

STATE OF CALIFORNIA
STANDARD AGREEMENT
 STD 213 (Rev 06/03)

AGREEMENT NUMBER 11-C0111
REGISTRATION NUMBER 1218685

1. This Agreement is entered into between the State Agency and the Contractor named below:

STATE AGENCY'S NAME

Department of Pesticide Regulation (DPR)

CONTRACTOR'S NAME

Dr. Jiri Simunek

The term of Agreement June 1, 2012 or upon final approval by the State, whichever occurs later, through June 30, 2014

3. The maximum of this Agreement is: **\$ 40,000.00**
Forty thousand dollars and no cents

4. The parties agree to comply with the terms and conditions of the following exhibits which are by this reference made a part of the Agreement.

Exhibit A – Scope of Work	4 Pages
Exhibit B – Budget Detail and Payment Provisions	2 Pages
Exhibit C* – General Terms and Conditions (GTC 610)	
Exhibit D - Special Terms and Conditions	2 Pages
Exhibit E – Additional Terms and Conditions	2 Pages
Attachment 1 – Curriculum Vitae for Dr. Simunek	5 Pages

Items shown with an Asterisk (*), are hereby incorporated by reference and made part of this agreement as if attached hereto. These documents can be viewed at <http://www.ols.dgs.ca.gov/Standard+Language/default.htm>

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

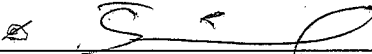
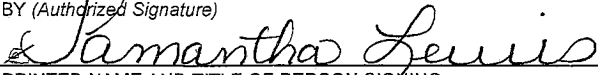
CONTRACTOR		California Department of General Services Use Only
CONTRACTOR'S NAME (if other than an individual, state whether a corporation, partnership, etc.) Dr. Jiri Simunek		
BY (Authorized Signature) 	DATE SIGNED (Do not type) 5-12-2012	
PRINTED NAME AND TITLE OF PERSON SIGNING Dr. Jirka Simunek		
ADDRESS 1476 Trenton Drive Riverside, CA 92506		
STATE OF CALIFORNIA		
AGENCY NAME Department of Pesticide Regulation		
BY (Authorized Signature) 	DATE SIGNED (Do not type) 5-24-12	
PRINTED NAME AND TITLE OF PERSON SIGNING Samantha Lewis, Business Services Office Manager		
ADDRESS 1001 I Street, 4th Floor, Sacramento, CA 95814		
		<input checked="" type="checkbox"/> Exempt per: Delegation Letter 74.4

EXHIBIT A Standard Agreement

SCOPE OF WORK

1. Dr. Jiri Simunek, hereinafter referred to as Contractor, agrees to provide modification and development of mathematical models for simulation to the Department of Pesticide Regulation (DPR), as described herein:
2. This Agreement will commence on the start date June 1, 2012 as presented herein or upon approval by the State, whichever occurs later and no work shall begin before that time. This Agreement is of no effect unless approved by the State. The Contractor shall not receive payment for work performed prior to approval of the Agreement and before receipt of notice to proceed by the Contract Manager. This Agreement shall expire on June 30, 2014. The services shall be provided during working hours, Monday through Friday, except holidays. The parties may amend this agreement as permitted by law.
3. All inquiries during the term of this Agreement will be directed to the project representatives listed below:

Department of Pesticide Regulation	Jiri Simunek, PhD.
Environmental Monitoring Branch	
Contract Manager: Yuzhou Luo	Project Manager: Jiri Simunek, PhD.
1001 I Street, 3 rd Floor Sacramento, CA 95814	1476 Trenton Drive Riverside, CA 92506
Bus. Phone No.: 916-445-2090	Bus. Phone No.: 951-204-7958
Fax No: 916-445-4405	
E-mail: ylo@cdpr.ca.gov	E-mail: jiri.simunek@ucr.edu

The project representatives during the term of this Agreement may be changed by mutual written agreement of the parties without the necessity of an amendment to the Agreement.

