Introduction
The Center for Environmental Excellence (CEE) by AASHTO was created in 2001 with support from the Federal Highway Administration (FHWA) to "assist transportation agencies and their partners in achieving environmental excellence in delivering their transportation programs and projects." According to its website, CEE's programs are motivated by five goals:

1. Promote environmental stewardship.
2. Provide information that supports innovative ways to streamline the transportation delivery process.
3. Offer diverse products and programs for technical assistance, training, information exchange, partnership-building opportunities, and quick access to environmental tools.
4. Serve as a resource for transportation professionals seeking technical assistance, training, information exchange, partnership-building opportunities, and quick and easy access to environmental tools.
5. Provide information for practitioners on research programs and opportunities.

The Center's mandate also states that "through its information-sharing, technical assistance, partnership-building, and training resources. The Center helps incorporate environmental compliance, sustainability, and stewardship into transportation planning, project development, construction, maintenance, and operations."^2

With respect to governance, the Center has established a Technical Working Group (TWG) which includes representatives from AASHTO committees and federal, state and local agencies. The disciplinary breadth of these representatives ranges from environmental studies, planning, project development, design, construction, maintenance, operations, and public transit. When needed, task teams of state and federal transportation agency professionals and environmental resource agencies are formed to oversee the development of Center products (such as a practitioner handbook).

This strategic plan has two major purposes: 1) assess the current effectiveness of the Center in achieving its goals, and 2) recommend actions to enhance the Center's programs and overall effectiveness. The next section presents the results of a survey conducted as part of the assessment process and summarizes the current status of the Center's efforts. The final section recommends actions that should be taken to improve the overall effectiveness of the Center's programs.

---

2 Ibid.
Assessment of Centers' Activities and Achievement of Goals

A survey was conducted of the key constituents and customers of the Center products and services. State departments of transportation (state DOTs) were the main audience for the survey given the Center’s primary focus and efforts. In order to gauge the breadth of the Center’s reach, other groups that had interest in transportation and environmental issues were also requested to fill out the survey. Forty-eight (48) individuals responded to the survey, with five (5) individuals representing national transportation organizations, two (2) from environment university programs, and three (3) from metropolitan planning organizations (MPOs) and local transportation agencies. The rest of the respondents were affiliated with state DOTs, but there was no significant difference observed in the survey responses from the state DOT and non-state DOT respondents.

The major conclusions from the survey include:

1. The Center is perceived as achieving all of its goals. The respondents selected the most important goal as being the Center serving "as a resource for transportation professionals seeking technical assistance, training, information exchange, partnership-building opportunities, and quick and easy access to environmental tools." The goal that received the lowest response was the degree to which the Center had successfully provided information for practitioners on research programs and opportunities. At the same time, however, this goal was viewed as being the lowest priority for the Center.

2. The respondents have most exposure via use to the Center's practitioner handbooks, webinars and reports, and publications. The least used products from the respondents were environmental management system products and videos.

3. Given this, it is not surprising that the products/services considered most valuable were practitioner handbooks, reports and publications, and webinars. The most unknown value was associated with the resilient and sustainable technical assistance, videos and environmental management system products.

4. When given the opportunity to identify three of the most valuable of the Center's products/services, practitioner handbooks by far received the most votes, with a second tier consisting of conference and workshops, communities of practice forums, and webinars. The value of practitioner handbooks was reinforced when respondents were asked to identify the single most valuable product/service.

5. The Center is viewed as good a source of information for all the environmental topics/issues identified under the Center's purview as other sources. Despite receiving a positive response, the environmental topic where this was least considered to be the case was invasive species and vegetation management.
When offered the opportunity to suggest changes in Center efforts or activities, there were very few consistent themes in what was offered. However, three themes were represented by many comments. The first was that the Center should "market itself better." The intent of this recommendation seemed to focus on making sure that the widely (among the respondents) valued products/services be made known to a larger audience. Two, somewhat contradictory recommendations, were offered by several respondents. The first group recommended that the Center continue to focus on what it is currently doing, with primary attention given to practical applications for state DOTs. The second group recommended that the Center expand its attractiveness and market by reaching out to non-state DOT markets. Although not a major theme, some respondents also noted that the Center website could be improved in terms of visitor understanding and use.

In summary, the Center is considered to be achieving its goals, and doing so in very positive ways. The Center's products and services are valued by the primary audience of state DOTs, and the Center is viewed as a valuable source of information for the Center's identified environmental topics/issues. In particular, the most valued products/services are those that provide technical information and/or that allow transportation professionals to exchange information or experiences, primarily practitioner handbooks, conferences, workshops, webinars, and community of practice forums.

An important question surfacing from this assessment is determining whether the Center will continue to focus on the audience and approaches used in recent years, or as some suggested should the Center try to expand its reach and market to non-state DOT audiences through marketing and possibly new Center products?

