

SUSTAINABILITY GOAL 1

Support Sustainable Development

Program Development

During the biennium, the department will work with local, state and federal program partners to assist in the development and implementation of local comprehensive plans and ordinances to support sustainable development. The department will employ several program tools by which to support, if not promote, sustainable development.

- The Transportation Growth Management Program (TGM) is a partnership between DLCD and the Oregon Department of Transportation (ODOT) to promote the integration of local land use planning and transportation through financial and technical support to local governments. DLCD will continue to fund local planning efforts that result in compact urban development and enables the use of mass transit and alternative transportation modes. The TGM program has been nationally recognized for successfully helping communities meet development, safety, and livability goals within the broader statewide vision for land use and transportation systems. See also <http://www.oregon.gov/LCD/TGM/index.shtml>
- The Economic Development Program works with a variety of state and local partners to formulate regional planning including efforts to use market-based tools to promote regional solutions at a landscape scale that enable development while protecting the environment. The DLCD and the Oregon Economic and Community Development Department (OECD) will collaborate on technical and planning assistance to local governments to improve the linkage between land use planning and economic development planning. See also http://www.oregon.gov/LCD/ECODEV/economic_opportunities_analysis.shtml
- The Oregon Coastal Management Program (OCMP) assists coastal cities and counties to plan for and manage development in the context of long-term conservation and stewardship of unique coastal resources and features. In addition, the OCMP works with state agencies and local governments to promote sustainable development by identifying and quantifying coastal hazards particularly along the dynamic ocean shore, maintaining water quality by reducing the effects of stormwater runoff, restoring and sustain Oregon's estuarine habitats that are essential to sustaining salmon, shellfish, shorebirds, and other organisms, and maintain lands in coastal ports needed for water-related and water-dependent uses. The OCMP is also working through the Oregon Solutions process, with the Office of the Governor and other state and federal agencies to support the development of ocean wave energy on the coast. See also <http://www.oregon.gov/LCD/OCMP/index.shtml>
- Farm Forest Program http://www.oregon.gov/LCD/urbanrural.shtml#Rural_Issues This program is the state's primary planning vehicle to protect the land base of the state's farm and forest economies which is crucial to the long-term economic sustainability of the State of Oregon. The department assists the efforts of local governments, particularly counties, the Oregon departments of Agriculture and Forestry, and others to ensure that land use decisions meet the requirements of Statewide Planning Goals 3 and 4. The department does not regulate or proscribe actual forest or farm practices.
- Flood Hazard Program works closely with the Federal Emergency Management Administration (FEMA) to upgrade maps and other information needed by state agencies, local

governments, and property owners on the location of flood hazard areas. In addition, the Department assists local and tribal governments in planning for removal of structures and relocation of business from known hazard areas. See also <http://www.oregon.gov/LCD/HAZ/index.shtml>

Grants

The department assists local governments to work toward sustainable development through awards of grant funds from several sources including:

- Federal Coastal Zone Management grants to coastal cities and counties for core planning functions, special planning or technical projects, stormwater management, and small-scale construction or acquisition projects to support public access to coastal waters;
- State Transportation and Growth Management funds to local governments statewide to support plans and project designs that promote and support sustainable development by adopting policies to support compact development, promote mixed uses, and provide transportation options; and
- General Fund Technical Assistance funds to local governments statewide to support regional planning approaches to economic development and resource protection.

Technical assistance

The department's eleven regional field representatives and several agency specialists provide direct assistance or find appropriate technical assistance to help local governments address a wide range of planning and technical issues related to sustainable community development, including:

- transportation planning to provide for a variety of transportation alternatives to meet community needs, improve safety, and reduce reliance on automobiles;
- best management practices that promote sustainable development (i.e. reducing stormwater runoff, protecting solar access, reducing energy use, retaining native vegetation, and minimizing demands on water);
- protecting natural resources essential to restoring salmonid habitat and sustaining salmonids populations;
- open space, greenways, parks, and other amenities for local and regional recreational uses;
- complex regional-scale land use issues related to industrial land supply, transportation, and other public infrastructure needs.

Program Partners

To effect positive solutions to land use and economic development issues, the department staff work with virtually every agency in state government, and many other intergovernmental entities including the Governor's Economic Revitalization Team (formerly the Community Solutions Team), the Governor's Office of Rural Policy, and the National Policy Consensus Center at Portland State University.

SUSTAINABILITY GOAL 2

Secure Oregon's Natural Resource Legacy

Program development

The department will continue to work closely with local governments and a number of state, tribal, and federal natural resource agencies to protect Oregon's natural resources, which are the foundation of the state's livability, economy, and way of life. In particular, the department focuses on three key sets of natural resources:

- **the land base of Oregon's agricultural and forest industries.** The department measures success at protecting farm and forest lands through annual reports to the legislature;
- **the habitats and ecosystem conditions essential to coho and other salmonids.** The department supports The Oregon Plan for Salmon by participating on the Governor's Core Team and assisting city and county governments to improve local land use plans and ordinances to implement Goal 5, Natural Resources and other statewide goals in order to avoid or reduce the impacts of development, such as streets and roads, on riparian corridors, wetlands, and other ecosystem features that are essential to Coho salmon; and
- **estuaries, beaches and dunes, coastal shorelands, and other coastal resources** that create the unique character of the Oregon Coast and are the basis for much of the economy of coastal communities.

In addition, because Oregon is a geologically and meteorologically dynamic landscape, the department works closely with several state and federal agencies and local governments to improve information about natural hazards so that local plans and regulations will avoid or reduce the risk to new development in these naturally dynamic environments. This activity is especially crucial along the ocean shore where natural processes that create and maintain the aesthetic resources and environmental quality of the beach also can create hazards to development.

The department's Coastal Management Program will also review all state and federal permits or actions that affect coastal natural resources to ensure compliance with the statewide planning goals and consistency with Oregon's federally-approved Coastal Management Program.

The Coastal Management Program is taking a leadership role on developing ocean wave energy by assisting the Governor's Office and other state and federal agencies to create a regulatory regime that will streamline implementation of energy research and development projects without compromising the state's interests in sound management of all economic and environmental interests in the state's Territorial Sea.

Grants

The department's General Fund budget precludes extensive financial assistance to local governments statewide related to natural resources but often assists in funding regional natural resource assessments and local wetland and other resource inventories and analysis. However, in the Coastal Zone, the department will use federal Coastal Zone Management funds to

- assist local governments to update inventories of wetlands, riparian zones, steep slopes and other resource areas, and to adopt plan and ordinance provisions to protect them;

- assist several state agencies via Intergovernmental Cooperative Agreements to inventory and assess ocean shore, offshore, and beach resources and develop improved regulatory measures to protect them; and
- within the limits of Congressional appropriations, assist local governments in applying for special funds under the Coastal and Estuarine Lands Conservation Program to acquire key coastal or estuarine lands.

Technical Assistance

Because statewide and local efforts to sustain Oregon's natural resources require robust information, the department will continue to work with program partners, including the Oregon Natural Heritage Program and Department of Fish and Wildlife, to use GIS, the Oregon Coastal Atlas, and other information tools to develop and provide data about land uses, natural resources such as estuaries, wetlands, and forest lands. The department will continue funding and technical assistance to local governments for work to develop local conservation and restoration programs for resources under statewide planning goals 3, 4, 5, 6 and 15.

Program Partners

The department will work with all relevant state and federal natural resource agencies, local and tribal governments, non-governmental organizations, and citizens to sustain Oregon's natural resource legacy.

SUSTAINABILITY GOAL 3

Employ Sustainable Practices in Daily Operations

The department will continue to work with the Department of Administrative Services to identify and implement sustainable operational practices. The department anticipates integrating best practices with regard to recycling of paper and other office materials, upgrading of electronic equipment and end-of-life disposal, promoting car-pooling and bicycling, encouraging employees to use public transit for commuting, supporting employee telecommuting and teleconferencing, and reducing operational energy demands by acquiring energy efficient equipment.

2005--2007 DLCDD Sustainability Plan Progress Statement

The Department of Land Conservation and Development carried out a number of program activities to implement its 2005-2007 Sustainability Plan. Many of the department's activities relate to improvements in the wide variety of land use planning processes at the local government level that can support opportunities for sustainable development and community sustainability.

Sustainability Goal 1): Promote Sustainable Development

Since the 2005-2007 Sustainability Plan was adopted, the department has

- revised administrative rules to support local land use planning for economic and community development;
- made limited progress in developing a certification program for "sustainable" communities;
- issued technical assistance grants to cities and counties statewide to support planning for sustainable community development;
- awarded grants issued through the Transportation and Growth Management program to help local communities to implement "smart development" practices to foster sustainable transportation choice;
- awarded federal Coastal Zone Management grant funds to coastal local governments, including Newport, Port Orford, and Garibaldi, to carry out a number of long-range planning activities that will support sustainable community development;
- worked with other agencies, including the Department of Geology and Mineral Industries, to identify and assess geologic hazards; and
- assisted local governments to develop and apply comprehensive plan policies and ordinances that avoid, reduce, or mitigate the risk posed by hazards to new and existing development in order to protect and preserve property and life.

