

INTERGOVERNMENTAL AGREEMENT
Oregon Department of Geology & Mineral Industries
IGA# 12122012

This agreement is between the State of Oregon, acting by and through its Department of Geology & Mineral Industries, hereafter called **STATE**, and the City of Portland Water Bureau, hereafter called **CITY**.

DOGAMI Project Officer and Principal Investigator:

Project Officer: Bill Burns
Title: Engineering Geologist
Address: 800 NE Oregon St., Suite 965, Portland, Oregon 97232
Phone: (971) 673-1538
Email: bill.burns@dogami.state.or.us

DOGAMI Administrative Contact:

Name: Andree Pollock
Title: Assistant Director
Address: 800 NE Oregon St., Suite 965, Portland, Oregon 97232
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City Project Manager:

Project Officer: Richard Robbins
Title: Source Water Protection Manager
Address: 1120 SW 5th Avenue, Rm. 600, Portland, Oregon 97204
Phone: (503) 823-7799
Email: richard.robbs@portlandoregon.gov

CITY Administrative Contact:

Name: Annette Dabashinsky
Title: Contract Development & Review Administrator
Address: 1120 SW 5th Avenue, Rm. 600, Portland, Oregon 97204
Phone: (503) 823-7521
Fax: (503) 823-9407
Email: annette.dabashinsky@portlandoregon.gov

1. Effective Date and Duration

This Agreement becomes effective on the date at which **STATE** and **CITY** both have signed this Agreement. Unless earlier terminated or extended, this Agreement expires when **STATE's** completed performance has been accepted by **CITY** or January 31, 2015, whichever date occurs first.

Expenditures incurred by **STATE** directly relating to this project commencing after this agreement is fully executed are eligible for reimbursement.

2. Authority

Intergovernmental cooperation Pursuant to ORS Chapter 190.110 (1) In performing a duty imposed upon it, in exercising a power conferred upon it or in administering a policy or program delegated to it, a unit of local government or a state agency of this state may cooperate for any lawful purpose, by agreement or otherwise, with a unit of local government or a state agency of this or another state, or with the United States, or with a United States governmental agency, or with an American Indian tribe or an agency of an American Indian tribe.

3. Statement of Work

The statement of work, (the "Work") including the delivery schedule for such Work, is contained in Exhibit A attached hereto and incorporated by reference into this agreement. **STATE** agrees to perform the Work in accordance with the terms and conditions of this Agreement.

4. Consideration

CITY agrees to reimburse **STATE** a maximum, not-to-exceed, amount of \$114,600 for accomplishing the Work required by this Agreement.

5. Subcontracts

STATE shall not enter into any subcontracts for any of the work scheduled under this Agreement without obtaining prior written consent from **CITY**.

6. Agreement Documents

This Agreement consists of the following document listed in descending order of precedence: this Agreement less all exhibits, attached Exhibit A. All attached Exhibits are hereby incorporated by reference.

7. Amendments

The terms of the Agreement shall not be waived, altered, modified, supplemented, or amended, in any manner whatsoever, except by written instrument signed by both parties.

8. Termination

- a. This Agreement may be terminated by mutual consent of both parties or by **CITY** upon 30 day's notice, in writing and delivered by certified mail or in person.
- b. **CITY** may terminate this Agreement effective upon delivery of written notice to **STATE**, or at such other date as may be established by **CITY** under any of the following conditions:
 - i. If **CITY** funding is not obtained and continued at levels sufficient to allow for purchase of the specified services. When possible, and when agreed upon, the Agreement may be modified to accommodate a reduction in funds.
 - ii. If federal or state regulations or guidelines are modified, changed or interpreted in such a way that the services are no longer allowable or appropriate for purchase under this Agreement, or are no longer eligible for the funding proposed for payments authorized by this Agreement.
 - iii. If **STATE** fails to perform the work specified herein, or so fails to pursue the work as to endanger performance of this Agreement in accordance with the terms, and after receipt of written notice from **CITY**, fails to correct such failures within ten (10) days or such longer period as **CITY** may authorize.

9. Funds Available and Authorized

CITY certifies at the time the Agreement is written that sufficient funds are available and authorized for expenditure to finance costs of this Agreement within **CITY** current limitation.

