

ENVIRONMENTAL ASSESSMENT AND MITIGATION RESOURCES



IMAGINE²⁰₅₀
transportation policy plan

Regional vision

A prosperous, equitable, and resilient region
with abundant opportunities for all to
live, work, play, and thrive.

Regional core values

Equity | Leadership | Accountability | Stewardship

Regional goals

Our region is equitable and inclusive

Racial inequities and injustices experienced by historically marginalized communities have been eliminated; and all people feel welcome, included, and empowered.

Our communities are healthy and safe

All our region's residents live healthy and rewarding lives with a sense of dignity and wellbeing.

Our region is dynamic and resilient

Our region meets the opportunities and challenges faced by our communities and economy including issues of choice, access, and affordability.

We lead on addressing climate change

We have mitigated greenhouse gas emissions and have adapted to ensure our communities and systems are resilient to climate impacts.

We protect and restore natural systems

We protect, integrate, and restore natural systems to protect habitat and ensure a high quality of life for the people of our region.



Environmental Assessment and Mitigation Resources

Transportation projects outlined in Imagine 2050 include high-level project information without specific engineering or design details. As projects advance through planning phases, more details emerge. As these projects are programmed into the region's Transportation Improvement Plan (TIP), a more detailed consideration of environmental mitigation will be required. These may vary depending on the project size, location, and scope. The following list provides an outline of resources that cover the key considerations that may require further project review as projects move through the National Environmental Policy Act (NEPA) and Minnesota Environmental Policy Act (MEPA) processes.

Assessing environmental impacts

The NEPA project assessment process is based on the following key elements¹:

- Assessment of the social, economic, and environmental impacts of a proposed action or project
- Analysis of a range of reasonable alternatives to the proposed project, based on the applicants defined purpose and need
- Consideration of appropriate impact mitigation: avoidance, minimization and compensation
- Interagency participation: coordination and consultation
- Public involvement including opportunities to participate and comment
- Documentation and disclosure.

In order to assess and document these, there are three types of processes in NEPA that vary based on the extent of potential impacts:

- An Environmental Impact Statement (EIS) is prepared for projects where it is known that the action will have a significant effect on the environment or where an EA identifies significant impacts.
- An Environmental Assessment (EA) is prepared for actions in which the significance of the environmental impact is not clearly established. Should environmental analysis and interagency review during the EA process find a project to have no significant impacts on the quality of the environment, a Finding of No Significant Impact (FONSI) is issued.
- Categorical Exclusions (CEs) are issued for actions that do not individually or cumulatively have a significant effect on the environment.

The MEPA process is similar, but project definitions requiring an EIS are established in state statute (Minn. Stat. §116D.) and Minnesota Administrative Rules Chapter 4410.

- The Environmental Assessment Worksheet (EAW) serves as the entry point for state environmental review of transportation projects, requiring project sponsoring agencies to document and identify plans to reduce impacts to air, water, wetlands, and other resources.
- If the EAW reveals the potential for significant impacts, it triggers the preparation of a full EIS, which would provide more detailed analysis of alternatives and mitigation measures.
- For transportation projects that are subject to both federal and state review, consultation with MnDOT is recommended. A combined EA/EAW document that satisfies these requirements is typically used.

¹ Environmental Review Toolkit, NEPA Transportation Decisionmaking, FHWA.
https://www.environment.fhwa.dot.gov/nepa/trans_decisionmaking.aspx

- An Alternative Urban Area Review (AUAR) is also used for project-specific environmental review for a defined geographic area, limited to residential, commercial, warehousing, and light industrial development and associated infrastructure. It is not used for a specific transportation project but can include transportation infrastructure and improvements in the analysis.
- The Minnesota Environmental Quality Board (EQB) requires projects to report and address greenhouse gas emissions and climate adaptation and resilience, which is a distinction from current federal rules and guidance.

