MOSCOW
Urban Renewal Agency

AMENDED Agenda: Thursday, **October 15,**

City of Moscow Council Chambers • 206 E 3rd Street • Moscow, ID 83843

1. **Consent Agenda** - Any item will be removed from the consent agenda at the request of any member of the Board and that item will be considered separately later.

   A. Minutes from September 23, 2015
   B. September 2015 Payables
   C. September 2015 Financials

   ACTION: Approve the consent agenda or take such other action deemed appropriate.

2. **Public Comment for items *not on agenda***: Three minute limit

3. **Announcements**

4. **Sixth and Jackson Brownfield Remediation Project Phase II Contract Award – Bill Belknap**
   On September 18th, Staff transmitted a Request for Proposals (RFP) for design and construction of the shallow groundwater treatment system, liquid amendment injection and closeout reporting for what has been termed Phase II of the Sixth and Jackson Brownfield Remediation Project. One response was received from Terragraphics and Strata who provided a joint proposal with an estimated total cost of $45,835.00. This estimate is under the original estimate of approximately $58,000.00. Staff believes that Terragraphics and Strata are well qualified and capable of provided the desired services and recommends that the Board accept the proposal and award to contract to Terragraphics Environmental Engineering in the amount of $45,835.00 and authorize an addition contingency in the amount of $9,167 to be managed by Staff as deemed necessary through the design and construction process.

   ACTION: Staff recommends the following actions:
   1. Accept the design/construction professional services proposal from Terragraphics Environmental Engineering Inc. in the amount of $45,835.00 and authorize an addition 20% contingency in the amount of $9,167 to be managed by the Executive Director as deemed necessary through the design and construction process.

5. **General District Updates – Bill Belknap**
   - Legacy Crossing District
   - Alturas District

NOTICE: Individuals attending the meeting who require special assistance to accommodate physical, hearing, or other impairments, please contact the City Clerk, at (208) 883-7015 or TDD 883-7019, as soon as possible so that arrangements may be made.

Moscow Urban Renewal Agency

Minutes: September 23, 2015, 7:00 a.m.

City of Moscow Council Chambers • 206 E 3rd Street • Moscow, ID 83843

McGeehan called the meeting to order at 7:05 a.m.

Attendance:

Commission Members	Staff Present	Others
Steve McGeehan	Bill Belknap, Executive Director	Victoria Seever
Steve Drown	Gary J. Riedner, City Supervisor	Patrick Vaughan, Assessor
Brandy Sullivan	Don Palmer, Finance Director	
Art Bettge	Stephanie Kalasz, City Clerk	
Dave McGraw		
Ron Smith		

Absent: John Weber

Item 8 will be moved to after item 4.

1. **Consent Agenda** - Any item will be removed from the consent agenda at the request of any member of the Board and that item will be considered separately later.

   A. Minutes from August 26th, 2015
   B. August 2015 payables
   C. August 2015 Financials

   ACTION: Approve the consent agenda or take such other action deemed appropriate.

Bettge moved and Sullivan seconded approval of the consent agenda. Motion carried.

2. **Public Comment for items *not on agenda***: Three minute limit – No comment offered.

3. **Announcements –** Belknap welcomed Ron Smith to the Board. He also thanked Kalasz for her service to the URA. There was discussion about the URA meeting schedule. Belknap suggested that due to conflicts, the first and third Wednesdays don't work due to conflicts so he suggested the first and third Thursdays. The Board agreed. Belknap said that will start in October, beginning on the 1st.

4. **Election of Board Chair – Bill Belknap**

With the resignation of Chair John McCabe it is necessary to elect a new Board chair for the remainder of the 2015 calendar year until annual elections can occur on the first meeting in January of 2016 in accordance with the Agency Bylaws.

ACTION: Elect a new Board Chair for the remainder of the 2015 calendar year.

Bettge nominated Ron Smith as Chair. Sullivan nominated Steve McGeehan since he has stepped in and done well. McGraw said it would be good to give Smith some time to learn about the organization. Sullivan moved and Drown seconded to elect Steve McGeehan as interim Chair. Motion carried with McGeehan abstaining from the vote. Smith moved and Drown seconded Sullivan as Vice Chair. Motion carried unanimously. McGraw nominated Bettge for Secretary and Smith seconded the motion. Motion carried with Bettge abstaining from the vote.

5. **MURA Financial Account Authorized Signature Update – Bill Belknap**
   There have been several recent staff and Board officer changes that require an update to the persons who are authorized to sign for financial transactions upon the MURA financial accounts. Bill Belknap has assumed the position of Executive Director, Jeff Spellman is replacing Joelle Dinubilo who has left the employment of the City finance department, and Chair McCabe has resigned from the Board. Staff is requesting the Board to approve the authorization of Bill Belknap, Don Palmer, Jeff Spellman and the newly elected Chair as authorized signers on the MURA financial accounts.

   ACTION: Authorized Executive Director Bill Belknap, Treasurer Don Palmer, Accounting Specialist Jeff Spellman and the newly elected Chair as authorized signers on the MURA financial accounts.

Belknap said due to staffing changes as well as changes to the Board authorization changes are necessary to continue financial transactions.

Smith moved and Bettge seconded to update the signers on the URA financial accounts. Motion carried.

6. **Sixth and Jackson EPA Brownfield Cleanup Grant Application Amendment – Bill Belknap**
   In early 2013 the MURA applied for and received an EPA Brownfield cleanup grant in the amount of $115,317.00 to assist in funding the environmental remediation of the 6th and Jackson property. At that point in time it was thought that the contaminant of concern on the property was herbicides in shallow soils in selected locations upon the property. Since that time, the nature and cost of the remediation effort has changed significantly, with the new constituent of concern being nutrients in the soils located at depths of up to 15 feet below ground surface as well as shallow groundwater nutrient contamination. As such, the cost of remediation is now estimated at approximately $187,000. EPA has indicated that an additional $84,683 in funding is available to assist in the additional cleanup cost. In order to acquire the additional funding, the MURA is required to submit a request along with an updated work plan detailing the scope of the new remediation effort. No additional match is required as the Agency previously requested and received a local match waiver to reduce the local match requirement to $28,923 which includes $14,200 in cash match and the remainder in kind. Staff has prepared a revised grant request and work plan for the Board's approval. Once approved it will be transmitted to EPA for the official grant award.

ACTION: Approve the proposed revised grant request and work plan and authorize the Executive Director's signature thereon; or take other action as deemed appropriate.

Belknap provided background information regarding the clean-up grant. He said there has been one change to the financial portion of the grant which was an adjustment to in-kind staff work. The cash match and in-kind have both gone down. McGraw moved and Bettge seconded to approve the proposed revised grant request and work plan and authorize the Executive Director's signature thereon.

7. **Sixth and Jackson Remediation Project Phase I Bid Award, Land Application Memorandum of Agreement, and Construction Management/Observation Services Agreement – Bill Belknap**
   The public comment period upon Assessment of Brownfield Clean up Alternatives (ABCA) for the Sixth and Jackson site closed on Friday September 11th. No comments were received, so the Agency can now begin to move forward with the environmental remediation activities. There are four components to the first phase of the remediation effort including the construction bid award, land application site Memorandum of Agreement, construction management/observation services, and geotechnical observation and testing services.

   ACTION: Staff recommends the following actions:
   1. Approve and authorize the Chair's signature upon the proposed Memorandum of Agreement between the Moscow Urban Renewal Agency and the Developers of the Palouse for the land application and treatment of the 6th and Jackson site soils; and
   2. Accept and award the bid from Germer Construction in the amount of $73,763 for Phase I remediation activities; and
   3. Accept the professional services proposal from Terragraphics Environmental Engineering Inc. in the amount of $2,362.22; and
   4. Accept the professional services proposal from Strata for earthwork observation and testing in the amount of $1,925.00.

Belknap presented the issue as written above and explained what is involved with the project. He said one bid was received and it was within estimates. He explained where the soil that is removed would be going. The estimated cost of Phase 1 is $120,940.00 which is about $10,000 under the initial anticipated cost. He went through the proposed four actions. He discussed the timeline. There was some discussion. McGraw moved to approve all four items. Bettge seconded the motion. Motion carried unanimously. Belknap discussed the second phase of the project. Staff hopes to have the construction completed by November 20 and to be able to convey the property by January.

Smith left at 7:50 a.m.

8. **Redevelopment Association of Idaho (RAI) Report – Gary Riedner**
   Riedner distributed a letter from Elam and Burke that was written to the legislative committee addressing urban renewal agencies. He said he attended the RAI meeting last week and was voted President of the organization. He said they had presentations from the State Tax Commission. They covered tax increment financing. It opened people's eyes regarding how it works. They talked about the process for closing districts. There has been a smooth transition for Garden City as well as Alturas. He said the drama in Lewiston continues. He discussed the length of time the County's complaint has been in effect. That should be heard hopefully within the next year. He discussed the meeting held by the legislative committee

discussing urban renewal. He reviewed other items discussed by the Association. He said the Interim Committee looking at urban renewal agencies. He said public buildings built with URA funding have been a source of contention. He said there have been discussions about what would be appropriate if it is connected to economic development. They have talked about whether URA boards should be elected rather than appointment. He said Moscow is a good example of a Board because there is a County Commissioner as well as two Councilmembers. He asked the Board to review the letter and let him know if they have any ideas. The annual conference has been shifted to February and they hope to have some educational sessions for Board members.

9. General District Updates – Bill Belknap

- Legacy Crossing District
- Alturas District

Belknap said within Legacy, they are starting work on a project on the Stubbs Seed property. They also met with a developer regarding the University's property. He discussed the timeline. Gritman Medical has turned in their plans and they will have a ground-breaking tomorrow. The building will go up this fall. He met with the Sangria Group and they continue to work with their plans. Values in Legacy are a little higher than anticipated which will add a little to the coffers. There is a brownfield assessment grant open house meeting this evening at the Chamber of Commerce. He listed the six properties that were assessed.

Alturas Association meeting is today at noon and Belknap discussed some of the items that will be brought up. He explained what would be involved with changing the covenants.

The meeting concluded at 8:00 a.m.

REQUEST FOR PROPOSAL

6TH AND JACKSON GROUNDWATER REMEDIATION DESIGN/BUILD SERVICES

Moscow Urban Renewal Agency
206 E. Third Street
Moscow, ID 83843

RELEASE DATE: September 18, 2015
PROPOSAL DUE DATE: October 2, 2015

PROJECT CONTACT:
Bill Belknap, Executive Director
206 E. Third Street
PO Box 9203
Moscow, ID 83843
Phone: (208) 883-7011
bbelknap@ci.moscow.id.us

I. SECTION I. REQUEST FOR PROPOSAL FORMAT SPECIFICATIONS

All responders will follow format specifications listed below or be determined as "non-responsive" relative to Moscow Urban Renewal Agency ("Agency") review obligations.

A. Font
No less than 12 point.

B. Length
Response length shall not exceed ten (10) pages and shall include: cover, title, table of contents, graphics, photos, bibliographies, appendices and any other supporting documentation. A single page includes text and/or graphics appearing on a single side of paper. Responses exceeding the maximum number of designated pages shall be disqualified from Agency review. Resumes of proposed staff shall be excluded from length limit.

C. Margins
All responders will provide minimum one-inch (1") top and bottom margins along with minimum one-and one-half (1-1/2") left and one-inch (1") right side margins.

D. Number of copies submitted
All responders will provide one (1) print copy and one PDF digital file copy for review.

E. Submittals due
Submittals are due at the time and place as specified in Section Four. Responders failing to meet requirements of this Request for Proposals risk being defined as "non-responsive" by the Agency. The Agency has no obligation for reviewing "non-responsive" proposals.

II. PROJECT BACKGROUND

USEPA awarded the Coalition a Brownfields Assessment Grant (for hazardous substances contamination and petroleum contamination) in August 2010. The Coalition uses the USEPA grant funds to conduct environmental assessments for multiple brownfields properties, for example: along a former railroad/industrial corridor, a future industrial park property, and other negatively impacted and/or stigmatized areas. The Coalition Brownfields Assessment Grant project includes the 6th and Jackson Site. In addition, the USEPA awarded a cleanup grant to the Agency in 2013 which will fund cleanup activities at the Site.

