IMPLEMENTATION

IMPLEMENTATION

THE AUTHORITY OF THE OTP

The Oregon Transportation Plan (OTP) is intended to meet the requirements of ORS 184.618(1):

As its primary duty, the [Transportation] Commission shall develop and maintain a state transportation policy and a comprehensive, long-range plan for a multimodal transportation system for the state which encompasses economic efficiency, orderly economic development, safety and environmental quality. The plan shall include, but not be limited to aviation, highways, mass transit, pipelines, ports, rails and waterways. The plan shall be used by all agencies and officers to guide and coordinate transportation activities and to ensure transportation planning utilizes the potential of all existing and developing modes of transportation.

The OTP is part of an on-going transportation planning process within the Oregon Department of Transportation and provides for integration of existing and future more detailed modal and multimodal plans. It is a means of enhancing coordination and cooperation between the various transportation modes, state and federal agencies, regional and local governments, and private industry. It provides a framework for prioritizing transportation improvements and funding requirements by the Transportation Commission and the Oregon Legislature.

ORS 184.618(1) requires state agencies to use the OTP "to guide and coordinate transportation activities. . . " but it does not give the Transportation Commission authority to impose OTP goals, policies and performance guidelines on other than state agencies. However, the OTP operates in the legal context of the State Agency Coordination Program (OAR 731-15) and the LCDC Transportation Planning Rule (OAR 660-12) from which it derives additional requirements and authority.

The State Agency Coordination Program

State agency coordination programs describe what agencies will do to comply with Oregon's land use planning program. The Oregon Transportation Commission's most recent coordination program with the LCDC was adopted in September 1990.

ORS 197.180 and the ODOT State Agency Coordination Program require all of the Department of Transportation's programs affecting land use to be carried out in compliance with the statewide planning goals in a manner compatible with city, county and regional acknowledged comprehensive plans.

The Oregon Transportation Plan and the modal plans (see below) must comply with the coordination program and statewide planning goals. If modal plans and other ODOT plans affect specific geographic areas, they must be compatible with the affected regional and local acknowledged comprehensive plans. (See Figure 1.)

The Transportation Planning Rule

LCDC's Transportation Planning Rule, which implements Goal 12 (Transportation), requires ODOT to identify a system of transportation facilities and services adequate to meet identified state transportation needs and prepare a transportation system plan (TSP). The Oregon Transportation Plan, including the Policy and System Elements, and adopted modal and facility plans are intended to meet the requirements for the state TSP.

The rule also requires metropolitan planning organizations (MPOs) and counties to prepare regional TSPs consistent with the adopted state TSP; cities and counties must prepare local TSPs consistent with both regional and state TSPs. The planning process is intended to assure that comprehensive plans provide for a network of transportation improvements sufficient to meet local, regional and state transportation needs.

The OTP will be an adopted element of the state transportation system plan. Therefore, regional and local plans must be consistent with the OTP through the authority of the rule.

Amending the OTP

The development and maintenance of the OTP is intended to be a continuous and dynamic process that encourages all levels of government, the general public and the private sector to explore new ideas for improving transportation systems. The broad policies and assumptions about future transportation system development presented in the Policy and System Elements of the OTP are not intended to preclude exploration of other strategies that may also meet state and federal transportation goals and requirements. In fact, the Transportation Commission expects to modify the OTP in cooperation with all levels of government as more detailed statewide, regional and local transportation plans are prepared and additional issues of statewide importance are identified.

State agency, local government and legislative cooperation will be required to implement the OTP.

To keep current with changes in technology, management methods, and transportation needs and requirements at all levels of government, the Transportation Commission intends to update the Oregon Transportation Plan every six years or whenever specific problems that require policy changes arise. For example, the commission may modify the OTP to reflect its concurrence with regional and local plans that are consistent with or present more appropriate approaches to meeting OTP transportation goals, policies and system improvements.

The commission will amend modal plans and facility plans for each transportation mode to conform to changes in the OTP. The amendments may also require changes in MPO and local transportation plans. This interactive approach to planning will provide the foundation necessary to create an integrated transportation development strategy that truly represents the ideas and best efforts of all levels of government, the general public and the private sector.

The regular six-year major updating process will include opportunities for involvement of state and federal agencies, metropolitan planning organizations, cities, counties, special districts, businesses and interested citizens. The ODOT State Agency Coordination Program describes the amendment process in detail. In addition, ODOT staff will report annually to the commission on the implementation of the plan.