As previously noted, the Imagine 2050 Transportation Policy Plan does not assess project-level details but can identify issues of concern for the region and coordinate available resources for project sponsors. Available details on the projects in this plan were shared with state and local agencies responsible for environmental regulation and review.

Geology, soil, and landforms

Transportation projects in the region have the potential to affect geology, soil, and landforms. As projects advance from planning to project development, the Metropolitan Council encourages early identification and evaluation of impacts such as soil erosion, unstable soils, geological hazards, prime farmland, contaminated soils, hazardous waste sites, and construction impacts. Minnesota Rules Chapter 4410 requires project proposers to evaluate these topics during environmental review.

Additionally, in accordance with MEPA Environmental Assessment Worksheet (EAW) requirements, project sponsoring agencies must describe geological and soil conditions, bedrock depth, landform characteristics, slope stability concerns, areas of potential erosion, and anticipated alterations such as grading or cut-and-fill activities. Additional EAW items require assessing erosion and sedimentation risks associated with land disturbances and identifying any potential effects to nearby water resources.

For projects requiring an Environmental Impact Statement, Minnesota Rules 4410.2300 requires a description of the affected physical environment. This includes geology, soil, and topography as well as an analysis of project-related environmental consequences. Agencies should also consider contaminated soils, brownfield areas, and geotechnical risks early in the process to avoid delays and ensure appropriate mitigation. As projects move towards TIP programming, the Metropolitan Council recommends documentation of key geotechnical findings, erosion-control needs, and expected mitigation measures.

Useful resources include the [Minnesota Geological Survey](#), the [USDA Web Soil Survey](#), and [MPCA's brownfield](#) and contaminated-soil resources.

Water resources

Project sponsoring agencies should identify nearby lakes, rivers, streams, Drinking Water Supply Management Areas (DWSMAs), wetlands, and Federal Emergency Management Agency (FEMA)-mapped floodplains during project scoping. Key regulatory frameworks include Section 404 of the Clean Water Act, Minnesota's Wetland Conservation Act, the MS4 stormwater permit, and federal Executive Orders (EO 11988) related to floodplain and wetland protection. Early coordination with the US Army Corps of Engineers, MPCA, Minnesota DNR, MDH, and watershed organizations helps determine required permits and mitigation needs. As projects advance towards TIP programming, agencies should document anticipated water resource impacts, required permits, and mitigation commitments.

Useful resources include MPCA's [MS4 guidance landing page](#), information on the [Minnesota Wetland Conservation Act](#), USACE [St. Paul District's wetland permitting page](#), [FEMA's Flood Map Service Center](#), and the [Metropolitan Council's Localized Flood Map Screening Tool](#).

Air quality and emissions

Transportation projects can affect air quality through construction, operational changes, and long-term travel behavior. The Metropolitan Council ensures that federally funded and regionally significant projects conform with the Clean Air Act and support continued attainment of National Ambient Air Quality Standards. During project development, agencies should evaluate potential emissions, including criteria pollutants, air toxics, other mobile-source pollutants, construction dust, greenhouse gas emissions, and localized exposure risks near sensitive land uses.

Projects with the potential to affect air quality and emissions should follow relevant federal and state guidance, including EPA transportation air quality procedures, MPCA requirements, and Minnesota Climate Action Framework targets. Mitigation may include dust management during construction, idling reduction, and design strategies that reduce vehicle emissions over time.

Useful resources include [MPCA's Air Quality resource page](#); the [EPA's Transportation, Air Pollution, and Climate Change resource page](#), [MnDOT's GHGe and VMT Emissions Tool](#), and [Minnesota's Climate Action Framework](#).

Fish, wildlife, plants, and sensitive ecological resources

The impacts of transportation projects also extend to the region's ecological systems, including habitats for fish, wildlife, and native plants in addition to rare, threatened, or endangered species. During early project development, agencies should identify sensitive ecological areas using available federal, state, and regional datasets and coordinate with appropriate resource agencies to avoid or minimize impacts. Key considerations include disturbances to habitats, fragmentation of ecological corridors, impacts to aquatic systems, and effects on species protected under the federal Endangered Species Act and Minnesota's endangered species regulations.

