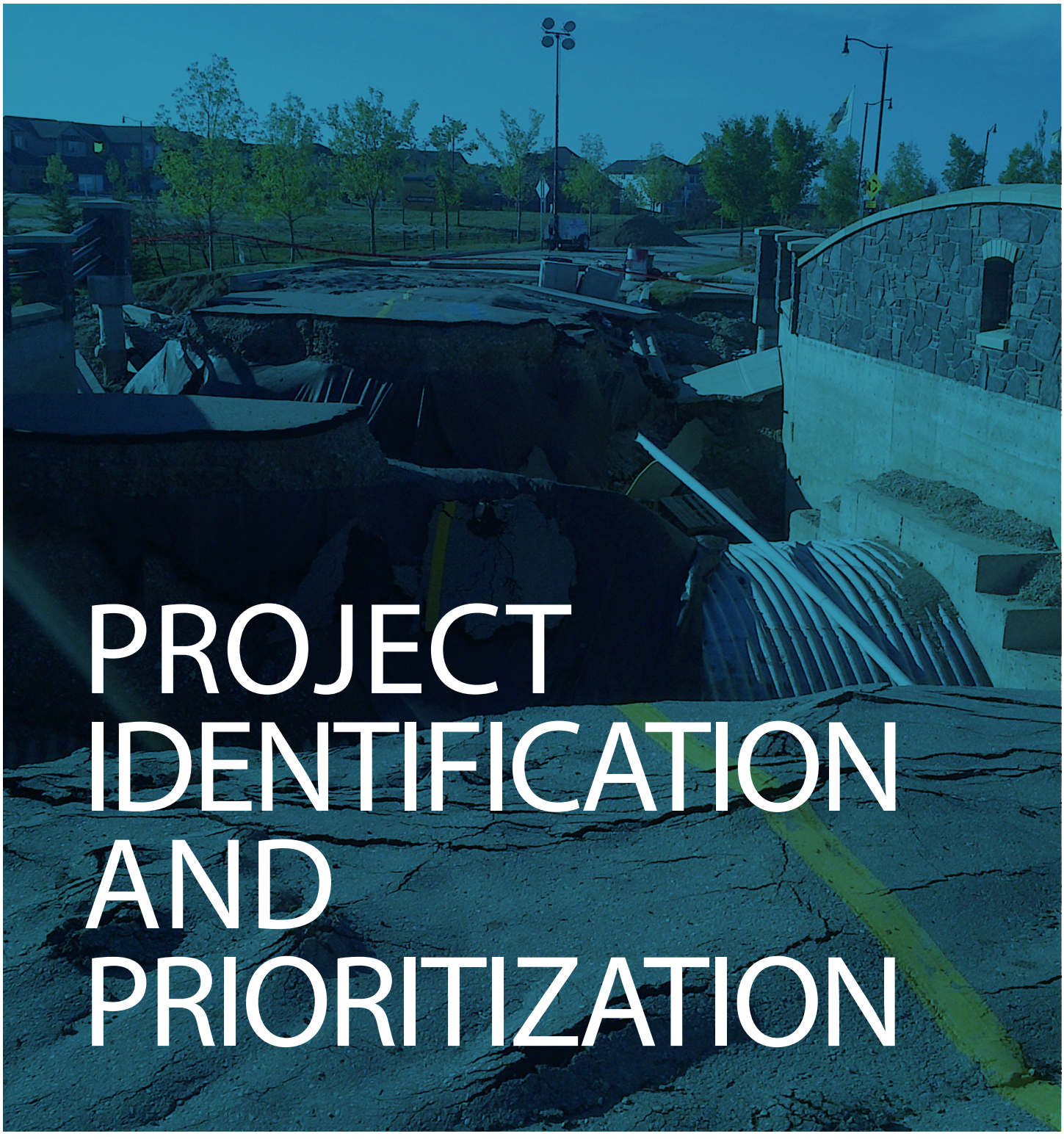

PROJECT IDENTIFICATION AND PRIORITIZATION

MUNICIPAL RECOVERY PLAN TOOLKIT

GUIDE 3

High River

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Introduction

As we continue to develop the community's all-hazards, pre-disaster recovery contingency plan (PDR Contingency Plan), this guide will provide a common understanding of the pre-disaster and post-disaster tools and techniques used to support recovery and increase community resilience. A disaster's impact will generate both structural and non-structural projects across the four environments, including the rebuilding of community infrastructure, the remediation of greenspaces and social recovery. Success is linked to the effective identification, prioritization, sequencing, financing and coordination of these recovery projects.

Intent & Desired Outcomes

INTENT

This municipal recovery guide provides elected officials and key municipal leaders within the Province of Alberta relevant information to enable them to understand disaster risks and identify, prioritize and implement the recovery projects during community recovery.

DESIRED OUTCOMES

A clear understanding of the following topics comprise the desired outcomes of this recovery guide:

IMPORTANCE

of an all-hazards risk assessment process

DEVELOP

a comprehensive asset management plan

FINANCE

the recovery operation

CONDUCT

post-disaster damage assessments

MANAGE

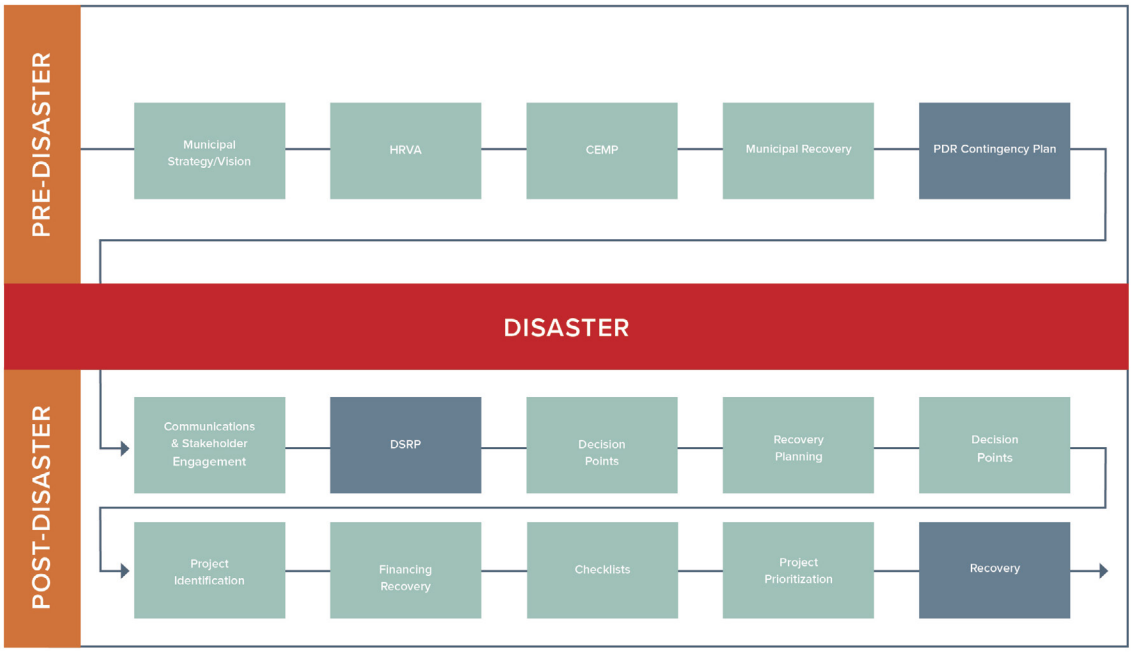
recovery projects, including project identification and prioritization

Framing Recovery Projects

1

While the tools and information in Guide 1 are highly relevant during the pre-disaster period, this Guide is primarily intended to support post-disaster recovery operations. This Project Identification and Prioritization Guide supports any municipality faced with planning, decision-making and implementation of a recovery operation. As well, the tools and processes within this guide encourage, and allow for, the integration of related, existing municipal plans, such as:

1. **An existing long-term municipal strategy**
2. **A Municipal Emergency Management Plan (MEMP)**
3. **A current Hazard, Risk and Vulnerability Analysis (HRVA)**
4. **A Comprehensive Asset Management Program (CAMP)**



Consider the following context: you are the Director of Emergency Management, about to brief the Chief Administrative Officer alongside your Mayor and Council. Your opening comments will describe the current situation for the evolving emergency impacting your community. You believe the scale and consequences of the incident will necessitate a lengthy and difficult community recovery operation. Once the initial threat to residents subsides, you anticipate the need to plan, decide and act to recover your municipality. Your PDR Contingency Plan has been activated.

This guide describes the methodologies, processes and tools embedded within the PDR Contingency Plan to help support recovery. It answers foundational questions such as:

- **How** do we assess damages?
- **How** do we identify, prioritize and secure funding for recovery tasks?
- **How** do we track the performance of the projects to ensure effective, on-schedule completion?
- **How** are these projects funded?

Damage Assessments 2

The importance of damage assessments cannot be overstated. They drive key recovery decisions (such as activation of the PDR Contingency Plan), they assist in quantifying the work required to set the conditions for a safe re-entry (if evacuated) and they determine the initial cost estimates of damages to municipal, residential and commercial properties (key to the needed discussion with the provincial government for access to supporting response and recovery funding. i.e.: Disaster Recovery Program).

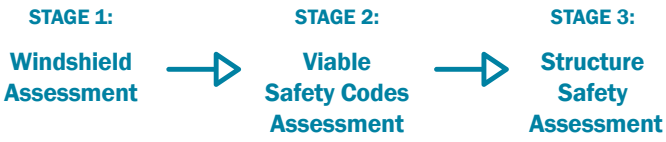
As part of a damage assessment, municipalities are responsible for ensuring that disaster-affected homes and infrastructure are safe to re-enter following a disaster. Depending on the severity of the disaster, the municipality may need to plan and execute two forms of damage assessments: a rapid damage assessment and a comprehensive damage assessment.

RAPID DAMAGE ASSESSMENT

The rapid damage assessment (RDA) provides the first damage assessment following an event. Once safe for site inspections, the goal is to complete RDAs within 48 hours of the disaster. These preliminary assessments will be key to several decision points (or information requirements), including:

- Determining the extent of the PDR Contingency Plan activation
- Determining whether the scale and complexity of the disaster necessitates the development of a recovery campaign plan
- Determining the level of support to request from the Government of Alberta.

Where possible, municipalities should leverage GIS technology for RDAs and CDAs. Dependent upon the extent of the impact, RDAs are conducted in three stages:



Stage 1 – Windshield Assessment. Immediate, drive-by survey of affected areas to determine the extent of damage and to focus future assessments.

Stage 2 – Visible Safety Codes Assessment. To identify inhabitable homes, as per safety codes.

Stage 3 – Structure Safety Assessment. To ensure it is safe for owners, residents, contractors and insurance personnel to survey the structure(s) and property for damage. Municipalities are responsible for ensuring communities and disaster-affected structures are safe to re-enter and re-occupy. For example, following a mandatory evacuation order, it is a municipal responsibility to verify that homes are safe; while following a voluntary evacuation order, residents can return when they choose (Government of Alberta, 2016, p. 16).

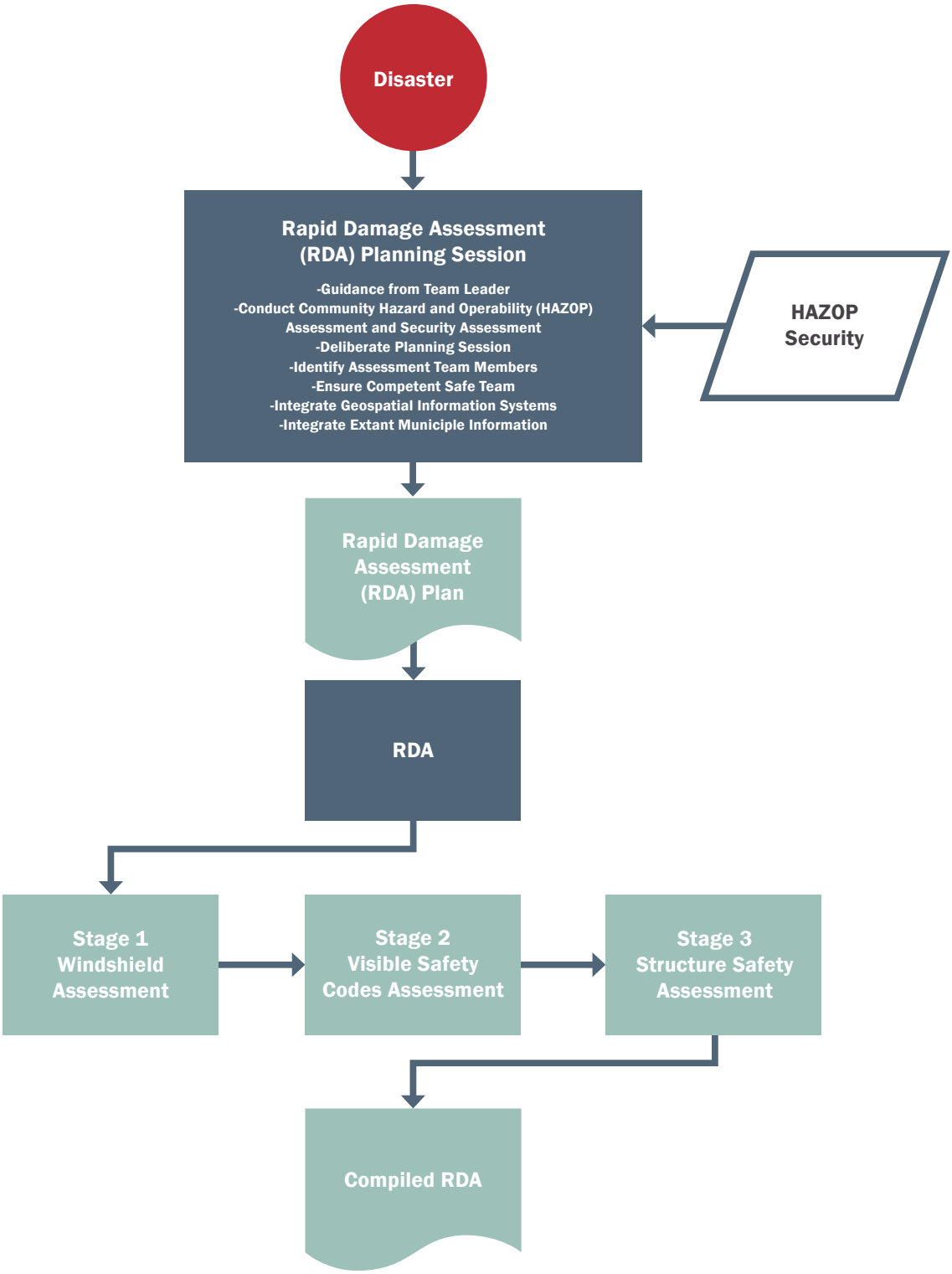
RDA Development and Implementation

Given the importance of the information provided by the RDA process, recovery leaders and planners should conduct a deliberate planning session to ensure that both the short and the long-term needs have been considered as part of the damage assessment. The process flow diagram on the following page explains the process for developing and executing an RDA. The RDA priorities can be established during this planning session, and the CAMP tools and critical infrastructure (CI) list discussed in Guide 1 will act as valuable contributors to the plan. Planners should consider the following when determining priorities:

- **Accessibility.** Can the RDA team gain access to the community using vehicles or will they need to fly in to assess?
- **Critical Infrastructure.** Using the general CI list produced prior to the disaster, the planners will use the planning session to prioritize the CI for assessment.
- **Support to Essential Services.** Based on the anticipated disaster consequences, what critical information is needed to determine the risks connected to getting essential services back up and ready?
- **Residential Properties Assessment.** If the residents' access to their homes is restricted, they will have a higher demand for frequent and comprehensive damage assessments. As such, the anticipated impact to residential properties will affect the RDA priorities.
- **Business Resumption.** Business losses can be reduced if business owners/staff can quickly get back to work. The RDA results will help to define those expected timelines and requirements.

Enclosed as Appendix 1 is the suggested checklist for the RDA, which can be used for all three RDA stages.

