- Knowledgeable of a broad range of infrastructure issues
- Enthusiastic about being part of the planning process
- Good communicators
- Available to contribute to the process

If the community is in the process of developing a CCP, the Infrastructure Planning Team may be part of the overall CCP Planning Team or it may act more like an advisory committee that provides advice to the main CCP Planning Team. If the community is large, has particularly complex infrastructure issues, or prefers not to include non-members in the CCP process, consider striking an advisory team that can be convened at key points in the CCP planning process to provide input on infrastructure issues. Individuals identified as having infrastructure knowledge and expertise who are not part of the Infrastructure Planning Team will act as a source of information and expertise as needed throughout the CCP planning process.

How the Infrastructure Planning Team can relate to the CCP Team



CPP Planning Team



Infrastructure Planning Team acting as Advisory Committee



Embedded Team Structure

Step 2C: Develop terms of reference for the Infrastructure Planning Team

Once the Infrastructure Planning Team has been assembled, the next step is to develop terms of reference. This is so everyone has a clear understanding of what the team's purpose is and what everyone's roles and responsibilities are. Use the Infrastructure Planning Team Terms of Reference Template in the Step 2 Toolkit to develop one for your team.

If the community is in the process of developing a CCP, assign responsibility for infrastructure considerations to the Infrastructure Planning Team. The Infrastructure Planning Team Terms of Reference can be used to supplement the *CCP Handbook's* Tool 3: Terms of Reference for a Planning Team.

TO COMPLETE STEP 2C:



- Go to the Step 2 Toolkit
- Use the Infrastructure Planning Team Terms of Reference Template

STEP 3

Conduct a Stakeholder Analysis

Identify all individuals and groups who have a stake in the community's infrastructure and determine how they should be involved in the planning process.

In Step 2A, you identified individuals who are knowledgeable about infrastructure. In Step 3, you will identify individuals and groups who have a “stake” in the community's infrastructure; that is, individuals and groups that will likely be most affected by infrastructure decisions and should therefore be involved in the infrastructure planning process. You need to know who these individuals and groups are so that you can develop a work plan that includes adequate communication and engagement with them. Use the Stakeholder Analysis Template in the Step 3 Toolkit to complete this step.

It may seem too early in the process to be conducting a stakeholder analysis, but this is an important step to take at this time because stakeholder engagement has implications for the project's overall budget and schedule. Thinking early on about stakeholder engagement can help prevent delays and cost over-runs in the planning process. It can also help ensure the community supports the outcomes of the planning process.

TO COMPLETE STEP 3:



- Go to the Step 3 Toolkit
- Use the Stakeholder Analysis Template

STEP 4

Develop a Work Plan, Budget, and Schedule

Create a work plan, budget, and schedule for the infrastructure planning process.

Step 4A: Develop a work plan, budget, and schedule for the infrastructure planning process

The Infrastructure Planning Team's first task is to develop the work plan for the planning process. Use the Infrastructure Work Plan Table in the Step 4 Toolkit to think through all the activities you will undertake in the planning process, how long they will take, what budget is required, and who is responsible for leading them.

If the community is in the process of developing a CCP, the work plan should include adequate budget and time to properly consider infrastructure in the broader CCP planning process.

TO COMPLETE STEP 4A:



- Go to the Step 4 Toolkit
- Use the Infrastructure Work Plan Table

Step 4B: Confirm budget, schedule, and availability of resources

Once you have a draft work plan complete, use the Infrastructure Work Plan Checklist in the Step 4 Toolkit to review your work plan and check that you have time and resources (people and funds) to carry out all of the activities. This tool will be particularly helpful if the community is in the process of developing a CCP, as it will help ensure that infrastructure is considered in the broader CCP process.

If you find that you may not have adequate time or resources available to complete the work plan, you may need to revise the work plan, seek out additional funds or people to help, or extend the project schedule.



TO COMPLETE STEP 4B:

- Go to the Step 4 Toolkit
- Use the Infrastructure Work Plan Checklist

The Infrastructure Pre-Planning Stage is now complete!

If you have followed Steps 1 to 4, you have completed the Infrastructure Pre-Planning Stage and are now ready to move on to the actual planning process. By now, you should have:

- ✓ A Project Leader to act as a champion for the process and to lead a broader Infrastructure Planning Team
- ✓ Terms of reference for the Infrastructure Planning Team
- ✓ A list of individuals and groups that have knowledge of infrastructure in the community
- ✓ A list of individuals and groups who have a stake in the community's infrastructure
- ✓ A detailed work plan for the infrastructure planning process with a schedule and budget

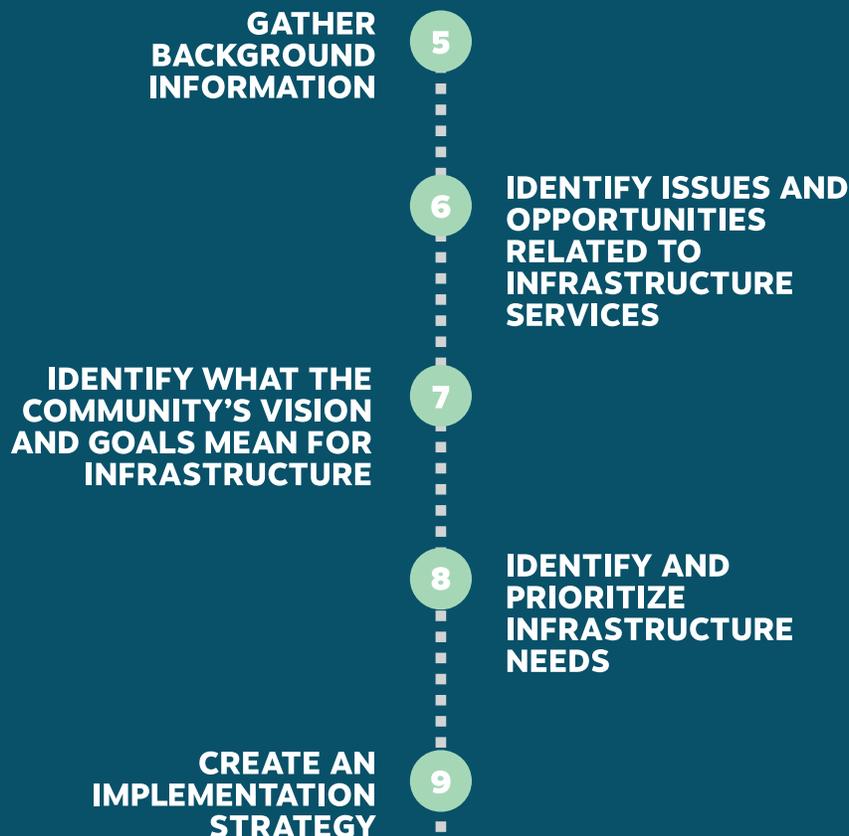
If you don't quite have these outputs yet, go back through Steps 1 to 4 and complete the missing steps.

This is an important milestone in the infrastructure planning process. Completing this stage will help make for a smooth planning process.



PART 3

Step-by-Step Guide to the Infrastructure Planning Stage



Infrastructure Planning Stage

The Infrastructure Planning Stage is about identifying infrastructure that will help achieve the community's vision and goals. If the community is in the process of developing a CCP, the Planning Stage is also about identifying a vision and goals for the community that takes infrastructure needs into consideration. The key outputs of the Infrastructure Planning Stage are:

- A summary of the community's major infrastructure assets and service profile
- A list of infrastructure issues and opportunities
- A list of the implications of the community's vision and goals for infrastructure
- A list of infrastructure needs to help achieve the community's vision and goals—ideally with enough definition to inform feasibility studies
- A list of prioritized infrastructure needs
- An implementation strategy

The Infrastructure Planning Stage will be useful if the community is in the process of developing a CCP. You will also find this stage to be helpful if you are developing a physical development plan, neighbourhood plan, economic development plan, or if you are about to conduct a feasibility study. The planning steps and tools will help ensure the community builds infrastructure that helps achieve its vision and goals.

TIP:

Is the community about to develop a CCP, or is it in the process of developing one? Follow these steps as you work through the Planning Stage of the CCP Process. This will help you consider infrastructure as you develop the community's vision and goals, and it will help you identify infrastructure needs that will help achieve the community's vision and goals.



STEP 5

Gather Background Information

Gather relevant information about the community that will inform subsequent infrastructure planning steps.

Step 5A: List and summarize available infrastructure studies, plans, and reports

The community has likely completed a number of studies, plans, and reports related to infrastructure. Compile a list of these documents in the Infrastructure Studies, Plans, and Reports Table in the Step 5 Toolkit. You will refer to this table later in the planning process to identify issues and opportunities. Many communities find it difficult to manage the number of documents they have on infrastructure. This step will help you organize the information in a way that is easy to reference.

If your community is in the process of developing a CCP, it is critical to gather background information on infrastructure at the outset of the planning process, since infrastructure is needed to support many of the community's aspirations.

TO COMPLETE STEP 5A:



- Go to the Step 5 Toolkit
- Use the Infrastructure Studies, Plans, and Reports Table

TIP:



Keep this summary handy, not only for your current planning process but for future planning processes. This will help your community continue to build on the work it has done in the past.

Step 5B: Inventory existing major infrastructure assets

Once you have reviewed and compiled available infrastructure studies, plans, and reports in Step 5A, you can use this information—as well as a walk-about in the community—to inventory existing major infrastructure assets. Use the Asset Inventory Table in the Step 5 Toolkit to document the inventory.

It is important to complete the inventory so that you have an understanding of the major infrastructure assets in the community. Ideally, you should identify each asset's location, age, condition, capacity, and replacement cost, and also note any other relevant information. You will use this information in Step 6 to identify issues and opportunities related to infrastructure.

For planning purposes it is reasonable to limit your inventory to basic information on major infrastructure assets. Fill in as much information as you can for each of the assets.

TO COMPLETE STEP 5B:



- Go to the Step 5 Toolkit
- Use the Asset Inventory Table

TIP:



Wondering where to start? The community may already have this information available as part of tracking and reporting Tangible Capital Assets (TCAs). TCAs refer to an accounting standard for reporting on capital assets by First Nations governments and municipal governments across Canada. You may want to discuss the tracking and reporting of TCAs with your Finance Manager. Another good place to start your inventory is by reviewing the community's most recent Asset Condition Reporting System (ACRS) report.

STEP 6

Identify Issues and Opportunities Related to Infrastructure Services

Identify issues and opportunities related to infrastructure services in the community that may need to be addressed.

Infrastructure enables: it helps the community achieve its vision and goals. If there are issues with infrastructure services, it may prevent the community from fully achieving its vision and goals. On the flip side, opportunities may be leveraged to achieve the community's vision and goals. By identifying issues and opportunities, you can develop a plan to address and leverage them.

Identifying issues and opportunities is about asking these three key questions:

- **How are services currently provided in the community?** This includes identifying which infrastructure services are currently provided to the community and to what level of service. Level of service is a measure of the quality and/or quantity of the service provided to users.
- **What are the opportunities and threats to the community that may require or affect community infrastructure?** These are typically “external” factors, such as population growth, resource development in the territory, regulations, and ownership.
- **What are the community's strengths and weaknesses when it comes to community infrastructure and how it is planned for, developed, and managed?** These are typically “internal” factors, such as the condition of infrastructure, decision-making processes, operations and maintenance practices, quality of information (based on what you find in Step 5), and knowledge and training.

Use the Infrastructure Service Profile Templates in the Step 6 Toolkit to identify issues and opportunities related to how the community provides services generally, and then for each specific service profile (e.g., water, wastewater, transportation). Be sure to reference the completed Infrastructure Studies, Plans, and Reports Table from Step 5A, and the completed Asset Inventory Table from Step 5B to help you complete the Infrastructure Service Profile Templates.

TIP:

Ideally, members of the Infrastructure Planning Team should work closely together to complete the analysis, as it is much easier to identify issues and opportunities when varying perspectives and areas of expertise are brought together. This is also a good time to go back to the completed Individuals with Infrastructure Knowledge Table from Step 2A to see who may be able to help you complete the analysis. Engage these people as necessary.

If the community is in the process of developing a CCP, consider this step part of the broader “Community Analysis” in the Planning Stage of the *CCP Handbook*. As part of this step, you will complete an analysis of each of the core planning areas, including one for Infrastructure Planning and Development. It is important to do the analysis for infrastructure and think about how it affects all the other planning areas. Be sure to incorporate this information with the broader community analysis that is conducted in this step.

TO COMPLETE STEP 6:

- Go to the Step 6 Toolkit
- Use the Infrastructure Service Profile Templates

A CLOSER LOOK



Issues and Opportunities Related to Land Ownership and the Regulatory Context

Many communities experience challenges with providing infrastructure services because land ownership and the local regulatory context were not considered when infrastructure was built. For example, the need for a new water supply may be identified during the planning process; however, getting access to a new source of water could require collaboration with land owners and a permitting process with other levels of government.

Considering land ownership and regulatory requirements early in the infrastructure planning process will help you avoid servicing issues down the road. When you are conducting the analysis in Step 6, ask yourself the following questions and use the answers to help you identify issues and opportunities related to infrastructure in the community.

