

**SULTAN CITY COUNCIL  
SUB - COMMITTEE MEETING  
AGENDA ITEM COVER SHEET**

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**DATE:** February 7, 2008

**SUBJECT:** Technical Memorandum written by  
BHC Consultants, LLC  
GMA Compliance – Facilities Inventory

**CONTACT PERSON:** Public Works Director Dunn 

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**ISSUE:**

The issue before committee is contracting with BHC to write Technical Memorandum (Tech Memo) for GMA compliance for the City of Sultan Water System and General Sewer Plans

**STAFF RECOMMENDATION:**

Contact Brown and Caldwell regarding a contract amendment to complete the General Sewer Plan Tech Memo and possibly the Water System Plan. If Brown and Caldwell can give us bids for a Tech Memo for either or both ask for an estimate.

Authorize the City Staff to negotiate a contract with a consulting firm to complete the Tech Memo for the Water System and General Sewer Plan. The two firms being considered are BHC Consultants, LLC and Brown and Caldwell Consultants, Inc.

**SUMMARY:**

The City of Sultan under the guidance of Shockey Brent, Inc is using the “building block” approach to construct a Comprehensive Plan, Capital Facilities Plan, and Transportation Improvement Element compliant with the Growth Management Board order. As part of the Facilities Inventory, Shockey Brent is recommending the City incorporate the knowledge of consultants used to write the existing approved Water System and General Sewer Plans into the Tech Memo to minimize costs.

BHC estimates the Technical Memorandum for Water System Plan Compliance will require about 60 work hours for a total cost of \$10,000. BHC estimates the Technical Memorandum for the General Sewer Plan to require about 100 work hours for total cost of \$16,000. It is assumed that Tech Memos will be prepared concurrently with each other (Water and Sewer) and that some of the work effort and coordination meeting time will be shared by the two projects.

It is also assumed that additional work will be required later to better define the facilities needed, the estimates costs, and develop a financing program. Brown and Caldwell

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# SHOCKEY BRENT, INC.

Land Use \* Environmental Analysis



Permitting \* Public Policy

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2716 Colby Avenue, Everett, WA 98201 425.258.9308 fax: 425.259.4448 shockeybrent@shockeybrent.com

TO: See Distribution  
FROM: Reid H. Shockey, AICP  
DATE: January 28, 2008  
SUBJECT: Facilities Inventory

Attached to this memo is the agenda for the February 19 Planning Board meeting. I want to set the stage for this meeting so that everyone understands his or her role. I also am asking participants to submit reports to me by February 8 so that I can prepare a briefing paper for the Board for their review prior to the meeting. I will be out of town on February 19. I'm proposing that Brad Collins facilitate the discussion.

You are all aware of the "building block" approach we are taking to construct a Comprehensive Plan, Capital Facilities Plan and TIP that comply with the Growth Hearings Board orders. I have attached to this memo a summary of our approach.

By February 19, the Board will have been briefed on population, employment and housing distribution around the community in 2025. This will be the topic discussed at the Board's February 5 meeting. The background briefing paper ("Technical Memorandum No. 1") will be sent to each of you once it goes to the Board later this week.

With the 2025 demographics agreed to, the Board next needs to understand what capital facilities the City currently has - roads, sewer, water, sewage treatment, stormwater and parks. The CFP will outline the approach to building what we need in 2025 vs. what we have in 2008. Coming out of the February 19 meeting, I would like the Board to know the current inventory of facilities. We will all work to inform it of what we need as we move through the level of service and needs assessment over the coming months. The goal on the 19<sup>th</sup> is to let the Board know what we have.

Following are some thoughts on what each presenter should cover:

ATTACHMENT A

**Roads:** Eric Ireland has been working with the Board on the transportation analysis. A recap should suffice. They will want to know that you are working on a comparison of LOS B vs. D as part of the needs assessment, but for now the emphasis should be on inventory (arterial street system, etc.). The question will come up as to why we show arterials extending outside the UGA. I have explained previously that we are attempting to coordinate with the County's arterial street plan, but you should be prepared to discuss how the two compare.