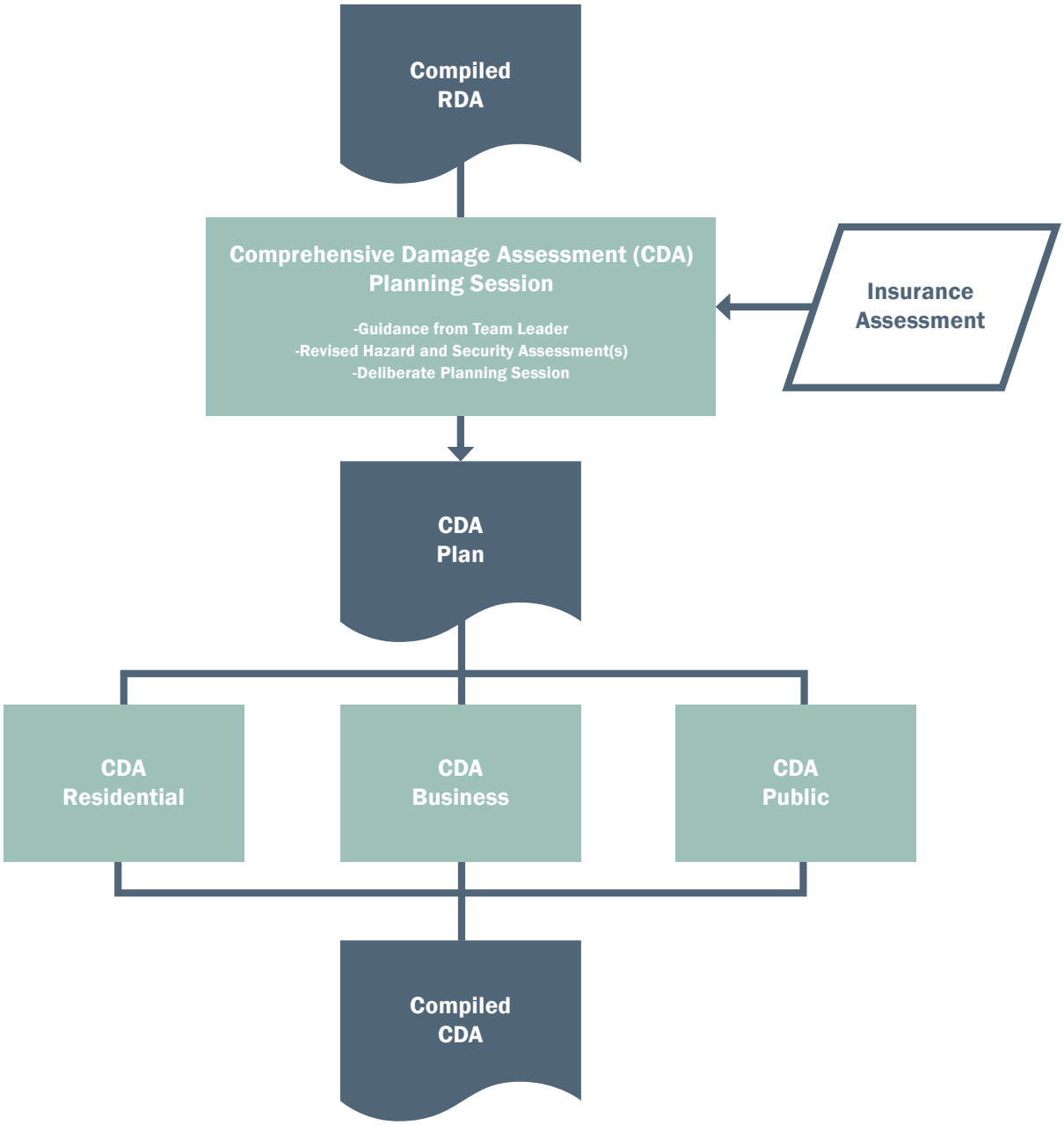
Process Flow – RDA Development and Implementation



COMPREHENSIVE DAMAGE ASSESSMENT

Based on the model of the RDA, the comprehensive damage assessment (CDA) increases the reliability of the data, provided by the RDA teams, that speaks to damage and the estimated time and cost for reconstruction. Completed after the RDAs, CDAs are conducted only after the homeowners, business owners and utilities have regained access to their properties and better understand the disaster's impacts. This is also a time when they will have a better understanding of potential, available financial support, such as their insurance policies, wherever applicable. The compiled CDA will help to identify the details of the project and clarify priorities. "All repairs and reconstruction, as well as tendering for required work, will be based on these evaluations and estimates so ensuring damages and losses are well-documented is critical" (Government of Alberta, 2016, p. 15). Given the wide range of assets covered under this assessment, CDAs are split into three categories: residences, businesses and public facilities/ property. The process flow on the following page depicts the planning and execution of CDAs.

Process Flow – CDA Development and Implementation



CDA Development and Implementation

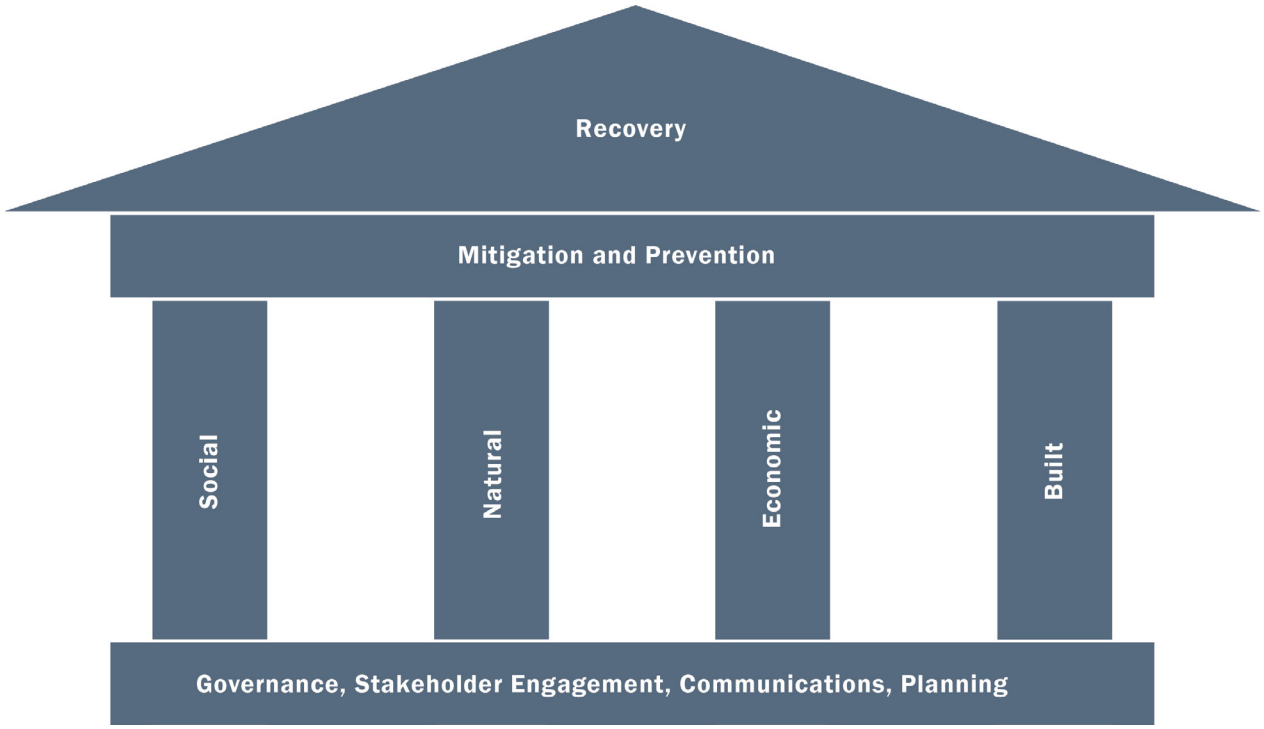
Although CDA development and implementation is similar to that of an RDA, CDAs are completed once properties are accessible and no longer present significant exposure to the community. The CDA is categorized into three groupings: residential property, business property and public property. Following a revised hazard and security assessment, the planners will organize a planning session to determine the CDA scope, schedule, priorities, team selection and risk assessment. A CDA provides a more detailed picture of the overall impact. The results of the RDA, as well as learnings since the RDA, help define the CDA's priorities. Enclosed as Appendices 2, 3 and 4 are the suggested checklists for the residence, business and public facility/property CDAs.

GIS SUPPORT TO DAMAGE ASSESSMENTS

GIS applications designed to support disaster management enable damage assessments. Post-disaster damage to municipal property such as structures, roadways, boulevards and sidewalks can be easily captured and accurately recorded because the municipality's pre-disaster baseline was already established through the completion of the Pre-Disaster Comprehensive Asset Management Plan (CAMP). Leveraging technology will support the information requirements for DRP application and project close-out audits. If the disaster is an uninsurable event, it is very important to leverage technology through geospatial data of damaged assets to help keep costs down. Unmanned aerial vehicles (UAVS), such as drones, are responsive and relatively low-cost aerial tools to assess the disaster's impact. UAVs can be used to inform initial decision making during times when community accessibility is restricted. Therefore, the municipality should make it a priority to consult with AEMA Recovery Branch/ DRP to confirm the legislative expectations from a DRP perspective.

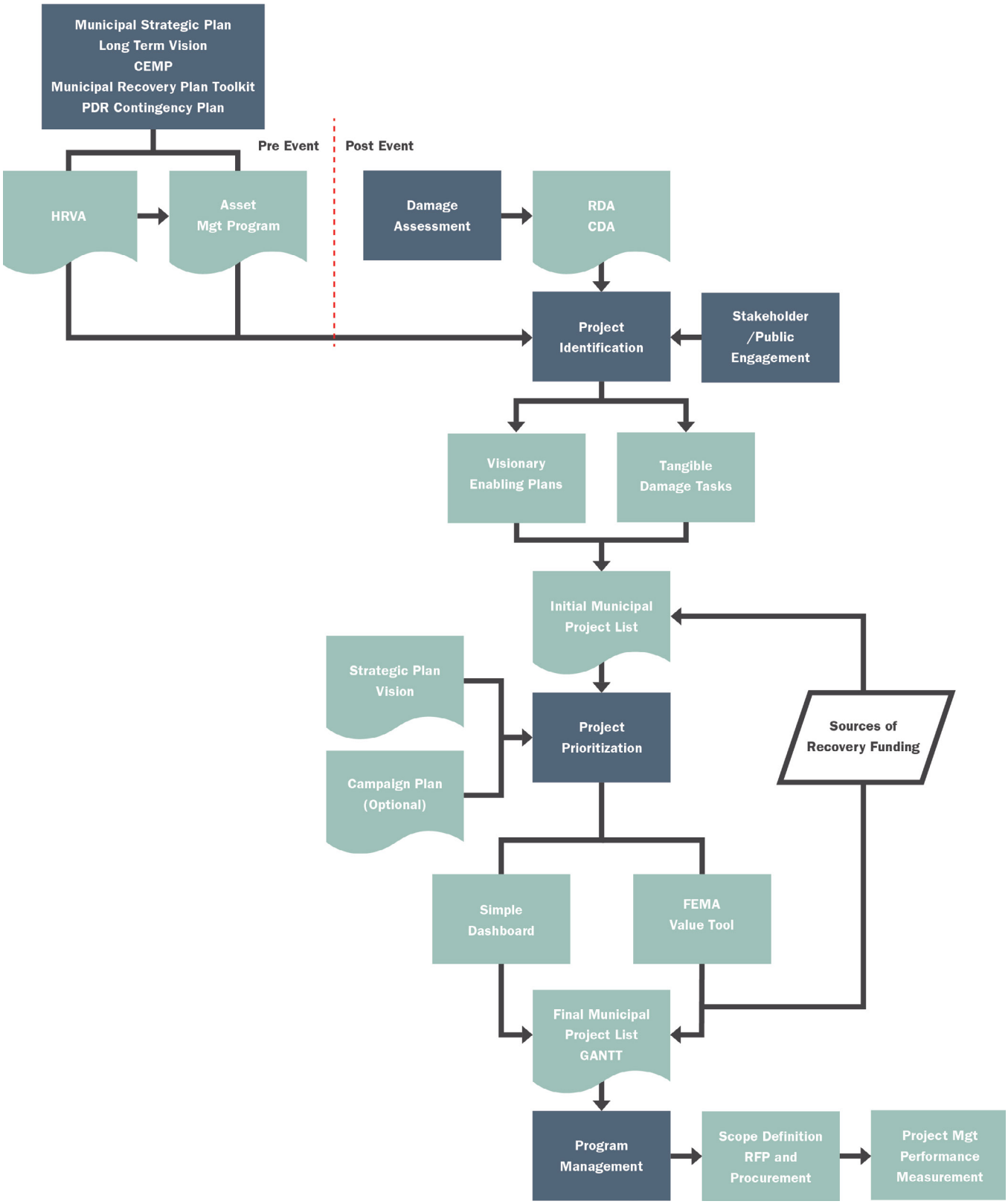
Recovery Project Management 3

The Pillars of Recovery are represented below: Social, Natural, Economic and Built. They represent logical groupings of key actions used to guide the community's recovery. The supporting foundation and upper beam highlight the necessary supporting functions required to ensure effective recovery and increased community resilience.



As discussed in Guide 1, the results of this consequence/probability risk assessment will frame the anticipated pre-disaster risks from an all-hazards perspective. With Guide 3's emphasis on post-disaster conditions, the four pillars should now be populated with relevant recovery projects that are based on the results of the damage assessments, as well as the results of the strategic planning sessions. This section provides guidance on how to identify projects, prioritize projects and describe project management tools. The following is a process flow diagram designed to help guide the discussions for project identification, prioritization and management.

Process Flow – Project Identification, Prioritization and Development



PROJECT IDENTIFICATION

Identification Sources

Identification of desired projects will be ongoing and repetitive throughout the recovery operation. This process requires extensive research, analysis and engagement through many avenues, including the following sources:

Source	Comments
Government of Alberta	Based on best-practices and lessons learned from prior disasters, AEMA, MA and other Ministries can provide input for project consideration
Community Long-Term Strategy or Vision	The community's 10-20 years vision will inform and shape various projects
HRVA	Impacts project prioritization through a clear understanding of relative risks to the community from an all-hazards perspective
Rapid Damage Assessment **Comprehensive Damage Assessment**	The results of the RDA and CDA can be contrasted to the pre-disaster CAMP inventory status to help define the disaster's impact
Disaster Risk Reduction (DRR) Planning Sessions	Leveraging the recovery opportunity to reduce the overall community risk through DRR projects
Health Services	Advice on social recovery and public health projects
Alternate Projects	Public safety considerations may elicit alternate project options, such as neighbourhood relocation, funding of hazard mitigation measures, etc.

Municipal Project List

To simplify the project prioritization and approvals, all desired projects should be initially captured on a single Municipal Project List (sample identified at Appendix 5). Note that this list contains a ranking that will be used to support project prioritization, approval and resourcing.

PROJECT PRIORITIZATION

A broad range of desired projects will likely be identified in the Municipal Project List. As such, the competition for limited resources such as funding, procurement and project management needs, will be immense. Therefore, to ensure that projects support the community's recovery and increased resilience, a formal project prioritization process is required. While some of the projects are directly related to the impact of the disaster, other projects may be related to pre-event conditions that aren't eligible for provincial or federal assistance funding. Although there may be multiple funding sources available, in the end, "there will always be more projects than money." As such, a transparent and formal project prioritization process is essential to ensuring effective recovery project management. Section 6's Recovery Financing details the processes for recovery funding.

