

# Tool 3

## Identifying Impact Pathways, Conducting an Effects Characterization, and Evaluating the Severity of Potential Impacts

Step 3 of Undertaking an Assessment of Impacts to Cultural Rights and Values



FIRST NATIONS  
MAJOR PROJECTS  
COALITION

THE INDIGENOUS CULTURAL RIGHTS AND INTERESTS TOOLKIT

# Spirit of the Land

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**The Indigenous Cultural Rights and Interests Toolkit** has been co-developed by the First Nations Major Projects Coalition (FNMPC) and its First Nation partners, the Anishinabek Nation, and Stellat'en First Nation, Nadleh Whut'en First Nation, Saik'uz First Nation, and Cheslatta Carrier Nation ("Carrier First Nations").

Cover artwork is created by Indigenous artist, Johnny Ketlo III who is a member Nadleh Whut'en located in north central BC. The Nadleh Whut'en community is a member of the FNMPC.

Following the identification and documentation of cultural rights, and the establishment of the degree of cumulative effects on those cultural rights to date, the next step in undertaking an assessment of a major project's potential effects on cultural rights are:

1. To establish valid impact pathways whereby the project in question has the potential to interact, both positively and negatively, with the exercise of cultural rights.
2. Conduct an assessment of committed-to project mitigation measures to see if and how they will reduce potential project impacts to cultural rights. This will result in the determination of residual impacts to the cultural rights.
3. Conduct an effects characterization using an approach acceptable to the First Nation. In this characterization, each potential residual impact on cultural rights from the proposed project can be assessed according to characterization criteria such as likelihood, magnitude, and scale, among others. This will allow for a determination of severity of impacts.

While conducting an effects characterization and determining the severity of impacts, and any time thereafter, First Nations reserve the right to identify additional conditions to avoid, reduce, or compensate for residual impacts on cultural rights that need to be applied over and above those already committed to by the proponent or applied by the Crown.

## Purpose

Identifying impact pathways is necessary for evaluating the potential effectiveness of committed-to mitigation measures: it allows for an accurate assessment of how mitigation measures will potentially intersect with impact pathways to reduce project impacts on cultural rights, whether residual impacts will remain after the application of mitigation measures, and what the implications of those residual impacts will be for cultural rights.

Subsequently, a clear and thorough assessment of residual effects through and effects characterization will help a First Nation engaging in an Environmental Assessment to determine the acceptability of residual impacts and identify specific areas where additional avoidance, mitigation, and restitution measures are required. While avoidance is generally the preferred option, it is not always possible and impact minimization through mitigation measures must be applied. Restitution may be needed if avoidance and minimizations are not possible or sufficiently effective, and adverse effects on cultural rights remain after mitigation (*see Tool #4: Accommodating Potential Impacts and Cumulative Effects Through Restitution*). It is also important to note that avoidance/mitigation and restitution are not mutually exclusive approaches. In fact, it is rare for a project's mitigation measures to fully reduce all impacts, even where mitigation measures are robust, and First Nations have had input. An effects characterization will allow a Nation to determine ways that avoidance, mitigation, and restitution can be used in unison to address residual impacts to cultural rights.

## Terminology

The following terminology is used throughout this Tool. Definitions for each term are provided below.