**Water and Sewer:** John Wilson has been tasked with reviewing the 2005/06 Sewer and Water Plans and confirming that the existing system and line sizing can be extended to the UGA boundaries. For now, this is a technical question only. Where lines are extended, how large they will be and when it happens are matters to be determined during CFP development. We just need to know now that the systems are expandable or, conversely, what the issues might be. John, for analysis purposes, please assume a residential land use at a density of 5-10 du's per acre extending to the 2007 amended UGA boundaries. Depending on the City's review of John's report, he may or may not need to be present at the Planning Board meeting; City's choice.

**Stormwater:** Dean Franz is handling this one. It is a bit different because the City will not do a full stormwater management plan until 2009. For purposes of CFP and Plan update, we will be looking at a planning-level analysis of 2025 stormwater needs with some specific projects ending up on the 2008 CFP. Complicating matters a bit is the current public discussion with City Council on creation of stormwater utility. The Inventory discussion on February 19 should be scaled to the level and tone of utility discussion at the time. The emphasis should be in inventory and we should avoid become the focus of any debate.

**WWTF:** I don't think Tadd needs to attend the Planning Board meeting. I am assuming that we are all in agreement that the planned improvements to the WWTF will handle growth at least to 2029. I would like some discussion for the briefing paper however, describing this. One issue that needs to be addressed is stormwater. The City, in developing its stormwater management plan, envisions eventual separation of its storm and sanitary systems. It would be helpful to know what the implications of this are for capacity issues at the WWTF. For instance, did the 2029 WWTF design, assume a certain percentage of stormwater volumes being treated. This would have implications for costs.

**Parks:** Park and recreation facilities are being reviewed by in-house staff.

**Cost:** If possible, I would like each of the technical people to describe an order of magnitude of facility cost (e.g. cost per lineal foot of sewer, water, roads, etc.). This

will be helpful for the Planning Board. I realize there are numerous variables that determine the ultimate cost, but "order of magnitude" will give them a framework.

If you have any questions on approach, please give me a call. Again, I would like to have technical memos from each of you by February 8 so that I can complete our briefing paper.

Reid H. Shockey  
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*Distribution via e-mail:*

Deborah Knight	Tadd Giesbrecht
Connie Dunn	Brad Collins
John Stack	Eric Irelan
Andy Lane	Dean Franz
John Wilson	Brittney Baldwin

January 2008

City of Sultan  
P.O. Box 1199  
Sultan, WA 98294

RE: Task Order No. 2008-01-01  
Professional Services Agreement dated March 1, 1999 – City Engineering Services  
**Technical Memorandum for Water System Plan Compliance with GMA**

In accordance with our Professional Services Agreement with the City of Sultan dated, March 1, 1999, the City Administrator and the Public Works Director have requested BHC Consultants LLC to produce a Technical Memorandum verifying that the City water system can be extended throughout the urban growth area to serve the population of 11,117 projected for 2025. This work would build on the Water System Plan adopted by the City in 2005 and be accomplished in a series of incremental steps as follows:

- 1. Review Current Planning Data**
  - 1.1 Map of city limits and Growth Management Area (GMA)
  - 1.2 City adopted Land Use Plan for GMA with planned development densities
  - 1.3 Projected population and employment distribution for 2015 and 2025
  - 1.4 Location and expected timing of annexations and proposed plats
  
- 2. Verify Current Facilities and Standards**
  - 2.1 Water main extensions and replacements since 2004
  - 2.2 Capital improvements accomplished or started in 2006 and 2007
  - 2.3 Fire flow required for existing and planned non-residential structures
  - 2.4 Status with Everett, Snohomish PUD, and Coordinated Water System Plan
  
- 3. Verify Water Production and Demands**
  - 3.1 Water production records by month for 2006 and 2007
  - 3.2 Water billed bi-monthly for 2006 and 2007 by residential, commercial and other
  - 3.3 Customer totals by residential, commercial, and other accounts
  - 3.4 Major water users expected to connect by 2025
  
