OF THE STATE OF

CHRIS CHRISTIE

KIM GUADAGNO Lt. Governor

State of New Jersey

Highlands Water Protection and Planning Council 100 North Road (Route 513) Chester, New Jersey 07930-2322 (908) 879-6737 (908) 879-4205 (fax) www.highlands.state.nj.us



JIM RILEE
Chairman

MEMORANDUM

To: Council Members

From: Margaret Nordstrom, Acting Executive Director

Subject: Resolution – Authorizing Contract Modification for Water Use and

Conservation Management Planning

Date: 5/6/2014

In 2009, pursuant to Resolution 2009-26, the Council established a grant program to help Highlands municipalities and counties develop Water Use and Conservation Management Plans (WUCMPs). At that time, the Council established a funding level of \$1,000,000. That figure was broken down as follows: \$500,000 was authorized for a contract to retain the consulting firm of CDM Smith to assist the staff in the preparation of WUCMPs in ten pilot project areas; and the remaining \$500,000 was authorized to permit the Executive Director to establish and implement a process for the solicitation and distribution of grants or other support to Highlands municipalities and counties regarding areas not in the initial pilot areas.

Since that time, CDM Smith has been very helpful to the staff, and has developed considerable expertise in this area. There are additional subwatershed areas that are appropriate for further study, and we are in need of assistance to move this program forward.

For the reasons more fully set forth in the May 5, 2014 memo from staff (attached), we are recommending that the Council adopt the attached resolution which would allow for the retention of CDM Smith for an additional \$150,000 to help support efforts to complete remaining work needed in connection with the WUCMP program.

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JIM RILEE

Chairman

MEMORANDUM

To: Budget & Finance Committee

From: Margaret Nordstrom, Acting Executive Director

Subject: Committee Meeting Minutes – May 8, 2014

Date: May 8, 2014

A Budget and Finance (B&F) Committee was held on Thursday, May 8, 2014 at 3:06pm at the Highlands office in Chester. Committee Members present: Committee Chair Holtaway, Council Chairman Rilee (via phone) and Member James (via phone).

Staff Members present: Margaret Nordstrom (via phone), Andy Davis, Chris Danis, Jim Hutzelmann, and Annette Tagliareni.

Also present: Peter Simon, Assistant Counsel, Governor's Authorities Unit (via phone).

Committee Chair Holtaway opened the meeting for discussion on the following item on the agenda:

<u>Approval of Contract Modification for Water Use and Conservation Management Planning – CDM</u> Smith

Chairman Holtaway presented the memo from the staff that recommends the modification of the existing contract with CDM Smith to provide technical assist the Council in the preparation of Water Use and Conservation Management Plans (WUCMPs).

Chris Danis and Jim Hutzleman provided a detailed explanation of the WUCMP process, and described the detailed nature of the data gathering and analyses necessary to prepare workable WUCMPs. They further discussed the benefits to the Council of retaining the existing firm (CDM Smith) due to their expertise and knowledge in this area.

Committee Member James requested legal advice with respect to the validity of the 2009 resolution that initially established the WUCMP program, and provided for the award of the original contract.

Chief Counsel Davis indicated that the 2009 resolution was still in effect, and that it was within the Council's prerogative to modify it for the purposes as recommended by staff.

Council Chair Rilee asked about the assumptions that would be used in the analyses going forward, and staff responded that by extending this contract to provide technical assistance to the Highlands staff, this will enable better, more robust gathering of data, and in turn, allow for more precise and custom tailored WUCMPs to be developed.

There was further discussion regarding the original award of the contract to CDM Smith, and staff indicated that this was as a result of an RFP issued several years ago, and that there were approximately five (5) responding entities. Committee Chair Holtaway commented that he was comfortable that this firm was vetted several years ago, and he and the other Committee Members agreed that it made fiscal sense to go forward with this contract modification.

Committee Chair Holtaway made a motion to approve a contract modification for water use and conservation management planning for Council's consideration at the May 15, 2014 meeting, Member James seconded the motion and all approved.

The Budget and Finance Committee adjourned at 3:27pm.