STATE, REGIONAL AND LOCAL PLANNING

The Oregon Transportation Plan (OTP) must be implemented through integrated state, regional and local planning and the private sector if it is to guide Oregon's transportation future effectively. The OTP leads this process by identifying in general terms the statewide transportation system and the minimum levels of service which should be achieved. Further planning activities will provide the details of the transportation system to be developed over time in accordance with the OTP and other laws, regulations and policies.

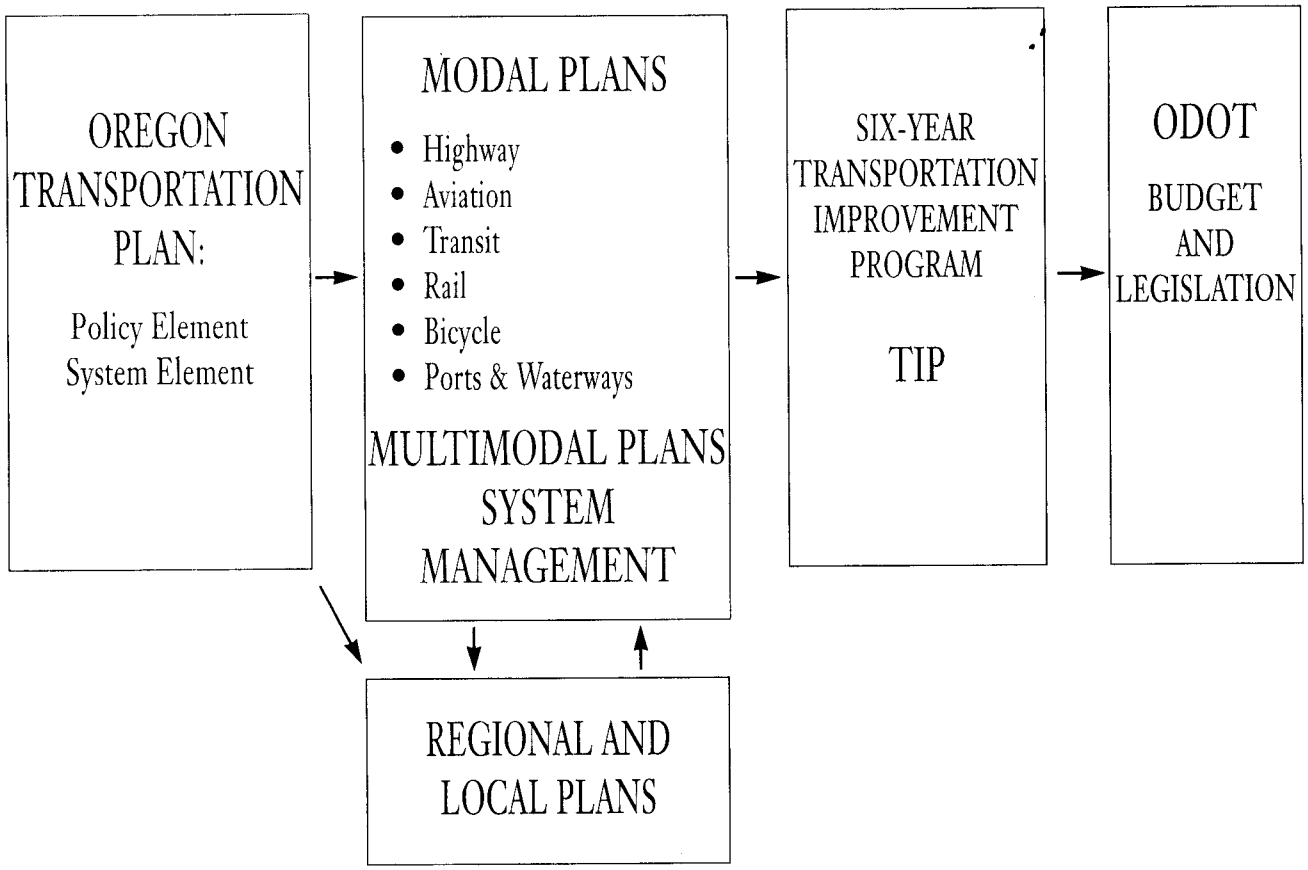
The elements of integrated transportation planning and system management statewide will include

- Modal and multimodal plans developed by ODOT and other state agencies;
- System management developed by ODOT and other state agencies;
- Metropolitan area plans developed through Metropolitan Planning Organization (MPO) planning processes in conformity with state and federal laws, plans, policies and rules;
- Plans developed by local governments and special districts.