Sustainability Goal 2): Streamline the State Land Use Planning Process

During the 2005-2007 biennium, the department and Commission acted to streamline several administrative rules and procedures, including

- the periodic review process to make it easier and faster for local governments to update plans (OAR 660 Div 25 http://arcweb.sos.state.or.us/rules/OARS_600/OAR_660/660_025.html);
- identifying economic needs and promoting economic opportunities in Oregon's communities (OAR 660, Division 9 http://arcweb.sos.state.or.us/rules/OARS_600/OAR_660/660_009.html);

- resolving sewer provisions in rural residential areas (OAR 660 Division 011-0060(8) http://arcweb.sos.state.or.us/rules/OARS_600/OAR_660/660_011.html); and
- streamlining and simplifying the urban growth boundary expansion process (OAR 660, division 24).

The department, primarily through the Coastal Services Division, has participated in a multi-agency effort within state government, known as RPPT to improve the efficiency of state-level water related permits such as removal fill permits processed by the Department of State Lands (DSL) process water related permit improvement program at the state level to improve coordination and efficiency and participate in a state collaborative transportation group (CETAS). This effort will include an improved user guide, better early coordination and development of a smart application.

Sustainability Goal 3): Secure Oregon's natural resources legacy

The department carried out the policies of Oregon's statewide land use program to protect working farm and forest lands and to ensure that these vital industries can be sustained. The department's Ocean Management Program implemented State Land Use Planning Goal 19: Ocean Resources, through the activities of the Oregon Ocean Policy Advisory Council (OPAC). Goal 19 mandates ocean resource conservation in order to provide "long-term ecological, economic and social values and benefits to future generations", in other words, a sustainable ocean. Issues now under consideration by OPAC include designation of marine reserves, possible designation of a national marine sanctuary, and development of a regulatory regime for ocean wave energy generation.

The department also worked closely with the Oregon Watershed Enhancement Board to provide technical and financial support for refinements to the OWEB Watershed Assessment Manual to incorporate methods for assessing and restoring estuarine wetland habitats.

Sustainability Goal 4): Adopt internal sustainability practices.

The department has made a concentrated effort to integrate sustainable practices and products into day-to-day operations. The department implemented procedures to reduce the use of paper by providing information in electronic forms and encouraging submittal of electronic documents. This activity has been supported by purchasing new copiers with scanning capacity. The department has purchased and deployed new flat-screen computer monitors that use less electricity and has relocated several staff in other regions of the state to improve agency performance and services. The department has created five e-mail list-servers to provide information to the public via e-mail rather than paper mail.



Oregon

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June 5, 2008

TO: Land Conservation and Development Commission

FROM: Richard Whitman, Director
Teddy Leland, Operations Services Manager
Jon Dunsmore, Network Administrator

SUBJECT: **Agenda Item 15e, June 18-20, 2008 LCDC Commission Meeting**

COMMISSION REVIEW AND APPROVAL OF 2009-11 INFORMATION RESOURCES MANAGEMENT PLAN

I. RECOMMENDATION

Following public testimony, the department recommends that the commission deliberate and approve the 2009-11 Information Resources Management Plan and authorize the department to submit this plan to Department of Administrative Services, Enterprise Information Strategy and Policy Division (EISPD).

II. AGENDA ITEM SUMMARY

This item includes a public hearing and Commission review of 2009-11 Information Resources Management Plan proposed by the department.

For more information about this agenda item, contact Teddy Leland at (503) 373-0050, Ext. 237, or email Teddy.Leland@state.or.us.

III. PROPOSED 2009-11 INFORMATION RESOURCES MANAGEMENT PLAN

Information technologies, processes, and products are essential to the DLCD mission in three ways:

Constituent Services: Information products are the heart of technical and planning services to local government land use programs and to the public. DLCD is responsible for some unique sets of information, such as urban growth boundaries, and is uniquely positioned among state

agencies to acquire, synthesize, and apply a wide variety of information to complex planning situations at the local level.

Internal Management: Information and information technologies are critical to efficient internal operations and business management practices within the department. These practices range from grants-management and budgeting to acquiring and archiving a wide range of information to support program services and agency operations.

Public Accountability: Information is essential to ensuring that the department and the statewide land use program are accountable to the Governor, the Legislature, and the public. The department must have the capacity to capture, assess, synthesize, and report a wide variety of data and information to answer questions about program performance in achieving land use benchmarks and objectives. Information is also required to assist the Governor and the Legislature create policies based on accurate and timely information.

The department's Information Resources Management Plan provides the framework for the department to implement and maintain a robust information technology capacity supporting the statewide land use enterprise. This framework ensures that departmental information technology enables efficient sharing of information and technology across the land use enterprise partners and customers.

The Information Resources Management Plan also describes how information technologies have been used in the department and how they could be applied in the future to improve the execution of the department's mission.

In summary, the Information Resources Management Plan describes the Information Strategic Plan and vision for the department. This plan must be provided by August 1, 2008, to the Department of Administrative Services, Enterprise Information Strategy and Policy Division.

IV. COMMISSION OPTIONS

The Commission may:

1. Accept the department's recommendation and approve submittal of the Information Resources Management Plan to the Department of Administrative Services, Enterprise Strategy and Policy Division; or
2. Deny the department's recommendation and approve submittal of the Information Resources Management Plan to the Department of Administrative Services, Enterprise Strategy and Policy Division; or
3. Modify the department's recommendation and approve submittal of the Information Resources Management Plan to the Department of Administrative Services, Enterprise Strategy and Policy Division.

V. DEPARTMENT RECOMMENDATION AND DRAFT MOTION

Following public testimony, the department recommends that the commission authorize the department to submit the plan described in this report.

Proposed Motion: I move that the Commission accept the department's recommendation to submit the Information Resources Management Plan described in this report.

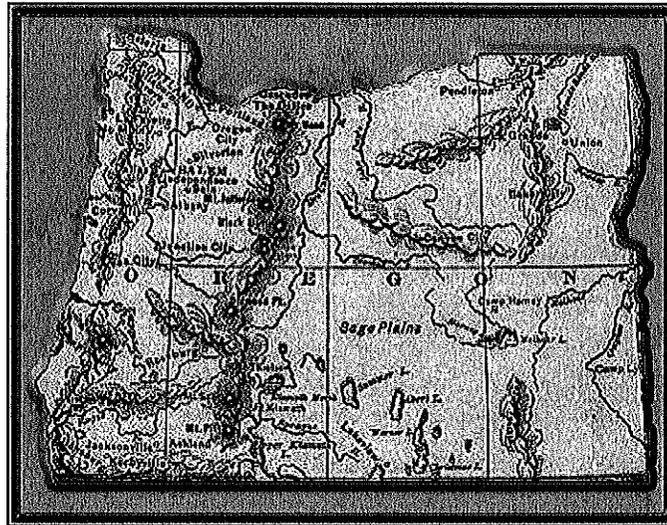
Alternative Motion (1): I move that the Commission decline the department's recommendation to submit the Information Resources Management Plan described in this report; or

Alternative Motion (2): I move that the Commission approve the department's recommendation to submit the Information Resources Management Plan described in this report modified as follows: ***

Attachments:

A. 2009-11 Information Resources Management Plan

OREGON DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT
Information Resources Management Plan
2009 – 2011 Biennium
May 2008



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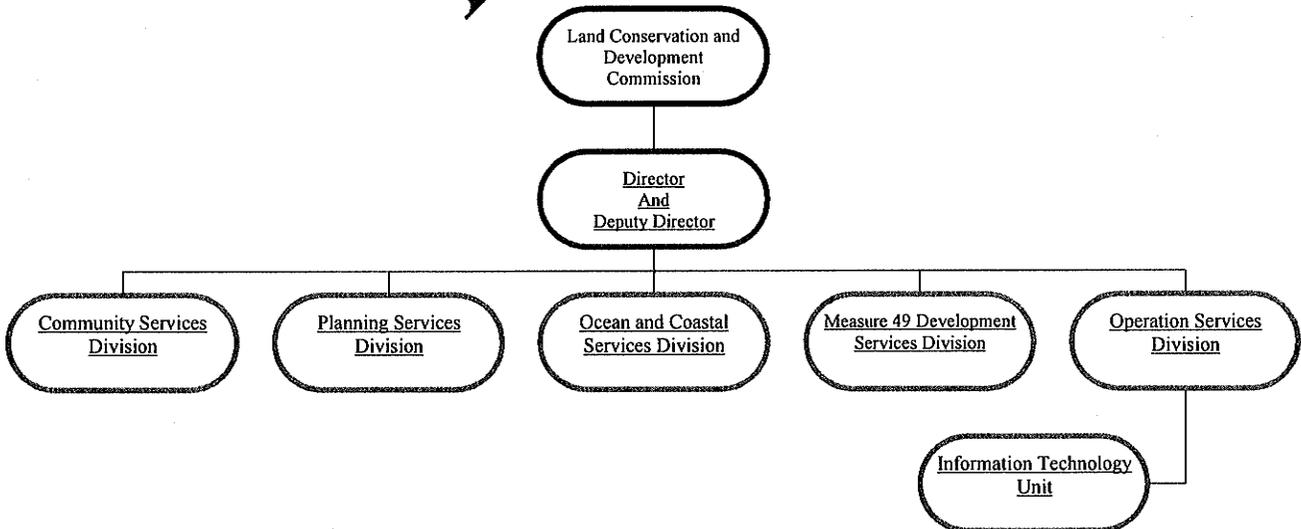
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For additional information about this IRM Plan, contact
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DR
DLCD Organizational Chart



I. Introduction and Purpose

Oregon's statewide land use planning program is an ambitious initiative established by the 1973 Oregon Legislative Assembly to "assure the highest possible level of liveability [sic] in Oregon... ." ¹ The program is based on the development and implementation of "properly prepared and coordinated comprehensive plans for cities and counties, regional areas and the state as a whole." ²

Today, after thirty years of developing the statewide system of local land use plans, Oregon's land use program has matured at all levels. It can be referred to as an *enterprise*—a "systematic purposeful activity"—that involves many partners, customers, and stakeholders. Land use decisions have become increasingly complex as growth and development of Oregon's communities continues. A critical function of the statewide land use enterprise is to ensure that land use decisions are made on the basis of sound and complete information.

