



CITY OF COBURG • P.O. BOX 8316 • COBURG



OREGON 97408 • 541-682-7850 FAX 541-485-0655

*W.S.B.*

September 20, 2005

Eugene City Council  
Springfield City Council  
Lane County Board of Commissioners

Dear Council Members and Commissioners:

I look forward to talking with you on October 11 about the issues that surround the question of Coburg's connection to MWMC. For now, I wanted to provide you with what Coburg believes must be the basis for the Joint Elected Officials' decision.

- Coburg and the region face serious health issues because of the groundwater contamination near Coburg. Removing Coburg's septic systems from operation will help address the problem..
- Coburg and the region face potential job losses, and a limitation of job growth, if Coburg cannot bring wastewater treatment to Coburg soon.
- Coburg has been forced to pursue several options while it waited for a definitive answer, but Coburg is rapidly approaching the point where it must choose and proceed because waiting for a decision means further delays in bringing wastewater treatment to Coburg.
- Coburg believes that connecting to MWMC is the right thing to do, but it can only choose that option if the connection can be affordable and accomplished at least as quickly as other options.
- Coburg believes that there is an affordable and quick way to accomplish a connection to MWMC that is fair to all sides.

Attached (Attachment A) is a summary of Coburg's perspective on the issues related to a regional solution for the treatment of our wastewater. Coburg is requesting from you, the Joint Elected Officials of Springfield, Eugene and Lane County, to make a policy determination at this time that Coburg be allowed to connect to the MWMC.

Sincerely,

*Judy Volta*  
 Judy Volta, Mayor  
 City of Coburg

## Summary: Coburg's Position on MWMC Connection Charges

### Coburg's Objectives

1. Pay their fair share of capital and annual operating costs – receive no subsidy, pay no subsidy.
  - Scenario A (baseline) is based on the newly revised SDCs, it includes all costs any new user would have to pay.
  - The MWMC calculations show that Coburg will represent 3.2% of the projected wastewater flow increase to MWMC, in 2028, 4% of the population growth, and (under Scenario A) 5% of the cost for additional capacity
  - Scenario B has Coburg paying for capacity that other users are also being charged for under established SDCs.
  - Scenario C includes charges that all other users will be paying for through rate increases, if this Scenario is used Coburg will be paying twice for improvements used by other new users, as well as paying a subsidy as in Scenario B.
2. Be treated the same as all other users of the regional wastewater system.
  - The MWMC system, reflected in Scenario A, is designed to handle new users, whether they come after a UGB expansion such as Royal Caribbean, after a zone change, such as Peace Health Hospital, or after an expansion of use such as Hyundai.
  - If it seems wrong for Coburg as a new user to benefit from the federal grant to build the original MWMC system, Coburg would pay the additional \$365,000 that this would add to Scenario A.
3. Provide the most economical long-term wastewater treatment solution for the community.
  - Because Coburg is such a small incremental increase in the total MWMC wastewater flow, as an addition to MWMC, Coburg should not add any significant burden to MWMC
  - Coburg faces significant costs to construct a collection system and a transmission system to convey the wastewater to MWMC. If Coburg is required to pay a charge that subsidizes other users, such as in Scenario B and C, the uneconomic costs for Coburg may destroy the opportunity for a regional solution.
  - The policy choices involving precedents for use of the regional system should be made at a policy level, rather than being hidden in economic choices.
4. Provide an appropriate balance of costs so that Coburg users will not be overburdened.
  - Eugene and Springfield residents pay between \$15 and \$25 per month for wastewater services.
  - Coburg residents, under scenario A might pay between \$70 and \$90 for wastewater services (including debt payments).

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**AGENDA ITEM SUMMARY**

**Meeting Date:** October 11, 2005  
**Meeting Type:** Joint Meeting  
**Staff:** Reg. Exec. Officers,  
Reg. Wastewater staff

**JOINT ELECTED OFFICIALS  
OF**

**EUGENE, SPRINGFIELD AND LANE COUNTY**

**Estimated Time:** 2 Hours

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**ITEM TITLE:** Discussion of City of Coburg Request for Connection to the Metropolitan Wastewater Management Commission (MWMC) Wastewater Facilities.

**ACTION REQUESTED:** It is requested that the Joint Elected Officials (JEOs) review the attached materials, discuss the seven questions listed under "Requested Direction" on page 20 of the attached briefing memorandum (see Exhibit 1), and provide direction to the regional executive officers.

**ISSUE STATEMENT:** A meeting of the Joint Elected Officials has been scheduled to discuss the City of Coburg's request for extension of wastewater services to Coburg from the existing service area covered by the MWMC. When Coburg officials made this request in June, 2004, the JEOs requested a report identifying the relevant issues and steps that would need to be addressed, and an assessment of the scope of work, timing and resources needed to address them. Exhibit 1 and its attachments were prepared under the direction of the regional executive officers (SEL) to respond to the JEOs' request.

**ATTACHMENTS:** Exhibit 1: Briefing Memorandum  
Exhibit 1—Attachment A: Estimated Costs and Time Line  
Exhibit 1—Attachment B: Draft Coburg 2004 Wastewater Facilities Plan—  
Chapter 1 Summary  
Exhibit 1—Attachment C: October 28, 2004 memo to SEL: City of Coburg  
Connection Cost Evaluation

**DISCUSSION/  
FINANCIAL  
IMPACT:** The City of Coburg is being driven to provide city-wide wastewater collection, treatment, and disposal services because of known ground water quality problems in the Coburg area as well as an interest in providing for economic development. Coburg has evaluated two options for providing wastewater services, both of which involve construction of a city-wide wastewater collection system. Option one would involve construction of a wastewater treatment facility in Coburg (with a total estimated cost of \$16.5 million in 2004 dollars). Option 2 would involve construction of a pumping station and a force main across the McKenzie River and a connection to the Eugene collection system and treatment at the Eugene-Springfield treatment facility. A rough estimate of a range of connection costs Coburg might be expected to pay is included in the attached briefing memo, however, the decision on Coburg's costs to connect to the regional system ultimately rests with the elected officials.

As requested by the JEOs in June, 2004, regional staff have prepared a rough time line and estimated labor and consulting costs associated with the work that would need to be done to accommodate Coburg's request. This preliminary scoping, provided as Attachment A, reflects a potential cost range of \$520,000 to \$795,000. It does not factor in materials and supplies costs or costs associated with potential appeals. Actual costs could range from \$650,000 to \$1,000,000 or more. It is estimated that the work would take approximately four years to complete.

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## MEMORANDUM

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Eugene City Council  
**To:** Springfield City Council  
Lane County Board of Commissioners  
**From:** Eugene, Springfield and Lane County Executive Officers  
**Date:** September 16, 2005  
**Subject:** Discussion of City of Coburg Request for Connection to the Metropolitan Wastewater Management Commission (MWMC) Wastewater Facilities.

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### ISSUE

A meeting of the joint elected officials (JEOs) is scheduled for October 11, 2005 to review and discuss the City of Coburg's request for extension of wastewater treatment and disposal services to Coburg from the existing service area covered by the Metropolitan Wastewater Management Commission (MWMC). When Coburg officials made this request in June, 2004, the JEOs requested a report identifying relevant issues and steps that would need to be addressed, and an assessment of the scope of work, timing and resources needed to address them. This memo and attachments were prepared at the direction of the Springfield, Eugene, and Lane County executive officers (SEL) to respond to the JEOs' request.

### BACKGROUND

The City of Coburg is being driven to provide city-wide wastewater collection, treatment and disposal services because of known ground water quality problems in the Coburg area as well as an interest in providing for economic development. Coburg first prepared (in 1999) and updated (in 2004) a Wastewater Facilities Plan, which includes a sanitary sewer collection system, and two general options for providing wastewater treatment, including: 1) construction of dedicated treatment facilities to serve Coburg; and 2) conveyance of Coburg wastewater to the MWMC wastewater treatment facilities. During this five-year period, Coburg's planning and community growth projections changed significantly. Coburg's planning horizon has been extended from 2022 to 2028. The population projections have increased from the 2022 build-out population of 2,980 to a 2028 population of 3,255, and a projected build-out population of 6,700. This increase corresponds to an increase in the planned area within the Coburg urban growth boundary (UGB) from 547 acres to 812 acres.

As noted in Coburg's draft 2004 Facilities Plan Update, "these changes contribute to the need for significantly larger and more costly wastewater collection and treatment facilities than were envisioned in the 1999 plan." The summary chapter of Coburg's draft 2004 Facilities Plan Update, included as Attachment B, provides additional background on Coburg's planning and evaluation of wastewater treatment options. Coburg has vigorously sought State and Federal funding assistance to partially fund the estimated \$16.5 million (in 2004 dollars) in costs associated with building a collection and treatment system. As Coburg has sought funding, Federal and State agencies have requested that the option of connecting Coburg to the MWMC system, currently serving Eugene-Springfield area, be evaluated.

Several State agencies, including the Oregon Department of Environmental Quality (DEQ) and the Office of Economic and Community Development (OECD) have actively supported Coburg

in seeking timely resolution to the City's wastewater treatment needs. The State has placed a high priority on addressing Coburg's ground water quality problems, as well as supporting economic development and job creation opportunities. To this end, the State has promoted the option of connecting Coburg to the MWMC system.

In June, 2004, officials from the City of Coburg appeared before the JEOs and requested that consideration be given to extending the MWMC regional wastewater treatment services to Coburg. The request was made appropriately before the three agencies' governing bodies (Governing Bodies), because the intergovernmental agreement (IGA) establishing MWMC does not permit MWMC to grant such a request. Under the IGA, the MWMC is expressly limited to providing services to the Governing Bodies, and to areas within the Eugene-Springfield UGB. At its June 22, 2004 meeting, the JEOs requested staff to prepare a scoping report outlining the issues and estimated costs and time frames associated with pursuing further study and deliberation of Coburg's request.

Over the past year, SEL has guided Eugene and Springfield regional wastewater program staff in preparing this background report to the JEOs. The Eugene, Springfield, and Lane County Planning Directors and respective legal counsel also have been consulted on portions of this report. This report identifies key issues relevant to the JEOs' anticipated deliberation on whether and how to move forward with further evaluation and/or a decision making process that could lead to extension of MWMC wastewater services to Coburg. The discussion below does not attempt to fully analyze or resolve these issues. Rather, it is intended to summarize the issues, present scenarios for discussion purposes, and estimate the timing and costs for additional work that would be needed to address or resolve the issues. The timing and cost estimates are provided in Attachment A. It is difficult to predict whether this report identifies the full range of issues that may emerge through the various public review processes that would ensue, given the unprecedented nature of this request in the Eugene-Springfield metropolitan area.

## **DISCUSSION OF KEY ISSUES**

### **CONTEXT FOR JEOs CONSIDERATION OF COBURG'S REQUEST**

Coburg's Wastewater Facilities Plan and its request for services provide a partial context for the JEOs discussion. These are described in the "Background" section and Attachment B of this memo. This section addresses aspects of the broader context within which the JEOs may wish to consider Coburg's request for wastewater services. The key issues addressed in this section include:

- Relationship of Coburg's situation and request to long-range regional planning activities and other small (satellite) communities' needs for wastewater treatment services in the future;
- Comparative environmental, public health, and safety issues associated with all aspects of Coburg's wastewater treatment options;
- Impacts of connecting Coburg to the MWMC system on Eugene-Springfield area collection system and treatment facility capacity; and
- Cost equity among the MWMC customers and new customers outside the UGB.

## **Relationship to Long-Range Regional Planning and Other Potential Extraterritorial Service Needs**

Part of SEL's directive to staff in formulating this report was to consider Coburg's request for wastewater services in the broader regional planning context, including potential future service requests from other small cities surrounding the Eugene-Springfield metropolitan area. Specifically, staff was directed to relate Coburg's request to the Region 2050 planning study and its strategies for meeting the service demands of long-term regional growth. The relevance of this direction became real during the preparation of this report, because Regional Wastewater Program staff recently received an inquiry from Junction City staff regarding the possibility of receiving wastewater services. This section summarizes the relevant information available at this time, and the preliminary conclusions reached regarding efficient means of providing wastewater services throughout the Southern Willamette Valley.

Eugene, Springfield, Lane County, and Coburg are parties to the Region 2050 planning study which is being undertaken to help establish a consensus for a preferred Regional Growth Management Strategy for the Southern Willamette Valley. The boundaries of the study area take in several communities beyond the Eugene-Springfield metropolitan area, including Coburg, Creswell, Veneta, Junction City, Goshen, Pleasant Hill, Westfir and others. The study models three potential growth scenarios for the future. These include: 1) a focus on "Compact Urban Growth," with only modest expansion of UGBs to support future growth; 2) increased focus on expansion of "Satellite Community Growth" to support regional growth demands; and 3) increased "Rural Growth" to more closely approach urban levels of development in areas where rural resources (i.e., agriculture and forestry) are marginal.

Wastewater services are among the services undergoing analysis within the Region 2050 planning study. The Rural Growth scenario would result in the least amount of new demand for sewerage services, because of the expected increase in rural residential development with on-site septic systems. However, regardless of which regional growth patterns emerge as preferred, Eugene-Springfield and several small communities in the area will require new and/or expanded wastewater collection and treatment facilities within the 2050 planning horizon. Some of the small neighboring communities, such as Veneta, Lowell and Creswell have or are in the process of constructing centralized wastewater services. Others, like Coburg and Goshen rely on private septic systems which will eventually need to be replaced by alternative systems, and a decision about how to best meet community wastewater treatment requirements will need to be made. Coburg's poor groundwater situation (the area has been designated as a groundwater management zone by the DEQ due to high levels of nitrates in the groundwater) and resulting restrictions for planned industrial expansion, have led to the City being the first case to test the question and the preliminary conclusions reached by Region 2050 Technical Advisory Committee staff (TAC) who are providing wastewater systems planning analyses.

It should be noted that the Region 2050 planning horizon extends a full 25 years beyond the current MWMC Facilities Plan, which establishes the treatment processes and capital improvement projects needed to meet community growth and environmental performance requirements within the Eugene-Springfield UGB through 2025. The vast unknowns regarding likely technological advancements in wastewater treatment, the Willamette River's ability to assimilate increased pollutant discharges, and the levels of treatment that will be required to address environmental conditions this far into the future all make it fruitless to predict the technologies and cost-effective locations of new wastewater treatment facilities that will be developed to serve Eugene-Springfield between 2025 and 2050. The wastewater loads

associated with community growth during that time may or may not be treated cost-effectively in the same location and facilities that exist today.

However, in considering the long range future of the Region 2050 communities, the following general findings and considerations have been offered by wastewater TAC staff regarding planning for efficient and cost-effective provision of wastewater services within the study area.