Figure 1 illustrates this integrated planning process.

FIGURE 1

INTEGRATED TRANSPORTATION PLANNING



State Modal and Multimodal Plans and System Management

The state transportation planning process will include the periodic development or refinement of modal plans (e.g. transit, highway, bicycle, rail, ports and waterways, aviation), multimodal plans and system management which carry out or amplify the Oregon Transportation Plan. ODOT has been reorganized on an intermodal basis to facilitate the integration of planning for all the modes. ODOT and other state agencies involved in transportation planning will develop these plans in conformity to all applicable federal and state laws, rules and policies. The ISTEA specifically requires consideration of certain elements in the transportation planning process. ODOT modal and multimodal plans will include findings showing consistency with relevant OTP goals and policies.

Modal and Multimodal Plans

Modal plans identify system needs, classify facilities and establish policies for their operation, improvement and financing. ODOT's State Agency Coordination Agreement and ORS 184.618 require consideration of the following modal elements:

- Aviation
- Highways
- Mass transit
- Pipelines
- Rail
- Waterways and ports

Multimodal planning elements will include

- Corridor plans
- Willamette Valley plan prepared in cooperation with MPOs and local governments. (The plan will include establishment of a Willamette Valley Transportation System Coordination Area.)
- Safety action plan
- Rural areas transportation access plan for state and federal lands and recreation areas
- Tourism transportation action plan

ODOT and other state agencies will employ an integrated planning and development process which includes appropriate consideration for each alternative mode and for all multimodal concerns when developing modal plans, programs and projects. Modal plans shall

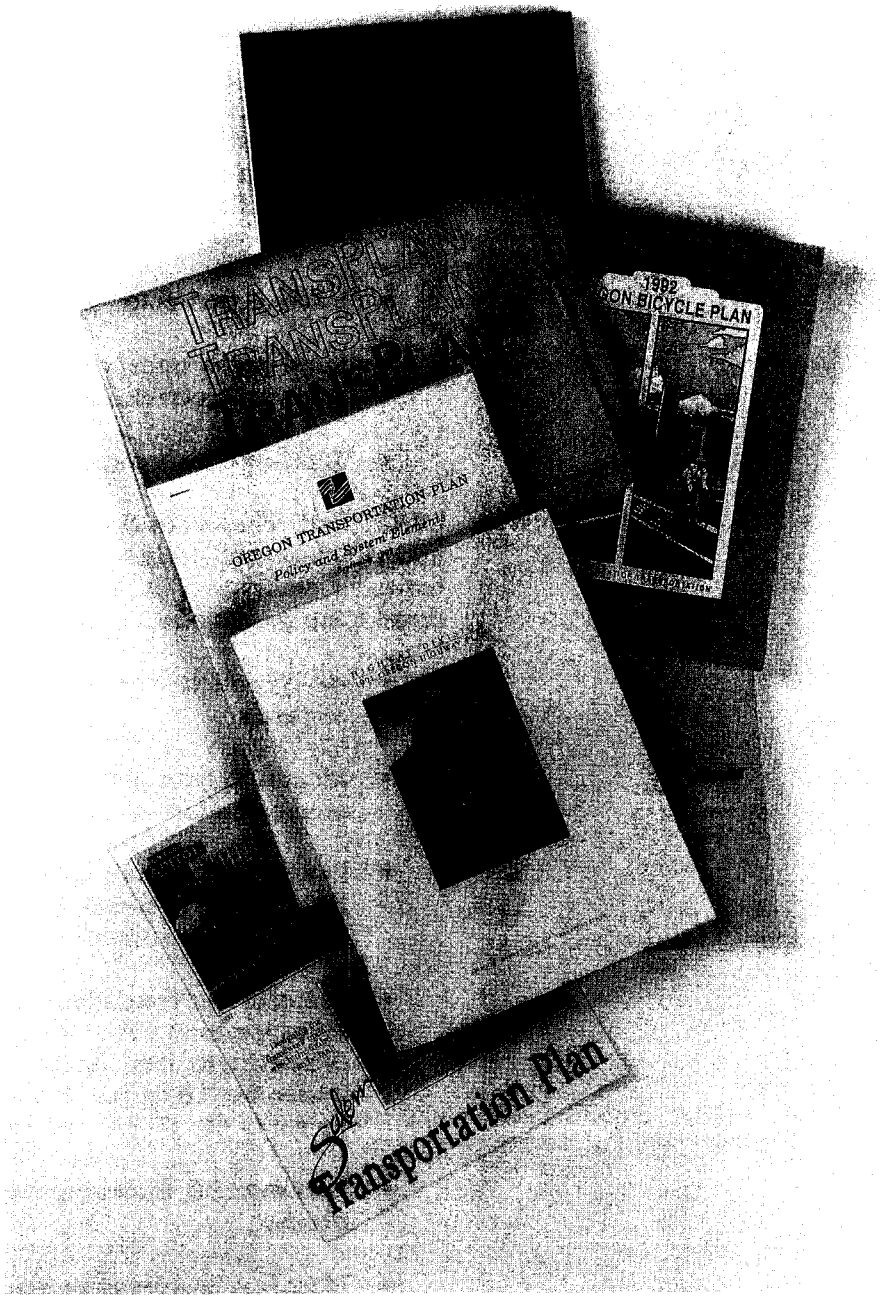
- Be consistent with the Oregon Transportation Plan and its revisions;
- Identify opportunities to utilize other modes and to integrate recommended modal programs with those of other modes;
- Evaluate the complementary actions among and tradeoffs between investments in the modal plan, program or project and other transportation investment opportunities;
- Evaluate the consistency of the modal plan with the Oregon Transportation Plan, the LCDC Transportation Planning Rule, the Oregon Benchmarks, the State Implementation Plan under the Clean Air Act Amendments, the planning requirements of the ISTEA, and regional MPO plans;
- Recommend financing mechanisms to address any unmet needs;
- Identify a process to produce a capital improvement program.

