CONFERENCE PARTICIPANTS SHOULD AIM TO

- Prioritize, stage, and schedule data activities because of danger of spending all funds on what is immediate, familiar, and understood.
- Identify opportunities for synergy, research economies of scale, cooperative efforts, parceling out pieces of problems, and applying new technologies.
- Decide important data activities to continue and those which should be eliminated or redirected because of inadequate funds to do everything.

OTHER ENVIRONMENTAL REQUIREMENTS

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INTRODUCTION

The panel's focus so far has been on air quality, but there are many other environmental issues that are key for planning decisions that all of us are involved in making.

I've called these other environmental issues the forgotten element of transportation systems planning. I'll explain why and also explain why we can't afford to forget these issues. Some of these issues are ultimately critical in determining whether projects in our plans are implemented.

Some of the issues that I'm going to talk about have been really the key factors in terms of fundamental decisions that have been made regarding transportation planning over the past 34 years since 1958. Yet, when the systems planning was done, these issues often weren't taken into account. And because they weren't, we did not make the best transportation planning decisions.

If these issues were not taken into account, why not? Data/information are not available. And it's too costly or burdensome to compile the data/information. Also, the people responsible for compiling or presenting the information aren't always aware of the information being available. Or they don't even care about the significance of the issues--and that may be the biggest problem. Finally, the expertise isn't always available to compile, analyze, or interpret data within the organizations responsible for doing systems planning.

TYPICAL SYSTEMS PLANNING CONSIDERATIONS

Systems Planning Defined

What do I mean by systems planning? Generally, it's the planning that goes into development of long-range plans, by MPOs and state DOTs. Certainly both organizations emphasize in the long-range plan and transportation improvement program (TIP), the fundamental capital program.

Travel Demand

We spend lots of money on travel demand projections and we're going to spend lots more, as you've heard, particularly to meet clean air requirements. We end up comparing projected demand to capacity. We identify deficiencies in capacity and alternatives to address those capacity deficiencies.

Level of Service (LOS)

Ultimately, we try to measure our success through LOS measures. Many different, very sophisticated LOS measures have been developed by your different organizations.

Cost

Usually, cost is a major factor in evaluating alternatives, although we haven't done a very good job of projecting costs, particularly at the systems planning level. Many fundamental decisions--made late in the process of putting together our five-year capital programs--are based on poor cost estimates. Consequently, we make bad systems planning decisions.

Cost-Effectiveness

We include some type of cost-effectiveness measure to see what we're buying.

Community Acceptance

To the degree plans result from a political process, whether MPO boards or state legislatures, and to the degree that elected officials really know community preferences on these issues, then community acceptance does end up being a factor. Although, regarding systems planning, we probably haven't done as good a job in this area as needed.

Air Quality

Air quality has been--and will become more of--a consideration.

Financial Feasibility

Financial feasibility hasn't been a major factor in the past, but under both Clean Air Act and ISTEA requirements, will become a major factor in systems planning.

KEY PROJECT LEVEL DECISION FACTORS

The priority or importance of these factors varies from project to project, depending upon individual circumstances. Based upon my experience, I will suggest the priority of these factors regarding their potential impact on project decisions. Note that most of these factors were not included in my previous discussion on systems planning.

4(f) IMPACTS

4(f) Impacts are--because 4(f) is such an absolute rule in terms of federal law--a very major factor in project level decisions. For those of you not familiar with 4(f), I recommend becoming familiar very quickly, or you're really not making good transportation decisions.

The law says that transportation projects must avoid impacting 4(f) resources--whether park lands, historic sites, archaeology sites, wildlife management areas, public recreation areas, and the whole litany of different land types protected under Section 4(f). I find the failure of good system planning studies to really address 4(f) impacts to be incredible--particularly when system planning is done at the local government level.

In Maryland, we have a very, very strong form of local government planning. Yet, very few of our 23 county planning directors really understand Section 4(f) requirements. Consequently, 4(f) factors are consistently not taken into account, yet local jurisdiction projects end up in MPO/State DOT long range plans.

In terms of local government data sources, it's amazing that park directors don't understand what park land is protected under Section 4(f). When we get into projects, we have to go round and round trying to establish whether property is actually protected under Section 4(f). And we simply do not have good data.

I particularly want to emphasize historic sites. We have a really good working relationship with our state historic preservation officer in Maryland. We have a great inventory of historic sites eligible for the National Register within Maryland. Many states do not have this quality of data. These data are important factors in project/systems level decisions.