4. Background

Environmental modeling has been recognized by California Department of Pesticide Regulation (DPR) as an effective tool in risk assessment and risk management activities to protect human health and the environment from adverse effects of pesticides. The public's increasing concern about pesticides used in urban areas emphasizes the need for more effective evaluation and mitigation for their potential exposure to surface water. However, DPR has limited resources for registration evaluation of urban applications, and for post-use monitoring of urban pesticides.

EXHIBIT A Standard Agreement

This contract is developed to improve DPR's capability in the risk assessments of urban pesticide uses, and provide more cost-efficient and accurate modeling tools for DPR's registration, regulation, and mitigation procedures. These objectives will be accomplished by further development and improvement of DPR's modeling capability of pesticide transport simulation with HYDRUS2/3D model.

HYDRUS2/3D is selected for further development because it offers extensive capabilities for simulating water, heat and chemicals in two-dimensional and axisymmetrical three-dimensional systems. HYDRUS2/3D is the only currently available and fully supported model with capabilities to simulate spatially-distributed hydrology and pesticide behavior in complex geometries, showing a great potential for its applications in urban pesticide runoff studies. The overall objective of this study is to extend HYDRUS2/3D modeling capability for surface runoff and associated pesticide transport under a wide variety of conditions and application methods in California's urban environment. An example of the model development is to include the modeling capability in evaluating the effects of new registrations, treatment method modifications, and mitigation practices for urban pesticide uses.

5. Detailed description of work to be performed and duties of all parties:

A. Work to be performed

The contractor will make modifications to HYDRUS2/3D to allow the model to (a) simulate the generation and transport of overland flow induced by rainfall, irrigation, and other use-defined water input, (b) simulate dissolved pesticide transport in overland flow and link with the existing HYDRUS modules for dissolved pesticide transport in subsurface flow, and (c) simulate the detachment of particles and particle-bound pesticides from the land surface, and the particle transport with overland flow.

1) Conduct collaborative research with DPR air group scientists by:

- a) assisting in design of field research studies for the purpose of obtaining data to validate fumigant transport using HYDRUS;
- b) providing expert consultation in simulating field fumigant data using HYDRUS; and,
- c) developing additional needed modifications to HYDRUS as identified in field and computational modeling studies beyond those already successfully implemented in DPR Contract #09-C0078.

EXHIBIT A Standard Agreement

- 2) Consult with DPR surface water group modeling staff to identify specific details and methods of desired modifications; and develop specific new modules and modifications including:
 - a) (horizontal) 1D overland flow simulation and incorporation with HYDRUS2D;
 - b) dissolved-pesticide transport in 1D overland flow;
 - c) detachment of particle-bound pesticide, and particle transport in 1D overland flow;
 - d) options for additional inputs for water, pesticide, and particle on the 1D overland-flow domain;
 - e) (horizontal) 2D overland flow simulation and incorporation with HYDRUS3D;
 - f) dissolved-pesticide transport in 2D overland flow;
 - g) detachment of particle-bound pesticide, and particle transport in 2D overland flow; and,
 - h) options for additional inputs for water, pesticide, and particle on the 2D overland-flow domain.

B. Deliverables

- 1) Modified HYDRUS2/3D models with the capability for simulating pesticide runoff over urban landscape.
- 2) Documentation of work performed in electronic PDF format.
- 3) Ongoing modeling support for the duration of contract.