To evaluate the tradeoffs between modes, modal and multimodal plans shall

- Identify future transportation needs. This includes an analysis of needs of particular travel movements in sufficient detail to evaluate alternative modes;

- Determine whether anticipated needs require a major improvement or increase in capacity over the next 20-30 years;

- Where major improvements are needed, determine whether there are feasible alternative ways of meeting these travel needs;



Modal and MPO transportation plans need to be consistent with the OTP.

- Evaluate alternatives using the criteria in the Oregon Transportation Plan and the LCDC Transportation Planning Rule.

System Management

ODOT will develop an integrated management system to assure consistency of bridge management, pavement management, safety management, congestion management, transit equipment and facilities management and intermodal transportation facilities and systems. The system will be consistent with requirements of the ISTEA and will incorporate procedures for evaluating the costs and benefits of infrastructure investment and management decisions.

In carrying out its obligation to provide management systems, ODOT will emphasize

- Intermodal passengers
- Intermodal freight
- Demand management including congestion pricing

ODOT expects MPOs to participate in planning related to air quality and congestion management and will cooperate with MPOs in the implementation of system management.

Six-Year Transportation Improvement Program (TIP)

The Six-Year Transportation Improvement Program is a schedule of funding for projects identified in state, regional and local transportation plans. Funding to support the TIP comes from a variety of sources including federal ISTEA funds. The TIP is a capital improvement program and as such is not a plan. ODOT updates the program every two years. TIP projects proposed for construction after the adoption of the OTP must be consistent with the goals and policies of the OTP, state modal and multimodal plans, and regional and local transportation plans. Transportation improvements which have approved funding for construction in the 1993-98 TIP and are consistent with the acknowledged comprehensive plan will remain in the program.

Metropolitan Area Plans (Regional Plans)

Metropolitan planning organizations and their member agencies have a major role in meeting the objectives of the various transportation planning guidelines. MPOs shall coordinate preparation of the regional transportation system plan with ODOT. MPO plans shall be consistent with the Oregon Transportation Plan, the LCDC Transportation Planning Rule, the State Implementation Plan under the Clean Air Act Amendments and the planning requirements of the ISTEA.

County and City Plans

County and city transportation planning shall be consistent with the Oregon Transportation Plan, the LCDC Transportation Planning Rule, the State Implementation Plan under the Clean Air Act Amendments and the regional transportation system plan.

PLANNING AND PERFORMANCE GUIDELINES

The Planning and Performance Guidelines below help implement the OTP by providing a structure for further transportation planning and programming for regional and local agencies. Achievement of these guidelines is considered necessary to carry out the Oregon Transportation Plan. The guidelines will operate in conjunction with the Transportation Rule, which already specifies planning considerations and procedures to be applied to regions or urban places of different sizes. The role of the OTP planning guidelines is to supplement but not replace already established requirements of the Transportation Rule and the federal ISTEA.