It is the responsibility of the recovery organization to evaluate the projects and, dependent upon the approval authorities, present the prioritized project list to Council to be shared with the public. When assessing a project's value to recovery, there are numerous factors to consider. These include:

Qualitative Factors	Quantitative Factors
Alignment to the Municipal Strategic Plan	Return on investment
Alignment to the Recovery Principles (Guide 1)	Economic impact
Alignment to the Sendai Framework	Project feasibility
Need to create early, highly visible wins	Fulfills regulatory requirements

With the need to ensure a transparent assessment, best-practices indicate a preferred tool from FEMA: The Long-Term Community Recovery (LTCR) Project Recovery Value Tool. The Recovery Value Tool will (Federal Emergency Management Agency, 2006, p. 3):

- Provide an objective assessment of each project's recovery value
- Assist in determining implementation priorities
- Provide documentation to community decision-makers and funding agencies regarding a project's anticipated long-term impact

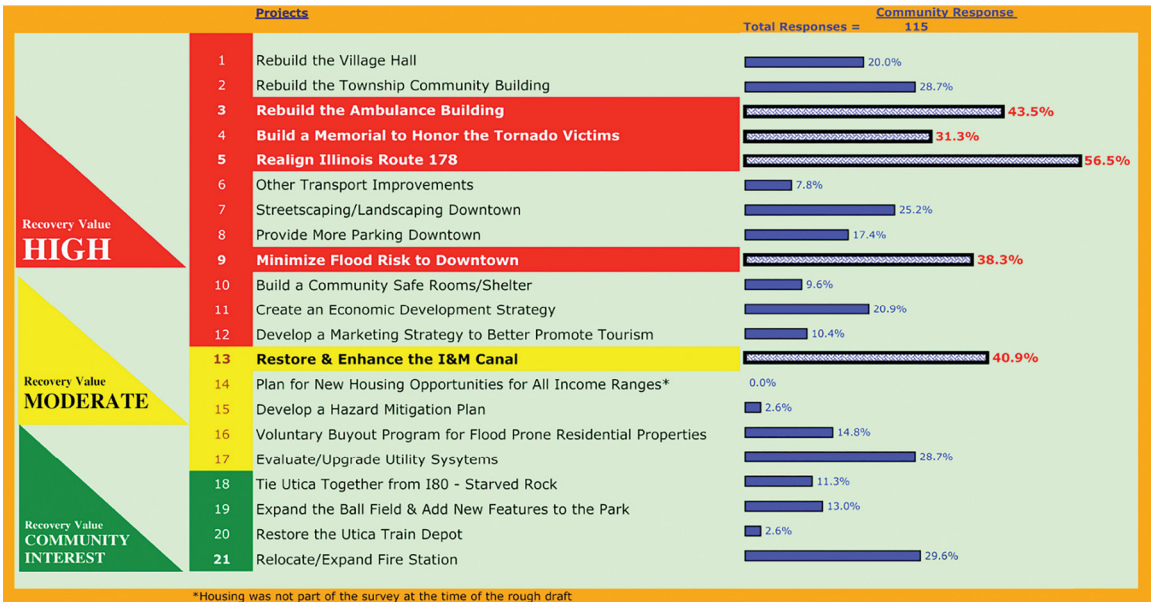
FEMA's Long-Term Community Recovery (LTCR) Recovery Value Tool, now termed the Recovery Value Tool, allows for the planning team to evaluate priorities based on both the disaster impacts, and the physical community needs resulting from the disaster (Federal Emergency Management Agency, 2006, p. 2). FEMA's methodology "addresses the recovery process in a comprehensive manner and takes a holistic perspective of determining a project's value," and is based on a variety of factors.

The Recovery Value Tool uses an intuitive, excel-based interface that can produce a summary of the projects' priorities, as per the example at the figure below (Federal Emergency Management Agency, 2006, p. 24). The excel-based document is enclosed as Appendix 6. During PDR Contingency Plan development, key recovery leadership and planners should familiarize themselves with this evaluation tool.

Further information on LTCR Recovery Value Tool can be obtained from the:

- FEMA LTCR Planning Process: A Self-Help Guide (https://www.fema.gov/media-library-data/20130726-1538-20490-8825/selfhelp.pdf)
- FEMA LTCR Planning Process: A Guide to Determining Recovery Values (https://www.fema.gov/media-library-data/20130726-1819-25045-5373/recovery_value_tool_guide.pdf).

FEMA Recovery Value Tool



PROJECT MANAGEMENT

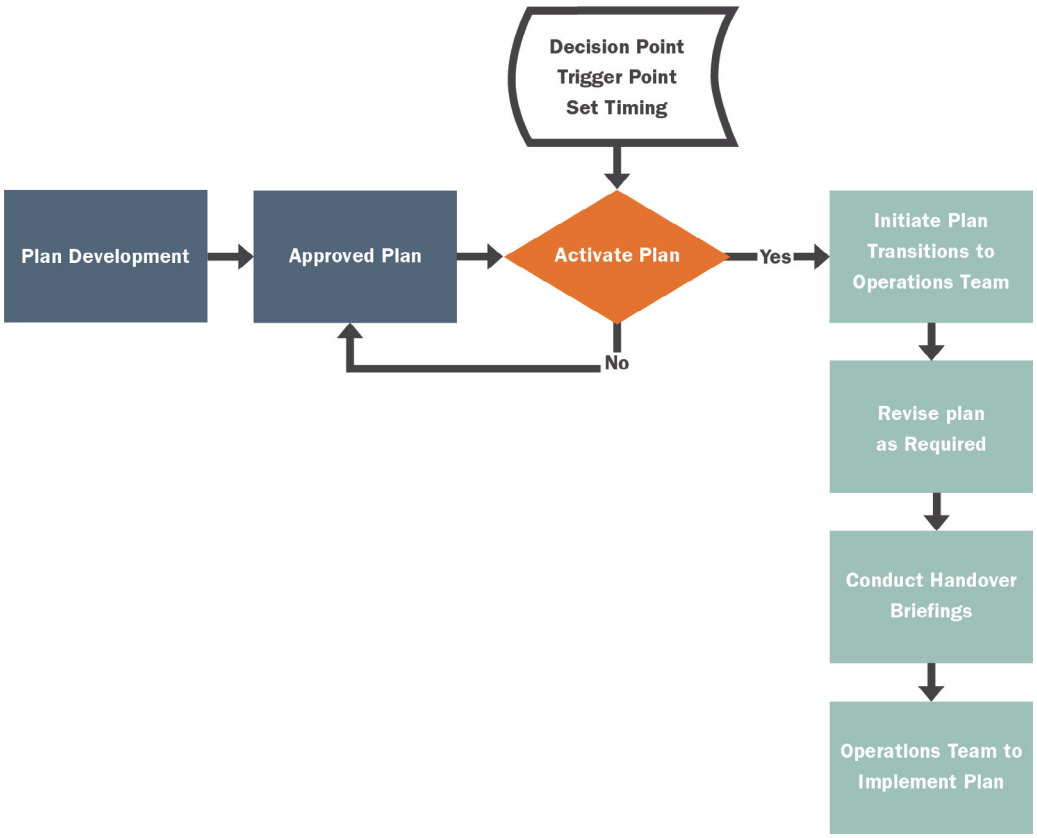
This section supports the effective project management of all recovery activities. Whether structural or non-structural projects, recovery project management practices should be guided by the Project Management Institute (PMI) methodology and follow the municipality's legislative requirements and practices.

- **Recovery Pillars – Project Scope.** The recovery planning team will choose a process that makes effective and consistent decision-making easy (refer to the section "General Planning Process" for an example of a planning process and templates). Through a system-thinking approach, the planning team will use the initial RDA data to broadly define the pillar outcomes. They will then facilitate iterative planning sessions with pillar leads to

clearly identify the strategic, operational and tactical-level objectives, outcomes and tasks. These identification sessions may also generate public policy advice that can help guide the revised PDR Contingency Plan or DSRP. Reinforced through the deployment of CDA teams, the result is a comprehensive scope, schedule, cost and risk assessment scope to support recovery project list refinement.

- **Recovery Schedule**. The development of an overarching recovery schedule, separated by pillar function in a GANTT chart inclusive of all projects and milestones, supports two goals:
    1. Enables effective project management,
    2. Provides a visual recovery update for public viewing.
- Depending upon the scale of the disaster and expected recovery time, the initial GANTT chart should focus on the first 12-months of activities (or as the available information permits). Enclosed as Appendix 7 is an example of a GANTT Task List with tasks detailed by Pillar and by Phase. This sample Recovery GANTT is in electronic format and available for immediate population following a disaster as a way to support schedule management.
- **Project Coordination.** To support project coordination and forecast future planning requirements, the recovery organization's planning team should maintain the Planning Horizons (enclosed as Appendix 8). Current operations and future planning requirements are monitored based on the Recovery GANTT Chart. The plans team will transition previously developed plans to the operations team for their control and execution by established decision points, or timings, before proceeding with handovers to ensure seamless transition. This transition process, illustrated below, is led by the plans team until handover to the operations team is complete.
- **Managing Risk.** Managing risk is one of the key functions of an effective project manager and project strategy. One significant risk is that of the projects failing to address the pre-event weaknesses that contributed to the disaster's impact. While disaster risk reduction can occur pre-event, deliberate risk reduction strategies also need to be considered during post-disaster project planning. Due diligence in this area will go a long way towards increasing a community's resilience to future events.

Process Flow – Transition of plans from Plans Team to Operations Team



Performance Management

4

A community's recovery is successful if it:

1. **Overcomes the impacts of the disaster**
2. **Re-establishes an economic and social base that instills confidence in the local citizens and businesses**
3. **Rebuilds the community to be more resilient from future disasters**

(Government of Alberta, 2013, p. 9).

However, it is often difficult for municipalities to accurately define the level to which their community has recovered (or receded). Fortunately, the use of performance indicators and defined metrics can provide more accurate quantitative and qualitative measures of recovery success that can be more easily understood by the municipality

RECOVERY PERFORMANCE INDICATORS AND METRICS

As stated in the Town of High River's Performance Metrics and Indicators Overview, "performance indicators [serve] to broadly gauge how long-term recovery is progressing and the overall health of the community. While not directly linked to funding, performance measures ensure resources and efforts are aligned with key recovery outcomes for accountability purposes." Key performance indicators will be selected for the PDR Contingency Plan, based largely on the pillars of recovery and the desired outcome of the pillars' projects. These elements form the basis for long-term recovery planning efforts, as well as offer a lens through which recovery efforts can be assessed. These indicators will be developed by asking:

- What do the citizens want to know following a disaster?
- What do the elected officials want to know?
- What do the members of the recovery team within the administration want to know?

After determining the desired outcomes for the performance measures, the next step is determining the metric, target and information source. Data accuracy and the ability to provide regular updates are essential factors that will need to be tested by the recovery organization before final implementation of the performance metrics.

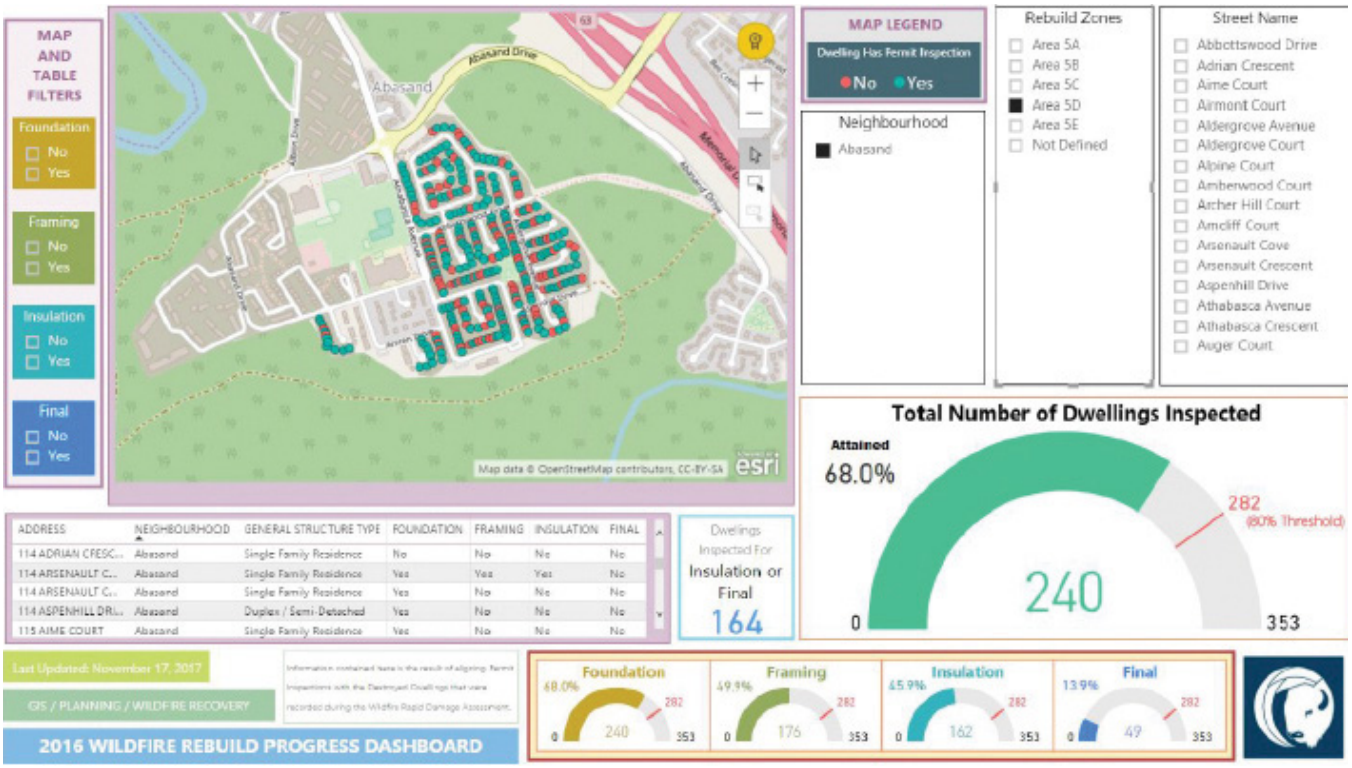
SAMPLE LIST – RECOVERY METRICS

Enclosed as Appendix 9 is a sample of the standard metrics commonly used in disaster recovery. While not all-inclusive, this list provides the foundational outcomes and metrics for use in the PDR Contingency Plan and DSRP. Furthermore, this list can, and should, be amended to reflect the risk assessment (pre-event) or the disaster's impact (post-event).

GEOSPATIAL CAPACITY

Effective performance indicator tracking enables project performance to be measured and modified, wherever needed, through feedback loops. In addition, it provides credible information informing the municipality of ever-important wins. The following figure is a best-practice example of an automated, public-facing performance report on GIS-based referencing data. This example from the Wood Buffalo Recovery Task Force illustrates the rebuild progress for an affected community. It encompasses the relevant metrics for selected performance-indicating building code inspections used to assess the performance of residential home rebuilds. When contrasted with a recovery performance management baseline, these types of indicators become powerful decision-making tools.

Rebuild Performance Measurement – Wood Buffalo Recovery Task Force



Generic Planning Process

5

Why do we need a planning process? Whether implementing pre-disaster or post-disaster activities, we rely on clear and effective plans to enable the successful achievement of the desired outcomes. These plans define how we will achieve these outcomes – whether current or future tasks - by clearly communicating intent, objectives, strategies and tasks.

Given the general absence of information, time and resources during and immediately following a disaster, the use of a consistent planning process should optimize the logical, analytical steps of "decision making in conditions of uncertainty and ambiguity" (The CF Operational Planning Process, B-GJ-005-500/FP-000).

The intent of this section is to provide a common foundation for a proven planning process, that can be expanded or modified for appropriate fit where needed, based on unique realities. This process can be used to develop preliminary, detailed and contingency plans for diverse requirements, such as toxicology testing, re-entry, rebuild and social recovery.

PLANNING PROCESS MODEL – DELIBERATE AND ADAPTIVE

Research indicates that the well-established "predict and plan" approach to planning, that involves future trend forecasts and modeling, is not an ideally suited framework for addressing the uncertainty as the disaster unfolds (Berke, Cooper, Aminto, Grabich, & Horney, 2015, p. 311). Given the varying levels of complexity and scale, disaster recovery planning must accommodate conditions of "high uncertainty, rapid change and complexity to improve prospects for disaster resiliency" (Olshansky, Johnson, Horne & Nee, 2008).

For post-disaster planning where uncertainty and information irregularity exists, municipalities are encouraged to consider using adaptive planning for disaster recovery; a post-disaster planning model that employs six principles to ensure adaptation amidst highly complex and uncertain problems (Berke, Cooper, Aminto, Grabich, & Horney, 2014). Research surrounding 78 local recovery plans provided the foundation for adaptive plan quality principles well-suited to recovery planning. These recovery plan quality principles are listed in the following table.

