



Implementation of Senate Bill 820

**A Report of the Department of Environmental Quality and the Urban
Water Reuse Task Force**

December 2004

This report has been prepared by the Department of Environmental Quality and the Urban Water Reuse Task Force in accordance with the requirements of ORS 192.245.

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I. Executive Summary

Senate Bill 820 was passed by the seventy-second Oregon Legislative Assembly and became effective on August 22, 2003 amending Oregon Revised Statutes (ORS) 536.050, 536.900, 537.211, 540.510, 540.531, 540.570 and 540.990 and section 14, chapter 788, Oregon Laws 2001. The law requires the Oregon Department of Environmental Quality (DEQ) to work with interested parties to develop a report on the opportunities and barriers associated with wastewater reuse in urban areas. For the purposes of this report, and consistent with Senate Bill 820 “wastewater reuse” or “water reuse” is confined to the recycling of treated wastewater derived from domestic sources, including municipal and individual systems, and industrial sources. In a broader sense water reuse includes other sources and uses.

As directed by the Legislature, DEQ convened a Water Reuse Urban Task Force (Task Force) composed of interested parties and stakeholders listed in Appendix II. The Task Force emphasized that the goal of any water reuse activity, standard or recommendation be protection of human health and the environment. The recommendations contained in this report were developed through the Task Force process.

At an early stage of its deliberations, the Task Force determined that its charge to look only at urban water reuse precluded it from evaluating water reuse in an integrated and holistic fashion designed to meet watershed needs. Focusing on urban reuse alone creates a segmented approach that limited discussion and constrained the Task Force’s ability to begin articulating a shared vision for the State. The Task Force believes that all sectors need to address water reuse and that water reuse opportunities in agriculture are closely tied to the economic and environmental realities that communities must consider when planning a water reuse program. To conform to the Legislative charge this report pertains only to urban reuse.

The Task Force identified the lack of an integrated state water reuse policy as being an impediment. This manifests itself primarily through disparate statutory authorizations and agency policies, which by themselves may seem to encourage the practice, but collectively may actually serve to discourage reuse. Each policy is crafted with good intention, but agencies remain isolated from one another’s efforts which can result in them working against each other, hindering implementation of water reuse projects. Similarly, all sectors of Oregon’s economy need to work together to optimize environmental protection and economic benefit. Furthermore, Task Force members indicated that there were disparities in interpretation of existing regulations pertaining to water reuse both within and between agencies.

The level of treatment necessary for safe reuse of domestic graywater proved to be the Task Force’s most vexing discussion. Currently in Oregon, graywater includes all sources of domestic wastewater other than toilet water. Ultimately, issues of the proper sources to be included in the definition of ‘graywater,’ the environmental benefits of graywater reuse and possible human health concerns, resulted in the realization that this is a topic worthy of review, but that this Task Force is unable to provide the policy and technical guidance necessary to resolve the issue. Graywater reuse is currently permitted in the States of Arizona and California.

The following is a summary of the recommendations of the Water Reuse Urban Task Force:

1. Oregon should develop a clear and coherent state policy promoting water reuse when done in a manner protective of human health and the environment. This policy should be promulgated and adopted by affected state agencies. This could be in the form of an

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Executive Order from the Governor of Oregon, or appropriate action from the Oregon Legislative Assembly.

2. That state regulatory agencies should establish internal and external mechanisms to coordinate efforts to encourage water reuse.
3. Affected state agencies should collaborate to develop guidance that clearly describes how water reuse projects move through Oregon's regulatory and permitting process.
4. A manual of Best Management Practices (BMPs) for water reuse projects should be compiled as a tool for reuse project developers, municipalities and others.
5. In developing new policies and reviewing existing regulations, water quality treatment standards should be developed that more appropriately match defined end uses which should be included in the standards.
6. Further investigation into the environmental benefits and potential impacts to human health and the environment of domestic graywater reuse should be undertaken. Many homeowners in Oregon are interested in reusing graywater. The Task Force was unable to agree on the efficacy of graywater reuse in terms of human health or environmental impact. Nonetheless, it is expected that the demand for reusing graywater will continue to grow. The Task Force did not have time or expertise to develop a policy or standards for graywater reuse.