The Site is located southwest of the intersection between W. 6th Street and Jackson Street in Moscow, Idaho, between Moscow's historic downtown district and the University of Idaho Campus. The Site is approximately 0.84 acres and mostly unpaved. The Agency currently owns the Site.

Historically, industrial agricultural businesses supported by the former railroad corridor occupied the Site. Several buildings used for storage of agricultural chemicals once occupied the Site. Most recently, a retail produce business operated on the northeast corner of the Site from about 2000 through 2010. The produce building also had a heating fuel oil UST that Tetra Tech, Inc. (Tetra Tech) removed in 2012 (Tetra Tech 2013). All other Site buildings were removed and the Site is currently vacant and unpaved, with the exception of a small paved area along the southwestern boundary.

The Agency has accepted a concept Site plan, which includes street level restaurant use, several upper-level loft apartments, and a rooftop bar/garden. Additionally, the Site concept plan includes a pedestrian-friendly walkway connecting the University of Idaho to downtown Moscow.

The selected cleanup alternative is a combination of targeted soil removal in conjunction with biodenitrification and shallow groundwater pump and treat. The soil excavation and removal is being complete under a separate contract. This RFP addresses the design and installation of the injection and extraction wells, pump and control systems, liquid amendment injection, sample collection and monitoring and closeout reporting to conclude the remediation activities.

Below summarizes the results from TerraGraphics' December 2014 soil characterization (see Appendix A for figures from TerraGraphics' 2015 Phase II ESA):

- Although arsenic (in four borings), mercury (in four borings), and lead (in one boring) exceeded the IDTL, arsenic and mercury concentrations are near background levels for eastern Washington as established in Washington State Department of Ecology's Natural Background Soil Metals Concentrations in Washington State (Ecology 1994). Lead concentrations are below the USEPA Regional Screening Level (RSL).
- DDT concentrations in soils did not exceed the IDTL. Dieldrin concentrations in soil were below the detection limit, but the detection limit was higher than the IDTL. The IDTL is based upon groundwater protection, and dieldrin was not found within groundwater samples collected on Site.
- Nutrients were found in soils at concentrations exceeding the IDTLs.
- S2-BH-7 had coloring consistent with organics and was tested for benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN) and PAHs. All concentrations were non-detect with the exception of naphthalene, which exceeded the soil IDTL at 0.405 milligrams per kilogram (mg/kg) compared to the IDTL of 0.12 mg/kg. This boring uncovered evidence of a tunnel connecting this Site to the grain silos to the south of the Site. Grain was likely transported through a conveyor belt from the silos to the flourmill previously located on Site.

Below summarizes the results from TerraGraphics' December 2014 groundwater characterization:

- Pesticides were not detected in the groundwater samples.
- Ammonia, TKN, and phosphorus (all without IDTLs) were greatest near the ASTs area of DU2, which indicates a potential source area combined with the soils concentrations within this area.
- Nitrate concentrations exceed the IDTL in the western third of the Site (DU3). Generally, the groundwater gradient direction is towards the northwest across the Site. The gradient in the southern area of the Site is towards the west in December 2014 and flows to the northwest in prior monitoring periods. The highest nitrate concentration is in the northwest corner of the Site (down gradient). The high nitrate concentration in the southwest corner of the Site may suggest the potential for offsite nitrate contributions.
- Arsenic concentrations exceed IDTL.

The selected cleanup alternative is a combination of targeted soil removal in conjunction with biodenitrification and shallow groundwater pump and treat. The soil excavation and removal is being completed under a separate contract. This RFP addresses the design and installation of the injection and extraction wells, pump and control systems, liquid amendment injection, sample collection and monitoring and closeout reporting to conclude the remediation activities.

This project is federally funded and the selected contractor shall comply with all conditions of, and all laws applicable to, and all policies, practices and procedures of the Agency applicable to, any federal, state or local grant received by the Agency or contractor at any time with respect to this contract or with respect to the provision, performance or completion of the work. Specific grant conditions applicable to this project are including in Exhibit "C".

III. PROJECT SCOPE OF WORK AND REQUESTED SERVICES

In general, the work includes all labor, materials, coordination, lab analysis, sub-contractors and consultants, and other material and labor resources required to design, install and operate the groundwater extraction and injection system and conduct the necessary liquid amendment injections and subsequent sample collection and analysis and final reporting as described within the approved Assessment of Brownfield Cleanup Alternatives and Work Plan (ABCA/Work Plan) and required under the Idaho Department of Environmental Quality Voluntary Cleanup Program (VCP). Below is a summary description of the anticipated requirements of the groundwater treatment system. A more detailed description is included within the approved ABCA/Work Plan attached as Exhibit "A". Please note that soil removal, backfill and receiving sanitary sewer connection establishment will be completed under a separate contract and those activities are not included within this Request for Proposals.

All designs shall be prepared, stamped and signed by a design professional/engineer licensed to practice within the State of Idaho.

Injection Wells

The selected contractor will install four (4) injection wells to facilitate substrate amendment injections. Wells will be constructed of 4-inch poly vinyl chloride (PVC) and the screen interval will be placed at approximately 5-10 feet below ground surface or approximately 1 foot below the sand/silty sand lithologic unit, whichever comes first. The screened interval will continue through the water bearing zone to the silty/clay at approximately 15 feet bgs. The wells will have a flush mount monument set in neat concrete from 0 to 1 foot bgs. The contractor will secure an injection well permit from the Idaho Department of Water Resources prior to construction.

Extraction Wells

The selected contractor will install three (3) extraction wells to facilitate groundwater pump and treat remediation efforts. Wells will be constructed of 4-inch PVC and the screen interval will be placed at approximately 5-10 feet bgs or approximately 1 foot below the sand/silty sand lithologic unit, whichever comes first. The extraction well discharge lines will be routed underground to an existing connect to the sanitary sewer through a permitted agreement with the City of Moscow. The selected contractor will install submersible pumps capable of variable flow up to 2 gallons per minute in each extraction well. Power for the submersible pumps shall be routed underground to a precast utility vault where the pump power supplies and a control system shall be located. Based on pump test results, the shallow groundwater system in this area can sustain approximately 0.6 gallons per minute without drawdown. To achieve an adequate radius of influence, each pump will extract a rate of 0.2 gallons per minute.

Liquid Amendment Injection

In order to facilitate the biodenitrification process, the selected contractor will inject a sodium lactate product (WILCLEAR® PLUS) into the injection well network. Owner shall furnish the WILCLEAR® PLUS Product to the contractor. The contractor will mix an amendment, WILCLEAR® PLUS, with water per the

vendor's recommended ratio, resulting a lactate/water substrate solution. Usually the ratio is approximately a 10% amendment solution. The contractor will inject the lactate/water substrate mixture into each of the four injection wells. Extraction wells will withdraw groundwater at a combined flow of 0.6 gallons per minute to impose a gradient and to facilitate substrate movement toward the northwest. Withdrawn water will be sent to the sanitary sewer for treatment at the City Wastewater Treatment Plant. Effectiveness monitoring will be used to determine the potential need for any additional injection events. Proposal cost estimates should anticipate one injection event. Cost estimates of additional injection events shall also be provided on a per-event basis.

The selected contractor will conduct groundwater monitoring from the well network to demonstrate remediation effectiveness and demonstrate compliance with cleanup levels (Table 2). Quarterly sampling will begin three (3) months following the substrate injections. During the initial quarterly sampling event, groundwater samples will be collected from the compliance well. The selected contractor will prepare and deliver a brief memorandum summarizing the results of each quarterly monitoring event two (2) weeks following each sampling event to Idaho Department of Environmental Quality (IDEQ). All proposals shall identify sampling and reporting cost on a per-event basis.

Closeout Report

The selected contractor shall prepare all necessary final report information and documentation necessary under the EPA cleanup grant and IDEQ Voluntary Cleanup Program to demonstrate compliance with the ABCA/Workplan and completion of all necessary construction work.

Treatment System Warranty, Operation and Maintenance

The selected contractor shall provide a one (1) year warranty and technical and operational support for the operation of the extraction system to ensure that the system functions for an adequate duration to achieve the required remedial effect. Such support shall include periodic inspections of the system on at least a monthly basis to ensure its continued satisfactory operation; any repairs necessary to ensure the systems continued operation and shall be provided without additional compensation for the duration of twelve (12) months after the amendment injection event.

IV. PROPOSAL AND PROJECT DATES

Proposal Due Date:	**October 2, 2015**
Estimated Vendor Selection Date:	**October 14, 2015**
Estimated Start Date:	**October 26, 2015**
Estimated Project Completion Date:	**November 20, 2015**

V. PROPOSAL REQUIREMENTS

Respondents shall submit one (1) original printed copy and one (1) digital PDF copy of their proposal to the Agency no later than the date specified herein. Said proposals shall include the information listed below. Any proposals submitted without the following information shall be deemed non-responsive and shall not be considered for award.

- Respondent's relevant technical qualifications and experience, including the proposed project manager's experience and qualifications
- Respondent's experience in similar projects including reference contact information
- Respondent's proposed installation methods, include proposed material and installation

standards and specifications

- Respondent's available resources to complete job in a competent and timely manner in accordance with the project schedule contained herein
- Respondent's estimated cost to complete the Project following the cost proposal outline below
- All subcontractors and suppliers Respondent intends to employ in the completion of the Project

Cost Proposal Outline

Respondents shall provide their cost proposal in the following format and shall provide cost estimates for each listed project component. The cost proposal shall be the basis of contract negotiations and contractor fees and compensation.

Groundwater Remediation Cost Proposal					
Item #	Item Description	Unit	Unit Cost	Quantity	Total Cost
1	Treatment System Design	LS	$	1	$
2	Construction Mobilization	LS	$	1	$
3	Permits	LS	$	1	$
4	4" Well Installation (each)	EA	$	7	$
5	Extraction pumps (3), discharge line, utility vault, and control system	LS	$	1	$
6	Amendment Injection (Per Injection Event)	EA	$	1	$
7	Sample Collection and Analysis (Per Sample Event)	EA	$	1	$
8	Project Administration and Coordination	EA	$	1	$
9	Final Closeout Report Preparation	EA	$	1	$
			Total Cost Estimate		$

VI. RESPONDENT SELECTION CRITERIA

All proposals shall be evaluated and scored upon the following criteria:

1. Respondent's relevant technical qualifications and experience, including the proposed project manager's experience and qualifications (20 Points)
2. Respondent's experience in similar projects including reference contact information (20 Points)
3. Respondent's proposed installation methods, including proposed material and installation standards and specifications (10 Points)
4. Respondent's available resources to complete job in a competent and timely manner within the specified time frame (20 Points)
5. Respondent's estimated cost to complete the Project (30 Points)

The Agency may conduct investigations as it deems necessary to assist in the evaluation of any bid and to establish the responsibility, qualifications, and financial ability of the Vendor to supply materials and/or services to the Agency's satisfaction within the prescribed time. The Agency reserves the right to reject any and all proposals, to waive any and all informalities, and the right to disregard all nonconforming, non-responsive, or conditional proposals.

The selected responder will achieve the maximum score approaching 100 points. The Agency reserves

the right to reject all proposals without cause or reason.

VII. RESPONDER NOTIFICATION

All responders will be notified by the Agency regarding selection. The Agency may elect to conduct interviews.

Following notification, the successful responder will negotiate a project fee with the Agency in accordance with the respondent's cost estimate and sign the Agency's construction contract. A draft contract is attached as Exhibit "B" and all contract terms and conditions are incorporated herein by reference.

The Agency reserves the right to terminate contract discussions if it believes the selected responder is unable to meet Agency expectations for project cost or performance. The Agency will then select an alternate responder for subsequent negotiation.

VIII. RFP TERMS AND CONDITIONS

A. VERIFY DIMENSIONS AND CONDITIONS

It is recommended that respondents visit the work site to verify dimensions and conditions so that the project cost estimate will cover all work necessary to provide the completed project.

B. FEES AND PERMITS

Contractor shall be responsible for obtaining all necessary construction permits or other permits as required for this project.

C. CODES AND STANDARDS

All local, municipal and state laws, rules and regulations governing or relating to any portion of this work are hereby incorporated into and made a part of these specifications. This project is federally funded and the selected contractor shall comply with all conditions of, and all laws applicable to, and all policies, practices and procedures of the Agency applicable to, any federal, state or local grant received by the Agency or contractor at any time with respect to this contract or with respect to the provision, performance or completion of the work. Specific grant conditions applicable to this project are included in Exhibit "C".

