



NWCCC
Seatac
June 27, 2001



*Providing water, solid
waste, drainage,
engineering
and customer services*

Seattle Public Utilities' Design-Build-Operate Treatment Facility Projects

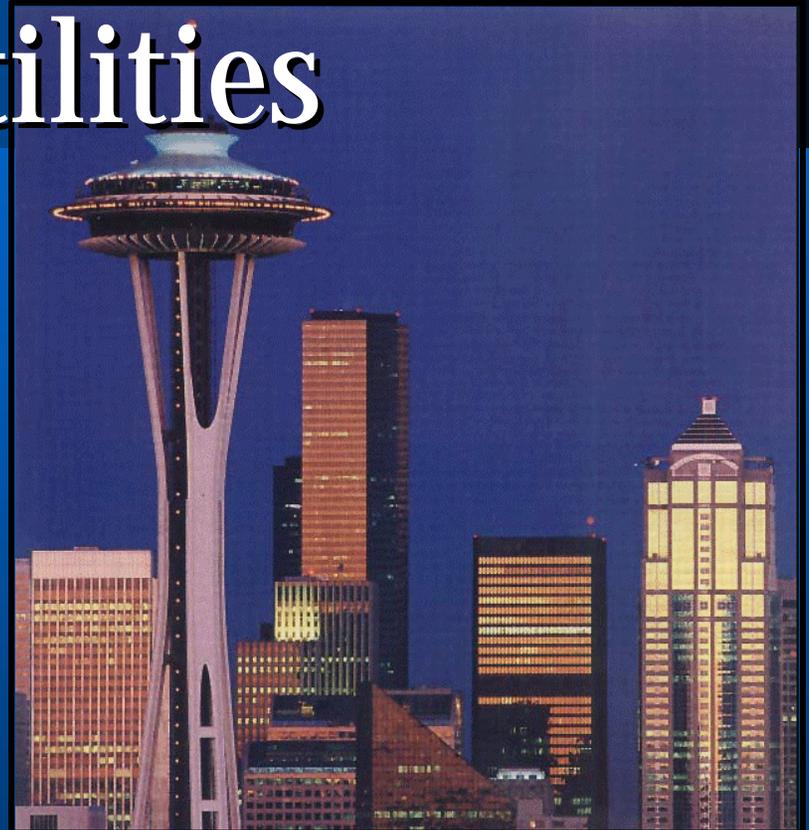


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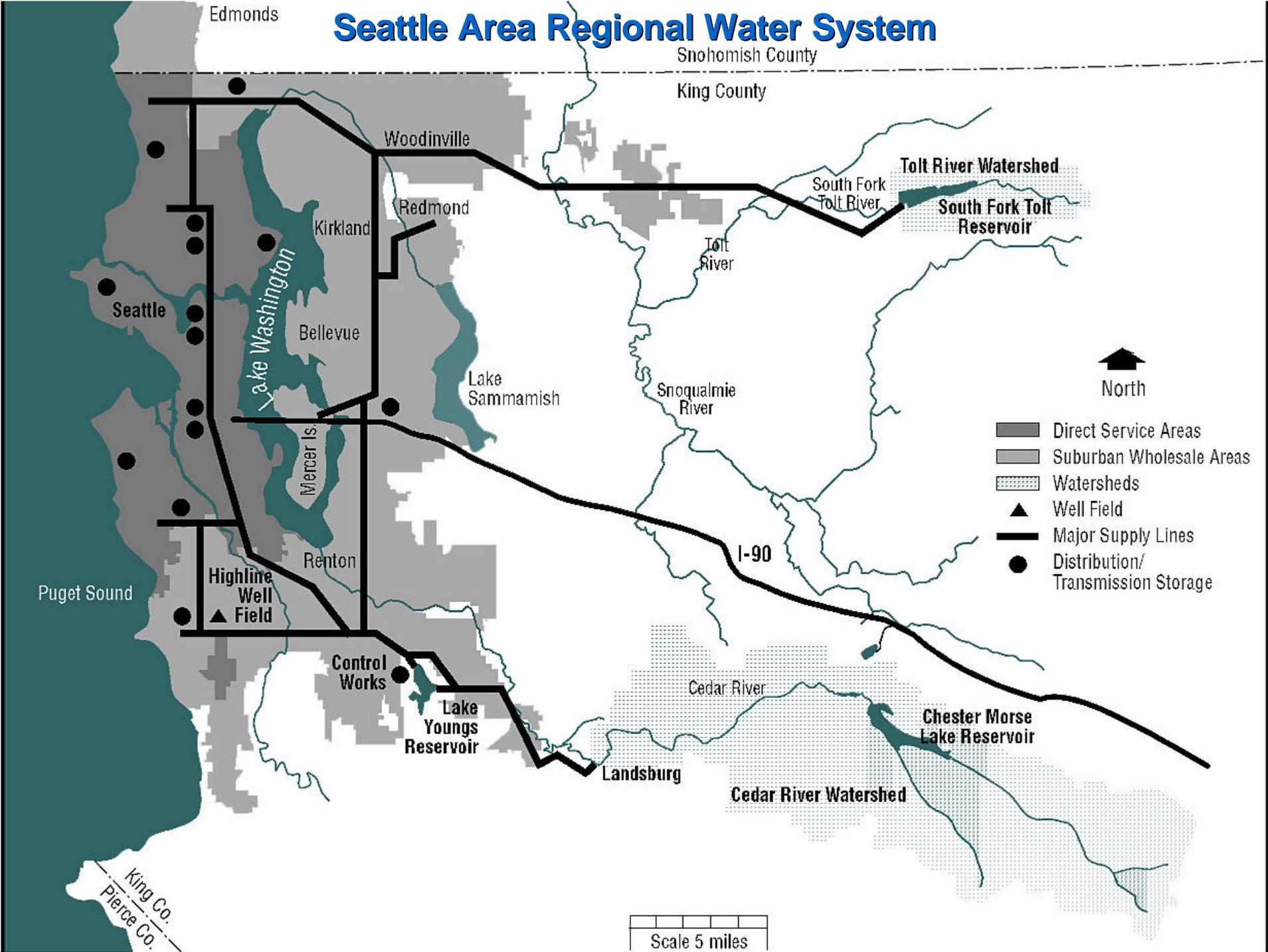
Seattle Public Utilities

