



CITY OF
BAINBRIDGE ISLAND

UTILITY ADVISORY COMMITTEE
REGULAR MEETING
WEDNESDAY, OCTOBER 12, 2022
5:30 PM
COUNCIL CHAMBERS CONFERENCE ROOM & ZOOM MEETING

UTILITY ADVISORY COMMITTEE

OCTOBER 12, 2022

COUNCIL CHAMBERS CONFERENCE ROOM & ZOOM MEETING
280 MADISON AVENUE N., BAINBRIDGE ISLAND, WA 98110

PLEASE CLICK LINK BELOW TO JOIN WEBINAR:

[HTTPS://BAINBRIDGEWA.ZOOM.US/J/91263203129](https://bainbridgewa.zoom.us/j/91263203129)

TELEPHONE: 1 253 215 8782 — WEBINAR ID: 912 6320 3129

AGENDA

1. CALL TO ORDER / ROLL CALL / ACCEPT OR MODIFY AGENDA / CONFLICT OF INTEREST DISCLOSURE
5:30 PM
2. APPROVE SEPTEMBER 14, 2022 MEETING MINUTES – 5 MIN
3. RATE STUDY REVIEW AND DISCUSSION – 110 MIN
 - A. REVIEW UPDATE WATER TANK COSTS
 - B. REVISIT/CONFIRM PREVIOUS MEETING FINANCIAL PLAN RECOMMENDATIONS FOR SEWER
 - C. REVIEW POTENTIAL IMPACT OF COST INCREASES ON WATER FINANCIAL PLAN
 - D. REVIEW SYSTEM PARTICIPATION FEE APPROACH AND RECEIVE FEEDBACK
4. NEXT MEETING AGENDA PLANNING – 5 MIN
5. ADJOURNMENT

UTILITY ADVISORY COMMITTEE MINUTES

September 14, 2022

Call to Order

Meeting called to order 5:30 pm.

Members Present: Andy Maron, Ted Jones, Charlie Averill, Svend Brandt-Erichsen, Sheina Hughes, Susan Hume (via Zoom),

Also Present: Chris Wierzbicki (Public Works Director); John Quitslund (Council liaison)
Chris Gonzalez (FCS)

Public Works Report

Update on several pending matters discussed at prior meetings:

- 1st round of negotiation with PSE regarding its franchise agreement. PSE is simultaneously in negotiations with several cities. On consultant's advice, City is waiting to see how PSE responds to communities where negotiations are farther advanced.
- Wing point lift station replacement – Public Works is exploring additional alternatives with local residents, including possible rerouting of line towards street and away from the beach.
- Lynwood area sewer service. Public Works is continuing an evaluation of demand for additional sewer connections. Discussions occurring with Sewer District 7 regarding potential for additional ERUs and capacity of its treatment system,

Rate Study

- First of several meetings to review sewer and water service rate study. Anticipated organization of meeting topics:
 - Financial Plan
 - System Participation Fee (SPF)
 - Rate Structure
- Primary focus of this meeting was the financial plan.
- The committee had some high-level recommendations: to achieve the same revenue objectives but to evaluate opportunities to lower and spread out rate increases over time, particularly recognizing that another rate study in 5 years could address any need for changes in course.

Factors Driving Costs

Water Supply: capital investments (CIP projects) and addition of staff positions

Sewer – capital replacement projects (beach main replacement; wastewater treatment upgrade) and addition of staff positions.

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System Reinvestment Fund – a new component of the financial plan. This fund will be a vehicle for collecting funds over and above operating expenses and CIP to pay for equipment replacements and system maintenance – replacement of depreciated components and other forms of non-routine maintenance. Objective is to grow the fund to equal annual depreciation, and to use to fund replacement equipment before it fails or as it approaches end of useful life.

Water System

The consultant projects that current revenues will be insufficient for the water supply system within a few years, with increasing deficits over time. Accordingly, a revenue increase is necessary. There was a discussion of how past rate decisions contributed to the current revenue situation.