- **Laws:** What laws apply to the community? For example, does the community have a Treaty, a Land Code, or does the Indian Act apply?
- **Agreements:** Does the community have any agreements with other governments or groups (e.g., a Municipal Type Service Agreement)?
- **Ownership:** Is land in and around the community owned by the First Nation, by individuals with a Certificate of Possession (CP), or by any other groups or individuals? Are there any other land encumbrances or leases?
- **Permits:** Is a permit required to operate any infrastructure in the community?
- **Highways:** Are there any highways in or around the community? The Province of British Columbia likely has jurisdiction over these roads.
- **Rights-of-Way:** Do you know of any rights-of-way in and around the community that others have jurisdiction over?

Return to this list of questions when you are identifying what the community's vision and goals mean for infrastructure in Step 7.

STEP 7

Identify What the Community's Vision and Goals Mean for Infrastructure

Identify what community infrastructure may be needed to help the community achieve its vision and goals.

Nearly every community vision will have implications for infrastructure. In most cases, communities will need new or expanded infrastructure to support future development in the community. These needs will come with costs, and community members should be aware of these costs and discuss them (alongside a broad range of other considerations) as part of the planning process. Use the Infrastructure Implications Table in the Step 7 Toolkit to identify what the community's vision and goals mean for infrastructure. The tool includes examples of implications to get you started.

If the community is in the process of developing a CCP, this step should be completed after you establish the draft vision statement (see *CCP Handbook*, Planning Step 3). If the community already has a CCP or you are otherwise going through a separate infrastructure planning process, review the community's vision statement or any other high-level guiding statement that exists, and identify implications for infrastructure in the community.

TO COMPLETE STEP 7:



- Go to the Step 7 Toolkit
- Use the Infrastructure Implications Table

STEP 8

Identify and Prioritize Infrastructure Needs

Identify and prioritize infrastructure needs to address the issues and opportunities you identified in Step 6, and to help achieve the community's vision and goals given the implications you identified in Step 7.

Step 8A: Identify infrastructure needs

By the time you are at this step, you will have identified issues and opportunities related to how infrastructure services are currently provided in the community. You will also have identified the implications of the community's vision and goals for infrastructure.

This step is about identifying what needs to be done from an infrastructure planning perspective to address the findings of your analysis. Ideally, this step results in a master list of infrastructure needs with high-level information on scope and costs. Specific project details related to level of service, capacity, and cost will be determined through subsequent feasibility studies.

Use the Infrastructure Service Profile Templates from Step 6 and the Infrastructure Implications Table from Step 7 to complete the Infrastructure Needs Table in the Step 8 Toolkit. Infrastructure needs may be infrastructure projects, and/or studies, plans, and strategies that need to be undertaken to further identify specific infrastructure projects.

If the community is in the process of developing a CCP, depending on what you find in this step, you may need to circle back to the draft vision and goals that were established, engage the community in discussions about whether they are appropriate for the community, and/or establish expectations for the amount of time it may take to achieve them.

TIP:

When identifying infrastructure needs, be sure to consider level of service and its impact on life cycle costs. The community may need to adjust its expectations regarding level of service to make service provision more affordable.

TO COMPLETE STEP 8A:

- Go to the Step 8 Toolkit
- Use the Infrastructure Needs Table

A CLOSER LOOK



Level of Service

Level of service is the quality and/or quantity of service provided to the community. Level of service for some types of infrastructure services are up to the community to decide—for example, roads: they may be paved, gravel, or another suitable type. Other types of infrastructure services, such as water, need to meet regulatory standards for level of service to maintain the health and safety of the community.

Level of service has a direct impact on the cost to construct, operate, maintain, and replace the infrastructure that provides the service. For example, the community may desire to have all roads paved, but it is important to consider the life cycle costs of constructing, maintaining, and replacing the paved surface over its service life, which could be decades. Once life cycle costs are considered, it might be found that it is actually in the community's best interest to have only major roads paved and to have others remain gravel.

Life Cycle Costs

Life cycle costs are the total costs to design, construct, operate, and maintain infrastructure at the desired level of service over the useful service life of the infrastructure. Life cycle costs also include the costs to replace or decommission infrastructure that is at the end of its useful service life.

Life cycle costs are often overlooked when communities are identifying infrastructure needs and are selecting their preferred option. This is problematic because the cost to design and construct a new infrastructure project is just the tip of the iceberg—the initial construction often makes up only about 20% of the overall life cycle cost of an asset. This means that although a project may have a relatively affordable up-front capital cost, it may not actually be financially sustainable for the community over the long term.

Initial capital costs: The up-front cost to design and construct infrastructure, including land acquisition costs and permitting costs. For example, the costs to get a new Community Centre built in the community.

Annual O&M costs: The costs to operate and maintain infrastructure to the desired level of service, manage risk, and to make sure it is useful over its entire service life. For example, the regular heating, electricity, and cleaning required to keep the Community Centre operating how it should.

Rehabilitation costs: The costs to rehabilitate infrastructure—to maintain the desired level of service and to manage risk. For example, a major roof repair on the Community Centre.

Replacement or decommissioning costs: The costs to replace major infrastructure. For example, if an upgrade is needed or the condition necessitates it, or to completely disassemble and remove the infrastructure. For example, to replace a Community Centre at the end of its service life with a new one.

Total life cycle costs



Step 8B: Prioritize infrastructure needs

In Step 8A, you generated a master list of infrastructure needs to address issues and opportunities, and to help achieve the community's vision and goals. The next step is to prioritize these needs. Although all needs are important, every community has limited human and financial resources to dedicate to infrastructure development. It is essential that the most important and most urgent needs are addressed first, and that a plan is in place to get needs that are a higher priority for the community funded and implemented before needs that are a lower priority for the community.

The Prioritization Process in the Step 8 Toolkit will help you work through your master list of infrastructure needs from Step 8A and identify what is most important and most urgent. It will then help you further prioritize urgent and important needs, so you have a strong understanding of what should be acted on first.

As you go through the process of identifying and prioritizing infrastructure needs, you may find that some of them are more operational or administrative in nature. For example, you may find that you need to re-negotiate the community's sewer service agreement with a neighbouring municipality because it is about to expire. List these "non-infrastructure tasks" in the Administrative and Operational Tasks Table in the Step 8 Toolkit.

If the community is in the process of developing a CCP, infrastructure priorities should be discussed as part of the broader priority-setting process—that is, infrastructure needs should be considered alongside other needs identified in the planning process.

TO COMPLETE STEP 8B:



- Go to the Step 8 Toolkit
- Use the Prioritization Process
- Use the Administrative and Operational Tasks Table

Step 8C: Identify land use implications of high-priority infrastructure needs

In Step 8B, you identified infrastructure priorities. In this step, the land use implications of high-priority infrastructure needs are identified—that is, the footprint and location requirements (if known) of the high-priority infrastructure needs. If the community needs new or expanded infrastructure, it will have an impact on land use. If these land use impacts are overlooked, the community may risk running into various issues such as:

- Conflicting land uses (e.g., landfill adjacent to a school)
- Locating infrastructure in hazard zones (e.g., water treatment plant in a floodplain)
- Locating infrastructure in difficult construction conditions (e.g., where construction requires drilling through bedrock)

Use the Infrastructure Land Use Considerations List in the Step 8 Toolkit to consider how land use may be affected by infrastructure services.



TO COMPLETE STEP 8C:

- Go to the Step 8 Toolkit
- Use the Infrastructure Land Use Considerations List

A CLOSER LOOK



The Connection Between Land Use and Infrastructure

In most cases, land use decisions will have an impact on infrastructure needs (that is, demand for infrastructure services). For example, a housing development that is spread over a large area (like detached homes) will require more infrastructure than a development that is more dense and compact (like an apartment building). As part of this step, be sure to review any Land Use Plans that have been prepared for the community to ensure that related infrastructure needs have been documented.

On the flip side, many types of infrastructure, including all buildings, have a footprint, that must be considered when Land Use Plans are being developed. Different types of infrastructure also have specific location requirements, and these need to be accounted for in this step. For example, a wastewater treatment facility like a lagoon may take up a large area of the community and needs to be located in a safe area, such as outside of a floodplain and away from a school.

If the community doesn't yet have a Land Use Plan, it is a good idea to use the outcomes of this step to inform the development of a Land Use Plan.

Step 8D: Explore funding options

The next step is to explore potential funding options for the community's high-priority infrastructure needs. Some infrastructure needs will be eligible for federal funding, while others will require other sources of funding or financing.

As you complete this step, be sure to distinguish between infrastructure that is needed to serve community members and infrastructure that is needed to support economic development activities. Funding sources are quite different depending on who or what the infrastructure will service. Talk to a trusted advisor about funding or financing opportunities for the community. You will document potential funding options as part of Step 8E.

Step 8E: Prepare a scoping sheet for high-priority infrastructure needs

By the time you reach this step, you will have identified the issues and opportunities related to infrastructure services in the community, the implications of the community's goals and objectives for infrastructure, and the infrastructure needs and their implications for land use. You will also have prioritized the infrastructure needs and identified funding options for them.

To help the community implement its high-priority infrastructure needs and move forward with further analysis (such as feasibility studies), prepare a summary sheet for each high-priority infrastructure need.

TIP:



The information provided in each scoping sheet will likely be quite high-level, and you may not be able to fill in every section. What's important is that you consider each section, and fill in as much as possible to inform future studies.

STEP 8

Use the Infrastructure Needs Scoping Sheet in the Step 8 Toolkit to document the following information for each infrastructure need:

- Description of the infrastructure needed
- Project purpose
- Linkage to community vision, goals, and objectives
- Level of service
- Required size (usually in terms of capacity and population projections)
- Location and other key requirements
- Timing
- Resources required (financial and human resources)
- Potential funding sources
- Linkages to other infrastructure projects

Steps 8A to 8D and the tools in the Step 8 Toolkit will help you prepare an Infrastructure Needs Scoping Sheet for each high-priority infrastructure need.

At the end of this step, the community will have a list of high-priority infrastructure needs, and you will have a sheet that summarizes all the information available for each need, which can be used to inform future studies.

If the community is in the process of developing a CCP, you can include the entire master list of infrastructure needs in the CCP, but be sure to clearly identify which ones are a high priority for the community.

TO COMPLETE STEP 8E:



- Go to the Step 8 Toolkit
- Use the Infrastructure Needs Scoping Sheet

STEP 9

Create an Implementation Strategy

Develop a strategy for implementing high-priority infrastructure needs.

Once you know which infrastructure needs are a high priority, a medium priority, and a low priority, and you have an idea of the funding opportunities available, you can develop an implementation strategy.

There are several things to consider at this point, such as whether some projects depend on another, and the major steps you will need to take to initiate a project (e.g., conducting a study or plan first). Use the Implementation Strategy Tables in the Step 9 Toolkit to think through these considerations and develop a strategy for moving forward.

The implementation strategy should be clear and detailed enough that staff and Council understand what needs to be acted on and when. This will make it easier for the community to make progress on its vision and goals. More information to support implementation is provided in Part 4 of the Guide and Toolkit.

TO COMPLETE STEP 9:



- Go to the Step 9 Toolkit
- Use the Implementation Strategy Tables

The Infrastructure Planning Stage is complete! Now what?

If you have followed Steps 5 to 9, you have completed the Infrastructure Planning Stage. By now, you should have:

- ✓ **An understanding of issues and opportunities related to infrastructure services in the community.** Issues and opportunities have been identified for all major infrastructure services in the community.
- ✓ **An understanding of what the community's vision and goals mean for infrastructure.** The vision and goals may directly mention infrastructure, or they may not—what is important is that you have a good understanding of the implications of these broader community aspirations for infrastructure.
- ✓ **A prioritized list of infrastructure needs to help achieve the community's vision and goals.** For each high-priority infrastructure need, you ideally have identified:
 - Level of service
 - Capacity needed
 - Capital costs (order of magnitude)
 - O&M costs (order of magnitude)
 - Land use considerations
 - Possible funding sources
 - Skills/knowledge needed to operate the infrastructure
- ✓ **An implementation strategy to guide next steps.** The implementation strategy is clear and detailed enough that staff and Council know what to act on and when to advance the infrastructure planning process.

All of this information is invaluable, and will need to be integrated with other plans and processes in the community.

PART 4

Implementation Stage

What should you do with the information and infrastructure needs you have identified with the Guide and Toolkit?

Following the steps in the Guide and Toolkit does not bring you to the “end”. Really, it’s just the beginning of the ongoing process that is integrated community planning and management.

If you have followed the Guide and Toolkit to this point, you will have:

- Inventoried major infrastructure assets in the community as well as relevant infrastructure studies, plans, and reports
- Identified issues and opportunities related to infrastructure services in the community
- Identified what the community’s vision and goals mean for infrastructure
- Identified a master list of infrastructure needs, and prioritized which of those are both urgent and important and for the community

This is a lot of valuable information and direction for the community. It is important that you make sure that this information informs other community plans, and that high-priority infrastructure needs are addressed through the First Nation’s administrative process.

Use information gathered to inform other community plans

Foundational information like population projections, existing and future needs, and issues and opportunities can be used to develop other community plans, such as:

- Asset Management Plans
- Land Use Plans
- Economic Development Plans
- Physical Development Plans
- Housing Plans

Before developing any future plans, you should refer to the CCP (if the community has one) to check what you already have and ensure that the plans align. You should also refer to other existing plans and check that they are aligned with the CCP.

