

CLARK COUNTY  
STAFF REPORT

**DEPARTMENT/DIVISION:** Environmental Services / Policy and Planning / Clean Water Program

**DATE:** September 30, 2014

**REQUEST:** Authorize the Environmental Services Director to execute a contract with Otak, Inc. for professional services to complete the county stormwater manual and support hydrologic modeling associated with stormwater planning.

**CHECK ONE:** ☒ Consent ☐ Hearing ☐ Chief Administrative Officer

**BACKGROUND:** The 2013 Washington Department of Ecology National Pollution Discharge Elimination System Phase I municipal stormwater permit for Clark County (Permit) requires the county to adopt a stormwater manual technically equivalent to Ecology's 2012 Stormwater Management Manual for Western Washington by June 2015. A design team led by Otak, Inc., under RFP 590 contract #578104, prepared a draft manual which was submitted to Ecology for comment in June 2014. The county will respond to Ecology's comments, utilize Otak, Inc. and stakeholders to address technical and policy issues, revise the draft, and finalize the manual for adoption into county code. The Permit also requires the county to complete a watershed-scale stormwater plan for Whipple Creek Watershed that includes sophisticated modeling analysis beyond current staff capacity. Otak, Inc. will provide training and support to county staff performing hydrologic and water quality computer modeling required for the watershed planning tasks. Otak, Inc. was selected from available consultants on the MRSC consultant roster based on ability to both perform the continuation of work started under contract #578104 and provide the specialized modeling support necessary for the watershed planning task.

**COMMUNITY OUTREACH:**

The draft stormwater manual was developed with the assistance of Technical Advisory and Stakeholder Advisory committees, as well as general outreach via web and e-mail. Revision and adoption of the manual will include web updates, e-newsletters, stakeholder meetings, Planning Commission meetings, BOCC work sessions and public hearings. The watershed-scale stormwater planning project outreach includes a public review and comment process for major work products and the draft implementation plan. Public input will inform the final implementation plan. The county maintains a web site with information about both of these projects.

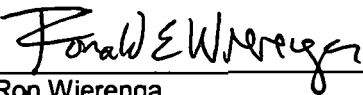
**BUDGET AND POLICY IMPLICATIONS:**

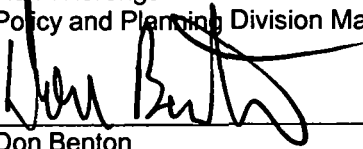
Contracted work will be an amount not to exceed \$210,000. Costs for these services are included in the approved 2013-2014 and 2015-2016 biennial budgets.

**FISCAL IMPACTS:** ☒ Yes (see Fiscal Impacts Attachment) ☐ No

**ACTION REQUESTED:** Authorize the Environmental Services Director to execute a contract with Otak, Inc. for professional services to complete the county stormwater manual and support hydrologic modeling associated with stormwater planning.

**DISTRIBUTION:** Please return the approved staff report to Environmental Services Administration.

  
\_\_\_\_\_  
Ron Wierenga  
Policy and Planning Division Manager

  
\_\_\_\_\_  
Don Benton  
Environmental Services Director

APPROVED:   
CLARK COUNTY, WASHINGTON  
BOARD OF COMMISSIONERS

9-30-14 SR 219-14

JS/RW/bt

C: file, Rod Swanson, Jeff Schnabel

Attachments: Contract, Scope of Work



## FISCAL IMPACT ATTACHMENT

### Part I: Narrative Explanation

I.A - Explanation of what the request does that has fiscal impact and the assumptions for developing revenue and costing information.

The request is to authorize the Environmental Services Director to execute a contract with Otak, Inc. for professional services to complete the county stormwater manual and support hydrologic modeling associated with stormwater planning. Contracted services will be an amount not to exceed \$210,000 over an approximate 2-year period ending October 2016. Costs for these services are included in the approved 2013-2014 and 2015-2016 biennial budgets.