Water in Oregon will become an increasingly more expensive commodity as demand for fixed water supply increases with population growth and economic development. To ensure adequate water supply in the future, it is important for Oregon to use its valued water resources carefully and efficiently. Water reuse has potential to play a significant role as Oregon explores opportunities to extend water supplies to meet future demands. However, there are regulatory, policy, public perception and economic challenges that need to be addressed if water reuse is to be further realized. This report is a starting point to address a few fundamental issues surrounding water reuse and makes recommendations on expanding water reuse in Oregon.

II. Background

The Issue

It has long been the policy of the Environmental Quality Commission and DEQ to encourage wastewater reuse for beneficial purposes while assuring that Oregonians' health and the State's environment is protected. (OAR 340-055-0007). The purpose of this policy is to enhance water quality by reducing discharges of inadequately treated effluent to surface waters and to conserve stream flows through reduced demand for withdrawals for out-of-stream use. In some instances, however, it is important that treated effluent continue to be discharged into effluent dominated receiving streams, or streams experiencing low flows. In some cases agriculture and other uses depend on this effluent discharge.

Although there are many places in the United States, and several Oregon communities engaged in water reuse (such as landscape and agricultural irrigation), it has not become widespread in Oregon. Urban and commercial water reuse efforts are uncommon because of some existing impediments. Several factors have emerged, however, which may influence more water reuse:

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1. The State has aggressively pursued completion of Total Maximum Daily Loads (TMDLs) for surface waters pursuant to a 1997 Court Order. TMDLs limit the amount of pollutants that can be discharged to Oregon streams and rivers with impaired water quality, requiring dischargers to either pursue additional treatment technology or develop an alternative to surface water discharge;
2. Many surface water sources in Oregon have become fully appropriated over time, forcing new water users to seek alternative supplies;
3. Population and economic growth in Oregon exert demands on Oregon's fixed water supply;
4. There is an increased interest and demand for water conservation in Oregon; and
5. Increased costs for producing and distributing drinking water.

In addition, DEQ's administrative rules pertaining to the use of reclaimed water (treated wastewater) from sewage treatment plants have been an impediment to expanding water reuse opportunities. In particular, requirements for water reuse plans and enforceable end-user contracts were identified.

Senate Bill 820

Cognizant of the pressures being placed on Oregon's water resources through population growth and economic development, the 2003 Legislative Assembly passed Senate Bill 820. The Bill requires DEQ to work in consultation with interested parties and state agencies to examine the opportunities and barriers associated with water reuse in urban areas and to submit a report that includes:

1. An inventory of regulatory mechanisms that govern wastewater issues at local, state and federal levels;
2. A list of issues, including regulatory barriers, scientific concerns, issues of public perception and economic issues, that could restrict wastewater reuse;
3. Readily available information on the current number, types and locations of wastewater reuse activities in urban areas;
4. A list of existing and potential incentives for wastewater reuse; and
5. Recommendations for legislative or other regulatory changes that may be needed to implement wastewater reuse.

The text of the applicable part of Senate Bill 820 is attached in Appendix I.

Water Reuse Urban Task Force

To meet the requirement of including interested parties and stakeholders, and provide for more varied interests in water reuse issues, DEQ convened a Task Force representing municipal, regulatory, industry and public health constituencies. A list of participants is attached in Appendix II. The Task Force met five times between May and November 2004.

