

**DRAFT**  
**New Visions 2030**

**Meeting the Environmental Mitigation and Consultation Requirements of  
SAFETEA-LU: An Opportunity to Continue Moving Toward a Sustainable  
Regional Transportation System**

**Introduction**

The Capital District Transportation Committee (CDTC) is the designated Metropolitan Planning Organization (MPO) responsible for carrying out federal requirements for cooperative transportation planning and programming within Albany, Rensselaer, Saratoga, and Schenectady Counties in New York State. A key responsibility of every MPO is the maintenance of a long-range regional transportation plan. All federally-funded or federally-approved transportation actions such as highway or transit capital projects must derive from the regional plan.

Enactment of the Safe, Accountable, Flexible, Efficient, Transportation Equity Act (SAFETEA-LU) in August of 2005 placed some additional requirements on various aspects of the long-range regional transportation plan. CDTC is currently working towards updating this transportation plan, entitled *New Visions 2030*, and is taking the steps necessary to make the transportation plan compliant with new requirements of SAFETEA-LU.

The original *New Visions* plan, adopted in 1997 after four years of extensive technical work and public outreach, established a set of principles to guide transportation planning and investment in the region for coming years. It also identified a series of short- and long-range strategies and actions to help achieve broad regional goals and provided an innovative budget approach to ensure implementation of the plan. After that plan's adoption, CDTC and its members explicitly shifted the emphasis of the Transportation Improvement Program (TIP) to better match the balance of actions in the *New Visions* plan. In addition, planning efforts were shifted to reflect the priorities of the plan. Subsequent updates to the long-range regional transportation plan (*New Visions 2021* and *2025*) have continued to sustain support for pursuing the main tenants of the 1997 plan, resulting in adoption of these two updates with no significant alteration to the set of principles or the series of strategies and actions.

Because support for the plan remained strong, CDTC was in a good position to begin to explore more fundamental questions about the future of the region – its economic prospects, settlement patterns, social equity and sustainability during development of *New Visions 2030*. This exploration has involved extensive engagement with individuals, groups and affected parties generally outside the traditional MPO structure. The effort, underway since 2004 and involving a series of Working Groups (see

<http://www.cdcmpo.org/rtp2030/2030.htm>), is resulting in a draft New Visions 2030 plan that goes beyond current principles, strategies and actions to more fully ensure that the future of the Capital District will be one in which the transportation system appropriately supports and helps foster economic health, environmental stewardship and a high quality of life.

Today, it is widely accepted across the Capital District that transportation investments can add significantly to community quality of life; that transit, bike, pedestrian, goods movement and aesthetic features are equally as important as motor vehicle accommodation in highway design; that technology can be used to assist the traveler; and that ensuring economic and environmental health is an important objective of the transportation system. In 1997, these were bold assertions by the members of CDTC.

As with the 1997 plan, full implementation of the *New Visions 2025* plan meant steady progress with physical and technological improvements to the region's transportation system, coupled with significant land use and demand management actions that dampen the rate of travel growth by one-third to one-half that anticipated as the trend growth in the mid-1990's. The plan focuses on managing and redesigning existing facilities, services and ways of doing business more than on physically expanding the system. Further consideration of various big initiatives will be pursued through the New Visions 2030 plan to ensure a smart growth approach to dealing with future regional transportation issues.<sup>1</sup>

### **What Does SAFETEA-LU Ask For?**

As work on the New Visions 2030 Plan progressed, SAFETEA-LU was enacted. As a result, several separate planning factors were added along with an expansion of existing planning factors that must be addressed in development of long-range metropolitan transportation plans. One such planning factor requires that the projects, strategies and services considered and provided for in the long-range plan must not only promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns, but also work to protect and enhance the environment.

In addition, several new requirements have been placed both on the content and process of developing long-range regional transportation plans related to environmental protection:

- There must be a discussion of the types of potential environmental mitigation activities, and potential areas in which to carry out these activities, that may have the greatest potential to restore and maintain the environmental functions affected by the long-range regional transportation plan. This may focus on the plan's policies, programs, or strategies, rather than at a project-specific level and must be developed in consultation with federal, state and local agencies responsible for

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<sup>1</sup> ***“Big Idea” Transportation Initiatives for the Capital Region***, a discussion document for the New Vision 2030 Plan Capital District Transportation Committee, July 2006.

land use management, natural resources, environmental protection, conservation and historic preservation.

- Development of the plan shall involve, as appropriate, comparison of the transportation plan with state conservation plans or maps, and inventories and maps of natural or historic resources if available.

### **What is CDTC's approach to meeting these requirements?**

Both through consultation and an ongoing emphasis on transportation/land use planning integration, CDTC will continue to engage with others on these issues in an effort to not only lessen regional activities' impact on the environment but to potentially enhance it. The processes being put in place to meet these requirements will be ongoing, keeping in spirit with the continuous, cooperative, and comprehensive, planning approach required under SAFETEA-LU and used by CDTC.

To meet the consultation requirements CDTC:

- Created a mailing list of the appropriate agencies and groups responsible for land use management, natural resources, environmental protection, conservation and historic preservation within the region. This list will be used to contact these agencies or groups for input on potential environmental mitigation activities relative to the regional transportation plan discussed in this draft report, as well as on the draft plan itself when complete. This list will be continually refined as appropriate. (See Appendix A)
- Obtained a series of maps and geographic information system files containing information on various natural and cultural resources and protected open space within the four county CDTC planning area. This information identifies: heritage areas; historic places, trails & byways; woodlands; natural habitats; agricultural areas; existing farms; water areas; constrained lands; and protected open space areas within the region<sup>2</sup>; and
- Worked cooperatively with the Capital District Regional Planning Commission, the Center for Economic Growth, and the University of Albany Department of Geography and Planning to explore the potential consequences related to alternative growth and development pattern scenarios in the Capital District. This has produced a discussion document to provide the basis for a constructive regional and community dialogue about what policy options may be worth pursuing to manage the direction of future growth to achieve sustainable development in the Capital Region.<sup>3</sup>

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2 This map series, and corresponding geographic information systems files were developed by the Open Space Institute for use in the report *Open Space for Tomorrow: A Capital District Sprawl and Open Space Action Strategy*, 2005. They are used here by permission.