Implement high-priority infrastructure needs through the First Nation's administrative process

This is a process that many communities may struggle with. High-priority infrastructure needs should be addressed through the First Nation's administrative process in a way that results in day-to-day, concrete actions as follows:

- High-priority projects and actions should make their way into Council's Strategic Plan so they are at the top of the First Nation's agenda for the next 5 to 10 years. The Strategic Plan provides focus and direction for staff, guiding their annual departmental work plans and eventually their day-to-day actions.
- Funds should be allocated to high-priority projects and actions through the First Nation's annual budget and capital plan.
- High-priority infrastructure projects should be identified in the First Nations Infrastructure Investment Plan (FNIIP).

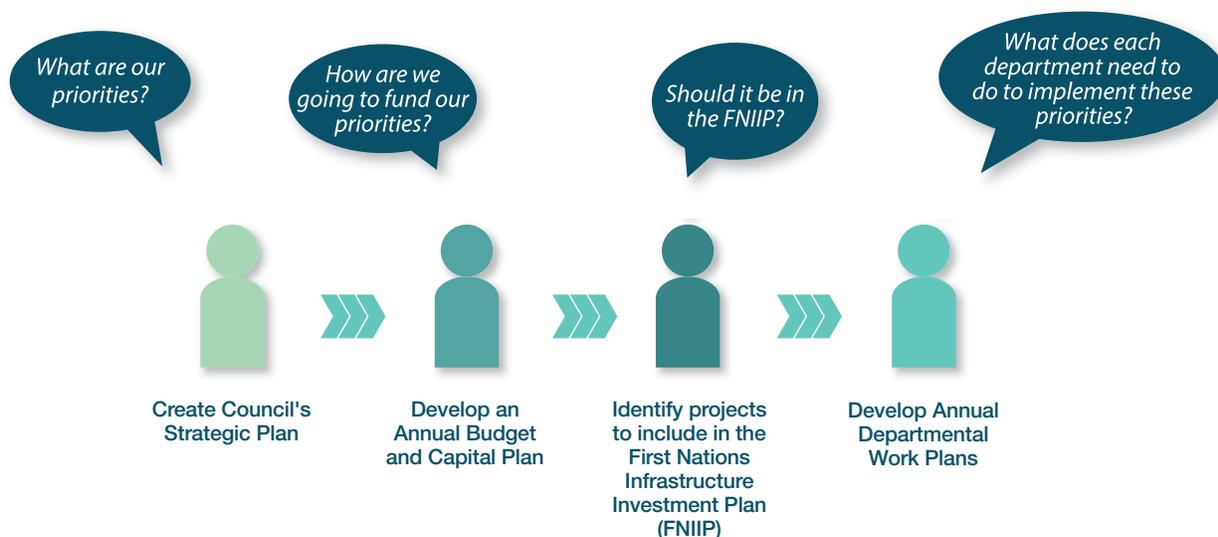
Use the FNIIIP Checklist in the Implementation Toolkit as a final check to confirm that a project should be listed in the community's FNIIIP. This is a key step in making sure the projects that are most important and most urgent for the community are the ones that get built. If you have followed the Guide and Toolkit to this point, you will also have a valuable resource to help the community complete its FNIIIP. The Infrastructure Needs Scoping Sheets in the Step 8 Toolkit, in particular, provide key information that can be used to justify funding for the community's high-priority projects.

TO IMPLEMENT HIGH-PRIORITY INFRASTRUCTURE NEEDS:



- Go to the Implementation Toolkit
- Use the FNIIIP Checklist

Key questions that need to be answered as part of the administrative process to help ensure that high-priority infrastructure projects are implemented



How should you keep the infrastructure plan up-to-date?

Whether the community is developing a CCP or another infrastructure plan, it is a good idea to keep it up-to-date and to track the community's progress on implementing it. As outlined in the *CCP Handbook*, communities should establish a monitoring and evaluation program to ensure the CCP is revised and updated regularly.

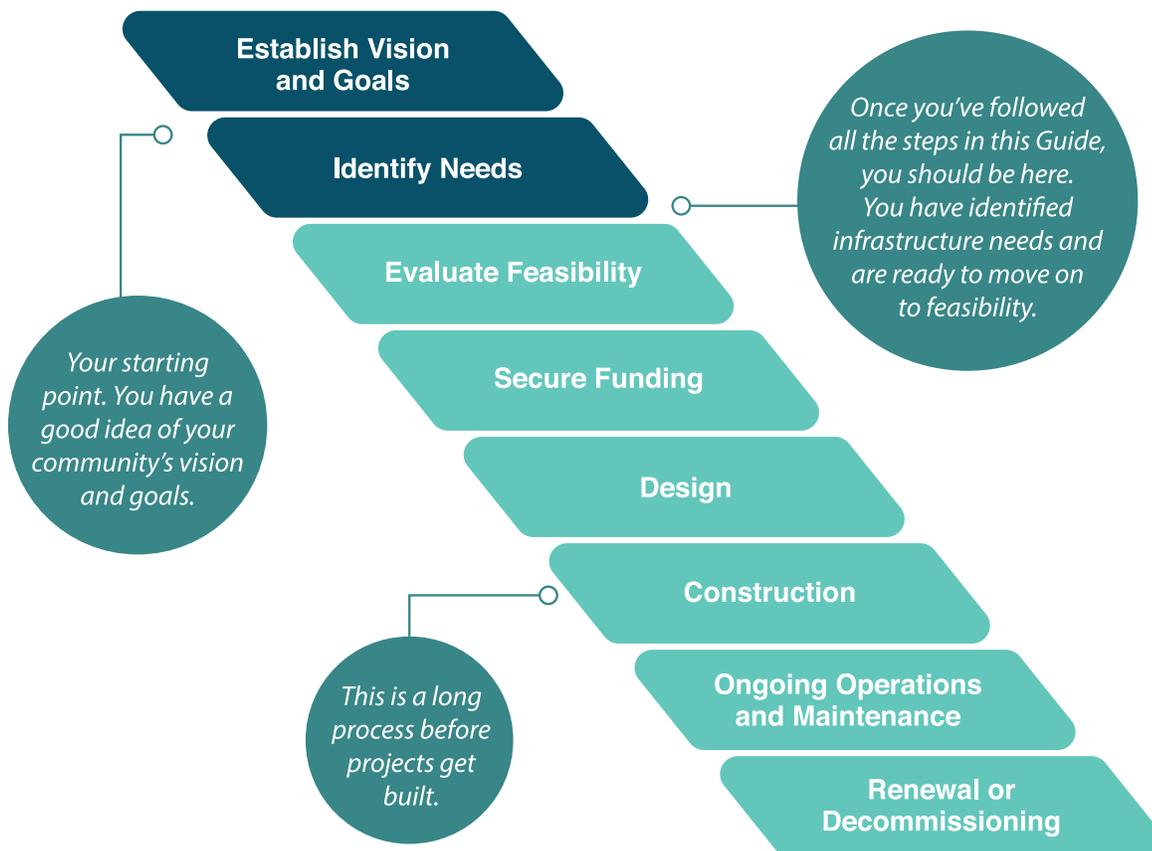
Changes to issues and opportunities—changes to population growth, climate change projections, and funding—might be cause for revising and updating the plan in the future. Similarly, as the community moves forward with detailed feasibility studies, and it becomes apparent that a key community goal cannot be achieved because the needed infrastructure is not feasible, then that goal will need to be revisited. Not all changes in service provision or new infrastructure information should necessarily trigger a full review of the community's plans. However, if changes or new information are significant and relate to key community goals, then an update is likely warranted.

Will all identified infrastructure needs result in constructed projects?

Not all infrastructure needs identified to this point will necessarily translate into constructed projects. There is much more detailed analysis and engineering that needs to be completed before a project is confirmed to be the best alternative for the community, and is “shovel-ready”. As the graphic on the following page shows, once needs are identified, the community will still need to conduct feasibility studies to identify the best alternative, secure funding, and move through design and construction.

During the feasibility stage, it may be determined that the project is not viable (at least at that time), and alternatives should be pursued instead. If the project is deemed to be viable, it still needs to go through the design process, which on its own can have multiple phases. Once the final design is complete, the project will move to construction. Even then, the infrastructure planning and development process does not end there—it continues with ongoing operations and maintenance, renewal, and eventually decommissioning.

The infrastructure planning and development process



TOOLKIT

Infrastructure Planning Toolkit



Using the Toolkit

This Toolkit includes tools such as templates, checklists, fillable tables, and examples that will help you complete each of the steps described in the Guide.

Tools included in the printed copy of the Toolkit are provided for demonstration purposes only. A complete digital copy of each tool is included on the memory stick accompanying this document. Each digital tool includes space for you to enter data relevant to your infrastructure planning process, and you can print out the tools as needed.

STEP 1 TOOLKIT

Assess Community Readiness

What will this Toolkit help you do?

- Assess the community's readiness for infrastructure planning
- Get ready for Step 2: Build an Infrastructure Planning Team

What Tool is in this Toolkit?

- Community Readiness Checklist

When should you use this Toolkit?

- If the community is in the process of developing a Comprehensive Community Plan (CCP), use this Toolkit as you complete Step 1 as described on page 19 of the *CCP Handbook*.
- If the community is going through another infrastructure planning process, use this Toolkit to help you complete Step 1 in the Guide and before you take any further steps in the planning process.

TIPS:



- Share the introductory sections of the Guide with Chief and Council to build awareness of the importance of linking infrastructure planning to the community’s vision and goals.
- Consult with Chief and Council as well as the Public Works Department (or department providing similar functions) to assess the community’s readiness for infrastructure planning.
- Use the outcomes of this Toolkit to inform your work plan and to plan for how you will communicate and engage with the community.
- It’s okay if you can’t check ‘YES’ to every question in the Community Readiness Checklist—this doesn’t mean the infrastructure planning process has to stop altogether. What it does mean is you may have to go through some additional readiness steps before you proceed. The Community Readiness Checklist provides direction on specific steps you can take to get ready.

COMMUNITY READINESS CHECKLIST

Complete the checklist on the following page to see if the community is ready for the infrastructure planning process.

If you are unsure about whether to check 'YES' for the following:

AWARENESS—Read ahead to Step 3: Conduct a Stakeholder Analysis. Step 3 will help you think through how to raise awareness among elected officials (Chief and Council) and key staff about the link between infrastructure and the community's vision and goals.

PEOPLE—Read ahead to Step 2: Build an Infrastructure Planning Team. Step 2 will help you engage knowledgeable people prior to moving on to the next pre-planning steps.

INFORMATION—Read ahead to Step 5: Gather Background Information. Step 5 includes tips on how to find relevant information/data/studies.

ENGAGEMENT—Read ahead to Step 3: Conduct a Stakeholder Analysis. Step 3 will help you think through how to engage the broader community in the infrastructure planning process. You may need to provide additional information on infrastructure planning to the community before they can effectively participate in the process.

FUNDING—Consider talking to the finance manager, administrator, or a trusted advisor about funding opportunities. Adequate funding must be in place before infrastructure planning begins to ensure the community can maintain momentum throughout the process.

.....

AWARENESS

- Do Chief and Council and key staff see the importance of infrastructure in achieving the community's vision and goals?
-

PEOPLE

- Is there a Project Leader who has the skills, time, and motivation to lead the infrastructure planning process and successfully work with others? This person will lead both the pre-planning and planning work.
-

- Are there people within the community who have knowledge and experience related to infrastructure, and who may want to be on an Infrastructure Planning Team? For example, an Infrastructure or Capital Projects Manager, Public Works Manager, and/or Operators?
-

- Does the community have a Public Works Department, or department providing similar functions?
-

- Do you know who you can engage as outside experts on infrastructure issues? For example, trusted advisors, planning mentors, consultants, or Tribal Council staff?
-

- Do key individuals have sufficient capacity and motivation to commit to the infrastructure planning process?
-

INFORMATION

- Do you have access to information/data/studies on the community's infrastructure?
-

ENGAGEMENT

- Has the community had open discussions about infrastructure in the past 5 years?
-

FUNDING

- Does the community have adequate funds available to conduct the infrastructure planning process?
-

STEP 2 TOOLKIT

Build an Infrastructure Planning Team

What will this Toolkit help you do?

- Identify individuals to be included on the Infrastructure Planning Team
- Document the purpose of this team
- Document the key responsibilities of this team
- Outline how this team relates to the larger Comprehensive Community Plan (CCP) planning team, if the community is completing a CCP
- Get ready for Step 3: Conduct a Stakeholder Analysis

What Tools are in this Toolkit?

- Individuals with Infrastructure Knowledge Table
- Infrastructure Planning Team Terms of Reference Template

When should you use this Toolkit?

If the community is in the process of developing a CCP, use this Toolkit as you complete Pre-Planning Step 3 in the CCP Handbook (see page 20 of the *CCP Handbook*).

If the community is going through another infrastructure planning process, use this Toolkit to help you complete Step 2 in the Guide, and before you take any further steps in the planning process.