- » **Avoidance:** Avoidance is the most preferred approach of dealing with potential project impacts as it would see an impact not occur at all. Avoidance can also be the most difficult type of measure to apply because it often requires the project to be substantially modified or expensive and/or time-consuming measures adopted.
- » **Cultural Indicators:** Cultural indicators are measurable or otherwise observable parameters used to measure and report on the status and trends of Indigenous culture. Cultural indicators are used to provide qualitative and quantitative data to support evaluating the significance of potential impacts of major projects on culture.
- » **Effects:** changes to the environment or to health, social or economic conditions and the positive and negative consequences of these changes
- » **Mitigation:** Mitigation is any action that is designed to avoid, reduce the severity of, or offset/compensate for a potential project effect. This can be done in many different ways, from modifying the project design or moving the location of project components, to improving environmental management systems, among many other options. Monitoring is not considered mitigation.
- » **Residual Effects:** the adverse effects of a project on a Valued Component or Right likely to remain after committed-to mitigation measures are applied; effectively the effects of a project that are unlikely to be fully mitigated with committed-to measures in place
- » **Resilience:** The ability to be insulated from or recover from a harm or a disturbance. A person, community, or environment with low resilience is more likely to be seriously adversely affected by a development than one with higher resilience.
- » **Restitution:** Restitution involves financial compensation for impacts, the restoration/protection of the impacted cultural right, or another form of offsetting that is meaningful compensation for and adverse impact on (in this case) a cultural right.
- » **Risk Perception:** The judgements that people make about the characteristics and severity of a risk. Risk perception can be influenced by the historical, social, religious, cultural, political, and economic factors associated with those at risk and their understanding of the physical works and activities that create the risk, and therefore varies among different population sub-groups and individuals.
- » **Valued Component:** cultural, environmental, economic, health, social, and other elements of the natural and human environment that is identified as having scientific, social, cultural, economic, historical, archaeological, or aesthetic importance.<sup>1</sup>
- » **Vulnerability:** The lessened ability to withstand the effects of a harm or disturbance due to adverse effects suffered in the pre-Project circumstance. Related to the concept of resilience. Typically (but not universally), high vulnerability is correlated with low resilience and low vulnerability is correlated with high resilience.

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<sup>1</sup> Impact Assessment Agency of Canada, "Technical Guidance for Assessing Cumulative Environmental Effects under the Canadian Environmental Assessment Act, 2012," guidance - legislative, March 5, 2018, <https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/assessing-cumulative-environmental-effects-ceaa2012.html>.

# Principles

Drawing off of, and building on, the guidance principles contained in the FNMP's *Major Project Assessment Standard (2019)* and *Guidance Appendices to the Major Projects Assessment Standard (2020)*, The following principles that may be relevant when identifying impact pathways, conducting an effects assessment, and evaluating the severity of potential impacts on cultural rights.

- » The identification of impact pathways and the characterization of effects and determination of severity should be grounded in the First Nation's legal system and should take into consideration any policies, laws, and norms that are applicable.
- » Impacts on cultural rights, and on the effective exercise of those rights, have complex pathways and outcomes; adequate time and care must be taken to meaningfully assess impact pathways in a way that acknowledges and addresses this complexity.
- » First Nations can call for a "Key Line of Inquiry" approach, where greater time, funding and focus are placed on priority concerns identified by affected First Nations.
- » Impacts to both tangible and intangible cultural values should be considered.
- » The approach to identifying project pathways and conducting an effects assessment should prioritize and emphasize community-identified concerns related to potential project effects on their cultural rights. Emphasis should be placed on the protection of those groups who will be most affected by project impacts and those most vulnerable to impacts.
- » The metrics (e.g., likelihood, magnitude, etc.) applied in the effects characterization should be selected based on the First Nation's preferences and guided by the First Nation's specific concerns. By developing a community-focussed approach for evaluating the potential impacts of major projects, including relevant historical context, community-focused criteria, and community-focused thresholds, communities will be more effective in defining cultural impacts in their own terms.
- » The characterization of various potential project impacts should be assessed in a consistent and methodological fashion, using a schema developed by the impacted Indigenous group.
- » Impacts must be interpreted through the filter of culture holders, as the severity of impacts on cultural resources is culturally defined.
- » Each Nation may approach the evaluation of severity differently. In some cases, Nations may choose not to determine severity of impacts to each separate category of right and may instead emphasize the severity of the project as a whole and seek solutions that best defend their cultural rights in face of the project.
- » Thresholds of severity may be designed by the community in and may reflect impacts to spiritual practice, traditional use, and subjective community-defined ways of living.
- » The assessment of the severity of potential adverse and beneficial cultural effects arising from a proposed project must be given the same effort and prioritization as biophysical and socio-economic effects.