3 *Effects of Alternative Development Scenarios in the Capital District* a discussion document prepared for the Capital District Transportation Committee's Quality Region Taskforce Working Group A September 1, 2005.

Through distribution of this draft report CDTC will:

- Compare the natural and cultural resource maps with the locations of projects of the New Visions 2030 plan. This analysis will highlight areas of overlap between the location of projects and mapped resources allowing identification of potential environmental impacts and subsequently the appropriate types of mitigation activities to be proposed
- Seek input regarding the draft discussion of potential environmental mitigation of the New Visions 2030 plan. This draft discussion of potential mitigation activities is derived from:
  - a scan of New Visions principles, strategies and actions and resulting programs CDTC has been carrying out over the past decade and plans to initiate in the future. This scan will help identify potential gaps in policy and actions: *Are there explicit environmental planning and investment principles, strategies and actions that should be incorporated into NV 2030 to mitigate potential impacts and to improve regional environmental quality?* (**Section 1 of this report**)
  - a game plan for analysis of the resource mapping relative to the mapped locations of projects.<sup>4</sup> (**Section 2 of this report**)

Meeting these requirements could be limited to an examination of the projects contained in the New Visions 2030 plan. However, CDTC's approach attempts to go further through an examination of plan policies, strategies and actions that work toward regional environmental quality to identify both opportunities and gaps. Basically CDTC will use this exercise to further the dialogue started through various New Visions 2030 Working Groups and to find openings to leverage efforts of local, regional and state agencies working to foster quality communities within a quality region.

### **What are the potential environmental impacts related to New Visions 2030?**

- 1. Many New Visions Plan** principles, strategies and actions and resulting programs will have an impact on the natural or built environment relative to their ability to support a sustainable transportation system that enhances both regional environmental quality and quality of life. These will be reviewed and discussed in Section 1.
- 2. Projects** referenced in the New Visions Plan may have potential impacts on the natural or built environment by affecting:
  - heritage areas
  - historic places
  - trails & byways

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4 The New Visions plan includes projects contained in the current Transportation Improvement Program which covers the period from 2007 to 2012. It should also be noted here that as specific projects advance through the project development process, the applicable NEPA and SEQRA regulations requiring potential environmental impact identification, analysis and mitigation will be followed by the implementing agencies as required by federal and state law. CDTC is not an implementing agency.

- woodlands
- natural habitats
- agricultural areas or existing farms
- water areas (NYS wetlands, streams/rivers, aquifers, water bodies)
- constrained lands
- protected open space

through encroachment onto these areas, degradation of these areas, or impacting the ability of these areas to support their intended or natural functions (i.e. wetlands, species habitat, etc).

By examining the intersection of representative projects with mapped natural and cultural resources, potential locations and general types of impacts will be highlighted. Best practices as identified by various implementing and resource agencies such as NYSDOT, NYSDEC, the Department of State and others, for example will then be identified, where appropriate relative to mitigating potential impacts. See Section 2.

## SECTION 1

### **How does the New Visions Plan relate to enhancing environmental quality and promoting a sustainable regional transportation system?**

New Visions system goals, principles, strategies and actions provide a framework for improving regional environmental quality. The New Visions plan has a strong emphasis on fostering a safe, multi-modal and well-managed system that works well for all users, contributes to urban revitalization and attractive suburban and rural centers, and minimizes capacity expansion for single occupant vehicles. Beneficial environmental impacts related to the plan include a reduction in energy consumption, avoidance of disruption of natural and cultural resources and reduction in air pollution, and protection of environmental justice populations.

Various sustainable and innovative practices used at CDTC are consistent with, and help to further, environmental stewardship goals laid out in the plan.

Specific adopted planning and investment principles guide decision-making at CDTC. New Visions principles grew from CDTC's Congestion Management Principles and were developed in conjunction with extensive public review and comment. They are organized under four broad themes:

- Preserve and Manage.
- Develop the Region's Potential.
- Link Transportation and Land Use.
- Plan and Build for All Modes.

Within these four themes, specific statements of CDTC's intentions and requirements regarding specific subjects are organized. These principles guide decisions at the CDTC table. The principles are a primary reference when considering candidate actions. Those relating to environmental stewardship and enhancement include:

- **Commitment to maintenance, repair & renewal of the existing transportation system.** A well-maintained transportation system is a valuable asset to the region, and is fundamental to achieving the strategic objectives of the region’s communities for people to travel easily and safely, feel safe, live healthy lives, and enjoy a high quality environment. Smooth pavements, modern traffic control systems, pavement markings that clearly delineate lanes, for example, all contribute to improved traffic flow and reduction in energy consumption and corresponding reduction in carbon emissions.
- **Commitment to alternative modes of travel.** Encouraging bicycle & pedestrian travel is a socially, economically & environmentally responsible approach to improving the performance of our transportation system. Transit contributes to congestion management, improved air quality and energy savings and offers a travel alternative helping to reduce auto dependence.
- **Commitment to transportation investments that work toward sustaining a quality region.** Transportation investments will help preserve & enhance the region’s existing urban form, infrastructure, & quality of place. Transit facilities & services can be an essential element of the social, economic and cultural fabric of a metropolitan region if supportive policies and investments are in place. Design of street layout & location of complementary uses can create a pedestrian scale & provide increased accessibility without compromising the attractiveness of development. Through mixed-use development at a pedestrian scale, more trips may be able to be made using non-auto modes reducing the environmental impacts related to motor vehicle travel (air, energy, greenhouse gas emissions).
- **Commitment to dampening single-occupant vehicle demand growth.** Management of demand and use of cost-effective operational actions are preferable to physical highway capacity expansion. Capital projects designed to provide significant physical highway capacity expansion are appropriate congestion management actions only under compelling conditions. Avoiding the need to provide additional physical highway capacity inherently avoids damaging the region’s natural and cultural resources.
- **Commitment to integrated land use/transportation planning and design.** Neighborhood-based local planning efforts are important to success of a regional plan that emphasizes livable communities. Land use planning & management is critical to protecting transportation system investment potentially eliminating the need for capacity improvements. The thrust of the New Visions 2030 plan is to use transportation investments and other tools to encourage concentrated growth. Encouraging such concentrated and coordinated growth will have beneficial environmental impacts. Through continued investment in community planning, using transportation investment within an “urban service area”, and investing in pedestrian, bicycle and transit access, community quality, and land use design this can be achieved.

Taken together, CDTC’s New Visions principles, strategies, actions and budget approach work toward improving environmental quality to redirect transportation funding toward energy-efficient transportation alternatives, including public transportation, walking, and

bicycling, and provide incentives to encourage greater use of related alternatives that improve transportation efficiency.

**How do CDTC programs and practices derived from the New Visions Plan relate to enhancing environmental quality and promoting a sustainable regional transportation system?**

CDTC employs a process that has nurtured a collaborative and integrative planning environment over the years that has fostered many innovative policies and practices allowing a significant contribution to aspects of “sustainability” including work toward improving regional environmental quality. Some of these policies and practices are described below:

- **Dynamic membership structure:** Policy board membership is not static, but has grown as necessary over time to reflect both suburban growth and a multi-modal scope. Membership now includes four counties, eight cities, one large town, two rotating positions for 63 other towns and villages, the state DOT, transit operator (CDTA), airport authority, Thruway authority, port commission and regional planning commission (CDRPC). This arrangement allows a much broader discussion of regional land use/transportation issues and impacts of growth. By bringing a broader array of partners into CDTC’s process, environmental issues can be more effectively addressed.
- **Use of goals and objectives reflecting sustainability.** Regional goals are non-traditional, and reflect a broad perspective – improve overall service quality; enhance quality of life; reduce per-capita resource requirements; reduce per-capita crash costs; build strong urban, suburban and rural communities; knit communities into a cohesive region; and support social and economic interactions that support growth while enhancing the natural, built and human environments. Achieving these goals will produce a reduction in greenhouse gas emissions, help temper traffic growth and foster preservation of open space and other natural and cultural resources.
- **Use of outcome-oriented or “backcasting” policy development.** The plan was derived from a technical effort that documented that affordable and feasible transportation actions would fall short of achieving the desired goals mentioned above. This led to elevation of the role of land use initiatives to bridge the gap. Policies and actions that work to integrate the transportation system with well-managed and community-desired land uses were then developed. Use of this approach can enhance the region’s human and natural environment benefits through avoidance or minimization of impacts that would have been related to pursuing a transportation system plan that did not adequately incorporate land use considerations.
- **Policy-based traffic forecasting:** Traffic forecasts used in planning and project development activities reflect CDTC’s 20-year *target* level of traffic. Target levels assume success over time in reducing the growth in vehicle miles of travel (from the trend) through improvements in street design, community structure and regional settlement patterns. Projects are thus designed for compatibility not with trend traffic

forecasts, but with planned – sustainable – traffic levels. Environmental impacts can be potentially avoided when target levels of traffic are fed into project development in that resulting improvements are scaled appropriately thereby potentially avoiding overbuilding of infrastructure that might lead to unnecessary land consumption, including encroachment on the region’s wetland and prime farmland areas.

- **Community and Transportation Planning Linkage Program:** CDTC views land use planning assistance as a critical element of the New Visions plan and includes local land use planning support as a financial element of the long-range plan. Improved local planning and decision-making is identified as a critical element of the plan and is relied upon for significant dampening of trends in traffic growth. This program’s foundation stems from the strong regional consensus that the region’s quality of life and environmental quality, mobility, and economic vitality is dependent upon improved local land use planning and on better integration of land use development and the transportation system. The core of the Capital District’s regional transportation/land use policy is reflected in the adopted plan principles highlighted in the section above. The policy thrust is that good site and community design *can* help realize the region’s potential and that transportation actions *will* play a role. CDTC established its Community and Transportation Linkage Planning Program to provide funding to engage in sound integrated land use/transportation planning with the region’s communities. Since 2000, the Linkage Program has funded 55 planning studies in over 30 municipalities. These cooperative planning initiatives represent a federal, state and local commitment of over \$3.3 million. As a result of this program, regional planning considerations have been included along with the critical planning issues of nearly every city and nearly every growing suburb as well as those of a number of rural communities. Local adoption has followed many of the studies. In addition, the plans emerging from the program produced a set of projects for TIP consideration that reflect reasonable, measured and locally supported plans. Through the numerous Linkage Studies that have been completed to date, stronger community planning has lead to local initiatives that rely on a “complete streets” approach to meet future transportation needs, and plans for more walkable communities, cleaner air and preservation of open space.
- **Strict connection between plan and TIP:** The long-range plan defines twenty-year average allocations of funding for 17 categories of capital or operations. During a TIP update, funds are earmarked to under-represented categories to ensure that the TIP project mix reflects the long-range plan’s balance. By ensuring the TIP project mix is balanced, investments are targeted to support the full set of plan objectives. The result is a program that recognizes that transit, bike, pedestrian, goods movement and aesthetic features are equally as important as motor vehicle accommodation in highway design; that technology can be used to assist the traveler; and that ensuring economic and environmental health is an important objective of the transportation system.
- **Congestion management principles:** CDTC follows adopted Congestion Management Process principles that insist upon demand management prior to consideration of highway capacity projects, and insist upon local land use management agreements as a pre-requisite to capacity work. By considering highway capacity projects only under certain conditions including where local land use

management is occurring, such projects are limited within the region, thereby avoiding environmental impacts that would be associated with adding capacity without such conditions.