TIPS:

- Make sure a Project Leader has been identified to champion the infrastructure planning process and build and lead the Infrastructure Planning Team.
- Have conversations with many different people inside and outside of the First Nation to find out who is familiar with infrastructure issues in the community. Start with the Public Works department and/or Infrastructure Manager, as they have the most obvious knowledge of infrastructure, but be sure to speak to all departments. Also, speak to Elders—they often have knowledge of the community’s development history that can be invaluable for infrastructure planning.
- When selecting individuals for the Infrastructure Planning Team, try to choose individuals who are:
 - Knowledgeable about a broad range of infrastructure issues
 - Enthusiastic about being part of the planning process
 - Good communicators
 - Available to contribute to the process
- Be sure to communicate to the entire planning group that infrastructure is everyone’s concern because it underlies so much of what the community aspires to be and to do. Specific roles and responsibilities for infrastructure planning have been assigned to certain individuals to make sure these issues aren’t overlooked.
- Develop the terms of reference for the Infrastructure Planning Team collaboratively with the members of this team (and possibly members of the larger CCP Planning Team, if applicable) to build support and commitment.



- If the community is completing a CCP, be clear on the role of the Infrastructure Planning Team in relation to the larger CCP Planning Team, and share the completed terms of reference with the larger CCP Planning Team. Also, be clear on the roles and responsibilities of each member of the Infrastructure Planning Team.
- Revisit this Toolkit once you have developed a work plan, budget, and schedule (see Step 4 in the Guide and Toolkit), to confirm that all details are accurate.

INDIVIDUALS WITH INFRASTRUCTURE KNOWLEDGE TABLE

List individuals who have knowledge of the community’s infrastructure. In addition to noting their name and contact information, also identify the individual’s organization. Is the individual a community member? Administrative staff? Consultant? Tribal council staff? If you can, identify an individual for each relevant infrastructure category. Be sure to provide a brief description of the individual’s knowledge. Typical infrastructure categories are:

- Water
- Wastewater
- Transportation
- Telecommunications
- Electrical power
- Stormwater/flood protection
- Solid waste
- Fire protection
- Parks and recreation
- Schools
- Administration buildings
- Housing
- Economic development buildings

You will choose three or four individuals from this list to be on the Infrastructure Planning Team. The contacts listed in this table can be sources of valuable information and advice throughout the infrastructure planning process. Revisit this table once you have completed the asset inventory (see Step 5) to ensure that it includes individuals for all infrastructure categories.

NAME	CONTACT INFO	ORGANIZATION	SPECIFIC KNOWLEDGE
Example: Bob Smith	bob@council.ca	Tribal Council	Water—managed last treatment plant upgrade

INFRASTRUCTURE PLANNING TEAM TERMS OF REFERENCE TEMPLATE

TEAM PURPOSE

The team purpose should answer why the team is coming together and what the end result of the team's work will be. Preferably, the purpose is developed collaboratively by team members to foster support and commitment.

RELATIONSHIP TO CCP PLANNING TEAM

If the community is in the process of developing a CCP, describe the relationship to the larger CCP Planning Team here. Is the Infrastructure Planning Team embedded as part of the larger CCP Planning Team? Or is the Infrastructure Planning Team an advisory sub-committee that is called upon as needed by the main CCP Planning Team (see Step 2B of the Guide)? Clearly identify the role of the Infrastructure Planning Team's Project Leader to the CCP Planning Team, if applicable.

OVERALL TIME COMMITMENT

Indicate the overall time commitment for members of the Infrastructure Planning Team. Make a preliminary estimate for the purpose of assembling the team—for example, “one year from April 1 to March 31”—and then confirm the overall time commitment once you have developed a work plan, budget, and schedule in Step 4.

OVERALL TEAM ROLE AND RESPONSIBILITIES

List the role and responsibilities of the Infrastructure Planning Team. These could include:

- Fulfilling the steps in the Guide and Toolkit
- Preparing public education materials on infrastructure for use in community meetings
- Responding to questions from community members about infrastructure
- Providing infrastructure-related information to the main CCP Planning Team, if applicable

INDIVIDUAL TEAM MEMBER ROLES AND RESPONSIBILITIES

Document the roles and responsibilities of individual team members using this table. List the name of each team member and, if possible, an alternate. Also note each team member’s area of expertise, key relevant experience, or knowledge. Be specific about the role each team member will play (think of this as a “job title”) and list each person’s responsibilities (think of this as a “job description”).

NAME	ROLE	AREA OF EXPERTISE	RESPONSIBILITIES
Example: Jim Sawyer (Greg Smith – alternate)	Project Leader	Infrastructure planning	<ul style="list-style-type: none"> • Develop work plan, budget and schedule • Lead all parts of the planning process • Lead all team meetings • Liaise with Chief and Council

STEP 3 TOOLKIT

Conduct a Stakeholder Analysis

What will this Toolkit help you do?

- Identify the individuals and groups who are affected by, or have an influence on, infrastructure planning in the community—and who should therefore be involved in the planning process.
- Clarify the communication and engagement process as it relates to decisions about infrastructure. This means describing who will be informed about the process and decisions, who will provide input on them, and who will make those decisions.
- Get ready for Step 4: Develop a Work Plan, Budget, and Schedule.

What Tool is in this Toolkit?

- Stakeholder Analysis Template

When should you use this Toolkit?

- If the community is in the process of developing a Comprehensive Community Plan (CCP), use this Toolkit as you complete the Pre-Planning Stage in the *CCP Handbook*.
- If the community is going through another infrastructure planning process, use this Toolkit to help you complete Step 3 in the Guide, and before you develop a work plan, budget, and schedule.

TIPS:

- Use this Toolkit to inform your work plan, budget, and schedule. It may seem too early in the process to be conducting a stakeholder analysis, but it is an important step to take at this point because stakeholder engagement has implications for the project's overall budget and schedule.
- Complete the Stakeholder Analysis Template with the Infrastructure Planning Team—they will be able to offer different perspectives on stakeholders to engage during the planning process.

STAKEHOLDER ANALYSIS TEMPLATE

Answer the following questions to help identify the individuals and groups who have a stake in the community’s infrastructure—that is, those who have an interest in or concern about infrastructure. They should all be involved in the planning process in some way.

.....

WHO IS AFFECTED BY INFRASTRUCTURE IN THE COMMUNITY?

List all individuals and groups. This is typically a large list. It usually includes: community members in general; Chief and Council; managers and staff; businesses; and, visitors to the community.

Be sure to have conversations with many different types of groups in the community, including youth and elders—these groups often have specific infrastructure needs that should be discussed in the planning stage.

WHO HAS THE AUTHORITY TO MAKE DECISIONS ABOUT INFRASTRUCTURE PLANNING IN THE COMMUNITY?

List individuals and groups. This is typically Chief and Council, but some managers may also have authority (in other ways)—for example, in approving development applications.

WHAT OTHER EXTERNAL INDIVIDUALS OR GROUPS MAY BE INTERESTED IN THE COMMUNITY’S INFRASTRUCTURE, OR IN WORKING WITH THE COMMUNITY TO ADDRESS INFRASTRUCTURE ISSUES AND OPPORTUNITIES?

List individuals and groups such as Tribal Councils, the First Nations Health Authority, the First Nations’ Emergency Services Society, federal agencies, provincial agencies, and neighbouring local governments.

HOW WILL THE INDIVIDUALS OR GROUPS YOU IDENTIFIED ABOVE BE INVOLVED IN THE INFRASTRUCTURE PLANNING PROCESS?

For each person or group, indicate how they will be engaged. Will they be kept informed? Will they provide input? Will they make decisions?

PERSON OR GROUP	HOW WILL THEY BE ENGAGED?	WHEN SHOULD THEY BE INVOLVED AND ON WHAT TOPICS?
Example: Youth	Provide input	<ul style="list-style-type: none"> • During identification of infrastructure needs • Ask to provide input on infrastructure for youth (e.g., skate parks, recreation centre)

STEP 4 TOOLKIT

Develop a Work Plan, Budget, and Schedule

What will this Toolkit help you do?

- Develop a work plan that considers all of the activities that need to be undertaken, how long they will take, the resources that will be required, and who will be responsible
- Avoid scope, budget, and schedule issues throughout the planning process
- Get ready to move on to the actual infrastructure planning stage

What Tools are in this Toolkit?

- Infrastructure Work Plan Table
- Infrastructure Work Plan Checklist

When should you use this Toolkit?

- If the community is in the process of developing a Comprehensive Community Plan (CCP), use this Toolkit as you complete Pre-Planning Step 5 in the *CCP Handbook* (see page 22 of the *CCP Handbook*).
- If the community is going through another infrastructure planning process, use this Toolkit to help you complete Step 4 in the Guide, and before you take any further steps in the planning process.

**TIPS:**

- Do not rush the development of the work plan, budget, and schedule. Preparation will make subsequent steps of the planning process go more smoothly.
- While the Infrastructure Planning Team (led by the Project Leader) may drive the use of this Toolkit, be sure to engage the entire CCP Planning Team (if the community is developing a CCP) as the work plan is being implemented.

INFRASTRUCTURE WORK PLAN TABLE

A good work plan considers all activities, how long they will take, the resources that will be required, and who will be responsible for what. Taking the time to develop a detailed work plan prevents issues with scope, budget, and schedule.

Read through the entire Guide and Toolkit to get an idea of all the steps in the infrastructure planning process. Additionally, consider seeking the support of knowledgeable individuals to help you develop a detailed work plan.

Be sure to reference your completed Stakeholder Analysis Template (see the Step 3 Toolkit) to see who should be engaged and on what topics in the infrastructure planning process. You should identify specific communication and engagement activities in the work plan for each identified stakeholder.

Use the table on the following page to build your work plan. The table includes the following columns:

ACTIVITY—List the main activity or step in the work plan.

PURPOSE—Describe why you are conducting the activity.

DESCRIPTION—Describe the specific actions that will be taken to complete the activity.

EXPECTED DURATION—Indicate how long you expect the activity to take. If possible, provide dates.

OUTPUTS/RESULTS—List what will be produced at the end of the activity.

EXTERNAL EXPERTISE REQUIRED—State whether you will need to engage the help of external expertise to complete the activity.

BUDGET (COSTS)—Provide an expected budget to complete the activity. Remember to include the cost of engaging consultants, travel, honoraria, and other expenses as needed.

LEAD—List who will be primarily responsible for leading the completion of this activity.

OTHER RESOURCES—List any non-monetary resources that will be involved in completing this activity.

ASSUMPTIONS AND RISKS—List any major assumptions you have made about this activity, and any risks involved in carrying out this activity within the schedule and budget.



ACTIVITY	PURPOSE	DESCRIPTION	EXPECTED DURATION	OUTPUTS/ RESULTS
<p>Example: Project kickoff meeting</p>	<p>Initiate the project with the Infrastructure Planning Team and ensure everyone is clear on the project purpose and team roles and responsibilities</p>	<ul style="list-style-type: none"> • Prepare meeting agenda • Invite team members • Conduct meeting • Prepare meeting notes and distribute to team members 	<p>1 day</p>	<ul style="list-style-type: none"> • Meeting notes • Terms of Reference for Infrastructure Planning Team

EXTERNAL EXPERTISE REQUIRED	BUDGET (COSTS)	LEAD	OTHER RESOURCES	ASSUMPTIONS AND RISKS
No	Internal staff time (16 hours) @ \$25hr = \$400	Team Leader	All other team members to participate	The meeting will be held at the Administration Building in the community

INFRASTRUCTURE WORK PLAN CHECKLIST

As the Infrastructure Planning Team drafts the work plan, refer to this checklist to ensure all necessary components are included.

.....

DOES THE WORK PLAN INCLUDE TIME, BUDGET, AND RESOURCES FOR:

- Gathering background information on infrastructure assets? This includes conducting a high-level review of existing reports/plans, which can be time-consuming.
-
- Assessing, at a high-level, opportunities and issues related to infrastructure and services?
-
- Identifying the implications of the community's vision and goals for infrastructure? This includes assessing order of magnitude construction and operating costs.
-
- Engaging external experts (for example, Tribal Council staff and consultants) as needed to provide input?
-
- Communication and engagement on infrastructure and/or raising awareness of infrastructure considerations with the community and/or Chief and Council?
-
- Developing growth projections that are detailed enough to enable infrastructure feasibility studies? Growth projections need timelines and must relate to geographical areas—e.g., specific reserves—and should include estimates of future industrial/commercial/institutional development in addition to residential development?
-
- Appropriate engagement with stakeholders who have an interest in or concern with infrastructure?
-

- Preparing Infrastructure Needs Scoping Sheets for high-priority infrastructure projects? (See Step 8 in the Guide and Toolkit)

- Developing an implementation strategy for the plan you create?

- Seeking input from the entire Infrastructure Planning Team?

DOES THE WORK PLAN:

- Clearly state the objectives or desired outcomes of the infrastructure planning process?

- Clearly state assumptions you are making that affect scope, schedule, and budget?

- Clearly identify risks to scope, schedule, and budget?

If you were unsure about checking ‘YES’ to any of these questions, revisit your work plan and include any missing information.

STEP 5 TOOLKIT

Gather Background Information

What will this Toolkit help you do?

- List and summarize available infrastructure studies, plans, and reports
- Inventory existing major infrastructure assets in the community
- Organize information in a way that is easy to reference later in the planning process
- Get ready for Step 6: Identify Issues and Opportunities Related to Infrastructure Services

What Tools are in this Toolkit?

- Infrastructure Studies, Plans, and Reports Table
- Asset Inventory Table

When should you use this Toolkit?

