

**SULTAN CITY COUNCIL  
AGENDA ITEM COVER SHEET**

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**ITEM NO:** D-1  
**DATE:** February 14, 2008  
**SUBJECT:** Stormwater Utility  
**CONTACT PERSON:** Deborah Knight, City Administrator

**ISSUE:**

The issue before the City Council is to consider continuing the Public Hearing on the proposed stormwater utility to a later date.

Final discussion of the stormwater utility and continuation of the Public Hearing would be held in conjunction with discussion of the surface water improvement plan and facilities needs (Attachment A) currently underway as a part of the Comprehensive Plan Update.

**STAFF RECOMMENDATION:**

Consider continuing the Public Hearing set for February 28, 2008 at the Sultan Middle School until a later date.

Direct staff to fold in the stormwater utility discussion with the surface water improvement plan and facilities needs analysis currently underway as a part of the Comprehensive Plan Update.

Direct staff to form a small work group consisting of business owners and residents to assist staff in evaluating the surface water improvement plan and facilities needs analysis.

**SUMMARY:**

The City Council held a public hearing on the storm water utility on January 24, 2008. The Sultan community was very interested in the discussion and expressed concerns regarding the timing and amount of the proposed storm water fee. The City Council decided to extend the public hearing to allow additional opportunity for public comment.

After discussing the issue, City staff realize we have not done a good job at describing the need for a storm water utility and the facilities needed to convey storm water as well as meet the requirements of the NPDES II permit.

A description of the City's current storm water facilities, the need to extend the facilities to serve future development are a part of the requirement to update the City's Capital Facilities Plan under the Final Decision and Order in Fallgatter IX.

Before the City Council makes a final decision regarding the storm water fees, it makes sense to combine the need to establish a storm water utility with the need to adopt levels of service and a financial plan for storm water to meet future growth.

**ALTERNATIVES:**

1. Consider continuing the Public Hearing set for February 28, 2008 at the Sultan Middle School until a later date.
2. Direct staff to fold in the stormwater utility discussion with the surface water improvement plan and facilities needs analysis currently underway as a part of the Comprehensive Plan Update.
3. Direct staff to form a small work group consisting of business owners and residents to assist staff in evaluating the surface water improvement plan and facilities needs analysis.
4. Decide to hold the Public Hearing set for February 28, 2008 as directed by Council at the January 24, 2008 Council meeting.

**FISCAL IMPACT:**

There is no fiscal impact other than staff time to support the small work group associated with this decision.

**RECOMMENDED ACTION:**

1. Consider continuing the Public Hearing set for February 28, 2008 at the Sultan Middle School until a later date.
2. Direct staff to fold in the stormwater utility discussion with the surface water improvement plan and facilities needs analysis currently underway as a part of the Comprehensive Plan Update.
3. Direct staff to form a small work group consisting of business owners and residents to assist staff in evaluating the surface water improvement plan and facilities needs analysis.

**ATTACHMENT**

**A – Surface water improvement plan**

**ATTACHMENT "A"**  
**Scope of Services**  
**City of Sultan**  
**Surface Water Improvement Plan**

**Project Understanding & Objectives:**

This project is to develop a surface water improvement plan by preparing planning level assessment and recommendations for the undeveloped / partially developed areas of the study area, and for the existing major drainage features within the developed portion of the city. The overall goal of the project is to work towards achieving compliance with the GMA regulations of the State. This scope of work is a major step in achieving this goal. The major objectives in this scope of work are to recommend a stormwater level-of-service, system inventory compilation, identify probable drainage needs, and create a candidate list of drainage projects.

A capital improvement plan will eventually be adopted as part of future steps in developing the final stormwater comprehensive plan, but is not part of this scope of services.

The study area is defined as the land area bounded by the existing city limits and the city urban growth area.