# Recommended Approaches to Identifying Impact Pathways, Conducting an Effects Characterization, and Evaluating the Severity of Potential Impacts



The following list represents a selection of best practice approaches available to First Nations to aid in identifying impact pathways, conducting effects characterisation, and evaluating the severity of potential impacts on cultural rights.

First, identifying project-specific impact pathways will support a clear picture of how anticipated project impacts will affect relevant cultural rights and practices by mapping the direct and indirect relationships between them. This step also helps visualize the complex relationships between impacts and the diverse aspects (access, availability, preference, etc.) of cultural rights and practices. Once these pathways have been established, they can then be used to determine how, how effectively, and to what extent committed-to mitigations measures will interact with pathway components and relationships to address potential project impacts. Subsequently, residual impacts, i.e., those impacts which remain after taking mitigations measures into account, can be evaluated for severity by conducting an effects characterisation.

These approaches can be used on their own, or in combination with one another. Selection of the approach should be grounded in a First Nation's worldview and needs. Contextual factors used to ground the identification of impact pathways, effects characterization, and evaluation of severity may include, but are not limited to, the Group's values and policies concerning such things as:

- » The vulnerability of cultural rights and practices
- » Existing threats to cultural rights and practices
- » The current geographic scope of cultural rights and practices
- » The size, type, and location of the proposed project
- » The Group's prior experience with similar or related projects
- » Existing community policies and plans
- » Cumulative changes being experienced by the Nation

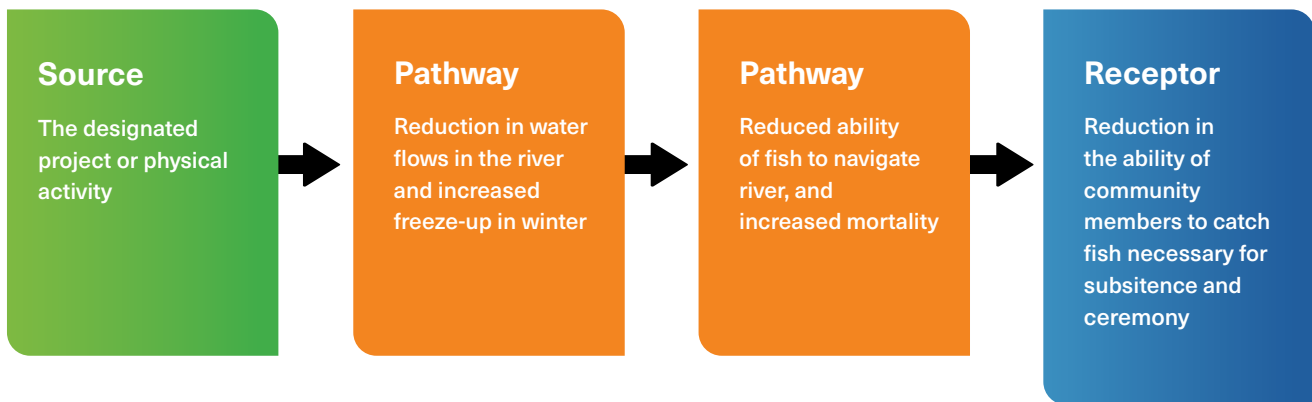
Grounding in an Indigenous group's worldview is important as impact pathways, effects characterization, and determinations of severity may not be conceptualized by a First Nation in the same way as typically understood by proponents and the Crown in EA. As a result, impacts and their resulting severity, as understood by a First Nation, may not be assessable using traditional EA processes and instead must be assessed through community deliberation.

## Identifying Impact Pathways

The structure provided below outlines a generalized methodology for identifying impact pathways, as used in EA processes<sup>2</sup>. First Nations may also wish to develop an entirely different way of approaching impact pathways or modify what is offered below.