- Development of new wastewater services, no matter how they are provided, will be costly for small satellite communities.
- There is no blanket one-size-fits-all approach to providing wastewater services that will be efficient or cost-effective to all of the communities within the Southern Willamette Valley.
- Communities that have developed sewerage infrastructure and treatment facilities will likely be best served by continued operation of their dedicated facilities.
- For some communities, topographic conditions, such as unfavorable gradients and hills, will make localized wastewater management more efficient and cost-effective than conveyance to the existing Eugene-Springfield wastewater treatment facilities. The Crow-Lorraine and Alvadore areas are examples of this type of area.
- Extensions of existing regional wastewater services beyond the current UGB would, in general, be most cost-effective and efficient overall where they would result from incremental growth with corresponding incremental extension of sewers from the Eugene-Springfield UGB outward toward existing satellite communities. The cost-effectiveness and system efficiencies would be achieved in this type of development/service pattern through the addition of small increments of public conveyance over time with users able to tap into the system (where elevations and geographic conditions are favorable to conveyance by gravity), paying for public improvements as development occurs. Examples of areas where projected development patterns may result in these efficiencies include Goshen and Pleasant Hill.
- Extensions of existing regional wastewater services beyond the current UGB would, in general, be expected to be less cost-effective and efficient overall where the satellite community to be served is significantly removed from the existing service. These types of extensions would cause a “leap-frogging” of public conveyance infrastructure over rural areas that would not participate in funding or be provided with wastewater services. Assuming an increment of wastewater treatment capacity built to current environmental requirements would cost roughly the same at the Eugene-Springfield regional facilities as it would within the satellite community’s UGB, then the services provided through the leap-frog service extension would be more costly based on the costs of added conveyance system and pumping facilities that would otherwise be avoided.
- Coburg and, perhaps to a lesser degree, Junction City are examples of where this pattern would occur. In these examples, for extension of existing regional wastewater services to prove cost-effective and efficient for both the Eugene-Springfield area and the satellite community, the local costs of constructing the length of force main required to connect to the MWMC system would need to be offset by operational cost-savings in the satellite community, without increasing costs to Eugene-Springfield customers.

While these general findings may serve as “rules of thumb,” it should be emphasized that they are generalized conclusions. There may be other factors elected officials may wish to consider

beyond the simple objective of “cost-effective and efficient provision of public facilities” when considering whether services should be extended to a satellite community. The Region 2050 study has not, at this point, extended the evaluation of future wastewater services beyond this simplified view.

Beyond providing this regional planning information in response to requests for a broader framework and context for discussion, staff has not anticipated that further staff effort or resources would be expended on this for the purposes of evaluating Coburg’s request. Therefore, no associated work activities or costs are identified in Attachment A.

### **Comparative Environmental, Public Health and Safety Impacts**

When MWMC discussed Coburg’s request several years ago, several issues were raised by Commissioners, which are reflected throughout this report. One of the factors several of the Commissioners expressed as important is whether regional treatment of Coburg’s wastewater would be more or less beneficial to protecting water quality and the environment. This is one of the factors the elected officials and the public may find important in considering whether wastewater service should be treated and discharged by MWMC facilities. This question has not been analyzed, and therefore conclusions cannot be drawn as to which wastewater treatment option would provide greater benefits to the environment and lower environmental and public health/safety risks in the long run.

The following elements should be included in a comprehensive evaluation of this question.

- Impacts on land use and the environment from 1) building a wastewater treatment plant and new outfall vs. 2) building a conveyance and pumping system to connect to an existing treatment system and existing treated wastewater outfall;
- Impacts on water quality of 1) effluent discharged to the McKenzie River from a new outfall serving the Coburg system. [Note, the treatment system would have to be designed and operated to meet current wastewater discharge standards, including those requirements established under the Total Maximum Daily Loads and Waste Load Allocations] vs. 2) conveyance to and treatment and discharge of Coburg’s wastewater through MWMC’s existing system to the Willamette. [Note, the MWMC system faces significant challenges over the next 10 years to comply with new temperature limitations, and one of the main strategies for achieving summer water temperature requirements is to divert effluent flow out of the River by increasing treated water reuse projects. Option 2, connecting Coburg to the MWMC system, would increase the amount of wastewater flows that have to be treated or diverted through reclaimed water use. This has to be weighed against the alternative impacts of Coburg’s effluent discharged to the McKenzie.]
- Risk factors associated with conveyance of wastewater from Coburg to the MWMC system, which would include conveyance across the McKenzie River;
- Risk factors associated with the operation and maintenance of a new wastewater treatment facility, including chemical usage (such as for disinfection), electrical transmission facilities, potential for chemical air emissions and odors, and facility-related transportation activities;
- The need for a separate program to manage the disposal or beneficial reuse of biosolids generated by a dedicated wastewater treatment facility for Coburg.



Staff has insufficient information to estimate the level of effort and resources that would be expected to study these issues for the purposes of evaluating Coburg's request. Therefore, no associated work activities or costs are identified in Attachment A.

### **Collection System And Treatment Facility Capacity**

The MWMC facilities, and the local wastewater collection systems for Eugene and Springfield, were planned and constructed to serve the anticipated populations within the Eugene-Springfield UGB. Therefore, these facilities, and long-range facilities plans have not accounted for the conveyance and treatment of Coburg's wastewater. [Note however, Coburg's wastewater contributions would be minor in comparison to the overall system capacity, under the growth projections presented in Coburg's Facilities Plan.] The following collection and treatment system capacity issues would need to be addressed.

#### **Collection System Capacity**

Under the regional treatment alternative, Coburg's studies show plans to convey wastewater through a force main (i.e., a pressurized pipe fed by a pumping station) that would cross the McKenzie River in the vicinity of Coburg Road, via the old railroad bridge. It would then connect with the Eugene collection system in one of several possible locations. In 2004, a preliminary evaluation was made of the viability of connecting Coburg's wastewater discharge to the Eugene collection system. Further study would be needed to determine the optimal location for the connection and the extent to which capacity enhancements would be needed in the Eugene local wastewater collection system to handle the increased flows generated from Coburg.

#### **Treatment Facility Capacity**

In 2004, MWMC completed a 20-year Facilities Plan, which prescribes capital improvements needed to upgrade performance and expand capacity in various parts of the treatment works, biosolids management facilities, and regional pump stations. After over twenty years of operation, the treatment facilities currently experience capacity and environmental performance constraints in certain parts of the facilities under certain seasonal conditions. These capacity constraints include: 1) insufficient capacity during peak wet weather flow events, which has resulted in unpermitted overflows and bypasses in December, 2003; and 2) inadequate solids removal capability during rainy "dry season" months, which has resulted in exceedance of discharge permit limits for solids in May, 2005. Additionally, ammonia limits and temperature management requirements, which were newly added to the discharge permit, have added capacity constraints. All of these issues require construction of improvements to maintain permit compliance for existing sewer users and to add capacity for future users.

The capital projects specified in the MWMC Facilities Plan will address the capacity and performance constraints for existing and future users through 2025. If completed in accordance with the adopted schedule, existing capacity constraints would be resolved prior to the estimated time frame of a Coburg connection (i.e. 2008). However, several factors have resulted in significant delays in capital project implementation, putting the MWMC system in greater jeopardy of failure to meet permit limits and key regulatory deadlines. Further study is needed to evaluate the adequacy of MWMC's construction progress and whether any projects in the 20-year facilities plan would need to be accelerated to accommodate a Coburg connection without significant risk of permit violations.

## **Cost Equity**

### **Recovery of Capital Asset Investments, New Capital Expansions, and Planning and Study Process Costs**

This section addresses the costs a prospective sewer customer outside the UGB could expect to be assessed assuming existing and future Eugene-Springfield sewer customers would not absorb or subsidize the costs of providing service outside the planned service area. Eugene-Springfield area sewer customers and property owners have paid for the locally-funded share of the planning, permitting and construction of existing facilities through a combination of property taxes, user rates and connection fees over time. The facilities have been built to serve current populations and future growth within the UGB. Because Coburg is outside the UGB, its wastewater demands have not been planned for as part of the MWMC service district or the local collection systems. While sufficient average dry weather capacity is currently available to connect new customers, an increment of capacity and facilities equivalent to Coburg's increment of demand would need to be added to the regional wastewater system at some point.

In order to establish equity among Eugene-Springfield customers and Coburg, Coburg would need to be assessed for a prorated share of the local (Eugene) and regional (MWMC) system capacity used, as well as for the facilities, buildings, planning, permitting, etc. that are necessary to run the overall regional wastewater program. To assist Coburg in determining whether connection to the regional system would be cost effective in comparison to building its own system, and to provide the elected officials with a starting point for determining potentially appropriate connection (or "buy-in") costs, SEL directed staff to prepare a rough analysis. The analysis was directed under the premise that costs would be captured in a manner that avoids "subsidies." This underlying premise reflects sentiments expressed by the elected officials at the June, 2004 JEO meeting, and the requirements under the MWMC IGA, which states that connection fees be charged to create equity among existing and future sewer customers.

To provide a "ball park" analysis, but keep it as simple and objective as possible, the scope was limited to the following areas:

1. The capital assets/facilities addressed in the 2004 MWMC Facilities Plan and SDC methodology;
2. The capital assets (existing support facilities) that are not addressed in the MWMC SDC methodology.
3. The Eugene collection system connection costs;
4. The contract costs for major long-range planning studies conducted since 1996 to address future capacity needs through 2025; and
5. The elected officials' decision-making process and adoption of necessary Metro Plan and MWMC IGA amendments.

The simplest approach to this rough analysis was to apply the MWMC SDC methodology to Coburg's actual and planned wastewater profile, which was provided by Brown and Caldwell engineers. The methodology was applied first to show the actual total of SDCs that would be paid if the equivalent set of customers was located inside the UGB. The Eugene local wastewater SDC methodology (in effect in 2004) was applied similarly, under the assumption Coburg would connect to the Eugene collection system. This analysis resulted in charges summarized below as a "Baseline Comparison."

The methodology was then applied under two sets of assumptions, as summarized below under “Scenario 1” and “Scenario 2,” to give a range of estimated capital costs the elected officials may consider appropriate to capture Coburg’s increment of demand for capacity in treatment and conveyance facilities without subsidies from Eugene-Springfield area sewer customers. Under these scenarios, a rough estimate of a proportionate share of the long-range facilities planning efforts (described as item 4 above), based on Coburg’s estimated flow, the costs of the regional public involvement and decision making processes (item 5 above), and of existing support facilities (aside from facilities that are captured in the SDC methodology—item 2 above) were also provided as separate figures. These estimates would be common to both modeled scenarios, and therefore were added to both scenarios to provide an estimated “bottom line” buy-in cost. An expanded version of this cost recovery modeling results is provided in Attachment C.

It should be noted that the analysis summarized below does not provide a comprehensive assessment of previous investments existing customers have made, through property taxes and user rates, which would support services to Coburg. The analyses also did not consider the costs associated with building a pipeline across the river or any potential improvements needed in the Eugene collection system to receive Coburg’s wastewater. The analysis did not consider a wide range of issues that would need to be evaluated by the Governing Bodies in establishing appropriate service, governance and accountability relationships with Coburg, all of which would have associated costs. At the time this analysis was conducted, a place holder amount of \$300,000 was included. An updated estimate of the decision making costs is part of Attachment A.

Finally, it should be noted that an estimate of ongoing costs, which would translate into Coburg sewer user fees, cannot be derived until the full range of services that would be provided to Coburg under an intergovernmental agreement is determined. However, given that Coburg does not currently provide ongoing sewer system maintenance, regulatory programs, sewer user customer services, and general administration, it should not be assumed that Coburg’s ongoing user rate costs would be equivalent to those paid by Eugene and Springfield sewer users. It is assumed, however, that the costs of services provided to Coburg such as intergovernmental coordination, technical assistance, and directly provided services by Eugene and/or Springfield would be made up through ongoing monthly wastewater fees. These fees could be assessed by various means, including as direct charges to individual customers, or as a single assessment to the City of Coburg.

### **Summary of Connection Cost Scenarios**

#### **Baseline Comparison**

Eugene local and MWMC SDC methodologies were applied to existing and projected developments in Coburg exactly as though they were located in the planned MWMC service area. Under the MWMC SDC methodology, part of the SDC charge is based on the cost of existing available capacity, and part is based on new capacity required. The total regional charge is based on a weighted average cost of existing available and new capacity. Strict application of this methodology to Coburg would not result in full cost recovery, because “existing available capacity” and “new capacity” pertain to planned customer demand inside the UGB through 2025. Similarly, the Eugene SDC methodology does not anticipate collection system improvements that may be needed to convey Coburg’s projected volume of flow.

<u>Baseline Comparison Costs</u>	
(In 2004 Dollars)	
MWMC SDC charges	= \$2,880,239
Eugene SDC charges	= \$1,038,000
Other charges	= \$0
Total connection costs	= \$3,918,239

### Scenario One

This scenario applies the MWMC SDC methodology using the assumption that there is no available physical capacity, and is based on using the “unit cost of new capacity” that is charged to new users requiring some increment of new system capacity to meet their demand. This partially accounts for the fact that Coburg lies entirely outside the planned service area. The methodology distributes the costs of the MWMC Facilities Plan 20-Year Project List according to whether additional capacity was gained by a physical expansion of capacity or whether new capacity was gained by improving a process. One-hundred percent of the cost of new physical capacity is passed on to new users, whereas existing users share in the cost of capacity gained by performance improvements on a prorata basis (such that 11% to 28% is charged to new users).

<u>Scenario One Costs</u>	
(In 2004 Dollars)	
MWMC SDC charges	= \$4,590,000
Eugene SDC charges	= \$1,038,000
Support Facilities	= \$ 106,000
Past Planning Studies	= \$ 12,000
Decision Processing	= \$ 300,000
Total connection costs	= \$6,048,758

### Scenario Two

Scenario Two is similar to Scenario One, in that it is based on using the “unit cost of new capacity” charged to new users requiring some increment of new system capacity to meet their demand. However, in Scenario Two, the new user is charged for the total project costs of new capacity (rather than charging a portion of the new capacity gained by performance improvement projects to existing users). This scenario more closely estimates the actual cost of capacity that Coburg would consume if connected to the regional system, because it applies the full incremental costs of projects needed to meet, as examples, the recent, more stringent environmental requirements on temperature (which will be met by projects that divert effluent out of the river) and ammonia (which will be met by projects built to improve the environmental performance of the existing facilities).

<u>Scenario Two Costs</u>	
(In 2004 Dollars)	
MWMC SDC charges	= \$8,740,000
Eugene SDC charges	= \$1,038,000
Support Facilities	= \$ 106,000
Past Planning Studies	= \$ 12,000
Decision Processing	= \$ 300,000
Total connection costs	= \$10,196,375

## **COMPREHENSIVE PLANNING (LAND USE) AMENDMENT PROCESSES AND REQUIRED APPROVALS**

This section addresses the requirements that would need to be satisfied for the Governing Bodies to lawfully extend wastewater services under Oregon Revised Statutes (ORS) pertaining to land use planning and the implementing Oregon Administrative Rules (OARs). It identifies the applicable rules, and the aspects of locally-adopted land use plans that would require amendments. It also describes the approvals and associated mandated processes that would apply. Although this analysis was prepared following consultation with planning directors and legal counsels from each jurisdiction, it should be considered a preliminary assessment at this time.

### **Eugene-Springfield Metropolitan Area General Plan (Metro Plan) and the Public Facilities and Services Plan (PFSP)**

Compliance with state land use goals (ORS 197, OAR 660) is a requirement of all acknowledged comprehensive plans. The primary goal that governs public facilities infrastructure (water, sewer, transportation) is Goal 11 Public Facilities and Services. The rule implementing this goal is OAR 660-011 Public Facilities Planning. The rule requires cities with populations greater than 2,500 to adopt a public facilities plan and incorporate certain elements of the public facilities plan into the comprehensive plan.

The *Metro Plan* was acknowledged by the State of Oregon in April, 1982. Subsequent to acknowledgement, the *Metro Plan* has been amended through separate “post-acknowledgement” action of Eugene and Springfield; through joint adoption of “post-acknowledgement” actions by Eugene, Springfield, and Lane County; and through the periodic review process, also adopted by Eugene, Springfield and Lane County.

The *Metro Plan*'s public facilities component, which includes Chapter III-G as well as the separate functional plan, the *PFSP*, were prepared, adopted and acknowledged in 1982, updated in 1987, and updated again in 2001. Chapter III-G of the *Metro Plan* and the *PFSP* were recently amended (2004) with new information related to sanitary sewer service projects and policies (These latest amendments are currently the subject of multiple appellate challenges).