**Action Plan**

The action plan described below is divided into two timeframes: a short-term program consisting of the next three years, and a longer-term timeframe beyond 2021. Although the current FHWA support contract for the Center ends in 2021, the strategic plan does examine the timeframe beyond because of the national election that will be held in 2020, and thus the potential need for technical support and guidance on environmental issues with potential changes in governments at all levels.

**2019-2021**

**Governance:**

The Technical Working Group (TWG) consists of representatives from federal, state, regional and local transportation agencies, as well as representatives from resource agencies, universities and professional associations. The breadth of membership is appropriate for the role the TWG plays in overseeing the activities of the Center. Within the AASHTO committee structure, the Committees on Environment and Sustainability, Construction and Planning have positions on the TWG. However, some other committees are represented simply because some
of the TWG members happen to be a member of those committees. There does not seem to be any formal position on the TWG for such representation. Given the restructuring of the AASHTO committee structure, newly formed or changed committees that are relevant to the Center’s mandate should have a representative on the TWG. Not only will this provide an important opportunity for input into Center activities, but it will allow the Center to showcase its efforts to AASHTO membership.

**Recommendation 1:** Include representatives from the following AASHTO committees/councils on the TWG.

**Committees:** Construction, Design, Environment and Sustainability, Maintenance, Planning, System Security and Resilience, Transportation System Operations and Special Committee on Freight

**Councils:** Active Transportation, Highways and Streets, and Public Transportation

It is also important that for some committees a range of interests are represented. For example, the Committee on Environment and Sustainability might have multiple interests that should be represented such as environmental justice and project streamlining.

**Products/Services:**

The results of the stakeholder assessment very clearly noted that the products considered of most value are those that provide for 1) technical "how-to" guides for a particular topic, and 2) opportunities for peer interactions among those involved in environmental topics and issues. These include primarily practitioner handbooks, webinars, and peer exchanges.

**Recommendation 2:** CEE products and services should be viewed as building upon one another and possibly leading to the incorporation of the topic into AASHTO committees. A strategy for this evolution should be part of the major CEE products/services. For example, a Community of Practice should hold a peer exchange, which should result in webinars to a broader audience, which could lead to the development of a handbook or other technical guidance.

The following recommendations relate to each of the major products.

**Practitioner Handbooks:** The Handbooks were consistently pointed to as a major contribution of the Center. From the Center’ website, the handbooks had the following publication dates: 2006 (1 handbook), 2007 (1 handbook), 2008 (2 handbooks), 2009 (2 handbooks), 2014 (1 handbook), 2016 (9 handbooks) and 2017 (1 handbook). There are no handbooks currently in development. There does not seem to be any process for reviewing these handbooks to make sure they represent the most up-to-date information on both legislative/regulatory contexts as well as recent technical advancements.

**Recommendation 3:** The TWG should be more active in identifying possible topics for practitioner handbooks. This might include requesting TWG members to suggest one
topic for a handbook prior to the annual TWG meeting, formal outreach to AASHTO committees asking for possible topics, soliciting input from key stakeholders (such as FHWA), and as per Recommendation 1 solicit Communities of Practice and/or examine recent peer exchanges for identified handbook needs.

Recommendation 4: The CEE should examine the current handbooks to determine if the information is up-to-date.

Recommendation 5: A multi-year schedule for handbook development should be developed to provide a program strategy for producing handbooks to allow budget scheduling and to facilitate the participation of interested individuals and agencies in supporting the handbook development. A short-term target of at least one handbook per year should be adopted for producing handbooks.

Webinars: The Center has developed a series of webinars that have been very well received according to the stakeholder survey. Similar to the recommendation for handbooks, there should be a more structured process for identifying desired webinar topics. This might include assigning a subgroup of the TWG to work with the Center staff to identify desired webinar topics, a formal solicitation from AASHTO committees and/or members, and soliciting input from the Communities of Practice (and perhaps coordinated with the possible outreach for handbooks).

Recommendation 6: The Center should establish a more structured process for soliciting suggested webinar topics. This could be done in conjunction with recommendation 3.

Recommendation 7: The Center should actively seek co-sponsorship of the webinars with relevant associations and other stakeholders. This would require outreach to these groups to identify topics of mutual interest.

Recommendation 8: The Center should establish a target number of webinars offered each year. A suggested target in the short term is one per quarter (4 per year).

Peer Exchanges: Personal interaction and exchange of information on environmental topics was identified by stakeholders as a much-desired service offered by the Center. One of the ways of doing this is through peer exchanges. One peer exchange was held in 2018 on transportation system resiliency, which based on participant assessment was well-received. In order to minimize cost to participants, peer exchange offerings should be considered in connection to AASHTO national and/or regional meetings, for example, on a day preceding or after the actual meeting.