D. THE OWNER

Whenever the term "Owner" or "Agency" is used in the documents, it refers to the Moscow Urban Renewal Agency.

E. THE OWNER'S CORRESPONDENT

When required to correspond with the Owner, all such correspondence shall be addressed to Bill Belknap, Executive Director, PO Box 9203, Moscow, Idaho 83843.

F. THE CONTRACTOR/VENDOR

Whenever the term "Contractor" of "Vendor" is used in the documents, it refers to the Contractor or the Contractor's agents as submitted on the Project Proposal.

G. ACCEPTANCE/REJECTION

Agency reserves the right to accept or reject proposals on each item separately or as a whole, to reject any or all proposals, to waive informalities, and to contract in the best interests of the Agency. Successful Contractor shall enter into contract with the Agency within ten (10) days from date of authorization from the Agency Board.

H. ADDENDUMS

Should Agency consider it necessary to revise any part of this Request, an amendment will be made available to all interested parties registered with the Agency. All official clarifications or interpretations of the proposal documents will be by written addenda. Clarification given in any other form will be informal and unofficial.

I. ALTERNATES

The Agency may use manufacturer's brands or model designations as a specification standard. In some cases, special brands are designated for compatibility with existing facilities or equipment. Brands of equal specification, quality, performance, and use will be considered on an "or equal" basis; however, the Agency reserves the sole right in determining "equals." Offerings of alternate quality of features will, at Agency's discretion, be considered on an "alternate" basis.

J. PROPOSAL CHANGES OR WITHDRAWAL

All changes and erasures must be made before the proposal due-by date and time as indicated above, and initialed.

K. PROPOSAL COMPLETION

All proposals must include the necessary information as specified herein and be signed by an authorized representative of the Vendor. Failure to include the requisite information shall cause said proposal to be deemed non-respondent and void.

L. PROPOSAL QUOTATIONS

Unless otherwise specified, all prices shall be for new merchandise, F.O.B. destination, with shipping prepaid and included in the price of the cost estimate. Prices shall include all handling and packaging costs. Prices for equipment shall include cost of instruction and service manuals where appropriate.

M. PREPARATION COSTS

Costs incurred by Bidders in preparation of their proposal, including travel and personal expenses, may not be charged as an expense of performing the contract. The Agency shall not pay for costs incurred for proposal or contract preparation as a result of termination of this RFP or termination of the contract resulting from this RFP.

N. PROPOSALS DISCLOSURE

All proposals and other material submitted become the property of the Agency. The Agency reserves the right to use any ideas presented in response to the RFP. Public records are open to reasonable inspection by the public.

O. PROPOSER'S CERTIFICATION

By signature on their proposal, Proposers certify that they have read this Request for Proposal, are authorized to bind the Proposer, and agree to furnish the requested supplies, equipment or services in accordance with this RFP.

P. REQUIRED REVIEW

Respondents shall carefully review this solicitation for defects and questionable or objectionable material. Comments concerning defect and questionable or objectionable material must be made in writing and received by the Agency Clerk at least five (5) days prior to the deadline for receipt of proposals. This will allow for issuance of any necessary amendments/addendums. It will also help prevent the opening of a defective solicitation and exposure of vendor proposals upon which award could not be made. Protests based upon any omission, error, or the content of the solicitation will be disallowed if not made in writing at least five (5) days prior to the deadline for receipt of proposals.

OCTOBER 2015

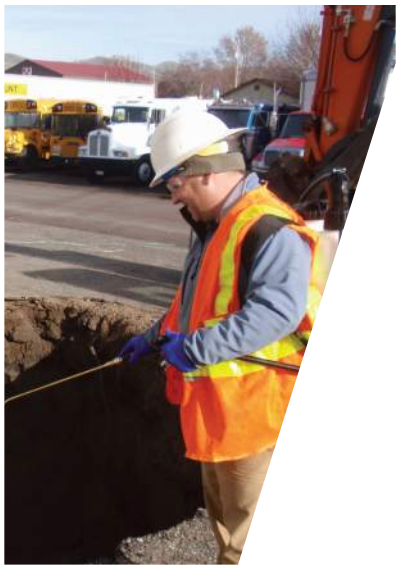
MOSCOW
Urban Renewal Agency
IDAHO

Moscow Urban Renewal Agency

RFP - 6th and Jackson Groundwater Remediation Design/Build Services Moscow, Idaho

PREPARED BY:

TerraGraphics
Environmental Engineering, Inc.
121 South Jackson
Moscow, Idaho 83843
www.terragraphics.com



TerraGraphics
Environmental Engineering, Inc.

October 2, 2015

Bill Belknap, Executive Director
Moscow Urban Renewal Agency
206 E. Third Street
PO Box 9203
Moscow, ID 83843

Subject: Proposal in Response to RFP – 6th and Jackson Groundwater Remediation Design/Build Services

Dear Mr. Belknap:

TerraGraphics Environmental Engineering Inc. is honored to submit this proposal for the 6th and Jackson Groundwater Remediation Design/Build Services. We have an exemplary record of successfully completing work similar to that outlined in the RFP. Our team is comprised of the same individuals that have directly and indirectly been working with the City of Moscow and the Urban Renewal Agency (URA) on several environmental cleanup projects over many years.

Jon Munkers has managed numerous environmental projects in Idaho and throughout the Pacific Northwest and is our proposed Project Manager on this contract. He has 17 years of management experience and brings a balanced technical approach to all his projects. His intimate knowledge of Moscow and this particular project makes him the perfect Project Manager candidate for Moscow URA.

Our headquarters have been located in Moscow for over 30 years. Therefore, we also have a vested interest in seeing our community thrive and are eager to see this Brownfield project completed as a showcase example of a successful transition to new business development. As with previous projects we've conducted with the City, you have my personal commitment that TerraGraphics will make this project successful.

Please feel free to contact me directly, or Jon Munkers (208.336.7080 or Jon.Munkers@terragraphics.com), should you need any additional information or have questions regarding our proposal. We thank you for this opportunity and are available to discuss this project further should the selection committee have any questions or wish to meet the proposed team.

Sincerely,

Jerry Lee
Principal / Chief Operating Officer

Enclosures
1 original Proposal
1 PDF digital file on flash drive

Section A. Respondent's Relevant Technical Qualifications and Experience

i. Technical Qualifications and Experience

TerraGraphics Environmental Engineering, Inc. (TerraGraphics) is a certified HUBZone small business environmental engineering corporation founded in Moscow, Idaho in 1984. TerraGraphics brings 31 years of experience supporting local communities in finding solutions to environmental challenges. Our professional staff of nearly 100 engineers, ecologists, geologists, technicians, and support personnel has the core expertise to support this project.

TerraGraphics has the capacity to provide the Moscow URA and the City of Moscow a full range of interdisciplinary services suited for the needs of this project. We have installed 100s of wells and performed cleanup at some of the nation's largest environmental sites including the Bunker Hill Superfund Site and Hanford Nuclear facility. TerraGraphics has an excellent reputation for working with a multitude of public and private stakeholders providing successful collaboration on projects like this. Our longstanding work history with the Moscow URA and the City of Moscow coupled with our intimate knowledge of this project gives us an advantage to accurately scope this project and adapt to challenges we might face as the project proceeds, ensuring we meet the project timeline for the redevelopment end use.

To best support the needs of the project, TerraGraphics has partnered with Strata to provide drilling, geotechnical, and additional geologic support. Strata and TerraGraphics have more than a decade of experience working together, and are the current support team for the Moscow URA. Together, we provide the URA with two local, long-standing, and technically capable firms with a vested interest in the local success of this project.

This Team has an outstanding record of contract completion with local, state, and federal agencies. In the last decade alone, TerraGraphics has successfully completed more than $40 million in contracted services to Idaho government agencies, and more than $5 million for federal agencies.

Our Project Team provides the Moscow Urban Renewal Agency with:

1. Firms that know this project and have a vested interest in its success;
2. Two local firms providing rapid response and efficient project implementation;
3. Over three years of experience working directly with Moscow Urban Renewal Agency, Idaho DEQ, and EPA on the City of Moscow Brownfields Program.

ii. Project Manager's Experience and Qualifications

Our Team has more than 200 scientists, engineers, technicians, planners, and administrative staff available to support this project. The Key Staff are listed below with a brief biography. Mr. Jon Munkers is our proposed Project Manager and will be the contact person with primary responsibility for this Project. Jon Munkers, is a TerraGraphics Principal and Owner with more than fifteen years of Brownfields experience. We have Ph.D., M.S., or P.E. level expertise to lead, direct, implement, and peer-review the work for this project. Principal owner involvement illustrates the commitment TerraGraphics has to the success of this project. Resumes are included in Attachment 1.

Jon Munkers – Project Manager

Jon Munkers will serve as project manager for this project. His full resume can be found in Attachment 1. Mr. Munkers has managed numerous Brownfields projects throughout Idaho and the Pacific Northwest similar to the URA's project. He has overseen similar environmental clean ups and collected thousands of environmental samples for evaluating threats to human health and the environment. He brings a balanced and practical technical approach to Idaho community projects. Mr. Munkers has worked the past year supporting the URA on the 6th and Jackson Project. Mr. Munkers has worked with many of the stakeholders (City of Moscow, URA, Idaho DEQ (state office), IDEQ (regional office), and EPA) on this project for more than a decade. This experience and familiarity with the stakeholders will provide for an efficient and effective transition into the remedial phase of this project.

Mr. Munkers oversaw the development of the remedial alternatives for this project and was one of the primary authors on the Analysis of Brownfields Cleanup Alternatives that outlined the overall remedial strategy for this project. He worked with vendors to identify the best remedial amendments proposed for this project. He also led the most recent assessment work and is familiar with the site history and environmental site challenges. This knowledge will prove valuable in the field during remedial implementation. He is intimately familiar with the needs and nuances of this project and will utilize that knowledge to ensure project success.

Supporting Mr. Munkers are three highly qualified Professional Geologists and Engineers. Dr. Robin Nimmer P.G., Mike Procsal P.G. and Josh Kannenberg P.G. Dr. Nimmer has more than a decade of experience working within the Palouse Basin and has led most all of the fieldwork at the site since 2014. Her experience includes a thorough understanding of the onsite geology and shallow ground water This knowledge is important when installing the injection/extraction wells and understanding the hydrogeologic conditions to facilitate successful amendment injections. Mike Proscal has more than a decade of experience with soil and groundwater amendment injection projects. Josh Kanneberg will be supporting this project in conjunction with the Germer Landfarm project where treatment of nutrient rich soils from this site will occur. Principal Engineer Derek Forseth will oversee design along with support from Duncan Pfeifer, a Biological and Agricultural Engineer.

Section B. Experience in Similar Projects

TerraGraphics has 31 years of experience working on environmental cleanup projects in Idaho. We are currently working on two of the largest environmental projects in the United States; at the Hanford Nuclear Reservation and the Bunker Hill Superfund Site in north Idaho. We conduct a wide range of hazardous waste management support at the Hanford facility, including overseeing multiple deep monitoring well installations in an extremely complex radiological and mixed waste environment. Our experience at the Hanford site includes overseeing the drilling on more than 30 wells, including both injection, extraction, and monitoring wells ranging in depth of 60 to more than 500 feet. TerraGraphics has also performed the site-wide monitoring, including well installation and sampling, of more than 80 wells at the Bunker Hill Superfund Site. Table 1 provides a brief summary of similar project experience.

TerraGraphics' experience includes completion of the fieldwork and development of many of the supporting reports leading up to the installation and injection of the wells at the 6th and Jackson site. Familiarity with the site-specific geology (we have already drilled six wells and advanced multiple environmental borings onsite) provides critical knowledge for the proper installation of the injection/extraction well system. In addition to the technical specifics, our project experience ensures consistency with the overall project objectives and efficiency of project implementation.

TerraGraphics' experience includes injection work similar to this project for a wide range of contaminant types. We used similar amendment types to address solvent contaminants from dry-cleaning operations for a private client in southern Idaho. We also recently conducted soil removals in conjunction with injection amendments to address petroleum contamination from an Underground Storage Tank (UST) release for a Fortune 500 company.