- By rule, a public facilities plan “...describes the water, sewer and transportation facilities which are to support the land uses designated in the appropriate acknowledged comprehensive plans within an urban growth boundary...” (OAR 660-011-0005)

- The public facility plan shall contain **“...a list of the significant public facility projects which are to support the land uses designated in the acknowledged comprehensive plan.”** (OAR 660-011-0010)
- The public facility plan shall contain **“...a map or written description of each public facility project’s general location or service area.”** (OAR 660-011-0010)
- The public facilities plan shall contain **“...policy statements or urban growth management agreements identifying the provider of each public facility system, and a discussion of the provider’s existing funding mechanisms and the ability of these and possible new mechanisms to fund the development of each public facility project or system.”** (OAR 660-011-0010)
- The project lists and maps in the *Metro Plan* and the *PFSP* do not identify sanitary sewer extension to Coburg or to rural lands as is required by OAR 660-011-0060 Sewer Service to Rural Lands. The *Metro Plan* and *PFSP* do not mention sewer extensions beyond the UGB except to **“The area of the Eugene Airport designated Government and Education on the Metro Plan diagram, the Seasonal Industrial Waste Facility, the Regional Wastewater Biosolids Management Facility, and agricultural sites used for land application of biosolids and cannery byproducts. These sites serve the entire metropolitan area.”** and,
- **“An existing development outside the urban growth boundary when it has been determined that it poses an immediate threat of public health or safety to the citizens within the Eugene-Springfield urban growth boundary that can only be remedied by extension of the service.”** (*Metro Plan*, Policy G.25, page III-G-12)
- *Metro Plan* policies do not identify sanitary sewer extension to Coburg; the list of exceptions to the policies do not identify sanitary sewer extension to Coburg; and the fundamental principles of the *Metro Plan* do not identify the provision of public facilities and services outside the UGB.
- **“The Metropolitan Plan is based on the premise that Eugene and Springfield, the two existing cities, are the logical providers of services accommodating urban levels of development within the urban growth boundary.”** (*Metro Plan*, Plan Principle #6, page II-1)
- **“The Metropolitan Plan was developed to meet the supporting facilities and services necessary to serve a population of 293,700. That population level may be reached before or after the year 2000, depending upon the rate of growth. The Plan is based on the needs of a future population level and not a specific year.”** (*Metro Plan*, Plan Principle #7, page II-1)

State law requires amendments to Chapter III-G of the *Metro Plan*, and amendments to the project list and maps in the *PFSP* and *Metro Plan* before extension of sewer to Coburg is possible. If the strategy to support this amendment is to use an exception policy similar to the Airport exception, other chapters in the *Plan* may need to be reviewed for internal plan consistency. This same consideration may be necessary with regard to the fundamental principles.

### **Lane County Rural Comprehensive Plan (RCP) and Coburg Comprehensive Plan.**

The proposal would establish an explicit public policy decision to construct a sewer line from some specific location in Eugene-Springfield to a specific location in Coburg. As the line leaves

the Eugene-Springfield UGB it comes under the jurisdiction of the Lane County *RCP*. Likewise, once the line crosses the Coburg UGB it comes under the jurisdiction of the Coburg Comprehensive Plan. Neither of these two plans contemplated this proposed service delivery at any location, therefore both of these plans would require amendments to reflect this policy decision and the physical presence of the pipe. It may also be necessary to specify in the *RCP* that this is an exclusive arrangement between the cities and county and no lateral connections between the two UGBs would be allowed.

It is unclear if additional text amendments to the *Metro Plan*, the *RCP* or the *Coburg Comprehensive Plan* must address any of the following issues:

- identifying Coburg as a customer or partner;
- would *Metro Plan* public facilities policy need to address future development in Coburg related to Periodic Review, *Plan* amendment, or UGB expansion;
- would the *Coburg Comprehensive Plan* rely on this arrangement to satisfy Goal 11 and OAR 660-011 with respect to an acknowledged plan having adequate public facilities to accommodate planned development;
- would Eugene, Springfield and Lane County elected officials need to approve amendments to the *Coburg Comprehensive Plan* by making corresponding amendments to the *Metro Plan* if circumstances in Coburg change over time;
- would the *Metro Plan* need to include new policies that address unexpected impacts on the capacity of this service from development in Coburg, or could this matter be addressed in an IGA between the service provider(s) and the client; and,
- to what extent are Goal 11 compliance questions satisfied by reliance on OAR 660-011-0060 which addresses sewer extension outside of UGBs.

### **Plan Amendment Procedural Requirements**

Amendments to the *Metro Plan* that would allow this particular proposal to be considered must be initiated by one of the three governing bodies of Eugene, Springfield or Lane County.

**“Only a governing body may initiate a refinement plan, functional plan, a special area study or Periodic Review or Metropolitan Plan Update.”** (Metro Plan, Policy #4c, page IV-2)

Lane County and the City of Coburg would need to follow the rules of their respective comprehensive plans to determine how such amendments would be initiated in their jurisdiction.

One of the requirements of OAR 660-011-0010 is to identify the service provider, require urban growth management agreements (IGAs) and identify the source of funding to construct the facilities. MWMC exists through an IGA and mutual cooperation among Lane County, Springfield and Eugene. These Governing Bodies select from their own memberships, and from the general citizenry of the area, their representatives on the MWMC Commission. The MWMC Commission oversees planning, construction and operation of the facilities, and approval of the budget, capital improvements plans (CIPs), and user fees and charges. The three Governing Bodies ratify budgets, CIPs and significant long-range facilities plan updates.

The Governing Bodies of Eugene and Springfield adopt and implement user rates and SDCs. The MWMC Commission would be the signatory on the OAR-required IGA with the City of Coburg.

It is unclear if the IGA should contain provisions addressing goal compliance regarding future actions that may invoke Goal 11 questions, particularly since the IGA establishing the Commission restricts all land use and community growth decisions to the purview of the Governing Bodies. It is unclear if the IGA *per se* is a land use document or would become a land use document if conditions related to goal compliance were included as provisions of the IGA. None of the existing MWMC IGAs are considered land use documents for the reasons listed here.

### **Lane County Boundary Commission Requirements**

The final local land use process involves the Lane County Local Government Boundary Commission. The Boundary Commission has approval authority for changes, mergers, dissolutions, and creation of service districts; and annexations and extra-territorial extension of sewer if: a) the line is a "forced main" or, b) the line is a gravity line 8" or larger. This proposal could be accommodated without a change in the Metropolitan Wastewater Management District boundary (which is currently specified in the MWMC IGA as the UGB) provided Coburg is a customer and not a partner. However, since Coburg's Wastewater Facilities Plan specifies that the discharge to the MWMC system would be by way of a force main, the Boundary Commission has approval authority of the extension of this line.

An extension of a sewer line outside of the city limits of Eugene or Springfield, but within that city's UGB, is defined as an extra-territorial extension if not accompanied by an annexation of the land over/under which the line is extended. An extension of the sewer line beyond the UGB is similarly categorized. The Boundary Commission may not approve an annexation proposal of any classification that does not comply with the policies of the applicable comprehensive plan (ORS 199). Without the necessary and appropriate changes to the *Metro Plan*, *RCP*, and *Coburg Comprehensive Plan*, the Boundary Commission could not approve the sewer line extension.

### **State Agency Involvement**

All post-acknowledgment land use decisions are referred to the Department of Land Conservation and Development (DLCD) for comment. The Department's authority to approve or deny an amendment is limited to the Periodic Review process. It does not appear that the statute considers this proposal to be an application requiring the Periodic Review process. The Department would send a copy of the proposal to affected state agencies (DLCD, DEQ, OEDD, for example) for comment on program consistency issues. It is difficult to project the nature or content of those comments.

### **Time Line and Direct Costs for Processing Required Amendments and Approvals**

Attempting to quantify time lines and costs associated with the various processes necessary to complete this proposal is uncharted territory. Although the history of the *Metro Plan* does include some extraordinary amendment proposals (Short Mountain sanitary sewer extension; Prison siting, etc.) none were ever adopted and none involved the variety of issues, participants or coordination demanded by this proposal.

The time line for the land use decision (*Metro Plan* and *PFSP* only) would begin with the formal initiation process. One of the three governing bodies would be required to adopt a motion or resolution initiating the action. Assuming the initiating government has enough information to take this action, approximately a month would be necessary to accomplish this first step (scheduling, report preparation, meeting action). The ideal time frames, and steps required by the *Metro Plan*, for processing the proposed amendments is outlined below.



- Within 50 days of initiation, a staff report shall be delivered to each member of the Eugene, Springfield and Lane County planning commissions.
- Within 30 days of receipt of the staff report, the planning commissions shall conduct a joint public hearing.
- Within 30 days of the close of the hearing or close of the evidentiary record, the planning commissions shall make a recommendation to their respective governing body.
- Within 30 days of the planning commission recommendations, the elected officials of Eugene, Springfield and Lane County shall conduct a joint public hearing on the amendment.
- Within 30 days of the close of the joint public hearing the elected officials shall approve, modify and approve, or deny the proposal.

Strict adherence to this timeline would result in a final decision within 200 days from the initiation preparations. It is not a violation of the Development Code or *Metro Plan* to take more time: **“A different process, time line, or both ...may be established by the governing bodies of Springfield, Eugene and Lane County for any government initiated Metro Plan amendment.”** (Springfield Development Code, Article 7, Section 7.110)

It is common place, if not entirely without exception, that participants of the *Metro Plan* amendment process request record extensions at each required public hearing. A minimum of one week and up to 30 days is typically given by the planning commissions for record extension. The hearing before the elected officials is intended to be limited to the record developed at the planning commission hearing, but past practice has never limited testimony. The give and take of new testimony eliciting new questions extends the record several more weeks. The elected officials then reconvene to consider the whole of the record. If no additional questions are raised during the reconvened meeting, the elected officials adjourn to deliberate, usually taking another 2-3 weeks before all three governing bodies make a final decision. What under ideal circumstances was designed to take 200 days can easily become 250-300 days.

The City of Springfield charges \$21,000 for an amendment to the *Plan* text, and \$416 per acre for amendments to the diagram. It is assumed that this fee, *on average*, will recover approximately 60% of actual cost. This is a complex and precedent-setting action, therefore 60% cost recovery will likely be reduced by half or more. This puts the actual costs associated with Planning Division processing closer to \$70,000. The number of agency staff, legal counsel, consultants, and public participation that would be involved in this process could add significantly to this cost. An estimate of total costs and time involved is included in Attachment A. It should be noted that if this process becomes similar to the Short Mountain sewer line proposal, costs will increase proportionally.

## **GOVERNANCE, ADMINISTRATION, AND INTERGOVERNMENTAL COORDINATION**

This section addresses how services would be provided and the IGAs that would be needed if the Governing Bodies decide to extend MWMC services to Coburg. As a baseline, the current MWMC IGA would have to be amended to permit MWMC to provide services to Coburg. Development of additional IGAs between Coburg and MWMC, and potentially between Coburg and Eugene and/or Springfield as providers of specific (contractual) services would be necessary depending on the levels of service desired by Coburg.

Two scenarios are provided for discussion purposes. The scenarios would require significantly different levels of resources made available by MWMC and regional wastewater staff to support and be accountable to Coburg and its customers. They would result in significantly different levels of intergovernmental coordination and public policy accountability. It should be noted recent and past experience amending the MWMC IGA, or creating new agreements to provide service (i.e., the previously proposed Short Mountain Leachate connection), informs us that development and approval of IGAs by all parties on MWMC-related matters can be time consuming and resource intensive. This is reflected in the estimated time frame and costs for developing and adopting amendments to the MWMC IGA, as well as creating new IGAs, which are provided in Attachment A.

### **Scenario 1: Coburg as a Customer Under a Service Agreement**

This scenario would require minor modifications to the IGA to allow for MWMC to serve customers (such as Coburg) other than the partners to the IGA and outside the UGB under a defined set of circumstances that comply with all applicable state laws and Metro Plan policies. Coburg would not be a signator to the MWMC wastewater discharge permit and would not have a role in developing MWMC policies, plans, budgets or user charges. The City of Coburg would be billed monthly for its combined discharge and would be responsible to provide all services, public information and accountability to individual Coburg sewer users. Coburg would be obligated to provide all necessary flow metering, monitoring, and analytical data necessary for MWMC to determine flows, strengths, and compliance with regulatory requirements.

This scenario would require the least amount of time and resources on the part of the MWMC partner agencies to implement both initially and in the long term. It would place the responsibility for customer accountability and services within the City of Coburg organization, and would make Coburg's relationship to MWMC similar to other regulated Significant Industrial Users (SIUs) within the service area. This scenario would require an IGA between MWMC and Coburg, which would outline the obligations and commitments of Coburg as conditions of being provided wastewater services. Additional IGAs also could be developed to enable contracted services to be provided to Coburg at the City's request.

### **Scenario 2: Coburg as a Limited Partner**

This scenario would require negotiations among the Governing Bodies to determine an appropriate/acceptable level of partnership Coburg would be extended, and the attendant levels of accountability, intergovernmental coordination, involvement in MWMC matters, and liabilities. Regional wastewater program staffing, budgets and review time frames would need to be expanded to serve MWMC administration and procedural requirements of the Coburg organization and City Council as a member organization. The issues that would need to be addressed under this scenario include, but are not limited to:

- Appropriate representation on the Commission or other means of accountability;
- Level of Eugene-Springfield staff involvement and/or ongoing coordination and provision of public information and basic customer services to Coburg customers;
- Coburg's role in development and/or review of MWMC policies, plans, budgets, and user charges and how to recover the costs and address the impacts of this level of involvement if it is disproportionate to the customer base served;
- Coburg's responsibilities and liabilities regarding the NPDES permit; and

- Increased ongoing regional wastewater program staffing and other costs associated with maintaining MWMC's responsibilities to an additional partner, the costs of which would be significantly disproportionate to the customer base served in Coburg.

Unlike Scenario One, this Scenario could not be accommodated by minor modifications to the MWMC IGA. It is assumed that significant amounts of time and resources would be spent negotiating the conditions of the partnership, drafting IGA amendment language supporting the negotiations, and processing the agreement through all four Governing Bodies. Like Scenario One, Additional IGAs would be needed depending on the level of ongoing support services Coburg would seek to contract with Eugene and/or Springfield to provide.

## **ESTABLISHMENT OF REGULATORY REQUIREMENTS, REPORTING AND COMPLIANCE ASSURANCE**

The MWMC-owned regional wastewater facilities and the locally-owned collection systems in the metropolitan area are operated under a single National Pollutant Discharge Elimination System (NPDES) permit, which is issued by the DEQ to the Cities of Eugene and Springfield and to MWMC. This permit, which enables MWMC to discharge treated wastewater to the Willamette River, carries numerous requirements the Cities and MWMC must meet to maintain compliance with the Federal Clean Water Act and the State's water quality statutes and administrative rules.

This section addresses the regulatory programs/requirements that are mandatory for Eugene and Springfield, and would need to be adopted and implemented in Coburg if Coburg were to become connected to the MWMC system. It also addresses obligations Coburg would be expected to meet through ordinances and agreements. The activities and tasks staff has identified as needed are described below. An estimated time and cost for Eugene-Springfield wastewater program staff to support wastewater services to Coburg is provided in Attachment A.