The proposal presented to the Committee for discussion called for 25 percent increases in each of three years, starting in 2023, with 4 percent increases thereafter.

There was substantial discussion of alternatives for slowing the rate of increase, including use of reserves to lower the rate increase curve.

The Committee suggested a benchmark of establishing and maintaining \$1M in the operating reserve in 2030, and also identifying a low and high-end “warning level” and timeframe by which the City should re-evaluate rates/spending if the reserve gets too low or too high.

Regarding the System Reinvestment Fund, the Committee recommended starting the fund in 2024 at level of \$250,000 and building up to the desired amount by 2030. Full depreciation for the water system is about \$650,000.

Sewer System

Rate increases also will be needed to maintain adequate funding for the sewer system. The proposed rate increases presented for discussion were 3 years at 6 percent a year, then 4 percent per year thereafter.

The financing plan is designed to achieve a goal of maintaining a \$1 million operating reserve. This is a lower percentage of operating costs than the City’s reserve policy would normally require, but revenue collection for the sewer system is more stable and not susceptible to seasonal fluctuations.

The System Reinvestment Fund objective for the sewer system is higher than for the water system, because of the higher cost of the sewer system assets.

The Committee recommended taking the same approach to establishment of the System Reinvestment Fund as was recommended for the water supply system.

Next meeting

Discussion of SPF and rate structure.

Meeting Adjourned



PUBLIC WORKS DEPARTMENT
MEMORANDUM

Date: October 10, 2022
To: Chris Wierzbicki, P.E., Director
From: Peter Corelis, P.E., City Engineer
Subject: Winslow Water Tank Pre-30% Design Estimate

The consultant Consor (formerly MurraySmith, Inc.) produced a pre-30% design probable construction cost estimate of the new reservoir and accompanying areawide water system improvements based on the most recent material, manufacturing, and cost inflationary data, available site and system technical information and analysis, and recent bid award data for similar projects. The current estimate is \$24,337,000. The previous feasibility cost estimate performed by Gray & Osborne (G&O) identified a probable cost of \$13,987,000 in July of 2020.

The current major factors driving the cost increase in order of highest to lowest are the following:

- 1) Tank Manufacturing and Delivery
- 2) Soil Conditions and Foundation Design
- 3) Off-Site Improvements

The City has selected a composite elevated tank (CET) design with a concrete base/flute and an elevated steel tank in lieu of an all-steel hydropillar due to the relative cost savings between the two options. The consultant has re-validated that the CET is still the cheaper option of the two, however, the costs for the tank have increased due to the inflation of the cost of steel and supply chain impacts. Consor estimates the CET to cost \$10,464,800 [\$15,623,946¹] as of October of 2022. Previous estimates in 2020 by G&O estimated the cost of the tank to be \$4,500,000 [\$6,718,500¹]. The increase from 2020 to 2022 of the tank alone, including tax, mobilization, and contingency is \$8,905,445.

The geotechnical soil borings at the existing tank sites and at the new site indicate poor soils with inadequate bearing capacity and inability to resist differential settlement. Initial findings indicated the underlying soils are liquefiable requiring over excavating at the site to a depth of more than 25 feet below ground, however, further analysis of the soils indicates a mat slab on auger-cast pile foundation is feasible. The current estimate includes a cost for the over excavation as \$1,038,700 [\$1,550,779¹] line

(1) - including tax (9.3%), mobilization (10%) and contingency costs (30%)

item for foundation improvements, but is likely to be less with the alternative foundation system on piles.

The offsite improvements to tie the new reservoir into the system have been assessed based on Consor's updated hydraulic analysis. The resultant analysis has identified several changes to the outlying system including additional rezoning, individual pressure reducing valves, pressure reducing valve vault locations and a transmission main from the fletcher bay well to the island center intersection to isolate the well supply booster pressure from the local neighborhood system. The previous G&O estimate identified \$1,904,000 [\$2,842,672¹] for pressure reducing valves, whereas Consor's updated estimate for off-site improvements is \$2,262,900 [\$3,378,510¹].

