CHAPTER 4 – ENVIRONMENTAL MITIGATION

4.4 Air Quality

It is very possible that the COATS planning region will fall into air quality "non-attainment" status under terms of the U. S. Clean Air Act during the next few years. The COATS region , and 45 of the 46 counties in South Carolina, participated in Early Action Compacts. The *COATS Early Action Compact* allowed Central Midlands area local governments to develop and implement action plans to reduce the emission of air pollutants. In early 2008, it was announced that the Columbia area had successfully completed the Early Action Compact and was in attainment of the U.S. Environmental Protection Agency's air quality standards. Within a few weeks, however, new standards for ground level ozone were introduced. It is widely believed that the region will have much difficulty in reaching the more stringent new standards.

COATS staff have organized the Midlands Air Quality Forum, a group of governmental and private sector representatives working toward better air quality. The Air Quality Forum coordinates with an number of other environmental organizations and agencies to further the regional air quality effort.

If the region is ultimately given a "non-attainment" status, there will be significant consequences in the realms of economic development and transportation. New industries and employment centers of regional significance will be subject to Federal restrictions designed to prevent new industries from having a significantly negative impact on air quality. Similarly, new transportation projects will be carefully evaluated to make sure they do not make air quality worse.

Stationary sources of air emissions, such as power plants and industrial facilities are responsible for a major share of the air quality problem. Mobile sources--automobiles, trucks and off-road equipment---also play a large role in the region's air quality status, and must be addressed by COATS's planning program Federal regulations require MPOs in non-attainment areas to collaborate with state air quality regulators to quantify the likely impacts of transportation projects. COATS, if subjected to these regulations, will be required to "model" air quality impacts as well as traffic impacts when considering funding for new transportation projects. Projects which result in a reduction of vehicle miles traveled, extended period of idling may be easier to approve than projects which facilitate suburban sprawl and more travel

by single-occupant automobiles. In assessing the air quality impact of new projects, COATS would be required to consider all significant transportation projects, regardless of whether they were funded by Federal or local dollars.

To maintain acceptable air quality, some of the most effective transportation related strategies involve reducing number of vehicle miles traveled by single passenger automobiles. In the event that COATS falls into a non-attainment classification, there are a number of potentially effective strategies identified in other sections of the Midlands Tomorrow plan These include:

- **The Congestion Management Process(CMP) .** The CMP is outlined in Chapter 8 and more fully explained in the *Columbia Area Congestion Management Process (CMP) Final Report*, adopted by the CMCOG/COATS Board of Directors earlier in 2008. In addition to identifying congested locations, the CMP provides a toolbox of congestion mitigation strategies and a five level screening process to address congestion issues quickly with relatively low-cost improvements. The five levels of strategies range from use of communications and work hour scheduling to reduce the need for travel to full-blown road widening projects. In between are strategies to shift trips form automobiles to other travel modes, increase the use of high-occupancy vehicles, improving the operating characteristics of existing roadways. The CMP approach advocates using the quickest, least expensive moth to address the congestion problems identified in ach corridor to reduce congestion and related air pollution.
- **Improving the Availability and Service Quality of Alternative Travel Modes.** Chapters 5 and 6 of this plan include proposals for improvement and expansion of bicycle, pedestrian and mass transit facilities and services. These travel modes are more fully addressed in the COATS *Transit Element* and *Bicycle and Pedestrian Facilities Plan*. Both of these more detailed plan element reports were adopted earlier in the process of updating the Long Range Transportation Plan. While these travel modes currently account for a small share of travel in the Central Midlands, improving these services result in a reduction, or a slowing in the rate of increase, in daily vehicle miles traveled in single passenger motor automobiles .
- **Land Use Practices.** Elsewhere in this chapter, a number of principles, concepts and best practices for conservation of open space and development of more walkable, compact

communities are identified. Uncoordinated, disjointed development patterns, generally referred to as "sprawl", are responsible for increasing the growth of automobile vehicle miles traveled at a much faster rate than actual population growth. Walkable, transit supportive, mixed use neighborhoods and communities can reduce automobile dependence, enabling more destinations to be reached by shorter trips. Short trip lengths are more easily accomplished by walking or biking. Walkable mixed use communities generally will include higher population densities, making it more feasible to provide transit service for longer trips.

In addition to the responses described above, COATS will need to make organizational and programming changes in response to a "non-attainment" air quality designation. These changes could include:

- **Creating a permanent air quality consortium** to supplement the ad-hoc Midlands Air Quality Forum. COATS staff has been working with the Columbia Chambers Good to Great Quality of Life Task Force, the , City of Columbia Green Business initiative, the Climate Protection Action Committee, and other environmental groups to lay the groundwork for this.
- **Expand COATS data collection and modeling capabilities** to facilitate air quality attainment modeling and better support planning for alternative travel modes.
- **Include air-quality related land use and transportation planning best practices** as a more prominent part of the COATS sub-area transportation plans and as part of the comprehensive plans CMCOG prepares for local governments.
- **Provide technical assistance to local governments and developers** regarding land use and transportation planning practices that will reduce automobile dependency and support alternative travel modes.