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JIM RILEE

Chairman

MEMORANDUM

To: Margaret Nordstrom, Acting Executive Director

From: Christine Danis, Director of Planning and Science

Jim Hutzelmann, Water Resource Engineer

Subject: CDM Smith - Water Use and Conservation Management Plan Program

Contract Modification

Grant Number 10-032-012-0000

Contract No. 2009-002

Date: May 5, 2014

CDM Smith is a nationally recognized consulting and engineering firm that provides integrated solutions in water resources and the environment, with an in-depth knowledge of the watersheds and water availability in northern New Jersey and the Highlands Region. The Highlands Council has an existing contract with CDM Smith to aid the Highlands Council with technical assistance in the development of guidance, methodologies, and model documents regarding Water Use and Conservation Management Plans (WUCMPs) for several municipalities in the Region, which address the requirement of the Highlands Restoration: Water Deficits program in Chapter 5 of the Regional Master Plan (RMP). WUCMPs are a critical planning tool specified in the goals, policies and objectives of the RMP as well. The Highlands Council has the need for CDM Smith's specialized professional and technical expertise in order to implement the RMP requirement for implementing the WUCMP program. As a result of CDM Smith's exceptional knowledge of the Highlands WUCMP Program and unique program methodologies, staff would like to modify the existing contract to allow for additional technical assistance to the Highlands Council staff and for municipalities implementing Water Use and Conservation Management Plans beyond the realm of the several pilot subwatersheds. It is the logical next step in the WUCMP grant program and critical to municipalities in implementation of resource plans beyond Plan Conformance. Both the existing scope of work and 2009 contract hourly bill rates remain unchanged and the contract modification details are attached.

The current program with CDM Smith was authorized by Resolution 2009-26 for an amount not to exceed \$1,000,000, with no more than \$500,000 to be used to develop a WUCMP Pilot program for ten project areas affecting up to twenty HUC 14 watersheds. Initially, there were 9 pilot project study areas involving 17 municipalities, who were granted \$5,000 each to participate. The contract completion date was extended with no-cost time extensions and the scope modified once to address a tenth study area in the pilot program, bringing the not-to-exceed contract amount to \$508,300¹.

To date, the entire amount of the existing contract has been encumbered and the firm is producing deliverables on behalf of Highlands municipalities. The contract has been in place since 2009, and to date, the firm has been compensated \$431,697.84.. However, remaining work is anticipated for both the pilot towns and non-pilot subwatersheds in the Highlands Region that is beyond the existing contract. Therefore, a contract modification is recommended to assist staff and municipalities with this ongoing technical work.

With reference to the remaining \$500,000 available to advise and assist the Highlands Council, \$85,000 has been allocated to the 17 municipalities in the pilot project program for technical reviews by municipal consultants (\$5,000 to each municipality). We propose to use \$150,000 for direct technical assistance and guidance to Highlands staff, and \$265,000 to remain for non-pilot municipalities for technical assistance in developing WUCMPs not envisioned during their Plan Conformance petition approvals. Currently 30 municipalities have a task included in their Plan Conformance Grant to develop and implement WUCMPs. CDM will provide technical assistance to these municipalities from the approved Plan Conformance Grant Program funds for the development of a WUCMP as part of the approved Highlands Council Technical Assistance Scope of Work (attached). CDM Smith has already provided technical assistance to one of these municipalities under the existing contract.

In the case at hand, the complexity of developing WUCMPs by CDM Smith and the Highlands Council was unexpected and the need to complete the tasks based on the existing scope of work as outlined in the contract are necessary for municipal compliance with the RMP.

For the reasons stated above, we recommend that the Council authorize the modification of the current contract with the funding allocations as presented in this memorandum to allow for the completion of the attached scope of work..