### Part II: Estimated Revenues

Fund #/Title	Current Biennium		Next Biennium		Second Biennium	
	GF	Total	GF	Total	GF	Total
4420- Clean Water Fund		\$52,500.00		\$157,500.00		
Total:	\$0.00	\$52,500.00	\$0.00	\$157,500.00	\$0.00	\$0.00

II.A - Describe the type of revenue (grant, fees, etc.)

Funding for this project comes from the Clean Water Fee paid by property owners in unincorporated Clark County.

### Part III: Estimated Expenditures

III.A - Expenditures summed up

Fund #/Title	FTE's	Current Biennium		Next Biennium		Second Biennium	
		GF	Total	GF	Total	GF	Total
4420-Clean Water Fund			\$52,500.00		\$157,500.00		
Total:		\$0.00	\$52,500.00	\$0.00	\$157,500.00	\$0.00	\$0.00

III.B = Expenditure by object category

Fund #/Title	Current Biennium		Next Biennium		Second Biennium	
	GF	Total	GF	Total	GF	Total
Salary/Benefits						
Contractual		\$52,500.00		\$157,500.00		
Supplies						
Travel						
Other controllables						
Capital Outlays						
Inter-fund Transfers						
Debt Service						
Total:	\$0.00	\$52,500.00	\$0.00	\$157,500.00	\$0.00	\$0.00

## ***CONTRACT***

*THIS AGREEMENT, entered this \_\_\_\_\_ day of \_\_\_\_\_, 2014, by and between CLARK COUNTY, WASHINGTON, after this called "County," a municipal corporation of the State of Washington, and OTAK , INC., a corporation of the state of Washington, after this called "Contractor."*

### **WITNESSETH**

*WHEREAS, County is requesting professional services support to complete the county stormwater manual and to support county HSPF hydrology and water quality modeling analysis for the Whipple Creek Watershed Scale Stormwater Plan.*

*WHEREAS, Contractor is registered on the Municipal Research and Services Center of Washington consultant roster as an engineering firm.*

*WHEREAS, RCW Chapter 39.80 allows Clark County to select a qualified consultant from this list.*

*WHEREAS, Contractor completed the draft stormwater manual under RFP 590 Contract 578104, which expired in June 2014.*

*WHEREAS, Contractor experience managing the project to develop the draft Clark County stormwater manual provides unique expertise for preparing the final stormwater manual to meet stormwater manual requirements under Washington Department of Ecology NPDES phase I municipal stormwater permit Special Condition S5.C.5.a. Stormwater Controls for Development and Redevelopment.*

*WHEREAS, Contractor has the expertise to provide professional services related to HSPF watershed hydrology modeling and water quality modeling for Whipple Creek watershed planning required under the Washington Department of Ecology NPDES phase I municipal stormwater permit Special Condition S5.C.5.c. Watershed-Scale Stormwater Planning.*

*WHEREAS, County does not have available staff with the expertise to provide such services for the benefit of the County, NOW, THEREFORE,*

**THE COUNTY AND THE CONTRACTOR MUTUALLY AGREE AS FOLLOWS:**

1. Services. The Contractor shall perform services as described in Attachment A Scope of Work.
2. Time. The Agreement shall be deemed effective beginning October 7, 2014 and ending December 31, 2016.
3. Compensation. County shall pay the Contractor for performing said services upon receipt of a written invoice. The parties mutually agree that billing will be at hourly rates and other direct costs as included in Attachment A, and in no event shall the total amount of billing exceed \$210,000 without prior written approval of the County.
4. Termination. The County may terminate this Agreement immediately upon any breach of this Agreement by Contractor. The waiver by the County of one or more breaches shall not be held or construed as a waiver of any other breach or breaches. Further, County may terminate this Agreement upon immediate notice to Contractor in the event that the funding for the project, from wherever obtained, ceases or is reduced in amount. The Contractor will be reimbursed for services performed up to the date of termination.
5. Independent Contractor. The Contractor shall always be an independent contractor and not an employee of the County, and shall not be entitled to compensation or benefits of any kind except as specifically provided herein.
6. Indemnification Clause. The Contractor does release, indemnify and promise to defend and save harmless the County, its elected officials, officers, employees and agents from and against any and all liability, loss, damages, expense, action, and claims, including costs and reasonable attorney's fees incurred by the County, its elected officials, officers, employees and agents in defense thereof, to the extent asserting or arising directly or indirectly on account of or out of the negligent acts, errors, or omissions in the performance of service, or failure to perform service, by Contractor and any employee or officer, pursuant to this Agreement. In making such assurances, the Contractor specifically agrees to indemnify and hold harmless the County from any and all bodily injury claims brought by employees of the Contractor and