The Department of Land Conservation and Development (DLCD) administers Oregon's land use enterprise. But overall, the enterprise relies on the actions and decisions of nearly three hundred partners, including Oregon's cities and counties, many other state agencies, and several federal agencies to carry out its mission to:

Support all program partners in creating and implementing comprehensive plans that address and balance the statewide planning goals, the vision of citizens, and the interests of local, state, federal and tribal governments

Over the past decade, many of these partners have acquired information technologies to improve their access to information for decision-making, and to increase the quality of their services. It is clear that these technologies have immense potential to improve the state's land use enterprise. To date, however, the DLCD has lagged far behind other partners and stakeholders in acquiring and employing information technology (IT) capacity.

The information technology interests of the Statewide Land Use Planning Program mirror those of the statewide Information Resources Management Enterprise.

¹ 1973 Oregon Legislative Assembly, Senate Bill 100; codified as Oregon Revised Statutes 197.010(1).

² Ibid.

Continued evolution of Oregon's land use enterprise will be based on the ability of all partners and stakeholders to acquire, process, store, retrieve, analyze, synthesize, distribute, and apply information of widely differing kinds, involving widely different partners and their differing needs.

During 2006 and 2007, the passage of Measure 37 placed real-time demands on DLCD's IT capacity, particularly GIS, and revealed that the department simply does not have the necessary capacity to meet public expectations for information and assistance, to meet the legislature's need for information and analysis, and to efficiently manage high-volumes of data-demanding workloads. The department had to turn to outside entities such as Portland State University, the University of Oregon, and the Oregon Department of Agriculture to provide basic information management and assessment work related to Measure 37 claims and their impact on land use.

Information technologies, processes, and products are essential to the DLCD mission in three ways:

Constituent Services: Information products are the heart of technical and planning services to local government land use programs and to the public. DLCD is responsible for some unique sets of information, such as urban growth boundaries, and is uniquely positioned among state agencies to acquire, synthesize, and apply a wide variety of information to complex planning situations at the local level.

Internal Management: Information and information technologies are critical to efficient internal operations and business management practices within the department. These practices range from grants-management and budgeting to acquiring and archiving a wide range of information to support program services and agency operations.

Public Accountability: Information is essential to ensuring that the department and the statewide land use program are accountable to the Governor, the Legislature, and the public. The department must have the capacity to capture, assess, synthesize, and report a wide variety of data and information to answer questions about program performance in achieving land use benchmarks and objectives. Information is also required to assist the Governor and the Legislature create policies based on accurate and timely information.

Purposes of DLCDC's Information Resource Management Plan

- Provide a framework for the Department to implement and maintain a robust information technology capacity to support the statewide land use enterprise.
- Ensure that information technology within the Department and throughout the land use enterprise effectively supports the programmatic and business needs of the various partners.
- Enable efficient sharing of information and technology across the land use enterprise, among partners and with customers.
- Support proposed budget packages related to IT capacity within the land use enterprise.

DRAFT

II. Oregon's Statewide Land Use Enterprise: The Framework for IT Planning

This section provides a summary of important basic information about Oregon's Statewide Land Use Planning Program and the many partners involved in its implementation. The land use program is the context for DLCDC's Information Technology Strategic Planning.

A. OREGON'S LAND USE PROGRAM MISSION STATEMENT

Support all program partners in creating and implementing comprehensive plans that address and balance the statewide planning goals, the vision of citizens, and the interests of local, state, federal and tribal governments.

B. LAND USE ENTERPRISE GOALS AND OBJECTIVES

1. Sustainability Goals

- Promote sustainable development
- Streamline the state land use planning program
- Secure Oregon's natural resource legacy
- Implement internal sustainability practices

2. Operational Goals

- Optimize development decisions and provide buildable lands
- Make community transportation systems work better
- Protect farm and forest resources
- Streamline DLCDC land use planning activities
- Improve public involvement and access to land use planning information

3. Statewide Land Use Planning Goals

The land use enterprise is based on nineteen Statewide Planning Goals, which set standards for all city and county land use plans and for decisions by state and federal agencies. These goals require that land use plans and decisions be supported by a wide variety of information, much of it generated by entities other than the decision-maker. Oregon's Statewide Planning Goals address the following:

- | | |
|--|---|
| Goal 1: Citizen Involvement | Goal 11: Public Facilities and Services |
| Goal 2: Land Use Planning | Goal 12: Transportation |
| Goal 3: Agricultural Lands | Goal 13: Energy Conservation |
| Goal 4: Forest Lands | Goal 14: Urbanization |
| Goal 5: Natural Resources, Scenic and
Historic Areas, and Open Spaces | Goal 15: Willamette River Greenway |
| Goal 6: Air, Water, Land Quality | Goal 16: Estuarine Resources |
| Goal 7: Natural Disasters & Hazards | Goal 17: Coastal Shorelands |
| Goal 8: Recreational Needs | Goal 18: Beaches and Dunes |
| Goal 9: Economic Development | Goal 19: Ocean Resources |
| Goal 10: Housing | |

C. OREGON'S LAND USE ENTERPRISE PARTNERS AND CUSTOMERS

Throughout the statewide land use enterprise, many partners and stakeholders make development and conservation decisions every day. The interactions of these entities via the sharing of information can be conceived of as a distributed system. The quality of the interactions of these

many partners, stakeholders, and customers often relies on sharing of information across agency and jurisdictional lines, collaboration among local governments and business partners, and innovations in business practices among state agencies. The Department of Land Conservation and Development interacts with many, if not most of these enterprise partners, and has an important role in facilitating the flow and application of land use and related information within this network. However, the Department has lacked the IT resources or capacity to fulfill this role, except in the coastal zone, where federal funds have been available to provide limited support in the development and use of IT in land use planning.

Partners and customers in the land use enterprise include:

1. Citizens

Citizens are empowered by Oregon law to participate in all phases of local and state land use planning. Under Statewide Planning Goal 1, citizens are entitled to readily accessible and understandable information about land use plans and land use decisions. Likewise, citizens are entitled to provide information to local and state land-use decision-makers as part of the decision-making process. Thus, citizen-to-government and government-to-citizen information sharing is essential for the beneficial operation of the Land Use Enterprise.

Community development decisions are fundamentally about applying relevant data and information to land use problems. The quality, accuracy, and accessibility of information can make a big difference in the effect—and therefore the legacy—of those decisions.

2. Local Governments

Oregon's cities and counties implement the land use program through local land use plans, zoning ordinances, development ordinances, design review standards, and other regulations. Cities and counties depend on spatially explicit information provided through Geographic Information Systems (GIS). GIS assists in providing information about land use and land cover and other information to update and implement their local plans. Local

governments rely on information that is generated and maintained by state and federal agencies and, in return, often provide information about local land use to state agencies. Local governments often broker information from other sources, and thus require assurance as to its accuracy and reliability.

3. The Oregon Legislature

The legislature maintains oversight authority for the land use enterprise. The legislature's fundamental role in the enterprise includes program assessments, fiscal appropriations, performance and budget audits, modifications of law and policy, and creation of additional program components. In addition, the Legislature has strong budgetary and policy interests in strategic development and application of IT to support state programs and has established the Joint Legislative Committee on Information Management & Technology.

4. Business and Development Interests

Private business and development interests create the economic conditions that promote and maintain livable communities, support education and other essential public services, and enable communities to participate in the benefits of technology and economic prosperity. Many Oregon businesses are land-intensive, and thus require access to information, some spatially explicit and/or time-sensitive, to make decisions to meet business objectives.

5. Agriculture and Natural Resource-Based Economies

Natural resource-based industries continue to be pillars of Oregon's economy and way of life, particularly in rural areas. Protecting these critical economic resources from the effects of urban and suburban sprawl was a driving force in establishing Oregon's land use program, and continues to be a key consideration in decisions about urban growth, transportation, housing, and development. Resource-based economic sectors who have a stake in the land use enterprise include agriculture, forestry, mineral and aggregates, commercial fisheries, aquaculture, tourism, and recreation.

6. Housing and Development Economies

A key function of the land use enterprise is to ensure that communities have a range of housing types and costs available to meet market choice and to provide shelter for a growing population. Similarly, ensuring that adequate lands are available for commercial and other business development is a crucial land-use enterprise function.

7. State Agencies

State agencies have distinct responsibilities and authorities for activities or issues that have or can have bearing on land use and development. Primary state agency partners and their land use enterprise interests include:

- Department of Agriculture: Use, protection, and condition of agricultural lands; conversion to other uses; aquaculture management.
- Economic and Community Development Department: Business recruitment; grants for infrastructure planning and development, buildable land inventories.
- Department of Fish and Wildlife: Fish and wildlife habitat protection and restoration, stream conditions, wetlands, watershed restoration.
- Department of Forestry: Forest land management, watershed and stream conditions, forest road management, water quality management.
- Department of Geology and Mineral Industries: Natural hazards such as landslides, floods, earthquakes and tsunamis ; aggregate management, mined land reclamation.
- Parks and Recreation Department: Park and recreation planning and management, beach access.
- Revenue Department: Land valuation, land division, and land use.
- Department of State Lands: Wetland management, submerged and submersible land management, waterway leasing, forest and rangeland management.
- Department of Transportation: Transportation planning and system construction, land use, access management, airport planning and development, public transportation planning.