**TASK 1 PROJECT MANAGEMENT.**

The CONSULTANT will provide project management to ensure that the project elements are completed on time and within budget. Project management from CONSULTANT will include:

- 1.1 Prepare detailed work plan and change management procedure.
- 1.2 Prepare, monitor, update project schedule, and monitor project budget on a monthly basis. It is assumed that 1 hour a month will be needed for updating the schedule and monitoring the budget.
- 1.3 Prepare monthly billings, progress reports, and updated monthly project schedule. It is assumed that 1 hour a month will be needed for this task.
- 1.4 Attend coordination meetings every month (for six months) with key City staff. Meetings will be held via phone conference call. Prepare and distribute meeting agenda and minutes.
- 1.5 Quality Assurance/Quality Control program. The CONSULTANT will conduct an internal quality assurance program prior to major submittals, which are listed as "deliverables" in the tasks listed below.

***Deliverables:***

- Meeting agenda and minutes from management coordination meetings, submitted via e-mail in MS Word format within 5 working days of the meeting.
- Detailed work plan, and change management procedures submitted via e-mail in PDF format, at the start of the project. The initial work plan will include a project schedule. If changes occur, submit revised materials via e-mail.
- Invoice and project reports submitted monthly in hard copy via US Mail.

## TASK 2 STORMWATER SYSTEM SURVEYING

The means to achieve the goal of preparing a map of the existing major drainage components within the city of Sultan is by supplementing the existing city maps. This mapping is to be a joint effort between the staff of Perteet Inc. and the City of Sultan.

### ***Assumptions:***

- Perteet will survey the location and elevation of major drainage system outfalls, and the rims of select catch basins located along storm trunk lines, where there is a major concern of conveyance capacity, as provided by CITY, for up to 8 points in the existing storm conveyance system.
- City of Sultan will provide detailed field inspection and sketches detailing: location, material, size and condition of structure, measure down to inverts, pipe descriptions and direction of all pipes within structure.
- City of Sultan to provide plans (as-builts or design plans) or CAD files of recent storm system construction within the study area.
- There is a separate sanitary sewer comprehensive plan, therefore this scope does not include any survey of the combined sewer system.
- Elevations will be referenced to NAVD 88 datum.
- Horizontal control will be determined by GPS using NAD 83 (91) datum and Washington State Plane, North Zone coordinates.

### ***Scope of Survey Services***

Survey scope from CONSULTANT will include:

- 2.1 Hosting a project team meeting with City staff to coordinate field inventory procedures (field codes and data dictionary) and GIS database definitions.
- 2.2 Establish horizontal and vertical control necessary for the survey of the outfalls and structures. Edit and process survey control. (1 day)
- 2.3 Conduct a survey of the project outfalls and structures to determine; horizontal location and rim/grate elevation, size, material and condition of pipe/structure at select catch basins along the storm pipe trunk lines, and the 5 or 6 major drainage structures of plats along Sultan Basin Rd. corridor. (3 days)
- 2.4 Survey locate control points of existing drainage facilities of identified recently constructed plats, with two control points for each plat. This will be done to orientate GIS mapping with drainage construction plans of record. The plats identified are: *Rosewood Estates, Sultan Highlands, Eagle Ridge, Miller Farms, The Plateau, Sky Harbor, and Timber Ridge Estates.* (2 days)

### ***Deliverables:***

- Copies of Field notes.
- Coordinate point data listing with attributes (Excel file).