- **Incorporation of management and operations:** The regional plan embraces both capital and operations. Maintaining and increasing funding for ITS system operations is one of the 17 budget categories in the plan. Effective incident management is a central principle of the adopted Congestion Management System. Implementation of ITS elements has proven environmental benefits.
- **Elevation of community compatibility measures.** Traditional focus on delay and level-of-service (LOS) is balanced by CDTC's elevation of comparable measures for community compatibility can lead to more context sensitive design.
- **Priority treatment of urban revitalization needs.** Revitalization of existing urban areas is critical to achieve the desired outcome of the regional transportation plan. One of the 17 budget categories in the plan is "economic development / community compatibility". This set of resources and the jurisdiction-blind funding policies have steered considerable resources to reconstructing and redesigning urban streets explicitly to facilitate economic revival. Urban revitalization can reduce the likelihood that new development will be targeted at greenfields.
- **Support for risk assessment or tradeoff analysis in project design.** State DOT design processes generally direct designers to provide adequate LOS through the design year whenever feasible. The plan has an adopted principle urging a common sense tradeoff analysis whenever capacity additions are considered in the context of an infrastructure replacement project. This principle recognizes funding limitations and the relatively low regional priority for building capacity today for congestion that is not anticipated to appear for ten or twenty years. Deferral or avoidance of constructing additional capacity avoids environmental impacts.
- **Contractual arrangement with CDRPC the regional comprehensive planning agency.** CDTC is nominally a transportation-only agency. In practice, CDTC embraces economic, environmental, social and land use issues. It also contracts with the four-county comprehensive planning agency, the Capital District Regional Planning Commission, and funds that agency's work in demographic data and forecasts and in regional land use policy discussions. Sharing and coordination of geographic information system data and products, collaboration on exploration of the impacts of alternative growth futures and other joint efforts has helped to highlight regional environmental issues such as the impacts of sprawl and uncoordinated development.
- **Extensive use of inclusive task forces and working groups.** Initiated in response to ISTEPA requirements, CDTC has used numerous inclusive task forces and working groups. Currently there are eight such regional groups with a diverse membership. Task forces and working groups are commissioned to help the staff carefully and comprehensively articulate policy options and issues for broad regional dialogue – not to make policy decisions. The efforts of these groups ensures a broader array of issues and potential solutions are addressed through the long range planning process, including those related to environmental quality and sustainability.

- **Collaborative efforts with various regional groups including an urban “empowerment” group, business and higher education organizations.** A regional group exists, devoted to empowering traditionally under represented urban population groups called ARISE. CDTC has partnered with this group and has financially underwritten the group’s regional summit on smart growth, thereby gaining access to the participation and perspective of interests that typically do not engage with the transportation planning process. CDTC also continues to collaborate with and help inform the discussions of several business and university forums. This strong cooperation between public and private regional development entities has led to a Regional Development Compact authored collaboratively and promoted primarily by the regional Center for Economic Growth (CEG) to local municipalities. The compact, adopted at the local level by individual municipalities, commits to comprehensive planning and implementation that includes training of local officials; cooperative and inclusive processes; respect for community character, historic and natural resources; protection of open space and a focus on infill development and use of existing infrastructure and facilities. The efforts of these groups and their involvement with CDTC ensure a broader array of issues and potential solutions are addressed through the planning process, including those related to environmental quality and sustainability.
- **Explicit consideration of social equity.** CDTC reviews its activities to ensure that there is there adequate access to the process from all population groups and geographic areas; that the outcome of the process is equitable; and that impacts of plans and programs are fairly distributed. As a result of this attention, a 2004 report found that 65% of bicycle and pedestrian improvements, 54% of highway and bridge rehab and streetscape projects, and 83% of transportation – land use compatibility planning efforts serve identified areas of low income and minority population. Further, the single large transit corridor improvement in the plan and TIP is located along an urban corridor with a 25% transit-dependent population. Environmental justice is an important aspect of CDTC’s work.
- **Scenario evaluation.** CDTC has repeatedly explored alternative future scenarios to aid in policy development. The current effort is exploring issues surrounding a range of population growth (no growth to fast growth) and land use settlement patterns (traditional vs. trend) through 2030. That work has noted that the region is at a critical juncture with the strong potential of increased development pressure related to state supported large high tech development projects. Consequently, the region is being challenged to assess the ability to accommodate this growth in an environmentally and fiscally sustainable manner. CDTC along with CDRPC, CEG and SUNY Albany, as part of the New Visions 2030 plan, has been examining the regional transportation/land use issues and policies that directly affect this sustainability. For scenario testing, CDTC staff has developed a land use pivot model calibrated locally to estimate land use impacts of policy actions.
- **Habitat protection.** For one key project on the plan and TIP located within the environmentally significant Pine Bush area in Albany County, CDTC required ecosystem sustainability analysis prior to initiating project development or any formal environmental process. The result of the study led to down scoping the project and a

modification of the plan and TIP prior to project development. Longer range strategies for the project area include conversion of the roadway to a “parkway” with advanced design treatment for wildlife crossing as suggested by the Pine Bush Commission’s design exercise, as well as roundabouts. CDTC’s commitment to habitat preservation, as demonstrated with the longer range strategies for this project area, has been cited as a national model by the USGAO.