Other state agencies that have or can have information bearing on land use and development include:

- Department of Administrative Services: Agency budget and management, Information Resources Management Division, State Chief Information Officer.
- Department of Consumer and Business Services: Regulatory streamlining, e-government, building and development codes, etc.
- Department of Employment: Labor statistics, employment and training.

- Office of the Governor: Governor's Economic Revitalization Team: integrative problem-solving and support for land use and development situations.
- Housing and Community Services Department: Housing distribution and condition, socio-demographic information.
- Department of Human Services, Health Services Division: Beach water quality monitoring, environmental contributors to disease outbreaks.
- State Marine Board: Marina and boating facilities planning and assessment.
- Military Department: Exercises and facility planning, compatibility with adjacent uses.
- Oregon Watershed Enhancement Board: Implementation of Oregon Plan for Salmon and Watersheds, watershed health monitoring and assessments, grant administration for habitat restoration activities, etc.
- Department of Environmental Quality: Water quality management planning, and permits affecting the quality of waters of the state.
- Water Resources Department: Water users, water impoundments, groundwater critical areas, etc
- Energy Department: Renewable resources specifically wave energy planning.
- Public Utility Commission: Utility rights of way, key facilities.
- Economic and Community Development Department: Industrial lands, investment sites, etc.

8. Federal Agencies

Federal agencies play a major role in the land use enterprise because of extensive land ownership and management authority. More than 53 percent of the state's land area is owned and managed by federal agencies and not subject to the state planning program. Some federal agencies have significant regulatory or resource-management programs that influence state and local land planning and management programs, and affect private business decisions. Federal interest in the enterprise is somewhat higher in the coastal zone, where federal funds have been passed through to local governments for planning and coastal resource management. Federal agencies and some of their land-related responsibilities include

- U.S. Forest Service, USFS: Management of National Forests, wilderness, watersheds.
- U.S. Bureau of Land Management, BLM: Management of range and forest lands and coastal sites.
- U.S. Fish and Wildlife Service, USFWS: Management of national wildlife refuges.
- U.S. Environmental Protection Agency, EPA: Superfund sites, dredged material disposal, environmental assessments, estuarine research.
- Federal Emergency Management Administration, FEMA: Flood plain and floodway mapping, landslide and hazard areas, disaster and emergency preparedness.
- National Oceanic and Atmospheric Administration, NOAA: Fisheries management, coastal zone management, National Estuarine Research Reserves, endangered species protection.
- U.S. Army Corps of Engineers, USACOE: Navigational structures, dredging, dam construction and operation, dredged material management, water management.

- U.S. Bureau of Reclamation, USBOR: Water management, dam operation.
- U.S. Geological Survey, USGS: Geologic mapping, natural resource mapping and assessments.

➤ **Federal Interests in the Coastal Zone**

Federal funding supports a wide range of activities within Oregon's Coastal Management Program (OCMP), administered by the Department of Land Conservation and Development. Federal funding has enabled the OCMP to acquire, develop, and apply a significantly higher level of IT capacity and service than in parts of the Department supported by state general funds. Coastal funds have been used to develop local GIS capacity, map coastal hazards, and to develop the web-based Oregon Coastal Atlas described in section III.B.3.

9. Tribal Governments

Oregon's tribal governments are increasingly assuming management responsibility for lands and resources and are carrying out a variety of community development activities on these lands. In many cases, tribal land use plans or activities can affect the plans of nearby local governments.

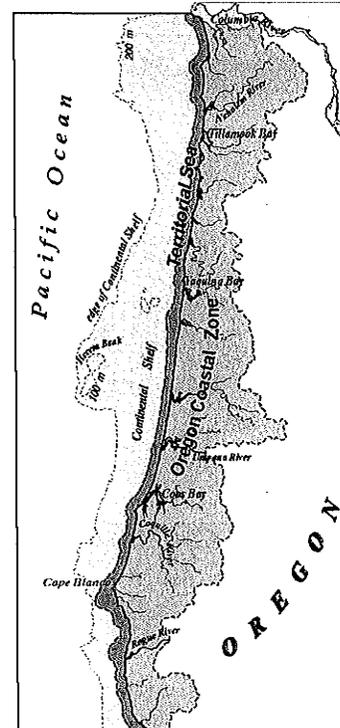
Many tribal governments, such as the Confederated Tribes of Siletz and the Coquille Indian Tribes, have acquired significant IT capacity to facilitate land use and development decisions and resource management.

10. Ports and Special Districts

Oregon's 23 port districts are local governments that serve both public and private purposes. Ports own land to support a variety of economic enterprises, most often associated with maritime industries, shipping, and navigation along the Oregon coast and the Columbia River. Some ports own and manage airports and industrial parks. Special districts exist to provide a wide range of public services such as libraries, sewer and water services, streetlights, solid waste management, fire protection and other services. The plans and authorities of these districts are all coordinated through county or city comprehensive plans and ordinances.

11. Higher Education

Oregon's colleges and universities have long been partners in the statewide land use-planning enterprise. A number of research programs at the University of Oregon, Oregon State University, and Portland State University provide important data and information for state land use programs and provide essential research services to support public and private programs. Oregon State University serves the state as a federal geospatial data clearing house.



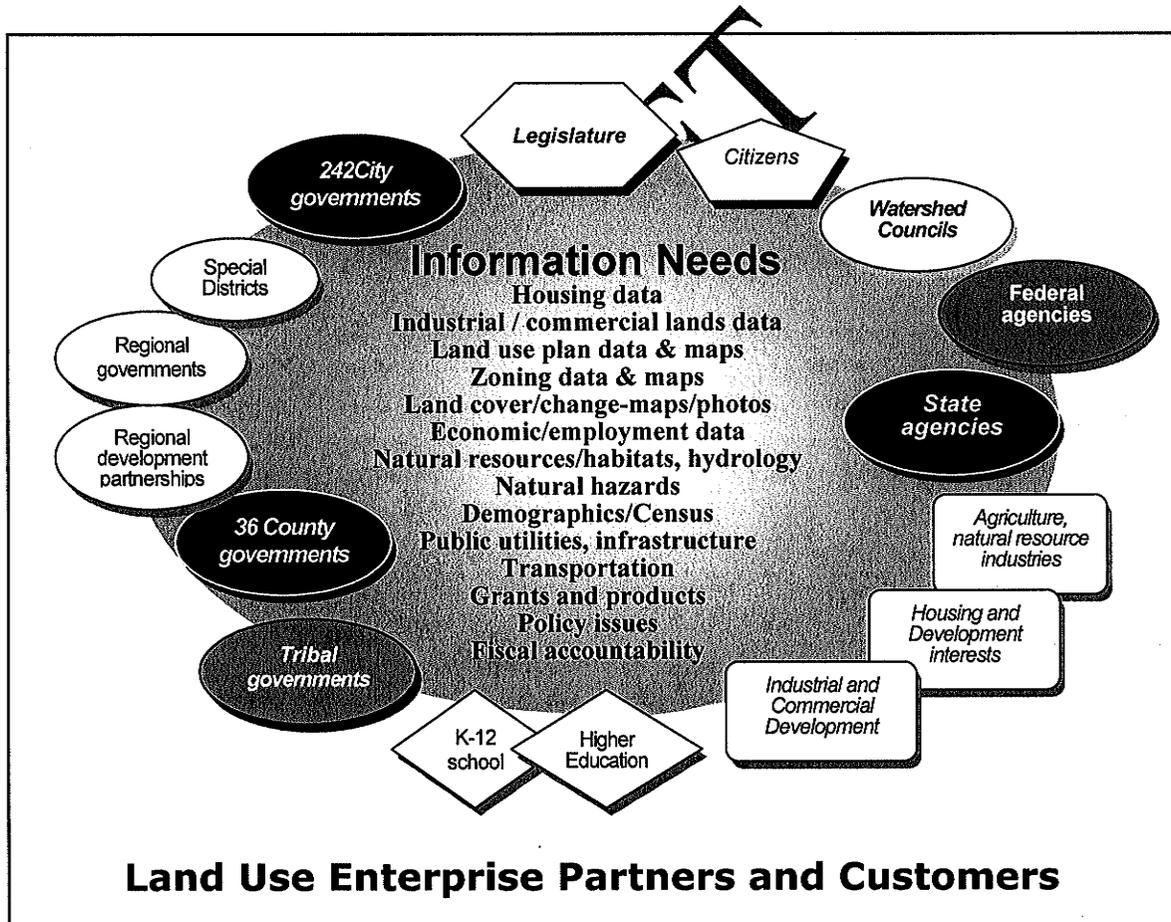
The statewide land use program qualifies for federal funding within the "Coastal Zone." Federal funds are used to support the planning activities of cities, counties, and state agencies in the coastal zone. The DLCD uses some of these funds to support IT-related projects.

12. K-12 Education

K-12 schools throughout Oregon seek information about communities, land and natural resources, and governmental programs via the Internet. Such information is an important part of the Oregon Coastal Atlas served by the Department.