*expressly waives its immunity under the Industrial Insurance Act as to those claims which are brought against the County; provided, however, this paragraph does not purport to indemnify the County against the liability for damages arising out of bodily injuries to person or damages caused by or resulting from the sole negligence of the County, its elected officials, officers, employees and agents.*

*7. Wage and hour compliance. Contractor shall comply with all applicable provisions of the Fair Labor Standards Act and any other legislation affecting its employees and the rules and regulations issued thereunder insofar as applicable to its employees and shall always save County free, clear and harmless from all actions, claims, demands and expenses arising out of said act and the rules and regulations that are or may be promulgated in connection therewith.*

*8. Social Security and Other Taxes. The Contractor assumes full responsibility for the payment of all payroll taxes, use, sales, income or other form of taxes, fees, licenses, excises, or payments now required by any city, federal or state legislation, or that may be enacted during the term of this Agreement, as to all persons employed by the Contractor in performance of the work pursuant to this Agreement; and Contractor shall assume exclusive liability therefore, and meet all requirements there under pursuant to any rules and regulations that are now and may be promulgated in connection therewith.*

*9. Contract Documents. Contract documents consist of this Agreement, Attachment A hereto, and any written amendments hereto that may be adopted and signed by both parties in the future. If there is a conflict between this Agreement, including its amendments, and Attachment A, this Agreement and its amendments shall prevail.*

*10. Equal Employment Opportunity. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, handicap, marital status or national origin.*

*11. Changes. County may, from time to time, require changes in the scope of the services to be performed hereunder. Such changes, including any increase or decrease in the amount of the Contractor's*

compensation, which are mutually agreed upon by and between County and the Contractor, shall be incorporated as written amendments to the Agreement.

12. Governing Law; Venue. This Agreement shall be governed by the laws of the State of Washington. Venue for any litigation shall be in Clark County Superior Court, Washington.

13. Confidentiality. Contractor agrees to keep confidential all information relating to County, and the permit appeal, including preparation materials and communications with the County, unless authorized by County to release the information.

14. Conflict of Interest. The Contractor covenants that neither it nor any employee has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services hereunder. The Contractor further covenants that in the performance of this Agreement, no person having such interest shall be employed by it.

15. Consent and Understanding. This Agreement contains a complete and integrated understanding of the agreement between the parties and supersedes any understandings, agreement, or negotiations, whether oral or written, not set forth herein or in written amendments hereto duly executed by both parties.

16. Severability. If any provision of this Agreement is held invalid, the remainder would then continue to conform to the terms and requirements of applicable law.

IN WITNESS THEREOF, County and the Contractor have executed this agreement on the date first above written.

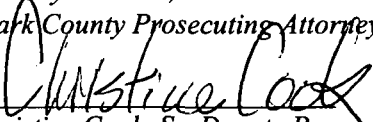
OTAK, INC.

CLARK COUNTY

By \_\_\_\_\_  
Tim Kraft, Principal, Otak, Inc.

By \_\_\_\_\_  
Don Benton, Environmental Services Director

APPROVED AS TO FORM ONLY  
Anthony F. Golik,  
Clark County Prosecuting Attorney

By   
Christine Cook, Sr. Deputy Prosecuting Attorney

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**Attachment A**  
**Scope of Work - Clark County Stormwater Code and**  
**Manual Update/HSPF Modeling Support**  
**September 19, 2014**

**I. Project Understanding**

**Task A. Clark County Stormwater Manual (CCSM) Update**

Clark County (County) currently uses a supplementary stormwater design manual in concert with the Washington Department of Ecology's (Ecology) 2005 Stormwater Management Manual for Western Washington along with a water quality BMP manual and a stormwater facility maintenance manual. The County is required by Ecology to update these manuals to be technically equivalent to the 2013 National Pollution Discharge Elimination System (NPDES) phase I municipal stormwater permit (Permit) and Ecology's 2012 Stormwater Management Manual for Western Washington (hereafter called *Ecology Manual*). Clark County has prepared an equivalent draft manual for review and approval by Ecology. The updated county manual will include all stormwater permit-required standards, including the addition of Low Impact Development requirements and will be equivalent to Ecology's stormwater manual.