- 4. Identify Deficiencies and Needed Water Improvements**
  - 4.1 Existing unit average day demands and projected demands
  - 4.2 Water main layout and pressure zone organization
  - 4.3 Updated water model inputs
  - 4.4 Model distribution deficiencies and needed improvements
  - 4.5 Storage, pressure reducing valves, and appurtenances
  
- 5. Prepare Technical Memorandum**
  - 5.1 Assemble draft Technical Memorandum text and graphics

- 5.2 Revise draft Tech Memo per City and other consultants comments
- 5.3 Final Technical Memorandum

**6. Coordinate with City and Other Consultants**

- 6.1 Meeting initially with City staff and other consultants to define project
- 6.2 Meeting with City staff and other consultants to review draft Tech Memo
- 6.2 Presentation of Tech Memo to City Council for approval

A list of the 'Data Needed' to prepare the Technical Memo was provided to the City at the meeting on January 14<sup>th</sup>, 2008. The schedule for completion of the Technical Memo is dependent on when BHC is authorized to proceed, when the Data Needed is received, and what changes the data indicate are needed in the Water System Plan. The work is expected to require about 4 to 6 weeks for completion of the draft Technical Memorandum. Completion of the final Tech Memo will be dependent on the progress of review by the City and other consultants, and the approval process by the City.

No estimate or opinion of costs for the identified improvements will be developed. A capital improvement program will not be prepared. The affect of such cost on the existing rate structure will not be evaluated. A SEPA checklist will not be prepared.

The completed Technical Memorandum will include text documenting the revised conditions, the analysis performed, and the conclusions plus three figures:

- a) The approved growth management area for Sultan and the adopted land use plan
- b) A schematic of the modeled pipe system in relation to the City base map
- c) Improvements needed to serve the 2025 projected population and employment

Preparation of this Technical Memorandum for the Water System Plan is estimated to require about 60 work hours for a total cost of \$ 10,000. It is assumed that this Tech Memo will be prepared concurrently with the Technical Memorandum for the General Sewer Plan and that some of the work effort and coordination meeting time will be shared by the two projects.

It is also assumed that additional work will be required later to better define the facilities needed, the estimated costs, and develop a financing program. Some additional assistance may also be needed in responding to the Growth Management Hearings Board.

Sincerely,

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Gary Bourne, President  
BHC Consultants, LLC

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City of Sultan

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Date

January 2008

City of Sultan  
P.O. Box 1199  
Sultan, WA 98294

RE: Task Order No. 2008-01-02  
Professional Services Agreement dated March 1, 1999 – City Engineering Services  
**Technical Memorandum for General Sewer Plan Compliance with GMA**

In accordance with our Professional Services Agreement with the City of Sultan dated, March 1, 1999, the City Administrator and the Public Works Director have requested BHC Consultants LLC to produce a Technical Memorandum verifying that the City sewer collection system can be extended throughout the urban growth area to serve the population of 11,117 projected for 2025. This work would build on the Sewer General Plan and Amendment No 1 as adopted by the City, and the Engineering Report approved by the Department of Ecology in 2006. The work would be accomplished through the following sequential steps:

- 1. Review Current Planning Data**
  - 1.1 Map of city limits and Growth Management Area (GMA)
  - 1.2 City adopted Land Use Plan for GMA with planned development densities
  - 1.3 Projected population and employment distribution for 2015 and 2025
  - 1.4 Location and expected timing of annexations and proposed plats
  
- 2. Verify Current Facilities and Standards**
  - 2.1 Sewer main extensions and replacements since 2004
  - 2.2 Capital improvements accomplished or started in 2006 and 2007
  - 2.3 Criteria for pipe design (full, 2/3 full, surcharged 1 foot, or other criteria)
  - 2.4 Guidance for connection of existing on-site septic systems
  
- 3. Verify Wastewater Flows**
  - 3.1 Customer totals by residential, commercial, and other accounts for 2006 and 2007
  - 3.2 DMR records for 2006 and 2007
  - 3.3 Any flow monitoring data collected during 2005, 2006, or 2007
  - 3.4 Results from infiltration/inflow analysis during past three years and annual reports
  - 3.5 Unit wastewater flow determination and peaking factors
  