Definitions and Indicators - Recovery Plan Quality Principles	
Direction-Setting Principles (foundation to achieve vision of disaster resiliency)	**Action-Oriented Principles** (establishes the uses and influence of the recovery plan)
GOAL: Future desired conditions that reflect the scope of values affected by the plan. • Transformative goals to build back better • Restorative goals to address losses efficiently and quickly	**Inter-organizational coordination:** Coordination for mobilizing resources and adaptively managing recovery in ways that fit changing post-disaster needs and that take advantage of opportunities that open and close quickly. • Identifies representatives of recovery team charged with rebuild direction • Identifies external organizations that serve as resource providers in support of disaster recovery
FACT BASED: An evidence-based foundation to derive future disaster scenarios and recovery policy options. • Identify hazards • Estimate current population and exposed property • Scenarios of disaster impacts with varying hazard severity and exposure from alternative development patterns • Capability assessment of existing plans, regulations and staff expertise	**Participation:** Engage the public to build a knowledgeable constituency able to create a plan that reflects local values, needs and capabilities, and enable ongoing public input throughout the recovery process. Identifies techniques to engage the public: • During pre-disaster planning • After a disaster event to adaptively manage the recovery process to fit changing needs/conditions • Include a narrative on who was involved in pre-disaster planning, how they participated and how they affected the evolution of the plan
POLICIES: Flexible guides that account for possible future disaster scenarios that vary in severity and location of impacts, and changes in local needs and capacities through different phases of recovery. • Temporary building moratorium • Graduated standards for activating building acquisition/relocation • Post-disaster housing siting/supply policies • Provisions for adjusting capital improvements for public facilities • Provisions for change in land-use regulations • Damage thresholds for change in building code standards	**Implementation and monitoring:** Involves implementation actions and tracking plan performance. • Post-event roles/responsibilities • Pre-event maintenance (exercises, training) to keep implementors familiar with the plan • Criteria to guide determination of partial/full activation of the plan • Monitoring indicators to track outcomes, use of recovery funds and evaluate and adapt policies

(Berke et al., 2014)

PLANNING PROCESS STEPS

While there are many different planning processes that support decision-making and plan development, they generally follow a planning cycle that consists of five (5) steps. These five steps can be defined as follows (Canadian Land Force Command and Staff College, 2010, pp. 8-9):

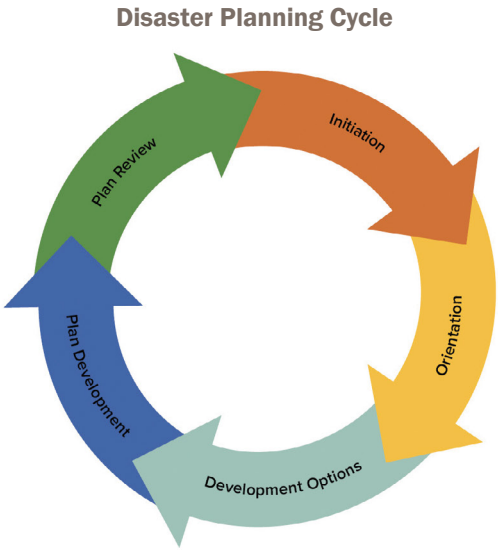
A. Step 1 – Initiation: This is the first step in the planning process and it acknowledges that either an event has occurred or that a change in status quo has made the development of a new plan necessary. During this step, the recovery organization receives guidance, from the GOA or the municipality's elected officials, before activating the planning team and conducting an initial assessment of the problem. The planning team gathers the necessary planning tools, issues preliminary planning guidance and prepares for the planning session.

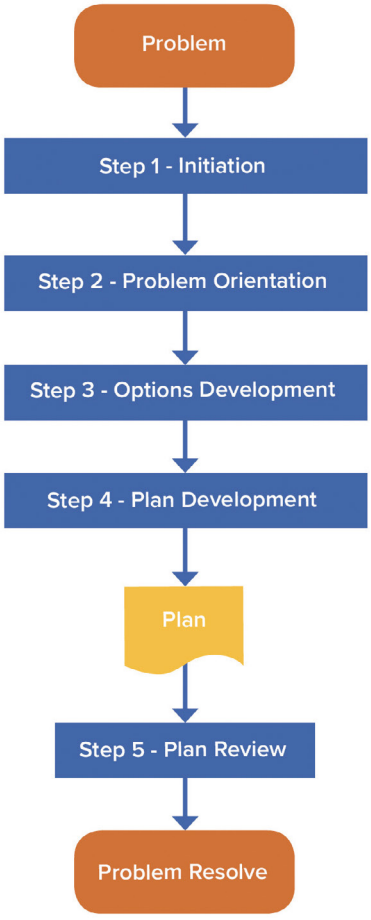
B. Step 2 – Orientation: This step is intended to ensure the planning team has a shared understanding of the problem, the desired outcome(s) and any additional requirements for resolution. Attempting a solution without this clear and shared understanding of the problem will be ineffective and inefficient. This step includes an understanding of constraints, restraints, assumptions and initial assessment of the problem, timings, assessment of tasks, definition of the desired outcome(s), the criteria for success and a summary of the critical information required to achieve the outcome.

C. Step 3 – Options Development: This step is an essential component of the planning process, whereby the planning team conducts a detailed assessment of all the relevant factors, before developing outcome-shaping deductions for each of these factors. Equipped with these deductions, the planning team will formulate options to be considered that can achieve the solution; subsequently the options will undergo a SWOT (strengths, weaknesses, opportunities and threats) analysis to assess the efficacy of each option. The selected option will then be "tested and broken", using methodologies designed to improve the plan, before implementation.

D. Step 4 – Plan Development: This step enables the planning team to take the selected option and further expand it into an executable plan. The recovery team leader or designate may be required to approve this final plan; thereafter, the plan is issued for implementation.

E. Step 5 – Plan Review: The underpinning of this step is that disaster recovery is constantly changing, and that the plan may also need to reflect this change. If change is required, the planning team may convene a planning session inclusive of the larger team or potentially, dependent upon the changes required, conduct a planning session with a more select team membership. The output of this step could include an amended plan for immediate implementation, or a contingency plan that would be shelved until needed.





PLANNING PROCESS – PROCESS FLOW DIAGRAM AND TEMPLATE

Prior to commencing a planning session — whether strategic, operational or tactical — recovery planners should examine appendices 10 and 11:

- Appendix 10 provides a detailed, process-flow diagram for the planning process. This generic and proven planning process can be used to develop plans for any level.
- Appendix 11 is an operationalized template of the planning process. Recovery planning teams can use the template, or modify as required, to guide their planning process. It is an excellent tool for facilitating planning sessions.

SUPPORTING TACTICAL PLANS

The following are suggested planning checklists for commonly required recovery plans:

- Appendix 12: Toxicology Testing Planning Checklist
- Appendix 13: Demolition and Debris Removal Planning Checklist
- Appendix 14: Re-entry Planning Checklist
- Appendix 15: Rebuild Planning Checklist
- Appendix 16: One-year Commemoration Planning Checklist
- Appendix 17: Community Legacy Planning Checklist

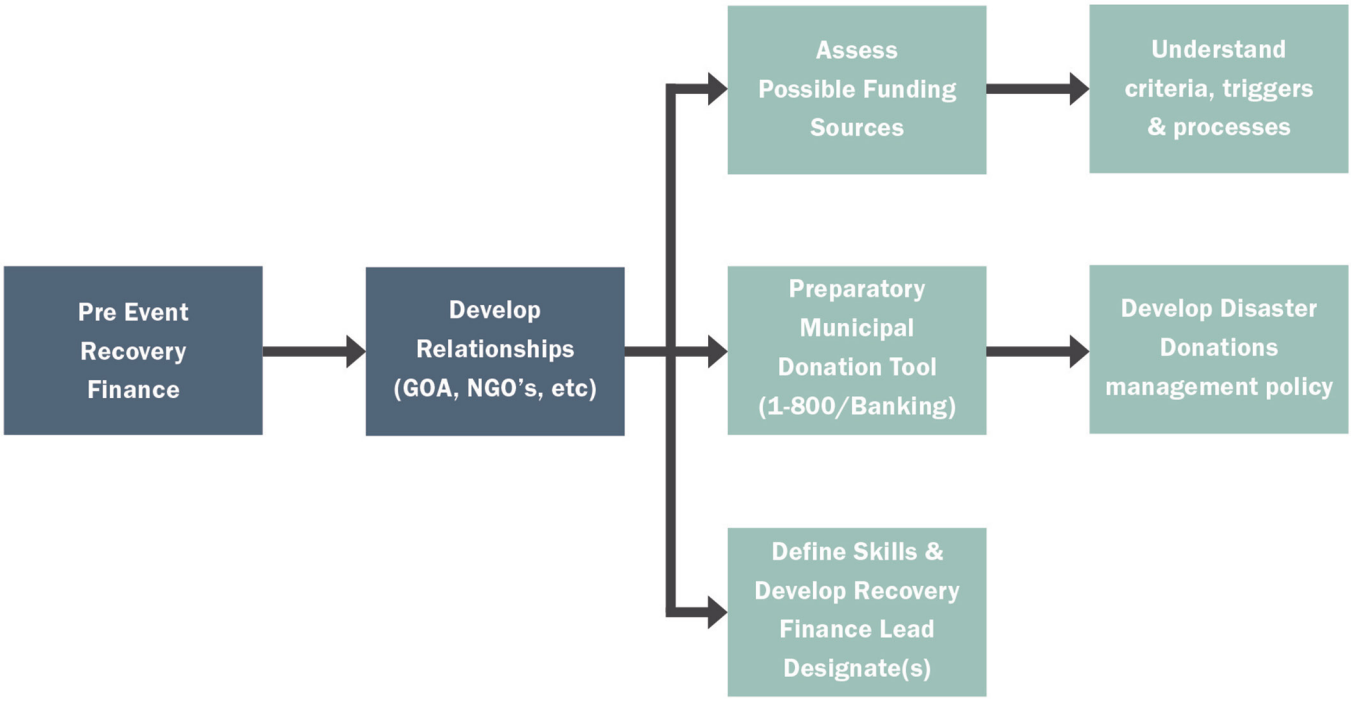
Recovery Financing

6

The municipality's role in the sourcing and management of recovery financing is instrumental to the overall success of the community's recovery. From the start of the recovery process until eventual close-out of recovery activities and audit roles, financing recovery is the most enduring activity. The financial resources needed to sustain an effective recovery plan can be extensive, and the sourcing of these funds can place a significant liability on the municipal government.

Therefore, when it comes to uninsurable disasters, a priority of the municipality will be to maximize external funding opportunities to reduce the financial risk and burden on the municipality. Wherever possible, the municipality should consider ways to support the Government of Alberta's efforts to maximize DFAA cost-sharing with the Government of Canada. To maximize the NGOs services' impact within the community, the municipality should research ways to align with and support their efforts. These activities need to occur in earnest, as external funding opportunities, such as public funding or private donations, will inevitably decrease over a time-scale that is dependent upon the perceived disaster's impact on the community. This section will outline the aspects/activities essential to a successful recovery financing strategy:

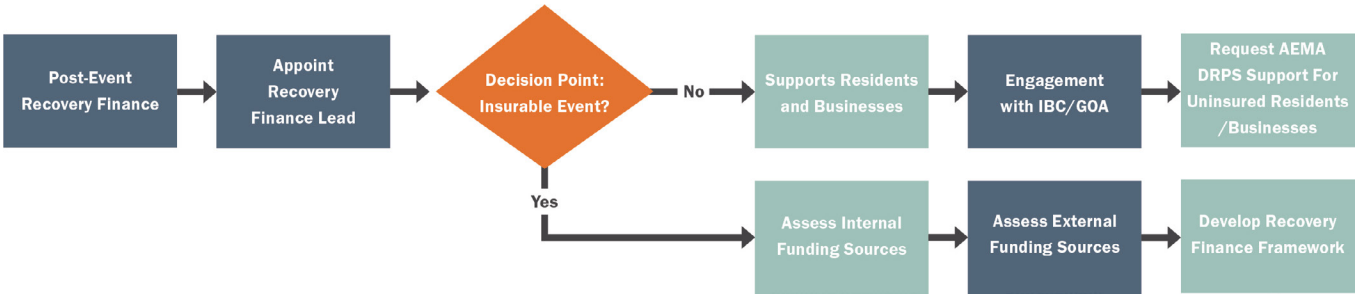
Recovery Financial Strategy



Alberta Municipal Affairs maintains a general advisory number (780-427-2225) where municipalities can obtain financial advice from the Department's Capacity Building Unit.

- **Relationships Matter.** Strong relationships generate trust and credibility amongst stakeholders, and thus, the municipality should engage the Government of Alberta and relevant NGOs in advance of disasters. The combination of a developed relationship and increased understanding of the respective organization's processes and expectations, should accelerate the post-disaster financial support request. Initial post-disaster engagements could be initiated by having the Mayor, or the CAO, reach out to the relevant Ministers, DMs, ADMs and NGO Executive representatives.
- **Recovery Finance Lead.** The value of this role over the long-term cannot be overstated. The Recovery Finance Lead is responsible for diverse financial management and accounting roles, including:
  - Involvement with municipal-approved budgets
  - Oversight of the municipal project cost estimates
  - Sourcing of GOA/GOC assistance program funding
  - NGO and private donations management
  - DRP application process
  - Financial performance measurement of recovery projects costs

  From a pre-event perspective, both primary and alternate designates for the role of Finance Lead should be selected well in advance of any potential disaster. This will afford time for the designate(s) to become familiar with the diverse knowledge areas and to conduct related professional development, or individual training, as required. This individual's workplace availability will need to be managed during periods of higher disaster risk to the community. From a post-event perspective, the appointment of the Recovery Finance Lead should occur immediately upon the stand-up of the Recovery Advance Team to guide extraordinary procurement. This early appointment sets the conditions for financial accountability and due-diligence.
- **Private Donations and Donations Management Policy.** During the initial stages of response, generous outpourings of both monetary and goods donations often arrive. Unfortunately, the management of these donations can become a "second disaster" when the type/quantity of the material goods do not match the needs of the community. To help avoid this potential waste of resources, media messaging should be tailored in the earliest stages of the disaster to encourage monetary donations exclusively. Monetary donation transactions are easier, often facilitated via a secure online website or donation call center and can be more easily directed within the municipality. Municipality choosing to control donations themselves, instead of using third-party donation management, should consider developing and approving their own pre-event Donations Management Policy. It could include the following:
  - Key messages (KMs) to be issued via media sources to solicit monetary donations in lieu of material goods.
  - Developed and sourced contingent webpage and toll-free numbers to be used for municipal-controlled donations management but left dormant until activation of the PDR Contingency Plan.
  - Should material goods donations arrive or be requested, the municipality could outsource donations management to a contracted third-party organization that could manage the material and facilitate its distribution where required.
- **Insurable or Uninsurable Event.** From a financial perspective, the key decision is the determination whether or not the disaster is an insurable or uninsurable event. This determination plays an influential role in financing recovery, including the need for increased municipal engagement with insurance companies and a potential municipal DRP application process. Thus, the insurable/uninsurable assessment needs to be determined as early as possible and requires consultation with AEMA. The approach taken by the municipality will vary based on the determination, as follows:
  - Insurable Event. If this is an insurable event, where "insurance is readily available and deemed affordable" for the event category (Government of Alberta, 2017), the municipal government will continue to have a significant role supporting residents and business owners. The recovery organization can start working with insurers to ensure residents and business owners are informed of claim processes and timeframes.



Even though there exists a private relationship between the insurance company and the homeowner/business-owner, the municipal government will still be required to engage the Insurance Bureau of Canada (IBC) to ensure the availability of insurance-related education to homeowners and other policy owners.

- Uninsurable Event. If the event is determined to be uninsurable, there exists potential additional funding sources. These sources range from the municipal government, private donations, NGOs and provincial government assistance programs. Lastly, funding support may be available through the provincial Disaster Recovery Program (DRP). If DRP funding is required, the formal application process is explained later in this section.

- **Funding Sources – Internal and External.** Be sure to recognize that municipalities may not receive any funding from the provincial government or any other external sources. Depending upon the severity of the disaster, the event may not qualify for the Disaster Recovery Program and may not attract the attention for financial support through private donations and NGOs. If it is assumed that the municipality will need to fully fund their recovery, all possible options should be examined. The following figure depicts a variety of these potential external funding sources.