III. Water Reuse Regulations

Water reuse in Oregon is regulated through a variety of administrative rules that are designed to be protective of human health and the environment, including:

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1. Regulations Pertaining to the Use of Reclaimed Water (Treated Effluent) from Sewage Treatment Plants (OAR 340-055) administered by DEQ and is the primary regulation governing water reuse;
2. Onsite Wastewater Treatment Systems (formally Onsite Sewage Disposal) (OAR 340-071) administered by DEQ;
3. Oregon Plumbing Code administered by the Department of Consumer & Business Services, Building Codes Division;
4. Water Rights Law (ORS Chapters 537 to 541) administered by the Water Resources Department;
5. Federal stormwater management regulations under the Clean Water Act administered by DEQ; and
6. Federal Underground Injection Control regulations under the Safe Drinking Water Act administered by DEQ.

Reuse Regulations

DEQ's reuse regulations (OAR 340-055) permit municipal wastewater treatment plants to reuse water subject to obtaining a water quality permit from DEQ. This includes the development of a comprehensive Water Reuse Management Plan that details site and facility specific requirements. These regulations are designed to be fully protective of human health and the environment and are the primary regulations governing water reuse. In addition, Health Services Division of the Oregon Department of Human Services (Health Services) reviews every water reuse proposal to address protection of public health. The DEQ reuse regulations also define end uses and water quality standards for those uses.

OAR 340-055 defines four reclaimed water quality treatment levels. Treatment levels range from biological treatment alone (Level I) through varying levels of biological treatment with disinfection (Levels II and III) to water produced through biological treatment, disinfection, clarification, coagulation and filtration (Level IV). As reuse water quality increases, the types of allowable uses (e.g. crop irrigation, golf course use, cooling water applications) increase since public health concerns diminish.

Management restrictions (e.g. buffers to surface waters and public access) decrease with higher treatment levels and better reuse water quality. For example, there are significant buffer and management restrictions for Level I reuse water, but no buffers are required for Level IV reuse water. Restrictions for Level IV reuse water include: no direct public contact during irrigation; no contact on food preparation surfaces; and signs advising the public that the water is not suitable for drinking. This attests to the high level of treatment Level IV reuse water receives.

Onsite Regulations

Oregon's Onsite Wastewater Treatment System regulations (OAR 340-071) define graywater (water produced from domestic sources other than toilet water, such as shower, bath or laundry washer water) as sewage requiring permits for its treatment and disposal. Those wishing to reuse domestic graywater require a DEQ-issued Water Pollution Control Facility (WPCF) permit.

Oregon Plumbing Code

The Oregon Plumbing Code, administered by the Building Codes Division, covers pipes, fixtures and other apparatus for delivering the water supply and removing liquid and water-carried waste including stormwater drainage.

Water Rights Regulations

Water rights are administered by the Water Resources Department. Under ORS 537.110 water within the state from all sources of supply belongs to the public. This is followed by ORS 537.130 which provides that anyone wishing to use water for a beneficial use, with a few exceptions, must acquire a water right permit. Water right permits list the specific source of water which may be used, the location where the water may be diverted, the specific purpose for which the water may be used and the location where the use may occur. The water right also lists the maximum rate of flow which may be diverted, further limited to the diversion rate needed to satisfy the allowed use beneficially without waste.

Case law has held that a water right holder may recapture wastewater, remaining on his/her land, and reapply that water to the original beneficial use in the location authorized under the water right without any additional authorizations. The courts have also ruled that organizations such as irrigation districts or municipalities may capture waste or seepage water before it enters a natural waterway and before it leaves the boundaries of the district. This allows municipalities to capture water which has been delivered such as treated effluent, graywater, industrial wastewater or irrigation runoff and reuse it within the authorized area. Municipalities can reuse this water for uses which would normally occur under a municipal water right, without acquiring new water right permits or other authorizations.

Municipalities electing to market reuse water outside their municipal water right must file a reclaimed water registration as authorized under ORS 537.131-132. The registration process can be quite involved if the municipality is proposing to cease or greatly reduce historic discharges into a natural watercourse. Reclaimed water used under a registration may be used for any purpose authorized by the required discharge permit.