10. Captions

The captions or headings in this Agreement are for convenience only and in no way define, limit or describe the scope or intent of any provisions of this Agreement.

11. Access to Records

CITY, the Secretary of State's Office of the State of Oregon, the Federal Government, and their duly authorized representatives shall have access to the books, documents, papers, and records not otherwise privileged under law of **STATE** which are directly pertinent to the specific Agreement for the purpose of making audit, examination, excerpts, and transcript.

12. Compliance with Applicable Law

STATE shall comply with all federal, state and local laws, regulations, executive orders and ordinances applicable to the Work under this Agreement, including, without limitation, the provisions of ORS 279C.505, 279C.515, 279C.520, and 279C.530, which are incorporated by reference. Without limiting the generality of the foregoing, **STATE** expressly agrees to comply with: (i) Title VI of the Civil Rights Act of 1964, (ii) Section

V of the Rehabilitation Act of 1973, (iii) the Americans with Disabilities Act of 1990 and ORS 659A.142; (iv) all regulations and administrative rules established pursuant to the foregoing laws; and (v) all other applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations.

13. Recycled paper

STATE agrees to use recycled paper for all reports which are prepared as a part of this Agreement.

14. Non-Appropriation

The State of Oregon's obligations under this Agreement are conditioned upon **STATE** receiving funding, appropriations, limitations, allotments, or other expenditure authority sufficient to allow **STATE**, in the exercise of its reasonable administrative discretion, to meet its obligations under this Agreement. Nothing in this Agreement is to be construed as permitting any violation of Article XI, section 7 of the Oregon Constitution or any other law regulating liabilities or monetary obligations of the State of Oregon.

15. Contribution

If any third party makes any claim or brings any action, suit or proceeding alleging a tort as now or hereafter defined in ORS 30.260 ("Third Party Claim") against a party (the "Notified Party") with respect to which the other party ("Other Party") may have liability, the Notified Party must promptly notify the Other Party in writing of the Third Party Claim and deliver to the Other Party a copy of the claim, process, and all legal pleadings with respect to the Third Party Claim. Either party is entitled to participate in the defense of a Third Party Claim, and to defend a Third Party Claim with counsel of its own choosing. Receipt by the Other Party of the notice and copies required in this paragraph and meaningful opportunity for the Other Party to participate in the investigation, defense and settlement of the Third Party Claim with counsel of its own choosing are conditions precedent to the Other Party's liability with respect to the Third Party Claim.

With respect to a Third Party Claim for which the **STATE** is jointly liable with the **CITY** (or would be if joined in the Third Party Claim), the **STATE** shall contribute to the amount of expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred and paid or payable by the **CITY** in such proportion as is appropriate to reflect the relative fault of the **STATE** on the one hand and of the **CITY** on the other hand in connection with the events which resulted in such expenses, judgments, fines or settlement amounts, as well as any other relevant equitable considerations. The relative fault of the **STATE** on the one hand and of the **CITY** on the other hand shall be determined by reference to, among other things, the parties' relative intent, knowledge, access to information and opportunity to correct or prevent the circumstances resulting in such expenses, judgments, fines or settlement amounts. The **STATE's** contribution amount in any instance is capped to the same extent it would have been capped under Oregon law if the **STATE** had sole liability in the proceeding.

With respect to a Third Party Claim for which the **CITY** is jointly liable with the **STATE** (or would be if joined in the Third Party Claim), the **CITY** shall contribute to the amount of expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred and paid or payable by the **STATE** in such proportion as is appropriate to reflect the relative fault of the **CITY** on the one hand and of the **STATE** on the other hand in connection with the events which resulted in such expenses, judgments, fines or settlement amounts, as well as any other relevant equitable considerations. The relative fault of the **CITY** on the one hand and of the **STATE** on the other hand shall be determined by reference to, among other things, the parties' relative intent, knowledge, access to information and opportunity to correct or prevent the circumstances resulting in such expenses, judgments, fines or settlement amounts. The **CITY's** contribution amount in any instance is capped to the same extent it would have been capped under Oregon law if it had sole liability in the proceeding.