### **TASK 3 STORMWATER SYSTEM & GIS SURFACE WATER MAPPING**

The Stormwater GIS mapping work from CONSULTANT will include:

- 3.1 Prepare a GIS geodatabase of the major drainage basins, and major surface water channels and streams, within the study area. This is to be built upon the existing GIS base map data. This will be performed with USGS 10m National Elevation data (NED) and LIDAR (where available) using ESRI's ArcHydro extension of ArcGIS software. CONSULTANT will prepare surface water GIS maps of the results.
- 3.2 Prepare field maps showing streets and probable storm pipe locations, for CITY staff to locate and sketch on the field maps the approximate locations of catch basins, pipes, and outfalls, which the City desires to include in the stormwater map.
- 3.3 Incorporate existing stormwater information into a GIS geodatabase. The sources will include: Snohomish County maps, field reconnaissance sketches from the CITY, existing CONSULTANT survey data (as described in Task 2), sensitive areas maps for wetlands and streams available from the CITY (done by Shockey Brent Inc.), and drainage plans in CAD files from the City. Prepare a GIS map of the results.
- 3.4 Create a GIS map showing surface water features and existing 100-yr floodplain limits, as available from FEMA floodplain boundary maps.
- 3.5 Create surface water GIS map set for the study area, incorporating the information described in Tasks 2, 3.1 through 3.4. Submit a draft to the CITY for review and for clarification by City staff of additionally known field conditions.
- 3.6 Meet with City to identify and verify known: a) major storm features within the city; b) storm outfall locations and conditions; and c) flooding or storm conveyance problem locations.
- 3.7 Incorporate into the surface water GIS geodatabase and maps the additional information provided by the CITY, provided as part of the review. Perrett will then create final surface water GIS maps and submit to the CITY.

#### ***Deliverables:***

Electronic GIS files including:

- Drainage GIS maps in ArcReader format with GIS geodatabases (CD or DVD)

### **TASK 4 STORMWATER ASSESSMENT & MODELING**

Building upon mapping of the drainage basins and major surface water features within the service area, as described Tasks 2 and 3, prepare a site assessment for identification of anticipated future inadequacies or existing inadequacies in the stormwater system, as described in the subtasks listed below. This assessment will evaluate both the developed and undeveloped portions of the study area. The Stormwater Assessment and Modeling from CONSULTANT will include:

- 4.1 Identify locations of probable inadequacies of stormwater facilities for the undeveloped areas or partially developed areas within the study area. For the purposes of this study, the undeveloped and partially developed areas are to be identified by the CITY, but they are generally locations where the land use is less than the densities prescribed in the CITY zoning maps and where increased population density is expected to occur. This task will identify locations where probable drainage problems will occur as development in the city continues to full build-out in agreement with CITY Comprehensive Land Use Plan. Identify probable locations where major storm systems would likely be of inadequate capacity, such as natural or man-made channels, and major culverts where runoff from large areas discharge to. This is a qualitative assessment based upon a visual field observations and review of the surface water GIS mapping prepared in Task 3.

- 4.2 Conduct a field visit to visually inspect locations of major concern at a limited number of locations in the study area. The field visit is for the purpose of looking for visual indications of flooding problems or erosion, and to clarify questions that may arise during the mapping phase of the project. Budget 8 hours to conduct this limited field reconnaissance. The number of locations observed during the field visit will be limited by the budgeted hours.
- 4.3 Conduct planning level storm runoff modeling of undeveloped and partially developed areas within the study area. The modeling will be performed assuming only one future scenario at the full-buildout of the Comprehensive Land Use Plan and the maximum probable percent of impervious area within each zone. CITY will provide the maximum percent of impervious area for each proposed land use zone in accordance with the land use comprehensive plan.
- 4.4 Conduct hydrologic modeling of the major drainage basins within the developed area of the city at select locations. Specifically, modeling will be performed at select locations to determine conveyance capacity needs, potential shortcomings, or confirm adequacies. Determine peak flowrates at select locations for the 24 hour event with a probable recurrence interval of: 10-yr, 25-yr, 50-yr and 100-yr storm events. The number of locations for peak flowrate determinations will be between 6 and 8 locations.
- 4.5 Level of Service: Recommend to the CITY a storm water level-of-service standard for both conveyance, be it the 10-yr, 25-yr, 50-yr, or the 100-yr storm events, and stormwater quality. Prepare a written letter of recommendation of approximately 4 to 5 pages with a brief assessment of the issues and brief justification for the recommended level-of-service.
- 4.6 Stormwater Quality: CONSULTANT will review a previous study that has been prepared (dated Dec. 2002) that provides stormwater quality recommendations. CONSULTANT is also to prepare a brief list of probable stormwater quality treatment facilities that is the state-of-the practice in the Puget Sound region. Comparing this information with the new surface water GIS mapping, and soliciting input from CITY staff, develop a brief list of recommendations of stormwater quality treatment measures.
- 4.7 CONSULTANT will prepare a summary of results.