- If the community is in the process of developing a Comprehensive Community Plan (CCP), use this Toolkit as you complete Planning Step 1 in the *CCP Handbook* (see page 29 of the *CCP Handbook*).

- If the community is going through another infrastructure planning process, use this Toolkit to help you complete Step 5 in the Guide. Use this Toolkit once you have a work plan in place, and before you start to identify issues or opportunities you suspect may need to be addressed.

**TIPS:**

- Have conversations with many different people to find out who is familiar with infrastructure issues in the community. Start with the Public Works department, as they have the most obvious knowledge of infrastructure, but be sure to speak to all departments. Also, be sure to connect with individuals who were identified in Step 2 (see the Individuals with Infrastructure Knowledge Table in the Step 2 Toolkit).
- Start building the database of infrastructure information by collecting and reviewing these key documents:
 - CCP (if one already exists)
 - Physical Development Plans (PDPs)
 - Economic Development Plans
 - Housing Plans or Strategies
 - First Nations Infrastructure Investment Plan (FNIIP)
 - ACRS Reports (Asset Condition Reporting System)
 - Capital Asset Inventory System (CAIS) List
 - Past funding applications for infrastructure projects

INFRASTRUCTURE STUDIES, PLANS, AND REPORTS TABLE

List infrastructure studies, plans, and reports that have been prepared for the community in this table. Note the date of the document and the author. Studies, plans, or reports the community may have include:

- Asset Condition Reporting System (ACRS) report
- First Nations Infrastructure Investment Plan (FNIIP)
- Comprehensive Community Plan
- Physical Development Plan
- Land Use Plan
- Capital Asset Inventory System (CAIS) List
- Economic Development Plan
- Housing Plan
- Asset Management Plan
- Operations and Maintenance Plan
- Watershed Risk Assessment
- Utility Master Plans (water, sewer, drainage, solid waste)
- Municipal Type Service Agreement
- Studies for new infrastructure
- Final reports and documents for completed infrastructure projects

When conducting your inventory of infrastructure studies, plans, and reports, focus on those that have been completed within the past 10 years.



TITLE	PURPOSE AND SCOPE	AUTHOR AND DATE
Example: Water Servicing Study	To determine needed water system upgrades for IR 1.	Reynolds Consulting, July 2015

ASSET INVENTORY TABLE

Complete a high-level inventory of the community's major infrastructure assets for each service. Where available, provide links to maps that show the community's infrastructure assets. The most recent Asset Condition Reporting System (ACRS) report and Capital Asset Inventory System (CAIS) List are good places to start your inventory. You may also want to check if the Finance Manager has a Tangible Capital Asset (TCA) registry that lists assets. You should also do a walk-about in the community to see what's in place—not all infrastructure assets are included in the ACRS report or CAIS List.

State if any of this information is “unknown”—this is useful so that you can identify gaps in information when you are identifying infrastructure issues and opportunities in Step 6.

Use the table on the following page to create your asset inventory. The table includes the following columns:

MAJOR ASSET—List the major asset.

CAPACITY/SIZE/QUANTITY—

Note the capacity, size, or quantity. This information can be found on as-built drawings and sometimes in engineering reports.

LOCATION—This could be a general description of where the asset is located or a specific address if relevant. For example, “gravel road east of Band Office” or “1964 First Street”.

YEAR CONSTRUCTED—The year an asset was constructed or installed.

AGE (YEARS)—The age of the asset, calculated as the current year minus the year constructed. For example, if an asset was constructed in 1993, then Age = 2018 – 1993 = 25 years.

GENERAL LIFE EXPECTANCY (YEARS)— How long an asset is projected to last before it needs to be replaced.

ESTIMATED REMAINING LIFE (YEARS)—The anticipated time left that an asset will remain functional and able to provide the required service. Estimating the remaining life of assets helps to plan for future replacements. For general planning purposes, the estimated remaining life can be calculated as the (General Life Expectancy – the Age) of the asset. For example, if an asset is expected to last for 40 years, and it is now 25 years in age, the Estimated Remaining Life = 40 – 25 = 15 years.

Please note that the actual remaining life of an asset may be longer or shorter than the calculated value depending on construction and maintenance practices, environmental conditions, and how intensely or frequently the asset is used.

ASSET CONDITION—A snapshot of the physical condition of an asset at a point in time. Use the asset condition rating noted below.

REPLACEMENT COST—The full capital cost of replacing an existing asset with an equivalent new asset in today's dollars.

ASSET CONDITION RATINGS

EXCELLENT—The asset is typically new or recently rehabilitated. Only normal scheduled maintenance is required.

GOOD—The asset has some elements that show general signs of deterioration. Some minor repairs are needed. The asset is safe and reliable. There is little to no impact on service levels.

FAIR—Although mostly functional, the asset shows general signs of deterioration with some components that need to be replaced. Operational problems occur frequently. There may be minor impacts on service levels.

POOR—The asset shows widespread signs of advanced deterioration with many components that need to be replaced. Significant operational problems are evident. There may be minor to obvious impacts on service levels.

MAJOR ASSET	CAPACITY/ SIZE/ QUANTITY	LOCATION	YEAR CONSTRUCTED	AGE (YEARS)	GENERAL LIFE EXPECTANCY (YEARS)	ESTIMATED REMAINING LIFE (YEARS)	ASSET CONDITION	REPLACEMENT COST
Watermain	300mm diameter 200m	North Road, from Creek Drive to Copper Crescent	1988	30	50	20	Fair	\$150,000

STEP 6 TOOLKIT

Identify Issues and Opportunities Related to Infrastructure Services

What will this Toolkit help you do?

- Characterize how infrastructure services are currently provided in the community
- Identify issues and opportunities related to those services
- Get ready for Step 7: Identify What the Community's Vision and Goals Mean for Infrastructure

What Tool is in this Toolkit?

- Infrastructure Service Profile Template

When should you use this Toolkit?

- If the community is in the process of developing a Comprehensive Community Plan (CCP), use this Toolkit as you complete Planning Step 2 in the *CCP Handbook* (see page 31 of the *CCP Handbook*).
- If the community is going through another infrastructure planning process, use this Toolkit once you have gathered background information (see Step 5 in the Guide and Toolkit), so you have a solid basis for identifying issues and opportunities.

**TIPS:**

- Have conversations with many different people to identify issues and opportunities related to infrastructure in the community. Refer to your completed Individuals with Infrastructure Knowledge Table from the Step 2 Toolkit to identify individuals who will be able to help you complete this step.
- Review your completed Infrastructure Studies, Plans, and Reports Table and Asset Inventory Table from the Step 5 Toolkit to help you complete this step.
- When identifying issues and opportunities, consider those that are existing, as well as those that might be encountered in the future. Communities typically make plans to last generations, so it is important to consider both the near term and the long term.

INFRASTRUCTURE SERVICE PROFILE TEMPLATE

Begin by completing a Community Profile (one for each reserve if needed). You will refer to this information to complete the rest of this tool. Then complete an Infrastructure Service Profile for each of the infrastructure services provided in the community. Typical services include:

- Water
- Wastewater
- Drainage and flood protection
- Transportation
- Culture, recreation and parks
- Housing
- Fire Protection
- Solid waste
- Electricity
- Telecommunications
- Community and economic development
- General infrastructure planning and management

An example Infrastructure Service Profile Template is provided for water (see pages 92 and 93).

Pages 94 to 107 include questions (by infrastructure service) to help you identify infrastructure opportunities and issues to document in the Infrastructure Service Profile Template. Your completed Infrastructure Studies, Plans, and Reports Table and Asset Inventory Table in the Step 5 Toolkit will also help you complete this template. Where possible, note the people and/or the studies/plans/reports that provided the information.

Complete each template to the best of the available knowledge. Engage as many people with knowledge of infrastructure issues and opportunities in the community as you can, including the entire Infrastructure Planning Team. Community members can also provide helpful input on issues they are experiencing and opportunities they see.

.....

COMMUNITY PROFILE

RESERVES

List reserve numbers and names. If the community profile pertains to a sub-set of reserves, note these reserves here.

LOCATION

Provide a map of the community and traditional territory if you have this information.

AREA (HECTARES)

List area by reserve.

DEMOGRAPHICS

Provide available demographic information (such as age, sex, income level) on the community.

POPULATION PROJECTIONS

Provide population projections within a given time period.

OTHER INFORMATION

Note any other information that might have an impact on the overall community (e.g., a major manufacturing plant is just about to open in a neighbouring municipality).

INFRASTRUCTURE SERVICE PROFILE - WATER EXAMPLE

OVERVIEW

SERVICE AREA AND POPULATION

Indicate the reserves served, number of households, number of people, anticipated population growth, and major businesses/industrial users.

Example:

- IR1 and IR2
- 40 Households (80 people)
- No non-residential users
- Households expected to double by 2050

SERVICE TYPE

Identify the types of water services provided (e.g., piped community system, filtered water source, point-of-entry/point-of-use treatment, individual wells or surface water intakes). Itemize each area of the community that receives a different level of service.

Example:

- IR1 – All homes are on a piped community water system
- IR2 – 10 homes on individual wells

SERVICE PROVIDER

List the various service providers (e.g., the First Nation, neighbouring community through a service agreement, or private purveyors).

Example:

- Water provided through a servicing agreement with the Village

ANALYSIS SUMMARY

Using the questions on the following page, summarize the key opportunities and issues related to this service.

OPPORTUNITIES

Example:

- Village is currently studying how to increase the capacity of its water system
- The water source is plentiful and is of high quality

ISSUES AND RISKS

Example:

- The Village's system is nearing capacity
- Cost of needed upgrades is currently unknown

GENERAL COMMENTS

Example:

- The servicing agreement is due to be renegotiated next year
- The Village is willing to partner on upgrades

WATER SERVICE ANALYSIS

Consider the following questions in your analysis of issues and opportunities:

- What is the quality and quantity of information available about this service? Are there major gaps?
- What is the capacity of the water treatment plant? Is it over- or under-sized? Would it be able to support additional demand?
- What is the capacity of the distribution system? Capacity of pumps? Are these components over- or under-sized?
- Does the system provide adequate fire flows to hydrants?
- If services are provided through a service agreement with a neighbouring community, what are the current restrictions on the service capacity?
- Are there issues with availability of water (e.g. seasonal shortages)?
- Is the system compliant with all regulations? Are there water quality issues like chronic boil water advisories?
- What percentage of the population is on the community system (versus individual wells, lake intakes, etc.)?
- What is the condition of assets?
- Are any wells failing?
- Has a watershed risk assessment been conducted?
- Is the source susceptible to contamination?
- Does the community system receive appropriate operations and maintenance?
- Do individual wells receive appropriate operations and maintenance?

- Does the system have excessive leakage or too many breaks?
- Does the community have the human resources (expertise/knowledge) to operate and maintain this system in the future?
- Is this system exposed to hazards (like floods, landslides, earthquakes, wildfires, etc.)?
- Is there an opportunity to share services with neighbouring communities?
- Does the community have adequate financial resources to provide this service?

WASTEWATER SERVICE ANALYSIS

Consider the following questions in your analysis of issues and opportunities:

- What is the quality and quantity of information available about this service? Are there major gaps?
- What is the capacity of the wastewater treatment system? Is it over- or under-sized? Would it be able to support additional demand?
- What is the capacity of the collection system? Lift stations? Are these components over- or under-sized?
- If services are provided through a service agreement with a neighbouring community, what are the current restrictions on the service capacity?
- Is the system compliant with all regulations (for effluent disposal, etc.)?
- What percentage of the population is on the community system (versus on-site septic systems)?
- Are any on-site septic systems failing? What are the environmental threats associated with failure?
- Does the community system receive appropriate operations and maintenance?
- Do on-site septic systems receive appropriate operations and maintenance?
- Are there any issues with odour or noise?
- What is the condition of assets?
- Does the system have excessive leakage or too many breaks?
- Does the community have the human resources (expertise/knowledge) to operate and maintain this system in the future?

- Is this system exposed to hazards (like floods, landslides, earthquakes, wildfires, etc.)?
- Are there opportunities to share services with neighbouring communities?
- Does the community have adequate financial resources to provide this service?

DRAINAGE & FLOOD PROTECTION SERVICE ANALYSIS

Consider the following questions in your analysis of issues and opportunities:

- What is the quality and quantity of information available about this service?
Are there major gaps?
- What is the capacity of the drainage system (including culverts, storm sewers, ditches, ponds)? Are components over- or under-sized?
- Does the community experience regular flooding events? What causes the flooding?
- What percentage of the community is protected by dykes?
- Are dyke heights adequate?
- Are there erosion issues?
- Is the community susceptible to increased extreme rain events or rising sea level due to climate change impacts?
- What is the condition of assets?
- Do assets receive appropriate operations and maintenance?
- Does the community have the human resources (expertise/knowledge) to operate and maintain this system?
- Is this system exposed to hazards (like floods, landslides, earthquakes, wildfires, etc.)?
- Does the community have adequate financial resources to provide this service?