Recommendation 9: The Center should establish a short-term target of one national peer exchange per year and two to three regional peer exchanges. The peer exchange should leverage potential partner resources and support for topics of mutual interest.
Recommenda tion 10: As per Recommendation 2, the written summary of the peer exchanges should include potential webinars that might follow the peer exchange and possible topics for handbooks.

Combination of Products: For some topics, the Center could coordinate product releases (handbooks, webinars, and peer exchanges) strategically so each supports the other. For example, assume that the goal is to produce a practitioners' handbook on transportation system resilience in a two-year timeframe. Webinars and peer exchanges could be used over the two-year period as opportunities to provide input (e.g., highlighting best practices) and/or reviewing interim products.

Partnerships:
The success of an interdisciplinary center such as CEE is often partially dependent on the partnerships that exist with other like-minded centers and/or with "customer" organizations. The Center does have representatives from other professional associations and a University Transportation Center (UTC) on the TWG. In addition, the Transportation Research Board (TRB) has representation as well, thus providing a link to a strong research-focused organization. Although the primary audience for Center products and services consists of state DOTs, the Center should explore more substantive relationships with other associations and groups that might benefit from such resources and that will allow the Center to leverage such support for products and services.

Recommenda tion 11: The Center should reach out to relevant professional associations, groups, and organizations that might benefit from Center resources to determine if anything other than a link to the Center’s website would be of interest to those contacted. This is also viewed as a way of leveraging the support and possible resources from these groups in support of Center activities. For example, for a particular webinar or peer exchange topics, joint sponsorship might be desired, along with speakers/presentations representing these different groups. Another example might be to establish a relationship with relevant TRB committees that will lead to joint sponsorship of products and services (see the section below on "Beyond 2021").

Recommenda tion 12: Recommendation 1 suggested that a several AASHTO committees and councils should be included on the TWG. However, the participation of committees and councils should go beyond simply TWG membership. The Center should work with AASHTO committees and councils to establish working relationships that provide the opportunity for committee/council input into Center activities (such as identifying candidate practitioner handbook topics) as well as an opportunity for Center outreach to committees and council members.

Marketing:
Several of the respondents to the stakeholder survey suggested that the Center should be more aggressive in marketing its products and services. A marketing plan was developed several years ago but has not been fully implemented. There was a sense among some survey respondents that transportation professionals outside of AASHTO are not familiar with the Center and what it offers to the professional community. Given the very positive opinions toward the Center's products and services as indicated in the stakeholder survey, the lack of outreach was viewed by some as an important evolution in Center efforts.

Note that part of a good marketing strategy is having an effective and user-friendly website. The Center recently undertook an assessment of its website, and is in the process of making changes to enhance its effectiveness.

Recommendation 13: The Center should update and implement a marketing strategy for its services and products to a diverse set of audiences interested in environmental issues and topics. Such a strategy should be part of Recommendation 11, develop partnerships, in that establishing more formal arrangements with non-AASHTO groups would presumably open member lists and communication channels to their member, thus expanding the marketing outreach for the Center.

Beyond 2021

Current FHWA funding for the Center ends in 2021, and it is thus too soon to know if such support will continue beyond that date. However, the Center should still plan for activities, products, and services beyond 2021, especially if external funding for such efforts is tied to the activities. This strategic plan should be revisited in the late 2020 – 2021 timeframe to lay the groundwork for Center efforts after 2021. Some recommendations for the post-2021 Center efforts follow:

Recommendation 14: Given the 2020 election cycle, the Center should be prepared to inform new state DOT CEOs as well as new federal officials about the programs and services offered by the Center. The Center should examine its portfolio preceding the election to determine what Center resources would be important for new state DOT officials. It is assumed that state DOT staff will brief new officials on the state of environmental activities in their state, however, some of the Center's products and activities might be of use in such briefings. This might include the Center developing a synthesis of materials or descriptive "snapshots" on environmental topics identified by the TWG that would be of use to new decision makers.

Recommendation 15: Reauthorization of Federal transportation legislation will either have just occurred or will soon be considered by a new Congress. The Center should work with the relevant AASHTO committees and councils to sponsor webinars, newsletters, or peer exchanges on environmental issues that will likely be important
environmental topics in the debate preceding legislation. These would be focused on information-sharing and best practices, and not represent advocacy on the part of the Center.

Recommendation 16: Historically, the Transportation Research Board organizes and holds major national conferences every four of five years that examines the current state of a specific topic. For example, transportation planning was the focus of such conferences during the 1960s to the 1980s. It might be time for such a national conference on "the environment." Note that this concept is not just a conference on a particular environmental topic (such as air quality), but rather a more cross-cutting and interdisciplinary examination of transportation and environmental practice. The Center should position itself in a leadership role in supporting and enabling such a conference.

In addition to these initiatives, the Center should also plan for practitioner handbooks, webinars and peer exchanges post 2021.