Water Supply
Drainage
Wastewater
Solid Waste
Engineering Services



\$500 million operating budget / 1,200 employees
Ten year capital program exceeds \$1 billion

Seattle Area Regional Water System



The Need for Enhanced Treatment on the Tolt & Cedar



Tolt Treatment



Water Quality Improvements



System Reliability Improvements



Additional Water Supply

Cedar Treatment



Regulatory Compliance (Agreed Order)



Water Quality Improvements



Improve Taste & Odor

The Conventional Approach



**Mixed Incentives for
Designers and Contractors**

and

**Little Control Over Costs of
Construction and Future Operation**

Why Consider an Alternative Approach?

- ◆ Lack of Project Type Experience
- ◆ Experienced Private Vendors
- ◆ Potential Cost Savings
- ◆ Organizational Needs
- ◆ State Statute

The DBO Model



Washington State Statute Projects Criteria

RCW Ch. 39.10 (Alternative Public Works Contracting Procedures)

Design-Build or general contractor/construction manager (GC/CM) can be used for public works contracts,...

- by certain public entities (including Cities with pop greater than 150,000)
- for projects greater than \$10M
- meeting certain criteria
- before July 2001
- also, demonstration projects for \$3M-\$10M (before July 1999)



Washington State Statute Governing Process



**No Simultaneous
Negotiations Allowed**

Short List of 3 - 5 Firms Required

Requires Payment of Honorarium

**Competitive Process, but Selection of
Low Cost Proposal Not Essential**

Requirements for Solicitation Documents

Public Notification & Public Review and Comment

Seattle's DBO Project Philosophy

- ◆ Specify Performance Standards
 - ▼ *Integrated Vendor Teams Respond*
- ◆ Encourage Technical Innovation
 - ▼ *Use Competition in Innovation & Price*
- ◆ Assign Risk to Party Best Able to Manage It

FEATURES OF SEATTLE'S DBO PROCESS

- ◆ **OVERALL PROCESS DEVELOPED IN ADVANCE WITH ELECTED OFFICIALS**
 - ▼ **Collaborative Relationship**
 - ▼ **Use of Benchmark Estimate**
 - ▼ **Threshold Determination Process**
- ◆ **DIVERSE CITY TEAM COMPLEMENTED BY SUPPORTING CONTRACTOR TEAM**
- ◆ **COMMUNICATIONS PROTOCOL**
- ◆ **HONORARIUM**

Overview of Communications Protocol

- ◆ **Develop protocol early**
- ◆ **All questions must be in writing**
- ◆ **No individual meetings with potential respondents (for Tolt)**
- ◆ **Individual work sessions at issuance of draft RFP (for Cedar)**
- ◆ **Periodic mailings and project web page established**
- ◆ **Single contact person designated**
- ◆ **Contact with elected officials strictly prohibited**

Honorarium

Tolt Honorarium = \$100,000

- Capital Cost Estimate = about \$100 million
- Extensive Preliminary Design Type Proposal Requirements
- Two Alternate Proposals

Cedar Honorarium = \$150,000

- Capital Cost Estimate = about \$106 million
- Extensive Preliminary Design Type Proposal Requirements
- Two Alternate Proposals
- Two Proposal Sections Require Higher Level of Design (stormwater treatment and system hydraulics)

Other Provisions for Project Quality in the Procurement Process

- ◆ issued risk allocation matrix with RFQ
- ◆ sought vendor comments on process
- ◆ clarity of expectations (process for addressing vendor questions)
- ◆ Draft Service Agreement issued with RFP