13. Watershed Councils

Watershed councils are the backbone of The Oregon Plan for Salmon and Watersheds. These councils have no regulatory authority but provide a forum for landowners, agencies, and citizens to work together to restore and protect water quality and habitat conditions in watersheds. The watershed councils rely on information about watershed conditions, land ownership, roads and bridges, stream conditions, and other features to develop and carry out programs. This information is often most usefully displayed in mapped form from GIS. Other locally-organized land trusts and conservancies provide similar focus for acquiring, protecting, and managing important habitats, recreational areas, housing, and other land-based features.



III. Opportunities to Improve Enterprise Functions With Information Technologies

This section describes how information technologies have been used in the department and how they could be applied in the future to improve the execution of its mission.

Information is the currency that makes the land use enterprise work. Information about land uses and conditions, parcel zoning, transportation access, and development capabilities and restrictions is necessary to support local planning and development decisions and to reduce the risk associated with development investments. The same information aggregated at the regional or statewide level will support assessments of the overall statewide land use program, and will allow analyses of such things as the quantity of vacant industrial lands, the rate of farmland conversion, and the effect of specific changes in Oregon's land use laws or regulations. Oregon's past investment in land use planning has yielded a wealth of information about land, land use, and land use capability. However, at this point, access to that wealth of information is spotty and uneven.

Access to Oregon's land use information can be a significant advantage to both local communities and the state in trying to foster or promote investment while maintaining flexibility by managing development decisions.

The entire thrust of the Department's information technology strategy is to build a capacity for making land use and related information available to, and useful for, all enterprise partners, stakeholders, and customers.

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A. DLCD SETTING FOR INFORMATION TECHNOLOGY

1. DLCD's Functional Responsibilities

DLCD is a principal coordinator and facilitator in the network of participants in the land use enterprise. The department serves Oregon's citizens, businesses, cities, counties, and state agencies and has a significant interest in facilitating the use of land use information by *all* program partners and customers. To do so, the Department has five functional responsibilities, all of which could be improved by utilizing information technology.

DLCD's functional responsibilities include the following services:

- Information repository and provider of statewide land use and related planning information, used to support the business objectives of other partners in the statewide land use program.
- Archivist for local land use plans and ordinances, aerial photos, maps, and other information related to planning and development.
- Provide policy and implementation support for planning actions of local jurisdictions, including revisions to local plans and appeals of local land use decisions.

- Data synthesizer and analyst of complex local, regional, and statewide land use issues involving several local, state, and federal interests.
- Manager of state funds for grants to local governments for local plan improvements and implementation of local plans; and of federal coastal and transportation grant funds.

2. Managing Departmental Operations

In order to fulfill its functional responsibilities within the land use enterprise, the Department itself must remain functional. Maintaining departmental operations relies on information technology, resources, and practices, including the following:

- Provide reliable communication capabilities for field offices.
- Assist local government land use planning efforts through management of general fund grants and work products.
- Assist local government land use planning efforts through management of federal grants and work products.
- Respond to requests for information from customers and partners.
- Aggregate data on land use statewide.
- Synthesize and analyze information about land use change at the local, regional, and state level.
- Analyze the effect of changes to land use laws.
- Monitor local plan and periodic review status.
- Mapping and visualizing land use and other geospatial information.
- Monitor vendor contracting and performance.
- Manage all IT assets, including lifecycle planning and updating.
- Coordinate data and information exchange among partner state and federal agencies.
- Provide access to information archives throughout the Department.

B. STATUS OF INFORMATION TECHNOLOGY IN THE DEPARTMENT

Information technology has developed very rapidly over the past two decades, which is less than half the time period in which Oregon's land use program developed and matured. Thus, much of the Department's programmatic and policy emphasis was developed prior to the advent of desktop or agency-wide computer systems and information technologies in wide use today. During the period in which information technologies were transforming the land use planning enterprise, most of the Department's limited investment in IT provided funding, expertise, and technical assistance to local governments. Budget limitations and the pressing need to approve local plans restricted the Department's investment in its own IT capacity. However, as time passes, continued under-investments in the department's own IT capacity will increasingly corrode the program's accountability, reduce customer service and ability to meet customer expectations, affect risk management, and affect operational efficiency and innovation. Lack of IT capacity has affected the department's ability to contract for the acquisition of technical products for local governments and other state agencies.

Oregon's investment in the land use enterprise has produced a wealth of data and information that can be used to Oregon's advantage. Investments in information technology—specifically, in geographic information systems (GIS)—to aggregate, analyze, utilize, and provide access to that information will give the state and its partners a competitive edge in their ability to meet their business needs and land-related performance objectives. Significantly, the department's limited GIS capabilities have largely resulted from the use of federal grants and funds in the Coastal Zone.

1. Historic IT Budgets

Historically, the Department has spent less than one percent of its General Fund budget on IT. Budget information for the past two biennia is typical.

➤ **2005-2007: (< 2.5%)**

Expenditure agency-wide including hardware, software and expendable property:

- Federal Fund: \$78,907
- General Fund: \$168,630
- Total IT: \$247,537

➤ **2007-09: (< 2.5%)**

Expenditure agency-wide including hardware, software and expendable property:

- Federal Fund: \$64,135
- General Fund: \$218,199
- Total IT: \$282,334

2. Coastal Information Technology Initiatives

As the administrator of the Oregon Coastal Management Program, DLCDC receives federal funding to use in a variety of ways to manage the use and conservation of coastal resources. While General Fund IT investment in the department has provided the ability to maintain a computer network for the entire department, the coastal program, using federal funds, has been focused primarily on Geographic Information System (GIS) development and on the data bases needed to serve GIS. These funds have been used in part to support two positions in DLCDC's Ocean and Coastal Services Division that is fully devoted to information technology development. With assistance from the National Science Foundation, Oregon State University, and other coastal program partners, the Coastal Program's primary initiative has been to develop the robust, easy-to-use Oregon Coastal Atlas, which is described below.

In addition, federal coastal funds have been used to make significant investments in geographic information system development at the local government level. *Local GIS development is and will continue to be the foundation of enterprise-wide information system development.* Locally-generated and -managed data complement and vastly improve the utility of data sets managed by state agencies.

While federal program requirements limit the use of coastal funds to areas inside the Oregon Coastal Zone, which is essentially the area west of the crest of the Coast Range Mountains, the Atlas provides a template for IT investments in the land use enterprise in other areas of the state.

➤ **The Oregon Coastal Atlas
(www.coastalatlus.net)**

The Oregon Coastal Atlas, recently upgraded to "Atlas 2.0" to improve overall user satisfaction and tool functionality, is an innovative, on-line data depot and geospatial information service initiated as a pilot project using federal and other funds approved by the 1999 legislature. Startup for the Atlas was supported by the NOAA Coastal Services Center (<http://www.csc.noaa.gov/>), and was further supported by the National Science Foundation and the U.S. Geological Survey through a cooperative agreement with Oregon State University.



The Atlas hosts a variety of information from many state and federal agency sources. In turn, it can be used to inform decision-making by local governments, state agencies, federal agencies, and the private sector. It contains background information on coastal systems; provides access to interactive mapping and geospatial analysis tools, and allows various planning and natural resource data sets relating to coastal zone management to be downloaded. Atlas user tracking showed over one million hits in its first year of full public service. It is widely used by local and state agencies to support land use decisions, to prepare and review permits, and to assess impacts of actions on the coastal environment.

The OCMP was awarded a NOAA Coastal Services Center Fellow beginning in October, 2007, to complete a two-year project to create marine data visualization tools for the Atlas. This fellowship takes advantage of IT capacity and data sets in several federal agencies and at Oregon State University. Several leading-edge technologies are being explored as well as application of commercial software such as Google Earth.

➤ **IT Services for Coastal Projects**

The OCMP created a special website, Oregonmarinereserves.net, for use by the Governor's Office and the Ocean Policy Advisory Council in soliciting and receiving proposals from the public for possible marine reserve designations. This website is expected to be temporary and is currently hosted on a OCMP server. It is an example of the kind of IT service increasingly expected by the public.

➤ **Local GIS Capacity Development**

The OCMP continues to provide federal funds to coastal jurisdictions to support the development of local GIS capacity. In addition, the OCMP has stepped up its outreach to provide on-site technical assistance for GIS to local governments. Local GIS development includes such tasks as:

- Purchase and installation of GIS software
- Purchase of GIS workstation
- Training in GIS
- Development of GIS data layers for local planning
- Conversion of paper maps to digital format

Coastal local governments, with the help of DLCDC's Ocean and Coastal Division, have developed GIS capacity. While the coastal program cannot fund projects outside the Coastal Zone, the department will be able to capitalize on the GIS expertise in the coastal division as it invests in GIS enterprise-wide.

C. IMPROVING DLCDC'S CAPACITY TO MANAGE INFORMATION

Improvements to the functionality of the Department, the land use program, and the overall networked enterprise will depend on investments in information technology to fill the gap between Department workload and staffing levels, and to bring the Department to a level of parity with the IT needs and capacities of the statewide land use enterprise. *In short, in order to preserve the advantages and increase the responsiveness of Oregon's land use program, the department must be able to make significant investments in information technologies.* One of the most important improvements will be to bring the department's existing databases up to current standards of efficiency, functionality, and access thereby increasing customer service to its stakeholders.

