17.0 Regions/Districts

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17.1 What Is Included?

This stage of greenhouse gas (GHG) assessment and mitigation addresses the day-to-day department of transportation (DOT) Region/District work needed to deliver results “on the ground.” Examples of GHG considerations in Regions/Districts include all the implications of policies set in the DOT Central Office as presented in other sections of this guide.

17.2 Why Address GHGs at the Region/District Level?

Since Regions/Districts are typically responsible for implementation of plans and policies developed by the DOT Central Office, they play an important role in all aspects of a DOT’s GHG reduction activities.

17.3 Level of Effort

The level of effort required by Regions/Districts to implement GHG policies depends on the level of engagement. GHG reduction strategies at lower levels of engagement may be generally consistent with activities already undertaken by the Region/District for other purposes, such as traffic flow and air pollutant emission reductions. At higher levels of engagement, Regions/Districts may expend additional effort to program GHG-reducing projects, adopt updated material specifications, or implement revised construction practices.

17.4 Complementarity/Consistency with Other Transportation Goals

GHG reduction strategies can often support other objectives, such as

- Facilitation of traffic flow.
- Reduction of fuel and energy consumption from agency vehicles, equipment, and facilities.
- Reductions in criteria pollutants and air toxics.
- Operational efficiencies through use of updated maintenance management systems, asset management, life-cycle planning, road weather information systems, etc.

17.5 Who—Roles and Responsibilities

Executive	Admin	Planning	Programming	Environmental
Design	Construction	Maintenance	Operations	**Regions/Districts**

As the implementation agents of State DOT policy, Regions/Districts will be engaged in all aspects of GHG reduction save those associated with the Executive and some of the statewide planning functions; and even for those functions, Regions/Districts are routinely engaged in providing advice and feedback. Depending upon circumstances, Regions/Districts may also pursue GHG reductions on an independent basis in response to local cities, metropolitan planning organizations (MPOs), or other stakeholders.

The rest of the agency plays an essential role in facilitating Regions/Districts' implementation efforts to reduce GHG emissions. The responsibilities of key supporting roles include the following:

- **Executives—**Send a clear signal that GHGs are to be considered and should shape the projects as one of many considerations. The degree of weight ascribed to GHG reduction compared to other considerations will likely be a function of the State's and the DOT's priorities. Encourage a life-cycle approach to costs and benefits. Support budget initiatives as needed to reduce emissions.
- **Administration and Purchasing—**As appropriate, support Region/District efforts at their facilities to reduce GHG emissions and purchase renewable electricity or low-carbon fuels.
- **Planning—**Provide guidance, direction, tools and targets for Region/District use in reducing GHG emissions.
- **Programming—**Direct funding to projects and programs for GHG reduction.
- **Environmental—**Provide technical support to Regions/Districts for the evaluation of reduction strategies. Provide information to staff on the cost-effectiveness of GHG reduction strategies.
- **Design/Specification Writer—**Develop designs and specifications for Region/District use. Support Region/District efforts to employ GHG emission reducing materials consistent with their needs. This may involve the use of recycled materials and fly ash to replace concrete as practicable. Low-carbon material availability may vary by region of the State.
- **Construction—**Deliver procedures that minimize the need for ongoing maintenance and develop procedures and specifications for Region/District use that reduce GHG emissions.
- **Maintenance/Operations—**Provide training and procedural and technical support to Region/District staff to implement and evaluate GHG reduction strategies.

17.6 Inventory Development, Goal or Target Setting, Strategy Identification, and Strategy Evaluation

Region/District GHG sources include virtually all DOT program area emissions. Tools and data sources for estimating baseline emissions, identifying emission reduction strategies, and estimating the benefits of these strategies are presented in the corresponding functional areas of this guide.

Program units are usually charged with agencywide strategy evaluation, but it is in the Regions/Districts where strategies meet reality, and Region/District perspectives and data are an indispensable part of the process. In a performance-based system, Regions/Districts may have goals or targets set for various types of activities that relate to the agency's overall ability to implement identified GHG reduction measures.

17.7 Implementation

With the inclusion of GHG reduction as a programmatic goal, implementation of GHG reduction practices should follow the standard "Plan, Do, Check, Act (Improve)" cycle typically employed by DOTs (Table 17.1). As a GHG reduction implementor, Region/District management plays a key role in the continuous improvement and evolution of agency initiatives.

Table 17.1 GHG Management Cycle: Regions/Districts

Plan	Provide input on policy	Help establish targets	Provide feedback on assignments
Do	Comment on procedures	Train staff	Implement
Check	Report locally	Consolidate reports	Evaluate performance
Act (Improve)	Check-in agencywide	Suggest alternatives	Recommend improvements to procedures

Source: Adapted from *Using an Environmental Management System to Meet Transportation Challenges and Opportunities: An Implementation Guide* (AASHTO, 2003) and *Beyond the Short-Term—Transportation Asset Management for Long-Term Sustainability, Accountability and Performance* (FHWA, 2010b).

17.8 Monitoring, Evaluation, and Reporting

Depending upon the agency's organizational norms, Regions/Districts may be directly responsible for monitoring, evaluation, and reporting on GHG reduction progress; or, as is more common, each of the Central Office program units may work directly with each Region/District program in managing statewide initiatives. District performance reporting by Region/District tends to be the rule for all things measured, and responsibility for needed improvements virtually always falls to the Regions/Districts.

17.9 Self-Assessment: Regions/Districts

A self-assessment worksheet is provided to help State DOT Region/District staff assess their current level of engagement with GHG estimation and reduction and determine next steps for increasing their level of engagement.

Click to download – Self-Assessment: 17.0 Regions/Districts

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