In an impact pathway, the source is the activity or event that threatens a cultural right. The source may be the project as a whole, or a specific project element (e.g., a specific project facility or an influx of project works in the area). The source reaches the receptor, the cultural right(s) that will be affected, through a pathway. The pathway is the mechanisms through which a change to a cultural right occurs and may be more than one step. An example of an impact pathway is provided below.



<sup>2</sup> Drawn from Canada, "Technical Guidance for Assessing Cumulative Environmental Effects under the Canadian Environmental Assessment Act, 2012."

# Considering Mitigations and Their Effectiveness

After an impact pathway has been established, mitigation measures can be assessed to see if they will reduce impacts on receptors, or cultural rights. Mitigation measures generally focus on either changing the factors or triggers that lead to adverse impacts (i.e., change the pathway). Alternatively, mitigation measures can strengthen the Nation's own cultural pathways that nurture and strengthen cultural rights and values. For a mitigation measure to be considered effective, it should:

- » Consider all possible alternatives
- » Include culture holders as partners in the identification of appropriate mitigation, implementation, monitoring, and feedback
- » Be transparent and specific
- » Be adequately funded, resourced, and staffed
- » Be precautionary
- » Deal with impacts regardless of where they may be located
- » Have outcomes that are measurable against goals

After taking into consideration mitigations and their effectiveness, residual impacts to rights can be determined through an effects characterization and severity determination.



# Conducting Effects Characterization and Determining Severity



## Standard EA Significance Criteria

One of the key factors used to determine the acceptability of a proposed project is consideration of the severity its potential adverse effects. EA has developed more or less standard methods to evaluate significance, but it may be more appropriate to develop community-specific metrics. The box below summarizes standard EA criteria and presents several options for developing community-specific metrics.

### Standard EA significance criteria

- » **Context:** The current and future vulnerability and resilience of the value to change (e.g. rarity of similar values in the territory, past industrial effects and change over time).
- » **Magnitude:** The expected scale and/or severity of the effect (e.g. intensity of community concern, perceived risk, extent of change in use).
- » **Extent:** The spatial area over which the effect is expected to occur (e.g. extent of affected water courses, movement patterns of wildlife and land users, boundaries of traditional/family use areas, zone of avoidance)
- » **Duration:** The length of time the effect persists (e.g. generational effects, knowledge transmission, time to repair and re-establish relationships between people, animals).
- » **Frequency:** How often the residual effect occurs (e.g. timing with respect to important seasons, animal movements, and cultural activities).
- » **Reversibility:** Whether the residual effect on the VC can be reversed (e.g. permanent loss of Indigenous Knowledge for effects lasting longer than one generation).
- » **Affected Populations:** The distribution of the effect amongst the population of affected people. Effects may be evenly distributed or be disproportionately experienced by certain subpopulations.

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### Criteria used by the Mackenzie Valley Environmental Impact Review Board (MVEIRB)

- » The **magnitude**, or degree, of change of the impacts that might be caused
- » The **geographical area** that the impact might affect
- » The **duration** that the impact might have, i.e., how long will the effect occur
- » The **reversibility** of the impact that might occur
- » The **nature of the impact**, i.e., how important is the component that the impact will affect?
- » The **possibility** that the impact could occur