The Department's IT needs can be clustered into three areas: Infrastructure, Operations, and Geographic Information Systems (GIS)

1. Infrastructure Needs

The Department's IT infrastructure capacity continued its improvement during the 2007-09 biennium. A commitment to regular replacement and upgrades is essential to maintaining a strong IT foundation. Infrastructure consists of computer hardware, software, and staff expertise.

a. Hardware

All DLCDC staff are equipped with desktop computers or laptops. The department needs to adhere to the life-cycle replacement plan currently in place for these devices, replacing general desktops a minimum of every 4 years. Significant replacement difficulties and expense will arise if lifecycle replacement is not maintained. Replacement difficulties also create additional workload for the department-wide IT positions and eventually programmatic staff capacity for assisting local jurisdictions is impacted.

b. Software

Workstation operating systems and applications need to be updated and/or replaced at regular intervals. System upgrades will involve the purchase of new software licenses.

c. Staffing

The agency currently has two IT positions to manage all the IT resources department-wide, IT strategic planning, and service issues of about 80 staff located in Salem and in six field offices. This is below minimum staff for effective support and continued maintenance of the agency. Because of increased staff loads as a result of Measures 37 and 49, the department has dropped behind on the IT staff needed to serve its mission than in the 2005-2007 biennium.

2. Operation Needs

Agency operations include grant administration, tracking and recording changes to local plans; managing agency assets, record keeping, and maintaining fiscal and programmatic accountability. Lack of IT capacity prevents the Department from optimizing record-keeping, storing and using land use data, and assembling and integrating basic information about program performance over time to support legislative and Executive-level assessments and evaluation.

a. File System Management

The Department does not currently have a robust file system infrastructure in place. Due to lack of IT capacity in both hardware and positional support, proper research and implementation has not been possible. In order to meet other needs, such as GIS system development, a strong content management system will need to be developed and maintained.

b. Record-keeping

The Department must keep pace with digital records and communication requirements established by DAS. The Department is slowly but steadily moving its systems to digital format. An example of this is the implementation of a digital asset management system.

c. Tracking Land Use and Land Use Change

Perhaps the most glaring need is for IT capacity to provide statewide data or information on land use to the Legislature, local governments, the Governor, other state agencies, or private-sector interests. This lack of capacity exists in three categories:

- 1. Program performance:* The performance of the statewide planning program can only be assessed over time through analysis of data that represent the effects of the enterprise “on the ground.” Yet, absent specific legislative directives, the Department does not have the IT capacity or staff to conduct such performance assessments. The Department has, at the request of the legislature, compiled and analyzed data to assess the performance of certain elements of the program, but each project has had to start anew in acquiring and analyzing data involving farm and forest land use issues, plan amendments, and the use of rural lands. The resulting databases are neither integrated nor widely accessible and the data for individual projects have not been able to be maintained after the completion of each analysis. For instance, a database to track periodic review data was created, but has not been implemented due to lack of staff capacity for data migration and training. Periodic review and permit data are maintained in spreadsheets, and are therefore difficult to access and evaluate. None of these projects have resulted in an on-going ability to analyze land use data statewide.

2. Local land use plans: The Department maintains a library of more than two decades' worth of paper documents consisting of the land use plans, ordinances, amendments, and supporting material of all cities and counties in the state. No two plans are alike in format, content, or organization. Finding information in any single plan about a particular land use issue is time-consuming and difficult. Land use data contained in this library is virtually unavailable. Converting these paper documents to digital format and embedding key data into digital databases is highly desirable. In addition, many local governments have made the transition from paper to digital format for planning documents and databases. Because the Department lacks commensurate IT capacity, accessing and archiving these documents and data presents a significant challenge for the Department. Finally, the department maintains an extensive database on local land use plan changes that could, with considerable effort, be upgraded to allow such changes to be shown on maps of varying scales.

3. Policy development: Similarly, the record of policy development and application for the 19 statewide planning goals exists largely in paper format that can be tracked only with difficulty. Legislative changes, court decisions, administrative rules, and decisions by the Land Conservation and Development Commission have all affected the content and application of statewide planning goals and policies. Background papers, staff reports, and memoranda accompany many of these policy decision documents. Because these records exist in paper format in files known only to a few staff, there is an increasing need to create a policy database to support long-term policy development and implementation.

A useful model for such a database exists in the Department's Coastal Management Program, which used federal funding to develop and implement a coastal policy database, using Access software. The coastal policy database is an archive and retrieval system for maintaining the "institutional memory" of policy development, decisions, and application.

d. Managing Grants and Contracts

The Department administers several grant assistance programs, enters into intergovernmental agreements with other state agencies, and acquires professional services through contracts. Records of grants, agreements, and contracts, and their products, are primarily in paper form or in non-database electronic text documents. These records and grant products have not been assembled into a useful and interactive database to support grants and contracts management. The Department's Coastal Management Program has used federal funds to create a database to assist in managing federally funded grants to coastal local governments. General funds need to be used to expand this database agency-wide.

Departmental functions, policies, procedures, and communications can be vastly streamlined and coordinated through the development of an effective Intranet. Intranets facilitate and enhance the functions of the agency and provide agency policy and procedures, document-archiving and retrieval, e-mail filing, calendar, project management and tracking, and other electronic program management functions. The present form of the department's Intranet does not provide access to any information about local plans or land use.

3. Using Geographic Information Systems (GIS) to Manage Growth

Oregon's statewide land use enterprise is fundamentally about applying policy and management decisions to land, land use, and resources in specific geographic situations. Historically, paper maps have been the principal means of recording and displaying geographic information needed to support these decisions. However, over the past two decades computerized Geographic Information Systems have become powerful and relatively inexpensive tools for analyzing data and information to arrive at and support decisions about managing land and other resources. The importance of GIS is expressed in Executive Order 00-02, Establishing the Oregon Geographic Information Council:

*"Geographic information about the character and location of the state's human, economic, natural, and infrastructure resources, and the activities that affect and are affected by those resources is essential to all levels of government in the State of Oregon. Mapping land records and geographic information systems (GIS) are the primary tools for analyzing this information."*³

The *Business Case for Statewide GIS Coordination*⁴ also provides a compelling case for the Department to acquire, perfect, and implement GIS capacity in support of the statewide land use enterprise.

Despite the power and potential of GIS, the rapid increases in performance and availability, and decreases in relative costs, *the Department does not have GIS capability*. As such, it is unable to either achieve most of the goals in the Oregon Geographic Information Council's *Strategic Vision*, or to carry out the *Oregon Strategic Plan for Geographic Information Management*.⁵

The use of information technologies to help in managing growth is spotty, and is developing jurisdiction by jurisdiction. Such spotty development largely defeats what is probably the most powerful capacity of geographic information systems—that is, to take a broader view and to compile information from many sources and data generators. *Some investment in GIS capacity within the Department is necessary in order to maintain the competitive advantage that comes from having a statewide comprehensive land use planning system*. DLCD's IT strategy essentially focuses on the development of its own GIS capability and a consistent GIS capability among its principal partners. Development of GIS enterprise-wide will rely heavily on the use of data that are developed in various capacities at the local level. Finally, consistent development of GIS capacity will allow for the broader use of valuable GIS data sets developed by state agencies.

The Department's interests in GIS and geospatial data include:

a. Using Locally-Generated Geospatial Data

Local jurisdictions generate geospatial data about local land use, zoning, and jurisdictional boundaries to support local land use planning and management activities. The Department funds the acquisition of these data through grants, and receives copies of these data in the form of plan text and, principally, maps. Historically, maps have been delivered on paper but are increasingly being developed and archived in digital form. The data are stored in a library as grant products, but due to IT limitations cannot be

³ Executive Order NO. EO-00-02 Establishing the Oregon Geographic Information Council

⁴ Oregon Geographic Information Council, April 2004

⁵ Available at <http://www.gis.state.or.us/docs/2001FinalGISPlan.doc>.

incorporated into databases or files that are available at staff workstations or outside the agency. It is estimated that 70 to 80 percent of planning-related data have a geographic component. The Department has virtually no capability to utilize these digital geospatial data resources or to share them with enterprise partners and customers.

b. Geospatial Data Creation and Management

Despite lack of a statewide GIS capacity, the agency has assisted in the creation of GIS data sets widely used by state agencies and local jurisdictions. GIS initiatives of particular importance to the Department are:

1. Statewide Land Use Database: In the mid-1980's, the Department synthesized local zoning information to create a series of maps showing the generalized pattern of zoning in the state. These maps were digitized by the State Service Center for GIS about ten years after they were first developed. This data layer has not been updated in nearly 20 years, during which time the state population increased by more than 500,000, and countless small changes have been made to local comprehensive plan designations to accommodate growth and development. This mid-1980s zoning data remains the only complete statewide coverage of land use classifications.

Currently, several counties are creating GIS data sets of local zoning, and the Oregon Geographic Information Council is working to ensure those data can be merged into a statewide data set. A new statewide zoning data set would be extremely valuable to the land use enterprise and its customers. However, the department lacks the capacity to participate in, take advantage of, or direct such an initiative.

2. Farm-Forest Database: Under state law (ORS 197.065) the Department collects data from counties regarding land use decisions that affect farm or forest lands as depicted in local plans. Often these conversions are made due to expansion of an urban growth boundary. The data collected include geospatial reference data. Yet the Department has no capacity to display these data in a geographic information system, or to analyze them in conjunction with other information.

3. Rural Lands Database: In 2000, the Department created a Rural Lands Database with a special appropriation from the Oregon Legislature. This database is a collection of GIS data for each county and is intended to assist in identifying special-purpose lands. However, these data are only available for distribution on CD-ROM and cannot be accessed via the Internet or by agency staff because of lack of GIS capacity to use these data.

4. Urban Growth Boundary Database: The Oregon Department of Transportation maintains a data set of urban growth boundaries (UGBs) that was updated in 2003 by the Department of Employment under contract from the Oregon Geographic Information Council using data from the DLCD plan library. However, despite responsibilities for monitoring local government UGBs, the Department is unable to verify, maintain, update, utilize, or distribute these data due to lack of IT capacity.