TRANSPORTATION SERVICE ANALYSIS

Consider the following questions in your analysis of issues and opportunities:

- What is the quality and quantity of information available about this service?
Are there major gaps?
- Does the road network have needed capacity? For current uses?
For future uses?
- Are there safety issues with the transportation network?
- Are residents satisfied with the current level of service? Are there frequent complaints about road conditions?
- Does the community have adequate transportation infrastructure for pedestrians and cyclists?
- What is the condition of assets?
- Are roads and other transportation assets maintained to extend their life?
- Are some roads impassable at certain times of the year?
- Does the community have multiple points of entry?
- What are the weight limits of bridges within the community?
- Does the community have the human resources (expertise/knowledge) to operate and maintain this system?
- Is this system exposed to hazards (floods, landslides, earthquakes, wildfires, etc.)?
- Does the community have adequate financial resources to provide this service?

CULTURE, PARKS, AND RECREATION SERVICE ANALYSIS

Consider the following questions in your analysis of issues and opportunities:

- What is the quality and quantity of information available about this service?
Are there major gaps?
- Do the culture and recreation buildings have the needed capacity?
- Do the parks and/or sports fields have the needed capacity?
- What is the condition of buildings?
- What is the condition of parks and/or sports fields?
- Are the buildings appropriately maintained to extend their life?
- Are sports fields and playgrounds appropriately maintained to extend their life?
- Does the community have the human resources (expertise/knowledge) to operate and maintain the buildings and parks?
- Does the community have the money to properly operate the building (like heating and cooling)?
- Are the buildings exposed to hazards (like floods, landslides, earthquakes, wildfires, etc.)?
- Are the sports fields exposed to hazards (like floods, landslides, earthquakes, wildfires, etc.)?
- Does the community have adequate financial resources to provide this service?

HOUSING SERVICE ANALYSIS

Consider the following questions in your analysis of issues and opportunities:

- What is the quality and quantity of information available about this service?
Are there major gaps?
- Are housing levels sufficient to meet the community's current needs? What about future needs, with population growth?
- What is the condition of homes in the community?
- Are homes appropriately maintained to extend their life?
- Does the community have the human resources (expertise/knowledge) to maintain homes?
- Does the community have the funds to build and properly maintain homes?
- Does the community have any existing policies in place that relate to housing?
- Are any homes exposed to hazards (like floods, landslides, earthquakes, wildfires, etc.)?

SOLID WASTE SERVICE ANALYSIS

Consider the following questions in your analysis of issues and opportunities:

- What is the quality and quantity of information available about this service?
Are there major gaps?
- What is the capacity of the landfill and/or transfer station?
- Is the landfill compliant with all regulations?
- Are the collections assets (like trucks, bins, etc.) adequate for current demands?
- If services are provided through a service agreement with a private business or neighbouring community, what are the current restrictions on the service capacity?
- Are there current issues with noise, odour?
- What is the condition of assets?
- Do assets receive appropriate operations and maintenance?
- Does the community have the human resources (expertise/knowledge) to provide this service?
- Is this service exposed to hazards (like floods, landslides, earthquakes, wildfires, etc.)?
- Is there an opportunity to share this service with neighbouring communities?
- Does the community have adequate financial resources to provide this service?

FIRE PROTECTION SERVICE ANALYSIS

Consider the following questions in your analysis of issues and opportunities:

- What is the quality and quantity of information available about this service?
Are there major gaps?
- Does the fire department have the necessary equipment?
- Does the fire department have a sufficient volunteer pool?
- Does the fire department have the needed capacity and training?
- Are any areas of the community not provided with fire protection?
- If services are provided through a service agreement with a neighbouring community, what are the current restrictions on the service capacity?
- What is the condition of assets?
- Do assets receive appropriate operations and maintenance?
- Is the fire hall located in the right location?
- Is this service exposed to hazards (like floods, landslides, earthquakes, wildfires, etc.)?
- Is there an opportunity to share this service with neighbouring communities?
- Does the community have adequate financial resources to provide this service?

TELECOMMUNICATIONS SERVICE ANALYSIS

Consider the following questions in your analysis of issues and opportunities:

- What is the quality and quantity of information available about this service? Are there major gaps?
- Which areas in the community have broadband internet service?
- Which areas in the community have only dial-up internet service?
- Which areas have no internet service?
- What is the condition of assets?
- What is the capacity of the provided service? Does it meet current demands?
- Is the system appropriately operated and maintained?
- Does the community have the human resources (expertise/knowledge) to operate and maintain the infrastructure?
- Does the community have adequate financial resources to provide this service?

ELECTRICAL POWER SERVICE ANALYSIS

Consider the following questions in your analysis of issues and opportunities:

- What is the quality and quantity of information available about this service? Are there major gaps?
- Are there limitations in the community to connecting to electrical service?
- Are generators in place for critical infrastructure?
- Are there local renewable energy sources in the community (like solar, micro hydro, etc.)?
- What is the condition of assets?
- Do assets receive appropriate operations and maintenance?
- Does the community have the human resources (expertise/knowledge) to operate and maintain any infrastructure owned by the community (like generators, renewable energy installations, etc.)?
- Is there an opportunity in the community for renewable energy?
- Does the community have adequate financial resources to provide this service?

COMMUNITY AND ECONOMIC DEVELOPMENT BUILDINGS SERVICE ANALYSIS

Consider the following questions in your analysis of issues and opportunities:

- What is the quality and quantity of information available about this service? Are there major gaps?
- What is the capacity of community and economic development buildings? Are certain buildings over- or under-sized?
- Do buildings adequately serve their purpose?
- What is the condition of assets?
- Do assets receive appropriate operations and maintenance?
- Does the community have the human resources (expertise/knowledge) to operate and maintain community and economic development buildings?
- Does the community have the funds to properly operate buildings (like heating and cooling)?
- Are certain buildings exposed to hazards (like floods, landslides, earthquakes, wildfires, etc.)?
- Does the community have adequate financial resources to provide this service?

INFRASTRUCTURE PLANNING SERVICE ANALYSIS

Consider the following questions in your analysis of issues and opportunities:

- Is the community located in an area where it is exposed to any natural hazards (like flooding, landslides, earthquakes, wildfires, etc.)?
- Is the community expected to experience significant population growth?
- Are there any activities in or around the community that present potential hazards to the community or the natural environment?
- Are there any neighbouring communities or businesses that the community has a service agreement with? Is there a good relationship in place with any current service providers? How often are service agreements reviewed and discussed?
- What is the First Nation's organizational capacity to manage existing infrastructure?
- Does the community have the capacity to take on the management of new infrastructure?
- How strong are current capital planning processes?
- What is the quality and quantity of infrastructure-related information like? Are there any major gaps in each service type? Refer back to your completed Infrastructure Studies, Plans, and Reports Table and Asset Inventory Table in the Step 5 Toolkit.
- Does the community currently have adequate levels of funding for operating, maintaining, and replacing current infrastructure?
- Are current relationships with consultants or other service providers serving the community's best interests?

STEP 7 TOOLKIT

Identify What the Community's Vision and Goals Mean for Infrastructure

What will this Toolkit help you do?

- Connect the community's vision and goal statements with the infrastructure that may be required to achieve them
- Get ready for Step 8: Identify and Prioritize Infrastructure Needs

What Tool is in this Toolkit?

- Infrastructure Implications Table

When should you use this Toolkit?

- If the community is in the process of developing a Comprehensive Community Plan (CCP), use this Toolkit as you complete Planning Step 3 in the *CCP Handbook* (see page 32 of the *CCP Handbook*).

Don't wait until the community's vision and goals have been finalized to use this Toolkit. Use this Toolkit as soon as the conversation about the vision and goals is initiated, so that the discussion is informed by infrastructure considerations. There doesn't need to be a one-to-one connection between a vision/goal statement and an infrastructure need, but it is important that infrastructure is at least considered when you are developing the community's vision and goals.

- If the community is going through another infrastructure planning process, use this Toolkit to help you complete Step 7 in the Guide, before you establish the list of the community's infrastructure needs.

**TIPS:**

- Ideally, use this Toolkit collaboratively with all members of the CCP Planning Team (if you are completing a CCP). The Infrastructure Planning Team may drive the discussion, but a key benefit of this Toolkit is that it can build awareness of the link between the community's vision and goals and its infrastructure among people that may not currently have strong awareness of this connection.
- If the community already has a CCP, refer to the Comprehensive Strategic Framework—it can serve as a single stop for the community's vision statement, goals, objectives, and even specific actions and projects. It can help you use this Toolkit.
- If the community does not have a CCP, review your completed Infrastructure Studies, Plans, and Reports Table from the Step 5 Toolkit to see if they contain any high-level vision statements and/or goals and objectives that may create a need for infrastructure. You can also use this as an opportunity in your infrastructure planning process to engage community members in identifying a vision, goals, and objectives. If the community does not have a CCP, but is going through a significant infrastructure planning process, it may be a good time to develop a CCP.

INFRASTRUCTURE IMPLICATIONS TABLE

Because every First Nation is unique, vision and goal statements are diverse across communities. Some are high-level statements while others are quite specific. Some include very explicit statements about infrastructure, or the physical development of the community in general, while others connect to infrastructure in ways that may not seem so obvious.

To complete this table:

- Insert the community’s vision statement, if there is one.
- Then insert the goals the community has identified to achieve its vision. If the community does not have a vision statement, it is a good idea to at least identify goals to inform your infrastructure planning process.
- Now think through and list potential infrastructure implications.

Use the following list of considerations to think through the potential implications of each goal statement for infrastructure:

- Does this statement result in a need for new or upgraded community buildings, such as Administrative Buildings, a Cultural Centre, an Elders Centre, a Youth Centre, or a school?
 - Does this statement result in a need for new or upgraded community housing?
 - Does this statement result in a need for new or upgraded services such as transportation, water, sewer, or electricity?
 - Does the community have an existing Municipal Type Service Agreement (MTSA) with a neighbouring government or another group that may need to be renegotiated because of this statement?
 - Does this statement potentially affect land use designations in the community (which may in turn have implications for infrastructure)?
-

VISION STATEMENT	
<p>Example:</p> <p>We are a self-sufficient and vibrant First Nation community. Every member of our community has the opportunity to reach their full potential, and to live, work, and play on our traditional territory.</p>	
GOAL STATEMENT	POTENTIAL IMPLICATION FOR INFRASTRUCTURE
<p>Example:</p> <p>“We have well-maintained and diverse housing options”</p>	<p>In addition to the dwellings themselves, other types of infrastructure are needed to service housing, such as transportation, water, sewer, drainage, and electricity.</p>
<p>Example:</p> <p>“Economic development brings jobs and revenue to the community”</p>	<p>New infrastructure may be required to service economic development, or the capacity of existing infrastructure will need to be assessed to find out if it can support proposed development.</p>
<p>Example:</p> <p>“Elders get the care they need in the community”</p>	<p>The community has identified a need for an Elders Centre to meet this goal. An Elders Centre requires various types of infrastructure: the building itself, as well as the services that enable the building to be used, such as transportation (roads, sidewalks), water, sewer, and electricity.</p>

STEP 8 TOOLKIT

Identify and Prioritize Infrastructure Needs

What will this Toolkit help you do?

- Identify the community's specific infrastructure needs
- Identify whether each infrastructure need is a high, medium, or low priority for the community
- Summarize infrastructure needs in a way that will help you move forward with feasibility studies
- Greatly enhance the ability of the community to address needs and achieve its vision and goals, because it will help the community allocate effort and resources
- Get ready for Step 9: Create an Implementation Strategy

What Tools are in this Toolkit?

- Infrastructure Needs Table
- Prioritization Process
- Administrative and Operational Tasks Table
- Infrastructure Land Use Considerations List
- Infrastructure Needs Scoping Sheet

When should you use this Toolkit?

- If the community is in the process of developing a Comprehensive Community Plan (CCP), use this Toolkit as you complete Planning Steps 6 and 7 in the *CCP Handbook* (see pages 36-39 of the *CCP Handbook*).
- If the community is going through another planning process, use this Toolkit to help you complete Step 8 in the Guide, to add clarity around infrastructure needs and to prioritize them for implementation.



TIPS:

- Depending on the issue or opportunity that needs to be addressed, infrastructure needs may be studies, plans, strategies, or projects.
- Some of the tools in this Toolkit prompt you to enter specific details about infrastructure needs. It's okay if you don't have all the information the tool asks for—fill out what you can.
- The tools in this Toolkit are not a substitute for a professional study. Most of the information you provide in these tools will need to be confirmed through feasibility studies.
- Complete the Infrastructure Service Profile Templates from the Step 6 Toolkit first—they will be helpful for completing this section.
- Involve Chief and Council in discussions throughout Step 8. The needs identified will only be implemented with the support of elected officials. Step 8 is a great opportunity to build awareness of the importance of infrastructure to the community.
- If the community is developing a CCP, be sure to share completed tools with the entire CCP Planning Team, and if possible, complete all tools in this Toolkit collaboratively with the larger CCP Planning Team.
- When it comes time to prioritizing infrastructure needs, consider the relative priority of each need. A plan that results in a long list of projects that are all “high-priority” is difficult to move forward with.

INFRASTRUCTURE NEEDS TABLE

Use these completed tools to help you fill in this table:

- Infrastructure Service Profile Templates in the Step 6 Toolkit—look at these lists to determine if infrastructure will be needed to address these issues or opportunities, and/or what studies, plans, and strategies may be needed.
- Infrastructure Implications Table in the Step 7 Toolkit—you identified what the community's vision and goals mean for infrastructure. Review this list to determine if new studies, plans, strategies, and/or infrastructure will be needed to achieve them.

