



**REPORT TO MAYOR AND CITY COUNCIL**

AGENDA ITEM

TO: THE HONORABLE MAYOR  
AND CITY COUNCIL

DATE: March 18, 2008

SUBJECT: Adopt Resolution of Intent to Prepare a  
Groundwater Management Plan (GWMP)

**Report in Brief**

The proposed Groundwater Management Plan (GWMP) will address measures to monitor and manage groundwater within the service area of the City including groundwater quality degradation, inelastic land surface subsidence, changes in surface water flow and surface water quality. These elements directly affect the City's groundwater levels and quality or are caused by groundwater pumping in the basin. The proposed resolution is consistent with California legislation that establishes the framework for working cooperatively with local agencies in managing local groundwater resources and allows the City to become eligible for grants that could fund design and construction of groundwater projects administered by the California Department of Water Resources.

Staff recommends that the City Council approve Resolution No. \_\_\_\_\_ and direct staff to prepare a Groundwater Management Plan as described herein.

**Background**

In 1992, the California Legislature passed Assembly Bill (AB) 3030, which was designated to provide local public agencies increased management authority over their groundwater resources. In September 2002, new legislation, Senate Bill (SB) 1938, expanded AB 3030 by requiring GWMPs to include certain specific components in order to be eligible for grant funding for various types of groundwater related projects.

Recently, there has been an emphasis by the State for agencies to develop integrated regional solutions for water management (SB 1672), and to coordinate the management of surface and groundwater to work together toward improving regional water supply reliability and quality.

The GWMP provides the framework for coordinating groundwater management activities among stakeholders. The plan would identify the basin management goals and objectives needed to guide

efforts to effectively manage the groundwater basin as a safe and sustainable water supply. The goal of Woodland's GWMP would be to ensure the reliability of groundwater to meet current and future municipal, industrial, and agricultural purposes.

**Discussion**

The City of Woodland currently relies entirely on groundwater obtained from twenty wells located throughout the City and, currently, meets future water demands by drilling new wells. The City also has one existing above ground tank at approximately 115 feet. This tank is used to stabilize water system pressures.

The City is experiencing a trending decline in groundwater quality at a number of well sites, and this has resulted in a couple of wells being taken out of service. In December 2005, the City developed an Urban Water Management Plan to address existing City water supply sources, reliability planning and water demand management measures. However, it did not adequately address the potential threat and extent of nitrate contamination.

West Yost Associates (WYA) Consulting Engineers is currently assisting the City with its Water Focus Study which would be coordinated and incorporated into a GWMP. Therefore, WYA was asked to submit a proposal to prepare a GWMP (proposed scope of work attached). Upon adoption of this Resolution of Intent, staff will execute this consultant agreement to develop the GWMP with a focus on protecting the groundwater resources of the City to ensure local water supply reliability and acceptable water quality. Best management objectives to be investigated would also include identification of natural recharge areas, management and optimization of well field operations and identification and feasibility study of conjunctive use projects.

The GWMP will also qualify the City for grant funding opportunities administered by the State Water Resources Control Board and the Department of Health Services. Preference for these funds are given to proposals that include integrated projects with multiple benefits, improve local and regional water supply reliability, contribute towards improving water quality standards, reduce pollution and improve groundwater management. The following potential future projects could qualify for grant application if the GWMP is in place:

- Well Rehabilitation/ Blending
- Installation of Monitoring Wells
- Residential Meter Implementation Project
- Tank Replacement Project
- Surface Water Project

Results from the GWMP will be closely coordinated with the Community Development Department for related coordination of development and redevelopment initiatives and with the Finance Department prior to seeking Council approval for potential grant funding opportunities.

**Fiscal Impact**

There are no costs associated with the adoption of this Resolution of Intent. The cost of developing the GWMP is approximately \$40,000 and is budgeted in the Public Works Operations and Maintenance fiscal year budget for 2007/2008. Fiscal impacts may be identified and developed as a result of implementing groundwater management activities, such as studies and projects to mitigate groundwater contamination. If grant funding is pursued and received, the amount can be used to offset the cost of implementation of these water management activities.

**Public Contact**

Posting of the City Council agenda.