Industrial wastewater, collected from the diversion and use of water under an industrial water right, may also be used for land application purposes in accordance with ORS 537.141(1)(i). Wastewater may only be collected and used for land application, if the source of water for the industrial water right is ground water. Industrial wastewater originating from water other than ground water may be collected and used only upon issuance of a water right permit listing the industrial wastewater as the source.

Federal Stormwater Regulations

U.S. Environmental Protection Agency (EPA) regulations require a National Pollutant Discharge Elimination System (NPDES) permit for certain stormwater discharges associated with industrial activities. A permit is required by those industries listed by EPA for which stormwater or snowmelt reaches surface waters via a conveyance (such as a ditch, pipe, canal, or catch basin) or for construction activities that disturb one acre or more of land. Permits generally require a stormwater management plan, monitoring, and meeting benchmarks. For construction disturbing an acre or more of land an erosion and sediment plan is required.

Federal Underground Injection Control Regulations

Stormwater may be discharged subsurface via an injection well, provided certain requirements are met as contained in OAR 340-044. In some instances subsurface discharges require a permit.

IV. Barriers to Water Reuse

Agency Rule Interpretations

The Task Force identified the lack of a coherent state policy as an overarching barrier to water reuse. Each agency has its mandates, rules and policies, and there is limited collaboration among agencies. Without a consistent statewide water reuse policy, agencies do not have incentives to encourage water reuse. This could be in the form of an Executive Order from the Governor of Oregon to the appropriate agencies, or appropriate action from the Oregon Legislative Assembly. Such a policy should attempt to link water reuse with long term water resource planning and conservation.

Applicants for permits to reuse water have encountered varying interpretations of reuse regulations from within and among agencies. An applicant can be given one set of instructions from staff and proceed on that basis, only to encounter a conflicting set of instructions from another staff member later in the process of developing a project. Policy improvements with regard to coordination within and among agencies and guidance on the specific requirements of water reuse plans may be helpful in mitigating these issues.

Current Regulations

Task Force discussions on barriers to water reuse focused on several issues, including end uses, management, and often unnecessary requirements for the highest level of treatment (Level IV under DEQ's reuse regulations [OAR 340-055]). The Task Force emphasized that protection of human health and the environment is the primary goal, however, the need for greater flexibility received a high level of discussion.

Discussions centered not on the water quality standards contained in the regulations, but on the prescriptive requirements included in the standards. For example, the standard contains specific water quality criteria and allowed uses for each level of treated reuse water. The Task Force questioned the need for some requirements such as end-user enforceable contracts and a water reuse plan when the highest level of water treatment (Level IV) standards are met. Newer technologies that can be used to achieve very high levels of treatment (e.g. Level IV reuse water) can be superior and should be encouraged, but need monitoring to demonstrate long-term effectiveness. In addition, there should be a process developed to evaluate and establish a level of treatment that will be acceptable for completely unrestricted non-potable uses (such as toilet flushing, lawn watering, agricultural irrigation and commercial laundry washing).

Water of equal quality is not treated equally under Oregon regulations. Water withdrawn from a creek or stream can be used for irrigation with few restrictions; reused water of similar quality used for irrigation has many restrictions. This is because in Oregon, a similar regulatory framework is used for reused water of all quality levels. The existing Oregon regulations do not appropriately recognize the high level of treatment required for reused water to be classified as

Level IV water, where human health and environmental risks are low. Additionally, Oregon regulations do not recognize the differences in risk based on specific sites and reuse water proposed uses.

DEQ's reuse regulations (OAR 340-055) primarily address the reuse of water for agricultural irrigation. The regulations could be improved to better address more allowable end uses in urban and rural areas. In particular urban landscaping, industrial and commercial applications could be listed in a revised regulation along with the appropriate water quality requirements. This would expand the types and locations of reuse projects and thus help conserve more potable water for drinking water purposes.