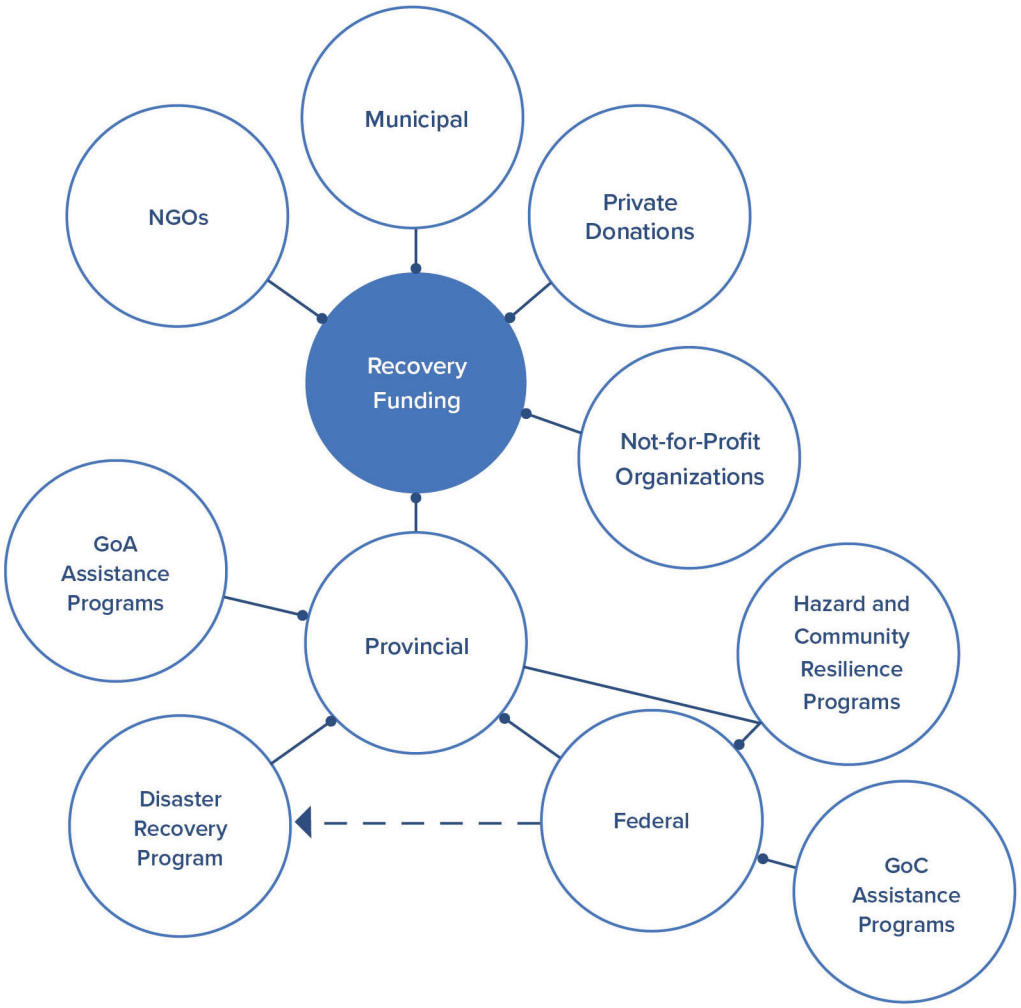
  - Municipal Spend. As the first-level funding source, the municipality should review its own financial commitments, resources and priorities, such as the Capital Infrastructure Program (CIP) and the Operations Budget, to ensure an adequate level of funds to cash flow recovery projects, and to fund approved recovery projects. Amidst the intense capital requirement for recovery, assessments of the CIP and O&M budgets need to consider the way forward for ongoing and planned projects; whether to continue, modify, delay or cancel projects. Furthermore, the municipality will need to consider whether certain levies, such as property taxes, should be reduced on those properties that have been assessed as permanently, or temporarily, uninhabitable.

  - Municipal Loans. If there are insufficient municipal funds to cover initial response or recovery costs, the municipality may need to obtain short-term or long-term financing from a private lending institution. If the loan is expected to exceed the prescribed municipal debt limit, the municipality may require ministerial approval. Alberta Municipal Affairs maintains a general advisory number (780-427-2225) where municipalities can obtain financial advice from the Department's Capacity Building Unit. The Alberta Urban Municipalities Association (AUMA) provides membership options that include support to disaster recovery through provision of power generators, mobile office space, satellite connectivity and IT equipment (Alberta Urban Municipalities Association, 2018).

  - Non-governmental Organizations. Regional, national and international NGOs, such as the Canadian Red Cross, may be able to provide funding for the recovery projects. The municipality should consider directly engaging the NGOs to better understand their relief programming criteria and reach out to the local funders to assess their interest in supporting the recovery activities (Guide 2 outlines NGO coordination activities). The following are NGOs that typically associate with disaster recovery:
    - Canadian Red Cross (Alberta), Samaritan's Purse
    - Edmonton Emergency Relief Services Society, Salvation Army
    - Mennonite Disaster Service, Emergency Social Services Network of Alberta
    - Canadian Global Response, World Renew Canada

  - Government Assistance Programs. The Government of Alberta and the Government of Canada offer a variety of federal and provincial assistance programs. Enclosed as Appendix 18 is a list of these programs. Municipalities should contact the corresponding ministry or AEMA for information related to eligibility, applicability and funding availability. Note that some programs may no longer be active given budget constraints.

Recovery Funding Sources



- Mitigation and Community Resilience Funding. In addition to provincial and federal assistance programs, municipalities should pursue provincially or federally funded programs and corporately funded initiatives to strengthen community resilience and to build back better. To demonstrate the community's alignment to the potential sponsor's expectations, the municipality needs to lobby the GOA for provincial program support and request the GOA lobby on their behalf for Federal government program support. As it may be a challenging process, a joint planning session is recommended to establish common ground between the organizations. Potential opportunities should be researched based on need-assessments, and requests made to the respective approving authority. Examples include the Alberta Climate Change Office, the Canadian Disaster Mitigation & Adaptation Fund and the National Disaster Mitigation Program. The NDMP is Federal government funding to PTs for disaster mitigation measures to eliminate or reduce disaster risk.
- Disaster Recovery Program. Considered a funding source of last resort, is Alberta's Disaster Recovery Program (DRP). DRP applications can be submitted only once all other financial assistance avenues have been pursued, including insurance, municipal funding and support from NGOs or community funders. The DRP eligibility, criteria and application process are described below.

DISASTER RECOVERY PROGRAM

Alberta's DRP provides financial assistance for municipalities and their citizens who have incurred uninsurable loss and damage because of a disastrous event. The Alberta Disaster Assistance Guidelines (DAG) explains that DRP is intended to provide financial assistance to individuals, small businesses (including farming operations), not-for-profit organizations (including not-for-profit cooperatives), municipalities and government departments for uninsurable loss and damage caused by emergencies and disasters (Government of Alberta, 2017).

DRP Criteria

The GOA maintains criteria involving statistical and meteorological data to ensure DRP policy standardization, with DRP approval being subject to an Order in Council. For DRP to be considered as a potential financial source, the following eligibility criteria applies (Government of Alberta, 1994):

Minimum Alberta Criteria – Eligibility Disaster Recovery Program
The cause of the disaster was extraordinary
The disaster has caused damage or loss for which insurance was not readily and reasonably available before the disaster occurred
The disaster has caused widespread damage to property

Reference: (Government of Alberta, 1994, pp. 1-3)

Insurability

As per the DAG and the federal DFAA, homeowners and other private sector applicants are only eligible for Disaster Recovery Program assistance if insurance is not available at a reasonable cost. Subsequently, DRP assistance may soon be impacted, given the availability of insurance for this peril. Effective as of the writing of this guide, AEMA has stated that Overland Flood Insurance is becoming increasingly available in Alberta. Municipalities should note that as per the Alberta DAG Section 3.2.2 (Government of Alberta, 2017, p. 7):

> Insurable means that insurance coverage for a specific hazard was available in the affected area at a reasonable cost prior to the event. Reasonable cost and availability will be determined by the Alberta Emergency Management Agency.

Compensation Limits

The Disaster Recovery Regulation prohibits DRP compensation or reimbursement for the following:

Compensation Limits - Disaster Recovery Program
No compensation may be provided for damage, loss or costs that are: • An ordinary or normal risk of a business, trade, calling or occupation • Loss of income, • Interest charges on loans and overdue accounts • Normal operating expenditures
No compensation may be provided to restore property to a level that exceeds its condition before a disaster

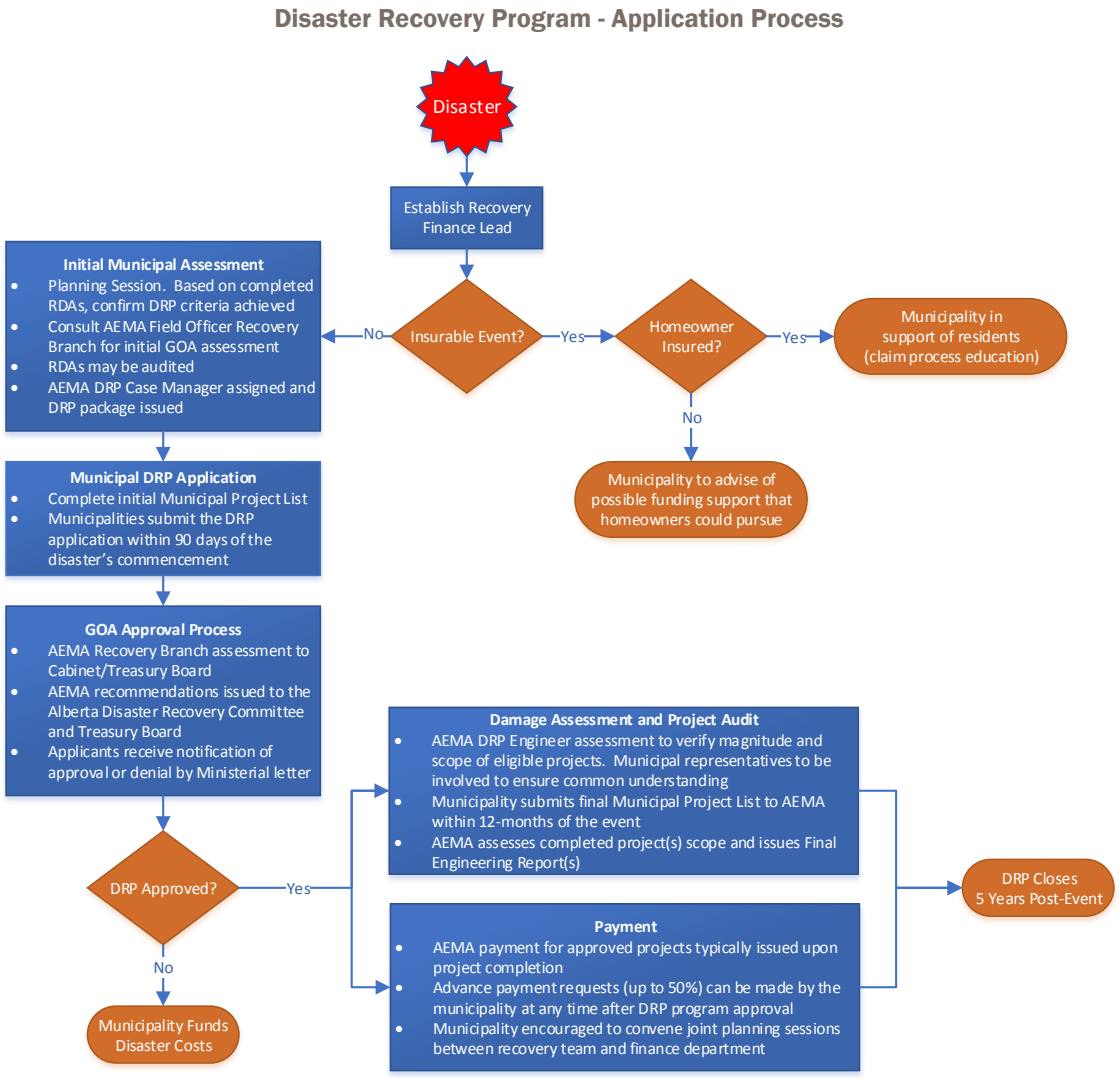
Reference: (Government of Alberta, 1994, p. 2)

DRP Application and Approval Process

The Province of Alberta establishes its own financial criteria to assess and decide the funding of a DRP. As previously stated, there is no guarantee that a community would be approved for a DRP.

- DRP requests are triggered when a public applicant, such as a municipality, First Nation or Métis settlement, submits an application.
- The application needs to be signed by the municipality's CEO/CAO or AEMA Field Officer (the latter if the applicant is not a municipality).
- Municipalities should note that the declaration of a state of local emergency (SOLE) is not required to be eligible for DRP financial assistance.
- It is important to have a moderate degree of cost certainty during the initial DRP submission (within 90 days of the event) as this submission will drive funding expectations for the province.
- The final DRP submission (within 12 months of the event) needs to have a high degree of cost certainty as this submission will determine the DRP funding limit.

The sample Municipal Project List (Appendix 5) is an effective way to track projects at the municipal level as well as the template for DRP submissions. A take-away is the need for the municipality to immediately source a DRP specialist upon activation of their PDR Contingency Plan. The following process diagram depicts the DRP application process.



DFAA and DRP's Federal Cost-Sharing Process

It is beneficial for municipalities to understand the disaster financial assistance arrangements (DFAA) that already exist between the Federal and the Provincial and Territorial governments. The specific purpose of the DFAA is to assist provinces with the costs of dealing with a disaster, whereas those costs would otherwise place a significant burden on the provincial economy, exceeding what they might reasonably be expected to fully bear on their own. It is important to note that while individuals and municipalities can apply to the provincial DRP program, only provinces are eligible for disaster financial assistance through the DFAA. Municipalities are encouraged to be well-versed in DRP eligibility and selection criteria, as well as understand the Federal DFAA (Government of Canada, 2008) and the DFAA Bulletins. The DAG increases a disaster relief cost-sharing arrangement between the Federal and PT governments, which is further described in the Federal guidelines termed the Disaster Financial Assistance Arrangements (DFAA). Based on the financial calculus within the DAG and DFAA Bulletin #5/2017, the following are the provincial thresholds values for receiving Federal financial assistance through DFAA:

Eligible Provincial Expense Thresholds (per capita of population)	Bandwidth (up to $)	GOC Share %	Threshold Expenses (2017 AB pop)
First $3.07	$3.07	0	$12,894,000
Next $6.15	$9.32	50	$39,144,000
Next $6.15	$15.47	75	$64,974,000
Remainder	$15.48 and above	90	$65,016,000

Reference: Public Safety Canada DFAA Bulletin #5 (February 2017)

SUMMARY

As a component to a five-guide Municipal Recovery Plan Toolkit, the intent of this guide was to provide the methodology, processes and tools used to effectively identify and prioritize projects.

DISCLAIMER

Although the authors have made every effort to ensure that the information in this guide was correct at the time of printing, the authors do not assume and hereby disclaim any liability to any party for any loss, damage or disruption caused by errors or omissions, whether such errors or omissions result from negligence, accident or any other cause.

ENDNOTES

Alberta Urban Municipalities Association. (2018). Risk Management. Retrieved from https://auma.ca/business-services/insurance risk-claims/risk-management

Berke, P., Cooper, J., Aminto, M., Grabich, S., & Horney, J. (2014). Adaptive planning for disaster recovery and resiliency: an evaluation of 87 local recovery plans in eight states. Journal of the American Planning Association, 80(4), 310-323.

Berke, P., Cooper, J., Aminto, M., Grabich, S., & Horney, J. (2015). Adaptive Planning for Disaster Recovery and Resiliency: An Evaluation of 87 Local Recovery Plans in Eight States. Journal of the American Planning Association, 80(4), 310-323. doi:1. 1080/01944363.2014.976585

Canadian Land Force Command and Staff College. (2010). The Operational Planning Process. Retrieved from http://armyapp.forces gc.ca/SOH/SOH_Content/CACSC-PUB-OPP%20(2010).pdf.

Federal Emergency Management Agency. (2006). Long-Term Community Recovery Planning Process: A Guide to Determining Project Recovery Values.

Disaster Recovery Regulation 051/1994 (Consolidated up to 196/2006), (1994).

Government of Alberta. (2013). Municipal Recovery Action Plan Template.

Government of Alberta. (2016). Long-Term Recovery Guidelines (Draft).

Government of Alberta. (2017). Alberta Disaster Assistance Guidelines.

Government of Canada. (2008). Guidelines for the Disaster Financial Assistance Arrangements (DFAA). Retrieved from https://www publicsafety.gc.ca/cnt/mrgnc-mngmnt/rcvr-dsstrs/gdlns-dsstr-ssstnc/gdlns-dsstr-ssstnc-eng.pdf.

Olshansky, R. B., Johnson, L. A., Horne, J., & Nee, B. (2008). Longer view: Planning for the rebuilding of New Orleans. Journal of the American Planning Association, 74(3), 273-287.

Appendices

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Appendix 1: Rapid Damage Assessment

To facilitate the completion and analysis of the damage assessment, the following template is suggested for use during all three RDA stages.