- **Use of “full cost analysis”.** For major system questions (such as rail transit considerations) grappled with in development of the plan, CDTC employs a full cost analysis that identifies monetary costs for traditional and non-traditional user, societal and environmental impacts. These impacts include the costs of global climate change, water quality, parking requirements, vibration and other factors. These factors are also used in project evaluation of candidate TIP projects when applicable.
- **Support for bike and pedestrian projects.** To implement recommendations of the plan, supplemental bicyclist and pedestrian investments are one of the 17 budget categories. CDTC’s initiatives have included TIP funding for bike/ped projects (at a scale roughly double that funded separately through the “Enhancement” program) and a local second-chance Enhancement program, that funded additional projects not selected in the statewide competition. In addition, CDTC established an ongoing “spot improvement” program to fund small, cost-effective actions to improve bicyclist or pedestrian safety and convenience. With the cooperation of NYSDOT in streamlining the federal aid process, the program has funded 37 projects totaling \$1.3 million in four rounds. As part of the New Visions 2030 plan the Bike and Pedestrian Task Force is recommending continuation of the program at current levels and that during the next five TIP updates, the opportunity for the set aside to be increased on a gradual basis to \$250,000 per year be explored. Improving the walking and bicycling environment in the region encourages use of these modes for a variety of trip types, with the potential for reduction in motor vehicle trips.
- **Calculation of greenhouse gas emissions.** In response to the New York State’s fairly recent energy plan calling for greenhouse gas emissions reductions, CDTC’s post processor was amended to produce greenhouse gas emissions specific to year, functional classification and operating speed. Again, by producing this information the potential global environmental impacts related to implementation of various actions resulting from the plan can be assessed over time.
- **Time-series measurement of public attitudes.** CDTC contracts with SUNY Albany research center for an annual survey of public perceptions of highway quality, transit quality, exposure and impact of congestion on location and travel decisions, the effect of transit accessibility on location and travel decisions and other factors. Attitudes are assessed for trends, internal correlations and correlations with objective performance indicators. By having access to information regarding public attitudes the potential effect of various plan derived actions can be measured allowing crafting of future actions consistent with plan goals for a sustainable transportation system that are both accepted and utilized by people living and working in the region.
- **Incorporation of public health considerations into project evaluation.** CDTC incorporates the monetary benefits of improved public health from physical activity

as one quantified benefit of proposed TIP candidates, based on the expected bicycle and pedestrian usage.

- **Joint efforts on demand management pilot programs.** Travel demand management (TDM) is a central element of the plan, and appears as one of its 17 budget categories. Numerous TDM initiatives have been jointly administered by CDTC and CDTA staff, including a web-based carpool matching program, free transfers between public and private transit services, guaranteed ride home program for transit users and carpoolers, a cash subsidy for transit passes through public employee unions, a cash subsidy toward public or private transit services as part of a state agency relocation and a six-month cash subsidy toward public or private transit services to encourage downtown employers to establish commuter programs. These efforts work toward achieving plan objectives to dampen vehicular trip growth with associated beneficial environmental impacts.
- **Staff support of regional Clean Cities Coalition.** CDTC uses its transportation planning resources to sponsor and provide on-going staff support to the Clean Cities Coalition of the Capital District, assisting local public and private fleets in exploring bio-fuels and participating in NYSERDA (New York State Energy Research and Development Authority) bio-diesel programs. As mentioned above, CDTC employs “full cost accounting” in the consideration of transportation alternatives. Among the non-traditional costs incorporated in this analysis is the cost per gallon of fuel consumption for protection of the supplies of foreign oil, thus highlighting the cost of non-indigenous fuel resources.
- **Local government training in bike/ped and access management concepts.** CDTC has facilitated numerous audits of bicycle and pedestrian accommodations in local communities and developed training materials in access management.
- **Advanced traffic and transit modeling.** For many years, CDTC has employed a staff-enhanced version of TMODEL2 that incorporates more sensitive treatment of intersection capacity and delay than is typical; and permits extensive post-processing for user costs, emissions and environmental impacts. For rail transit purposes, a detailed mode choice model with park-and-ride market features has been used.
- **Development of an integrated land use/transportation design planning tool: Using Transportation Investments to Improve Communities.** CDTC staff served as project manager on this NYSMPO Association shared cost initiative. The project resulted in a guidebook and catalog of illustrative projects highlighting integrated design as a means of using transportation investment to improve communities rather than as a way to simply get through them. Integrated planning and community design uses collaborative decision-making to blend all transportation modes (road, rail, pedestrian, transit, etc.) with other daily activities in order to effectively weave them into the urban fabric. This approach means designing transportation projects that are not only safe and efficient, but that are also in harmony with a community’s natural, built and human environment. It is a community-based approach to integrated planning and design to foster more livable communities, enhance environmental quality, improve aesthetics and encourage more walking, bicycling and transit use. The information compiled through this effort is intended to help planners, designers,

engineers and policy-makers in New York State better understand how transportation planning and community design can be more closely linked through proactive efforts and agency and institutional coordination.