Alternative Dispute Resolution

The parties should attempt in good faith to resolve any dispute arising out of this agreement. This may be done at any management level, including at a level higher than persons directly responsible for administration of the agreement. In addition, the parties may agree to utilize a jointly selected mediator or arbitrator (for non-binding arbitration) to resolve the dispute short of litigation.

Indemnification by Subcontractors

STATE shall take all reasonable steps to cause its contractor(s) that are not state agencies or units of local government as defined in ORS 190.003, if any, to indemnify, defend, save and hold harmless the City of Portland and its officers, employees and agents ("Indemnitee") from and against any and all claims, actions, liabilities, damages, losses, or expenses (including attorneys' fees) arising from a tort (as now or hereafter defined in ORS 30.260) caused, or alleged to be caused, in whole or in part, by the negligent or willful acts or omissions of **STATE's** contractor or any of the officers, agents, employees or subcontractors of the contractor ("Claims"). It is the specific intention of the parties that the Indemnitee shall, in all instances, except for Claims arising solely from the negligent or willful acts or omissions of the Indemnitee, be indemnified by the contractor from and against any and all Claims.

16. Subcontractor Insurance Requirements

a. GENERAL.

STATE shall require its first tier contractor(s) that are not state agencies or units of local government as defined in ORS 190.003, if any, to: (i) obtain insurance specified under TYPES AND AMOUNTS and meeting the requirements under ADDITIONAL INSURED, "TAIL" COVERAGE, NOTICE OF CANCELLATION OR CHANGE, and CERTIFICATES OF INSURANCE before the contractors perform under contracts between **STATE** and the contractors (the "Subcontracts"), and (ii) maintain the insurance in full force throughout the duration of the Subcontracts. The insurance must be provided by insurance companies or entities that are authorized to transact the business of insurance and issue coverage in the State of Oregon and that are acceptable to **CITY**. **STATE** shall not authorize contractors to begin work under the Subcontracts until the insurance is in full force. Thereafter, **STATE** shall monitor continued compliance with the insurance requirements on an annual or more frequent basis. **STATE** shall incorporate appropriate provisions in the Subcontracts permitting it to enforce contractor compliance with the insurance requirements and shall take all reasonable steps to enforce such compliance. Examples of "reasonable steps" include issuing stop work orders (or the equivalent) until the insurance is in full force or terminating the Subcontracts as permitted by the Subcontracts, or pursuing legal action to enforce the insurance requirements. In no event shall **STATE** permit a contractor to work under a Subcontract when the **STATE** is aware that the contractor is not in compliance with the insurance requirements. As used in this section, a "first tier" contractor is a contractor with which the county directly enters into a contract. It does not include a subcontractor with which the contractor enters into a contract.

b. TYPES AND AMOUNTS.

i. WORKERS COMPENSATION.

Insurance in compliance with ORS 656.017, which requires all employers that employ subject workers, as defined in ORS 656.027, to provide workers' compensation coverage for those workers, unless they meet the requirement for an exemption under ORS 656.126(2). Employers Liability insurance with coverage limits of not less than \$500,000 must be included.

ii. PROFESSIONAL LIABILITY

☒ Required by **CITY** ☐ Not required by **CITY**.

Professional Liability Insurance covering any damages caused by an error, omission or negligent act related to the services to be provided under the Subcontract, with limits not less than \$1,000,000.

iii. COMMERCIAL GENERAL LIABILITY.

☒ Required by **CITY** ☐ Not required by **CITY**.

Commercial general liability Insurance covering bodily injury, death, and property damage in a form and with coverages that are satisfactory to the **CITY**. This insurance shall include personal injury liability, products and completed operations. Coverage shall be written on an occurrence form basis, with not less \$1,000,000 per occurrence (for all claimants for claims arising out of a single accident or occurrence) for bodily injury, death and property damage.

iv. AUTOMOBILE LIABILITY INSURANCE.

☒ Required by CITY ☐ Not required by CITY.

Automobile Liability Insurance covering all owned, non-owned and hired vehicles. This coverage may be written in combination with the commercial general liability insurance (with separate limits for "commercial general liability" and "automobile liability"). Automobile liability insurance must be in not less than \$1,000,000 per occurrence (for all claimants for claims arising out of a single accident or occurrence) bodily injury, death and property damage

v. POLLUTION LIABILITY.