The City Council should note that the public participation process in this study is initiated through this Resolution of Intent. The Statement of Work for preparing the GWMP includes public outreach and stakeholder coordination including the preparation of written statements describing the manner in which interested parties may participate in development of the GWMP. Interagency coordination will include Yolo County, YCFCWCD, and the Water Resources Association of Yolo County and its member agencies.

**Alternative Courses of Action**

1. Approve Resolution No. \_\_\_\_\_ and direct staff to prepare a Groundwater Management Plan as described herein.
2. The Council could decide not to adopt this resolution of intent and direct staff not to pursue grant funding.

**Recommendation for Action**

Staff recommends that City Council approve Alternative No.1.

Prepared by:  
Doug Baxter, Senior Civil Engineer

Reviewed by:  
Dick Donnelly, Acting Public  
Works Director

**SUBJECT:** Adopt Resolution of Intent to Prepare a GWMP

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**ITEM:**

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Mark G. Deven  
City Manager

Attachment  
Exhibit A, WYA Proposal to prepare GWMP

CITY OF WOODLAND

RESOLUTION NO. \_\_\_\_\_

A RESOLUTION OF INTENT TO PREPARE A GROUNDWATER MANAGEMENT PLAN

WHEREAS, the California Legislature enacted Assembly Bill 3030 to provide local public agencies increased management authority over their groundwater resources and subsequently Senate Bill 1938 to expand the authority under AB 3030 by requiring Groundwater Management Plans to provide for eligibility for grant funds for groundwater related projects (Water Code Section 10750); and

WHEREAS, the State has emphasized the local agencies develop integrated regional solutions for water management and coordinating conjunctive management of surface and groundwater to improve the regional supply, reliability and quality of water; and,

WHEREAS, the City is an urban supplier of water providing water to a population over 55,000+ citizens; and

WHEREAS, the Plan will meet the State requirements in compliance with the California Water Code and will be coordinated with the Yolo County Integrated Groundwater Management Plan; and

WHEREAS, the Plan shall be periodically reviewed and the City shall make any amendments or changes to its plan which are indicated by the review; and

WHEREAS, the City's current Urban Water Management Plan adopted in 2005 addresses the current water supply, but does not address the increasing levels of nitrate found in the City's water supply; and

WHEREAS, the City has therefore, prepared and circulated for public review a draft Groundwater Management Plan, and a properly noticed public hearing regarding said Plan is to be held by the City Council on April 1, 2008; and

WHEREAS, the City of Woodland will file said Plan with the California Department of Water Resources upon adoption of the final Plan by the City Council.

BE IT THEREFORE, RESOLVED by the City Council of the City of Woodland, Yolo County, California hereby adopts this Resolution of Intent and directs staff to proceed with the development of a Groundwater Management Plan in accordance with the provisions of Senate Bill 1938 and pursue future grant funds.

ADOPTED this \_\_\_\_\_ day of \_\_\_\_\_ 2008, by the following vote:

AYES:  
NOES:  
ABSENT:  
ABSTENTIONS:

\_\_\_\_\_  
David M. Flory, Mayor, City of Woodland

Approved as to form:

\_\_\_\_\_  
Ann M. Siprelle, City Attorney

Attest:

\_\_\_\_\_  
Sue Vannucci, Director of Administrative  
Services and City Clerk

Dated: \_\_\_\_\_

February 12, 2008

Mr. Douglas Baxter  
Senior Civil Engineer  
City of Woodland  
655 N. Pioneer Avenue  
Woodland CA 95776

**SUBJECT:** Revised Proposal to Provide Engineering Services—City of Woodland  
Groundwater Management Plan Preparation

Dear Doug:

West Yost Associates (WYA) is pleased to present this revised proposal to prepare a Groundwater Management Plan (GWMP) for the City of Woodland (City). This proposal outlines our proposed scope of services, estimated costs and schedule for completion of these services.