- **Public-private highway financing policies:** CDTC maintains a strong policy that differentiates public responsibility from private responsibility for highway plans that mitigate and accommodate local development. Between 1990 and 2010, total mitigation fees assessed in the rapidly growing area around the region's airport will total \$15 million as part of a public-private highway, transit and travel demand management (TDM) plan. This has resulted in additional transit services serving this area thereby reducing single occupant vehicle (SOV) trips.
- **Site impact assessment contractual arrangement:** CDTC staff provides site impact review assistance on request to municipalities; in one town, an ongoing contractual relationship gives the CDTC staff responsibility to review proposals and identify appropriate mitigation fees. Review of site plans can yield design of new and redeveloped sites that provide safe and attractive access for all travel modes, reduce impervious surface through reducing the number of parking spaces/promoting shared parking arrangements, and incorporation of access management treatments. Such design contributes to a more sustainable transportation system.

## SECTION 2

### **What are the Potential Environmental Mitigation Activities and Areas related to Projects in the New Visions 2030 Plan?**

New Visions 2030 is a multi-modal plan that reflects a consensus of CDTC members regarding the direction and focus that will meet the region's mobility and other needs for transportation in the Capital District through the year 2030. The plan *does not* contain a list of all projects that CDTC expects to undertake over the next 20 years, however it does include projects in the current Transportation Improvement Program (TIP). It is intended that subsequent development of these projects be done in a manner that is consistent with the plan's principles and strategies.

For purposes of examining potential environmental impacts related to the plan, projects currently on the TIP related to new construction, reconstruction that adds capacity, or other types of projects that may have an environmental impact, will be overlain upon natural and cultural resources mapping to identify intersections between the two.

With respect to projects that are proposed for placement on the TIP, these candidate projects are screened and evaluated based on various criteria, include a preliminary identification of potential environmental issues.

Projects placed on the TIP then move through the project development process conducted by the implementing agency. This process includes detailed environmental analysis conducted through the National Environmental Policy Act (NEPA) and New York State Environmental Quality Review Act (SEQRA).

However, to be consistent with the intent of SAFETEA-LU to incorporate environmental considerations more fully during the planning process **it is recommended that geographic information system information (GIS) be used to overlay limits of candidate TIP projects against natural and cultural resources mapping.** This would aid in identifying those projects that may have certain types of environmental impacts. Availability of this information during project selection could result in modified proposals that could take advantage of up front opportunities to either avoid, minimize, or mitigate potential impacts at this early stage. Mapping potential projects on a regional scale could result in potential opportunities for mitigation banking and/or joint mitigation activities. Joint or multiple-project mitigation includes techniques such as mitigation banking, in-lieu fee arrangements and conservation banking.

While not an implementing agency, CDTC can lay out in this draft discussion various best practices or guidelines that should be applied to projects related to the long range transportation plan. Elevating the discussion of potential environmental impacts and best practices for their mitigation during the development of the long range plan will help to raise these issues sooner rather than later and will help guide TIP project selection and may ultimately result in a more environmentally friendly regional transportation system.

**The Council on Environmental Quality (CEQ) has defined mitigation<sup>5</sup> as:**

- Avoiding an impact altogether by not taking a certain action or parts of an action;
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- Reducing the impact over time by preservation and maintenance operations during the life of the action; and
- Compensating for the impact by replacing or providing substitute resources or environments.

According to FHWA's report *Eco-logical: An Ecosystem Approach to Developing Infrastructure Projects*, no matter which of these options for mitigation is used, the goal is to restore, create, enhance, and/or preserve natural or cultural resources for the purpose of compensating for unavoidable resource impacts. Mitigation helps ensure that ecosystems, habitats, and species populations remain sustainable and productive over time and that cultural resources are preserved.

As mentioned above, use of regional natural and cultural resource maps and GIS data may highlight potential for creation of relatively large off-site compensatory natural resource mitigation areas. These may generally be preferable when compared to on-site mitigation areas that are not reasonable or sufficient as determined by the implementing agency and environmental review agencies. This approach may offer greater mitigation

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<sup>5</sup> 40 CFR 1508.20 as cited in "Ecological: An Ecosystem Approach to Developing Infrastructure Projects", FHWA, April 2006.

potential with respect to planning, buffer protection and providing multiple environmental habitat value. Examples of such areas include wetland, plant and wildlife banking areas. In addition, through CDTC's Linkage Planning program, such opportunities related to potential conceptual transportation improvement projects may be identified as well. Furthermore, this approach is consistent with and should be coordinated with recommendations of New York State's Transportation Master Plan for 2030 which includes environmental sustainability as one of its priority results areas. In this plan, it states, "in addition to mitigating the impacts of transportation projects on wetlands, transportation operators will work cooperatively with DEC and the Nature Conservancy to preserve and enhance important wetland sites. The Commissioner of Transportation will actively promote the creation of regional wetland mitigation banks to better support the State's rich endowment of wetlands."

In terms of project development, both state and locally sponsored and implemented projects are required to follow the New York State Department of Transportation's (NYSDOT) Environmental Policy.

**NYSDOT's Environmental Policy<sup>6</sup> states:**

"As New York State's largest public works agency, the Department of Transportation (the Department) has an obligation to the people of New York State to preserve, protect and enhance the environment. Strict regulatory compliance is only a part of the Department's environmental stewardship responsibility.

In keeping with this mission and responsibility, the Department should use its organizational strengths to help advance State and Federal environmental policies. By working with environmental agencies and groups to enhance the environment as part of our normal work, the Department is acting in the spirit of environmental law, the wishes and needs of our customers and the values we hold as public servants. This is the right thing to do for both transportation and the environment.

**Thus, it is the policy and practice of the Department to:**

- plan, design, construct and maintain facilities that meet transportation needs while proactively protecting, conserving, restoring and enhancing important natural and man-made resources. Again, project permit and mitigation requirements are only a start.
- seek opportunities to cooperatively advance Federal, State and local environmental policies, programs and objectives as part of the Department's work through close and systematic coordination with the public and concerned agencies and groups.
- demonstrate leadership by piloting the development and implementation of improved methods for environmental protection and enhancement.