WATER-RELATED IMPACTS

During the past three to four years, there has been a fundamental change in application of Section 404, under the Clean Water Act. Following the 1985 Supreme Court ruling, the Corps of Engineers recognized they had to take Section 404--particularly the three-step process of avoidance, minimization, and mitigation much more seriously than in the past. Also, the 1990 EPA/Corps memorandum of understanding and the Bush Administration no net loss policy have caused a significant tightening up in applying Section 404.

While some in the environmental regulatory community, claim no change in the regulation, others who are honest will admit to fundamental change in the regulation's application.

At the same time, our data are is woefully inadequate in this area, particularly at the systems planning level. In project planning, very detailed refined data must be developed causing a realization about how bad systems planning data is in the wetland area.

Environmental agencies state that National Wetland Inventory (NWI) maps, the fundamental maps used at the systems planning level, aren't worth the paper they're printed on. We really need much better wetland information for both project and systems level planning and decisions.

Maryland is often cited as having one, if not the best state wetland laws in the country. A major effort is underway right now to refine system level data for wetlands. Transportation and environmental agencies should be discussing how to develop better data for system planning decisions.

Flood Plans

FEMA mapping is adequate for systems planning.

WATER QUALITY

Don't underestimate this area. A number of projects within Maryland either have been stopped or changed significantly, with major cost increases because of water quality.

The Chesapeake Bay is our single most important natural resource in Maryland. Major laws and initiatives protect water quality in the Bay, and we've paid a price within the state DOT. But my value system says the price is justified.

OTHER FACTORS

Some other factors with lesser impacts: socioeconomic impacts, noise displacements, adjacency impacts, minority community impacts. People left adjacent to the facility create the biggest problem, not the people displaced to a more desirable location. The ones left adjacent to improved facilities must be better taken into account in systems planning decisions.

Biological Impacts

Be sure to have good information on rare endangered species. Bald eagles' nests have affected fundamental decisions in Maryland on more than one occasion.

Agricultural Impacts

Again, do not underestimate this area. Previously in Maryland the easiest place to locate new facilities was in open land through agricultural areas. Well, an agricultural community has become much better organized to prevent transportation agencies from doing that.

Hazardous Waste

This is another area needing better data and more attention--especially at the systems planning level. Inadequate information can stop projects and substantially increase project costs. The Blue Route in the Philadelphia area, recently opened to traffic, could not avoid a major hazardous waste site that cost millions of dollars to relocate waste.

Pre-NEPA/Corridor Studies

Preliminary studies at the corridor level are necessary to support decisions on what projects go into the system plans even before doing detailed NEPA EIS studies. Both FTA and FHWA are pushing a concept called tier EISs as a way of doing that. Experiences in Maryland cause me to caution you. Environmental agencies have a very, very hard time dealing with broad brush level analysis. And they still end up demanding the same detail at the project level. So transportation agencies go through the process twice.

GIS

The environmental community is starting to really grab onto GIS for their databases. Take advantage of these GIS data bases. One word of caution: Being in a computer doesn't make the data better data. Assess data quality in GIS databases, otherwise garbage data will just be more readily available through GIS.

Agency/Public Involvement

Early involvement of environmental agencies is absolutely critical for: credibility, agreeing on information to identify the issues, and available data sources. They can be a tremendous resource. And they will be a tremendous pain later in the process if not adequately plugged in early.

Coordination among state DOTS, MPOs, and local government is absolutely critical for flushing out issues and identifying data and information availability. It has to be a fundamental part of good, sound systems planning.

Public involvement: After eight years, with lots of scars on my back, I have learned that the public can be a tremendous resource for data. They can identify issues very early on, identify good information sources, and be a good information source. Don't underestimate that.

Corridor Preservation

ISTEA, U.S. DOT, and AASHTO have been emphasizing corridor preservation. It is very important. A lot of states and metropolitan areas have not done a good job in corridor preservation. This is a data/information area needing more attention in the environmental area: developing the level of information on what needs protecting and monitoring land development activity to ensure corridors are being preserved.

Enhancements

The final opportunity area is enhancements. Maryland's DOT is genuinely excited about this area. Too often, if not all the time, state DOTs wear the black hat. This provides the opportunity to, at least, get a tinge of gray in that black hat.

Maryland's DOT has really been aggressive in developing an enhancement process: putting together an inventory and getting good information. We've recognized that good enhancement decisions require a lot of good data and information, if you're going to maximize opportunities to truly enhance the environment through funds available under ISTEA. This is another opportunity to develop good data/information sources.