Resolution 2009-26 also provides that "the Executive Director may authorize additional amounts under this contract pursuant to [his] authority under the Highlands Council Bylaws." The Bylaws, at Section 5(g), grant the Executive Director the authority to approve payments for goods and services up to \$25,000. Accordingly, the Executive Director exercised his authority, as provided for in Resolution #2009-26 and the Highlands Council Bylaws, to increase the grant contract to include the additional funds and set the contract to a not-to-exceed amount of \$508,300

Highlands Council Water Use and Conservation Management Plan (WUCMP)

Scope of Work

Overview

The Highlands Regional Master Plan (RMP) requires that conforming municipalities develop a Water Use and Conservation Management Plan (WUCMP) that reflects the policies and objectives of the RMP. Specifically, conforming municipalities are required to develop Water Use and Conservation Management Plans "that will set priorities for the use of available water (where net water availability is positive) and will establish methods to reduce and, where feasible, eliminate deficits where they exist".

One of the highest priority objectives described in the RMP is to restore and protect water resources within the Highlands Region. The development of WUCMPs specific to HUC14 subwatersheds is intended to address the requirements of this objective in a practical way that is applicable to each subwatershed.

The RMP provides a method for determining how much water is routinely available for human use, as differentiated from water available for maintenance of ecosystem integrity and for maintenance of minimum levels in reservoirs and other surface water. The method determines Net Water Availability for each HUC14 subwatershed. Where Net Water Availability is positive, future human use of water supply is supported. Where Net Water Availability is negative, action is needed to address the deficit.

Net Water Availability varies greatly from one area within the Highlands Region to another. Some areas have a water surplus. Other areas are in significant deficit. To reduce or eliminate the water deficits within the Region, Water Use and Conservation Management Plans are required under RMP Objective 2B8c:

Water Use and Conservation Management Plans shall be required through municipal Plan Conformance for all subwatersheds to meet the policies and objectives of Goal 2B, to ensure efficient use of water through water conservation and Low Impact Development Best Management Practices, and to avoid the creation of new deficits in Net Water Availability. Where developed for Current Deficit Areas, the plans shall include provisions to reduce or manage consumptive and depletive uses of ground and surface waters as necessary to reduce or eliminate deficits in Net Water Availability, or to ensure continued stream flows to downstream Current Deficit Areas from Existing Constrained Areas, to the maximum extent practicable within each HUC14 subwatershed. Water Use and Conservation Management Plans shall demonstrate through a detailed implementation plan and schedule how and when the current deficit will be resolved in a subwatershed prior to approval for new water uses in the subwatersheds with the most severe deficits (e.g., in excess of 0.25 million gallons per day or mgd), and the plan shall be implemented prior to initiation of new water uses.

Technical Assistance

Under the existing contract, CDM Smith currently provides technical assistance to both Council staff and municipalities in the preparation of WUCMPs. Work to be performed for either Council staff or with municipalities is authorized and coordinated solely by Council staff under defined work orders.

Major Task 1 - Direct Technical Assistance

CDM Smith provides technical assistance to Highlands Council staff on an as-needed basis. At the direction of Council staff, a work order is prepared by CDM Smith for the requested work. The work order includes the specified scope of services, schedule, and not-to-exceed fee. All work under is performed in accordance with terms, conditions and fee schedule approved in 2009 via Highlands Resolution 2009-26. The hourly bill rates for CDM-Smith remain as was approved in the contract approved via Resolution 2009-26.

Potential Services under this contract may include but are not limited to, the following:

- General hydrologic and hydrogeologic consulting.
- Update wastewater discharge and water usage data, data from existing NJDEP and USGS databases.
- Compile existing location data for public supply wells, NJPDES discharges, and their updated usage data
- Perform a revised Net water availability analyses for Highlands subwatersheds (see below for details of Tasks 1-3 in the WUCMP Work Plan), according to the latest Highlands Council methodology.
- Prepare figures in GIS showing Highlands Existing Areas served for water and wastewater, sources of water diversions, and location of wastewater dischargers.
- Preparation of the WUCMP section entitled "Analysis of Net Water Availability," according to the latest Highlands Council draft WUCMP document (see below for details of Tasks 1-5a in the WUCMP Work Plan)
- Preparation of a full WUCMP, (see below for details of Tasks 1-4, and 5b in the WUCMP Work Plan),
 according to the latest Highlands Council draft WUCMP document.
- Attendance at meetings between Highlands council staff and municipal professional staff.