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<sup>6</sup> NYSDOT ENVIRONMENTAL POLICY Dated 6/20/2000

- employ safe and appropriate Context Sensitive Design measures to ensure that project designs reflect community values as understood through proactive outreach with local stakeholders.
- assist municipalities and others with their environmental projects by allowing them to include their work as environmental “betterments” in Department projects so that their investments can benefit from the economies of scale associated with larger projects.

The goal of NYSDOT’s environmental policy is to ensure that implementation plans include, as appropriate practices that work to:

- protect and improve water and air quality,
- reduce the use of nonrenewable energy resources,
- promote energy efficient transportation in all modes,
- promote non-motorized transportation alternatives,
- enhance facilities to encourage transit and other shared ride modes,
- reduce and eliminate Department generated waste,
- reuse and recycle materials,
- reduce or eliminate hazardous substance use,
- clean up transportation-related contamination where appropriate,
- preserve and enhance historic and cultural resources,
- promote quality communities and sustainable development,
- protect and enhance wildlife habitat,
- enhance the visual, aesthetic and natural character of roadsides or streetscapes,
- enhance outreach to others through continuous public involvement, and
- advance Context Sensitive Design.”

Utilizing a Context Sensitive Design approach in planning, designing, constructing and maintaining transportation investments can produce significant beneficial environmental impacts due to the fact that such an approach is based on balancing environmental, scenic, aesthetic, cultural and natural resources, as well as community and transportation service needs.

**What are the expected results of the resource mapping/projects comparison?**

The intent of this process is to identify possible impacts from planned projects on environmentally sensitive resources on a regional level to add value to the deliberative transportation planning and programming decision-making processes at the CDTC table. As stated above, the results of this analysis could also identify opportunities for larger-than-project-specific mitigation activities, potentially yielding more regionally significant environmental benefits. Again, this broad analysis is not designed to explore detailed design alternatives or impacts at the project level; detailed environmental analysis takes place during project development by the implementing agency.

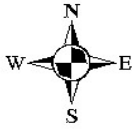
This effort is a work in progress. Subsequent to this consultation effort, this mapping and related analysis may be modified or expanded. We will continue to refine this process based on lessons learned and input from consulting agencies.

**Natural and Cultural Resources:** Maps will be produced to illustrate the Capital District's:

- heritage areas
- historic places
- trails & byways
- woodlands
- natural habitats
- agricultural areas or existing farms
- water areas (NYS wetlands, streams/rivers, aquifers, water bodies)
- constrained lands
- protected open space

The map on the following page showing water features within the CDTC planning area is an example of the type of resource area map that will be used in this analysis. Additional examples of resource maps can be found in Appendix B. As work on this effort continues, this is the type of information that the relevant TIP projects will be compared against.

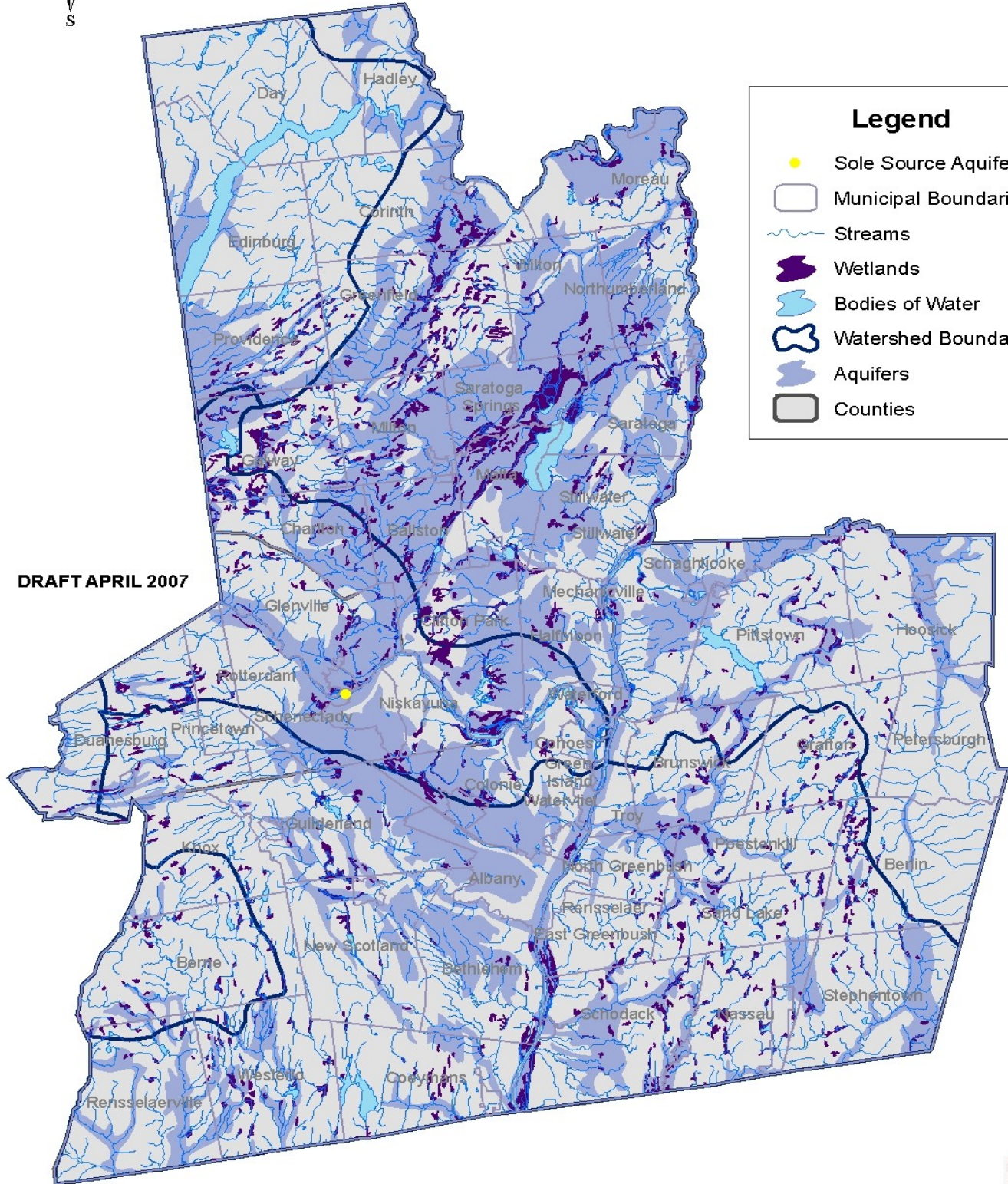
# New Visions 2030 Environmental Mitigation Water Features