Most recently, Kittitas Valley Fire & Rescue (KVFR) hired TerraGraphics to provide environmental consulting services for the excavation, removal and bioremediation of contaminated soils and groundwater monitoring at the future KVFR Fire Station. TerraGraphics was responsible for excavation of contaminated soils and subsequent injections of the shallow aquifer to facilitate contaminant degradation, similar to the approaches at this site. We completed this work on an extremely fast timeline with assessment, design, approval, and remedial efforts taking place in less than three months from award. The timeline is similar to the 6th and Jackson project in that the Kittitas County Fire Station was to be constructed over the top of the remediation site. The client needed to break ground on May 1st, and TerraGraphics fast tracked this project to make it happen. As a Department of Ecology representative stated, "….the County's timeline was extremely ambitious. . . . it was amazing that TerraGraphics could pull everything together on that timeline." We will provide the URA with the same level of dedication to ensure project success.

KVFR Reference: Chief John Sinclair – 509-933-7231 sinclairj@kvfr.org

Project Title & Location	Project Experience																					
	Federally Funded Project	Installation of Wells	Permitting	Regulatory Coordination	Metal Contamination	Vapor Intrusion	QAPP/HASP/SAP	Phase II ESA	Collection of Litigation Quality Data	Sub-surface Site Investigation	Risk Evaluations/REM/ MTCA	Access Agreements	ABCA/EE-CA	Remedial Design	Installation of Remedial System	Construction Oversight	Database support	Grant Writing Support	Community Outreach	Post Remedial Monitoring	Engineering or Institutional Controls	Supporting Land Transfer
AWARe Brownfields Inventory Database, ID	✓			✓	✓		✓										✓	✓	✓			
Priest River Brownfields Project, Priest River, ID	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓			✓	✓		✓
City of Moscow Brownfields Project, Moscow, ID	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓			
Albion Normal School Brownfields Project, Albion, ID	✓			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓				✓	✓	✓
Mr. A's Dry Cleaner Brownfields Project, Twin Falls, ID	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓			✓
Ponderay Bay Trail Area Wide Assessment, Sandpoint, ID	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓			✓	✓			✓	✓
Bayhorse Brownfields Assessment & Cleanup, Challis, ID	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓
Skylark Brownfields Assessment & Design, Challis, ID	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓			✓	✓
Panhandle Health District Brownfields, Kellogg, ID	✓			✓	✓		✓	✓	✓							✓	✓				✓	✓
Jackson Street Silo Brownfields Project, Moscow, ID		✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓			✓				✓	✓
TrICA Brownfields Project, Boise, ID	✓			✓			✓	✓	✓	✓	✓		✓	✓			✓				✓	✓
Birch Plaza Petroleum Assessment & Remediation, Rexburg, ID	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓		✓			✓	✓	
Bob Bate Ford Petroleum Remediation, Cascade, ID		✓	✓	✓		✓	✓	✓	✓	✓			✓	✓	✓	✓	✓			✓	✓	
Mike's Dry Cleaners Brownfields Project, Weiser, ID		✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓		✓			✓	✓	
Moscow Railroad Corridor Phase I & II ESA, Moscow, ID		✓		✓	✓	✓	✓	✓	✓	✓												
Poky Free Bikes Brownfields Project, Pocatello, ID	✓	✓		✓	✓	✓	✓	✓	✓	✓			✓	✓		✓	✓			✓	✓	
Malad High School Brownfields Project, Malad, ID	✓			✓			✓	✓					✓	✓								
Hanford Area 200 Drilling Oversight, Richland, WA	✓	✓	✓	✓			✓	✓	✓	✓				✓								
Colville Confederated Tribes Brownfields Project, Nespelem, WA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓					✓	✓	✓			
Pik-a-Pop LUST Assessment, Sunnyside, WA	✓	✓	✓	✓				✓	✓	✓	✓											
Bunker Hill Superfund Site, Coeur d'Alene Basin, ID	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
Pet Health Clinic, Sunnyside, WA		✓	✓	✓			✓	✓		✓	✓											
CMG, Sunnyside, WA		✓	✓	✓			✓	✓	✓	✓	✓						✓					
University of Idaho Sweet Avenue, Moscow, ID		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓		✓

Section C. Proposed Installation Methods

TerraGraphics and Strata both own and maintain drill rigs designed to install the wells necessary for this project. TerraGraphics performed the initial design strategy for the well installations for this project. With time being of the essence, this familiarity with the technical needs of the project will provide for efficient scheduling and cost savings. Our Team also realizes the importance of not significantly deviating from the already approved Work Plan/ABCA because any significant deviations may trigger additional regulatory review and/or necessary time to obtain public comment.

Photo 1. Installation of injection well gallery for KVFR.

There are two separate well designs: 1) injection wells; and 2) the extraction well system. The following two sections describe the Installation methods for the two types of wells.

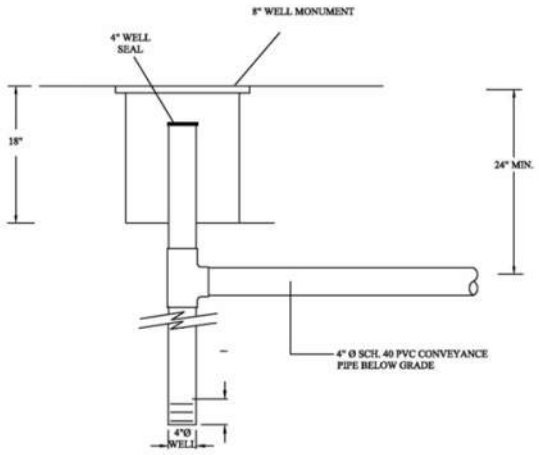
Injection Wells

According to the Work Plan the injection wells can be either 2-inch or 4-inch wells. TerraGraphics proposes using 4-inch wells to provide for greater ease of injection of the lactate amendment. We will obtain the shallow injection well permits from Idaho Department of Water Resources (IDWR) necessary for this project, and have already been in contact with Brian Ragan from IDWR, the person approving the permits, and briefed him on this project.

The TerraGraphics Team will use a Mobile B40 drill rig using 8-inch hollow stem augers to drill to an approximate depth of 18 feet below ground surface. Soils will be logged by a Professional Geologist in the field. Drill cuttings will be stockpiled along with other excavated soil and then transported to the Germer Landfarm. Wells will be installed to maximize injection into the shallow water bearing zone. Screening the wells over a specific interval is critical to ensure that the injection amendment is delivered appropriately to the targeted zone. This also ensures that the amendment does not migrate to those areas which do not require cleanup action. With a confined shallow ground water system like the one at this site, TerraGraphics will place approximately 3-5 feet of .02 slotted screen within the saturated zone below the overlying confining clays. The wells will have a flush mount monument set in neat concrete from 0 to 1 foot bgs.

Extraction Wells

TerraGraphics will install three extraction wells to facilitate groundwater pump and treat remediation efforts as outlined within the scope of work. This scope will be completed in accordance with the ABCA/Work Plan. We will utilize a Mobile B40 drill rig using 8-inch hollow stem augers to drill approximately 18 feet below ground surface. Our geologists will oversee installation of the 4-inch wells. Wells will be constructed of Schedule 40 PVC and will be screened in the water-bearing zone and sealed appropriately.



EXTRACTION WELLHEAD CONNECTION DETAIL

NOT TO SCALE

Horizontal piping will be laid in a trench approximately 2 feet deep and connect to each well head at a schedule 40 PVC "T" fitting. The "T" will allow access to the well from a vaulted monument positioned at the ground surface. The extraction wells will route underground at the well vault and connect to the sanitary sewer. Submersible pumps capable of variable flow up to 2 gallons per minute in each extraction well will be installed. Based on previous pump test results performed by TerraGraphics, we believe the shallow groundwater system in this area can sustain approximately 0.6 gallons per minute without drawdown. To achieve an adequate radius of influence, each of the 3 pumps will extract an estimated rate of approximately 0.2 gallons per minute.

Section D. Available Resources to Complete Job

Together, TerraGraphics and Strata have more than 200 scientists, engineers, and technicians to support this project. This same team is successfully supporting the URA on similar Brownfields projects throughout the City. We have worked together on a number of environmental and engineering projects providing a local, technically balanced approach, and have a vested interest in local project success for clients in the region.

Photo 2 TG Drill Rig drilling just outside of Moscow.

We have more than 40 employees locally in the Moscow, Idaho area. TerraGraphics' corporate office is located three blocks from the project site and within two blocks from the URA offices. We will be responsive and immediately available for this project. There will be no mobilization costs to support this remediation or during any of the monitoring activities for this project.

Both TerraGraphics and Strata own and operate drill rigs necessary to complete this project. This provides flexibility with scheduling as well as efficiency that translates to a cost savings for the URA. TerraGraphics maintains a 9600 PowerProbe capable of both auger and direct push drilling. Strata owns and operates a Mobile B40 auger rig capable of both auger and direct push drilling. All the associated materials (sand, bentonite, well screens, etc.) are located within our storage facility in Moscow, Idaho. This will ensure all materials are available and ready to perform the installation of the wells onsite. We will not need to rely on a sub-contractor or be beholden to sub-contracting drilling schedules for this project.

TerraGraphics maintains all the necessary equipment to perform the screening, sampling, and monitoring activities outlined within the ABCA/Workplan including PID, low-flow pumps, water quality probes, e-tapes, etc. This saves the URA money in shipping and extended rental fees and ensures the highest quality of information and consistency.

Section E. Estimated Cost to Complete the Project

Table 1 provides TerraGraphics estimated costs to complete this project. The estimate is based upon the available information within the RFP. Analytical and sampling costs will vary based upon agency requirements and variations between sampling events. For example, the first sampling event will include a baseline event that includes all wells while subsequent events will likely include a reduced number of wells and therefore reduce the level of effort. TerraGraphics recognizes that the current QAPP is under review and specifics on the monitoring need to be coordinated with IDEQ and EPAs comments. We will work with the URA to align the cost estimate with the regulatory requirements to ensure compliance with the VCP Workplan and QAPP. Our goal is a budget aligning with the scope of work, available funding, and expectations of the URA. TerraGraphics welcomes the opportunity to refine the cost estimate based upon the needs of the project and the available budget.

Table 1. Cost Estimate

Groundwater Remediation Cost					
Item #	Item Description	Unit	Unit Cost	Quantity	Total Cost
1	Treatment System Design	LS	$4,500	1	$4,500
2	Construction Mobilization	LS	$	1	$
3	Permits	LS	$500	1	$500
4	4" Well Installation (each)	EA	$2,000	7	$14,000
5	Extraction pumps (3), discharge line, utility vault, and control system	LS	$11,835	1	$11,835
6	Amendment Injection (Per Injection Event)	EA	$4,500	1	$4,500
7	Sample Collection and Analysis (Per Sample Event)	EA	$3,500	1	$3,500
8	Project Administration and Coordination	EA	$4,500	1	$4,500
9	Final Closeout Report Preparation	EA	$2,500	1	$2,500
			Total Cost Estimate		$45,835

Section F. All Subcontractors and Suppliers

TerraGraphics has teamed with Strata as a subcontractor to assist with geotechnical and drilling support for this project. We are proposing to include Anatek Labs and Analytical Science Laboratory (ASL), both Moscow, Idaho based laboratories to support this project. TerraGraphics will coordinate with Mike Siecskowski from JRW Bioremediation on amendment and application specifications.

Attachment 1 - Resumes

TerraGraphics Environmental Engineering, Inc.

Jon P. Munkers, M.S.

Principal Environmental Scientist

Education

M.B.A., (Master in Business Administration)
Boise State University, 2008

M.S., Environmental Science
University of Idaho, 2000

B.S., Chemistry/Human Biology
Lewis-Clark State College, 1998

Professional & Technical Certifications

OSHA 29 CFR 1910.120 HAZWOPER
40 Hour, 2001 and refreshers – current

Experience Summary

Jon Munkers has managed numerous environmental projects throughout Idaho and the Pacific Northwest. He has overseen and collected thousands of environmental samples for evaluating threats to human health and the environment. He has written many SAPs and QAPPs and has extensive experience with a variety of field test equipment, field and analytical protocols, and QA/QC procedures. He brings a balanced technical approach to Idaho community projects.