Rapid Damage Assessment		
Disaster:		Date:
Municipality:	Applicant	Phone Number:
Key - Infrastructure/Site Category		
1 - Residence/Outbuilding	2 - Commercial building	3 - Public Building
4 - Public facility	5 - Roads & Bridges	6 - Sidewalk, boulevard, lighting
7 - Public recreation area		
Key - Damage Category		
0 - No Damage/NA	1 - Minor Damage - Habitable	2 - Major Damage - Habitable
3 - Major Damage - Uninhabitable	4 - Destroyed	
Colour Code:		
Green - No/Minor Damage	Yellow - Moderate/Major Damage - Habitable	Red - Uninhabitable
Site Address		
Infrastructure/Site Category	Address/Location Description	
Damage Cat./Colour Code	Description of Damage	
Cost Estimate ($)	Impact	
Site Address 2		
Infrastructure/Site Category	Address/Location Description	
Damage Cat./Colour Code	Description of Damage	
Cost Estimate ($)	Impact	
Site Address 3		
Infrastructure/Site Category	Address/Location Description	
Damage Cat./Colour Code	Description of Damage	
Cost Estimate ($)	Impact	

Appendix 2: Comprehensive Damage Assessment (Residential)

Appendices 2 through 4 are the suggested comprehensive damage assessment checklists for residence, business and public facility/property damage assessments.

Comprehensive Damage Assessment - RESIDENTIAL		
Disaster:		Date:
Brief Description of Disaster:		Municipality
Respondent Information		
Applicant		Home Phone Number
Mailing Address (permanent)		Cell Phone Number
Temporary Mailing Address (if displaced)		Alternate Phone Number
Number of Occupants	Pets	Email Address (primary)
Business/Rental Property		Email Address (alternate)
Damage Assessment		
Type of residential property 1 - Single-family 2 - Multi-family 3 - Mobile Home 4 - Outbuilding		**Ownership** 1 - Owned _____ 2 - Rented _____ If rented: name, address and phone of owner
Key - Damage Category		
0 - No Damage/NA	1 - Minor Damage - Habitable	2 - Major Damage - Habitable
3 - Major Damage - Uninhabitable	4 - Destroyed	
Colour Code:		
Green - No/Minor Damage	Yellow - Moderate/Major Damage - Habitable	Red - Uninhabitable
Type of residential property	Description of Damage	
Damage Cat./Colour Code	Damaged Property Location	
Total Damage Estimate ($)	Damage to Property ($)	Value of Loss to Personal Property ($)
Property Photos		

Insurance Information	
Is property insured? Yes/No	Estimated funding gap (Damage Cost - Insurable Coverage) ($)
Name of Insurance Company	
Insurance Agent	
Insurance Agent Contact Details	

Appendix 3: Comprehensive Damage Assessment (Business)

Comprehensive Damage Assessment - BUSINESS	
Disaster:	Date:
Brief Description of Disaster:	Municipality

Business Information	
Business Owner(s)	Business Phone Number
Mailing Address (permanent)	Owner Phone Number
Mailing Address (permanent)	Cell Phone Number
Temporary Mailing Address (if displaced)	Alternate Phone Number

Damage Assessment	
Type of business 1 - Home Based 2 - Stand-alone	**Business Property Ownership** 1 - Owned _____ 2 - Rented _____ If rented: name, address and phone of owner

Key - Damage Category

0 - No Damage/NA	1 - Minor Damage - Habitable	2 - Major Damage - Habitable
3 - Major Damage - Uninhabitable	4 - Destroyed	

Colour Code:

Green - No/Minor Damage	Yellow - Moderate/Major Damage - Habitable	Red - Uninhabitable
Type of business	Description of Damage	
Damage Cat./Colour Code	Damaged Property Location	
Total Damage Estimate ($)	Damage to Property ($)	Value of Loss to Personal Property ($)
Loss of Sales ($)	Loss/Damage to Inventory ($)	Estimated indirect loss/damage ($)

Business Property Photos

Insurance Information	
Is property insured? Yes/No	Estimated funding gap (Damage Cost - Insurable Coverage) ($)
Name of Insurance Company	
Insurance Agent	
Insurance Agent Contact Details	
Business Sector (Manufacturing, Service, Retail)	Will the business be repaired or rebuilt?
Number of Jobs:	(1) Manufacturing Jobs (2) Retail/service/clerical jobs (3) Professional jobs

Appendix 4: Comprehensive Damage Assessment (Public Facilities & Property)

Comprehensive Damage Assessment - Public Facilities/Property	
Disaster:	Date:
Brief Description of Disaster:	Municipality

Respondent Information	
Name	Phone Number
Organization/Department	Cell Phone Number
Mailing Address (permanent)	Alternate Phone Number

Damage Assessment	
Type of public property 1 - Road/Sidewalk/Boulevard 2 - Water Control Facility 3 - Public Building/Equipment 4 - Public Utility 5 - Park/Recreation/Other	**Facility/Property Ownership** Force Account Leased Rented

Key - Damage Category

0 - No Damage/NA	1 - Minor Damage - Habitable	2 - Major Damage - Habitable
3 - Major Damage - Uninhabitable	4 - Destroyed	

Colour Code:

Green - No/Minor Damage	Yellow - Moderate/Major Damage - Habitable	Red - Uninhabitable

Type of public property	Description of Damage	
Damage Cat./Colour Code	Damaged Property Location	
Total Damage Estimate ($)	Damage to Property ($)	Value of Loss to Contents/ Equipment ($)

Damage Impact to Municipal Operations	
Number of Jobs:	(1) Public Employees - Full-Time (2) Public Employees - Part-Time (3) Contractors/Consultants

Public Property Photos

Insurance Information	
Is property insured? Yes/No	Estimated funding gap (Damage Cost - Insurable Coverage) ($)
Name of Insurance Company	
Insurance Agent	
Insurance Agent Contact Details	

Appendix 5: Municipal Project List

The damage assessment processes will identify recovery projects that will be prioritized and subsequently sought for approval and funding. To support these processes and to facilitate DRP funding requests through the provincial authorities, capturing these projects on a single Municipal Project List is recommended.

		PROJECT #	PROJECT DESCRIPTION	PROJECT PRIORITY	LTCR RECOVERY VALUE	TOTAL ESTIMATE	SUBMISSION #1	SUBMISSION #2	SUBMISSION #3	ENGINEER REPORT REQUIRED (Y/N)	INITIAL REPORT RECEIVED	FINAL REPORT RECEIVED	SPENT TO DATE	SUBMISSION TOTAL	COMMENTS
1	Response														
	1.1	2018-001	First Responders - Reponses Phase	1	NA	$1,500,000.00	$975,000.00	$225,000.00		N	NA	NA	$1,350,000.00	$1,200,000.00	EOC submission during response
	Subtotal					$1,500,000.00	$975,000.00	$225,000.00					$1,350,000.00	$1,200,000.00	
2	Curb and Sidewalk Repairs														
	2.1	2018-003	Sidewalk Repairs - Neighbourhood X	2	2.37	$225,000.00	$120,000.00	$80,000.00		N	NA	NA	$220,000.00	$200,000.00	Adjacent to schools and playgrounds
	2.2	2018-002	Curb Repairs - Damage due to Rebuild - Neighbourhood Y	3	2.01	$335,000.00	$95,000.00	$75,000.00	$100,000.00	N	NA	NA	$300,000.00	$270,000.00	Reimbursement being sought my municipality with home builders
	Subtotal					$560,000.00	$215,000.00	$155,000.00	$100,000.00				$520,000.00	$470,000.00	
3	Asphalt Repairs														
	Subtotal														
4	Street Sign Replacement														
	Subtotal														
5	Gravel /Cold Mix Road Repairs														
	Subtotal														
6	Retaining Wall Repairs														
	Subtotal														
7	Additional Contract Staff														
	Subtotal														
8	Slope Stability and Erosion Control														
	Sub Total														
9	Playgrounds/Park Equipment														
	Subtotal														
10	Slope Monitoring														
	Subtotal														
11	Facility Damages														
	Subtotal														
12	Assessment of Roadway Condition - Post Disaster														
	Subtotal														
13	Soil Sampling														
	Subtotal														
14	PUL Rehabilitation														
	Subtotal														

		PROJECT #	PROJECT DESCRIPTION	PROJECT PRIORITY	LTCR RECOVERY VALUE	TOTAL ESTIMATE	SUBMISSION #1	SUBMISSION #2	SUBMISSION #3	ENGINEER REPORT REQUIRED (Y/N)	INITIAL REPORT RECEIVED	FINAL REPORT RECEIVED	SPENT TO DATE	SUBMISSION TOTAL	COMMENTS
1	Response														
15	Roads / Public Works Additional Work for Damage Due to Construction														
	Subtotal														
16	Underground Services Repairs														
	Subtotal														
17	Water & Waste Water Inspection & Restoration Work - Recovery														
	Subtotal														
18	General Services Contracted														
	Subtotal														
19	Lessons Learned														
	Subtotal														
20	Demolition														
	Subtotal														
21	Information Services														
	Subtotal														
22	Security														
	Subtotal														
23	Landfill Costs														
	Subtotal														
24	Communications														
	Subtotal														
25	Materials, Goods, Supplies & Utilities														
	Subtotal														
26	Recovery Organizations' Staff Salaries														
	Subtotal														
27	Grading Design														
	Subtotal														
28	Recovery Solid Waste Damages														
	Subtotal														
29	Disposal Bins														
	Subtotal														
	TOTAL					$2,060,000.00	$1,190,000.00	$380,000.00	$100,000.00				$1,870,000.00	$1,670,000.00	

Appendix 6: FEMA LTCR Recovery Value Tool

RECOVERY VALUE: Meets A Post-Disaster Community Need

<<< Insert name of Project and Jurisdiction here >>>

#	Criteria	Data Source	Data	Units	Score	Guidance Notes for Scoring	Notes
	Direct Damages						
1	Project is directly related to physical damage(s) sustained in the disaster.					Score based on degree the project addresses physical damage sustained in the disaster. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
2	Project provides an opportunity to improve on pre-disaster conditions.					Score based on how project improves upon pre-disaster conditions. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	Fills A Gap						
3	Project addresses an issue or a need Identified in Other Plans (Comprehensive; Strategic; Neighborhood; Historic; Improvement District; etc.) or is validated or attains a new urgency as a result of the disaster.					Score based on how project addresses an issue or a need identified in existing plan(s) or studies for community. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	Is the project called out in any existing plans or does the project address a specific community need or issue that is identified in plans, studies, reports?
4	Project is essential for the health and safety of the community.					Score based on how project provides direct impact on health and/or safety services within the community. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	Leverage						
5	Leverages several sources of funding.					Score based on project's potential to leverage several funding sources for its implementation, or provide leverage for funding of another project(s). 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	Community Support and Impact						
6	Project is supported by the community.					Score based on degree the community support for project has been identified through referendum, surveys, or other documented methods of community support. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
7	Project impacts low-moderate income segment of community.					Score based on how project impacts low to moderate income households in community. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	High match would be if at least 25% of households impacted by project have household income of less than 75% of median hh income in community.
8	Project affects key social or cultural component of community.					Score based on degree project affects distinct social or cultural attributes of the community. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	Meets a Need Average Recovery Value Score*	0					

All criteria must be scored to provide a consistent score with online version

RECOVERY VALUE: Project Feasibility

<<< Insert name of Project and Jurisdiction here >>>

#	Criteria	Data Source	Data	Units	Score	Guidance Notes for Scoring	Notes
	Builds Upon Available Resources						
1	Can access necessary resources.					Score based on probability of securing necessary funding **within project timeframe.** 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	With necessary resources, project cannot be completed; if scaling back is required for budgetary reasons (and scaled-back project meets project requirements), then project will have access to all necessary funding and other resources (e.g., in-kind, staff, office space, supplies, volunteers, etc).
	Conforms to Regulatory, Logistical, and Planning Constraints						
2	Compatible with Government Initiatives and local plans.					Score based on degree project is compatible with government initiatives and/or local plans. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	Not in conflict with other planning efforts/projects, whether recovery related or part of pre-existing community development initiatives; supports and enhances other planning activities.
3	Compatible with Other Regulatory Constraints.					Score based on project's consistency with existing ordinances and/or regulations. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	Not in conflict with existing statues or regulations.
	Is Achievable						
4	Definable Outcomes.					Score based on degree project has clearly defined outcomes. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	If outcomes are not clear, project could become a resource drain that stretches indefinitely into the future. It could indicate high potential for conflict among project partners.
5	Workable Timeframe.					Score based on how project timeframe fits both immediate community need and needs of other possibly related projects. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	A "reasonable and practical timeframe" is one that is responsive to community need, that is compatible with other planning efforts (especially if those efforts rely on this project's completion), and that can be achieved within the limits of available resources.
6	Other Characteristics Affecting Project Feasibility (e.g., design or plan flexibility, ease of implementation, political support, etc).					As applicable, score based on how aspects or characteristics of the project have a positive affect on the project's feasibility. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	This is a place in which to acknowledge the importance of other characteristics affecting project feasibility. This might include design or plan flexibility, ease of implementation, offering a sufficient range of options that will increase the likelihood of project success, etc. This criterion is intentionally left open to interpretation to accommodate unique project characteristics.
	Has a Champion						
7	Identified Committed Champion.					Score based on whether committed project champion(s) has been identified (see definition in notes). 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	A project "champion" is an individual (or group) with sufficient enthusiasm, political influence, and access to resources to get the project done. Without this person steering the project, it has very low likelihood of being completed.
	Feasibility Average Recovery Value Score*	0					

All criteria must be scored to provide a consistent score with online version

Appendix 6: FEMA LTCR Recovery Value Tool continued

RECOVERY VALUE: Sustainable Development

<<< Insert name of Project and Jurisdiction here >>>

#	Criteria	Data Source	Data	Units	Score	Guidance Notes for Scoring	Notes
	Financially Sustainable						
1	Project demonstrates that it can pay for itself over the long-term.					Score based on degree construction and/or operation estimates of the project demonstrate that it would pay for itself over time or that it can be financed by the local government without additional aid over the long term (includes possible outside grant/loan funds). 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	Averts Future Loss						
2	Project identified in existing Mitigation or Safety Plans.	Local or Province Jurisdiction				Score based on degree that project is identified in existing plan(s) for community or if project employs techniques set forth in existing plans. 1=Low match with criteria; 2=Moderate match w/ criteria; 3=High match with criteria.	A specific project may be identified, or a mitigation technique identified, in an existing plan that may be used in the project. For example, a housing project that employs mitigation construction techniques.
3	Project applies a mitigation or safety measure to avert future losses related to natural disasters or incidents of national significance.	Federal, Provincial, or Local Mitigation or Public Safety Handbooks				Score based on degree project employs proven/previously tested mitigation or safety measure OR if an assigned recovery professional (such as an engineer; architect; planner; geologist; landscape architect; or urban designer) determine that the project would reduce or alleviate future disasters or improve public security in the future. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	Examples of proven methods include typical hazard mitigation projects such as: relocating a structure, restricting new construction in particularly vulnerable areas, elevating structures to remove the threat of flooding, building smarter, stronger buildings and utilities that are more hazard-resistant, or security enhancement.
	Built and Natural Resource Efficiency						
4	Project promotes efficient use of land.	Low Impact Development Center; Federal Sustainable Development program criteria; Smart Growth Online; USDA Rural Development				Score based on degree project advances sustainable development; low impact development; or smart growth principles. Smart growth principles may include encouraging vertical over horizontal development; brownfield, greyfield, or infill development; mixed use and /or mixed income neighborhoods; limiting urban sprawl; or other like principles. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
5	Project is geographically located to encourage safe, convenient, and efficient connectivity with other nodes of development within the community.					Score based on how project is situated within the geographic context of the community to ensure a safe, convenient and efficient system of connections within the community. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
6	Project protects or does not harm key ecosystems; wildlife and natural areas; and / or improves water and air quality.	State Dept of Natural Resources; USDA Natural Resources Conservation Service				Score based on degree project advances the preservation of natural areas; restores or protects key ecosystems, or improves water or air quality. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
7	Project reduces water and energy use; and / or employs innovative wastewater technologies.	State Dept of Natural Resources; Environmental Protection Agency				Score based on degree project addresses reduction of energy or water use, improves stormwater flow, or addresses wastewater quality from previous conditions. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
8	Project improves availability of mass transit or advances multiple transportation solutions for those who need it.	Federal, provincial or local transportation agencies				Score based on how project addresses opportunities for mass transit or advances multiple transportation solutions that would reduce the dependency on cars or single transportation modes. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	Sustainable Development Average Recovery Value Score*		0			**All criteria must be scored to provide a consistent score with online version**	