To assist regional and local government consistency with the Oregon Transportation Plan, the following outline suggests the type of jurisdiction to which OTP policies and actions apply. These guidelines assume that the OTP action statements associated with policies are an integral part of the goals and policies of the plan. The Minimum Levels of Service standards are intended to be implemented during the next 20 years by federal, state, regional and local governments and the private sector.

I. All Jurisdictions

A. Policy Guidelines

The following Policy Guidelines apply to all MPOs and local governments:

1. Provide a balanced transportation system. (Policy 1A)

    a. Design systems and facilities that accommodate multiple modes within corridors where appropriate. (Action 1A.1)

2 Preserve corridors for future transportation development. (Action 1B.4)

3. Promote a transportation system that is reliable and accessible to all potential users measured by availability of modal choices, ease of use, relative cost, proximity to service and frequency of service. (Policy 1C)

a. Provide transportation services in compliance with the Americans with Disabilities Act (ADA) requirements for all modes and transfer facilities. (Actions 1C.3)

b. Assure that services of private and public transportation providers are coordinated. (Action 1C.5)

4. Provide a transportation system that is environmentally responsible and encourages conservation of natural resources. (Policy 1D)

   a. Minimize transportation-related energy consumption through improved vehicle efficiencies, use of clean burning motor fuels, and increased use of fuel efficient modes which may include railroads, transit, carpools, vanpools, bicycles and walking. (Action 1D.1)

   b. Positively affect both the natural and built environments in the design, construction and operation of the transportation system. Where adverse impacts cannot be avoided, minimize or mitigate their effects on the environment. (Action 1D.3)

   c. Cooperate with state and local agencies which regulate air quality, water quality, energy conservation, noise abatement, and transportation of hazardous materials. (Actions 1D.2, .4, .5, .6, and .7)

5. Provide a transportation system with connectivity among modes within and between urban areas, with ease of transfer among modes and between local and state transportation systems. (Policy 1F)

   a. In local and regional transportation plans, identify (a) major transportation terminals and facilities, and (b) routes and modes connecting passenger and freight facilities with major highways and intermodal facilities. (Action 1F.1)

6. Promote the safety of the transportation system.

   a. Cooperate with state agencies to target resources to dangerous routes and locations. (Action 1G.4)

   b. Increase cooperation with other governments and private enterprises to implement effective community-based safety programs. (Action 1G.6)

   c. Build, operate, and regulate the transportation system so that users feel safe and secure as they travel. (Action 1G.9)

7. Develop transportation plans and policies that implement Oregon's statewide planning goals. (Policy 2A)

   a. Support local land use planning with transportation plans that provide the needed level of mobility while minimiz-

ing automobile miles traveled and number of automobile trips taken per capita. (Action 2A.1)

b. Develop transportation system plans sufficient to accommodate planned development. (Action 2A.2)

c. Restrict access from state facilities for incompatible activities and development where land use plans call for rural or resource developments. (Action 2A.6)

8. Provide for interurban mobility through and near urban areas in a manner which minimizes adverse effects on land use and urban travel patterns. (Policy 2C)

   a. In transportation system plans and land use plans, avoid dependence on the state highway system for direct access to commercial, residential, or industrial development adjacent to the state highway. (Action 2C.3)

9. Promote safe, comfortable travel for pedestrians and bicyclists along travel corridors and within existing communities and new developments. (Policy 2D)

10. Encourage modal alternatives to the automobile and truck where feasible in rural areas. (Action 2F.3)

11. Protect and enhance the aesthetic value of transportation corridors in order to support economic development and preserve quality of life. (Policy 2H)

12. Provide more efficient railroad service through the reduction of conflicts at busy railroad crossings and rail yard areas by means such as grade separations and development of alternative motor vehicle circulation routes. (Action 3A.5)

13. Provide a direct, convenient, and physically suitable system for goods movement to transportation facilities and commercial and industrial areas to ensure the timely delivery of goods. (Action 3B.1)

14. Develop a transportation system that supports tourism and improves access to recreational destinations. (Policy 3E)

    a. Incorporate tourist facilities and services that are identified in a state tourism plan in the local transportation plan. (Action 3E.1)