## Options for community-specific metrics

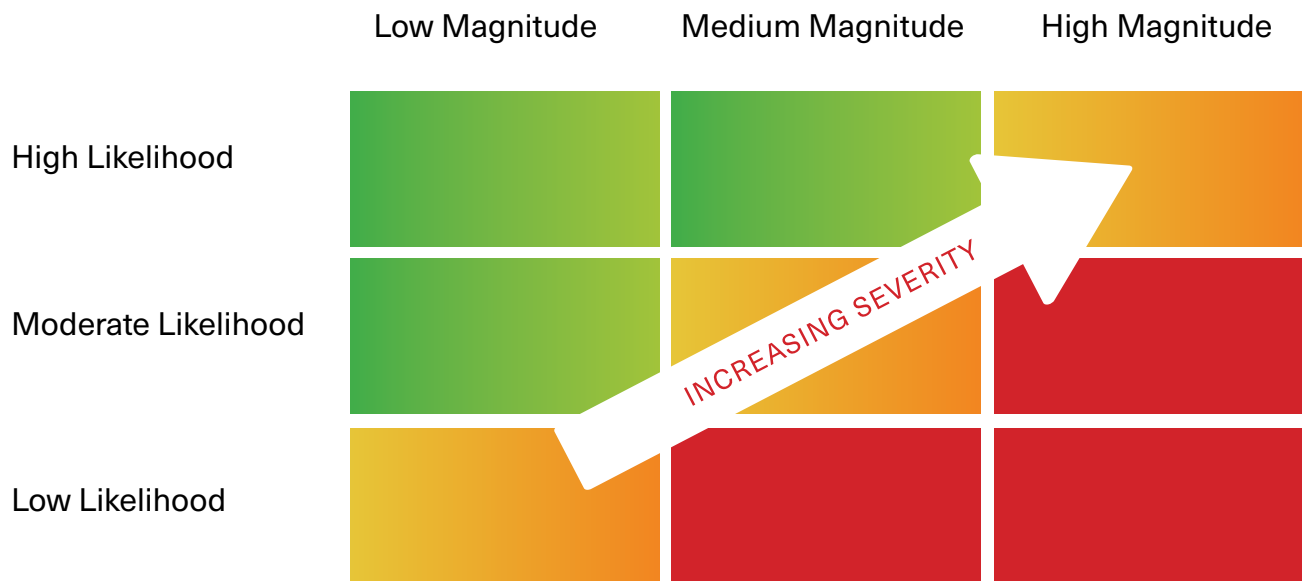
1. **The “Reasonable Person” Approach:** Setting thresholds for what is considered significant by asking whether a reasonable person would consider the change to be significant. For example — would a reasonable person consider a 20% drop in yearly fish catch significant? If yes, then that is significant.
2. **The “Qualitative, Value-Specific” Approach:** Adopting defined, yet still largely qualitative, significance thresholds. Each threshold has the benefit of a narrative and measurability specific to the value. For example:
  1. Water – a water management regime that lacks adherence to Indigenous water values and norms and does not support a pre-contact range of fish and fish habitat and other resource values.
  2. Fish – high level of reduction in the distribution, abundance, and population health of a culturally important fish species; reduction in habitat for critical life stages of any culturally important fish species.
3. **The “Deference to Most Sensitive Receptors” Approach:** This approach suggests that if affected Indigenous groups (the most sensitive receptors in the human environment) themselves deem the likely outcome significant, it is therefore significant. This relies heavily on subjective inputs of the most affected parties.
4. **The “Unacceptable Risk” Approach:** This approach holds that where there is a lack of confidence in predictions and/or the potential for extremely high magnitude outcomes is present, that a likelihood lower than 50% (in other words, where the impact outcome is less likely to occur than not occur) may still be an unacceptable risk, and likelihood greater than 50% is not critical to determining whether the effect is significant. This is particularly important for extremely high magnitude outcomes like loss of the use of a river or a critical cultural site due to project effects.
5. **The “Indigenous Laws and Norms” Approach:** This approach holds that changes to any value, and all values in combination, from a project and associated cumulative effects, may impact on the ability to adhere to the laws and norms of Indigenous peoples. If, for example, a natural law is that water should be allowed to run its natural course unimpeded, any changes to the hydrological regime through activities such as dams and impoundment of rivers, may be deemed significant, because the law is being “broken.”
6. **The “Sufficiency of Resources” Approach:** This approach holds that the full practice of Indigenous rights reasonably includes access to sufficient lands, aquatic environments, and resources in which the rights can be exercised. “Sufficient” refers not only to quantity but quality and is evaluated from the perspective of what is required to fulfill not only subsistence requirements, but also cultural needs, of the First Nation now and into the future.
7. **The “Contribution to Reconciliation” Approach:** This is a new approach suggesting that given the amount of existing, often Crown-caused, damage to Indigenous lives, lands, culture and resources, Crown decisions to approve
8. **The “Rights Infringement” Approach:** This approach would identify significant effects where a project caused (or added additional effects to already existing) infringements of asserted or recognized rights.