5. Measure 37/49 claim tracking and reporting Database: The Department is currently developing a database to aid in the tracking and reporting of Measure 37 claims. This database will streamline the processing of all claims and provide immediate reporting capabilities on status of claims.

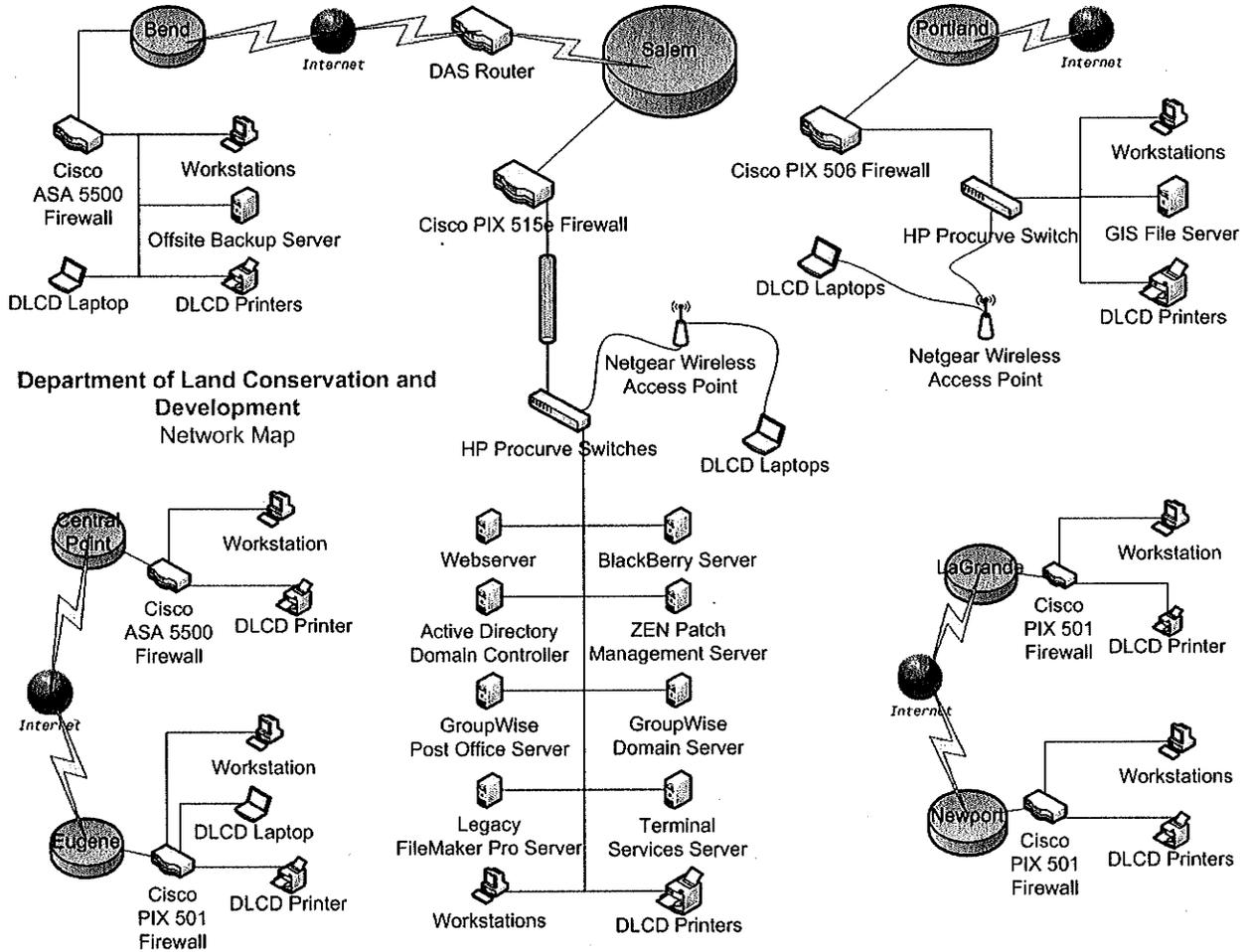
5. Flood Hazard Mapping

As Oregon's floodplain management agency, DLCD works in partnership with the Federal Emergency Management Administration (FEMA) to provide maps and other flood hazard information to local governments to support land use and development decisions. State agencies use these maps and information to make capital investment decisions, to plan for natural disasters, to respond to emergencies, and to review permit applications. These critical functions are essential for reducing the loss of life and property due to floods and other natural disasters. The accuracy of flood maps is essential to the mission of reducing risk.

Congress has approved a national initiative and funding to modernize flood hazard maps, which is high priority for FEMA. Modernization will significantly improve the currency, accuracy, quality, and utility of flood hazard information used by local governments, state agencies, realtors, developers, insurance carriers, and private individuals for making investment, regulatory, and emergency response decisions.

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DLCD Technology Profile:



Current DLCD Servers

-Server Type-	-Technical Specifications-	-Operating System-	-Server Duties-	-Planned Replacement Time*-
HP Proliant DL360 G5	Intel Xeon 1.86GHz, 4GB RAM	Windows Server 2003 R2 Standard	File server	3 rd quarter 2014
HP Proliant DL385	AMD Opteron 2.41GHz, 4GB RAM	Windows Server 2003 R2 Standard	ZEN Patch Management Server	3 rd quarter 2012
HP Proliant DL385	AMD Opteron 2.41GHz, 4GB RAM	Novell SUSE Linux 9	Group Wise Post Office, File Server	2 nd quarter 2009
HP Proliant DL385	AMD Opteron 2.41GHz, 4GB RAM	Windows Server 2003 R2 Standard	Terminal Services Sever	3 rd quarter 2012
HP Proliant DL320 G4	Intel Pentium D 2.80GHz, 1GB RAM	Novell SUSE Linux 9	Web Server, GroupWise Webaccess Server	3 rd quarter 2012
HP Proliant DL320 G4	Intel Pentium D 2.80GHz, 4GB RAM	Windows Server 2003 R2 Standard	BlackBerry Server, Backup Exec Server, Symantec Management Server	1 st quarter 2013
Dell	Intel Pentium 4 2.3GHz, 2GB RAM	Novell Netware 6	File Server	Retired 2 nd quarter 2008
Compaq Proliant	Intel Pentium III 600MHz, 1GB RAM	Novell Netware 6	GroupWise Domain/MTA/WebAccess Agent, Spam Filtering Server	Retired 2 nd quarter 2008
HP Proliant DL360 G5	Intel Xeon 1.60GHz, 4GB RAM	Windows Server 2003 R2 Standard	Active Directory Domain Controller, DHCP/DNS Server	2 nd quarter 2013
HP Proliant	AMD Opteron 2.41 GHz, 4GB RAM	Novell SUSE Linux 9	GIS Data Storage Server	3 rd quarter 2012
HP Proliant ML310 G4	Intel Pentium D 2.80GHz, 2GB RAM	Novell SUSE Linux 9	Data Backup Server	2 nd quarter 2012
Gateway	Intel Pentium III 800MHz, 512MB RAM	Windows NT 4	Legacy Filemaker 5 Pro Server	Not in replacement plan currently
Dell PowerEdge 2600	Dual Intel Xeon 3.06 GHz, 3GB RAM	Windows Server 2003 R2 Standard	Coastal Atlas Web Server	Not in replacement plan currently
Dell PowerEdge 2600	Intel Pentium III, 2GB RAM	Windows 2000 Server	Oregon Marine Reserves Web Server	Not in replacement plan currently

* This is based on current life-cycle plan

Current DLCD Desktop Hardware		
-Quantity-	-Model-	-Planned Replacement Time*-
15	AMD Athlon 64 desktops	2 nd quarter 2008
1	Dell GX280 workstation	2 nd quarter 2008
3	Dell 2400 desktops	2 nd quarter 2008
5	Gateway e4000 desktops	2 nd quarter 2008
1	Gateway e6000 workstation	2 nd quarter 2008
6	HP dx2000 desktops	2 nd quarter 2008
1	Dell GX150 workstation	3 rd quarter 2008
1	Dell 350 workstation	3 rd quarter 2008
2	Dell 370 workstations	3 rd quarter 2008
24	HP xw4300 workstations	2 nd quarter 2010
21	HP dc7700 desktops	4 th quarter 2010
19	HP dc7800 desktops	2 nd quarter 2012
2	Gateway 450 laptops	4 th quarter 2008
2	Lenovo R50 laptops	4 th quarter 2008
2	Lenovo R40 laptops	4 th quarter 2008
2	Lenovo T43 laptops	3 rd quarter 2010
7	Lenovo T60 laptops	3 rd quarter 2010
5	Lenovo X60 laptops	4 th quarter 2010
1	Dell Precision M6300 laptop	4 th quarter 2010

*This is based on current life-cycle plan.