Economics

The Task Force also identified economic factors as a large barrier to water reuse. If a major source of reuse water is a centralized water treatment facility, the costs of piping to end users may be considerable. Additionally, potable water providers are committed to maintaining extensive delivery infrastructure (pipes, valves, pumps and storage tanks). Decreases in demand for potable water as a result of water reuse will only generate a marginal reduction in the overall delivery cost of potable water. On the contrary, it may well raise the per gallon cost for consumers simply to cover the fixed-cost infrastructure. The paradoxical result of widespread urban water reuse designed to reduce the demand for potable water may be an increased cost to consumers of supplying potable water.

V. Incentives for Water Reuse

The Task Force agreed that if developers and communities are to consider water reuse, there need to be financial and regulatory incentives. Incentives generally fall into two categories:

Financial

Four suggestions for financial incentives were made by the Task Force:

1. Provide tax credits and exemptions (such as the Oregon Pollution Control Facilities Tax Credit under ORS 468.150 to 468.190, or System Development Charge waivers) for projects that use reuse water, or to provide infrastructure or reuse water, such as piping;
2. Expand existing State loan programs, such as the State Revolving Fund program to encourage municipalities to provide water for reuse;
3. Create a low interest loan process for use by the individual homeowner;
4. Create incentives through Oregon's Statewide Land Use Planning Goal 11 which calls for efficient planning of public services, such as sewer and water.

Regulatory

Currently, the general public views drinking water as the only appropriate water quality for urban uses. The Task Force believed that the State should work toward providing varying levels of water quality commensurate with the intended use. Such standards need to be protective of human health and the environment, but meeting drinking water standards is not always necessary for all water uses. For example, using drinking water to irrigate a golf course or for industrial cooling water is not the best use for potable water.

The Task Force suggested providing incentives to local governments, business and individuals to encourage water reuse.

Resource Conservation

Supplementing or replacing potable water uses with reused water extends the ability of the existing infrastructure to serve a growing population without having to find additional water sources or constructing additional treatment facilities. While water reuse may increase the per capita operating cost for potable water, that cost is offset by prolonging the need to invest in capital improvements to increase potable water supply. Additionally, funds that otherwise would be directed only to the treatment and disposal of wastewater will also be funding the generation of a new urban water source.

There are already mechanisms in place to recognize environmentally beneficial projects, such as the ratings assigned to 'green buildings.' The water reuse provisions of 'green buildings,' such as those certified to the Leadership in Energy and Design standard, should be encouraged.

Water conservation and management planning is included in the Water Resource Department's water rights regulations, but does not have a high profile. There is a requirement that municipalities which have not perfected their water rights apply to WRD for an extension of time. Generally, a condition of approval of an extension request is for the water right holder to develop and implement a Water Conservation Management Plan, of which water reuse is a component that is required to be addressed. Agencies should work to ensure that communities, municipalities and special districts are aware of the requirements for a Water Conservation and Management Plan and the potential benefits of including water reuse in their overall water resource and supply strategy.

VI. Graywater Reuse

Expanding the use of graywater for non-drinking water applications was discussed at length by the Task Force. The term 'graywater,' itself is problematic. It has generally been defined as all sources of domestic wastewater, other than toilet water. This includes sinks, showers, lavatories, baths, laundry, and dishwasher wastes. Some states that allow reuse of graywater, such as Arizona and California, exclude sink water and dishwasher water. These sources, when used for irrigation, may contain appreciable levels of bacteria or chemicals, which may harm plants or create a harmful build-up in soil.

Ultimately, the Task Force decided reuse of graywater is a good concept presenting several opportunities. However, the group concluded that more research needs to be undertaken on practical applications in an urban setting and appropriate treatment standards. The Task Force suggested further investigation into graywater reuse.