### **Industrial Pretreatment Program and Pollution Management**

The Industrial Pretreatment Program is a federally mandated program that is intended, among other things, 1) to prevent discharge of pollutants to the sewerage system that may interfere with the operation of the system or contaminate the resulting sludge, or pass through the system, inadequately treated, into receiving waters; 2) to protect the health of employees working in and around the sewerage system; and 3) to improve the opportunity to recycle and reclaim wastewater and sludge otherwise entering the sewerage system. In the Eugene-Springfield area, MWMC is delegated the authority to develop and enact the "model" pretreatment ordinance and corresponding pollutant limits. MWMC also enacts regulatory Pollution Management Practices for certain businesses and industries that are not regulated by permit, because they generate significant pollutants of concern. Eugene and Springfield are obligated to adopt local ordinances, enact rules, and implement programs that are identical to the MWMC-adopted models.

If wastewater services are extended to Coburg, the Eugene-Springfield staff would need to plan and conduct the following work activities:

- Provide background information and technical assistance to Coburg staff and Council;
- Assist Coburg with development, legal review, and adoption of ordinances that implement the MWMC model pretreatment program, local limits, and that provide for

program implementation and enforcement, including adoption of the Enforcement Response Guide;

- Assist Coburg with development of a program and implementation plan, or develop the program for implementation through a service contract with Coburg;
- Conduct a formal review of Eugene-Springfield regulatory “local (pollutant) limits” in accordance with DEQ and EPA guidelines to determine adequacy, whether they will need to be adjusted to accommodate Coburg’s industrial pollutant load, and how reserve capacities will be established and apportioned to enable industrial growth in Eugene, Springfield and Coburg; and
- Work with Coburg to develop enforcement authority, responsibility, and program compliance assurance within Coburg’s city limits, including the ability to assess and collect fees and charges, and to implement any and all regulations and Pollution Management Practices as adopted by MWMC.

The scope, timing and costs of the Eugene-Springfield efforts/resources that would be needed is difficult to assess, and would depend on the amount of assistance needed by Coburg to enact, implement, and enforce a program that is identical to Eugene’s and Springfield’s under the governance of MWMC. A rough estimate is provided in Attachment A.

### **Collection System Construction, Maintenance, and Rehabilitation Requirements**

If Coburg were to connect to the MWMC system, collection system design, operation, maintenance, and long-term rehabilitation would be another set of program parameters where regulatory conformity with Eugene, Springfield and MWMC, along with ongoing resource allocation, would be required. MWMC, Eugene, and Springfield (as co-signators to the NPDES permit and co-operators of the overall system) are obliged to meet system performance standards under peak wet weather flow conditions. These standards, which prohibit sanitary sewer overflows (SSOs) except under extreme storms or catastrophic events, are met in the Eugene-Springfield area through several regulatory vehicles.

The NPDES permit incorporates the Wet Weather Flow Management Plan, adopted by MWMC and the two Cities in 2001, including policies for system performance and level of treatment, as well as ongoing system hydraulic modeling, and targets for infiltration and inflow reduction through system rehabilitation and regulatory enforcement. Although Coburg would connect to the MWMC system with a newly constructed collection system, it would need to be built to standards approved by MWMC, and the City would need to ensure conformance with standards established in the Eugene-Springfield area for ensuring compliance with the NPDES permit, as well as State and Federal rules prohibiting SSOs. The Governing Bodies and/or MWMC would need to address whether sanctions would need to be determined in the event that Coburg failed to comply, resulting in greater amounts of peak flows than planned.

If wastewater services are extended to Coburg, the Eugene-Springfield staff would need to plan and conduct the following work activities:

- Review and process for approval, Coburg’s collection system design specifications;
- Ensure that Coburg maintains a duly authorized and certified System Operator or that Eugene-Springfield personnel are contracted and authorized in that capacity; and
- Provide assistance to Coburg to establish ongoing system maintenance, management and rehabilitation programs, including system monitoring and reporting (this program will

ultimately be required to meet federal "CMOM" requirements), and to develop data collection and reporting necessary to provide annual NPDES reports, and to support future updates to the regional Wet Weather Flow Management Plan.

The scope, timing and costs of the Eugene-Springfield efforts/resources needed to complete these activities is difficult to assess, and would depend on the amount of coordination and assistance needed to enact and implement Coburg programs that are consistent with Eugene's and Springfield's under the NPDES permit. A rough estimate is provided in Attachment A.

### **NPDES Permit Limits, TMDLs, and Waste Load Allocations**

The NPDES permit contains numerous pollutant limits and a Temperature Management Plan (TMP), which was required by the DEQ pending completion of the Total Maximum Daily Load (TMDL) process. The Willamette River TMDLs (currently in draft form) address specific water quality problems, which locally include temperature, mercury, and bacteria. Upon completion of the TMDL process, and through renewal of our NPDES permit, we will be issued a Waste Load Allocation (WLA) for the total amount of thermal load the treatment plant can discharge, and will eventually be issued limits on mercury as well.

The MWMC Facilities Plan includes projects to implement reuse of treated effluent as a means of achieving temperature limitations during the summer months. Facilities intended to support up to ten million gallons per day of reuse are planned, however, it is anticipated that this will fall short of meeting MWMC's temperature reduction requirement. Further regulation of temperature should be anticipated, which would necessarily extend to the regulation of temperature/thermal load of Coburg's discharge. This could be anticipated in the form of increased Pretreatment Program and/or PMP requirements, as well as the potential for Coburg to participate directly in a prorated share of additional reuse projects that are not currently included in the MWMC Facilities Plan.

Similarly, Coburg would need to plan to participate in the regulation and prevention of mercury discharges to the MWMC system. While the current levels of mercury in the MWMC system are extremely low, the treatment facilities are not designed to remove mercury from the wastewater stream. MWMC will necessarily rely on local regulation of mercury through Industrial Pretreatment Program and pollution management requirements.

Finally, because MWMC has no land use or growth management authorities, further evaluation would need to be conducted to determine whether total mass, and potentially other effluent limits would need to be applied to Coburg's discharge. This would be a possible measure to ensure that growth in Coburg would not result in unanticipated increases in wastewater loadings that may compete for treatment plant capacity and performance that is planned to serve the Eugene-Springfield urbanizable area.

Insufficient information is available at this time to estimate the scope, timing and costs of addressing the various regulatory program and permitting issues described above. A placeholder work task and time line is included in Attachment A to recognize that this work would need to be undertaken.

### **General System Administration, Monitoring and Compliance Requirements**

In addition to the specific programs outlined above, the connection of Coburg to the MWMC system would necessitate that certain authorities and specific regulations be established within Coburg's municipal code, enabling sewer utility administration in a manner parallel to Eugene and Springfield. Coburg would also need to establish programs, including providing the staff

and financial resources to implement city code provisions and to provide monitoring and reporting activities, as well as system performance and compliance assurance. At a minimum, Coburg ordinances and programs would need to be established to:

- Protect the MWMC system from inappropriate discharges;
- Establish standards for design and operation of the local collection system in compliance with MWMC-approved standards;
- Define and authorize lawful extension of sewer services within Coburg's city limits and to prohibit extraterritorial sewer extensions/connections;
- Assure Coburg compliance with NPDES permit and MWMC requirements, including all provisions necessary to implement and enforce an Industrial Pretreatment Program and Pollution Management Practices consistent with the MWMC model ordinance;
- Establish and fund programs that will provide for operation, maintenance and rehabilitation of the collection system over time to achieve established system condition and performance standards;
- Ensure accurate flow metering, characterization, monitoring, and timely reporting;
- Provide for sewer user customer services, billing and collection;
- Ensure timely collection and remittance of monthly user fees and connection charges; and
- Provide enforcement and fining authorities, associated inspection and enforcement programs consistent with Eugene and Springfield.

If wastewater services are extended to Coburg, the Eugene-Springfield staff would need to plan and budget to provide technical assistance and legal review in coordination with Coburg staff, legal counsel and the city council. Staff support and processing of MWMC review and approval of the relevant aspects of Coburg's program would also need to be considered. However, insufficient information is available at this time to estimate the scope, timing and costs of addressing these activities. A placeholder work task and time line is included in Attachment A to recognize that this work would need to be undertaken.

## **CONCLUSIONS AND NEXT STEPS**

This report identifies many of the issues that would need further consideration and follow-up work if the elected officials direct staff to implement a path intended to extend wastewater services to Coburg. Taken together, the tasks and decision-making process are likely to take up to four years (assuming that staff can be freed up from other work to manage the project expeditiously), and may cost as much as \$650,000 to 1,000,000 or more in consulting, legal, and agency staff costs. Attachment A provides ball park estimates of the staff, consultant, and legal hours and associated costs, and depicts a range of \$520,000 to \$795,000. The cost estimates do not include costs other than labor costs, which could be expected to include copying, printing, and other materials and supplies. The costs and time lines also do not estimate any time or labor that would be added in the event one or more of the land use planning decisions were to be appealed to the Land Use Board of Appeals (LUBA). Any appeals could be expected to add significant costs and time to the process.

The next steps regional staff would anticipate taking in response to an affirmative direction to proceed would include the following:

1. Gain unified direction from the three Governing Bodies on as many of the base line assumptions, conditions and scenarios under which Coburg would be permitted to connect, as this would give Coburg officials better information about whether pursuing a regional option or constructing dedicated facilities is their preferred option;
2. Gain agreement from the Governing Bodies regarding how the follow-up work would be funded--issues such as equitable allocation of funds from each agency to this project, and direction to prepare supplemental budget requests for the work, and/or how Coburg would be assessed for the costs would need to be considered;
3. Gain agreement from the Governing Bodies regarding how the follow-up work would be staffed;
4. Refine a scope of work and develop requests for proposals for consulting services to assist agency staff in conducting analyses and supporting the decision processes;
5. Develop a schedule and budget for managing the project that is feasible given existing agency work plans and budget priorities, and schedule follow-up review and approval by the elected officials to proceed.

### **REQUESTED DIRECTION**

Eugene, Springfield, and Lane County staff request the JEOs to consider and provide direction on the following questions:

1. Do the Governing Bodies choose to continue to work on an evaluation of Coburg's request for regional wastewater services?
2. What is the direction of the Governing Bodies regarding Junction City's recent expression of need and interest in requesting wastewater services?
3. What is the scope of activities staff are directed to undertake regarding questions #1 and #2?
4. Which scenario represents the Governing Bodies' acceptable level of cost-recovery as the conceptual model for refinement of "buy-in" costs Coburg would be expected to pay?
5. Which customer/service relationship scenario would the Governing Bodies expect to pursue?
6. How will the up-front work be funded, will the Governing Bodies authorize sufficient staffing to conduct the work, and will Coburg be expected to fund the effort whether or not it becomes an MWMC customer?
7. Is there an alternative direction the Governing Bodies wish to provide?

### **RECOMMENDATION**

If there appears to be consensus among the Governing Bodies to move forward with further review of this matter at the conclusion of the October 11, 2005 JEO discussion, the following "next steps" are recommended.

1. Each jurisdiction should convene a work session to review and formulate desired approaches relative to the questions posed above under "Requested Direction."

2. Following the individual work sessions, the chief elected officials and the chief executive officers of each jurisdiction should meet to report on the outcomes of the work sessions, and to determine an appropriate process for reaching common agreement among the three jurisdictions.



Coburg Wastewater Services: Estimated Cost and Timeline

TASK	COST RANGE				Time Frame	Attachment A																	
	Reg. Staff HOURS		Consult. HOURS			Legal HOURS		2005	2006	2006	2006	2006	2007	2007	2007	2007	2008	2008	2008	2009	2009	2009	
	Low	High	Low	High		Low	High	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr
JEO/SEL Direction on Scope of Work, Budget	150	200			3 mo	4th Qtr	2005	2006	2006	2006	2006	2006	2007	2007	2007	2007	2008	2008	2008	2009	2009	2009	2009
Develop RFPs for Consulting Services, issue, develop contracts; establish project teams	275	325			5-6 mo.																		
REGIONAL CONTEXT:																							
Regional Planning & other small communities request					No work of time																		
Comparative Env, PH & Safety Impacts					Estimated																		
Collection Systems, & Treatment Facility Capacity:					3 mo.																		
Eugene:	20	40	20	40																			
MVW/C Fac:	40	40	16	20																			
Cost Recovery:	20	120	40	60																			
GOVERNMENTAL, ADMIN, INTER-GOVERNMENTAL COORD.																							
IGA's & Service Agmts	20	1000			12-18 mo.																		
REGULATORY REQMTS, REPORTING, COMPLIANCE:																							
App. RFP, etc.	400	500	40	60	6-12 mo.																		
Collection System	120	240	40	60	12-18 mo.																		
NPDES, TMDL, NLAs	500	500	80	120	12-24 mo.																		
Admin. Monitoring, Compl.	100	1000	40	100	12-24 mo.																		
COMP PLANNING CHANGES:																							
Metro Plan, PESP	100	600			18-24 mo.																		
Lane County Rural Plan	100	150			18-24 mo.																		
Boundary Commission	100	150			3 mo.																		
OTHER:																							
AVM/C Discharge Permit, DEQ Approval	200	400			12-24 mo.																		
Project Management/ Regional Steering Committee, SEL, EOS	300				Ongoing																		
Interagency Coordination and Communication i.e. w/Doburg & State Agencies	225	360			Ongoing																		
Final Approvals	120				3 mo.																		
TOTAL ESTIMATED HOURS	220	6,625	276	460																			
TOTAL ESTIMATED COST	\$316,500	\$421,875	\$34,500	\$57,500																			
Low Estimate: \$520,050																							
High Estimate: \$795,075																							

1804 NOTES: 1) MONTHLY COSTS ARE BASED ON STAFF @ \$12/hr (including wages, fringe, and overhead) ESTIMATE AVERAGES 2) COST ESTIMATION IS BASED ON STAFF TIME ONLY 3) STAFF HOURS INCLUDE PROJECTED NUMBER OF REGIONAL STAFF ON DUTY BETWEEN 1 P.M. & 8 P.M.

VIEW/ROS/VOS/DOZ/TIME LINE/FLOW-UP/EstimateDetail.xls

LEAD @ \$1125w (w/ a range of \$106-320)

CONSULTANTS @ \$125w (w/ a range of \$85-500)

NOON, COSTS ARE BASED ON STAFF @ \$12/hr (including wages, fringe, and overhead)

ESTIMATE AVERAGES 2) COST ESTIMATION IS BASED ON STAFF TIME ONLY

PD Division \$10,000

No other costs (such as printing, advertising, postage, etc.) are included

STAFF HOURS INCLUDE PROJECTED NUMBER OF REGIONAL STAFF ON DUTY BETWEEN 1 P.M. & 8 P.M.

## CHAPTER 1 SUMMARY

The City of Coburg is embarking on a long-term project to bring wastewater service to the residents and industries. The Wastewater Facilities Plan outlines the recommended approach and costs associated with achieving that goal.

### BACKGROUND

This Facilities Plan Update amends the original Wastewater Facilities Plan that Brown and Caldwell prepared for Coburg in 1999. This update is needed to meet the Oregon Department of Environmental Quality (DEQ) requirements for a facilities plan that is less than 5 years old, and to reflect changes in planning and community growth projections. Several fundamental planning aspects have changed since the 1999 document.

- The planning period has been extended from 2022 in the 1999 plan to 2028. This was done to meet the DEQ requirement that the planning period extends 20 years past anticipated facility start-up date.
- Population projections have increased dramatically. The 1999 plan was based on a population of 1,020 for year 2022 and build-out population of 2,980, whereas this update is based on a population of 3,255 for year 2028 and build-out population of 6,700.
- The urban growth boundary (UGB) has increased significantly. The 1999 plan was based on a UGB of 547 acres, whereas this update is based on a UGB expanded to 812 acres including area east of Interstate 5 (I-5).

These changes contribute to the need for significantly larger and more costly wastewater collection and treatment facilities than were envisioned in the 1999 plan.