Mr. Munkers currently oversees Boise Regional operations. He manages a variety of projects throughout Idaho communities, many of which include mine-impacted environments with a wide range of stakeholder involvement. He has organized, led, and presented at outreach meetings where environmental issues were the focus of the discussion. Mr. Munkers has a strong human health risk assessment background and has completed additional training with the State of Idaho's Remediation Evaluation Manual (REM).

Areas of Expertise

- Brownfields Assessment
- LUST/UST Investigations
- Phase I,II, and III ESAs
- Contract Management
- Human Health Risk Assessment
- QAPPs and H&SPs
- ABCA
- Remediation Oversight
- Sampling Plans
- Groundwater Sampling
- Surface Water and Soil Sampling
- Grant Writing
- Outreach
- Financial Analysis

Project Experience

Moscow Urban Renewal Agency Brownfields Project, Moscow, Idaho, 2014 - Present

Mr. Munkers is the Program Manage for the Moscow Urban Renewal Agnecy Brownfields Assessment Grant Project. Supporting the URA to assessment a number of properties throughout the City, Mr. Munkers worked to complete Phase I ESAs, ABCAs, Workplans, Community Outreach support, and coordination with regulatory agencies. Mr. Munkers worked to develop the remedial strategy for addressing nutrient contamination at the 6th and Jackson property.

City of Ellensburg Brownfields Project, Ellensburg, Washington, 2012 - Present

Mr. Munkers is the Project Manager for the City of Ellensburg Brownfields Assessment Grant Project. This $400,000 grant will inventory potential Brownfields sites, complete Phase I ESAs, Phase II ESAs, and ABCAs on sites throughout the city of Ellensburg. Mr. Munkers will work with a wide range of stakeholders to identify landowners for participation within the program and identify potential Brownfields sites.

Pend Oreille Bay Trail (Panhandle Smelter), Bonner County, Idaho, 2011–Present

TerraGraphics is conducting a Phase II Site Investigation and risk assessment for the Zone 4 Panhandle Smelter of the Pend Oreille Bay Trail Brownfields Assessment Coalition Project. Mr. Munkers has worked with IDEQ and wide range of stakeholders in preparation for assessing the impacts from the historic Pend Oreille Smelter site near Sandpoint, Idaho. Mr. Munkers has participated in community meetings and planning efforts. The community is transforming the site into a 2+-mile trail along Lake Pend Oreille.

Bayhorse Brownfields Remediation and Cleanup, Challis, Idaho, 2006–2012

This project converted a historic ghost town mining district, contaminated by hard-rock mining waste, into a public State Park. Mr. Munkers worked with IDEQ, Idaho Department of Parks and Recreation, and a variety of stakeholders to complete the initial Phase I ESAs, as well as subsequent characterization activities, risk evaluation, and remediation at the site for conversion of Idaho's first lead smelter to Idaho's newest State Park. The Park remedial design included capping a mine tailings pile, closing a slag pile, and constructing features for a state park.

TerraGraphics prepared the site-specific Institutional Controls Program and closure reports.

IDEQ Waste Management and Remediation Division Contract, Idaho, 2009–Present (and earlier contracts)

This contract focuses on every aspect of Brownfields, LUST, and hazardous waste sites from grant writing to site characterization, risk assessment, and remedial design activities. Efforts are often coordinated with potential developers / land owners and include the integration of remedial design activities into future property use. Mr. Munkers oversees all projects under this contract, and personally works on many of them. He has completed dozens of projects where underground storage tanks have been the predominant focus of the investigation, and has managed numerous Brownfields projects ranging from abandoned dry cleaners to methamphetamine cleanups. Mr. Munkers has completed a number of risk-based evaluations (MTCA and REM) and worked on risk-based cleanups. He is familiar with a wide range of assessment tools, sampling techniques (e.g., sub-slab vapor, soil vapor, soil, groundwater), and remediation technologies (e.g., SVE, ozone sparging, passive venting, bioremediation). He has been awarded several Brownfields Assessment grants and provided public outreach and risk communication through the IDEQ Brownfields Program. He has completed SAPs, QAPPs, Work Plans, ABCAs, VCP applications, and other related Brownfields documents.

Low Level Mercury Sampling

Mr. Munkers worked with and oversaw a sampling crew in the collection of low-level mercury samples from seven different streams in Idaho. Strict sampling protocols and QA/QC measures were critical to acquire the detection limits necessary.

Study of Selenium Impacts within the Idaho Phosphate Resource Area

Mr. Munkers' research focused on environmental selenium released from a mine-impacted French drain impoundment. He studied abiotic and biotic processes associated with release and control of selenium leachate from phosphoria waste dumps in the Southeastern Idaho Phosphate Resource Area. A "green-chemistry" approach was utilized, focusing on amendments that stimulated chemical and microbial sequestration processes. Mr. Munkers worked with mining companies and various other stakeholders to collect and present his findings.

Lead Risk Assessment Comparison Study, Shoshone and Latah counties, Idaho

Mr. Munkers wrote the application for the $200,000+ HUD Lead in House Dust Assessment grant that was awarded to the Panhandle Health District for comparison of HUD and Bunker Hill lead risk assessment methods. He was the primary HUD risk assessor for that project, working with 30+ volunteer households from three different Idaho communities.

Lead Treatability Studies

Mr. Munkers coordinated with IDEQ, U.S. Fish and Wildlife Service, and the University of Idaho to conduct installation and field sampling to evaluate the success of various soil amendments on heavy metals (i.e., lead and zinc) sequestration and the subsequent limitation of biological availability. Six local citizens were employed to install the test plots.

Additional Certifications/Training

- Contaminant Chemistry and Transport Workshop. NWETC. Portland, Oregon, 2008
- International Business Week. IPADE University. Mexico City, Mexico, 2007
- PSMJ Project Management Boot Camp, August 2007
- Washington MTCA Training, 2004
- Idaho Risk Evaluation Model Training, 2004
- Certified Radon Risk Assessor, 2005 – not current
- USEPA-Accredited Lead-Based Paint Inspector/Risk Assessor, 2001 and renewals – not current
- Asbestos Building Inspector – TSCA Title II/40 CFR 763 (AHERA), 2000 and renewals – not current

Robin Nimmer, Ph.D., P.G., L.G.

Hydrogeologist

Education

Ph.D. Geology
University of Idaho, December 2005

M.S., Hydrology
University of Idaho, December 1998

B.S., Geology
University of Wisconsin, Milwaukee, December 1994

Professional & Technical Certifications

Professional Geologist
Idaho # 1400

Licensed Geologist
Washington #2907

OSHA 29 CFR 1910.120 HAZWOPER
40 Hour, 2010 and refreshers – current

Experience Summary

Dr. Nimmer is a Hydrogeologist with more than 10 years of experience in environmental site characterizations; groundwater flow and transport analysis; groundwater–surface water interactions; and groundwater, surface water, and soil sampling and monitoring. She has unique expertise with flow and transport within fractured rock environments. Her experience includes assessment and remediation of a wide range of contaminants ranging from metals to petroleum in soil, groundwater, surface water, and vapor. Dr. Nimmer's work has been published in a range of professional journals, and she has presented her work at both local and national conferences.

Areas of Expertise

- Environmental site characterization
- Contaminant transport in soil and groundwater
- Water quality monitoring programs
- Groundwater flow and transport analysis; groundwater flow in unconsolidated media as well as fractured rock
- Groundwater–surface water interactions
- Project Management

Project Experience

Bunker Hill Superfund Site, Idaho – CERCLA Site

Dr. Nimmer is the TerraGraphics project manager for this ongoing water-quality monitoring project located in the Bunker Hill Mining and Metallurgical Complex Superfund Site, Operable Unit 2. She is responsible for supervising field crews who collect groundwater samples from over 70 groundwater sites biannually. In the past, field crews sampled surface water from 20 sites biannually. She is also responsible for acquiring, recording, and assembling field and analytical data as well as preparing reports. She is also responsible for allocation of resources to perform the fieldwork, maintaining the budgets, and communicating with IDEQ, USEPA, and the USEPA contractor. Dr. Nimmer also reviews water-quality-related reports and provides technical assistance as needed.

Coeur d'Alene Basin, Idaho – Repository Sites

Dr. Nimmer has a diverse array of responsibilities related to work in the Coeur d'Alene Basin component of the Bunker Hill Superfund Site. She is the task manager responsible for overseeing groundwater and surface water quality monitoring at repositories with metals-laden soils. The repositories include East Mission Flats Repository (EMFR), Big Creek Repository (BCR), the Osburn Tailings Impoundment (OTI), and the Page Repository. The projects have operated under Dr. Nimmer's management since 2010. Dr. Nimmer is responsible for managing drilling operations, logging monitoring wells, and supervising field crews. In addition, Dr. Nimmer collects, records, and assembles field and analytical data and prepares reports.

Upper Coeur d'Alene Basin, Idaho

Dr. Nimmer is the project manager of the Coeur d'Alene Trust projects based in the upper Coeur d'Alene River basin. Projects include site investigations and monitoring at the East Fork Ninemile Basin, Waste Consolidation Area, Lower Burke Canyon Repository, Big Creek Repository Annex, and Star Complex. Project activities include well installation, geotechnical studies, surface soil sampling, rock outcrop mapping, and groundwater and surface water monitoring. Dr. Nimmer is responsible for supervising field crews, conducting logging and sampling test pits for geotechnical studies, preparing reports, and budget oversight.

Palouse Ground Water Basin Framework Project and Follow-on Projects, Idaho, 2009–2013

Dr. Nimmer was the project manager of a project in the Palouse Ground Water Basin designed to assemble existing hydrogeologic documents, synthesize the hydrogeologic information, discern the areas with data gaps, and

develop recommended projects to better understand the hydrogeology of the basin to secure the future drinking water supply. This project involved working closely with members of the Palouse Basin Aquifer Committee, comprised of representatives from the cities, counties, and universities in the Palouse Basin. Follow-on projects Dr. Nimmer managed resulted in a detailed evaluation of the recommended data-gap fulfillment projects including monitoring well siting analyses and a Quality Assurance Project Plan for the construction of monitoring wells. Work included hydrogeologic oversight of six deep monitoring wells being drilled in the Basin for the Washington State Department of Ecology/City of Pullman. An additional follow-on project was investigating surface water/groundwater interaction southwest of Pullman, Washington.

Environmental Site Assessments & Remedial Designs, 2008–Present

Dr. Nimmer has worked on several environmental projects from all aspects of the project spectrum including work plan preparation, field work (e.g., collecting soil and water samples, logging boreholes), data gathering, report writing, and project management. She has conducted Phase I and Phase II Environmental Site Assessments (ESAs) at properties with high risk for fuel, solvent, and metal contaminants including site characterizations of the contamination. Dr. Nimmer has also been responsible for managing drilling operations and logging monitoring wells. In addition, she has participated on teams that evaluated treatment methods for pesticide contamination in water and chlorinated solvent contamination in fractured rock, as well as developed remedial designs of fuel-contaminated soil.

Dr. Nimmer is currently the project manager for the City of Moscow Brownfields project involving several sites; she participates in all phases. This project entails conducting Phase I ESAs, preparing Sampling and Analysis/Quality Assurance Project Plans, and conducting Phase II ESAs.

Regulatory Knowledge

Dr. Nimmer ensures each project is conducted in compliance with all applicable regulations, codes and standards. Although her experience is primarily tied to CERCLA, RCRA, and UST regulations, she utilizes the TerraGraphics corporate services for advisement on new or unfamiliar regulations.

Additional Certifications/Training

- National Ground Water Association (NGWA) Short Course: Environmental Geochemistry of Metals: Investigation and Remediation, 2012
- National Ground Water Association (NGWA) Short Course: Low-Cost Remediation Strategies for Contaminated Soil and Ground Water, 2009
- PSMJ Project Management Boot Camp, March 2010
- AMA Women in Leadership, July 20, 2010
- First Aid/CPR Certification, American Heart Association (8-hour), 2013– expires 2015
- Wood Badge - Advanced Boy Scout Adult Leadership Training, June 2013

Special Appointments/Memberships/Affiliations

- Member – National Ground Water Association, 1995-Present
- Board Member - Palouse Basin Water Summit, 2015-Present

Derek Forseth, P.E.