VII. Public Perception

Even though water is continually 'reused' in nature, there remain substantial obstacles to broad public acceptance of water reuse. Oregonians generally view water treated at a lower standard than drinking water with great suspicion. This skepticism is reinforced by the regulatory language employed by agencies that describe water as 'reclaimed wastewater' or 'reclaimed sewage' rather than expressing it as 'water reuse' or 'new water.'

New communication techniques, tools and commitments need to be developed to elevate the public understanding of water reuse. For a successful dialogue, we need an understandable neutral language. State agencies can play a vital role in this effort by removing stigmatizing language from regulations, and producing educational materials that describe the benefits of using properly treated water.

State agencies and the public need to reconnect with the natural water cycle so that interrelationships become clearer and we all understand that water is continually used, treated and reused in nature. The natural water cycle is the bridge between urban and rural Oregon, providing the means for human activities, economic development, population growth and agricultural production. While water can be used to divide Oregonians, it can also be a rallying point to unite us. There is an increasingly urgent need for all sectors to address water scarcity in a collaborative fashion.

The Task Force believes that agencies should review their regulations, policies, procedures and publications carefully to remove negative language on water reuse. In addition, improvements and increased efforts are required to communicate the risks and benefits associated with water reuse relative to other water sources. Research, public education and outreach are required to explain the benefits of water reuse and to help Oregonians understand the benefits of varying the level of water quality for the intended use.

VIII. Recommendations

The Task Force recognizes the finite supply of water in Oregon, the potential impact of increased water demand from population growth and economic development, and the key role water reuse can play in meeting Oregon's future water demands. However, there are existing regulatory constraints that may unnecessarily limit the full development of water reuse in Oregon. Lack of a clear and coherent state policy on water reuse has resulted in agencies viewing water reuse in disparate and uncoordinated ways.

Task Force Recommendations

1. Consistent State Policy to Promote Water Reuse

Oregon should develop a clear and coherent state policy promoting water reuse when done in a manner protective of human health and the environment. This policy should be promulgated and adopted by affected state agencies. This could be in the form of an Executive Order from the Governor of Oregon, or appropriate action from the Oregon Legislative Assembly.

Specific recommended actions include:

- ❖ Consult with the Governor's Natural Resource Office and affected agencies (DEQ, Health Services, Building Codes Division, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Economic and Community Development Department) in follow-up from this report.

2. Improve Interagency Coordination

That state regulatory agencies should establish internal and external mechanisms to coordinate efforts to encourage water reuse.

Specific recommended actions include:

- ❖ Establish an interagency group to evaluate water reuse projects;
- ❖ Schedule a periodic interagency meeting/conference to review water reuse projects and policy;
- ❖ Establish written procedures for both inter-agency and intra-agency permitting of reuse projects to improve consistency.

3. Develop Permitting Guidance

Affected state agencies should collaborate to develop guidance that clearly describes how water reuse projects move through Oregon's regulatory and permitting process.

4. Prepare a Manual of Best Management Practices

A manual of Best Management Practices (BMPs) for water reuse projects should be compiled as a tool for reuse project developers, municipalities and others.

Specific recommended actions include:

- ❖ Use an interagency/interdisciplinary team to identify potential projects, and to provide technical assistance to project advocates;
- ❖ Develop an Interagency Memorandum of Understanding between affected state agencies or a fact sheet that identifies and delineates the responsibilities of each agency clearly;
- ❖ Ensure that senior agency management is involved to avoid interpretation disputes;
- ❖ Develop a website to highlight successful projects and provide guidance and tools for those considering projects;
- ❖ Work with the League of Oregon Cities and Association of Oregon Counties to conduct workshops and provide technical assistance.:

5. Streamline Regulations

The public currently regards drinking quality water as the only appropriate water for all uses. Water of a lower quality can be used in a manner that is protective of human health and the environment, and is appropriate for many uses such as landscape irrigation, industrial cooling water and wash water. Water reuse for these and other applications will reduce demand for less available and more costly potable water.