### **Preliminary Design and Value Engineering**

In June 2004 Brown and Caldwell prepared a Preliminary Design Report based on the recommendations from the 1999 Wastewater Facilities Plan. Wastewater facility sizing was adjusted to reflect planning changes in progress at that time. The Preliminary Design Report also provided the basis for conducting a value engineering (VE) session during August of 2004. The VE process consisted of a team of senior engineers not involved in the project examining all aspects of the proposed project for cost-saving measures. VE is typically recommended for projects of this magnitude. The VE Study identified several potential cost-saving recommendations. These recommendations were incorporated into the evaluations presented in this Facilities Plan Update.

## Overview of Recommended Plan

Wastewater facilities for Coburg consist of two main components; the collection system and the treatment system.

**Collection System.** The wastewater collection system will consist primarily of a conventional gravity system. However, there are a few low-elevation and difficult to reach areas that will be served with pumped systems. The sewer mains will be minimum 8-inch-diameter pipe and will be located in alleys and streets. New service laterals will be required to connect each house or business to the sewer main. Existing septic tanks will be decommissioned according to DEQ regulations by pumping out of their contents and being filled with sand.

**Treatment and Disposal.** The facilities plan developed two general approaches for wastewater treatment and disposal, a Local Treatment Alternative and a Regional Treatment Alternative. The Local Treatment Alternative would be for construction of a wastewater treatment facility and for Coburg to obtain a National Pollutant Discharge Elimination System (NPDES) permit to discharge the treated wastewater to the McKenzie River. The Regional Treatment Alternative would be for Coburg to connect with the Eugene/Springfield Regional Water Pollution Control Facility (Regional WPCF) managed by the Metropolitan Wastewater Management Commission (MWMC). This would require Coburg to construct a pumping station and pipeline that connects with the City of Eugene sewer system.

Systems Development Charges (SDC) would also be incurred for connecting to both Eugene's sewer system and to the Regional WPCF. MWMC staff developed three scenarios of connection charges for Coburg. The lowest cost scenario, based on MWMC's current SDC schedule adopted in 2004, would allow Coburg to connect at a cost that is similar to the Local Treatment Alternative.

The Local Treatment Alternative is the preferred approach for Coburg's long-term wastewater treatment needs. Local treatment provides the following key advantages for Coburg:

- *Local Control of Treatment and Residuals Disposal.* Coburg would have "cradle to grave" control of the effluent and biosolids produced in the city and would not be reliant on other municipal agencies for control of rates and charges.
- *Local Control of Utility Management.* Only the Coburg City Council would be responsible for establishing policies and setting rates for the utility.
- *Lower Cost.* Ultimately the costs for the Regional and Local Treatment Alternatives were very similar if it was assumed that the lowest cost SDC option was implemented. However, the higher cost SDC alternatives represented a significant cost increase for the proposed project. Final approval for Coburg to join the Regional WPCF lies with the joint elected officials of Eugene, Springfield, and Lane County. Likewise, the charges for connecting to the Regional WPCF and for use of the regional sewers will also depend on the decision of the joint elected officials.

At the time of report preparation, there has been no decision regarding whether Coburg will be allowed to become a customer of the Regional WPCF. Therefore, while the Local Treatment Alternative is being pursued, the Regional Treatment Alternative will be kept as a backup option. Regional treatment will become the preferred approach if Coburg can negotiate a cost-effective agreement for connection to the regional system and if the connection charges make regional treatment economical for Coburg.

### Project Capital and Operating Costs

The project capital costs, as summarized in Table 1-1, include expenditures for the wastewater collection system, pumping stations and wastewater treatment using a sequencing batch reactor (SBR) type plant.

**Table 1-1. Project Capital Cost**

Item description	Cost, dollars <sup>1, 2</sup>
Collection system including service laterals	
West of I-5	7,042,000
East of I-5	1,104,000
Local treatment with SBR plant <sup>3</sup>	8,305,000
<b>Total capital cost (rounded)</b>	<b>16,450,000</b>

<sup>1</sup> Cost expressed in year 2004 dollars, ENR 20-cities average construction cost index of 7,000.

<sup>2</sup> Cost includes construction cost plus allowances for engineering design, construction management, legal, and administration. Planning costs expended to date are not included.

<sup>3</sup> Capital cost includes pumping station and pipeline to discharge into the McKenzie River.

The collection system cost is broken down according to the east and west sides of I-5. It is anticipated that the east side of I-5 would be constructed as a separate project, possibly timed with the construction of a new I-5 overpass. Therefore, an initial \$15.3 million project would consist of the collection system which serves only the west side of I-5. By year 2028, construction of the collection system east of I-5 would bring the total cost expended to about \$16.5 million. If Coburg were able to connect to the Regional WPCF, the overall cost through year 2028 (including the cost for sewers east of I-5) for the Regional Treatment Alternative would be approximately \$15.6 million assuming the lowest cost connection fee option.

The estimated annual operating costs, summarized for both the first year of operation and year 2028, are summarized in Table 1-2. The annual costs are associated with the labor, power, and equipment maintenance required to operate the entire wastewater collection and treatment facilities. Due to the significant contribution of industrial wastewater, Coburg will likely be faced with a DEQ-mandated industrial pretreatment program. A portion of this cost may be recovered through industrial user fees.

Table 1-2. Annual Operating Costs

Item description	Cost, dollars per year <sup>a</sup>	
	Year 2008	Year 2028
Collection system operation	62,000	72,000
SBR plant operation	224,000	258,000
Industrial pretreatment program	20,000	20,000
<b>Total annual cost</b>	<b>306,000</b>	<b>350,000</b>

<sup>1</sup> Costs expressed in 2004 dollars

## STUDY AREA CHARACTERISTICS AND BASIS OF PLANNING

Chapter 2 addresses the study area and presents the basis of planning. Key points are summarized below.

### Service Area

After the 1999 facilities plan was completed, Coburg began updating the Comprehensive Plan, expanding the UGB to satisfy the land needs for 2025, and designating an Urban Reserve Area (URA) to meet the land needs for 2050. The previous UGB consisted of 560 acres; the UGB expansion added 252 acres including areas east of I-5, and a 384-acre URA was identified. A copy of the draft comprehensive plan map is included in Appendix A.

### Population Projections

Wastewater flows for Coburg are primarily related to population and number of employees in the industrial park. Both aspects were recently addressed in the Coburg Urbanization Study (ECONorthwest, 2004) and Lane Council of Governments Region 2050 process. Population and employee projections used for facilities planning are summarized in Table 1-3.

Table 1-3. Population Projections for Facilities Planning

	Year	Residential population	Employee population
Start-up	2008	1,316 <sup>1</sup>	3,445
Design	2028	3,255	5,230
Build-out	2050	6,701	5,799

<sup>1</sup> Current population is about 1,100 with increase limited due to lack of sewers. Housing demand is expected to result in rapid population increase when sewers are available.

## Construction Cost Estimates

Construction costs can be expected to undergo long-term changes in keeping with corresponding changes in the national economy. One of the best available indicators of these changes is the Engineering News-Record (ENR) construction cost index. Figure 1-1 shows the trend of the ENR construction cost index since 1980. The pink portion of the line indicates expected future increases, based on past trends.

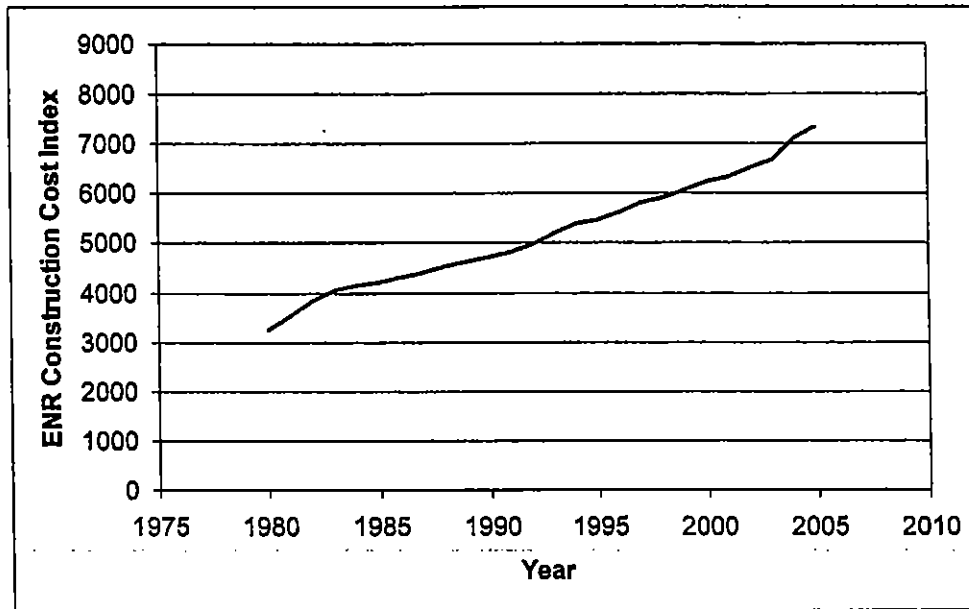


Figure 1-1. ENR Construction Cost Index Trend

The costs developed for this report are based on the 2004 ENR index of about 7,000. The costs presented may be related to any time in the future by applying the ratio of the anticipated cost index to 7,000. As this figure shows, construction costs have made a dramatic increase during 2004. The increasing price for steel and fuel has been a contributing factor. Assuming that the trend returns to the pre-2004 pattern, the 2008 cost index is anticipated to be 7,800. This projection corresponds to a 10 percent increase.

## WASTEWATER CHARACTERISTICS

Chapter 3 presents updated wastewater flow projections based on land use and population projections. Wastewater flows are critical in sizing sewers, pumping stations and treatment facilities. Since sewers can be expected to last longer than 50 years, it is necessary to consider sewage flows well into the future. Pumping stations and treatment facilities typically have a design life of 20 years, so flow projections on this time scale are also important. Coburg's situation is unique because there are no existing sewers. Therefore, it is necessary to estimate the wastewater flow anticipated at the time sewers and treatment facilities initially go into operation as well as future wastewater flow.

## Wastewater Flows

Wastewater flows are comprised of three main components; residential sanitary waste, commercial/industrial waste, and storm water infiltration/inflow (I/I). The residential component was developed on the basis of population and typical per capita wastewater contribution. The commercial/industrial component was estimated on the basis of winter water use records for each establishment and number of employees to provide a per employee flow. In Coburg, the commercial/industrial flow component represents about 25 percent of the total sanitary flow. The I/I component was based on a per acre contribution reflecting new sewer construction.

Wastewater facilities must also be sized to handle the highest, or peak, flow anticipated to occur. Peak flow estimates were also made to reflect seasonal variations, I/I contribution associated with storms, and the daily patterns of activity within the community. Wastewater flow projections for future years were developed on the basis of population and industrial park employee estimates. Table 1-4 presents a summary of the wastewater flow projections.

Table 1-4. Wastewater Flow Projections

Condition	Million gallons per day (mgd)		
	Start-up, 2008	Design, 2028	Build-out, 2050
Average dry weather <sup>1</sup>	0.21	0.46	0.84
Maximum month dry weather <sup>2</sup>	0.40	0.87	1.60
Maximum month wet weather <sup>3</sup>	0.51	1.15	2.14
Maximum day wet weather <sup>4</sup>	0.69	1.59	2.98
Peak wet weather <sup>5</sup>	1.02	2.32	4.36

<sup>1</sup> Average dry weather flow = average flow during the summer months.

<sup>2</sup> Max month dry weather flow = maximum flow that would occur over one month during the summer.

<sup>3</sup> Max month wet weather flow = maximum month sanitary flow plus an I/I allowance associated with the once-in-5 year wet season month.

<sup>4</sup> Max day wet weather flow = maximum 1-day sanitary flow plus an I/I allowance associated with once-in-5 year 24-hour storm condition.

<sup>5</sup> Peak wet weather flow = maximum 1-hour sanitary flow plus an I/I allowance associated with the once-in-5 year 24-hour storm condition.

For designing sewer systems, wastewater flow must also be spatially distributed over the sewer service area. Wastewater flows based on unit area were developed for each major land use type. These values were then used to size sewers serving specific areas. These values were developed using Coburg's water use records and compared with typical values reported from other communities. The land-use based wastewater flow projections are summarized in Table 1-5.

**Table 1-5. Land Use-Based Projections of Average Sanitary Sewage Flow**

Comprehensive plan designation	Build-out flow rate (gpad <sup>1</sup> )
Campus Industrial	1,000
Central Business	1,000
Highway Commercial	1,500
Light Industrial	1,000
Mixed Use Master Plan	1,500
Neighborhood Residential	1,680
Traditional Residential	1,200

<sup>1</sup>gallons per acre per day

I/I allowances, expressed on a per acre bases, are summarized in Table 1-6. These values increase with the age of the sewer system to reflect deterioration in the pipes and also increase during wet weather to reflect storm severity. The peak I/I values selected compare well with values measured in the recently sewered River Road area of Eugene, which range from 640 gpad to 1,400 gpad.

**Table 1-6. Infiltration and Inflow Rates**

	gpad		
	Start-up, 2008	Design, 2028	Build-out, 2050
Average dry weather	30	40	50
Maximum month dry weather	150	220	250
Maximum month wet weather	450	600	750
Maximum day wet weather	600	800	1,000
Peak wet weather	750	1,000	1,250

### Wastewater Composition

Wastewater composition refers to biochemical oxygen demand (BOD), total suspended solids (TSS), nitrogen, and phosphorus. Since Coburg is currently served by septic tanks, there is no existing data from which to base composition projections. Therefore, typical residential values were applied and values were assigned for the various commercial and industrial activities. The average wastewater composition values are summarized in Table 1-7.



Table 1-7. Average Wastewater Composition

Parameter	Sanitary wastewater concentration (mg/L)	Average load (ppd <sup>1</sup> )		
		Start-up, 2008	Design, 2028	Build-out, 2050
BOD	210	371	803	1,470
TSS	210	371	803	1,470
Total Kjeldahl nitrogen	35	38	95	196
Total phosphorous	8.6	9	23	48

<sup>1</sup> pounds per day

## WASTEWATER COLLECTION SYSTEM

Chapter 4 presents the development and evaluation of the collection system alternatives. The 1999 Wastewater Facilities Plan developed and evaluated five alternative wastewater collection systems. The 1999 study recommended that a conventional gravity system serving the majority of the community with isolated areas served by a septic tank effluent pumped (STEP) system was the most economical and appropriate system for Coburg. The gravity collection system was further developed during the predesign phase of the project (Brown and Caldwell, 2004). The collection system predesign report served as the basis for the August 2004 VE study (Value Management Consulting, August 2004). The VE Study identified significant potential cost savings associated with a STEP collection system. Therefore, this Facilities Plan Update re-examined the STEP system alternative.

### Gravity Collection System Alternative

The gravity collection system alternative is described in the June 2004 Preliminary Design Report as *Technical Memorandum 2-Collection System* (Brown and Caldwell, 2004). The complete Technical Memorandum, map of the gravity system, and detailed cost estimate are included as Appendix E.

Coburg's UGB had not been extended to the east side of I-5 at the time the sewer system evaluation was being prepared. Therefore, the detailed costs estimates reflect only sewer service west of I-5. However, it is anticipated by year 2028 sewer service would be extended to the east side of I-5. Establishing costs for extending sewer service to the east of I-5 is difficult because development plans for this area have not been established. The existing recreational vehicle park, located on the east side of I-5, is currently served by a lagoon system. For financial planning purposes, an order-of-magnitude cost estimate was prepared for extending the sewer service.

