

# Development of Indicators to Support the TCI Agreement to Promote Sustainable Communities

## Ongoing Efforts of the TCI Sustainable Communities Workgroup

### SUMMARY

The TCI Sustainable Communities Workgroup is moving forward with analyses and application of a set of indicators that, based on the Workgroup's analyses and deliberations, may provide a framework to support advancement of the sustainable communities' principles. The Workgroup's ongoing efforts will include a mix of continued refinement of indicators through further analysis, engagement of stakeholders, and demonstration efforts as well as deployment of the indicators in state-level policies and programs in a subset of states.

### Development of Indicators

At their 2011 Summit, the Agency Heads agreed to the following:

- To work together to promote sustainable communities through enhancement of state-level transportation policies that combine a smart growth land use planning approach with sustainable development concepts.
- To promote sustainable communities through efforts that:
  - Expand clean, safe affordable transportation options
  - Promote economic prosperity
  - Enhance natural resource protection
  - Strengthen communities
  - Minimize environmental impacts
- To work in partnership with their counterparts in community development, economic growth, and housing and land use agencies to promote state-level transportation, land use, environmental and energy policies that foster the development of sustainable communities. Additionally, the Agency Heads agreed to foster partnerships with federal agencies that result in federal support for state-level efforts to promote development of sustainable communities.

### Categories of Indicators for TCI

#### Core Goals

- Energy consumed (including fuel consumed)
- Transportation-related greenhouse gas emissions

#### Trends

- Travel mode share (includes single occupancy vehicles, transit, walking, biking, alternative fuel vehicles, vehicle miles traveled per capita)
- Proportion of development occurring inside/outside previously developed areas and/or areas designated for growth

#### Agency Actions

- Transportation and infrastructure investments based on mode, system preservation versus capacity/expansion, and investment inside/outside developed areas
- Benefits of investment, including avoided greenhouse gas emissions from investment in preservation (e.g., fix-it-first), transit
- Acres of agricultural or natural lands protected (acres consumed by development)

#### Benefits of Agency Actions

- Proportion of jobs/housing within X miles of transit
- Combined housing and transportation costs as a proportion of median income
- Proximity to amenities (e.g., shopping, health care, fresh food, recreation, etc.)
- Health impacts (including avoided health impacts) of transportation emissions

As outlined in its workplan, the Workgroup identified the development of indicators as a key tool to advance the TCI Sustainable Communities Principles by enabling the demonstration of economic, environmental and quality of life benefits of state-level policies and programs that are designed to foster sustainable communities. As a first step, the Workgroup identified a preliminary set of indicators that demonstrate the economic and environmental benefits of state-level sustainable community policies and programs, in alignment with the 2011 TCI Sustainable Communities principles.

This work on performance measures included identification of an extensive set of indicators that are already compiled by state agencies as well as indicators that have been recommended or suggested as offering possible value to state sustainable community efforts. In December 2011, TCI held a workshop attended by state staff and expert stakeholders that served to prompt a dialog among the state agencies on the nature of what information it would be important for agencies to track and measure, such as economic development, public health benefits, energy use, emissions reductions, etc. Subsequent research following the workshop informed deliberations among the TCI states as to how to best frame the next steps for this effort.

As part of this effort, it was evident that:

- TCI participants see value in measuring the overall environmental, economic and societal benefits of sustainable communities efforts in the TCI jurisdictions and region;
- There is agreement among TCI states on the general categories of measures that work best for this purpose, specifically those measures that track environmental protection and economic effectiveness; and
- That measurement of overall outcomes, namely **core goals and trends** of environmental, economic and societal benefits of sustainable communities' efforts, needs to be complemented by other indicators that focus on **tracking agency efforts** related toward achieving the overall outcomes as well as indicators that **track the benefits** and relative effectiveness of those efforts.

## Indicator Types

Based on the December 2011 workshop and the subsequent research, the Workgroup proposes that TCI continue its work on indicators to support progress toward realizing the Sustainable Community Principles through efforts that measure the transportation, energy, economic, and environmental benefits of sustainable communities.

Furthermore, the Workgroup suggests that indicators may best reflect the following elements:

- **Core goals:** Indicators that measure long-term trends related to TCI's core goals of reducing GHG emissions from the transportation sector and minimizing reliance on high-carbon fuels, as stated in the TCI Declaration of Intent.
- **Trends:** Indicators that measure trends related to two key Sustainable Communities strategies as articulated in the Sustainable Communities Agreement: 1) expanding clean transportation options, and 2) promoting compact land use patterns and the preservation of natural spaces.
- **Agency Actions:** Measures of actions that agencies are taking to “to promote sustainable communities through enhancement of state-level transportation policies” in order to further these strategies, as well as the impacts of these actions on GHG emissions and fuel consumption. Specific actions to measure are: 1) transportation and infrastructure investments, and 2) the protection of natural lands and rural spaces.
- **Benefits of Agency Actions:** Measures that can value the benefits of specific sustainable community initiatives undertaken by TCI states, as envisioned in the TCI Sustainable Communities Agreement, especially benefits related to promoting economic prosperity, strengthening communities, and improving air quality and public health.

## Next Steps

The Workgroup is working with the Georgetown Climate Center over the upcoming months to review the proposed indicators. This review will include engaging in discussions with other state agencies within TCI jurisdictions, federal agencies, state and regional stakeholders, and state associations. The review will consider the following:

- Whether the preliminary set of indicators are the best indicators for the elements identified above, based, in part, on their existing use by TCI agencies, available data, technical constraints, resource constraints, and other factors;
- Approaches to define indicators so that they:
  - Are meaningful and comparable (e.g., by using ratios of road miles under state control);
  - Reflect the context of a metric within an individual agency's program (especially for indicators which may compare changes to transportation-related assets or asset-related investment programs for individual TCI agencies); and
  - Reflect inherent differences between urban and rural metric values;
- The extent to which quality data is available to the states to support development of the indicators;
- Appropriate scale (for example, state-level, metropolitan, regional);
- The extents to which other public organizations that are not TCI agencies may have a direct influence on the indicator. For example, capital investment in transit services must take into account investments from all non-TCI member organizations within a state as well as the state's TCI agencies;
- How other influences may bear on a particular indicator beyond agency action, for example, the influence of employment level fluctuations on transit ridership or VMT;
- How to incorporate indicators into existing state activities, including into state transportation planning, infrastructure investment, and other relevant state policies.

The Workgroup intends to coordinate this review with member organizations and associations of state energy, environment and transportation agencies that are involved in or interested in sustainability and/or indicators activities (i.e., AASHTO) and include a review of available research (e.g., TRB, NCHRP).

In addition to undertaking this review of the indicators, a subset of TCI states will explore approaches to provide "real life" experiences with application of the indicators in state policies and programs. These efforts will, likewise, inform the Workgroup's recommendations regarding adoption of indicators throughout the TCI region and will provide important value in connecting application of indicators to targeted state level policies.