Along with the manual update, Clark County will be updating county development code to remove barriers to LID BMPs.

Clark County has utilized a design team, led by Otak, to prepare a draft of the new stormwater manual. The draft manual was submitted to Ecology on June 27, 2014 for review and approval. Ecology has 90 days to review and respond with any required revisions. The County will then utilize that information and work with Otak and stakeholders to finalize the code and manual for adoption into county code. The code and manual must be effective after June 30, 2015 unless Ecology takes longer than 90 days to respond to the County.

**Objective**

The primary objective is to revise the draft manual to create the final stormwater manual for adoption by the BOCC. The final manual must be complete and ready for adoption by the BOCC to ensure full implementation by June 30, 2015.



## **Task B. HSPF Modeling Support**

On August 1, 2012, the Washington State Department of Ecology issued a 2013-2018 Phase I Municipal Stormwater Permit (Permit) that requires Clark County to select a watershed and perform watershed-scale stormwater planning. Clark County selected the Whipple Creek watershed and proposed a scope of work to Ecology in March of 2014. The objective of watershed-scale stormwater planning is to identify a stormwater management strategy or strategies that would result in hydrologic and water quality conditions that fully support “designated and existing uses”.

Ecology approved Clark County’s revised Scope of Work and Schedule for Whipple Creek Watershed-Scale Stormwater Planning (June 2014) in August 2014.

The project includes updating and calibrating an existing Otak-developed HSPF runoff model for Whipple Creek. Using the calibrated HSPF model, hydrologic changes from the historic condition will be evaluated based on the County’s proposed comprehensive plan(s) for the watershed. The calibrated hydrologic model will then be used to develop sediment and water quality models and evaluate potential stormwater management strategies designed to restore designated beneficial uses such as salmon spawning and rearing.

Clark County is contracting with Otak for training in the use of HSPF models and additional modeling support to assist County staff in completing the Whipple Creek watershed-scale stormwater planning project. Specifically, consultant services will address initial training and setup of the existing HSPF model, followed by support for completion of modeling tasks included in the approved stormwater planning Scope of Work.

### **Objectives**

The primary objectives are to provide training and on-call support for modeling tasks associated with the completion of Whipple Creek Watershed-scale Stormwater Planning.

## **II. Scope of Work**

### **Task A CCSM Update**

#### **Task A-I CCSM Finalization**

This task will include:

- Review manual and edit for clarity and to provide sufficient detail to articulate the intent of the text. Review and address edits from external stakeholders including the Technical Advisory and Stakeholder Advisory Committees.
- Suggest or respond to suggestions for revisions in manual structure to improve flow and usability.
- Make revisions to the draft manual to include required changes from Ecology equivalence review.

- Make revisions to the draft manual to include changes pursuant to the 2014 permit modification and Ecology Manual updates in response to the 2014 PCHB decision.
- Consult with internal stakeholders such as Public Works Development Engineering, Public Works Engineering Design and Community Development Building Safety and Permit Center staff for input on the final manual language and graphics.
- Assist in responding to public comments.
- Finalize all graphics to ensure that they are legible, understandable, and support manual text. For scoping purposes, creating up to 30 new graphics (using existing graphics as templates) has been assumed. All other graphics included in the CCSM will be properly cited and referenced.
- Complete project checklists for preliminary and final plan submittal and add to Book 1.
- Finalize table of contents, list of tables, list of figures, and glossary/definitions for all books, as applicable.
- Finalize all cited references and document the references.
- Update and finalize all appendices, as necessary.