### **PROJECT UNDERSTANDING**

The City relies entirely on groundwater obtained from 24 wells for its municipal supply. The City's service area also contains private wells used for domestic drinking water and industrial supply. Groundwater is used for domestic drinking water and agricultural supply in the surrounding areas of Yolo County. The Yolo Subbasin, which includes the City, has documented groundwater issues, including inelastic land subsidence due to groundwater withdrawal and water quality problems. Among the more significant of these water quality problems are elevated nitrate and boron concentrations and salinity levels. The City understands the importance of managing its groundwater resources to minimize the potential for future impacts and wishes to prepare and adopt a GWMP for its service area. The City and other local agencies have prepared water management documents that provide information and guidance supporting groundwater management in the Yolo Subbasin. These documents include:

- Yolo County Flood Control & Water Conservation District (YCFCWCD) Groundwater Management Plan, adopted June 6, 2006
- City of Woodland Urban Water Management Plan, adopted December 6, 2005
- Yolo County Integrated Water Resources Management Plan, adopted July 23, 2007

WYA is also assisting the City with its Water Focus Study. Some of the information developed for the Water Focus Study can also be used in the GWMP.

The City is interested in preparing and adopting a GWMP that can be used along with the existing plans to more effectively manage groundwater within its service area. The adopted GWMP needs to be consistent with relatively recent revisions to the California Water Code (CWC) resulting from Senate Bill No. 1938 (SB 1938), Machado.

### SB 1938 Requirements

SB 1938 establishes a revised framework for GWMPs with the intent of encouraging local agencies to work cooperatively to manage groundwater. SB 1938 became effective on January 1, 2003 through amendments to CWC Section 10750 *et. seq.* To be eligible for funding for construction and groundwater projects administered by the California Department of Water Resources (DWR), the CWC revisions require local agencies to:

1. Make available to the public a written statement describing the manner in which interested parties may participate in development of a GWMP, which may include appointing an advisory committee.
2. Prepare and implement a GWMP that includes Basin Management Objectives (BMOs) for the groundwater basin that is subject to the plan.
3. Include components relating to the monitoring and management of groundwater levels within the groundwater basin, groundwater quality degradation, inelastic land subsidence, and changes in surface water flow and quality that directly affect groundwater levels or quality or are caused by groundwater pumping in the basin. Consider additional components listed in CWC Section 10753.8 (a) through (l).
4. Prepare a GWMP that involves other agencies and enables the local agency to work cooperatively with other public entities whose service areas or boundaries overly the groundwater basin.
5. Adopt monitoring protocols that are designed to detect changes in groundwater levels, groundwater quality, inelastic subsidence in basins for which subsidence has been identified as a potential problem, and flow and quality of surface water that directly affect groundwater levels or quality, or are caused by groundwater pumping in the basin. The monitoring protocols should be designed to generate information that promotes efficient and effective groundwater management and supports attainment of the BMOs.
6. Prepare a map that details the areas of the groundwater basin, as defined in DWR Bulletin 118, the area that will be subject to the plan, and the boundaries of the local agencies overlying the basin.

The revised statutes apply to DWR-administered funding authorized or appropriated after September 1, 2002. Attachment A provides a proposed GWMP outline addressing the GWMP components required by the CWC and recommended by DWR.

The CWC identifies key milestones in preparing the GWMP. These are:

1. Issue a public notice in advance of a hearing on whether or not to adopt a resolution of intent to prepare a GWMP.

2. Hold a public hearing on whether or not to adopt a resolution of intent (first hearing). The hearing could be part of a City Council meeting.
3. Adopt the resolution of intent at the City Council meeting after hearing public comment.
4. Issue a public notice announcing the adopted notice of intent (to be provided to any person on written request).
5. Prepare and adopt the GWMP within two years of adopting resolution of intent.
6. Issue public notice in advance of hearing on whether or not to adopt the GWMP.
7. Hold public hearing on whether or not to adopt the GWMP and to consider protests (second hearing). The hearing can be held in conjunction with a City Council meeting.
8. Adopt the plan within 35 days of second hearing, if a majority protest has not been filed.

### **PROPOSED SCOPE OF WORK**

WYA proposes to perform the following scope of work leading to an adopted GWMP consistent with the CWC Section 10750 *et. seq.* requirements outlined above. The following tasks are proposed:

- Task 1 – Perform Public Outreach and Stakeholder Coordination
- Task 2 – Develop Groundwater Management Goal and Basin Management Objectives
- Task 3 – Prepare Groundwater Management Plan

These tasks are described in detail below.