Principal Engineer

Education

B.S., Civil Engineering
Washington State University, 1995

Professional & Technical Certifications

Professional Engineer
Idaho #12175, Oregon #63131
Certified Erosion and Sediment Control Lead
(WA Ecology) #5848
OSHA 29 CFR 1910.120 HAZWOPER
40 Hour, 2006 and refreshers – current

Experience Summary

Derek Forseth is a Professional Engineer with 19 years of experience successfully delivering integrated civil/environmental projects. His experience is built on public works infrastructure, utility system reconstruction, Brownfields site closures, CERCLA remedial actions, and Abandoned Mine Land cleanup. He is experienced in Remedial Action Alternatives Development, Feasibility Assessments, Economic Analysis, and Remedial Design.

Derek manages the resources of more than 40 TerraGraphics scientists, engineers, and support staff. He is a senior technical reviewer for our Montana and Idaho offices.

Areas of Expertise

- Project Manager
- Civil and Environmental Engineering
- Clean-up Alternatives Cost & Construction Analysis
- Stormwater Management
- Engineering Design, PS&E

Project Experience

Bunker Hill Mining and Metallurgical Complex Superfund Site, Idaho, 2006–2015

Mr. Forseth oversees the remediation aspects of the Basin Property Remediation Program for TerraGraphics. This program encompasses sampling, risk assessment, drafting, and remedial action oversight, as well as information management for thousands of properties in the Coeur d'Alene Basin. Mr. Forseth provides the State of Idaho with engineering technical support, and his expertise in planning, design, and construction oversight has proven invaluable on numerous projects implemented at this site. Mr. Forseth prepared the Government Gulch hazardous waste repository designs. He developed the 900,000 cubic-yard waste Repository 100-year Net Present Value cost analysis. He created the funding apportionment model for the State/USEPA $54M paved roads program and prepared cost and waste volume estimates for $15M of unpaved roads remediation. He has provided quality assurance/quality control reviews of the 1.1M cubic-yard Lower Burke Canyon Repository Design Basis Report, the Osburn Tailings Impoundment road design, 1.0M cubic-yard Osburn Tailings Impoundment Design Basis Report, and 125,000 cubic-yard Big Creek Repository north expansion design.

Mr. Forseth developed over $30M in projects for the 2010 Focused Feasibility Study for Operable Units 1, 2, and 3. He provided technical and planning support for the record-of-decision amendment, provided engineering cost estimating and technical support to the State of Idaho for Department of Justice litigation.

Priest River Former Landfill Remedial Action, Bonner County, Idaho, 2010–2012

Mr. Forseth prepared the engineered plans, specifications, and cost opinion for remediating a former unregulated rural landfill. The design included bulk waste removal and reclamation of a 60-75% grade slope, soil excavation and placement, stormwater management, protection of the adjacent scenic river, and site re-vegetation. The design was prepared in cooperation with the USEPA Region X, the City of Priest River, Priest Community Forest Connection, and the Idaho Department of Environmental Quality. Mr. Forseth provided engineering support throughout remedial action construction, maintaining cost controls and overseeing resident inspectors.

Bayhorse Townsite, Beardsley, and Pacific Mine Remediation & State Park Development, Challis, Idaho, 2006–2010

Mr. Forseth was the design leader for the project. He developed engineered plans to convert an historic ghost-town mining district, contaminated by hard-rock mining waste, into a new Idaho State Park. He provided engineering support for the Analysis of Brownfields Cleanup Alternatives. He designed a mine tailings pile cap, slag pile closure, state park appurtenances, and controls for working sites contaminated with heavy metals and arsenic. He provided construction cost estimates and assisted the Idaho Department of Parks and Recreation in bidding the project for construction. Mr. Forseth prepared the site-specific Institutional Controls Program and

Closure Report. The project received the 2009 U.S. Department of Interior Partners in Conservation Award for Cooperative Conservation Partnership.

Civil Infrastructure Projects: 2006–2015

Mr. Forseth is the Project Manager for the $16M City of Kellogg Paved Roads project. He developed the 2013 and 2014 construction packages and oversaw the field inspection team. Mr. Forseth completed stormwater drainage assessments for 9 communities impacted by mining waste. He has evaluated pump station hydraulics and control settings, worked with operators and maintenance staff to develop standard operating procedures, prepared construction documents, and developed system-wide master plans. He has prepared construction documents to the Construction Specifications Institute MasterFormat with EJCDC documents, special provisions, and technical specifications for projects constructed within contaminated sites. As the engineer of responsible charge on remedial projects, Mr. Forseth reviews contractor CPM schedules, furnishes full time resident project inspectors, leads pre-construction and weekly construction coordination meetings, reviews and authorizes contractor pay requests, conducts project walk-throughs for substantial completion, and authorizes final payment after approving closeout documentation.

Regulatory Knowledge

Mr. Forseth is a Certified Erosion and Sediment Control Lead and is knowledgeable with stormwater National Pollutant Discharge Elimination System (NPDES) regulations. He is knowledgeable about the engineering laws and rules under IDAPA 10, Idaho Code Titles 31, 54, 55, and 67. He is actively involved with CERCLA and Brownfields projects works daily under the regulatory context of Federal Programs.

Health & Safety Experience

Mr. Forseth is responsible for compliance with TerraGraphics' Corporate Health and Safety Manual and site-specific Health and Safety Site Plans. He is trained for permitted confined space entry, trenching and shoring, and slip-trip falls. Mr. Forseth has current 40-hour HAZWOPER certification and First Aid/CPR certification. Mr. Forseth participates in recurring safety meetings.

Additional Certifications/Training

- Speaker – National Brownfields Conference, Chicago 2015
- Speaker – Northwest Brownfields & Land Revitalization Conference, Spokane 2012
- Speaker - NGWA/AML Conference Speaker, Denver 2008
- Speaker - WEF 2004 Collection System Specialty Conference –"*Applications of Portland's Explicit Model*"
- Speaker - USGS Brownbag Series – "*Scalar Approach to CSO Facilities Modeling"*
- Speaker – PNPCA – "*Collection System Maintenance Practices for Improved Water Quality*"
- Constructing with GCLs and PVC Geomembranes, 2008
- PSMJ Project Management Boot Camp (16 hrs)-August 2007

Special Appointments/Memberships/Affiliations

- U.S. Department of Interior *Partners in Conservation Award*, Bayhorse Mining District Cooperative Conservation Partnership, 2009
- American Society of Civil Engineers Member #331556
- National Society of Professional Engineers Member

Michael Procsal, M.S., P.G.

Geologist

Education

M.S., Geology
Boise State University, 2005

B.S., Geology
Boise State University, 2001

Professional & Technical Certifications

Professional Geologist
Idaho #PGL-1326

OSHA 29 CFR 1910.120 HAZWOPER
40 Hour, 2005 and refreshers – current

Experience Summary

Mike Procsal manages underground storage tank/leaking underground storage tank (UST/LUST), Brownfields, and Phase II/III Environmental Site Assessment projects for TerraGraphics, and oversees the operations and maintenance of our Power Probe 9600 drill rig. He utilizes his technical skills in hydrology, geology, and geophysics in support of all phases of environmental site investigations, and on the design and implementation of soil-vapor and groundwater remediation systems. Mr. Procsal has extensive experience in field operations including installing, developing, and sampling groundwater monitoring wells and soil vapor wells, and geotechnical data acquisition. He has experience in landfill gas monitoring and sampling, as well as sampling soil, groundwater, and vapor on RCRA and CERCLA sites. He analyzes sampling results for risk-based cleanups, and has experience in remedial system design, permitting, construction, and operations and maintenance. He has performed hydrogeologic investigations including pump tests, slug tests, and tracer tests. He also assists engineering staff with geotechnical investigations.

Areas of Expertise

- Project Management
- Groundwater Sampling/Monitoring
- Surface Water Sampling
- Soil Sampling
- Contaminant Transport
- Installation of Monitoring and Soil Vapor Wells
- Petroleum Remediation

Project Experience

Mr. Procsal has investigated more than 75 sites for subsurface characterization; collected or overseen the collection of thousands of soil and groundwater samples; and prepared geologic cross sections, corrective action plans, design plans, and hundreds of other documents pertaining to environmental investigation and monitoring.

Mr. Procsal has coordinated and provided technical oversight for sampling and reporting for operations and maintenance at multiple sites that have soil vapor extraction, air sparge, and groundwater extraction remediation systems. He regularly characterized the hydrogeology of various environments including pump tests, hydraulic gradients, transport pathways, flows and contaminant trends and generated AutoCAD isoconcentration maps.

Mr. Procsal has directed and overseen geotechnical and hydrogeologic subsurface characterizations at mine and mill sites in the Bunker Hill Mining and Metallurgic Complex. He has overseen test pitting and drilling at dozens of locations and has collected hundreds of samples for geotechnical and environmental analysis.

Birch Plaza Apartments LUST Site, Rexburg, Idaho, 2009–Present

Mr. Procsal directed and oversaw assessment activities, including soil and groundwater sampling, at the Birch Plaza Apartments LUST site. Mr. Procsal provided an Analysis of Brownfields Cleanup Alternatives based on the soil and groundwater analytical results and also designed and implemented an air sparge and soil vapor extraction remediation system. Mr. Procsal continues to oversee the petroleum impacted soil and groundwater cleanup efforts, including operations and maintenance on the remediation system, and performance monitoring. In addition, Mr. Procsal has ensured that emissions are within acceptable regulatory limits.

Pend Oreille Bay Trail Mine and Mill Site, Sandpoint, Idaho, 2011–2012

Mr. Procsal assisted in the Brownfields assessment and cleanup at the former mine/mill and smelter site located next to Pend Oreille Lake in Sandpoint, Idaho. He oversaw test pitting, soil borings, and groundwater monitoring well installation activities. Mr. Procsal collected soil samples from soil borings and test pits for geotechnical assessment and metals analysis, and performed XRF screening on soils. Mr. Procsal not only directed subcontractors but also worked closely with the Idaho Department of Environmental Quality (IDEQ) and the property owner to ensure that the data quality objectives for the project were met. He also oversaw air rotary

drilling that was utilized to directionally drill through and sample slag material that is impacted with metals.

Tamarack and East Fork Ninemile Mine and Mill Site, Shoshone County, Idaho, 2011–2012

Mr. Procsal assisted in the geotechnical site investigations and characterizations of the Tamarack Mine Site, Proposed Waste Consolidation Area, and Proposed Tamarack Staging area near Wallace, Idaho. The field investigations included completing borings, completing test pitting, logging material using the Unified Soil Classification System, collecting samples for geotechnical analysis, collecting GPS points at each sample location, in-situ XRF screening, collecting samples for agronomics analysis and environmental analysis. Mr. Procsal directed drilling subcontractors to advance boreholes for the collection of standard penetration test data, and to collect undisturbed Shelby tube samples and California tube samples from representative stratigraphic units for laboratory testing. Mr. Procsal provided oversight and direction during the investigation and prepared the Environmental Field Report summarizing the investigation findings and conclusions.

Regulatory Knowledge

Mr. Procsal has over 8 years of experience working with RCRA regulations. He has a solid working knowledge of applicable US Environmental Protection Agency (USEPA) methods, ASTM standards, and state and federal regulations. He has worked with IDEQ's Risk Evaluation Manual for Petroleum Releases and Idaho's Risk Evaluation Manual and Software. He has also worked with city engineering departments, sanitation districts, and USEPA throughout Idaho, California, Oregon, and Michigan to obtain air/water discharge permits.

Scientific/Technical Knowledge

Mr. Procsal has knowledge in remediation system design, geotechnical characterizations, watershed hydrology, contaminant transport processes, and hydrogeology. He has working knowledge of AutoCAD, MS-DOS, Unix, Windows, Mac, Adobe Acrobat, Adobe Illustrator, Adobe capture, ProMax, SPW, RAMAC, Arcview GIS, MapInfo, HEC-1, WMS, SHAW, SHALLSTAB, MODFLOW, and all Microsoft Office Programs.

Additional Certifications/Training

- Washington State Site Assessor, 2012
- Medical Surveillance completed and approved for respirator use, 2011
- CWI Construction Site Erosion Responsible Person – Boise, 2010
- Department of Transportation/International Air Transport Association 2-hour Training, 2008
- Hazardous Waste Manifest Training, 2008
- 8-hour Hazardous Waste Supervisor Training, 2008
- BP Safety Passport Training, 2008
- BP API Safe Work Training, 2008
- Loss Prevention System training, 2005
- First Aid/CPR Certification, 2008 – Current

Special Appointments/Memberships/Affiliations

- Chevron "star" award in recognition of outstanding safe work behavior.
- Chevron "star" award in recognition of assisting in the development of health and safety plans.