**Task A-I Assumptions:**

- Otak will attend up to three (3) TAC meetings and two (2) SAC meetings, as well as County staff stakeholder discussions to clarify stakeholder input.
- The draft manual will remain in its current format - divided into four books, including multiple chapters, supporting appendices and manual introductory chapter.
- A Microsoft Word version of the Draft Clark County Stormwater Manual will serve as the base for the final manual production (prepared by Otak, June 1, 2014 with final edits by Clark County dated June 30, 2014). Clark County will provide the June 30, 2014 version to be used as the clean copy to start any revision work. Otak will track all changes, updates, and edits using Track Changes strikeout/underline function in Microsoft Word.
- Electronic versions of the manual will be provided to the County in Microsoft Word (.doc) and Adobe (.pdf) formats.
- The final manual update will be completed by February 1, 2015. The County will then begin adoption processes for the manual and associated code language prior to April 1, 2015 (to take effect June 30, 2015). This schedule will be adjusted as necessary if the Ecology equivalency review takes longer than 90 days.

**Task A-I Deliverables:**

- Final Clark County Stormwater Manual in clean and strikeout-underline formats, in appropriate digital formats as noted above.

**Task A-2 Technical equivalency memorandum**

Prepare a technical memorandum documenting all revisions made in creating the final manual, including the basis for changes and how the changes are equivalent to the Ecology manual.

**Task A-2 Deliverables:**

- Final technical memorandum document for Ecology equivalency in Word (.doc) format.

**Task A-3 Stormwater Ordinance Support**

This task includes assistance to the County in reviewing and providing feedback on the finalization of the updated stormwater ordinances. Code updates shall include, at a minimum, 13.26A and 40.386. Additional updates to relevant and complementary sections of Title 40 and for LID barrier removal may be applied.

**Task A-3 Assumptions:**

- Up to 32 hours have been provided for this task.
- County staff will prepare updates to code.

**Task A-3 Deliverables:**

- Written review comments.

**Task A-4 Stormwater Code and Manual Adoption Support**

Consultant will attend and assist in presentations at Planning Commission meetings, BOCC work sessions and public hearings.

**Task A-4 Assumptions**

- Scope includes one Planning Commission meeting, two (2) BOCC work sessions and two (2) public hearings.
- County staff will prepare all necessary meeting documents.

**Task A-5 Technical and Policy Assistance**

Otak will provide assistance in addressing technical and policy issues. This task includes the following:

- Develop justification for designation of the Columbia River floodplain as flow control exempt.
- Develop plat language for private stormwater homeowner association (HOA) formation. This will include research into language prepared by other agencies.
- Develop requirements for lot specific designs in final engineering plans. This will include research into requirements developed by other agencies.
- Develop financial criteria for LID infeasibility. This will include research into language prepared by other agencies.

- Review and revise the current requirements for off-site analysis. Consult with county development review staff as to the effectiveness of current language. Research language used by other agencies.
- Develop criteria for allowing the use of BMPs from other Ecology-approved stormwater manuals.
- Evaluate the Redmond, Washington program to accept payment to transfer MRs #5, #6, or #7 off site for inclusion in County Code.

**Task A-5 Deliverables:**

- Technical memorandum on a flow control exemption for the Columbia River floodplain.
- Draft and final language to be included on plats in regard to HOA's.
- Draft and final requirements for lot specific designs for residential subdivisions. These will be added to the CCSM.
- Draft and final requirements financial criteria for LID infeasibility. These will be added to the CCSM.
- Draft and final off-site analysis requirement language. These will be added to the CCSM.
- Draft and final criteria for the use of BMPs from other Ecology-approved stormwater manuals. These will be added to the CCSM.

**Task A-6 Project Meetings**

This task includes:

- A project kick-off meeting to discuss scope, approach to work, deliverables, milestones, schedule, and coordination.
- Project team and update meetings throughout the project duration at appropriate intervals based upon design activities. Assume a monthly meeting with additional correspondence via phone and email as necessary to address project issues. (Scope assumes 15 meetings.)