# Heat Mapping

Similar to the mapping processes identified as potential options for Tool #1 (Density of Use Maps and Mapping of High Priority Areas), Heat Mapping represents a visual expression of where areas that may be impacted by a proposed project overlap with spaces and places of heightened Indigenous cultural value. Cultural heat maps can illustrate geographic locations where project impacts are likely to occur in proximity to or in direct overlap with areas that have greater reported cultural rights practice and value. While useful as a flagging tool, it is important to note that heat mapping fails to accurately represent cultural rights which are not tied to a specific geographic location. If areas of heightened overlay between project effects and cultural values are identified, more detailed, community-led qualitative analysis, including on-territory mapping among other activities, may be necessary to fully flesh out the severity of impacts.

# Risk Matrix

A risk matrix is a visual depiction that draws on standard EA significance criteria. By cross comparing the likelihood of an impact occurring to the magnitude of predictable impact, the resulting risk and severity can be determined.



## Summary

This Tool provides some options and guidance for the identification of impact pathways and the characterization of effects and determination of severity. While some standard approaches are provided, it is important to note that each First Nation may wish to approach the identification of impact pathways and the characterization of effects in a different way. For example, when determining the severity of residual effects, it may be beneficial to emphasize the severity of the project as a whole in some cases. In others, it may be better to determine the severity of impact to the category of right, or to individual cultural rights. This process of characterizing project effects and determining impact severity can help a First Nation to define cultural impacts in their own terms. It is therefore important that the identification of impact pathways and the characterization of residual effects are grounded in a community's historical context (as determined in Tool #2). This will allow for the consideration of cumulative effects and varying thresholds of change.

## DISCLAIMER

This Toolkit has been developed from the perspective of the First Nations Major Projects Coalition (FNMPC) and does not represent the perspectives of the federal government, provincial governments, and territories, or industry. Although it represents a general First Nations perspective, it does not represent the specific perspective any First Nation as every First Nation will have its own distinct perspective. The Toolkit is designed to provide support to First Nations that are engaging with project proponents in discussions about offsetting residual cumulative effects affecting cultural rights and values within their territories. The Toolkit is not to be viewed as prescriptive on how to assess impacts on cultural rights and each First Nation should determine its own method and process for assessing impacts on its cultural rights in accordance with its laws, methodologies, protocols, and processes. A First Nation that chooses to engage with a project proponent or the Crown in discussions regarding impacts on cultural rights may want to obtain legal advice prior to using this Toolkit in those discussions.

The Toolkit has not been agreed to or endorsed by the federal government, provincial or territorial governments, or by industry. Therefore, if a First Nation chooses to use any of the methodologies or processes in the Toolkit to assess impacts of a major project on its cultural rights, the results of the assessment are not legally binding on the other levels of government or project proponent. The First Nation will need to seek agreement with other levels of government and/or a project proponent on how to apply the results of the First Nation's assessment.

The Toolkit is designed to be a collaborative and led by Indigenous Groups. While collaborative implementation, coupled with capacity support, is an option to help foster relationships between proponents/government and Indigenous Nations, this Toolkit should not be unilaterally applied by industry or government. First and foremost, this Toolkit must be understood to be an Indigenous-led process, grounded in a community's principles and leadership.

Cultural rights and values must be viewed as sensitive information. The principles of First Nations ownership, control, access, and possession (OCAP) is included in the Toolkit, but we wish to make clear that this concept is not recognized as law or policy by other levels of government. A First Nation may take the position that OCAP protects their sensitive cultural information from public disclosure, but any information shared with the federal government and provincial or territorial governments may not remain confidential due to federal and provincial privacy laws and procedural fairness in regulatory processes. Therefore, a First Nation must continue to exercise caution when sharing information in such processes.

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