The contract modification allows for continued funding to be allocated to CDM Smith and authorized for direct Technical Assistance to the Highlands Council staff; this amount shall not exceed \$150,000.

Major Task 2 - Municipal WUCMP Technical Assistance

CDM Smith is currently providing technical assistance to several pilot subwatershed municipalities on behalf of the Highlands Council, which is anticipated to assist towns with the preparation of WUCMPs. At this time municipalities and subwatershed areas beyond the identified pilot areas are in need of and approved for the development of WUCMP. The WUCMP task is included in a municipality's Plan Conformance grant with the Highlands Council acting as lead agent. At the direction of Council staff, a work order is prepared by the consultant for the municipal WUCMP. The work order includes the specified scope of services, schedule, and not-to-exceed fee. In summary, the proposed contract modification provides the following:

- 1. Allows for \$150,000 direct technical assistance to Highlands staff; and
- 2. Allows for CDM Smith to provide technical support to municipal WUCMP as part of PC Grant funds with Highlands Council staff oversight based on the following
 - O Preparation of the WUCMP section entitled "Analysis of Net Water Availability," according to the latest Highlands Council draft WUCMP document (see below for details of Tasks 1-5a in the WUCMP Work Plan)

 Estimated Cost Range \$12,000 \$25,000 per WUCMP Analysis of Net Water Availability section.
 - Preparation of a full WUCMP, (see below for details of Tasks 1-4, and 5b in the WUCMP Work Plan), according to the latest Highlands Council draft WUCMP document.
 Estimated Cost Range \$35,000 \$75,000 per full WUCMP

Highlands Council Water Use and Conservation Management Plan (WUCMP) Work Plan

Task 1 – Identify Data Gaps

- Meet with the Highlands Council staff initially to review the available data for the WUCMP area and receive any additional applicable data.
- Review all data provided by the Highlands Council for the subject area. This will include water and Wastewater System Facilities and their respective Existing Areas Served.
- Review and obtain Allocation and Firm Capacity associated with potable water sources.

Task 2 – Compile Data

CDM Smith will compile data for water usage and develop the data tables for each subwatershed (HUC 14) included in the WUCMP. This will include:

- Compilation of existing NJDEP and USGS water usage data from all water supply sources within the HUC14
- Compile existing NJDEP and USGS wastewater discharge data from all permitted wastewater facilities in the HUC14
- Look up capacity information in NJDEP Water Allocation databases
- Develop tables compiling existing data for public supply wells, firm capacity, and summary of raw pumpage
- Compile wastewater discharge totals from Highlands Council database, and cross-check with NJDEP online databases if data is missing.
- Calculate Septic Returns from areas outside public wastewater service per the Highlands Council methodology, but adjusted for those areas served by septic that also are served by public supply. This adjustment reflects "imported septic return" where potable water is conveyed through a public supply service network into an HUC with no associated withdrawals.

Task 3 – GIS Analysis

CDM Smith will perform various GIS analyses to obtain necessary information in preparing the WUCMPs. This will include analysis to derive estimates of the following

- Total area of existing areas served (public supply) served
- Confirm location of water sources by HUC14 and affiliated service areas
- Confirm location of wastewater discharges and affiliated service areas

Task 4 - Complete and Format HUC Tables

The compiled data will be formatted into tables that summarize data by HUC. This data includes:

- Wastewater returns (both to groundwater and surface water)
- Month of maximum pumping
- Application of consumptive/depletive use coefficients to domestic supply and public supply

The above data is used to calculate consumptive uses associated with the following:

The above information is used to then calculate revised net water availability (and surplus for potential use downstream if applicable).

Task 5a -Prepare WUCMP "Analysis of Net Water Availability" Section

Following the completion of Tasks 1 through 4, CDM Smith will prepare the narrative for the section entitled "Analysis of Net Water Availability" in the draft WUCMP prepared by the municipality. The consultant will also prepare all figures and tables (as developed for pilot draft WUCMPs).

-OR-

Task 5b - Full WUCMP Development

Following the completion of Tasks 1 through 4, CDM Smith will prepare an entire Draft WUCMP along with the associated figures and tables (as developed for pilot draft WUCMPs).