**Legend**

- Sole Source Aquifer
- Municipal Boundaries
- Streams
- Wetlands
- Bodies of Water
- Watershed Boundaries
- Aquifers
- Counties

**DRAFT APRIL 2007**



Data Sources: NYS, CUGIR, OSI



Projects programmed on the TIP by CDTC to be analyzed using the mapping will include the following categories. In a given TIP cycle, not all project types will be represented.

- Highways/Roadways: new construction, reconstruction or other related projects that add physical capacity to a highway or roadway.
- Bridges: new construction, or reconstruction or other related projects that add physical capacity to a highway or roadway
- Transit: fixed guideways, new bus lanes that add physical capacity to a roadway, new or expanded maintenance facilities, new or expanded park and ride lots.
- Bicycle and/or Pedestrian facilities: new construction of off-road facilities, addition of on-road bicycle lanes or sidewalks

The GIS will be used to create buffers for each of the projects being analyzed. The buffers will be 1/2 mile for new roadways, new freeways and new interchanges. The buffers will be 1/4 mile for all other project types.

These will be overlaid with the resource mapping files in the GIS to identify if identified resources are within the buffer area. The number of these will then be counted for each resource area.

The following type of table will summarize how many projects are near each type of resource area.

<b>Natural/Cultural Resource Area</b>	<b>Number of Projects Near a Resource Area</b>
Heritage areas	TBD
Historic places	TBD
Trails & byways	TBD
Woodlands (state & county parks/forests/preserves)	TBD
Natural habitats (plant & animal)	TBD
Agricultural areas or existing farms	TBD
NYS wetlands	TBD
Streams/rivers, aquifers, water bodies	TBD
Constrained lands (steep slopes/wet or unstable soils)	TBD
Protected open space	TBD

## Policy Recommendations

### *Proposed Environmental Principle*

An additional planning and investment principle is proposed for inclusion in the New Visions 2030 plan:

**Environmental stewardship is one of CDTC's emerging roles and is crucial to the success of and quality of life in this region. Transportation investments must improve or preserve the region's cultural and natural environment.** Wise use of land can assist in maintaining an ecological balance between human activities and the natural environment. Such ecological balance and natural beauty are important determinants of the region's ability to provide a pleasant and habitable environment for all forms of life. Preservation of the environmentally significant features of the natural resource base further contributes to the maintenance of the ecological balance, natural beauty, and the economic well-being of the region.

### **Recommended Strategies and Actions**

- Explore expanding CDTC's membership to restore the Department of Environmental Conservation as a member to enhance communication and information sharing regarding the region's critical environmental issues, environmental resources, and to ensure broader coordination of land use/transportation planning efforts. (DEC withdrew from active participation years ago.)
- Use geographic information systems information (GIS) to overlay limits of candidate TIP projects, of project types that have a significant potential for environmental impacts, against natural and cultural resources mapping as part of the evaluation process for candidate projects during the next and subsequent TIP updates.
- Coordinate with DOT and DEC and others on updating this mapping and corresponding GIS databases.
- Explore a Green Corridors approach modeled after Saratoga Green Infrastructure Plan. Green corridors can help protect existing riparian buffers and woodlands, improve water and air quality, and lower storm water management costs.
- Explore recommendations from the Open Space Institute's report and from NYSDEC's Open Space Plan, and other resources (county farmland protection plans) to see where CDTC can reinforce those efforts as appropriate.
- Promote well-designed transportation and land development projects through an integrated planning and design approach. Explore creation of an Integrated Community and Transportation Design toolkit to ensure pursuit of enhanced environmental quality for projects emerging from the plan. This toolkit could be

applicable to other issue areas as well such as Safety and could organize best practices at the regional, community, and site levels. Areas of research in developing this toolkit could include benefits of low impact development, benefits of increasing tree coverage, “green” parking lot design, etc.

- Revise the TIP candidate project justification package, consistent with Appendix A to Part 450 of SAFETEA-LU regarding linking the transportation planning and NEPA process/project development, to ensure candidate project scopes as provided in project justification packages are descriptive enough to reflect project purpose and need consistent with New Visions principles and environmental quality goals.
- Expand project descriptions in the TIP or create a companion document to the TIP that contains sufficient information to convey the scope and expectations for the project, including confirmation of consistency with New Visions principles. Broad access to such information will help keep the chain of project intent and details (“scope”) alive as projects move through the project development process. Consistent with how TIP project scope changes are currently handled, if a project sponsor desires to change the project scope or deviate from explicit expectations, such change must be approved by the Planning Committee.