15. Manage effectively existing transportation infrastructure and services before adding new facilities. (Policy 4G)

    a. Protect the integrity of statewide transportation corridors and facilities from encroachment by such means as controlling access to state highways, minimizing rail crossings and controlling incompatible land use around airports. (Action 4G.4)

16. Coordinate transportation projects and activities involving federal lands agencies with those agencies. (Action 2A.5 and Policy 4L)

17. Establish private sector participation in transportation policy and systems plans. (Action 4M.1)

18. Develop programs that ensure the opportunity for citizens, businesses and state agencies to be involved in all phases of the transportation planning processes. (Policy 4N)

    a. Make information about proposed transportation policies, plans and programs available to the public in an understandable form. (Action 4N.2)

19. Accommodate international, interstate and statewide movements of goods and passengers that move through the jurisdiction.

B. Minimum Levels of Service

In cooperation with state government, MPOs and local governments should

1. Coordinate intercity elderly and disadvantaged services with intercity bus and van services which are open to the general public.

2. Connect intercity bus services to local transit and elderly and disadvantaged services.

3. Preserve priority railroad rights of way for potential public use or ownership when abandonment proceedings are initiated.

4. Encourage and support reload facilities where they provide the most cost efficient and environmentally efficient and effective response to branchline abandonment.

II. Jurisdictions with Urban Areas over 25,000 that are Outside MPO Areas

A. Policy Guidelines

In addition to the Policy Guidelines for all jurisdictions, the following apply:

1. Cooperatively define acceptable levels of accessibility through the establishment of standards in transportation sys-

tem plans for minimum levels of service and system design for passengers and freight for all modes. (Action 1C.1)

2. Encourage multimodal accessibility to employment, shopping and other commerce, medical care, housing and leisure, including adequate public transit access for the transportation disadvantaged. (Action 1C.2)

3. Define minimum levels of service and assure accessibility to existing and new development within urban areas to achieve the state goal of compact, highly livable urban areas. (Policy 2B)

   a. Give preference to projects and assistance grants that support compact or infill development or mixed use projects. (Action 2B.2)

   b. Increase the availability and use of transit, walking, bicycling and ridesharing. Promote the design and development of infrastructure and land use patterns which encourage alternatives to the single occupant automobile. (Action 2B.3)

4. Promote alternative modes and preservation and improvement of parallel arterials so that local trips have alternatives to the use of intercity routes. (Action 2C.2)

5. Make walkways, pedestrian shelters and bikeways an integral part of the circulation pattern within and between communities to enhance safe interactions between motor vehicles and pedestrians and bicyclists. (Action 2D.1)

B. Minimum Levels of Service

In cooperation with state government, local governments should

1. Make urban transit services available to the general public to provide a modal alternative to automobile travel.

2. Connect local public transit services and elderly and disadvantaged service with intercity passenger terminals.

3. Through public control, provide open access to intercity passenger terminals for all intercity carriers.

4. Coordinate local transit services with intercity rail services to provide for timely and convenient connections.

5. Identify and support major intermodal hub facilities to serve as transfer points from or to truck, air, rail, and marine transportation as a method for improving Oregon's access to national and international markets. Connections to major intermodal facilities should be available under open access terms where feasible.

6. Provide high quality highway access to freight intermodal and reload facilities.

III. MPOs and Jurisdictions within MPO Areas

A. Policy Guidelines

In addition to the Policy Guidelines that apply to all jurisdictions and to jurisdictions with urban areas over 25,000 outside of MPO areas, the following apply:

1. Make transportation investment decisions which maximize the net full benefits of the system and allow users to face prices which reflect the full costs of their transportation choices. (Policy 1B)

   a. Employ economic, social, energy and environmental impacts as a part of the transportation planning and project design process. This should be done on a total system basis rather than optimizing the cost effectiveness of one mode at the expense of another. (Action 1B.1)

   b. Develop pricing programs that charge road users commensurately with the total costs of operations and improvements and use. (Action 1B.2)

   c. Use demand management techniques to reduce vehicle miles traveled in single occupant automobiles, especially during peak hours of highway use. These measures include the use of alternative modes such as transit, bicycling and walking, ridesharing, vanpooling, telecommuting and projects that promote efficient urban design. (Action 1B.3)

2. Develop public transit, bicycle and pedestrian systems. (Action 1C.4)

3. Identify significant out-of-state corridors or areas where Oregonians need access and encourage their development. (Action 1E.2)