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Desktop Application Portfolio:

Adobe Acrobat Elements 7.0	FileMaker Pro 5.0v1
Adobe Acrobat Professional	Microsoft Office Professional 2003
Adobe InDesign CS	Microsoft Visio Standard 2007
ArcGIS 9.2	Microsoft Windows XP
Brio (Brio Intelligence Explorer)	Novell GroupWise 7.x
DameWare Mini Remote Control Client	Paradox
DameWare NT Utilities	Symantec AntiVirus 10.x
eCopy Desktop 8.3	TCP3270 for Windows

Server Application Portfolio:

BlackBerry Enterprise Server	Symantec AntiVirus 10.x
FileMaker Pro 5 Server	Symantec Backup Exec 11.x
Microsoft Windows Server 2003 R2 Standard	Symantec Ghost Solutions Suite
Novell GroupWise Server 7.x	ZENworks Patch Management
Novell SUSE Linux Enterprise Server	

Information Technology Unit Capacity:

- Network Administrator - ISS7
- Information Resource Specialist - ISS4

IT-related contracts:

- Measure 49 Database contract
- Interagency agreements support Measure 49 activities
- Printer maintenance and support contract

IT-related projects / initiatives:

- The department is currently in the midst of a migration from Novell eDirectory to Microsoft Active Directory.
- Migration from Novell GroupWise e-mail to Microsoft Exchange is anticipated for the beginning of the 2009-11 biennium.
- Plans to enhance network accessibility via a department-wide wireless system are currently underway.

IT-related Performance Measures:

- The department is currently developing internal IT specific key performance measures to be implemented in 2008.

IV. DLCD's Information Resource Management Plan

A. INFORMATION RESOURCE MANAGEMENT GOALS AND OBJECTIVES

1. IRM Goal in DLCD Strategic Plan:

Increase the percentage of DLCD core activities that generate and make available data in a form and a time frame that is beneficial to staff and stakeholders.

2. DLCD's IRM Objectives

a. Improve Citizen Productivity (citizen to government)

- Increase the accessibility and availability of information and information services to citizens.
- Raise public awareness and understanding of the land use program.
- Provide an Internet portal where citizens can obtain information about the land, the community, and the planning program.

b. Improve Business Infrastructure (business to government)

- Provide timely, easy access to important information about state and local planning requirements.
- Streamline land-use planning regulatory transactions via electronic transaction services.
- Enhance contracting and granting procedures.
- The scope and depth of the department's ocean planning duties was expanded significantly by a March 2008 Governor's Executive Order in which the department was charged, in part, with leading a planning process to prepare a comprehensive plan for ocean wave energy development.

c. Improve Government Efficiency (government to government)

- Facilitate collaboration, coordination, and system integration among state agencies and local governments in using technology to operate more efficiently and effectively in the land use program.
- Provide leadership support to actively engage effective communication and information transfer among state agencies, federal agencies, tribal governments, and local and regional governments.

3. Department Operational Objectives

a. Customer Service

- Continue to provide the highest level of customer service possible to users inside and outside the agency.
- Streamline the agency's desktop systems to minimize downtime and increase overall performance for the end-users.

b. Infrastructure

- Improve infrastructure and IT services through system upgrades and

standardization.

- Develop an effective business continuity plan, including a thoroughly tested disaster recovery plan, to cope with unforeseen interruptions or disasters that cause data or services to be unavailable.
- c. Life-cycle**
 - Continue to manage IT infrastructure consistent with the life-cycle and asset-management standards of DAS IRMD.
- d. Databases**
 - Create robust data bases about land use, land use plans, grants, and local plan status, using data held by the Department and local governments.
 - Facilitate appropriate access to databases for all potential customers and partners.
- e. Data Products**
 - Consolidate, coordinate, and distribute planning-related data, with an emphasis on geo-spatial data.
 - Develop and employ web-based information delivery and access systems, in order to provide geo-spatial and other information on demand.
- f. Planning**
 - Meet Statewide IT Policies as adopted by the State CIO, with emphasis on 1.6: Governance and Control Objectives identified as published in the 3rd Edition (July 2000) of Control Objectives for Information Technology (COBIT) <http://www.isaca.org>.
- g. Accountability**
 - Link and account for internal agency programs and activities through internal key performance measures regarding lifecycle replacement and regular internal review of operational policies and processes.
- h. Program Evaluation**
 - Evaluate the effectiveness of the state's planning program and local land use actions.
- i. Technical Capacity**
 - Maintain highest standards of technical capacity at all organizational levels through recruitment, training, and skill building.

B. IMPROVING ENTERPRISE FUNCTIONS WITH INFORMATION TECHNOLOGY

DLCD is uniquely positioned to be able to improve the delivery of land use planning services statewide by making investments in information system capabilities. Specifically the Department can improve enterprise functions in the following ways:

1. Promote and take lead in the development of local GIS capacity to serve land use planning;
2. Make existing archived land use data available in digital form;
3. Maintain and provide key data related to land use to customers;
4. Report on status and trends of local land use decisions;

5. Synthesize data to support program-wide performance assessments;
6. Utilize statewide land use data to analyze the effect of proposed changes to Oregon's land use laws; and
7. Provide an on-line data repository for land use, natural resource, economic, and other information.

C. PROPOSED INFORMATION RESOURCE MANAGEMENT IMPROVEMENTS

The Department proposes five improvement clusters that will result in expanded IT capacity:

1. Geographic information services

Develop in-house GIS capability to provide geo-spatial data to local governments and other agencies, and to the public to support land use planning, including urban growth boundaries, planning and zoning categories, flood hazards, landslide hazards, soils, hydrology, transportation, PLSS, and other data necessary to accomplish planning and development functions statewide.

2. On-line information services

Continue to expand and adapt tools and functionality of the Coastal Atlas to serve statewide program applications using web-based information delivery and access systems; emphasize shared linkages with other state agencies but focus on land use information not provided elsewhere.

3. Operational support

Expand department-wide and Geographic Information Systems' support through establishment of new positions providing these specific services.

4. Program assessment capabilities

Support initiatives to review and assess effectiveness of the statewide planning program and to identify needed improvements to state laws or policies.

5. Archive conversion and synthesis.

Modernize the Department's databases and standardize user interface for input, manipulation and reporting.

D. NEEDED RESOURCES

1. STAFF:

a. Add GIS Coordinator (IS-7)

Add one position to be responsible for guiding the use of GIS within DLCD and coordinating the sharing of GIS information between the agency and its governmental partners and the public. This position will be responsible for the agency's GIS data (defining, creating, maintaining, sharing, and using) and use of GIS by staff. This position will work with federal, state, and local partners to ensure that GIS data may be shared efficiently and securely. This position works directly with the Network Administrator to engineer information technology solutions to increase DLCD productivity, decrease user error and maintain data security. This position will work with the Database Developer/Administrator to ensure that spatial information in agency non-

GIS databases may be used with GIS.

b. Add Database Developer/Administrator (IS-6)

Add on position to be responsible for engineering, developing, testing, implementing, and maintaining department databases and applications supporting databases. Crafts the manner in which the data is accessed by DLCD IT systems in order to preserve optimum data security, including but not limited to creating views, packages, and stored procedures. This position works directly with the Network Administrator to engineer information technology solutions to increase DLCD productivity, decrease user error and maintain data security. This position will work with the GIS Coordinator to ensure that spatial information in agency non-GIS databases may be used with GIS.

c. Add IT Programmer/User Support (IS-4)

Add one position to perform technical IT functions including design, coding, testing, implementation, and maintenance of application systems supporting DLCD programs. This position would also provide additional front-end user support as needed.

This position engineers, develops, tests, implements, and maintain applications (in development and in production) which query DLCD's many databases. This position works directly with the DLCD Network Administrator to engineer information technology solutions to increase DLCD productivity, decrease user error, and maintain data security. This position also works closely with management, IT staff, and CCB staff to analyze workflow and processes to realize an optimum information technology system.

d. Retain existing IS-7

e. Retain existing IS-5

f. Retain existing IS-5

g. Retain existing IS-4

2. IT INVESTMENTS:

a. Information System Management

Enhance and modernize DLCD Intranet and file server management.

b. System Updates

Standardize system desktops and applications through continued dedication to the Life-Cycle replacement plan.

c. Data warehouse

Develop and implement a centralized database and file management system.

3. GIS and geospatial database integration:

a. Periodic Review On-Line

Populate and provide access to an on-line local government periodic review database.

b. Farm and Forest database management

Convert Farm/Forest databases to GIS for spatial display.

c. Digital Archive and Retrieval System

Catalogue and integrate GIS data generated by local jurisdictions and provided to the agency as grant products and plan amendments.

d. Operational Integration of GIS

Develop turn-key applications to enable staff to utilize GIS data for specific tasks.

e. Training

Provide training in GIS and database use to local jurisdictions and state agency partners upon development and approval of 2009-11 policy packages.

DRAFT



Oregon

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June 5, 2008

TO: Land Conservation and Development Commission

FROM: Richard Whitman, Director
Cora Parker, Deputy Director
Teddy Leland, Operations Services Manager

SUBJECT: **Agenda Item 15f, June 18-20, 2008, LCDC Meeting**

2009-11 AGENCY REQUEST BUDGET DEVELOPMENT
PROPOSED REDUCTION OPTIONS PACKAGE
(HB 3182 REQUIREMENT)

The Governor or the Legislative Assembly may need to consider revenue or expenditure plans that require program reductions. In addition, ORS 291.216, as amended by House Bill 3182 (1999), requires the Governor to submit an alternative budget plan funding agencies at 90 percent of their Modified Essential Budget Levels.

Therefore, each agency is required to propose reduction options of 10 percent of its Modified Essential Budget Level (Base budget plus essential packages). Reduction proposals must include General Fund, Lottery Funds, Other Funds and Federal Funds.

The department is preparing its reduction options proposal and will have a document for your review at the June meeting. Affected staff members, if any, will be notified of the proposed reduction. Any proposal the department presents is an approximation until Agency Request Budget is finalized.