**Task A-6 Assumptions:**

- County will provide an initial schedule and contact information.
- All meetings will be held between contract start and June 30, 2015. Coordinate project schedule with County staff. Provide recommendations to adjust the schedule when needed.

**Task A-6 Deliverables:**

- Meeting minutes from all project meetings.
- Monthly status reports and invoices. Final invoice delivery by August 31, 2015.

## **Task B Support to County HSPF Modeling**

### **Task B-1 Training and Setup to Run Existing HSPF Model**

This task includes:

- Assist and train County staff to run the Whipple Creek HSPF model through BASINS (WinHSPF) or a standalone HSPF routine.
- Review with County staff precipitation, evaporation, land use, soils, and flow routing information (Ftables), to assess the accuracy and completeness of data used in the existing model.
- Train County staff in the creation of a WDM file to store time series and other data needed to run the existing and updated HSPF models, using an HSPF utility program such as WDMUtil, Saratsutility, or other appropriate method.

#### **Task B-1 Assumptions:**

- Consultant will provide up to 102 hours for this task.

### **Task B-2 Support to Develop and Calibrate Models**

County staff will perform model calibration using historical and newly collected hydrology, precipitation, and water quality data. Model performance and calibration accuracy will be described by presenting qualitative and quantitative measures, including both graphical and statistical analysis. Otak will provide support to this effort.

Otak will provide the following support to this task:

- Training, technical support, and/or research in support of Task B-2.
- Technical review of the County's model calibration memorandum.
- Technical review of the County's memorandum comparing modeled flow metrics to observed BIBI scores.

#### **Task B-2 Assumptions:**

- Consultant will provide up to 162 hours for this task.

### **Task B-3 Support to Model Baseline Scenarios**

County staff will simulate three mandatory scenarios prescribed under the Phase I permit:

- Historic landcover (simulate hydrologic condition with current stream structure).
- Existing landcover/land use (simulate hydrologic condition using the calibration model) and calculate change relative to historic landcover condition.
- Full-buildout land use under existing comprehensive land use plan and stormwater standards of the 2013 permit (simulate hydrologic, water-quality, and stream flow metrics to estimate BIBI scores).

Otak will provide the following support to this task:

- Training, technical support, and/or research in support of Task B-3.

- Technical review of the County's model results for three mandatory scenarios.
- Technical review of the County's memorandum describing modeled hydrologic changes from historical to existing conditions, and estimated water quality standard attainment under the full build-out scenario.

**Task B-3 Assumptions:**

- Consultant will provide up to 162 hours for this task.

**Task B-4 Support to Evaluate Watershed-scale Stormwater Planning Scenarios**

County staff will simulate the hydrologic, water-quality, and biological conditions in Whipple Creek for stormwater planning scenarios to define several combinations of stormwater strategies that meet the overall goal of the planning effort to restore and protect designated uses. Along with the hydrology and water quality model, an optimization model such as SUSTAIN may be used to evaluate scenarios to find the most cost-effective mix of strategies to meet the watershed scale stormwater planning objective.

Otak will provide the following support to this task:

- Training, technical support, and/or research in the use of the SUSTAIN model.
- Training, technical support, and/or research in support of scenario-modeling in the HSPF model.
- Technical review of the County's list of stormwater strategies to be evaluated.
- Technical review of the County's memorandum documenting analytical assumptions, methods, and results of the stormwater strategy evaluation.

**Task B-4 Assumptions:**

- Consultant will provide up to 162 hours for this task.

**Task C Project Management and QA/QC**

The Project Team will plan, manage, and execute the tasks described herein in accordance with the schedule, budget, and quality expectations that are established. This task includes the following work activities:

- Manage the quality control review of all work activities and project deliverables.
- Preparation and ongoing maintenance of a comprehensive schedule with individual task milestones, task duration, and responsibilities of Consultant and County staff.
- Monthly progress reports to be submitted with billings. Monthly progress reports will reflect hourly/percent complete progress for each activity and identify budget status and tasks performed to date during the billing period.

**Task C Assumptions:**

- The project will last until July 1, 2016.
- County will provide an initial schedule and contact information.

*Otak Project # 16030.E01*

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