### **TASK 1 – PERFORM PUBLIC OUTREACH AND STAKEHOLDER COORDINATION**

Effective development of the GWMP will depend on the public outreach and education efforts. Public outreach and education provide the means for the City to understand the needs and concerns of stakeholders (those who may be impacted by the GWMP, often being individuals or entities that are using the groundwater resources) and stakeholder entities with groundwater management responsibilities. Education and outreach efforts also provide the means to educate the stakeholders and management entities about the City's groundwater management activities. WYA will prepare a written statement describing the process that the City plans use to inform the basin stakeholders and the public. Basin stakeholders that may have interest in the GWMP include:

- Yolo County
- YCFCWCD
- Water Resources Association of Yolo County and its member agencies

*Work Products:* Public education and outreach items to be prepared by WYA are as follows:

- Preparation of a public notice 30 days in advance of a public hearing on whether or not to adopt a resolution of intent to prepare a GWMP (per CWC)
- Preparation of a written statement describing the manner in which interested parties may participate in development of the GWMP (per CWC)

## **TASK 2 – DEVELOP GROUNDWATER MANAGEMENT GOAL AND BASIN MANAGEMENT OBJECTIVES**

Under this task WYA will assist the City in developing an overall groundwater management goal and supporting BMOs. WYA will assist the City in developing a statement of the overall purpose or goal of its groundwater management efforts. This statement of purpose or overall goal should include language pertaining to:

“maintaining a long-term, sustainable, reliable supply of high quality groundwater for beneficial use in the City of Woodland service area.”

The City shares the groundwater basin with other stakeholders. Groundwater production by the City has the potential to affect these stakeholders and vice versa. Possible adverse impacts could include:

- Progressive decline in groundwater elevation and reduction in groundwater storage
- Inelastic land subsidence
- Increased pumping costs
- Degradation of groundwater quality due to pumping-induced movement of naturally occurring low quality water, spread of contamination or other reasons
- Reductions in surface water flow and associated ecological affects

Consideration of these or other definitions of adverse impacts will be used to develop BMOs and criteria for management of the portion of the groundwater basin beneath the City service area.

BMOs are the objectives set to support the overall goal of maintaining a long-term, sustainable, reliable supply of acceptable quality water for beneficial use within the City service area. BMOs are the means of identifying and prioritizing the most important issues in meeting water resources needs. BMOs can range from being entirely qualitative to entirely quantitative. Each BMO should have a criterion or threshold, which can be used to assess progress towards the BMO and trigger management actions. Complying with the groundwater management plan components required under SB 1938 results in the establishment of BMOs for the management of:

- Groundwater elevations
- Groundwater quality degradation
- Inelastic land subsidence

- Changes in surface water flow and quality that directly affect groundwater levels or quality, or are caused by groundwater pumping in the basin.

WYA will work with City staff to establish BMOs and preliminary thresholds based on evaluation of historical monitoring data. WYA will link the BMOs to management actions that are planned or triggered to attain the BMOs and the overall groundwater management goal during development of the GWMP.

The overall management goal and BMOs will be developed in a series of three workshops with City staff. WYA will prepare a draft management objective, draft BMOs, supporting rationale and technical bases and distribute these to City staff prior to the first workshop. Following each workshop, WYA will update the management objective and BMOs and redistribute them to City staff for further consideration. After the first workshop the management goal and BMOs will be considered sufficiently well defined to begin development of the draft GWMP.

*Work Products:* Technical bases and rationale supporting overall groundwater management goal and BMOs. Working drafts of the overall groundwater management goal and BMOs to be used during development of the draft GWMP.

### **TASK 3 – PREPARE GROUNDWATER MANAGEMENT PLAN**

This task will entail preparation of the GWMP for adoption by the City Council. The GWMP will be prepared by WYA with input from City staff following guidelines provided in DWR Bulletin 118: California's Groundwater – Update 2003. Development of the GWMP will begin after working drafts of the City's overall management objective and BMOs have been reviewed by City staff under Task 1. The GWMP will be developed in consultation with City staff. Attachment A provides a proposed outline for the GWMP and a summary of the CWC-required and DWR-recommended components of the GWMP. The summary indicates the section of the outline in which each component is addressed. The heart of the GWMP is Section 3.0. This section will state the overall management goal, describe the supporting BMOs and document the GWMP components that collectively support achievement of the BMOs. The GWMP development process will also address the following items from DWR Bulletin 118.