Publications/Reports/Presentations

McConnell, V.S., Ferns, M.L., and M. Procsal, "The Geology and Mineral Resources of the Gassett Bluff Quadrangle," Union County, Oregon. Oregon Department of Mineral Industries, January 2001.

Duncan E. Pfeifer, E.I.T

Design Production

Education

B.S. Biological & Agricultural Engineering (Emphasis in Biological System)
University of Idaho, 2010

Study Abroad
University College Utrecht, The Netherlands

Professional & Technical Certifications

Engineer-in-Training
Idaho # E-7338, 2010

OSHA 29 CFR 1910.120 HAZWOPER
24 Hour, 2013 and refreshers – current

Experience Summary

Duncan Pfeifer is an Engineer-in-Training based in our Kellogg office with two years of technical experience. He assists Professional Engineers with various projects in Northern Idaho. Duncan has classroom and laboratory experience with fate transport modeling, environmental remediation, applied bioremediation, contaminate transport modeling, soil nutrient cycling, and biological process engineering. Mr. Pfeifer was also the project manager for a Senior Capstone Project in the development and feasibility for a large scale food and animal waste composting facility for the University of Idaho.

Areas of Expertise

- Production Design Manager
- Water Quality Assessments
- Site Characterization
- Groundwater Monitoring
- AutoCAD Civil 3D, C++ programming

Project Experience

Bunker Hill Superfund Site – Basin Property Remediation Program (BPRP), Coeur d'Alene River Basin, Idaho, 2014–Present

Mr. Pfeifer provides quality control and oversight for Basin Property Remediation Program' s continuing efforts to identify areas that pose a risk to human health and safety, and to remediate and provide barriers to these risks. This program is part of the Bunker Hill Superfund Site Recovery Actions, one of the largest environmental and human health cleanup efforts in the United States. Historic mining practices have contaminated the region with unsafe levels of heavy metals (Lead, Arsenic, Cadmium, and Zinc), that threaten the health and safety of the public and compromise the fitness of ecological systems.

Bunker Hill Superfund Site – CDA Trust & IDEQ Remedy Protection Projects, 2013– Present

Mr. Pfeifer has contributed to the planning, analysis and design of multiple drainage control & infrastructure improvement projects throughout the Coeur D'Alene Basin aimed at protecting the in-place CERCLA human health remedies that are vulnerable to erosion and recontamination from flooding and stormwater drainage. The following are example of projects that Mr. Pfeifer has provided significant support:

Shields Gulch Remedy Protection Project, Osburn, Idaho: 2013

The Shields Gulch project provided culvert and stream channel improvements along Shields Creek to reduce the risk of flooding and recontamination of remediated properties, including Silver Hills Elementary School. Mr. Pfeifer aided in the design and drafting (particularly the erosion control, culvert details) of the Shields Gulch Remedy Protection Project.. Mr. Pfeifer was also involved in the quality control of the construction plans.

Portland Avenue Remedy Protection ($300K), Kellogg, Idaho: 2013–2014

The project improvements included 1200-ft of gravel road reconstruction with a new rock lined ditch to catch hillside runoff, a riprap armored rock chute and sediment basin, 420-ft of storm drain mainline, three standard manholes and two catch basins. Mr. Pfeifer assisted with the drafting of stormdrain, armoring, roadway, traffic control, and erosion control details.

City of Kellogg Paved Roads Program, Kellogg, Idaho: 2013–Present

This program is part of the Bunker Hill Superfund Site Recovery Actions and aims to work with local jurisdictions to repair road surfaces that help to maintain barriers to heavy metals contaminated soil. Mr. Pfeifer has helped work with the City of Kellogg in the planning, application for funds, design, drafting, quality control, and cost and quality estimates.

Clark Fork Operable Unit, Clark Fork River Basin, Montana: 2013–2014

Mr. Pfeifer drafted and compiled drawings from multiple resources for the ecological remediation of 4.4 miles of the Clark Fork river, as part of the Milltown Reservoir/Clark Fork River Superfund Site. Most of Mr. Pfeifer's efforts were focused on the drafting the variety of streambank, road surfacing, and revegetation details associated with the multimillion dollar project.

Past Relevant Work Experience, 2006–2010

- Scientific Aide, Animal Veterinary Science Laboratory, University of Idaho, Moscow, Idaho, 2008-2010
- Groundwater Researcher, Searching for Local Watershed Recharge Areas - Volunteer, Moscow, Idaho, 2008
- REU^2 Intern, Soil & Water Engineering Laboratory, University of Idaho, Moscow, ID, 2006

Special Appointments/Memberships/Affiliations

- American Society of Biological & Agricultural Engineering, Vice President, University of Idaho Student Chapter, 2009-2010
- Project Design Manager, Large-scale Composting System, Senior Capstone Project, University of Idaho, 2009-2010

JOSHUA T. KANNENBERG, P.G., L.G., R.G.

jkannenberg@stratageotech.com

CLIENT COMMITMENT

"I am committed to value-added project management."

PROJECT ASSIGNMENT: ENVIRONMENTAL PROFESSIONAL

Josh has over 8 years experience conducting Phase I and Phase II Environmental Site Assessments and environmental sampling projects on industrial facilities, fueling stations, commercial properties, agricultural land, multi-tenant apartment complexes, single family residences, easements, and undeveloped land. Josh is also adept at industrial hygiene monitoring, incremental soil sampling, multi-tiered QA/QC, asbestos surveys, indoor air quality surveys, lead inspections, abatement oversight, environmental drilling oversight and sampling, geotechnical sample collection, and environmental remediation projects.

PROFESSIONAL REGISTRATION AND AFFILIATIONS

Registered Geologist
Arizona (2012)

Licensed Geologist
Washington (2014)

Professional Geologist
Idaho (2015)

U.S. EPA 29 CFR Part 1910.120 Hazardous Waste Operations and Emergency Response (HAZWOPER)
40-Hour OSHA Hazardous Waste Operations Training

U.S. EPA 40 CFR Part 763 AHERA
Certified Building Inspector
Certified Contractor/Supervisor
Certified Project Designer

US EPA Lead-Based Paint Inspector
Certified XRF Operator

NIOSH 582
NIOSH 7400 Method (PCM)

EDUCATION

Bachelor of Science – Geology, 2008 — University of Idaho

REPRESENTATIVE EXPERIENCE

Former Goodman Oil – Moscow, Idaho
Josh currently serves as the project manager for an Idaho Department of Environmental Quality (IDEQ) Brownfields project at a former service station and bulk plant in Moscow. The initial site characterization included exploratory soil borings, installation of groundwater monitoring wells and associated sampling activities. Josh is currently involved with evaluating the site risk factors by developing a site conceptual model based on future site redevelopment. Josh prepared the Project Quality Assurance Project Plan (QAPP) for the project as well as the Limited Phase II Environmental Site Assessment (ESA) report. The project is currently ongoing.

PCB Remediation – Phoenix, Arizona
Josh served as the project field supervisor for multi-phase PCB remediation project in a historical industrial manufacturing area. The first phase of the project included performing Phase I Environmental Site Assessments for various parcels and reviewing prior environmental reports. The second phase included surface soil characterization according to TSCA guidelines. The third phase included excavation management, removing contaminated soils from areas identified for remediation. This task involved daily communication with the excavation contractors. The fourth phase consisted of verification grid-sampling according to TSCA regulations to determine the success of remediation. The project resulted in removal of over 20,000 tons of solid waste and 500 tons of regulated PCB waste.

Former Custom Metal Finishing – Parker, Arizona
The ADEQ issued a Notice of Violation (NOV) to the former operator of a chrome plating facility. Josh performed sampling activities and oversaw field operations during the site characterization and remediation of hexavalent chromium contaminated soil from a former plating line pit in 2010. The ADEQ VRP issued a No Further Action (NFA) in 2010 to the property owner.

Thunderbird School of Global Management – Glendale, Arizona
Josh performed a Phase I ESA and discovered that USTs were removed from the site without proper closure assessment sampling. Through a Phase II ESA, Josh discovered contamination and reported a LUST to the ADEQ in 2010. He prepared a Site Characterization Report (SCR) along with Tier 2 Evaluations. The ADEQ determined that the SRC was complete in 2010. The ADEQ closure review is in progress.

OUR MISSION:

TerraGraphics develops holistic and resilient engineering and environmental solutions in partnership with our clients and communities worldwide.

MOSCOW
Urban Renewal Agency
IDAHO

PROFESSIONAL SERVICES AGREEMENT BETWEEN
THE MOSCOW URBAN RENEWAL AGENCY, MOSCOW, IDAHO
AND TERRAGRAPHICS ENVIRONMENTAL ENGINEERING, INC.
FOR DESIGN/BUILD ENVIRONMENTAL REMEDIATION SERVICES

This Professional Services Agreement (hereinafter "Agreement") is made and entered into between the Moscow Urban Renewal Agency (hereinafter "AGENCY"), and TerraGraphics Environmental Engineering, Inc., an Idaho corporation, 121 S. Jackson, Moscow, Idaho, 83843, (hereinafter "CONSULTANT"), to provide environmental remediation design and construction services to AGENCY on the 6th and Jackson Groundwater Environmental Remediation (hereinafter "Project").

W I T N E S S E T H :

WHEREAS, AGENCY wishes to retain the services of a professional firm to provide environmental remediation design and construction services (hereinafter "Professional Services"), to AGENCY; and

WHEREAS, CONSULTANT represents that it has the expertise, experience and personnel necessary to provide the Professional Services; and

WHEREAS, AGENCY and CONSULTANT (together, the Parties) wish to enter into an Agreement whereby AGENCY will retain CONSULTANT to provide the Professional Services for the 6th and Jackson Groundwater Environmental Remediation Project.

NOW, THEREFORE, be it agreed, for and in consideration of the mutual covenants and promises between the parties hereto, as follows:

ARTICLE I
CONSULTANT SERVICES

The above-listed recitals are true and correct and are hereby incorporated by reference.

1.1 Scope of Services. CONSULTANT shall perform the Professional Services as set forth in the 6th and Jackson Groundwater Remediation Design/Build Services Request for Proposals which is incorporated herein by reference.

1.2 Unique Professional Services. It is understood that this Agreement is for unique Professional Services. CONSULTANT represents and warrants that it has the qualifications, experience and facilities necessary to properly perform the services required under this Agreement, in a thorough, competent and professional manner. Retention of the CONSULTANT's Professional Services is based on the particular professional expertise of the individuals rendering the services set forth in the Scope of Services. Accordingly, portions of the described services

may not be delegated to other members of the team or subconsultant(s) without prior written consent by AGENCY.

1.3 AGENCY Designated Representative and CONSULTANT Contact. CONSULTANT shall provide the Professional Services under the direction of a representative of AGENCY, designated by the AGENCY Supervisor (Designated Representative). AGENCY's Designated Representative shall communicate with CONSULTANT on all matters related to the administration of this Agreement and CONSULTANT's performance of the Professional Services rendered hereunder.

When this Agreement refers to communications to or with AGENCY, those communications will be with the Designated Representative, unless the Designated Representative or this Agreement specifies otherwise. Further, when this Agreement refers to an act or approval to be performed by AGENCY, that act or approval shall be performed by AGENCY Executive Director or designee, unless the Agreement specifies otherwise. In the event that CONSULTANT's designated representative becomes unavailable for any reason, AGENCY must be consulted as to any replacement CONSULTANT's contact. Further, AGENCY reserves the right, after consultation with CONSULTANT, to require removal of CONSULTANT's employees or agents from AGENCY matters.

1.4 Modification of Scope of Services. AGENCY may, without invalidating this Agreement, request changes in any Task or the scope of services by altering, adding to or deducting from the services to be performed. All such changes shall be in writing and shall be performed in accordance with the provisions of this Agreement. If any such changes cause an increase or decrease in CONSULTANT's cost of, or the time required for, the performance of any of the Professional Services, CONSULTANT shall immediately notify AGENCY.