- 4. Identify Deficiencies and Needed Collection Improvements**
  - 4.1 Future trunk sewer alignments and sewer basin definitions
  - 4.2 Sewer extensions to collect existing on-site septic systems
  - 4.3 Peak wastewater flow in trunk sewers
  - 4.4 Deficiencies in existing pipes and improvements needed

**5. Prepare Technical Memorandum**

- 5.1 Assemble draft Technical Memorandum
- 5.2 Revise draft Tech Memo per City and other consultants comments
- 5.3 Final Technical Memorandum

**6. Coordinate with City and Other Consultants**

- 6.1 Initial meeting with City staff and other consultants to define project
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A list of the 'Data Needed' to prepare the Technical Memo was provided to the City at the meeting on January 14<sup>th</sup>, 2008. The schedule for completion of the Technical Memo is dependent on when BHC is authorized to proceed, when the Data Needed is received, and what changes the data indicate are needed in the General Sewer Plan as amended. The work is expected to require about 4 to 6 weeks for completion of the draft Technical Memorandum. Completion of the final Tech Memo will be dependent on the progress of review by the City and other consultants, and the approval process by the City.

No estimate or opinion of costs for the identified improvements will be developed. A capital improvement program will not be prepared. The affect of such cost on the existing rate structure will not be evaluated. A SEPA checklist will not be prepared.

The completed Technical Memorandum will include text documenting the revised conditions, the analysis performed, and the conclusions plus three figures:

- a) The approved growth management area for Sultan and the adopted land use plan
- b) A schematic of the modeled pipe system in relation to the City base map
- c) Improvements needed to serve the 2025 projected population and employment

Preparation of this Technical Memorandum for the General Sewer Plan is estimated to require about 100 work hours for a total cost of \$ 16,000. It is assumed that this Tech Memo will be prepared concurrently with the Technical Memorandum for the Water System Plan and that some of the work effort and coordination meeting time will be shared by the two projects.

It is also assumed that additional work will be required later to better define the facilities needed, the estimated costs, and develop a financing program. Some additional assistance may also be needed in responding to the Growth Management Hearings Board.

Sincerely,

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Gary Bourne, President  
BHC Consultants, LLC

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City of Sultan

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Date

# DRAFT INTRODUCTION OF CAPITAL FACILITIES INVENTORY REPORT

## TECHNICAL MEMORANDUM No. 2

### CAPITAL FACILITIES INVENTORY CITY OF SULTAN WASHINGTON 2008

#### INTRODUCTION

This is the second in a series of technical memoranda describing the methodology and findings in support of the City's updated Capital Facilities Plan (CFP), Comprehensive Plan update, Transportation Improvement Plan (TIP) and capital budget. Sultan is required to conduct its planning under the Washington Growth Management Act (RCW 36.70A) and has done so since 1994. The City updated its plan in 2004. In 2005, the Central Puget Sound Growth Hearings Board found certain inadequacies in the City's update and ordered review and modification.

The inadequacies and required modifications center on the City's handling of its capital facilities planning. While the Board did not find specific fault with the development policies in the Plan, it did rule that there had been inadequate analyses of "level of service" standards, the needed capital improvements resulting from those standards to handle projected growth, and the financial capability of the City to meet those needs. It required the City to revisit its capital facilities plan to reconcile these deficiencies.

The City developed an approach to address the Hearing Board orders which includes:

- Allocating new development among those buildable portions of the various land use districts (e.g. Low Density Residential, Medium Density Residential, etc.) identified on the Land Use Map
- Developing, confirming, or modifying "level of service" standards for future capital facilities through Year 2025.
- Based on adopted level of service standards, identifying what capital facilities will be needed, and when, to adequately serve the future population, housing and employment through 2025.
- Assessing the cost of providing capital facilities measured against the projected financial resources of the City.
- Developing a Capital Facilities Plan (six-year and Year 2025) that balances cost with estimated funding.
- Developing a six-year Transportation Improvement Plan (TIP).
- Developing a Transportation Element and Capital Facilities Element in the Comprehensive Plan that reflect the Capital Facilities Plan and the TIP.
- Evaluating land use and growth assumptions in the 2004 Plan