“Infrastructure needs” may be infrastructure projects, and/or studies, plans, and strategies that need to be undertaken that will help identify infrastructure projects.

List each infrastructure need identified from these other completed tools. Append additional details/calculations/references to support estimates, if you have this information.

DESCRIPTION OF THE NEED —

Describe the need.

DRIVER OF THE NEED — Why was the need identified?

- Addresses an issue or risk
- Addresses an opportunity
- Accommodates growth
- Achieves community vision or goal

Are there other ways to meet this need (e.g., enter into a service agreement, use an operational solution instead of a capital solution, incentivize a private business to address the need)?

SCOPE — What is required to meet current and future demand?

- Size
- Capacity
- Special features or functions

ESTIMATED COSTS — What is the estimated cost to complete the study/plan/strategy, or to design and construct the project?

ADDITIONAL DETAILS FOR CAPITAL PROJECTS:

ESTIMATED ANNUAL OPERATIONS AND MAINTENANCE COSTS – What will it cost each year, on average, to operate and maintain the project?

GENERAL LIFE EXPECTANCY (YEARS) – How many years will this infrastructure last?

LOCATION AND SITING REQUIREMENTS – Mark the footprint of the infrastructure on a map of the community. Refer to the Infrastructure Land Use Considerations List in the Step 8 Toolkit for siting considerations when thinking about where the infrastructure will go.

INFRASTRUCTURE NEEDS - STUDIES, PLANS, STRATEGIES, AND CAPITAL PROJECTS						ADDITIONAL DETAILS FOR CAPITAL PROJECTS		
DESCRIPTION OF THE NEED	DRIVER OF THE NEED	SCOPE	ESTIMATED COSTS	ESTIMATED ANNUAL OPERATIONS AND MAINTENANCE COSTS	GENERAL LIFE EXPECTANCY (YEARS)	LOCATION AND SITING REQUIREMENTS		
Example: Administration Building Roof Replacement	Addresses current issue: current roof is old and leaking	New roof needs to have capacity to support solar panels that will be installed in the future	\$95,000	\$700	25	Yes, see attached map		

PRIORITIZATION PROCESS

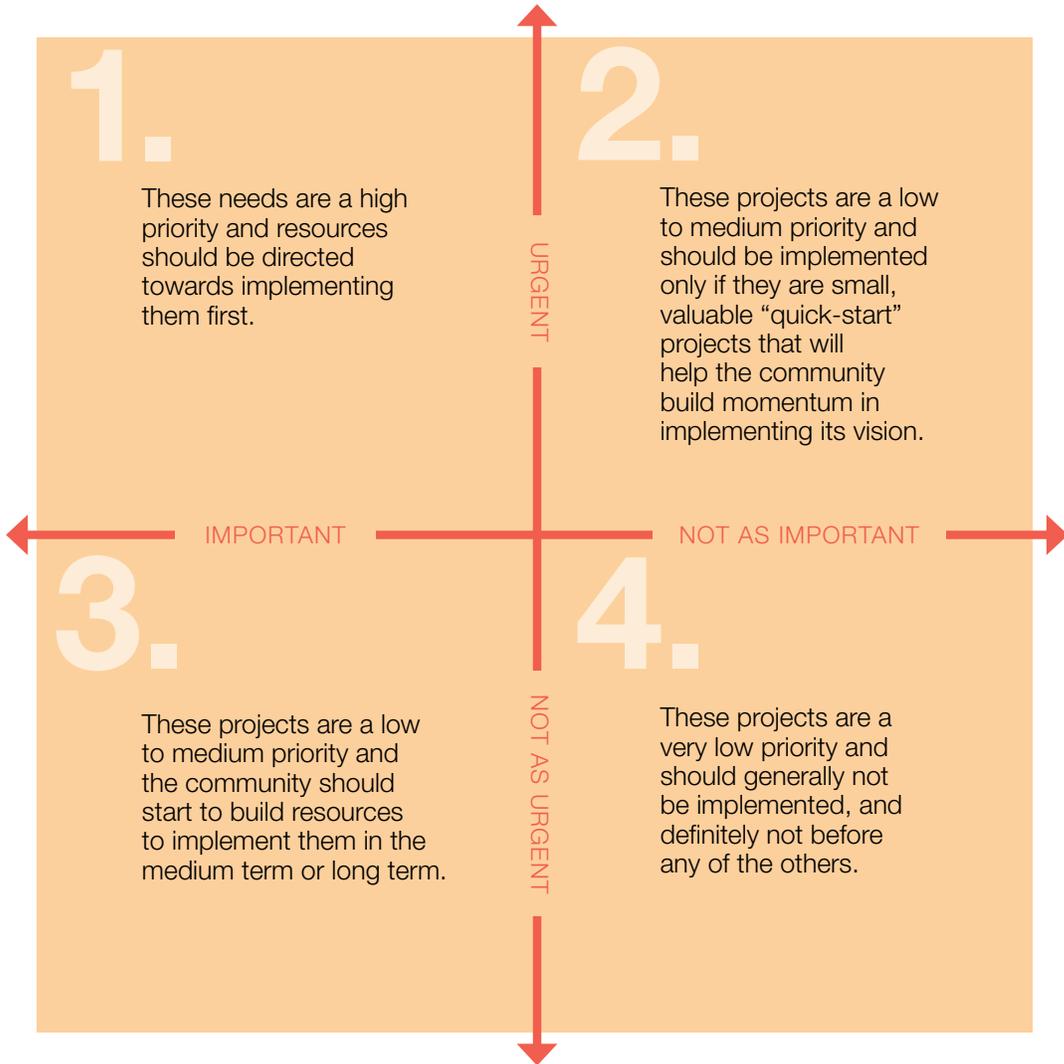
Provided below are two steps to work through a prioritization process that results in a list of prioritized infrastructure needs. You can modify the suggested Prioritization Framework and Priority Ranking Scale if needed, but note how robust they are and make sure your process is too. You want to avoid ending up with a list of projects that are all “high-priority”, or with a list of projects that represents just a few people’s wishes and that aren’t actually in the best interest of the entire community.

Note that this tool is set up to help the community with long-term capital planning prioritization. It is also a good idea to prioritize capital projects each year as the First Nation prepares its annual budget, but to do so, the criteria will need to be modified to consider more specific criteria, such as funding opportunities available at that time.

DEVELOP A PRIORITIZATION FRAMEWORK

This is a preliminary “filter” to help you identify relative infrastructure priorities and develop a rough timeline for implementing infrastructure projects. A suggested framework is provided below. The questions on page 119 will help you determine which category each infrastructure need belongs in.

Note that you can also use this filter to work through a broader priority-setting process if the community is developing a Comprehensive Community Plan—that is, when you consider infrastructure needs alongside all the proposed projects and initiatives you are identifying in the CCP process.



Answer the following questions for each infrastructure need to determine which category it belongs in.

HOW IMPORTANT IS THE INFRASTRUCTURE NEED?

The need is likely **IMPORTANT** if you check most of these statements. All other needs are **NOT AS IMPORTANT**.

- The need addresses a risk to community health and safety.
.....
- The need will support meeting regulatory standards.
.....
- The need supports multiple community goals or objectives.
.....
- The need benefits many members of the community.
.....
- The need is important to many members of the community.
.....
- The need will help build the community's capacity—there are opportunities for training and education by implementing the project.
.....

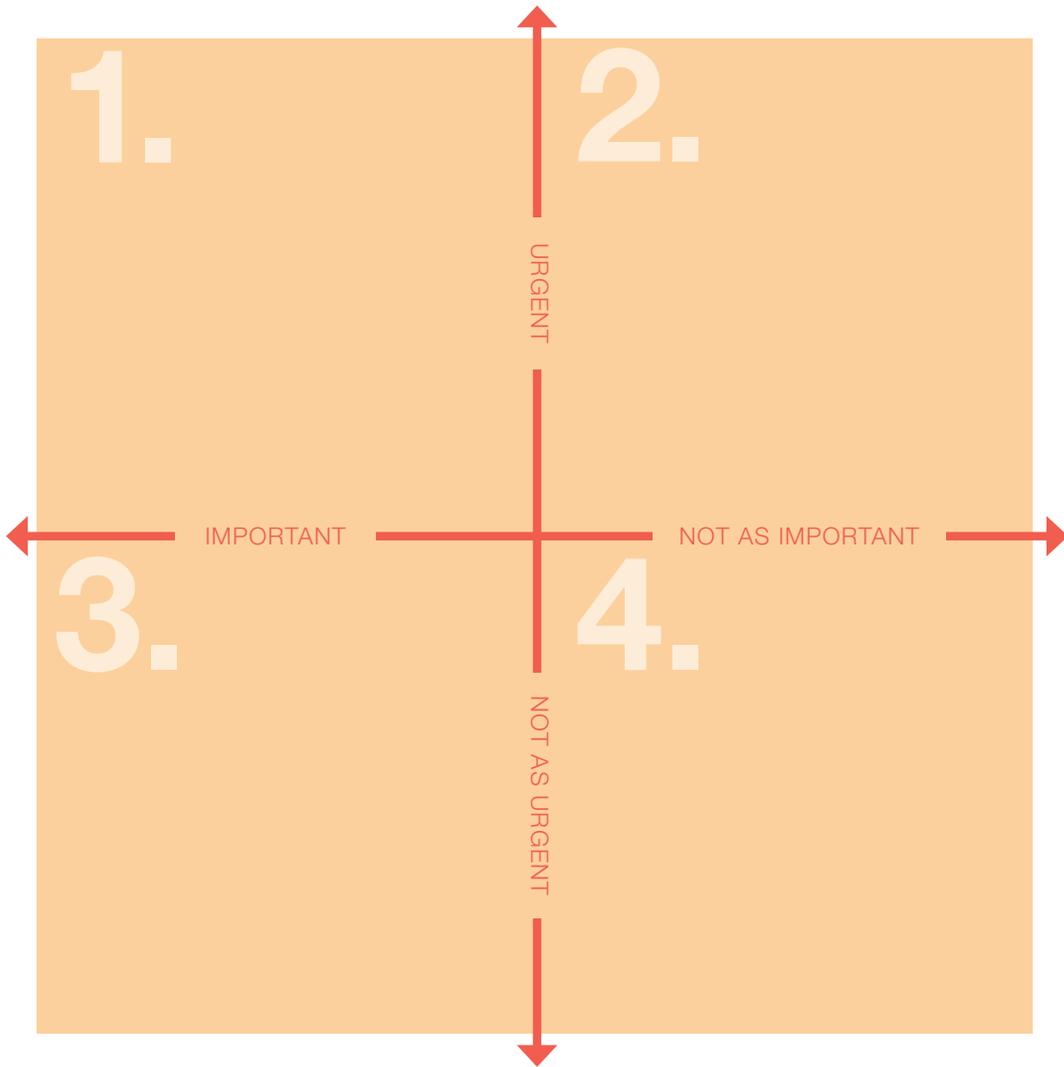
HOW URGENT IS THE INFRASTRUCTURE NEED?

The need is likely **URGENT** if you check this statement. All other needs are **NOT AS URGENT**.

- The need addresses an existing issue.
.....

List the prioritized infrastructure needs in the matrix based on your answers to the questions on the previous page.

Once you have everything listed in the matrix, evaluate the needs together and work through the questions one more time. Consider how important and urgent they are relative to one another, and if necessary move the needs around between categories.



FURTHER PRIORITIZE “URGENT AND IMPORTANT” INFRASTRUCTURE NEEDS

Often, communities end up with many projects in the “urgent and important” category. It is helpful to further prioritize these projects so that you have an idea of which ones should be acted on first. Do this by assigning a “priority rank” to each infrastructure need.

A sample priority ranking scale is below. A rank of 1 is the highest priority, and a rank of 3 is the lowest (all within the “urgent and important” category). If you find that any of the “urgent and important” needs don’t meet the priority ranking criteria, and instead meet any of the other ones shown, it means they do not actually belong in this category. If you end up with any like this, go back to the framework and see which category the infrastructure need belongs in.

PROJECT TYPE

PRIORITY RANK 1	Needs that address critical health and safety needs, or meet regulatory requirements.
PRIORITY RANK 2	Needs that upgrade or extend the life of existing infrastructure and support the community vision.
PRIORITY RANK 3	Needs that will address the current needs of many people in the community and support the community vision.

If an infrastructure need meets any of the following criteria, go back to the prioritization framework and see which category it belongs in.

- **The need accommodates growth and supports the community vision.** The infrastructure need may actually belong in the “important but not urgent” category.
- **The need will address a future issue in the community, benefit many people in the community, and support the community vision.** The infrastructure need may actually belong in the “important but not urgent” category.

- **The need addresses an existing but minor issue and only benefits a few community members.** The infrastructure need may actually belong in the “urgent but not as important” category.
- **The need does not support the community vision.** The infrastructure need may actually belong in the “not as urgent and not as important” category. These are no-go initiatives. Time and resources are better allocated to important needs.

PREPARE YOUR PRIORITIZED LIST OF “URGENT AND IMPORTANT” INFRASTRUCTURE NEEDS

List the prioritized infrastructure needs in the following table. Refer to this table when developing Council’s Strategic Plan, annual departmental work plans, the community’s annual budget and capital plan, and the First Nations Infrastructure Investment Plan (FNIIP).