4. Assure effective transportation linkages for goods and passengers to attract a larger share of international and interstate trade to the state. (Policy 3B)

5. Use demand management and other transportation systems operation techniques that reduce peak period single occupant automobile travel, that spread traffic volumes away from the peak period and that improve traffic flow. Such techniques include HOV (high occupancy vehicle) lanes with express transit service, carpools, parking management programs, peak period pricing, ramp metering, motorist informa-

tion systems, route diversion strategies, incident management and enhancement of alternative modes of transportation including bicycling and walking. (Action 4G.3)

B. Minimum Levels of Service in MPO Areas of Less Than One Million Population

In cooperation with state government, MPOs and jurisdictions within MPOs should

1. Provide urban transit services in all parts of the urbanized area.

2. Provide high quality transit services in all interstate corridors and other highway corridors of statewide function in which level of service E or worse is experienced or anticipated.

3. Develop transit service frequencies for all routes no less frequent than one-half hour at peak periods.

4. Provide transit service for off-peak midday hours on all routes, or make a guaranteed ride home program available.

5. Provide park and ride facilities along major rail or busway corridors to meet reasonable peak and off-peak demand for such facilities.

6. Provide convenient connections between urban transit services and all intercity passenger modes and terminals.

7. For urban areas of 2,500 population or more within 20 miles of the metropolitan central city, provide at least peak hour transit service to the metropolitan area.

C. Minimum Levels of Service for MPO Areas of Over One Million Population

In cooperation with state government, MPOs and jurisdictions within MPOs should

1. Have same requirements for metropolitan jurisdictions under one million plus,

2. Provide high capacity transit services with separate rights-of-way or priority treatments for transit vehicles in all interstate corridors and other highway corridors of statewide function in which level of service E or worse is experienced or anticipated.

3. Provide transit service at no less than one hour frequencies for off-peak services on all routes, or make a guaranteed ride home program available.

4. Provide service levels to transit-oriented developments sufficient to achieve the transit-related usage goals of the development.

IV. Intergovernmental Cooperation

A. ODOT, in cooperation with regional and local governments, should

1. Define criteria for adoption of MPO plans for the four metropolitan areas as a regional element of the OTP based upon satisfactory achievement of state, regional and local interests, including consideration of trade-offs between such factors as

   a. Support of regional urban growth goals and objectives and local comprehensive plans in the most effective manner;

   b. Consistency with standards for intercity, interstate and international routes;

   c. Consistency with OTP goals and policies;

   d. Consistency with regional mobility objectives;

   e. Compliance with standards affecting air quality;

   f. Compliance with Progress Board Benchmarks;

   g. Compliance with requirements of the LCDC Transportation Planning Rule;

   h. Cost-effectiveness; and

   i. Environmental consequences.

2. Participate with regional and local governments and represent the state interest in the monitoring of urban travel patterns.

3. Participate with the regional and local governments in developing the financing element of the MPO plan.

4. Cooperate with MPO area jurisdictions and assist in developing the metropolitan area plan for regional mobility.

5. Integrate the ODOT corridor planning process with the MPO planning process.

B. ODOT will carry out its role in the urban area in the following manner:

1. ODOT will participate in the MPO policy committee to ensure that regional actions can be supported by the Oregon Transportation Commission.

2. ODOT regional staff will be empowered to participate on a regular basis to represent the state interest in regional and local plans.

3. ODOT will implement its project responsibilities in a manner compatible with the regional transportation plan.

V. ODOT Adoption of MPO Plans

Upon satisfactory completion of the MPO transportation plan, the Oregon Transportation Commission will:

A. Adopt the metropolitan area plan as a regional element of the Oregon Transportation Plan including:

   1. The system for intercity, interstate and international travel, including key passenger and freight terminals, as defined by ODOT.

   2. The regional system required to meet regional mobility objectives as defined by the region in cooperation with ODOT (i.e., all "regional arterials," "regional transit routes," "regional bike routes," etc).

B. Adopt the improvement strategy (i.e., corridor plan) in the metropolitan area for the system of intercity, interstate and international routes and the improvements that directly benefit this system (such as transportation demand management, arterials, transit, access control and land use actions).

C. Certify that the MPO's plan includes an adequate improvement and financing strategy to meet regional mobility objectives and satisfy other criteria for acceptance of the MPO plan.