1.5 Written Authorization. Throughout the term of this Agreement, CONSULTANT shall immediately advise AGENCY in writing of any anticipated changes to the performance of the work described herein, including any changes to the time for completion, and shall obtain AGENCY's written consent to the change prior to making any changes. In no event shall AGENCY's consent be construed to relieve CONSULTANT from its duty to render all Professional Services in accordance with applicable laws and accepted industry standards.

ARTICLE II
DURATION OF AGREEMENT

2.1 Term of Agreement. This Agreement shall be effective on the date it is executed by the last Party to sign the Agreement. Unless otherwise terminated, this Agreement shall be effective until completion of the Scope of Services with CONSULTANT.

2.2 Time of Essence. Time is of the essence for each provision of this Agreement, unless otherwise specified in this Agreement.

2.3 Notification of Delay. CONSULTANT shall immediately notify AGENCY in writing if CONSULTANT experiences or anticipates experiencing a delay in performing the Professional

Services within the time frames set forth herein. The written notice shall include an explanation of the cause for, and a reasonable estimate of the length of, the delay. If in the opinion of AGENCY, the delay affects a material element of completion of the project, AGENCY may exercise its rights under Sections 2.5 and 2.6 of this Agreement.

2.4 Delay. If delays in the performance of the Professional Services are caused by unforeseen events beyond the control of the Parties, such delay may entitle CONSULTANT to a reasonable extension of time, but such delay shall not entitle CONSULTANT to damages or additional compensation. Any such extension of time must be approved in writing by AGENCY. CONSULTANT shall not be entitled to an extension of time for a delay caused by the acts or omissions of CONSULTANT.

2.5 AGENCY's Right to Terminate for Convenience. AGENCY may, at its sole option and for its convenience, terminate all or any portion of the Professional Services agreed to pursuant to this Agreement by giving written notice of such termination to CONSULTANT. After termination of this Agreement, CONSULTANT shall complete any and all additional work necessary for the orderly filing of documents and closing of CONSULTANT's Professional Services under this Agreement. For services rendered in completing the work, CONSULTANT shall be entitled to fair and reasonable compensation for the Professional Services performed by CONSULTANT before the effective date of termination. After filing of documents and completion of performance, CONSULTANT shall deliver to AGENCY all reports, letters, calculations, and other documents or records related to CONSULTANT's Professional Services on all Tasks. By accepting payment for completion, filing and delivering documents as called for in this paragraph, CONSULTANT discharges AGENCY of all of AGENCY's payment obligations and liabilities under this Agreement.

2.6 AGENCY's Right to Terminate for Default. If CONSULTANT fails to perform or adequately perform any obligation required by this Agreement, CONSULTANT's failure constitutes a default. A default includes CONSULTANT's failure to complete the Professional Services within the time for completion as set forth herein. If CONSULTANT fails to satisfactorily cure a default within ten (10) calendar days of receiving written notice from AGENCY specifying the nature of the default, AGENCY may immediately cancel and/or terminate this Agreement. The rights and remedies of AGENCY enumerated in this Section are cumulative and shall not limit, waive, or deny any of AGENCY's rights under any other provision of this Agreement, nor does this Section otherwise waive or deny any right or remedy, at law or in equity, existing as of the date of this Agreement or hereinafter enacted or established, that may be available to AGENCY against CONSULTANT.

ARTICLE III
COMPENSATION

3.1 Amount of Compensation. AGENCY shall pay CONSULTANT in accordance with the negotiated fee for services shown and attached as Exhibit ”A” and incorporated herein by reference, with an established not-to-exceed cost for each individual project component. For any additional services not specified, additional costs shall be established through mutual agreement between CONSULTANT and AGENCY via a separate Task Order. Work shall not commence

until all appropriate signatures are obtained on the Task Order for any additional service assignments.

3.2 Manner of Payment. CONSULTANT shall submit to AGENCY one (1) original invoice per calendar month for Professional Services performed and expenses incurred in accordance with this Agreement. CONSULTANT shall include with each invoice a description of completed work. Invoices shall provide detailed billing information including, but not limited to, a detailed description of the service rendered, date of service, CONSULTANT time devoted to service, CONSULTANT name, billing rate, and total amount billed per each service. A receipt for each category of expense must accompany the invoice to qualify for reimbursement by AGENCY. Invoices to AGENCY must be in accordance with the Scope of Services and the Fee Schedule and will be payable, if approved, within thirty (30) calendar days of receipt.

ARTICLE IV
CONSULTANT'S OBLIGATIONS

4.1 Industry Standards. CONSULTANT agrees that the Professional Services and environmental remediation activities rendered under this Agreement shall be performed in accordance with the standards customarily adhered to by an experienced and competent professional practicing in the same field of service in the State of Idaho. Where approval by AGENCY is required, it is understood to be general approval only and does not relieve CONSULTANT of responsibility for complying with all applicable laws, codes, and good consulting practices.

4.2 Compliance with Controlling Law. CONSULTANT shall comply with all laws, ordinances, regulations, and policies of the federal, state, and local governments applicable to this Agreement. In addition, CONSULTANT shall comply immediately with all directives issued by AGENCY or its authorized representatives under authority of any laws, statutes, ordinances, rules, or regulations.

4.3 CONSULTANT's Errors and Omissions Insurance. In performance of professional services, CONSULTANT will use that degree of care and skill ordinarily exercised under similar circumstances by members of the consulting profession; and no other warranty, either expressed or implied, is made in connection with rendering CONSULTANT's services. Should CONSULTANT or any of CONSULTANT's agents or employees be found to have been negligent in the performance of professional services from which AGENCY sustains damage, CONSULTANT has obtained Errors and Omissions Insurance in the amount of One Million Dollars ($1,000,000), and said insurance shall be held active for a two (2) year (minimum) period from the date of completion of the PROJECT. AGENCY shall receive notice of any pending termination of said insurance within five (5) days of first notice to CONSULTANT.

4.3.1 CONSULTANT's Additional Insurance. CONSULTANT shall maintain automobile insurance and statutory workers' compensation insurance coverage, employer's liability, and comprehensive general liability insurance coverage. The comprehensive general liability insurance shall have a minimum limit of Five Hundred Thousand Dollars ($500,000) per

claim and One Million Dollars ($1,000,000) aggregate, and CONSULTANT shall cause AGENCY to be named as an additional insured under said policy.

4.4 Conflict of Interest. CONSULTANT covenants that it presently has no interest and will not acquire any interest, direct or indirect, in the PROJECT which would conflict in any manner or degree with the performance of services hereunder. CONSULTANT further covenants that, in performing this Agreement, it will employ no person who has any such interest.

ARTICLE V
AGENCY'S OBLIGATIONS

5.1 Ownership of Documents. Once the CONSULTANT(S) has received any compensation for the Professional Services performed, all original documents, including but not limited to, maps, models, designs, photographs, surveys, reports, notes, letters, profiles, original plans, studies, sketches, drawings, computer printouts and disk files, specifications, and other documents prepared, developed or discovered in connection with or related to the Scope of Services or Professional Services, with the exception of CONSULTANT's proprietary computer models, shall become the sole property of AGENCY. AGENCY's ownership of these documents includes use of, reproduction or reuse of, and all incidental rights, whether or not the work for which they were prepared has been performed. AGENCY's ownership entitlement arises upon payment or any partial payment for work performed and includes ownership of any and all work product completed prior to that payment. This section shall apply whether CONSULTANT's Professional Services are terminated (a) by the completion of the Scope of Services; or (b) in accordance with other provisions of this Agreement. Notwithstanding any other provision of this paragraph or Agreement, CONSULTANT shall have the right to make copies of all such maps, models, designs, photographs, surveys, reports, notes, letters, profiles, original plans, studies, sketches, drawings, computer printouts and disk files, specifications, and other documents.

ARTICLE VI
INDEMNIFICATION

6.1 Indemnification. In regard to CONSULTANT's Additional Insurance, paragraph 4.3.1., CONSULTANT shall indemnify, defend and hold harmless AGENCY and its officers, directors, employees and agents against any claim by any third party for injury to any person or damage to or loss of any property from any act, omission or negligence of CONSULTANT or any of CONSULTANT' employees or agents. CONSULTANT obligations under this Section shall survive the completion or termination of this Agreement.

6.1.1 AGENCY shall indemnify, defend and hold harmless CONSULTANT and its officers, directors, employees and agents against any claim by any third party for injury to any person or damage to or loss of any property from any act, omission, or negligence of AGENCY or any AGENCY employees or agents. AGENCY obligations under this Section shall survive the completion or termination of this Agreement.

ARTICLE VII
MISCELLANEOUS

7.1 Notices. In all cases where written notice is required under this Agreement, service shall be deemed sufficient if the notice is deposited in the United States mail, postage paid. Proper notice shall be effective on the date it is mailed, unless provided otherwise in this Agreement. For the purpose of this Agreement, unless otherwise agreed in writing,

Notice to AGENCY shall be addressed to:

Moscow Urban Renewal Agency
ATTN: Bill Belknap, Executive Director
P O Box 9203
Moscow, ID 83843

Notice to CONSULTANT shall be addressed to:
Jerry Lee, President of Operations
Terragraphics Environmental Engineering, Inc.
121 South Jackson Street
Moscow, Idaho, 83843

7.2 Non-Assignment. CONSULTANT shall not assign the obligations under this Agreement, whether by express assignment or by sale of the company, nor any monies due or to become due, without AGENCY's prior written approval. Any assignment in violation of this paragraph shall constitute a default and is grounds for immediate termination of this Agreement, at the sole discretion of AGENCY. In no event shall any putative assignment create a contractual relationship between AGENCY and any putative assignee. AGENCY acknowledges, however, that CONSULTANT, in the performance of Professional Services pursuant to this Agreement, may utilize Subconsultant(s).

7.3 Amendments to Agreement. This Agreement may be amended only by written instrument signed by both parties hereto.

7.4 Jurisdiction and Venue. It is agreed that this AGREEMENT shall be construed under and governed by the laws of the State of Idaho. In the event of litigation concerning it, it is agreed that proper venue shall be the District Court of the Second Judicial District of the State of Idaho, in and for the County of Latah.

7.5 No Waiver. No failure of either AGENCY or CONSULTANT to insist upon the strict performance by the other of any covenant, term or condition of this Agreement, nor any failure to exercise any right or remedy consequent upon a breach of any covenant, term, or condition of this Agreement, shall constitute a waiver of any such breach of such covenant, term or condition. No waiver of any breach shall affect or alter this Agreement, and each and every covenant, condition, and term hereof shall continue in full force and effect without respect to any existing or subsequent breach.

7.6 Severability. The unenforceability, invalidity, or illegality of any provision of this Agreement shall not render any other provision of this Agreement unenforceable, invalid, or illegal.

IN WITNESS WHEREOF, this Agreement is executed by AGENCY, acting by and through its Board of Commissioners, and by CONSULTANT.

Dated this _____ day of _____, 2015.

CONSULTANT

By_____
Jerry Lee, President

MOSCOW URBAN RENEWAL AGENCY

By _____

ATTEST:

_____
Anne Peterson, AGENCY Clerk

ACKNOWLEDGMENT

STATE OF _____)
) ss.
COUNTY OF_____)

On this _____ day of _____, 2015, before me, a Notary Public in and for said State, appeared Jerry Lee, known to me to be the person named above and acknowledged that he/she executed the foregoing document as the duly authorized representative for Terragraphics Environmental Engineering Inc.

_____
Notary Public for the State of Idaho
Residing at_____
My commission expires_____

EXHIBIT ‘A’

Groundwater Remediation Cost					
Item #	Item Description	Unit	Unit Cost	Quantity	Total Cost
1	Treatment System Design	LS	$4,500	1	$4,500
2	Construction Mobilization	LS	$	1	$
3	Permits	LS	$500	1	$500
4	4" Well Installation (each)	EA	$2,000	7	$14,000
5	Extraction pumps (3), discharge line, utility vault, and control system	LS	$11,835	1	$11,835
6	Amendment Injection (Per Injection Event)	EA	$4,500	1	$4,500
7	Sample Collection and Analysis (Per Sample Event)	EA	$3,500	1	$3,500
8	Project Administration and Coordination	EA	$4,500	1	$4,500
9	Final Closeout Report Preparation	EA	$2,500	1	$2,500
			Total Cost Estimate		$45,835