In developing new policies and reviewing existing regulations, water quality treatment standards should be developed that more appropriately match defined end uses which should be included in the standards.

Specific recommended actions include:

- ❖ Update DEQ's water reuse standards in OAR 340-055 to reflect changes in policies and technologies pertaining to water reuse. The standards update should include additional end uses for water reuse and advancements in new wastewater treatment technologies. A thorough review of research and regulations from other states with successful water reuse programs should be undertaken;
- ❖ State regulatory agencies review their administrative rules, policies, procedures and publications to ensure the removal of unnecessarily negative language regarding water reuse;

6. Further Investigate Domestic Graywater Reuse

Further investigation into the environmental benefits and potential impacts to human health and the environment of domestic graywater reuse should be undertaken. Many homeowners in Oregon are interested in reusing graywater. The Task Force was unable to agree on the efficacy of graywater reuse in terms of human health or environmental impact. Nonetheless, it is expected that the demand for reusing graywater will continue to grow. The Task Force did not have time or expertise to develop a policy or standards for graywater reuse.

Specific recommended actions include:

- ❖ DEQ, Health Services and Building Codes Division should undertake the policy and technical work to evaluate the benefits and potential problems with graywater reuse in Oregon;
- ❖ Small pilot projects reusing graywater in both urban and rural areas of the State could be used to demonstrate and study graywater reuse systems;
- ❖ As appropriate, DEQ, Health Services and Building Codes Division should review their regulations to make them more usable to Oregonians motivated to install and operate graywater systems. The current requirement for an individual Water Pollution Control Facility permit is a deterrent to those wishing to pursue installation of a graywater system in Oregon..

IX. Conclusion

Water in Oregon will become an increasingly more expensive commodity as demand for fixed water supply increases with population growth and economic development. To ensure adequate water supply in the future, it is important for Oregon to use its valued water resources carefully and efficiently. Water reuse has potential to play a significant role as Oregon explores opportunities to extend water supplies to meet future demands. However, there are regulatory, policy, public perception and economic challenges that need to be addressed if water reuse is to be further realized. This report is a starting point to address a few fundamental issues surrounding water reuse and makes recommendations on expanding water reuse in Oregon.

Senate Bill 820

The following is the language from Senate Bill 820 relating to water reuse.

SECTION 27. (1) The Department of Environmental Quality shall foster and encourage wastewater reuse in urban areas as a means of conserving potable water.

(2) The Department of Environmental Quality shall work in consultation with interested parties and state agencies to examine the opportunities and barriers associated with wastewater reuse in urban areas and shall submit a report to an interim committee related to natural resources as appropriate, in the manner provided by ORS 192.245, no later than December 31, 2004. The report shall include:

- (a) An inventory of regulatory mechanisms that govern wastewater issues at local, state and federal levels;
- (b) A list of issues, including regulatory barriers, scientific concerns, issues of public perception and economic issues, that could restrict wastewater reuse;
- (c) Readily available information on the current number, types and locations of wastewater reuse activities in urban areas;
- (d) A list of existing and potential incentives for wastewater reuse; and
- (e) Recommendations for legislative or other regulatory changes that may be needed to implement wastewater reuse.

(3) The Department of Environmental Quality may seek federal funding to be used for one or more wastewater reuse demonstration projects within urban areas in the Willamette River Basin that seek to illustrate the economic, environmental and other values of wastewater reuse.

(4) As used in this section, "wastewater reuse" means the recycling of treated wastewater derived from domestic sources, including municipal and individual systems, and industrial sources.

SECTION 28. Section 27 of this 2003 Act is repealed on January 2, 2005.