Project sponsors should follow applicable federal and state requirements, including consultation with the U.S. Fish and Wildlife Service and the Minnesota Department of Natural Resources to determine species presence, habitat needs, and any required permits or mitigation measures. Strategies to reduce ecological impacts may include adjusting project footprints, timing construction to avoid sensitive seasonal periods, restoring disturbed habitats, and enhancing habitat connectivity.

Useful resources include [USFWS Information for Planning and Consultation](#), [Minnesota DNR Rare Species and Natural Heritage](#), and [MnDOT Natural Resource guidance](#).

Cultural and built environment

Transportation projects may also affect elements of the region's cultural and built environment, including sites significant to tribal communities, historic structures, archaeological sites, and community features that contribute to neighborhood identities. During early project development, project sponsors should review available cultural resource inventories and coordinate with appropriate agencies to determine whether federal or state requirements apply.

Projects that involve federal funding or approval must comply with Section 106 of the National Historic Preservation Act, which requires identification of historic properties, assessment of potential effects, and consultation with the Minnesota State Historic Preservation Office and other stakeholders. State requirements may also apply when projects have the potential to disturb archaeological resources or culturally significant landscapes.

Considerations within the built environment also include potential changes to community form, visual character, access, noise, extreme heat, tree canopy, and compatibility with surrounding land uses. The Metropolitan Council encourages project sponsors to identify these factors early and incorporate design

refinements that avoid or minimize adverse effects. Mitigation strategies should include context-sensitive design, preservation measures, and coordination with Tribal nations.

Useful resources include the [Minnesota State Historic Preservation Office](#), the [Minnesota Office of the State Archaeologist](#), [MnDOT Cultural Resources Unit](#), [MnDOT's Tribes and Transportation Coordination resource page](#), the [Metropolitan Council's Extreme Heat Map Tool](#), and the [Metropolitan Council's Growing Shade Mapping Tool](#).

Mitigating environmental impacts

Mitigation is an essential component of the transportation development process and is required to ensure that environmental impacts are addressed in a systematic and transparent manner. As projects advance from planning into environmental review, project sponsors must identify potential adverse environmental effects and develop specific, actionable measures to avoid, minimize, rectify, reduce, or compensate for those impacts. This mitigation hierarchy guides agencies toward the most protective approaches, starting with avoidance and progressing only as necessary toward compensatory measures.

In an Environmental Impact Statement (EIS), these actions are documented in a dedicated mitigation section that outlines commitments to protect natural, cultural, and community resources. Mitigation is required for all significant impacts identified during environmental review. When no feasible mitigation measures exist, project sponsoring agencies must clearly justify that determination. These commitments are refined throughout the environmental review process, with the Final Environmental Impact Statement (FEIS) confirming the agreed-upon mitigation and forming the basis for the subsequent Record of Decision (ROD). This documentation ensures that required actions are clearly identified before final project approvals are issued.

Effective mitigation also requires clear implementation and monitoring plans. Project sponsoring agencies must identify how mitigation measures will be incorporated into project design as well as how they will be funded and enforced. This includes integrating requirements into construction contracts, permits, or long-term operations and maintenance responsibilities. Monitoring plans ensure that mitigation measures perform as intended and provide a mechanism for corrective action if effectiveness is not achieved. Through these steps, mitigation planning ensures that environmental impacts from transportation projects are reduced to the fullest extent possible and that projects advance in a manner consistent with federal, state, and Metropolitan Council requirements.

Contact

Cole Hiniker

Senior Manager, Multimodal Planning



390 Robert Street North
Saint Paul, MN 55101-1805

651-602-1000
TTY 651-291-0904
public.info@metc.state.mn.us
metro council.org/imagine2050

**IMAGINE
2050**