Preparation of the full WUCMP consisting of the following information:

- 1. Introduction Purpose and Scope, WUCMP Goals and Policy Overview, and Implementation Strategy
- **2. WUCMP Area Characteristics** Identification of the Plan Study Area, including Subwatersheds, Land Use Capability and Land Cover, Land Use & Zoning, Major Hydrologic Features and Geology and Soil Properties
- **3. Identification of Water Sources and Uses –** Profile of the Sparta Twp. Water System, including Sources, Service Areas, Allocation, Firm Capacity and Remaining Firm Capacity
- 4. **Identification of Stakeholders in the Project Study Area –** Appropriate stakeholders within the study area will be identified
- **5. Analysis of Net Water Availability** Based on recent data, a calculation of net water availability and the current deficit will be performed. This will include a recalculation of the target reduction to be achieved by the implementation of water conservation and mitigation strategies developed in the WUCMP.
- 6. Summary and Ranking of Water Conservation and Deficit Mitigation Strategies Identification and Evaluation of Strategies based on their feasibility, effectiveness, resilience and reliability, reduction potential and market penetration, administrative complexity and availability of implementing entities, cost and cost effectiveness and schedule.
- 7. **Selected Strategies** Based on the above analyses, a list of the selected strategies and a discussion of the expected deficit reduction of each.

8. **Monitoring and Implementation Plan** – A summary of the overall Deficit Reduction Implementation Plan, including schedule, as well as the monitoring system established to measure progress towards the overall deficit reduction goal.

The following is an excerpt from the 2009 CDM Smith contract hourly bill rates which shall remain in effect as part of the contract modification agreement.

SCHEDULE OF HOURLY BILLING RATES

CATEGORIES	2009 HOURLY RATES						
PROFESSIONAL SERVICES:							
OFFICER	\$	197.00					
PRINCIPAL/ASSOCIATE	\$	171.00					
SENIOR PROFESSIONAL	\$	145.00					
PROFESSIONAL II	\$	125.00					
PROFESSIONAL I	\$	104.00					
PROFESSIONAL SUPPORT SERVICES							
SENIOR SUPPORT SERVICES	\$	115.00					
STAFF SUPPORT SERVICES	\$	83.00					
FIELD SERVICES							
SENIOR PROFESSIONAL	\$	109.00					
PROFESSIONAL	\$	78.00					
PROJECT SUPPORT SERVICES							
PROJECT ADMINISTRATION	\$	78.00					

These rates will be in effect through 12-31-09

RESOLUTION 2009-26

NEW JERSEY HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL APPROVAL OF GRANT PROGRAM AND CONTRACT FOR WATER USE AND CONSERVATION MANAGEMENT PLANNING

WHEREAS, on July 17, 2008, the Highlands Council adopted Resolution 2008-27 thereby adopting the Highlands Regional Master Plan (RMP); and

WHEREAS, the RMP includes a goal to protect, restore and enhance water quality and quantity of surface and ground waters (Goal 2B); and

WHEREAS, the RMP includes Objective 2B8c requiring the development of Water Use and Conservation Management Plans through municipal Plan Conformance for all watersheds in order to meet the policies and objectives of Goal 2B; and

WHEREAS, the RMP includes a resource assessment of the water availability of the Highlands subwatersheds (the 14 digit Hydrologic Unit Code or HUC14) and the net water availability has been calculated for all 183 HUC14 subwatersheds of the Highlands Region and 114 are in deficit based on usage data and applicable RMP thresholds; and

WHEREAS, on September 5, 2008, Governor Corzine issued Executive Order 114 ordering the New Jersey Department of Environmental Protection to take appropriate action to ensure that no water allocation permit is issued for any development, and no approval is given to any portion of a Water Quality Management Plan amendment, in the Protection Zone, the Conservation Zone, or the Environmentally-Constrained Sub-Zones, within a HUC14 subwatershed that is in, or anticipated to be in, a deficit of net water availability, as identified by the Highlands Plan, until such time that a Municipal Water Use and Conservation Management Plan, consistent with the policies in the Highlands Plan, has been approved by the Highlands Council and has been fully implemented; and