RECOVERY VALUE: Economic Impact

<<< Insert name of Project and Jurisdiction here >>>

#	Criteria	Data Source	Data	Units	Score	Guidance Notes for Scoring	Notes
	Gets people back to work						
1	Project creates job opportunities.	State Input-Output (I/O) Tables or Estimate of job creation				Score based on degree project creates more direct jobs on a specific site than were lost as a result of the disaster and has a multiplier effect on other employment. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	Multipliers are determined regionally. Each state has specific I/O tables that identify employment multipliers per industry. High impact would be a project that has an employment multiplier of > 1.5 per direct job. If no state multipliers are available, estimate job creation impact of project.
	Opens businesses						
2	Project rebuilds or redevelops damaged properties.					Score based on degree project rebuilds or redevelops damaged properties using sustainable development measures. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
3	Project provides new affordable ownership opportunities and/or affordable lease or rent opportunities.					Score based on degree project provides new opportunities for business owners to purchase property or building space and/or provides affordable leasing or rent opportunities. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	"Affordable" should be based upon the average $/SF cost of business space prior to disaster and the average lease/rent rate prior to disaster.
4	Project contributes to increased income / revenues for new and existing businesses.	Estimates based on previous municipal finance conditions				Score based on estimate that the project would increase tax revenues, business incomes, or the circulation of money within the economy more than prior to the disaster event. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	New economic opportunities						
5	Project would further diversify the economy by encouraging emerging markets into the region.					Score based on degree that the project would encourage new employment opportunities by establishing new capital projects (e.g. training facility; fiber optic infrastructure; distribution center) that would jump-start new industries in a region where an emerging market could be fostered. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
6	Project would improve the skillset of the labor force / increase wages.					Score based on whether project provides new training programs and / or facilities that would allow labor force to learn new skills that are in demand. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
7	Project would provide marketing mechanisms for business attraction					Score based on degree project provides a marketing program or creates regional entities that would market area assets to new businesses, industry, or market segments. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
8	Project would increase local capacity for economic development.					Score based on degree project establishes an economic development plan, new programs (e.g. GIS software), or increases professional staff to facilitate economic growth. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	Average Economic Average Recovery Value Score*		0			**All criteria must be scored to provide a consistent score with online version**	

Source: Southern Alberta Flood Recovery Task Force and PMI

Appendix 6: FEMA LTCR Recovery Value Tool continued

RECOVERY VALUE: High Visibility and Builds Community Capacity

<<< Insert name of Project and Jurisdiction here >>>

#	Criteria	Data Source	Data	Units	Score	Guidance Notes for Scoring	Notes
	Community Investment						
1	Project fosters community investment from local citizens; businesses; and local governing bodies.					Score based on degree project has received or will continue to receive community investment - financial, physical, and in-kind from various segments of the community. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	Awareness						
2	Project has the ability to create national interest through media attention, public agency support, regional impact, recognition, etc.					Score based on degree project has received national media interest or public agency support over a sustained period of time (6 months or more) or if the project is of such magnitude to undoubtedly attract sustained national interest. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
3	Project is highly visible and easily recognized within the community.					Score based on degree project has distinct and immediate recognition within and among the community. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	This is identified in community promotional materials, publications or documents.
	Catalyst Projects						
4	Project address key services within the community and without this project the community would be limited in their ability to flourish (e.g. city hall; water distribution; waste hauling; facilities; post office; etc.).					Score based on degree project has a direct and positive impact on the infrastructure or key services in the community. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	Without these fundamental and essential public and private sector projects, elements or services the community would be limited in their ability to flourish.
5	Project is a catalyst to attract significant interest, projects, developments, resources or opportunities to the community (if not for this project, others would not follow).					Score on project's potential to attract significant resources or development opportunities to the community. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
6	Has potential to attract multiple sources of financial support - both public and private - at the local, regional, or national levels.					Score based on degree to which project involves public and private investment. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	Multiple Impacts						
7	Impacts more than one market segment within the community (e.g. housing, retail, industry, etc).					Score based on market segments affected as a result of the project. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	A project receiving a High Score should affect at least two different market segments.
8	Serves or supports multiple geographic areas within a community or region.					Score based on degree project serves or supports several geographic areas within the community or region. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	Visionary						
9	Project is visionary and encourages the community to look beyond established patterns, tendencies and framework in search of forward thinking solutions and/or is creative and uses new techniques or methodologies to address issues or produce solutions.					Score based on degree project incorporates new design technologies or construction methodologies. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	For example - sustainable projects; grand or majestic projects - sustainable technologies; recycled principles; green building; green roof; etc.
10	Project enhances or supports changes in public policy.					Score based on degree project enhances or supports changes in public policy or principles, such as the adoption of new or improved local codes or ordinances, mitigation of undesirable situations, removal of non-conforming structures, etc. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	High Visibility Average Recovery Value Score*		0			**All criteria must be scored to provide a consistent score with online version**	

RECOVERY VALUE: Linkages Throughout Community & Connection to Other Projects

<<<Insert name of Project and Jurisdiction here >>>

#	Criteria	Data Source	Data	Units	Score	Guidance Notes for Scoring	Notes
	Community Connectivity						
1	Project is interconnected among and within the existing community development framework and physically connects neighborhoods, key features, districts, etc.					Score based on degree project physically connects neighborhoods, key features, districts, services, or communities or provides other less tangible connectivity within the community; e.g. downtown revitalization project or other magnet-type project that would draw people from one area to another. 1=Low match with criteria; 2=Moderate match w/ criteria; 3=High match with criteria.	
	Resource Enhancement						
2	Project supports the existing resources of the community.					Score based on degree project supports existing resources of the community, including cultural, physical, natural, and environmental resources. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	Multi-Jurisdictional Opportunities						
3	Projects that are planned, developed, or implemented cooperatively.					Score based on whether the project planning, development, or implementation involves two or more local, state, or federal agencies or organizations. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	Cooperation can include planning coordination, regulatory review, funding resources, or project implementation activities. Project should involve at least two agencies for a **High Score**.
	Regional Impacts						
4	Project has an impact on the region or other regional projects.					Score based on the degree project is regional in scope or supports other regional projects. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	Interrelationships						
5	Related to other community projects, resources, or elements.					Score based on degree project is related to other community projects, resources, or elements that complement one another and are part of an overall recovery strategy. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	Linkages Average Recovery Value Score*		0			**All criteria must be scored to provide a consistent score with online version**	

Appendix 6: FEMA LTCR Recovery Value Tool continued

RECOVERY VALUE: Quality of Life

<<< Insert name of Project and Jurisdiction here >>>

#	Criteria	Data Source	Data	Units	Score	Guidance Notes for Scoring	Notes
	Enhances Community Value						
1	Project will promote an existing strength in the community and build resilience; e.g. project helps improve a facility or attraction that has improved the quality of life (monetarily or emotionally) for the community in the past and will continue to provide enhanced living for the community.					Score based on how project builds on an existing strength that the community has already been successfully promoting.1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	Livability						
2	Project provides or enhances community services (e.g. schools, libraries, cultural centers, community gathering places, and recreational facilities).	Needs assessment				Score based on degree project provides or enhances a badly needed (identified, unmeet need, or other) service that benefits a cross-section of the population (cross-section would include low income, minority, elderly, etc.). 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
3	Project provides or enhances a critical facility (e.g. hospital, fire station, etc.).					Score based on how project provides or enhances a critical facility that impacts the lives of the community; 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
4	Project enhances housing/shelter situations (e.g. assisted living, mixed-income housing, disaster shelter).	Needs assessment				Score based on degree project fills an identified need. 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
5	Project enhances a culturally significant place in the community.	Public meetings; municipal or provincial lists of "cultural monuments"				Score based on degree project enhances a documented culturally significant place in the community (or one identified in public meetings). 1=**Low** match with criteria; 2=**Moderate** match w/ criteria; 3=**High** match with criteria.	
	Quality of Life Average Recovery Value Score*		0			**All criteria must be scored to provide a consistent score with online version**	

Recovery Value: Summary Results

<<< Insert name of Project and Jurisdiction here >>>

Category	Average Recovery Value Score
Meets a Post-Disaster Need	0
Project Feasibility	0
Sustainable Development	0
Economic Impact	0
High Visibility	0
Linkages & Connection to Other Projects	0
Quality of Life	0
Project Recovery Value Score	**0**
	Low Recovery Value

High Recovery Value
A High Recovery Value score results when the following occurs:
A project scores an average of 2.25 or higher

Moderate Recovery Value
A Moderate Recovery Value score results when the following occurs:
A project scores an average of 1.75 to 2.24

Low Recovery Value
A Low Recovery Value score results when the following occurs:
A project scores an average of 1.74 or less

Community Interest
A Community Interest score results when a project obtains a low recovery value designation but there is strong community support for the project. These projects generally cannot be implemented in a timeframe to affect recovery or may not clearly promote key disaster recovery goals.

Appendix 7: Recovery GANTT Tasks

- **Mitigation and Prevention**
  - Community Strategic Vision
  - Community Resilience Strategies
  - Rebuild - Building Codes
  - Land-Use Noncomformance
  - Introduce - Build Back Better
  - **Risk Management**
    - Municipal-Level All Hazards Risk Assessment - HRVA
    - Risk Treatment
    - Monitor & Review
  - Pre-Event Municipal Comprehensive Asset Management Program
  - GIS Support to Disaster Management
  - Develop Municipal PDR ConPlan
  - Legislation
  - Regulation
  - Land Use Controls
- **Preparedness**
  - Emergency Management Planning
  - Municipal Training
  - Inter-Agency Training
  - Joint Exercises
  - Public Awareness Activities
- **Response**
  - The Disaster
  - ** DP - Declaration - State of Local Emergency
  - Emergency Public Communications
  - Search & Rescue
  - Evacuation
  - Initial Post-Disaster Assessment - RDA
  - ** DP - Transition from Response to Recovery
  - Transition from Response to Recovery
- **Recovery**
  - **Stabilization**
    - ** DP - Disaster or Catastrophe
    - ** DP - Insured or Uninsured Event
    - Activate PDR ConPlan
    - Appoint Recovery Team Leader
    - Activate Recovery Advance Party
    - Provision of Essential Social Services
    - Temporary Housing
    - Utilities and Essential Services Restoration
    - Debris Removal
    - Air, Water and Soil Sampling
    - Re-Entry
    - Psychosocial Support
    - Rapid Damage Assessments
    - **Communications & Stakeholder Engagement**
      - Stakeholder Register
      - Stakeholder Engagement Strategy
  - **Intermediate Recovery (rec planning commences)**
    - Comprehensive Damage Assessment (CDA)
    - Recovery Team (IOC)
    - Communications & Stakeholder Engagement
    - Demolition and Debris Removal
    - **DSRP**
      - Confirm Community Strategic Vision
      - ** DP - Requirement for Disaster-Specific Campaign Plan
      - Planning Session - Modify PDR ConPlan to DSRP
      - Discussions - BBB & Resilience Options
      - Campaign Plan (if reqr'd)
      - Conduct Pre-Mortem
      - Implement DSRP
    - **Project Identification & Prioritization**
      - Needs Assessment - CDA
      - Strategic Planning - Scope/Cost/Schedule/Risk
      - Projects Identification
      - **Projects Prioritization**
        - LTCR Recovery Value Tool
      - Projects Approval
      - Projects Implementation
      - Program Management
    - **Financing Recovery**
      - Establish Recovery Finance Lead
      - Review Municipal Spend
      - Source DRP Specialist
      - Initial DRP Application
      - Final DRP Projects List - Submission to AEMA
      - Issue Donations Management Policy
      - Coordinate NGO Funding
      - Coordinate Community Funding
      - <New Task>
    - **Activities by Pillar/Environment**
      - **Social/People**
        - Psyshosocial Support & Recovery
        - Residents' Needs Assessment
        - Housing/Interim Housing
        - Donations Management
        - Recovery of the Arts
      - **Environment/Natural**
        - Toxicology Testing
        - Contaminated Soil Plan
        - Recycling Strategy
        - Hydrology Assessments
        - Erosion Control Remediation
      - **Economic**
        - Business Resumption Plan
        - Economic Impact Assessment
        - Recovery Loan Program
        - "Open for Business" Campaign
        - Economic Recovery Plan
      - **Rebuild/Built**
        - Rapid Damage Assessment
        - Comprehensive Damage Assessment
        - Debris Management
        - Re-entry Plan
        - Rebuild Plan
      - **Mitigate**
        - Community Resiliency Strategy
        - Disaster Risk Reduction
        - Build Back Better
        - Building Codes Review
        - Land Use Bylaw Amendments
    - **Long-Term Recovery**
      - Continued Community Support
      - Rebuild of Damaged Infra & Facilities
      - Rebuild Residential Properties
      - Implement Mitigation Strategies
      - One-Year Commemoration
      - **Transition from Recovery to BAU**
        - ** DP - Decision to Transition from Recovery to BAU
        - Formal Handover
        - Finalize Financial Requirements
        - Finalize HR Requirements
        - Recovery Plan Deactivation

Appendix 8: Recovery Planning Horizons

Recovery Planning Horizons - Current and Future Operations

Developed by: Lead recovery planner
Date: Effective Date

Standing Agenda
(1) Review of Municipal Council's meeting outcomes (or other standing recovery committee)
(2) Upcoming priorities, expectations and deliverables (Planning Horizons)
(3) Select planning sessions for emerging issues
(4) Planning for future Municipal Council agendas (2 weeks in advance)

	Next 30 Days	Next 30-60 Days	Next 60-90 Days
Milestones/Events	Fire Season Begins	Spring Rebuild Commences	School Break
Decision Points	DP: Noise Control Bylaw	DP: Repairs to Municipal infrastructure	DP: School re-opening
	DP: Commercial & Resident Tax Relief	DP: Business Support Program	
General	Review Evacuation Plan	Performance Metrics	Develop Lessons Learned
	Obtain Recovery Budget Approval	Issue Recovery Timeline	
Social	Donation Management Plan	Support to Alberta Health Services	Support Art Community Projects/Plans
	Psychosocial Plan	Investigate Barriers to Vulnerable Populations	Home to Home Campaign - Starts
Economic	Retail Market Analysis	Economic Development - Strategic Plan	Rebuild Economic Opportunities
	Labour Market Study	Business Needs Assessment	
Natural	Soil Testing	Hazardous tree removal	Erosion Control Restoration
	Slope Stability Assessment		
Built	Homeowner Ed.: New Home Construction	Residential Home Rebuild Plan	
	Implement Children Safety Education	Construction Management Teams	
Mitigate	Revised Risk Assessment	Communication and Engagement Strategy	
	Resilience Planning - Build Back Better	Flood Mitigation Planning	Wildland/Urban Interface Wildfire Planning

Appendix 9: Recovery Performance Metrics

Performance indicators serve to broadly gauge how long-term recovery is progressing and the overall health of the community. Performance measures ensure resources and efforts are aligned with key recovery outcomes for accountability purposes. Amplified in Section 4, these metrics form the basis for long-term recovery planning efforts, as well as offer a lens through which recovery efforts can be assessed. Aligned to the four environments, the following is a sample of the standard metrics that could be used within the PDR Contingency Plan and DSRP.