The gravity collection system would consist of predominately 8-inch-diameter sewers at 8- to 16-foot depth, with the largest sewer being 24 inches in diameter and 16 feet deep. Six pumping stations would be needed with force mains ranging from 6 to 8 inches in diameter. The collection system would include construction of new sewer laterals to serve each user and decommissioning of all existing septic tanks. Sufficient capacity would be provided to allow infill within the existing developed areas and for extension to currently undeveloped areas. There is a portion of southwest Coburg that is low-lying, congested and difficult to serve with conventional gravity sewers. Some services in this area will need STEP systems.

## STEP Sewer Alternative

Pressure sewer systems conveying septic tank effluent to a central treatment facility have been used in small communities in Oregon and throughout the U.S. STEP systems are recognized by DEQ as viable systems for small and rural communities. Pressure sewers are best suited for communities where housing density is low, and where flat terrain combined with high groundwater make deep excavations difficult. Under these conditions, conventional gravity sewers are expensive because they require multiple lift stations. Because Coburg is relatively flat and low density with high groundwater, it is appropriate to evaluate a STEP collection system alternative.

## Evaluation of Collection System Alternatives

Evaluation of the gravity and STEP sewer alternatives focused on long-term economics and non-cost factors. Detailed tables outlining both construction and operating costs are included in Chapter 4. An economic comparison and discussion of non-cost factors is presented in Chapter 6.

The economic comparison is summarized in Table 1-8. This comparison shows that even though the gravity sewer alternative has a higher capital cost, its lower annual operating cost makes it overall more economical. The STEP system's higher operating cost is primarily due to the cost of pumping and disposal of septage, and the operating cost associated with annual inspection, maintenance and periodic replacement of the septic tank effluent pumps.

**Table 1-8. Present Worth Analysis of Collection System Alternatives**

Item description	Gravity sewer system	STEP sewer system
Capital cost, dollars <sup>1</sup>	7,042,300	5,972,000
Annual cost, dollars per year <sup>2</sup>	62,000	178,200
Present worth cost <sup>3</sup> , dollars		
Capital cost	7,042,300	5,972,000
Salvage value <sup>4</sup>	(1,482,500)	(1,130,700)
Annual Cost <sup>5</sup>	772,500	2,063,000
Total present worth cost, dollars <sup>6</sup>	6,332,300	6,904,300

<sup>1</sup> Cost from Tables 4-1 and 4-3.

<sup>2</sup> Cost from Tables 4-2 and 4-4.

<sup>3</sup> Present worth computed with 20-year period and 5 percent discount rate. Present worth factor is 0.377.

<sup>4</sup> Salvage value, which represents the economic value remaining after the analysis period, is based on 80-year life for sewers and 20 year life for pumping stations.

<sup>5</sup> Present worth for gravity sewer alternative computed as uniform series with present worth factor of 12.46. STEP sewer present worth calculations presented in the Appendix G.

<sup>6</sup> Total present worth is computed as the capital cost minus present worth of salvage value plus present worth of annual costs.

In addition to the economic savings, the gravity sewer system was considered to be more acceptable to both residential and industrial sewer users. Concern was also expressed that installing a new septic tank in each resident's yard would be more disruptive than installing new service laterals connecting to a gravity sewer in the street. The recommendation for a gravity sewer system was reviewed and confirmed by the Coburg City Council.

## TREATMENT SYSTEM ALTERNATIVES

The 1999 Wastewater Facilities Plan recommended a Natural Treatment System (NTS) consisting of two advanced facultative ponds followed by a two-stage constructed wetland. The sizing and design of the NTS was updated in the June 2004 Preliminary Design Report. The August 2004 VE session included review of the NTS. The VE Study, August 2004, recommended that mechanical treatment plant options be given further consideration.

Following the VE session, results from the geotechnical study were received. The onsite geotechnical investigation concluded that the native soils are not suitable for embankment construction. The soils need to be amended with cement or lime to improve their structural characteristics for dike construction. Alternatively, material could be imported from offsite for dike construction. Either approach would significantly increase the cost of earthwork for both the lagoons and wetlands. Based on the recommendations from the VE study and geotechnical report, a new look at mechanical treatment options was warranted.

Chapter 5 presents the following four wastewater treatment alternatives. These were grouped according to Local Treatment Alternatives, for which Coburg would construct its own treatment facility, and Regional Treatment Alternatives, for which Coburg would connect with MWMC.

1. Local Treatment with an NTS
2. Local Treatment with a Membrane Treatment system
3. Local Treatment with an SBR
4. Regional Treatment with MWMC

The membrane treatment alternatives were predicated based on using a STEP collection system. If a gravity collection system was used, the membrane treatment alternative became uneconomical and thus was eliminated from further consideration.

### NTS

The 2004 Preliminary Design Report refined the plan recommended in the 1999 Facilities Plan based on additional experience and updated flow projections. The advanced facultative ponds would provide primary and initial secondary treatment. However, the two-stage constructed wetland system has been modified. The subsurface flow wetland that was originally proposed has been replaced with a vertical flow wetland, followed by the free water surface wetland. The revised wetland treatment system would occupy about 13 acres total. Effluent from the wetlands would be disinfected with ultraviolet (UV) light and pumped to the McKenzie River for discharge.

Capital and operating costs for the NTS, developed in Chapter 5, are summarized in Table 1-9. Because the NTS uses low power and limited operator attention, the annual operating cost would not increase significantly as future flow increases.

Table 1-9. NTS Costs

Item	Year 2008	Year 2028
Capital cost, dollars <sup>1</sup>	9,948,000	No additional
Annual operating cost, dollars per year <sup>1</sup>	195,000	205,000

<sup>1</sup> Cost expressed in 2004 dollars.

## SBR System

The SBR process is a variation on the conventional activated sludge process. It is most aptly described as a fill-and-draw batch reactor activated sludge wastewater treatment process. Fill-and-draw batch treatment processes are not a new development. However, improvements in automation since the 1980s have made this configuration more practical. The SBR configuration has become popular with small communities because of the efficient use of the concrete basins and associated lower cost. DEQ considers SBR as an acceptable treatment process for both municipal and industrial wastewaters.

An SBR treatment plant consists of two concrete basins operating in parallel. Each basin goes through the following sequence:

1. Wastewater fills the basin to reach the high operating level.
2. Basin is aerated and mixed until the desired level of treatment is reached.
3. Basin contents are allowed to settle.
4. Treated clear supernatant is removed, lowering the basin level and saving the biomass for the next treatment cycle.

The cycle alternates between the two basins so that wastewater is continuously treated. However, since the supernatant flow is withdrawn in surges, an equalization basin would be provided to allow a uniform flow through disinfection and effluent pumping. After disinfection with UV light, the effluent would be discharge to the McKenzie River.

An operations building would be provided to house mechanical equipment, electrical and instrumentation equipment, a standby generator, maintenance and storage, a water analysis laboratory, and office. Mechanical equipment would include aeration blowers, circulating pumps and automatically operated valves.

Capital and operating costs for the SBR system are summarized in Table 1-10.

Table 1-10. SBR Treatment Systems Costs

Item	Year 2008	Year 2028
Capital cost, dollars <sup>1</sup>	8,257,000	No additional
Annual operating cost, dollars per year <sup>1</sup>	224,000	257,600

<sup>1</sup> Cost expressed in 2004 dollars.

## Regional Treatment with MWMC

The Facilities Plan Update focused on the feasibility and economics of regional treatment. However, it should be recognized that there are numerous complex implementation issues associated with this option. The following are a few examples of the public policy and planning aspects that eventually will need to be addressed.

- Revision of the Metro Plan
- Approval by the Eugene and Springfield city councils
- Approval by the Lane County commission
- Boundary Commission approval
- Service agreement between Coburg and MWMC
- Implications regarding the regional plant's compliance with NPDES permit and anticipated total maximum daily loads
- Adoption of a compatible sewer use ordinance with industrial pretreatment requirements
- Responsibility regarding NPDES permit compliance

The approach used in this report is to first evaluate and compare the economics of the regional treatment to the Coburg Local Treatment Alternative. The public policy and implementation issues would be addressed only if Coburg's City Council wishes to pursue the regional alternative. The primary objective of the following analysis is to outline the economic issues in a balanced manner so that Coburg pays its appropriate share of the cost and is not subsidized by MWMC.

Connection to the regional treatment system would include the following elements:

- Wastewater pumping station in Coburg
- Pressure main to Eugene
- Connection to the Eugene sewer system

In addition to the capital and operating cost associated with a pumping station and pipeline to Eugene, Coburg would incur both an SDC, or connection charge, for its share of the capital improvements and a service charge for the operation and maintenance (O&M) of the regional facilities. All new connections to the regional wastewater system incur the following charges.

- *MWMC SDC*—This charge is for Coburg's share of the Regional WPCF and large regional sewers.

- *City of Eugene SDC*—This charge is for Eugene’s sewer system and pumping stations that would be used to transport Coburg’s wastewater to the Regional WPCF. However, a logical argument can be made that Coburg should not be charged a Eugene SDC. This argument is based on the premise that a sewer carrying flow from both Coburg and Eugene would become a “regional sewer” and fall under MWMC’s jurisdiction. Therefore, the MWMC SDC and user charge would cover the cost for Coburg using the regional sewer.
- *MWMC User Charge*—This monthly charge is for the O&M of the Regional WPCF and regional sewers.
- *City of Eugene User Charge*—This monthly charge is for the O&M of Eugene’s sewer system and pumping stations. The same argument regarding the applicability of the Eugene SDC may also be applied to this user charge. If Coburg connects to a regional sewer, then the operating cost would be covered by MWMC’s user charge.

Developing the appropriate SDC for Coburg presents a complex problem because the Regional WPCF was originally funded with significant federal grants, and Coburg is not located within the Metro UGB served by the regional plant. To address this issue and define the range of potential costs, MWMC staff developed the following three SDC scenarios.

- *Scenario A—Baseline*. This approach uses MWMC’s current SDC formula which became effective July 2004.
- *Scenario B—New Capacity*. In this approach, the SDC represents the cost for new capacity. No credit is given for the plant’s initial capacity constructed with federal grants.
- *Scenario C—New Capacity Plus Improved Performance*. In this case, the SDC represents the cost for new capacity plus the cost for improving the performance of the existing plant to meet new regulatory requirements.

Table 1-11 summarizes the capital and annual operating costs for connecting with MWMC. Although it may be subject to negotiation, the Eugene SDC was included to provide a conservative estimate of regional treatment cost.

Table 1-11. Cost Summary for Regional Treatment

Item	Year 2008	Year 2028
Capital cost, dollars <sup>1</sup>		
Eugene SDC	474,000 <sup>2</sup>	1,038,000 <sup>2</sup>
MWMC SDC		
Scenario A	1,696,500	3,192,240
Scenario B	2,638,760	5,010,760
Scenario C	4,627,040	9,158,370
Pumping station and pipeline	3,420,000	3,420,000
Total capital cost and connection charges, dollars <sup>1,2</sup>		
Scenario A	5,590,500	7,650,240
Scenario B	6,532,760	9,468,760
Scenario C	8,521,040	13,616,670
Eugene user charge, dollars per year	76,800	168,400
MWMC user charge, dollars per year	178,900	319,100
Pumping station operating cost, dollars per year	60,900	70,900
Total annual cost, dollars per year <sup>1</sup>	316,300	558,400

<sup>1</sup> Costs are in year 2004 dollars.

<sup>2</sup> Eugene SDC included to provide a conservative estimate of regional treatment costs.

### Evaluation of Treatment Alternatives

The alternatives were evaluated by considering both economics and non-cost factors. The economic data of all alternatives is summarized in Table 1-12. The Local Treatment Alternatives will be discussed first, followed by a comparison with the Regional Treatment Alternative.

Table 1-12. Economic Comparison of Alternatives

Item	Local treatment alternatives		Regional treatment with MWMC		
	NTS	SBR	Scenario A	Scenario B	Scenario C
Capital cost, dollars <sup>1</sup>					
Year 2008	9,948,000	8,257,000	5,590,500	6,532,760	8,521,040
Year 2028	-- <sup>2</sup>	-- <sup>2</sup>	7,650,240 <sup>3</sup>	9,468,760 <sup>3</sup>	13,616,670 <sup>3</sup>
Annual operating cost, dollars <sup>1</sup> per year					
Year 2008	195,000	224,000	316,300	316,300	316,300
Year 2028	205,000	257,600	558,400	558,400	558,400
Present worth <sup>4</sup> cost, dollars	11,374,000	10,391,000	10,780,000	11,788,000	14,013,000

<sup>1</sup> Costs are expressed in 2004 dollars.

<sup>2</sup> No additional capital cost required for year 2028.

<sup>3</sup> Total cost incurred by year 2028, reflecting SDC charges for additional connections anticipated between 2008 and 2028.

<sup>4</sup> Present worth computed over 20 years at a 5 percent discount rate.

**Comparison of Local Treatment Alternatives.** The economic comparison presented in Table 1-12 clearly shows that the SBR Treatment alternative has both a lower initial capital cost and lower 20-year present worth cost. The lower initial capital cost is not offset by higher annual operating cost.

Key non-cost considerations are listed below:

- SBR is better suited for future expansion. The small footprint of the SBR system will allow for future expansion without incurring wetland mitigation costs. The site may be kept in agricultural use and used for biosolids application or effluent irrigation. The degraded wetlands may be restored and preserved as a community asset.
- The NTS would be aesthetically more pleasing. However, nuisances such as mosquitoes and nutria could present a problem. Landscaping and screening vegetation would be included with the SBR alternative.
- SBR requires a higher level of automation and technology. The lower level of operator involvement with the NTS is reflected in the lower annual operating costs.

Although the NTS does present an innovative and aesthetically pleasing approach to wastewater treatment, these advantages do not offset the higher overall cost. Therefore, the SBR was selected as the preferred Local Treatment Alternative. This selection was confirmed by the Coburg City Council.

**Comparison of Local and Regional Treatment.** Table 1-12 shows that the long-term present worth cost of local treatment with SBR is only slightly lower than regional treatment with charges based on Scenario A. The cost difference of less than 4 percent is within cost estimating accuracy. The most significant economic aspects are listed below.