**Advisory Committee.** The City may choose to form an advisory committee to coordinate the planning process and its implementation, and facilitate periodic review of the groundwater management plan.

**Management Area Definitions.** Management areas and sub-areas may be defined based on physical, institutional and legal boundaries. BMOs may be developed down to the level of the individual management areas using a process that accounts for overlapping spheres of influence and the cumulative effects of groundwater production by multiple stakeholders.

**Clear Linkage of Goals, BMOs and Actions.** The GWMP will clearly state the goals and provide links between these goals, the supporting BMOs and actions that are planned or triggered to attain the BMOs.

**Describe the Plan Monitoring Program.** Attachment A contains the proposed outline for the GWMP based on the CWC Section 10750 *et. seq.* requirements. The proposed outline is intended to be used as a template that can be tailored to City's needs. Table A-1 lists the required and recommended groundwater management plan components indexed to the proposed outline.

**Integration of Water Management Planning Efforts.** The GWMP will be written to integrate the City's planning efforts with other regional efforts. These could include Yolo County planning efforts and efforts undertaken by YCFCWCD, the Water Resources Association of Yolo County and its member agencies.

**Reports on Implementation.** WYA will develop the proposed general format and schedule for issuing periodic reports summarizing the condition of the groundwater basin within the City's service area, results of management actions, and recommendations for future actions.

**Periodic Evaluation of the GWMP.** WYA will develop a proposed schedule for review and update of the GWMP by the City's Advisory Committee, as conditions evolve and new information about the groundwater basin is obtained. The review process will also include evaluation of the management actions taken by City to determine whether similar actions could be expected to be successful in the future.

*Work Products:* A draft of the GWMP will be prepared for review by City staff. After incorporating comments, WYA will prepare an administrative draft version of the GWMP that will be distributed to stakeholder agencies for review. After incorporating stakeholder comments, the revised draft GWMP will be redistributed to City staff and stakeholders to verify that all comments are appropriately addressed. WYA will then issue the revised draft GWMP to the City for public review. After a 30-day review period the GWMP will be finalized by WYA and submitted to the City for adoption.

## **SCHEDULE**

The proposed project schedule is shown on Figure 1.

## **PROJECT COST INFORMATION**

We propose to perform these services on a time and materials basis in accordance with our standard company billing rate schedule, included as Attachment B. Our estimated budget for the scope of work is summarized in Table 1. We will not exceed \$40,000 without prior written authorization. A detailed estimate of labor hours and costs to perform the proposed scope of work is included as Attachment C.

**Table 2. Proposed Budget**

Description	Cost, dollars
Task 1 – Perform Public Outreach and Stakeholder Coordination	7,200
Task 2 – Develop Groundwater Management Goal and Basin Management Objectives	13,600
Task 3 – Prepare Groundwater Management Plan	19,200
Total	40,000

Please call me at (530) 792-3276 to discuss this proposal. We look forward to continuing to support your groundwater management efforts.

Sincerely,

WEST YOST ASSOCIATES



Kenneth Loy  
Principal Hydrogeologist

KLL:nmp

attachments

Filename: Exhibit A to Prof Services Agreement WYA GWP  
2008  
Directory: C:\Documents and Settings\aokupe\Local  
Settings\Temporary Internet Files\OLK9F  
Template: C:\Documents and Settings\aokupe\Application  
Data\Microsoft\Templates\Normal.dot  
Title: MEMORANDUM  
Subject:  
Author: Shanna Hastings  
Keywords:  
Comments:  
Creation Date: 2/15/2008 11:21:00 AM  
Change Number: 3  
Last Saved On: 2/15/2008 11:23:00 AM  
Last Saved By: Current User  
Total Editing Time: 5 Minutes  
Last Printed On: 3/4/2008 11:12:00 AM  
As of Last Complete Printing  
Number of Pages: 7  
Number of Words: 2,253 (approx.)  
Number of Characters: 12,846 (approx.)