***Deliverables***

- Written Summary of Results (electronic and hard copy), which also includes supporting hydrologic modeling results.

**TASK 5 DEVELOP PROJECT ALTERNATIVES**

The **DEVELOP PROJECT ALTERNATIVES** from CONSULTANT will include:

- 5.1 A short-term and long-term candidate list of capital improvement projects to address drainage inadequacies in the City.
- 5.2 Develop planning level opinions of cost for construction of each of the proposed projects on the candidate list.

- 5.3 Prepare a Surface Water Improvement Plan document in the form of a technical memorandum summarizing the results, level of service recommendations, and planning level opinions of cost of candidate capital improvement projects. Information from this memorandum will be incorporated into the overall comprehensive plan being prepared Shockey Brent Inc. (consultant to the CITY).
- 5.4 Presentation of the Surface Water Improvement Plan findings and recommendations to City Council (assume 1 meeting).

***Deliverables:***

- Stormwater candidate list of capital improvement projects.
- Planning level opinions of cost for construction of the projects.
- Technical Memorandum

**CITY TO PROVIDE**

The mapping of the existing drainage systems within the project limits is a joint effort between the CITY staff and CONSULTANT. Therefore, several items need to be provided by the CITY to accomplish this work. These are listed below.

- Copies of drainage plans and reports for recently constructed and recently approved plats;
- Sketches of existing drainage system layouts, showing pipe locations, directions of flow, and storm outfalls into creeks and surface water bodies;
- Identification of know drainage problem locations and type of problems (e.g. flooding, scour, sedimentation, etc.);
- Identification of city owned and/or maintained drainage facilities, such as detention ponds, vaults, and water quality facilities. Provide copies of construction plans, and type of facility, as available in City records.

## PROJECT SCHEDULE

The project schedule is being led by the Comprehensive Plan leader consultant for the CITY, Shockey Brent Inc., to be updated in late January. The schedule is available in draft form at this time. Generally, the following milestones which we anticipate are listed in the table below.

Anticipated Completion Date	Activity	Tasks	Responsible Party
Feb. 22, '08	Survey Controls, Survey Outfalls, Survey Tie In Plats.	2.1, 2.2, 2.4	Perteet
Feb. 22, '08	Prepare Field Maps for City Recon.	3.2	Perteet
March 14, '08	Sketch Onto Field Recon. Maps the Location of Exist. Drainage Pipes, Outfalls, & City-Owned Drainage Facilities		City
April 15, '08	Submit Surface Water GIS Maps to City	3.1, and 3.3 - 3.7	Perteet
May 15, '08	Stormwater Assessment & Modeling	4.1 - 4.4	Perteet
May 22, '08	Level of Service Recommendations & Submit Written Summary of Results	4.5 - 4.7	Perteet
June 12, '08	Submit Candidate CIP List for Drainage, & Planning Level Opinions of Cost for Each.	5.1, 5.2	Perteet
July 21, '08	Submit Narrative to be incorporated into Capital Facilities Plan & Comp. Plan.	5.3, 5.4	Perteet

## ADDITIONAL SERVICES

Additional services, which are beyond the scope described herein, can be provided upon request and will be billed in accordance with our standard Schedule of Fees. A sample listing of services we can provide include:

- Detailed surveying of existing facilities
- Final stormwater comprehensive plan