Risk Matrix

<i>Risk/Responsibility</i>	<i>City</i>	<i>Company</i>
Financing	X	
Site Acquisition	X	
Permitting		X
Design		X
Construction		X
Operation		X
Raw Water Quality	X	
Treated Water Quality		X
Change in Law	X	

Challenge in RFP Drafting

- ◆ Emphasis on Performance Specifications
- ◆ Limited Prescriptive Requirements
- ◆ Convey the Essence of Public Trust
 - ▼ Modest Financial Incentives for Exceptional Facility Performance
 - ▼ Substantial Liquidated Damages for Non-Performance
- ◆ Thoughtful Proposal Requirements

Desired Project Outcomes for Seattle's DBO Projects

- ◆ **Provide 50 Year Facility (High Quality Design and Construction)**
- ◆ **Meet Current and Future Water Quality Standards**
- ◆ **Provide Range of Water Quantities**
- ◆ **Assure High Quality and Reliable Operations through Performance Incentives**
- ◆ **Efficient Use of Power and Chemicals**
- ◆ **Environmental and Cultural Sensitivities**
- ◆ **Predictable Cash Flow**
- ◆ **Cost Effectiveness**
- ◆ **Durable Service Agreement**

PROPOSAL REQUIREMENTS - TECHNICAL

Description of Facility	Hydraulic Profile	Architectural Elevations and Rendering	Power and Electrical Systems
Structural Work	I & C Approach and Process Controls	Repair and Replacement Plans	Emergency Operations

The diagram features a 2x4 grid of red boxes with white text. Below the grid is a large black downward-pointing arrow with blue text. At the bottom is a red oval with white text. A thick blue horizontal bar is located above the grid, and a thick red horizontal bar is at the very bottom of the slide.

Overall Approach to Meet Performance Specifications

Conceptual Drawings of Proposals A & B

PROPOSAL REQUIREMENTS - BUSINESS/FINANCIAL

Contract Security

- Performance bond
- Letter of credit
- Insurance

Financial Backing and Costs

- Termination costs
- Capital costs
- Operating costs
- Construction drawdown

Single guarantor to back all project phases
(development, design, construction & operation)

EVALUATION CRITERIA

60% Technical

- Project implementability
- Technical viability / reliability
- Proposed staff and firm experience
- Environmental compliance
- W/MBE utilization (Tolt only)
- Project Sustainability (Cedar only)

40% Financial

- Cost effectiveness (net present value)
- Financial strength of guarantor

EVALUATION TEAM

Support Subcommittees

- **Financial**
- **Business Issues**
- **Design/Build
(treatment &
infrastructure)**
- **Operations**

Evaluation Committee

SPU Representatives	4
Other City Departments	2
Purveyors' Representative	1
Consultants	<u>3</u>
Voting Members	10
Consultants	3
City Law Department	<u>1</u>
Non-voting Members	4

BEST AND FINAL OFFERS SOUGHT

Requests

**Costs for Various Enhancements to Create
Consistency Across Proposals**

**Restate Certain RFP Requirements to Eliminate
Confusion**

Clarifications and Corrections

DUE DILIGENCE CONDUCTED

Telephones Calls

- Calls to Evaluate Firms
- Calls to Evaluate Personnel

Site Visits

- Visit and Inspect Facilities
- Interview Construction and Operations Personnel

Findings
invaluable
for formal
interviews
(4 hours each)

EMPHASIS ON REPAIR AND REPLACEMENT

All R&R costs included as part of O&M fee*



Proposals had to identify all equipment R&R above \$10,000 over contract life (25 yrs.)

** Required proposers to initially include high quality equipment*

PROJECT COSTS

	<u>Tolt</u>	<u>Cedar</u>
<u>SPU DBB Estimate</u>		
Capital	\$115 M	\$115 M
Operational (25 yrs)	\$56 M	\$49 M
Total	\$171 M	\$164 M
 <u>DBO Contract</u>		
Capital	\$65 M	\$81 M
Operational (25 yrs)	\$36 M	\$32 M
Total	\$101 M	\$113 M
	(appx 40% savings)	(appx 30% savings)

COST SAVINGS THROUGH THE DBO APPROACH

- ◆ **INCENTIVES / RISKS BETTER ASSIGNED**
- ◆ **DESIGN-OPERATE AND DESIGN-BUILD ECONOMIES**
- ◆ **OPERATIONAL EFFICIENCIES**
- ◆ **AVOIDANCE OF MULTIPLE PROCESSES AND NEGOTIATIONS**
- ◆ **COMPETITION FOR MARKET POSITION**

DBO Contracting ...

- ◆ **Success requires:**
 - ▼ **early and thorough understanding of project performance needs**
 - ▼ **dedication**
 - ▼ **commitment, and**
 - ▼ **a willingness to move beyond traditional thinking and teach within the organization**