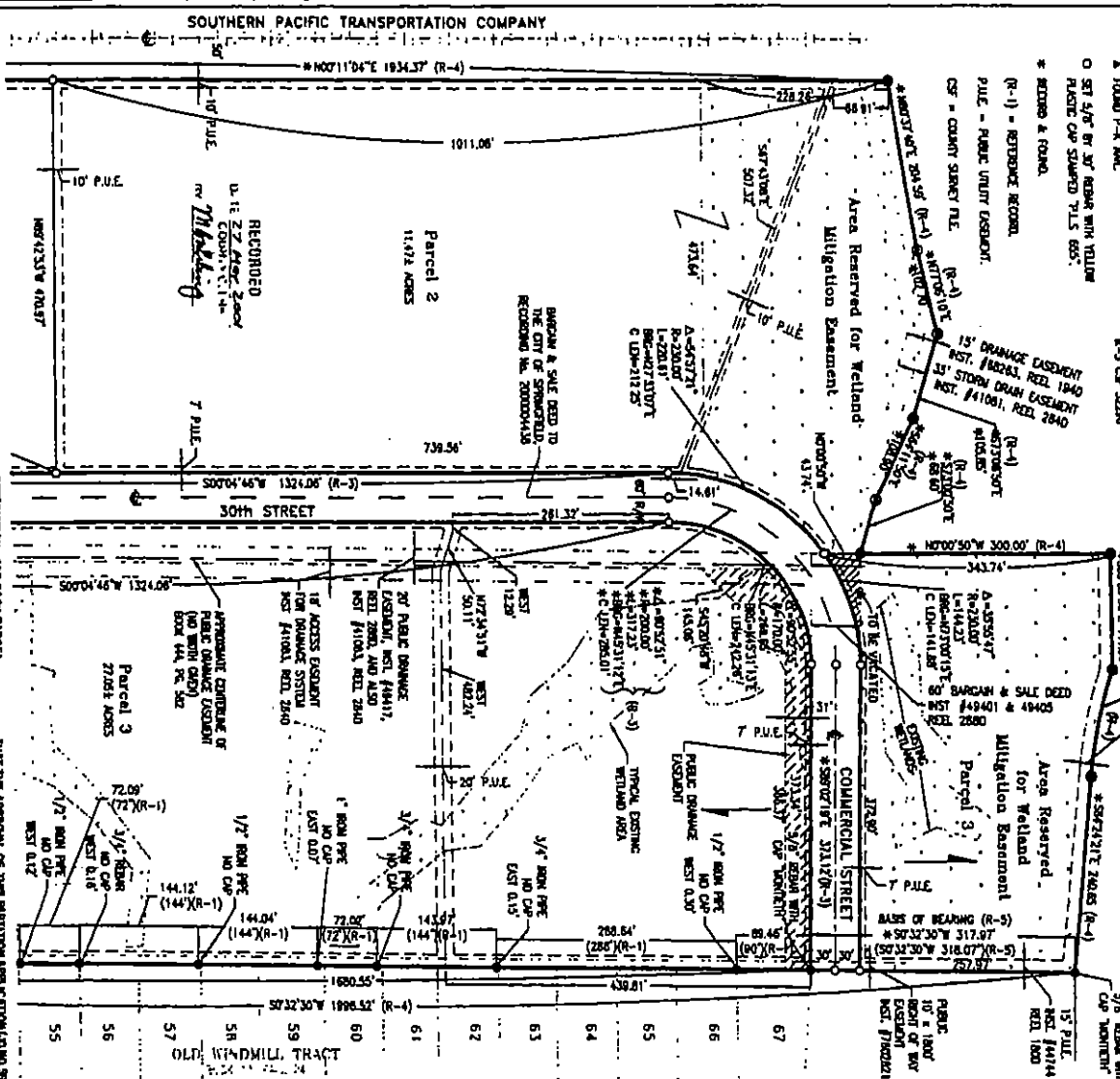
- Regional Treatment Scenario A has lower initial capital cost. This is because SDC charges would be incurred only for the services initially connected in 2008. Future users would be charged SDCs at the time they connect to the system. In the Local Treatment Alternative, the community would have to finance the entire treatment facility including capacity for future connections. Future users would be charged local SDCs as they connect.
- Regional treatment would provide greater capacity to support industrial growth. Although local treatment would provide reserve capacity for future growth, an industry with high wastewater requirements could use the available capacity. Regional treatment, with access to the Regional WPCF, would provide ample treatment capacity for almost any future industrial needs. The Local Treatment Alternative could be expanded at any time due to the modular nature of SBR technology.
- Regional treatment would require fewer Coburg staff. Without a treatment facility, Coburg would have fewer operating staff and less administrative effort. Furthermore, there would be no discharge permit to obtain and maintain compliance.



- Local treatment would require obtaining a new discharge permit to the McKenzie River. DEQ would go through a public process before issuing a new discharge permit to the McKenzie River. This process could become lengthy and result in public controversy regarding protection of the McKenzie River water quality.

The advantages for regional treatment discussed above could offset the cost savings for local treatment identified in Table 1-12, assuming that the lowest cost option for SDCs and connection charges was implemented. However, we recognize that final approval for Coburg joining the Eugene/Springfield Regional WPCF lies with the joint elected officials of Eugene, Springfield, and Lane County. Likewise, the connection charge will also depend on the joint elected officials. Therefore, for regional treatment to be viable, it must be both politically acceptable and come at a cost similar to Scenario A, as outlined above. To keep Coburg's wastewater project moving forward, both regional and local treatment should be pursued in parallel. The Local Treatment Alternative is the preferred course at this time. If negotiations with the adjoining communities and councils can result in regional treatment being approved at a cost similar to Scenario A, the Regional Treatment Alternative could be pursued.





- LEGEND**
- ROAD MONUMENT AS NOTED
  - ROAD 5/8" REBAR WITH YELLOW PLASTIC CAP STAMPED P.L.S. 655.
  - ▲ ROAD P-X MARK
  - SET 5/8" BY 3/4" REBAR WITH YELLOW PLASTIC CAP STAMPED P.L.S. 655.
  - \* REBAR & ROAD.
  - (R-1) = REFERENCE RECORD.
  - P.L.C. = PUBLIC UTILITY EASEMENT.
  - C.S. = COUNTY SURVEY FILE.

- REFERENCES**
- R-1 OLD TOWN MAP SHEET
  - R-2 BOOK 13 PAGE 74
  - R-3 OLD 200000438
  - R-4 C.S. 24187
  - R-5 C.S. 22286

- RECORDS**
- 40-11710'S
  - 40-11710'S
  - 40-11710'S
  - 40-11710'S
  - 40-11710'S

**FINAL PARTITION PLAT FOR FARAH & PARKER, LLC**  
 NW 1/4, SECTION 31, T. 17 S., R. 2 W., W.M.  
 SPRINGFIELD, LAINE COUNTY, OREGON.  
 Date of Survey: 2 January 2001

**LAND PARTITION PLAT No. 2001-PI460**

Division of Chief Deputy Clerk  
 Lane County Public and Economic Development  
 300 S. 10th St., Medford, OR 97504  
 Phone: (541) 753-3111  
 Fax: (541) 753-3111

LANE COUNTY SURVEYORS OFFICE  
 C.S. FILE NO. 30477  
 FILING DATE 5/27/01  
 C

**DECLARATION**

I, DANIEL A. PROFFER, a single man, do hereby certify that I am the owner of the land described herein, and that I have caused this partition to be prepared in accordance with the Oregon Revised Statutes, Chapter 92, and I own HEREBY PARTITION AND PLAT THE SAME AND DESIRE TO THE WHOLE WITH REGARD TO 7100 FOOT, 1400 FOOT, 15 FOOT AND 7000 FOOT PUBLIC UTILITY EASEMENT FOR ALL PARCELS THE AREA RESERVED FOR THE WELAND MITIGATION EASEMENT AND NOTING THE DISTINGUISHING MARKS TO BE SHOWN HEREON.

**ACKNOWLEDGMENT**

I, DANIEL A. PROFFER, a single man, do hereby certify that I am the owner of the land described herein, and that I have caused this partition to be prepared in accordance with the Oregon Revised Statutes, Chapter 92, and I own HEREBY PARTITION AND PLAT THE SAME AND DESIRE TO THE WHOLE WITH REGARD TO 7100 FOOT, 1400 FOOT, 15 FOOT AND 7000 FOOT PUBLIC UTILITY EASEMENT FOR ALL PARCELS THE AREA RESERVED FOR THE WELAND MITIGATION EASEMENT AND NOTING THE DISTINGUISHING MARKS TO BE SHOWN HEREON.

**NOTES**

1. PARCELS 1 & 2 ARE WITHIN THE URBAN INDUSTRIAL DISTRICT AND ARE NOT SUBJECT TO SQUARE ACCESS STANDARDS. PARCEL 3 IS ZONED URBAN DENSITY RESIDENTIAL, AND IS SUBJECT TO SQUARE ACCESS STANDARDS FOR PARCEL 3 IS APPROXIMATELY 2200 FEET THEREON. IF CHANGES WITH DISTURBANCE SHALL BE PLACED OR LOCATED ON OR IN A PUBLIC UTILITY EASEMENT.
2. NO SHADING, STRUCTURE, TREE, SHED OR OTHER OBSTRUCTION SHALL BE PLACED OR LOCATED ON OR IN A PUBLIC UTILITY EASEMENT.

**APPROVALS & ACCEPTANCES**

CONCURRENCE: TRUSTEE FOR SPRAWWOOD, INC.  
 OREGON TITLE INSURANCE COMPANY  
 INSTRUMENT NO. 2001-016722 DATE 05/27/01

APPROVED: *Lawrence B. Olson*  
 LAWRENCE B. OLSON  
 JUNE 10, 1988  
 OREGON LAND SURVEYOR  
 RECORDING DATE: 12-31-2002

**APPROVALS & ACCEPTANCES**

APPROVED: *William J. Morris*  
 WILLIAM J. MORRIS  
 JUNE 26, 2001  
 OREGON LAND SURVEYOR  
 RECORDING DATE: 12-31-2002

APPROVED: *Timothy D. Baker*  
 TIMOTHY D. BAKER  
 JUNE 26, 2001  
 OREGON LAND SURVEYOR  
 RECORDING DATE: 12-31-2002

APPROVED: *Lawrence B. Olson*  
 LAWRENCE B. OLSON  
 JUNE 26, 2001  
 OREGON LAND SURVEYOR  
 RECORDING DATE: 12-31-2002

**LEGEND**

- ROAD MONUMENT AS NOTED
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- (R-1) = REFERENCE RECORD.
- P.L.C. = PUBLIC UTILITY EASEMENT.
- C.S. = COUNTY SURVEY FILE.

# Metropolitan Wastewater Management Commission



*partners in wastewater management*

## MEMORANDUM

**DATE:** October 28, 2004  
**TO:** Executive Officers of Springfield, Eugene, and Lane County (SEL)  
**FROM:** Susie Smith, Environmental Services/MWMC Manager  
 Gary Colwell, Environmental Services Supervisor  
**SUBJECT:** City of Coburg Connection Cost Evaluation

### ISSUE AND REQUEST

SEL has directed staff to determine a potential range of "buy-in" costs that might be assessed to Coburg in the event the elected officials allow a connection to the Eugene-Springfield regional wastewater system. Eugene-Springfield staff have worked together with Jack Detweiler of Brown and Caldwell (Coburg's wastewater facilities planning engineer) to conduct a very rough preliminary analysis. The analysis is intended to:

1. Provide Eugene, Springfield and Lane County elected officials a starting point for determining appropriate costs involved in connecting Coburg to the regional system; and
2. Assist Coburg in determining whether connection to the regional system is cost effective in comparison with building its own system.

This memo summarizes the analysis. At the SEL meeting on October 29<sup>th</sup>, staff will provide additional background and detail, as needed. Staff requests that SEL provide feedback on the analysis and direction on the next steps in meeting the elected officials' needs.

### BACKGROUND, APPROACH, AND SCOPE

At the June, 2004 Joint Elected Officials (JEO's) meeting, the elected officials requested a scoping report outlining the issues and potential costs associated with Coburg's request. Since that time, many discussions have ensued regarding how to appropriately proceed in a way that addresses the elected officials' direction and Coburg's information needs while not being overly resource intensive. In a September 3rd letter to the JEOs, Jamon Kent conveyed SEL's direction, which includes a rough cost analysis based on a profile of Coburg's wastewater stream.

A comprehensive assessment of buy-in costs is complicated because Coburg is outside the Eugene-Springfield urban growth boundary and its wastewater demands never have been planned or considered as part of the MWMC service district. Whereas

Eugene and Springfield sewer users have funded the planning, permitting, and construction of the MWMC capital infrastructure through property taxes, connection fees and user charges, Coburg area residents and businesses have not contributed to the existing system. The difficulty this poses is in determining, with any degree of accuracy, what portion of the existing system, constructed with local investments, Coburg should contribute to in order to maintain equity and fairness to all customers of the system. The direction to avoid "subsidies" was expressed by elected officials in June. The MWMC intergovernmental agreement (IGA) also directs that connection fees be charged to create equity among existing and future sewer customers.

To keep the cost analysis as simple and objective as possible, the scope of items included was limited to the following three areas:

1. The capital assets addressed in the 2004 MWMC Facilities Plan and SDC methodology;
2. The major long-range planning studies conducted since 1996 to address future capacity needs through 2025; and
3. The elected officials' decision-making process and adoption of necessary Metro Plan and IGA amendments.

This analysis **does not** provide a comprehensive assessment of previous investments that existing customers have made through user rates, which would support service to Coburg. This analysis also does not consider any of the costs associated with building a pipeline from Coburg across the river. Finally, this analysis does not consider a wide range of issues that would need to be evaluated by the governing bodies in establishing appropriate service, governance and permit accountability relationships with Coburg, all of which would have associated costs. A preliminary scope of these issues is included as Attachment B. Many of the items in Attachment B relate to obligations and costs that Coburg will incur whether connected to MWMC or operated independently.

It should be noted that this information will be used by Brown and Caldwell to determine, for comparative purposes, the "present worth" of the estimated connection fees and user charges. This will give Coburg an "apples to apples" view of the costs of building an independent system vs. connecting to the MWMC system.

## **METHODOLOGY AND ASSUMPTIONS**

Staff developed three scenarios that depict a preliminary range of what the City of Coburg might expect to pay to connect to the MWMC Regional Wastewater Facilities. Staff also estimated MWMC user rates Coburg might expect to pay given the existing MWMC user rate structure and long-range projections applied system-wide. The analyses were based on actual and planned wastewater profile information as provided by Brown and Caldwell. Brown and Caldwell developed estimated water usage from 2008 to 2028 based on actual 2003-2004 winter water usage provided by Coburg.

In order to determine connection costs for the capital assets described in item 1 above, the adopted MWMC regional wastewater systems development charge (SDC) methodology was applied to the data provided by Brown and Caldwell—no new unique models were developed. The methodology was applied in three ways, as described below, to depict different assumptions regarding the relationships Coburg users would

have to existing and planned MWMC service district customers.

A proportionate share, based on Coburg's estimated flow, of the long-range facilities planning efforts (described as item 2 above), and the full estimated costs of the regional evaluation and decision-making process on this matter (item 3 above), are provided as separate figures which are common to all three scenarios.

Finally, because it is assumed that Coburg would connect to the Eugene local system, Brown and Caldwell has worked separately with Eugene staff to determine a local connection fee. Eugene's estimated amount of the fee is added into the scenarios summarized below in order to get a picture of the "bottom line." The Eugene connection cost was computed according to the City of Eugene, Systems Development Charge Methodologies dated July, 2004.

## **CONNECTION COST SCENARIOS**

**Scenario A** is based on the strict application of the FY 04-05 MWMC SDC Schedule of Charges adopted by the Cities. This scenario is offered as a baseline for comparison to what new sewer connection fees would be for Eugene or Springfield customers. In other words, existing and projected developments in Coburg were treated exactly as though they were located within the current MWMC service district, and would be charged this amount to connect. This method bases part of the SDC charge on the cost of existing available, and part on new capacity. The costs in Scenario A result from the weighted average cost of existing available and new capacity. The cost of existing capacity was offset with federal grants. Applying this method assumes that capacity for Coburg was always planned for and allocated to the Coburg area. This, of course, is not the case, and there is arguably no existing capacity available for Coburg's access. **The SDC portion of the Scenario A cost is \$2,880,000.**

**Scenario B** is based entirely on the unit cost of new capacity that is charged to new users as determined by following the 2004 MWMC SDC Methodology as though there is no existing available capacity. This accounts in part for the fact that Coburg lies entirely outside the planned service district. The methodology distributes the costs of the 20-Year Project List according to whether additional capacity was gained by a physical expansion of capacity or whether new capacity was gained by improving a process. One-hundred percent of the cost of new physical capacity is passed to new users. Existing users share in the cost of capacity gained by process improvement on a prorata basis ( 11% to 28% is charged to new users). **The SDC portion of the Scenario B cost is \$4,590,000.**

**Scenario C** is similar to Scenario B, except that the cost of new capacity is charged exclusively to new users. Scenario C uses the total project cost of new capacity and thereby most closely estimates the actual cost of capacity that Coburg would consume if connected to the regional system. **The SDC portion of Scenario C cost is \$8,740,000.**

### **Additional Connection costs**

Scenarios B and C, because they are based only on the cost of new capacity, do not include any of the cost of existing support facilities. A proportional share of this cost

would be about \$106,000.