☒ Required by CITY ☐ Not required by CITY.

Pollution Liability Insurance covering the contractor's liability for bodily injury, property damage and environmental damage resulting from either sudden or gradual accidental pollution and related cleanup costs incurred by the contractor, all arising out of the goods delivered or services (including transportation risk) performed under the Subcontract. Combined single limit per occurrence shall not be less than \$ 1,000,000. Annual aggregate limit shall not be less than \$ 2,000,000.

c. ADDITIONAL INSURED.

The commercial general liability insurance and automobile liability insurance must include the CITY, its officers, employees and agents as additional insureds but only with respect to the contractor's activities to be performed under the Subcontract. Coverage must be primary and non-contributory with any other insurance and self-insurance.

d. "TAIL" COVERAGE.

If any of the required insurance policies is on a "claims made" basis, such as professional liability insurance, the contractor shall maintain either "tail" coverage or continuous "claims made" liability coverage, provided the effective date of the continuous "claims made" coverage is on or before the effective date of the Subcontract, for a minimum of 24 months following the later of : (i) the contractor's completion and **STATE** 's acceptance of all Services required under the Subcontract or, (ii) the expiration of all warranty periods provided under the Subcontract. Notwithstanding the foregoing 24-month requirement, if the contractor elects to maintain "tail" coverage and if the maximum time period "tail" coverage reasonably available in the marketplace is less than the 24-month period described above, then the contractor may request and **CITY** may grant approval of the maximum "tail " coverage period reasonably available in the marketplace. If **CITY** approval is granted, the contractor shall maintain "tail" coverage for the maximum time period that "tail" coverage is reasonably available in the marketplace.

17. Merger Clause

THIS AGREEMENT CONSTITUTES THE ENTIRE AGREEMENT BETWEEN THE PARTIES. NO WAIVER, CONSENT, MODIFICATION OR CHANGE OF TERMS OF THIS AGREEMENT SHALL BIND EITHER PARTY UNLESS IN WRITING AND SIGNED BY BOTH PARTIES. SUCH WAIVER, CONSENT, MODIFICATION OR CHANGE, IF MADE, SHALL BE EFFECTIVE ONLY IN THE SPECIFIC INSTANCE AND FOR THE PURPOSE GIVEN. THERE ARE NO UNDERSTANDINGS, AGREEMENTS, OR REPRESENTATIONS, ORAL OR WRITTEN, NOT SPECIFIED HEREIN REGARDING THIS AGREEMENT.

STATE and **CITY** ACKNOWLEDGE THAT THEY HAVE READ THIS AGREEMENT, UNDERSTAND IT AND AGREE TO BE BOUND BY ITS TERMS AND CONDITIONS.

AGREED,

City of Portland (CITY)

Approved by CITY:

David G. Shaff, Water Bureau Administrator

Date

APPROVED AS TO FORM

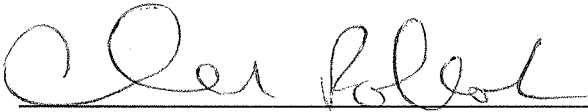
APPROVED AS TO FORM:


James H. Van Dyke, City Attorney
CITY ATTORNEY

3/7/13
Date

STATE of Oregon by and through Department of Geology & Mineral Industries (DOGAMI)

Approved by STATE:


Andree Pollock, Assistant Director

3/4/13
Date

Attachment A

Scope of Work

The Oregon Department of Geology and Mineral Industries (DOGAMI) is pleased to provide services for conducting a regional lidar-based landslide study for the Bull Run watershed that will improve the understanding of landslide hazards in the watershed (Figure 1). Deliverables of this study will include a landslide inventory map, landslide susceptibility map, a high-accuracy stream data layer, and a report describing the analysis. We anticipate the project duration to be up to two years and would be able to begin work in the spring of 2013, following execution of the intergovernmental agreement between DOGAMI and the Portland Water Bureau.