SOCIAL Environment					
Outcomes	**Metrics**	**Target**	**Source/Resp**	**Internal/External**	**Available**
All children can return to and attend school	Percentage (%) of displaced students who have an allocated spot in an approved alternate school				
	# of additional classroom spaces (incl. portables) allocated for displaced students				
All displaced residents are temporarily housed	# of people living in temporary housing				
Provide opportunities for residents to celebrate their spirit, pride, and resilience	# of events dedicated to offer residents opportunities to celebrate their spirit, pride, and resilience				
	# of community organizations re-established				
Health, welfare, and childcare programs' needs are assessed and met	Health and Welfare (psychosocial) programs established				
	Childcare - # of allocated daycare spots to meet needs assessment				
	Sports and recreational facilities re-opened and operational				

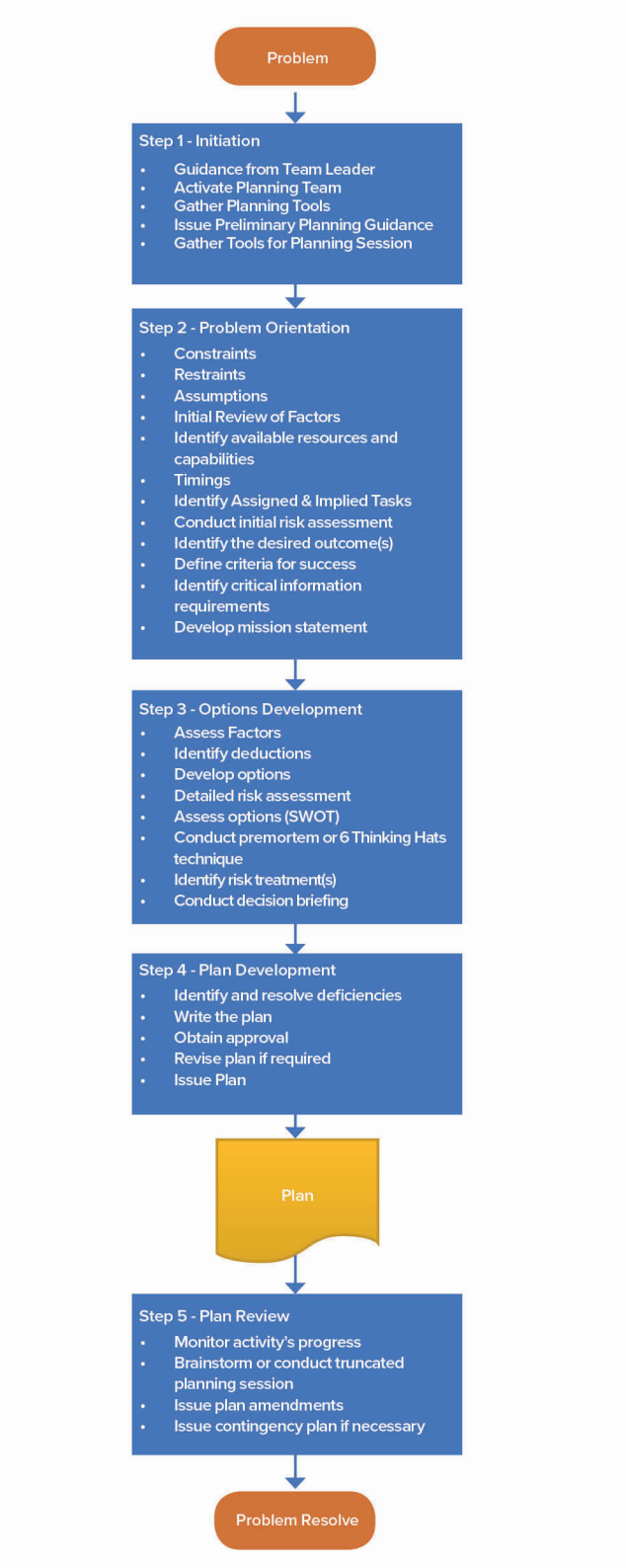
ECONOMIC Environment					
Outcomes	**Metrics**	**Target**	**Source/Resp**	**Internal/External**	**Available**
Small businesses are financially supported by the municipality	# of dollars (MM) dedicated to assist small business				
	# of small businesses who				
Small to medium enterprises (SME) return to pre-event operations	# of re-opened SMEs				
Labour force demonstrating increased resilience	per cent of people participating in local economy				
	Unemployment rate decreases below 3-month average				
	# of EI claims decreased below 3-month average				
	per cent population total return				
Decreased reliance on the Food Bank	# of people receiving baskets				
Regional Inflation	Post-disaster inflation rate assesses to pre-disaster levels				
Property values at or above pre-event levels	Housing prices classified by type and number of rooms				

NATURAL Environment					
Outcomes	**Metrics**	**Target**	**Source/Resp**	**Internal/External**	**Available**
Environmental impacts to Air, Soil and Water are assessed and understood	Air, soil and water sampling complete				
	Boil water advisories lifted				
	CMOH reoccupation plan(s) approved				
Waste and debris removed and disposed	# of vehicles and equipment in affected neighborhoods are properly disposed of according to municipal guidelines				
	Metric tonnes of debris from each neighbourhood arriving at landfill or other 3rd party location				
Community green spaces are re-established	# and per cent of municipal parks re-opened to the public				
	# and per cent of provincial recreation areas re-opened				
	Kilometres of hiking trails re-opened				
Confidence in the Environment for recreation	Hunting and fishing licenses issued				
	Changes in hunting and fishing restrictions				

BUILT Environment					
Outcomes	**Metrics**	**Target**	**Source/Resp**	**Internal/External**	**Available**
Completed transitional housing plan to accommodate interim housing supports	Completed housing needs assessment survey				
	CMOH reoccupation plan approved				
Adequate interim housing is available for displaced residents	# of housing/apartment units available to meet demand (rental or for purchase) by type				
Demolition of damaged homes completed so rebuilding can begin	# of demolition permits by neighborhood				
	# of damaged sites demolished, cleaned and serviced				
	# of building permits approved by neighborhood				
Rebuilding of damaged homes	First house construction started by (insert date)				
	Per cent of total homes rebuilt quarterly				
	# of housing starts in the region per quarter				
	# of families without housing by the end of the construction season				
Plan for disaster reduction and mitigation completed	Completion of revised community risk assessment				
	Completion of mitigation initiatives				
Public Infrastructure Repaired	# and per cent of damaged Municipal infrastructure repaired				
	# and per cent of damaged provincial infrastructure repaired				
	Linear measure and percentage of highway maintenance throughout				
	Linear measure and percentage of roads repaired in rural hamlets				

GOVERNANCE					
Outcomes	**Metrics**	**Target**	**Source/Resp**	**Internal/External**	**Available**
Stakeholders actively engaged in regional recovery efforts	Communications and Stakeholder Engagement plans completed/ implemented				
	# of engagement activities with key stakeholders by type (FN, Metis, rural community, NGOs, business, industry)				
Community maximizes financial support for recovery efforts	Completed DRP submission				
Recovery organization is established to facilitate an effective community recovery	Completed PDR Contingency Plan or DSRP to guide recovery decisions and actions				
Taskforce fully staffed to assist with recovery initiatives	# of staff hired to assist with wildfire recovery efforts				
	# of funding allocated to recovery organization's payroll				
Engaged citizens actively participate in recovery initiatives	# of recovery townhalls and resident attendance				
	# of public information sessions and residence attendance to inform/engage				
Rec organization tracking and reporting of financial commitments	Be accountable for procurement and spending				
Budget allocation and financial planning	Prioritized spending; activity-based cost capturing				

Appendix 10: Generic Planning Process



Appendix 11: Template - Planning Process

Aim	To orient the planning process for:	
STEP 1 - Initiation		
Guidance from Team Leader		
Define and Activate Planning Team	Planning Team leader Team member(s) Facilitator Scribe	
Gather Planning Tools	Municipal Strategy/Vision; MEMP; policies, directive and SOPs Relevant GIS tools	
Issue Preliminary Planning Guidance	Summary of issue/problem Stakeholders requested to participate in planning session Timings Preparatory reading/review requirements	
Gather Tools for Planning Session	Maps/GIS tools Dry erase boards, flip chart, markers, post-it notes	
STEP 2 - Problem Orientation		**Ask so what ...**
Constraints (Must Do)	People	
	Time	
	Finance	
Restraints (Cannot Do)		
Assumptions		
Initial Review of Factors	Municipal Strategy/Vision	
	Social Environment	
	Natural Environment	
	Economic Environment	
	Built Environment	
	Geography/Topography	
	Logistics	
Resources/Capabilities	Municipal capabilities (strengths and weaknesses)	
Timings	Planning Session timing Time to start activity Time for completion	
Identify Assigned Tasks		
Identify Implied Tasks		
Initial Risk Assessment		
Identify the Desired Outcome(s)		
Define Criteria for Success		
Critical Information Requirements		

STEP 2 continued		Ask so what ...
Develop the Mission/Statement	Mission Statement (clear and concise statement of the task)	Who will accomplish the task(s) What must be done When will it start Where activity will take place Why will this be conducted
STEP 3 - Options Development		
Amplify and list deductions		**Amplify and list deductions:**
Examples only	Governance	
Insert factors relevant to the planned activity	Time	
	Finance	
	People/Residents/Children	
	Psychosocial	
	Health & Safety	
	Natural Environment	
	Weather/Environment	
	Built Environment	
	Logistics	
	Land Development Plans/Timelines	
	Economic Environment	
	Business Resumption	
	Business Continuity	
	Alternatives	
	Communications	
	Stakeholder Engagement	
	Precedence	
	Public	
	Project Management	
	Risk	
Develop the Options		
Option 1		
Option 2		
Option 3		

Assess Options/SWOT	**OPTION 1**	**OPTION 2**	**OPTION 3**
Strengths (internal)			
Weaknesses (internal)			
Opportunities (external)			
Threats (external)			
Results of Pre-Mortem or 6 Thinking Hats			
Risk Assessment/Treatment			
Conduct Decision Briefing			

STEP 4 – Plan Development		
Identify & resolve deficiencies		
Write Plan	Scope Schedule Budget Risk	
Obtain Approval		
Revise Plan if required		
Issue Plan		
STEP 5 – Plan Review		
Monitor activity's progress		
Brainstorm or conduct truncated planning session		
Issue plan amendments		
Issue contingency plan(s) (if necessary)		

Appendix 12: Toxicology Testing Planning Checklist

Toxicology Testing Planning Checklist	
	Obtain guidance from AEMA and Chief Medical Officer of Health
	Conduct HAZOP to assess contamination risk to soil, water, and air
	Develop internal and external communications plan; key messages. Active community engagement and communication transparency is essential
	Plan stakeholder engagements, including residents, school boards, industry, local businesses
	Determine priorities for testing (affected areas; critical infrastructure; etc.)
	Consider phasing of testing

Appendix 13: Demolition and Debris Removal Planning Checklist

	Demolition and Debris Removal Planning Checklist
	Completion of HAZOP to assess municipal employee and resident safety
	Obtain guidance AEMA, CMOH, and OH&S
	Determine minimum level of required PPE
	Decision Point – whether to permit residents to return to destroyed homes to salvage personal property before demolition
	Results of Rapid Damage Assessments are key planning factors
	Engage debris management stakeholders to assess factors and options
	Application of OH&S standards. Develop OH&S strategy
	Develop communications and stakeholder engagement strategy
	Develop recycling strategy
	Determine QA/QC criteria
	Determine priorities (activities; areas)
	Assess responsibility of IBC and insurers. Define municipal role
	Seek legal advice for all forms of contracts with demolition and debris removal contractors

Appendix 14: Re-entry Planning Checklist

Re-entry Planning Checklist
Develop safety plan using HAZOP as foundational document
Assess operability of critical infrastructure
Use results of Rapid Damage Assessment to identity homes as: no damage; minor damage – habitable; major damage – habitable; major damage – uninhabitable; destroyed.
Use GIS products where possible for planning and communication
Engagement of essential services providers (electrical, gas, water, medical services, communications, law enforcement) to develop options, schedule, and cost
Develop communications strategy, including KMs and regular resident updates
Engage AEMA for support to Reception Centres
Integrate business resumption considerations into re-entry planning
Integrate psychosocial considerations into re-entry planning
Consider a staged approach for municipal staff or resident re-entry (GOA Long-Term Recovery Guidelines): • **Re-entry Phase A:** Groups restoring critical operations such as law enforcement, security agencies, damage assessment teams, utilities crews, and debris removal teams • **Re-entry Phase B:** Personnel to establish essential services and businesses required by returning residents • **Re-entry Phase C:** Residents who can prove they live, own, rent, lease or otherwise have a need to the impacted community Additional planning required for homes that are uninhabitable or destroyed.
Develop security plan to mitigate crime before homes are re-entered
Develop personal identification requirements to manage resident re-entry

Appendix 15: Rebuild Planning Checklist

	Rebuild Planning Checklist
	Review municipal strategic guidance to discern impact to the Built Environment (Strategic Plan; Vision; MDP; ASP; Campaign Plan (if applicable); Recovery Plan and Built Pillar action items
	Consider build back better and other resilience-increasing strategies
	Engage local homebuilders and contractors to consider options
	Revise HAZOP if necessary
	Develop safety plan
	Review lessons learned of other communities' disasters
	Define rebuild objectives (i.e.: zero incidents; back to school)
	Define work scope
	Develop communications plan
	Consider establishment of Construction Management Teams (CMTs) to support rebuild through collaboration, coordination, and communication
	Establish construction coordination measures: • hours of operation • noise bylaw • regulatory compliance • transportation safety: – develop construction access roads – establish construction safety zones (around school zones and playgrounds) – develop traffic circulation routes
	Review planning & development processes: permitting processes; staffing for permitting, DCOs, SCOs, and MLEOs
	Develop fire prevention plan during rebuild
	Consider education: consumer protection (rebuild contracts); and children's safety during rebuild
	Develop rebuild schedule
	Develop rebuild budget estimate
	Develop rebuild performance management plan
	Develop rebuild organizational structure

Appendix 16: One-Year Commemoration Planning Checklist

One-Year Commemoration Planning Checklist
Plan Early. As an event to promote healing, early deliberate planning will support community healing better than late ad hoc planning
Define stakeholders
Define vision/intent. Focus on community healing, not local, regional and provincial politics
Stakeholder Engagement: • Define stakeholders • Conduct stakeholder engage to ascertain community's objectives for the commemoration • Establish guest list and guest speakers
Communications: • Develop communications plan • Develop marketing plan
Develop venue(s): • Single municipal event or multiple neighbourhood events • Children's' activities • Logistics plan (set-up, clean-up, rentals, food, water, washroom facilities) • Medical plan (physical and psychosocial) • Security
Develop schedule
Develop budget
Plan approval

Appendix 17: Community Legacy Projects Planning Checklist

Community Legacy Projects Planning Checklist
Create and define the vision for the community legacy project(s). This vision should have prior input from Mayor and Council
Test the initial vision with the residents through public engagement sessions
Ensure a common understanding of the potential diverse perceptions of the project(s). While some projects elicit favourable responses for one stakeholder, the same project could elicit a negative response from another.
Develop budget: • Capital budget • Sustaining capital budget • Annual operations/maintenance budget
Develop funding options
Test finalized options with the residents through public engagement sessions. Anticipate revised scope
Develop schedule
Develop quality plan
Develop risk plan
Finalize project plan
Plan approval

Appendix 18: Government Assistance Programs

Government of Alberta Assistance Programs

Individuals

Alberta Supports
Alberta Works
Child Care Subsidy
Mental Health Helpline
Health Link
Water Pumping Program
Wildfire Cost Assessment Review
Family and Community Support Services (FCSS)
Seniors Home Adaptation and Repair Program (SHARP) Loan
Seniors Home Adaptation and Repair Program (SHARP) Grant
Seniors Property Tax Deferral Program (SPTDP)

Industry and Non-Profits

Watershed Resiliency and Restoration Program (WRRP)
Agricultural Watershed Enhancement Program (AWEP)
Community Facility Enhancement Program (CFEP)
Other Initiatives Program
FireSmart Community Grant Program

Municipalities

Alberta Community Resiliency Program (ACRP)
Watershed Resiliency and Restoration Program (WRRP)
Agricultural Watershed Enhancement Program (AWEP)
Other Initiatives Program
FireSmart Community Grant Program
Family and Community Support Services (FCSS)
Strategic Transportation Infrastructure Program (STIP)
Alberta Municipal Water/Wastewater Partnership (AMWWP)/Water for Life
Municipal Sustainability Initiative
Basic Municipal Transportation Grant (BMTG)

First Nations

Alberta Community Resiliency Program (ACRP)
Watershed Resiliency and Restoration Program (WRRP)
Agricultural Watershed Enhancement Program (AWEP)
Community Facility Enhancement Program (CFEP)
Other Initiatives Program
FireSmart Community Grant Program
Family and Community Support Services (FCSS)

Government of Canada Assistance Programs

Individuals

Livestock Tax Deferral Provision
Agri-Insurance Program
AgriStability
Community Pasture Program

Industry and Non-Profits

Agri-Insurance Program
AgriStability
Environmental Damages Fund
Work-Sharing

Municipalities

Environmental Damages Fund
Federal Gas Tax Fund (GTF)
Federal Public Transit Infrastructure Fund (PTIF)

First Nations

Emergency Repair Program (ERP) On-Reserve
Residential Rehabilitation Assistance Program (RRAP) On-Reserve
Environmental Damages Fund

Successful recovery results from the effective identification, prioritization, sequencing, financing and coordination of the recovery projects.

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GUIDE 3

MUNICIPAL RECOVERY TOOLKIT

PREPARED FOR THE TOWN OF HIGH RIVER BY
NOR-EX ENGINEERING LTD., AN ASSOCIATED ENGINEERING COMPANY