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Water Reuse Urban Task Force Charge

The Water Reuse Urban Task Force (Task Force) is convened to address opportunities, impediments and issues associated with wastewater reuse with an emphasis on applications in urban environments. Urban uses may include the use of treated municipal or industrial wastewater effluent for wash water, cooling, toilet flushing, landscape irrigation, parks, and power generation. Other issues that will be discussed include economic and social challenges to reuse. The Department of Environmental Quality (DEQ) is undertaking this effort as part of its strategic direction to foster the beneficial use of wastewater and to address the legislative requirements contained in SB 820 which was passed into law during the 2003 session and which includes a requirement for DEQ to submit a report to the 2005 legislature.

The Task Force will consist of a broad range of participants including representatives from cities and districts, consulting engineering, Governor's office, Health Services, Water Resources Department, builders association, industry representatives, a legislator, and the Oregon Building Codes Division, Plumbing Program. The group will meet four times for approximately a half-day and provide perspective on wastewater reuse in Oregon. Since only four meetings are anticipated, all participants will try to make all meetings.

The group will attempt to make decisions on a consensus basis.

Specific advice from the taskforce is sought on the following items:

1. A list of issues that could restrict wastewater reuse, including:
 1. regulatory barriers. This includes identifying local, state and federal regulatory and administrative mechanisms that impede wastewater reuse, including, for example, permitting and signage;
 2. scientific concerns;
 3. issues of public perception and identification of engaged interest groups;
 4. economic issues. This includes the economic impact of reuse on existing potable water infrastructure.
 5. health concerns;
 6. environmental impacts; and
 7. legal liabilities.
2. Identify local, state and federal regulatory and administrative mechanisms that encourage wastewater reuse;
3. An inventory of the current number, types and locations of wastewater reuse activities in urban areas;

4. A list of existing and potential incentives and encouragement for wastewater reuse;
5. Identification of potential users of reclaimed wastewater. This includes identifying existing and potential demand for reclaimed wastewater, identifying appropriate and inappropriate uses, and the standards that apply to various uses; and
6. Recommendations for legislative or other regulatory actions that may be needed to implement wastewater reuse.

Some technical or regulatory issues arising from the task force's deliberations may be further discussed and refined at a later date by a technical/policy advisory committee process that DEQ typically uses for rule and policy making. This may include additional parties with an interest or expertise in water reuse.

Inventory of Urban Reuse Projects

The following are urban water reuse projects currently being undertaken or permitted and scheduled to begin in the next year. This list relied on readily available information, and does not purport to be exhaustive. Projects are grouped by use.

Landscaping

City of Cottage Grove¹ (golf course irrigation)
City of Bandon (Bandon Dunes Golf Course irrigation)
City of Salem¹ (golf driving range irrigation)
City of Myrtle Creek (golf course irrigation)
City of Cave Junction (Illinois Valley Golf Course)
City of Sutherlin (Oak Knoll Golf Course)
City of Lakeside (applied to city property. Proposing to apply to local airport)
City of Bend (golf course irrigation)
City of Redmond (landscape irrigation)
City of Prineville (golf course irrigation)
Clean Water Services (King City Golf Course and Tualatin Golf Course)
Clean Water Services (Tigard High School playing fields)
Nehalem Bay Wastewater Agency (landscape irrigation)
Sunriver Utilities (golf course irrigation)
North Valley High School (applied to a ball field in summer to keep it green. No human contact)
Hidden Valley High School (applied to pasture to graze animals as part of school curriculum)
Delphian School (landscape irrigation)

Residential

River Meadows residential development (landscape irrigation)
Eagle Crest development (landscape irrigation)
Oakland Depot RV Park¹ (landscape irrigation)

Commercial

City of Sandy (Container nursery irrigation)
OHSU South Waterfront in Portland² (proposed to install advanced treatment for Level IV water to be used for flushing toilets and landscape irrigation)

Industrial

City of Klamath Falls (water used for cooling at an electrical co-generating facility)

¹ Permitted and due to begin irrigation in 2005.

² Preliminary proposal.