Significance of the Problem

Landslides are a major geologic hazard in Oregon and the impact of landslides on the infrastructure and environment in the Bull Run watershed can be significant. Landslides in the Bull Run watershed are a concern for three reasons: 1) they have the potential to create "turbidity events" that require taking the Bull Run supply system off line and activating the Columbia South Shore well field; 2) the Bull Run Treatment Variance requires the Water Bureau to monitor areas that are a high risk for soil erosion, and 3) significant segments of the three conduits are located in ancient landslide terrain. We propose to increase the understanding of the landslide hazard significantly, so that potential environmental impacts can be examined in the future by the City of Portland and better understood. At the conclusion of the study, the Water Bureau will have detailed and reliable maps of landslide hazards that will allow them to actively plan for the risk of landslide impacts to water quality, existing and proposed infrastructure, and the environment. Such maps are currently available for only a small part of the state.

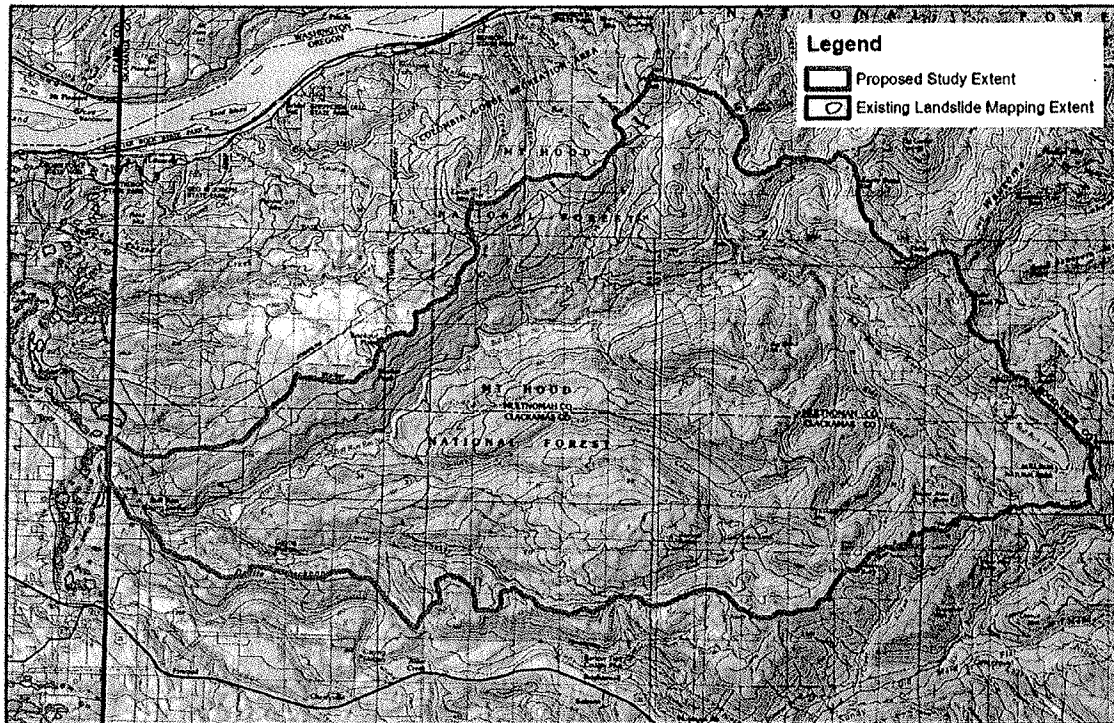


Figure 1. Study area (blue outline) map showing areas with lidar-based landslide mapping completed (brown line with red outlines of landslides) and the proposed study area (139 square miles).

Background

Over the last few years, Oregon has acquired significant swaths of Light Detection and Ranging (lidar) topography data, which can be converted into a digital elevation model (DEM) of unprecedented resolution and accuracy, even in forested areas. In the first year of the use of this lidar data, DOGAMI compared landslide mapping using existing techniques (time-series air photo survey and three other remote sensing types of data sets) to mapping with lidar in the Portland Hills. DOGAMI published a paper which describes the details of these findings at the First North American Landslide Conference in 2007 (Burns, 2007). The lidar reveals many more slides, and allows such rapid and spatially accurate delineation of slide boundaries that the only way to make truly definitive landslide maps will be with lidar. Lidar data is available for the entire area which is proposed for this study (Figure 1).