PROJECT NAME	ESTIMATED CAPITAL COST	PRIORITY RANK	PRIORITY SCORE RATIONALE
Example: Water Supply Study	\$45,000	1	Addresses existing health and safety issues.

ADMINISTRATIVE AND OPERATIONAL TASKS TABLE

While using the tools in this Toolkit, you will likely have identified some issues and opportunities that don't require a capital infrastructure project. Instead, the need is more operational or administrative in nature. Use this list to capture these action items so that they can be addressed.

In addition to noting the name of the task, also document its "Driver" (i.e., why the task is needed – Is it to address an issue, risk or opportunity? To provide a new service? Or improve general infrastructure planning and management practices?) Include in the "Description" specific tasks that need to be undertaken. Under "Champion", note the person who will lead the completion of the task.

.....

TASK NAME	DRIVER	DESCRIPTION	CHAMPION
Example: Re-negotiate sewer service agreement	We identified that the current service agreement is about to expire.	<ul style="list-style-type: none"> Update agreement to include 15 new homes Review rates Set up new communication protocol 	Dana Day to contact the Town to set up meeting.

INFRASTRUCTURE LAND USE CONSIDERATIONS LIST

For each “urgent and important” infrastructure need identified in the table on page 122, draw the desired location (or potential locations) and anticipated footprint on a map. Use the list below to think through siting requirements. Add to the list as needed to reflect the community’s specific context. The land use considerations you identify using this tool will be documented in the Infrastructure Needs Scoping Sheet on page 127.

Be sure to consider the following questions for each of your urgent and important infrastructure needs:

- What is the footprint of infrastructure when considering all servicing requirements (e.g., not just a new wastewater lagoon, but all the collection pipes)?
 - Where (relative to other land uses, access routes) should this infrastructure be located? What land uses and features should it not be located near (e.g., schools, environmentally sensitivity areas, and traditional or cultural sites)?
 - Does this infrastructure require special site conditions (e.g., soil, slope, and elevation)?
 - Is it critically important to locate this infrastructure project away from natural hazards (e.g., flooding or landslide zones)?
-

TRANSPORTATION

Roads

- Slope, rock, ground conditions
- Other

Trails

- Maintenance access
- Other

Bridges

- Flood levels
- Span (shortest crossing)
- Other

WATER

Transmission mains

- Not up steep slopes
- Avoid going through rock
- Maintenance access (public right-of-way)
- Other

Water treatment plant

- Ideally near the source
- May need to be connected to the Waste Water Treatment Plant (Water Treatment Plant can create waste)
- Access to power
- Access road
- Other

Pumps

- Need power (and back-up)
- Likely located at the Water Treatment Plant
- Other

Source

- Resistant to future changes (climate, competing land uses, wildfire, contamination)
- Other

Storage

- Higher elevation
- Access road
- Other

WASTEWATER

Septic tank(s)

- Access for pump-outs
- Safe distance from drinking water sources
- Other

Lagoon

- Earthquake and flood protected (design or by siting)
- Aesthetics (technology dept)
- Access road
- Fencing
- Footprint depends on capacity needs
- Other

Forcemains

- No steep slopes
- No rock
- Other

Lift Stations

- Earthquake and flood protected (design or by siting)
- Other

Wastewater treatment plant

- Earthquake and flood protected (design or by siting)
- Aesthetics (technology dept)
- Lower elevation will result in less pumping
- Access road
- Other

Disposal fields

- Not in floodplain
- Not on a slope
- Suitable percolation
- Safe distance from water sources
- Footprint depends on amount to be disposed and soil conditions
- Other

Outfall

- Maintenance access
- Consider impacts of risk of failure
- Safe distance from water intake
- Other

DRAINAGE/FLOOD PROTECTION

Ponds

- Public safety
- Not on a slope
- Other

Pumps

- Accessibility
- Power source
- Other

Dykes

- Maintenance
- Ability for future increases in height
- Vulnerability to climate change and sea level rise
- Other

ELECTRICAL AND TELECOMMUNICATIONS

- Distance to housing
- Earthquake and flood protected
- Other

PARKS AND RECREATION

Sports fields

- Area that has suitable drainage
- Not on a slope
- Other

Parks

- Accessible to many members of the community
- Other

COMMUNITY BUILDINGS

Schools, arenas, libraries, longhouse, sweatlodge, solid waste buildings

- Earthquake and flood protected (design or by siting)
- Other

ADD OTHER INFRASTRUCTURE SERVICES AS NEEDED

INFRASTRUCTURE NEEDS SCOPING SHEET

Use the information gathered in Step 8 (see the Infrastructure Needs Table, the Infrastructure Land Use Considerations List, and the Prioritization Process in the Step 8 Toolkit).

This Infrastructure Needs Scoping Sheet helps you complete high-level scoping of each high-priority infrastructure need. Much more detailed infrastructure planning work will need to be completed to confirm specific infrastructure projects and to determine if they are feasible.

You may not have all the information at hand to complete every section of this sheet—fill in what you can and make note of any information gaps. These gaps will be filled in subsequent stages of the infrastructure planning process.

DESCRIPTION

Provide a brief description of the infrastructure need, including its name, its drivers, and its general scope. Note why this is a high-priority need. Try to keep this section to one or two paragraphs.

STATE WHICH COMMUNITY GOALS/OBJECTIVES THE INITIATIVE WILL SUPPORT

Copy the goals/objectives directly from the CCP (if you have one) or other community plan. Provide additional commentary if further explanation is needed to show the connection between the community goals/objectives and the identified infrastructure requirement.

LINKAGES AND DEPENDENCIES

Describe any linkages and dependencies related to the specific need (i.e., does it rely on the completion of other community studies, plans, strategies, or projects first?).

CHAMPION

Identify the individual who will champion moving this initiative forward through the next steps of the planning process.

REQUIREMENTS

A) Service Area—Define the area that will be serviced by the infrastructure—specify reserves, or areas of reserves, specific lots, etc. Mark the service area on a map.

B) Capacity/Size and Level of Service—Provide an indication of the required capacity. This could be the number of people the project will serve, actual demand on the service if you know it (e.g., water demand each day), and any other information you know at this time. Define the service level if you know it. Some levels of service are defined by standards.

C) Location and Land Use Considerations—Identify potential locations for the infrastructure. Mark the locations on a map. Describe specific location requirements, such as whether the project should be located at a high point in the community or whether it needs to be set back from environmentally sensitive areas. Identify potential conflicting land uses.

D) Human Resources and Capacity Considerations—What skills /experience are needed to further plan, develop, and then operate and maintain the infrastructure? Does the community currently have adequate human resources, or will you need to hire new people or provide additional training to current staff?

LIFE CYCLE COSTS AND FUNDING SOURCES

Describe the approximate costs (capital and operating) for the initiative and potential funding sources (e.g., different departments, external funding agencies, development charges). What is the lowest life cycle cost? Are there ways you may be able to change the design and construction of the infrastructure to reduce ongoing operations and maintenance costs?

TIMING

When do you need the project to be complete? How long will it take to arrange funding, design the project, and complete construction? When should this process be started?

STAKEHOLDERS

List the key known stakeholders or stakeholder groups who have an interest in, or influence on, the initiative. How will these stakeholders need to be included in the process? Will they need to be informed, consulted, or will they have decision-making authority?

NEXT STEPS

List any studies/plans that need to be completed or any outstanding issues that need to be resolved before moving forward. Next steps might involve getting Council approval to further investigate the identified infrastructure need.

STEP 9 TOOLKIT

Create an Implementation Strategy

What will this Toolkit help you do?

- Think through implementation considerations, such as whether some infrastructure needs depend on another, and major steps that need to be undertaken before a specific project can be initiated
- Develop an Implementation Strategy that is clear and detailed enough that staff and Council understand what needs to be acted on and when
- Get ready to move on to implementing the infrastructure plan (see Part 4 of the Guide)

What Tool is in this Toolkit?

- Implementation Strategy Tables

When should you use this Toolkit?

- If the community is in the process of developing a Comprehensive Community Plan (CCP), use this Toolkit as you complete Planning Step 7 in the *CCP Handbook* (see pages 38-39 of the *CCP Handbook*).
- If the community is going through another planning process, use this Toolkit once you have identified and prioritized infrastructure needs for the community in Step 8.

**TIPS:**

- The information documented using the tools in the Step 8 Toolkit will help you use this Toolkit.
- Use this Toolkit to help prepare Council's Strategic Plan, annual Departmental Work Plans, a Capital Plan, annual budgets, and the community's First Nations Infrastructure Investment Plan (FNIIIP).

IMPLEMENTATION STRATEGY TABLES

To develop an implementation strategy for the high-priority infrastructure needs, refer to the priorities you identified in Step 8 and work through the following questions:

- Do any infrastructure needs depend on others?
- Are any high-priority infrastructure needs “shovel-ready”—can they be implemented right away with existing resources?
- Does funding need to be secured first?
- Does the community have the capacity to implement the need on its own or will additional resources be required?
- Are there any studies or plans that need to be prepared in relation to needed infrastructure projects?
- What can reasonably be done in the next 5 years?
- What will be achieved 5 to 10 years from now?
- What will be achieved between 10 and 20 years from now?

Once you have considered these questions, fill in the tables below to document the Implementation Strategy.

SHORT-TERM IMPLEMENTATION

These needs will be acted upon within the next 5 years. Each of these projects should have a completed Infrastructure Needs Scoping Sheet. They should also inform Council’s Strategic Plan and annual Departmental Work Plans.

Copy the information for “Description”, “Life Cycle Costs”, “Next Steps”, “Champion”, and “Timing” directly from the Infrastructure Needs Scoping Sheets. Review the community’s First Nations Infrastructure Investment Plan (FNIIP) and Council’s Strategic Plan to determine if the infrastructure need is included in these documents.

DESCRIPTION	PRIORITY RANK	LIFECYCLE COSTS AND FUNDING SOURCES	NEXT STEPS	TIMING	CHAMPION	INCLUDED IN FNIIP?	INCLUDED IN COUNCIL'S STRATEGIC PLAN?
Example: Water Supply Study	1	\$45,000	<ul style="list-style-type: none"> • Identify funding • Feasibility • Design and Construction • Commissioning 	2018	Dana Day	Yes	Yes
Example: Administration Building Roof Replacement	2	\$95,000	<ul style="list-style-type: none"> • Confirm budget • Identify funding • Select contractor • Construct 	2018	James Jay	Yes	Yes

MEDIUM-TERM AND LONG-TERM IMPLEMENTATION

Include the remainder of the projects from Step 8 here. Priorities may change over the years as circumstances change, so it's good practice to keep these projects on the radar. This also helps demonstrate to the community where these projects fall in order of importance.

PROJECT NAME	PRIORITY RANK
Example: Blue Creek Soccer Field	3

IMPLEMENTATION TOOLKIT

Support Implementation of Infrastructure Needs

Purpose of Implementation:

Implementation is where the infrastructure plan comes to life – its purpose is to turn the infrastructure plan into a reality. Implementation is an ongoing process of using information gathered from the infrastructure plan to inform other community plans and of using the First Nation’s administrative processes to implement high-priority infrastructure needs. Implementation also involves keeping the infrastructure plan up-to-date and tracking progress.

What will this Toolkit help you do?

- Ensure that high-priority projects are identified in the community’s First Nations Infrastructure Investment Plan (FNIIP)

What Tool is in this Toolkit?

- First Nations Infrastructure Investment Plan (FNIIP) Checklist

When should you use this Toolkit?

Use this Toolkit during the preparation of the community’s First Nations Infrastructure Investment Plan each year, and to support other infrastructure funding opportunities.



TIPS:

- Use this Toolkit as a communication piece with Chief and Council, Finance, Administration, and Public Works Managers (and others as necessary). Also use this Toolkit to communicate why a project is needed.
- Use this Toolkit to provide justification for projects for which the community is seeking funding.

FIRST NATIONS INFRASTRUCTURE INVESTMENT PLAN (FNIIP) CHECKLIST

This tool provides a final check on the projects included in the FNIIP. Use the information from the Infrastructure Needs Scoping Sheet from the Step 8 Toolkit and the Implementation Strategy Tables from the Step 9 Toolkit to complete this checklist. Only projects that meet all of these considerations should be listed in the FNIIP.

CONSIDERATIONS

- The project directly supports the community's vision and goals, or otherwise reflects what is important to the community.

- The project addresses a critical risk or has been identified as a high priority for the community.

- The project meets a specific need for the community, and you have thought of both current and future needs.

- You have considered all of the options to meet the community's need and this is the best one.

- The project is located in a place that makes sense within the overall community, given consideration to health and safety, and broader community goals and objectives.

- You have considered initial capital costs and ongoing operations and maintenance costs of this project and will look at options for achieving the lowest life cycle cost.

- Funding sources have been explored for both initial capital costs and ongoing operations and maintenance.

**Thank
you.**

The Infrastructure Planning Guide and Toolkit builds on the work of the Comprehensive Community Planning Handbook, and is inspired by the dedication of the many individuals who support planning practices in Indigenous communities.

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CONTACT:

We'd like to hear from you. Please tell us how you are using the Infrastructure Planning Guide and Toolkit and how this guide may be improved.

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