The costs of various planning studies which laid much of the foundation for the newly adopted MWMC Facilities Plan are not included in any of the scenarios. A proportional share of these costs would be about \$12,000.

The cost of processing the decision making, including Intergovernmental Agreement changes, is estimated to run between \$150,000 and \$300,000.

<b>Summary Of Connection Costs</b>	<b>A</b>	<b>B</b>	<b>C</b>
Regional connection charge scenarios	\$2,880,000	\$4,590,000	\$8,740,000
Additional Regional connection charges	\$12,000	\$118,000	\$118,000
Decision costs (\$150,000 – \$300,000)	\$300,000*	\$300,000*	\$300,000*
Local connection charge	\$1,038,000	\$1,038,000	\$1,038,000
<b>Total</b>	<b>\$4,230,000</b>	<b>\$6,046,000</b>	<b>\$10,196,000</b>

Note \*: Assumes high end of cost range.

Detailed summary sheets of each scenario are included as Attachment A.

### **USER CHARGES**

Based on the existing adopted MWMC user rate structure, the regional wastewater charges for Coburg are estimated for the year 2008, as shown below.

<b>Customer Class</b>	<b>2008 Total charges</b>
Commercial/Industrial	\$69,961
Residential	\$108,942
<b>Total</b>	<b>\$178,903</b>

### **REQUESTED ACTION**

Staff requests that SEL provide feedback on the analysis and direction on the next steps in meeting the elected officials' needs.

City of Coburg  
 Commercial, Industrial and Residential Wastewater Sources  
 Regional Connection Cost Estimate Scenarios

Scenario A						
Establishment Type/Strength	Number of Establishments	2004 Winter Water Use (gal/day)	Reimbursement Cost	Improvement Cost per FEU	Improvement Credit for Rate Support	Total Scenario A
<b>COMMERCIAL/INDUSTRIAL</b>						
Low Strength	96	21,448	16,942.37	243,594.57	46,547.42	213,989.51
Medium Strength	5	20,867	27,381.09	335,827.56	62,027.72	301,180.93
High Strength	8	17,097	34,339.29	383,122.18	69,110.11	348,351.36
Very High Strength	2	3,000	8,114.47	86,171.28	15,335.84	78,949.91
	<b>111</b>	<b>62,412</b>	<b>86,777.22</b>	<b>1,048,715.59</b>	<b>193,021.09</b>	<b>942,471.72</b>
<b>Residential</b>	<b>1,362</b>	<b>325,522</b>	<b>153,420.48</b>	<b>2,205,854.16</b>	<b>421,507.03</b>	<b>1,937,767.61</b>
<b>Subtotal</b>	<b>1,473</b>	<b>387,934</b>	<b>240,197.70</b>	<b>3,254,569.75</b>	<b>614,528.11</b>	<b>2,880,239.33</b>
<b>Planning Studies *</b>						<b>12,000.00</b>
<b>Decision processing costs **</b>						<b>300,000.00</b>
<b>Local connection charge ***</b>						<b>1,038,000.00</b>
<b>Total</b>						<b>4,230,239.33</b>

\* The costs of various planning studies which laid much of the foundation for the 2005 MWMC Facilities plan are not included in any of the scenarios. A proportional share of this cost would be about \$12,000.

\*\* The cost of processing the decision making, including Intergovernmental Agreement changes, is estimated to run between \$150,000 and \$300,000.

\*\*\* The local connection cost was computed according to the City of Eugene, Systems Development Charge Methodologies dated July 2004.



**City of Coburg  
Commercial, Industrial and Residential Wastewater Sources  
Regional Connection Cost Estimate Scenarios**

Scenario B						
Establishment Type/Strength	Number of Establishments	2004 Winter Water Use (gal/day)	Reimbursement Cost	Improve-ment Cost	Improvement Credit for Rate Support	Total Scenario B
<b>COMMERCIAL/INDUSTRIAL</b>						
Low Strength	96	21,448	0.00	379,393.71	46,547.42	332,846.29
Medium Strength	5	20,867	0.00	563,277.92	62,027.72	501,250.19
High Strength	8	17,097	0.00	673,621.91	69,110.11	604,511.80
Very High Strength	2	3,000	0.00	155,418.89	15,335.84	140,083.05
	<b>111</b>	<b>62,412</b>	<b>0.00</b>	<b>1,771,712.43</b>	<b>193,021.09</b>	<b>1,578,691.34</b>
<b>Residential</b>	<b>1,362</b>	<b>325,522</b>	<b>0.00</b>	<b>3,435,574.15</b>	<b>421,507.03</b>	<b>3,014,067.13</b>
<b>Subtotal</b>	<b>1,473</b>	<b>387,934</b>	<b>0.00</b>	<b>5,207,286.58</b>	<b>614,528.11</b>	<b>4,592,758.47</b>
<b>Support Facilities *</b>						<b>106,000.00</b>
<b>Planning Studies **</b>						<b>12,000.00</b>
<b>Decision processing costs ***</b>						<b>300,000.00</b>
<b>Local connection charge ****</b>						<b>1,038,000.00</b>
<b>Total</b>						<b>6,048,758.47</b>

\* Scenarios B and C, because they are based only on the cost of new capacity, do not include any of the cost of existing support facilities. A proportional share of this cost would be about \$106,000.

\*\* The costs of various planning studies which laid much of the foundation for the 2005 MWWC Facilities plan are not included in any of the scenarios. A proportional share of this cost would be about \$12,000.

\*\*\* The cost of processing the decision making, including Intergovernmental Agreement changes, is estimated to run between \$150,000 and \$300,000.

\*\*\*\* The local connection cost was computed according to the City of Eugene, Systems Development Charge Methodologies dated July 2004.

City of Coburg  
 Commercial, Industrial and Residential Wastewater Sources  
 Regional Connection Cost Estimate Scenarios

Scenario C						
Establishment Type/Strength	Number of Establishments	2004 Winter Water Use (gal/day)	Reimbursement Cost	Improvement Cost	Improvement Credit for Rate Support	Total Scenario C
<b>COMMERCIAL/INDUSTRIAL</b>						
Low Strength	96	21,448	0.00	691,016.86	46,547.42	644,469.44
Medium Strength	5	20,867	0.00	988,281.25	62,027.72	926,253.53
High Strength	8	17,097	0.00	1,154,923.93	69,110.11	1,085,813.82
Very High Strength	2	3,000	0.00	263,224.68	15,335.84	247,888.84
	<b>111</b>	<b>62,412</b>	<b>0.00</b>	<b>3,097,446.71</b>	<b>193,021.09</b>	<b>2,904,425.63</b>
<b>Residential</b>	<b>1,362</b>	<b>325,522</b>	<b>0.00</b>	<b>6,257,456.54</b>	<b>421,507.03</b>	<b>5,835,949.52</b>
<b>Subtotal</b>	<b>1,473</b>	<b>387,934</b>	<b>0.00</b>	<b>9,354,903.26</b>	<b>614,528.11</b>	<b>8,740,375.14</b>
Support Facilities *						106,000.00
Planning Studies **						12,000.00
Decision processing costs ***						300,000.00
Local connection charge ****						1,038,000.00
<b>Total</b>						<b>10,196,375.14</b>

\* Scenarios B and C, because they are based only on the cost of new capacity, do not include any of the cost of existing support facilities. A proportional share of this cost would be about \$106,000.

\*\* The costs of various planning studies which laid much of the foundation for the 2005 MWMC Facilities plan are not included in any of the scenarios. A proportional share of this cost would be about \$12,000.

\*\*\* The cost of processing the decision making, including Intergovernmental Agreement changes, is estimated to run between \$150,000 and \$300,000.

\*\*\*\* The local connection cost was computed according to the City of Eugene, Systems Development Charge Methodologies dated July 2004.

Simplified Illustration Of Scenarios.

Existing System Capacity (mgd)	Existing System Available Capacity (mgd)	Existing System Total Value (\$)	Grant Funding (\$)	Remaining Cost (\$)	Unit Cost \$/gal
5	2	10,000,000	(\$7,500,000)	2,500,000	\$0.50
	<b>New Available Capacity (mgd)</b>				
<b>New System Capacity (mgd)</b>	5	<b>New System Total Value (\$)</b>	<b>Project Allocation (\$)</b>	<b>Remaining Cost (\$)</b>	<b>Unit Cost \$/gal</b>
5	5	15,000,000	(\$5,400,000)	9,600,000	\$1.92
<b>Scenario A</b>		<u>1,000,000 + 9,600,000</u>	\$1.44 /gal		
		7 mgd			
<b>Scenario B</b>		<u>9,600,000</u>	\$1.92 /gal		
		5 mgd			
<b>Scenario C</b>		<u>15,000,000</u>	\$3.00 /gal		
		5 mgd			

**COBURG SEWER EXTENSION EVALUATION: PRELIMINARY  
(INCOMPLETE) FIRST CUT AT ISSUES TO BE  
STUDIED/ADDRESSED BY THE ELECTED OFFICIALS**

**Prepared by Susie Smith and Peter Ruffier**

**ISSUES RELATED TO THE ENVIRONMENTAL IMPACT OF CONNECTING  
COBURG TO MWMC RELATIVE TO OTHER OPTIONS AVAILABLE:**

**Pipe across the River**

- Where?
- How constructed?
- Natural resources, land use and water quality impacts

**Centralization of Discharge (Single Outfall) vs Options with Potentially Less  
Negative Impact**

- Greater impact within existing MWMC mixing zone vs. dispersed impact
- Concentration of temperature, ammonia, mercury, mass.....etc
- Are there other options for Coburg discharge that would be more beneficial (reconnection of hyporheic flows, exfiltration through gravels, constructed wetlands, etc)

**ISSUES RELATED TO MWMC'S CURRENT NPDES DISCHARGE PERMIT  
AND ASSOCIATED POLLUTANTS OF CONCERN:**

**Coburg Responsibilities and Liabilities under the NPDES Permit Generally**

- Annual reporting
- CMOM IGA
- Collection System Operator certification
- Share of liabilities
- Accountability/enforcement

**Coburg Industrial Pretreatment Requirements**

- Compliance with MWMC Model Ordinance,
- Local program implementation, including: development of local ordinance, code, program implementation, enforcement, monitoring, reporting, profile of current Coburg industries, MWMC administration oversight, etc.
- Local limits review, modeling and allocation (involves technical review and public policy discussion of how to allocate remaining pollutant loads to Coburg vs. Eugene/Springfield for future industrial development)

- Sampling, analysis, and coordination with Eugene-Springfield pretreatment programs
- Participation in Pollution Management Practices Program, such as Fat, Oil and Grease and Photoprocessor programs

### **Coburg Wet Weather Flow Management**

- Coburg adoption of MWMC WWFMP, including modeling assumptions, strategies and policies, maintenance of hydraulic modeling, etc.
- I/I control plan approved by MWMC, monitoring and reporting
- Compliance with MWMC minimum standards for construction and materials, per IGA
- CMOM compliance, accountability
- Liabilities and enforcement under overflows, bypasses, or system failures (proportional share or other method for determination)
- MWMC ability to enforce standards for Coburg
- Interruptability for MWMC wet weather control (system detention/storage)

### **Coburg Temperature Management Plan—TMDL/Waste Load Allocation Compliance**

- Compliance with MWMC TMP
- Impact assessment and determination of Coburg requirements for temperature reduction, or determination of Coburg share of costs associated with MWMC temperature mitigation approach (removal and reuse of a minimum of 10 mgd to 30 mgd of plant effluent)—(involves technical review and public policy discussion about average cost vs incremental/marginal cost method of determining)
- Interruptability for MWMC temperature/thermal load violation avoidance

### **Coburg Mass Load Limits**

- Waste load assessment and impact on MWMC mass limitations and construction timelines/costs to address mass constraints at the WPCF

### **Coburg Ammonia Limits**

- Waste load assessment and impact on MWMC mass limitations and construction timelines/costs to address ammonia constraints at the WPCF

### **Other Potential Pollutants of Concern**

- Wastewater characteristics and potential impacts regarding all pollutants of concern
- Mercury Pollution Management Practices and, ultimately, TMDL compliance

## **ISSUES RELATED TO UP-FRONT AND ONGOING COSTS OF SERVICE TO COBURG:**

### **Up Front “Buy-In” Costs to be Considered and apportioned to Coburg**

- Share of existing system funded by Eugene-Springfield property taxes and River Road/Santa Clara ILOT, and funded by Federal Grants
- Share of planning studies completed in the past 8 years to plan for future 20-year capacity needs and permit compliance
- Share of capital costs for recently constructed infrastructure, such as lab enhancements, dewatering facility, Biocycle Farm, etc.
- Capital and operating costs associated with constructing and making physical connection to the regional wastewater facilities
- Cost of reviewing and updating the MWMC 2004 Facilities Plan, and the Eugene-Springfield Public Facilities and Services Plan as needed to incorporate the extended service to Coburg
- Payment of connection fees equivalent to regional wastewater SDCs that would be charged for each user connected to the system.
- Set-up costs for billing and administration of service to Coburg
- Costs associated with the studies, along with the MWMC and elected officials review of the Coburg request
- Costs associated with developing/establishing intergovernmental agreements, permit modifications, etc.
- Cost-of-service study to determine Coburg sewer users' wastewater characteristics relative to MWMC cost centers—establishment of initial user rate structure
- Development and installation of metering and monitoring methods and equipment
- Costs related to increased insurance premiums, and other increases in MWMC fixed costs/fees occurring at the outset of connection of Coburg's collection system
- Costs associated with land-use decision making processes.
- Costs of establishing mechanisms and methodology for collecting SDCs for future connecting users of the Coburg collection system

### **Ongoing “User-Rate” Costs to Coburg**

- Ongoing Administration services (provided by Springfield) apportioned to Coburg, such as customer service, MWMC administration, account management, involvement in regional coordination, public information, public processes/governance, etc
- Ongoing operations and maintenance services (provided by Eugene) for regional wastewater collection and treatment infrastructure
- All aspects of MWMC costs that are factored into current sewer user rates

## **GOVERNANCE:**

### **The MWMC Governing Bodies will need to decide the following**

- Whether current work load and resource constraints provide agency ability to conduct the ground work and decision making processes, and if not, how to address the need and how to determine a time frame for the work
- Whether they are agreeable to undertake changes necessary to accommodate Coburg—overall public/political acceptability
- Whether Coburg would be served as a “customer” or a “partner,” and how accountability/representation would be provided for Coburg customers (note: Administration costs for Coburg could vary significantly based on outcome)
- Level of accountability, liability Coburg would share in joining MWMC NPDES permit and its conditions/requirements
- How much ongoing monitoring, reporting, system maintenance/rehabilitation and formal asset management Coburg would be required to commit to in order to maintain long term system integrity and accountability for permit compliance
- How would violations and enforcement be handled
- Ownership and maintenance of major facilities such as large force mains and pump stations
- How to address long-rang community growth implications relative to the Eugene-Springfield Metropolitan Area General Plan, and the MWMC partner governing bodies’ objectives
- How to address/amend existing Metro Plan policies and constraints
- How Boundary Commission approval would be sought and by whom, and whether the Boundary Commission would be likely to approval such a request as consistent with the policies of the Metro Plan and state law
- The relationship of the Coburg request to other potential extra-territorial extension requests for service (such as the Short Mountain Landfill leachate line, and/or other community requests that might arise out of the Region 2050 planning effort), and whether criteria should be applied determine when MWMC could authorize certain service connections in the future