Tasks

We propose to assist the Portland Water Bureau in understanding landslide hazards within the Bull Run watershed by completing three inter-related tasks. The tasks that we propose are aimed at regional-scale geologic hazard assessment. A description of the tasks is presented below:

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Task I: Landslide Inventory

This is the primary task of the proposed project and would involve the following details:

- Consolidate current available information on geology and available data on pre-historic and historic landslides, for example Beaulieu (1974) and Shultz (1980).
- Map landslides following Burns and Madin (2009) landslide mapping protocol
- Field check a portion of identified landslides
- Provide maps and GIS files
- Present findings to the Portland Water Bureau

We estimate that the task described above would be completed approximately one year from the project start date.

Task II: Shallow and Deep-Landslide Susceptibility

This task involves the following details:

- Create a surficial engineering geology map and attribute with geotechnical material properties
- Create a shallow-landslide susceptibility map with low, moderate, and high zones following the Burns et al. (2012) shallow-landslide susceptibility mapping protocol
- Create a deep-landslide susceptibility map with low, moderate, and high zones
- Present findings to the Portland Water Bureau

We estimate that the task described above would be completed approximately one year from the time the landslide inventory (Task I) is completed.

Task III: Stream/Drainage Centerlines

This task involves the following details:

- Attribute an existing (to be provided by the City of Portland) stream/drainage centerline database. Transfer attributes from the National Hydrography Dataset (NHD) to the new lidar-based centerlines.
- Present findings to the Portland Water Bureau

We estimate that the task described above would be completed approximately six months from the project start date.

Cost and Invoicing

The total not-to-exceed cost for the three tasks is \$114,600. The estimated cost allocation for the project is shown below:

Task	Project Team Member			Cost
	Engineering Geologist(s)	Geologist(s)	GIS Analyst(s)	
Task 1	\$ 22,433	\$ 30,287	\$ 6,780	\$59,500
Task 2	\$ 22,075	\$ 22,353	\$ 6,672	\$51,100
Task 3	\$ -	\$ 4,000	\$ -	\$4,000
Total	\$ 44,508	\$ 56,640	\$ 13,452	\$114,600

DOGAMI will invoice the Water Bureau on a quarterly frequency. Invoices will contain or be accompanied by documentation that presents information on progress made on completion of the tasks.

Review of Draft Work Products and Project Meetings

Upon completion of draft products (landslide inventory, susceptibility maps, and stream database), DOGAMI will provide the Portland Water Bureau opportunities for review of draft work products. These review periods are limited to 30 days from the time DOGAMI provides the data to the Portland Water Bureau. Once the project is started, DOGAMI will contact the Portland Water Bureau and schedule three meetings: an initial planning meeting at the beginning of the project, a mid-project update meeting, and a final presentation/end-project meeting.

References

- Beaulieu, J.D., 1974, Geologic hazards of Bull Run watershed, Multnomah and Clackamas Counties, Oregon, Oregon Department of Geology and Mineral Industries, Bulletin B-82.
- Burns, W.J., Madin, I.P., Mickelson, K.A., 2012. Protocol for shallow-landslide susceptibility mapping: Oregon Department of Geology and Mineral Industries, Special Paper 45.
- Burns, W.J., Madin, I.P., Mickelson, K.A., and Duplantis, S., 2012, Inventory of Landslide Deposits from Light Detection and Ranging (Lidar) Imagery of the Portland Metropolitan Region, Oregon and Washington, Oregon: Oregon Department of Geology and Mineral Industries, Interpretive Map 53, scale 1:63,360.

- Burns, W.J., Madin, I.P., 2009. Protocol for Inventory Mapping of Landslide Deposits from Light Detection and Ranging (lidar) Imagery, Oregon Department of Geology and Mineral Industries, Special Paper 42.
- Burns, W. J., 2007, Comparison of remote sensing datasets for the establishment of a landslide mapping protocol in Oregon. AEG Special Publication 23: Vail, Colo., Conference Presentations, 1st North American Landslide Conference.
- Shultz, M.G., 1981. The Quantification of Soils Mass Movements and Their Relationship to Bedrock Geology in the Bull Run Watershed, Multnomah and Clackamas Counties, Oregon. M.S. thesis, Oregon State University, Corvallis, Oregon.