In summary, this implementation approach involves the following actions:

	ODOT	MPO	LOCAL GOVERNMENTS
Intercity/Interstate System			
System/Terminal Definition	Adopt	Adopt	Adopt
Improvement Plan	Adopt	Adopt	Adopt
Regional System			
System Definition	Adopt	Adopt	Adopt
Improvement Plan	Certify	Adopt	Adopt
Local System			
System Definition	None	Certify	Adopt
Improvement Plan	None	Certify	Adopt

VI. Evaluation of Planning Progress

The Oregon Department of Transportation will periodically evaluate progress made by all jurisdictions toward implementing the elements of the Oregon Transportation Plan. ODOT will develop standards of evaluation in consultation with MPOs and local governments. ODOT will be responsible for evaluating MPO and local government transportation plans based on the standards. MPOs and local governments will participate in the evaluation process. ODOT will also review MPO and local government transportation plans for consistency with the OTP as part of the LCDC periodic review process.

Creating maps on the computer will facilitate transfers of maps between agencies.

INVESTMENT REQUIREMENTS

License and other user fees help pay for transportation investments.

According to preliminary needs estimates, implementation of the Preferred Plan will require an additional $12 billion in funding over the next 20 years, including local, state and federal commitments.

Table 5 compares Continuation of Existing Programs levels with the Preferred Plan and presents the estimated additional dollars necessary to implement the plan. Approximately 84 percent of the total dollars in the Continuation level are for roads, streets and highways. Much of this amount is to maintain the existing infrastructure. However, under the Preferred Plan, 57 percent of the additional dollars will go for roads, streets, and highways because there will be major new investments in railroads (passenger and freight), marine ports, aviation, intercity bus and, especially, transit. This will be a major change in state direction and responsibility for the development and funding of the Oregon transportation system.

Transportation demand management and Intelligent Vehicle Highway Systems are not specifically identified in Table 5. It is assumed over the 20 years these types of activities will be part of the highway program but may require a separate investment pool during implementation.

These estimates are based on preliminary funding assumptions which were made in order to describe, develop and evaluate the alternative plans. They will be updated as implementation strategies are clarified and modal and regional plans completed.

Financing Program

The financing program for the Oregon Transportation Plan is still being formulated. The Transportation Commission plans to recommend a specific financing program by December 31, 1992.

The financing program will carry out the finance policies in the Policy Element which include stability, flexibility, efficiency, equity and adequacy. The program will be structured to achieve state goals and improve the cost/benefit relationship.

TABLE 5
PRELIMINARY COMPARISON OF PLAN ALTERNATIVES
(MILLIONS OF 1991 DOLLARS)

Criteria	20 Year Continuation Program Levels	20 Year Preferred Plan	Additional Cost to Implement Preferred Plan: 20 Year	Additional Cost to Implement Preferred Plan: Annual
Highways*	$19,500	$26,300	$6,800	$340
Railroad**				
Capital	N/A	620	620	31
Operating	N/A	220	220	11
Marine-Ports (Capital)***				
Navigation Improvements	N/A	90	90	5
Landside Improvements	N/A	45	45	2
Aviation				
Commercial Passenger****	N/A	34	34	2
General Aviation*****	N/A	N/A	N/A	N/A
Intercity Bus (Operating)	0	120	120	6
Transit******				
Operating Deficit	2,500	3,400	900	45
Capital	1,200	4,400	3,200	160
Pipelines	0	?	?	?
TOTAL	N/A	$35,200	$12,000	$600

Note: Federal revenues will be major portion of most modes' funds.

N/A = Not available or minimal amount.

* Highway needs are from the November 1992 draft of the Roads Finance Study. This is a targeted funding program based on total needs of $37 billion. Estimates cover state, city and county roads, and bicycle and pedestrian facility needs.

** Railroad needs are from preliminary results of the Oregon Rail Passenger Policy and Plan and rail freight needs estimates in 1993-8 Preliminary T.I.P.

*** Extrapolation from Maritime Navigation Improvement Fund memo and Oregon Public Ports Association information. Does not include at this time landside improvement needs for the Lower Columbia.

**** Commercial passenger needs are from "Commercial Air Service and Facility Needs Study" 1991. Minimum levels of service standards are already met by Portland International; however, capacity improvements will still be required.

***** General aviation minimum service levels have not yet been established. Therefore, OTP needs estimates have not yet been developed.

****** Transit needs are based on Tri-Met's strategic plan, with modifications for statewide transit needs.

? Pipelines are privately owned. Future public role and investments are undetermined.