The City project team had a conversation with Consor on Monday, October 10th regarding the need to develop at least one, potentially lower cost option for the tank replacement. The team determined that evaluating a tandem solution that would include seismic reinforcement of the larger existing tank, combined with a smaller, multi-leg tank could prove to be more economical – although not without long-term disadvantages. The project team expects to have additional information on this alternative prior to the next UAC meeting.

CC: Chris Munter, P.E.

(1) - including tax (9.3%), mobilization (10%) and contingency costs (30%)

CITY OF BAINBRIDGE ISLAND
WINSLOW WATER TANK REPLACEMENT PROJECT
PRE-30% DESIGN – ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST (CLASS 4 ESTIMATE)
MURRAYSMITH PROJECT NO. 22-3434
OCTOBER 5, 2022

Item No.	Item Description	Quantity	Unit	Unit Cost	Total
1	Mobilization, Demobilization, Bonds, and Insurance ⁽²⁾	1	LS	\$1,209,528.00	\$1,209,528.00
2	Traffic Control	1	LS	\$10,000.00	\$10,000.00
Demo Tank 1					
3	Demolition of 1.0 MG Tank 1	1	LS	\$191,400.00	\$191,400.00
4	Temporary Erosion & Sediment Control	1	LS	\$11,000.00	\$11,000.00
5	Clearing & Grubbing	1	LS	\$6,200.00	\$6,200.00
6	Dewatering	1	LS	\$5,000.00	\$5,000.00
7	Landscape Restoration	1	LS	\$1,400.00	\$1,400.00
<i>Demo Tank 1 Subtotal</i>					\$215,000.00
Tank 3 CET					
8	Temporary Erosion & Sediment Control	1	LS	\$25,700.00	\$25,700.00
9	Clearing & Grubbing	1	LS	\$51,500.00	\$51,500.00
10	Dewatering	1	LS	\$5,000.00	\$5,000.00
11	Foundation Improvements ⁽⁷⁾	1	LS	\$1,038,700.00	\$1,038,700.00
12	Hot-Mix Asphalt Paving ⁽¹⁾	229	TN	\$307.00	\$70,303.00
13	Crushed Surfacing Top Course ⁽¹⁾	206	TN	\$55.00	\$11,330.00
14	Crushed Surfacing Base Course ⁽¹⁾	268	TN	\$50.00	\$13,400.00
15	Tank Mechanical (Valves)	1	LS	\$76,100.00	\$76,100.00
16	2.0 MG Composite Elevated Storage Tank ⁽⁵⁾	1	LS	\$10,464,800.00	\$10,464,800.00
17	Retaining Walls	1000	SF	\$50.00	\$50,000.00
18	Stormwater Facilities	1	LS	\$29,100.00	\$29,100.00
19	Yard Piping	1	LS	\$335,200.00	\$335,200.00
20	Electrical ⁽⁶⁾	1	LS	\$329,800.00	\$329,800.00
21	Instrumentation and Control	1	LS	\$100,000.00	\$100,000.00
22	Site Perimeter Fencing	464	LF	\$53.00	\$24,592.00
23	Landscape Restoration & Planting	1	LS	\$15,600.00	\$15,600.00
<i>Tank 3 Subtotal</i>					\$12,641,125.00
Off-Site PRVs & Pipeline Improvements					
24	Off-Site PRVs and Pipeline Improvements ⁽³⁾	1	LS	\$2,262,900.00	\$2,262,900.00
<i>Off-Site PRV Subtotal</i>					\$2,262,900.00
Tank 2 Rehab					
25	Alternative 3 - Reduce Max Operating Level	1	LS	\$50,000.00	\$50,000.00
<i>Tank 2 Rehab Subtotal</i>					\$50,000.00

Subtotal		\$16,388,553.00
Contingency	30%	\$4,916,565.90
Sales Tax	9.30%	\$1,524,135.43
Total		\$22,829,254.33

Design Svcs.	\$1,388,756.00
Project Mgt.	\$119,000.00

Grand Total \$24,337,010.33