WHEREAS, in order to address the complexity of subwatershed planning, to develop and implement Water Use and Conservation Management Plans, and to address the mandates of Executive Order 114, the Highlands Council may provide technical and financial assistance to municipalities and counties pursuant to Section 18.b of the Highlands Act using the Highlands Protection Fund; and

WHEREAS, the Highlands Council staff recommends that the Highlands Council create a Water Use and Conservation Management Plan Grants Program in which the Executive Director is authorized to provide technical assistance and to enter into a Grant Agreement with any municipality or county and that the Executive Director be required to report at regular meetings of the Highlands Council all grants approved and the status of this grants program;

WHEREAS, to support the Highlands Council in the development of guidance and pilot projects regarding Water Use and Conservation Management Plans, on October 26, 2008 the Highlands Council prepared a Request for Proposal (RFP) seeking a firm to advise and assist the Highlands Council; and

WHEREAS, several firms submitted responses and qualifications submittals prior to the deadline of December 5, 2008; and

WHEREAS, the Highlands Council staff evaluated the proposals and qualifications of the applicants and recommends that Camp Dresser & McKee, Inc. is best suited to meet the needs articulated by the Highlands Council's RFP and further recommends that the Highlands Council authorize the Executive

RESOLUTION 2009-26

NEW JERSEY HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL APPROVAL OF GRANT PROGRAM AND CONTRACT FOR WATER USE AND CONSERVATION MANAGEMENT PLANNING

Director to enter a contract with Camp Dresser & McKee, Inc. for the development of Water Use and Conservation Management Plan consulting services;

NOW, THEREFORE, BE IT RESOLVED by the Highlands Council that:

- The Executive Director, or her designee, is hereby authorized to develop and implement a Water Use and Conservation Management Plan Grants Program in an amount not to exceed \$1 million;
- 2. The Executive Director, or her designee, is hereby authorized to enter a grant agreement under the Water Use and Conservation Management Plan Grants Program with any Highlands municipality or county;
- 3. The Executive Director, or her designee, is hereby authorized to enter into a contract with Camp Dresser & McKee, Inc. to develop a Water Use and Conservation Management Plan Pilot Project for ten pilot project areas affecting up to twenty HUC14 subwatersheds in Highlands municipalities or counties for an amount not to exceed \$500,000 of the total amount in the Grants Program, provided that the Executive Director may authorize additional amounts under this contract pursuant to her authority under the Highlands Council Bylaws;
- 4. The Executive Director, or her designee, is hereby authorized to develop and implement a process for the solicitation and distribution of grants or other support to Highlands municipalities and counties that require assistance in developing their Water Use and Conservation Management Plans regarding areas not included within the ten pilots of the Water Use and Conservation Management Plan Pilot Project, for the remaining amount in the Grants Program, provided that the Executive Director may authorize additional amounts under this agreement pursuant to her authority under the Highlands Council Bylaws; and
- 5. The Executive Director, or her designee, shall report to the Highlands Council all approved grants and the status of the Water Use and Conservation Management Plan Grants Program at regular meetings of the Highlands Council.

CERTIFICATION

I hereby certify that the foregoing Resolution was adopted by the Highlands Council at its regular meeting held on the 26th day of February, 2009.

John Weingart, Chairman

RESOLUTION 2009-26

NEW JERSEY HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL APPROVAL OF GRANT PROGRAM AND CONTRACT FOR WATER USE AND CONSERVATION MANAGEMENT PLANNING

Vote on the Approval of this Resolution	Motion	Second	Yes	No	Abstain	Absent
Councilmember Alstede						✓
Councilmember Calabrese		√	√			
Councilmember Carluccio			√			
Councilmember Cogger			√			
Councilmember Kovach			✓			
Councilmember Letts			✓			
Councilmember Pasquarelli				_		
Councilmember Peterson		-			√	
Councilmember Schrier	√		✓			
Councilmember Vetrano				:		✓
Councilmember Way			✓			
Councilmember Whitenack						✓
Councilmember Weingart			√			