C. Timeline

- 1) Fiscal year 2011-2012
 - a) Consult with DPR surface water group modeling staff
 - b) Assist DPR air group for model validation

EXHIBIT A
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- 2) Fiscal year 2012-2013
 - a) Develop specific model components and integration with HYDRUS2/3D
 - b) Assist DPR air group for model validation
 - c) Update and/or correct model development
 - d) Submit developed model and draft documentation to DPR
 - e) Begin model testing/evaluation

- 3) Fiscal year 2013-2014
 - a) Finalize model development and documentation
 - b) Complete model testing/evaluation
 - c) Web-post models and documentation for minimum of 1 year
 - d) Provide on-going support to DPR staff of air group and surface water group

D. DPR Responsibilities

- 1) DPR's Contract Manager will provide feedback and guidance to the Contractor on project tasks and deliverables.
- 2) DPR air group and surface water group scientists will conduct testing of the developed model under various conditions to identify and report any problems or additional desired improvements.

EXHIBIT B
Standard Agreement

BUDGET DETAIL AND PAYMENT PROVISIONS

1. Invoicing and Payment

- A. For services satisfactorily rendered approved by the Contract Manager, and upon receipt and approval of the invoices, the State agrees to compensate the Contractor in accordance with the rates specified herein. Incomplete or disputed invoices shall be returned to the Contractor, unpaid, for correction.
- B. Invoices shall be itemized in accordance with the Rates state herein and shall include this Agreement Number, dates of services, a brief description of the invoiced services, and shall be signed and submitted in triplicate not more frequently than monthly in arrears to:

Department of Pesticide Regulation
Accounts Payable, MS-4A
P.O. Box 4015
Sacramento, CA 95812
- C. Ten percent (10%) of each invoice amount shall be withheld by DPR until the satisfactory completion of this Agreement

2. Budget Contingency Clause

- A. It is mutually understood between the parties that this Agreement may have been written before ascertaining the availability of congressional or legislative appropriation of funds, for the mutual benefit of both parties in order to avoid program and fiscal delays that would occur if the Agreement were executed after that determination was made.
- B. This Agreement is valid and enforceable only if sufficient funds are made available to the State by the United States Government or the California State Legislature for the purpose of this program. In addition, this Agreement is subject to any additional restrictions, limitations, conditions, or any statute enacted by the Congress or the State Legislature that may affect the provisions, terms or funding of this Agreement in any manner.
- C. It is mutually agreed that if the Congress or the State Legislature does not appropriate sufficient funds for the program, this Agreement shall be amended to reflect any reduction in funds.
- D. The State has the option to terminate the Agreement under the 30-day termination clause or to amend the Agreement to reflect any reduction of funds.

**EXHIBIT B
 Standard Agreement**

3. Prompt Payment Clause

Payment will be made in accordance with, and within the time specified in, Government Code Chapter 4.5, commencing with Section 927.

4. Cost Limitation

- A. Total amount of this Agreement shall not exceed \$40,000.00.
- B. It is understood and agreed that this total is an estimate and that the State will pay only for those services actually rendered as authorized by the contract manager or their designee.

5. Rates

Rates for services are as detailed below:

Service Description	\$/Hr	Hrs	Estimated Cost
Conduct collaborative research with DPR air group scientists	\$150	66.7	\$10,000
Consult with DPR surface water group modeling staff for model development	\$150	25	\$3,750
Develop specific model components	\$150	44	\$6,600
Incorporate the developed model components into HYDRUS2/3D	\$150	30	\$4,500
Provide written documentation of model development	\$150	30	\$4,500
Upgrade/correct any problems discovered by DPR during model testing	\$150	25	\$3,750
Work jointly with DPR surface water group on research projects to calibrate and validate modified HYDRUS2/3D models	\$150	30	\$4,500
Provide web access for updated HYDRUS2/3D models	\$150	16	\$2,400
Estimated Total Cost			\$40,000

6. Excise Tax

The State of California is exempt from federal excise taxes, and no payment will be made for any taxes levied on employees' wages. The State will pay for any applicable State of California or local sales or use taxes on the services rendered or equipment or parts supplied pursuant to this Agreement. California may pay any applicable sales and use tax imposed by another state.

EXHIBIT D
Standard Agreement

SPECIAL TERMS AND CONDITIONS

1. Settlement of Disputes

- A. Any dispute concerning a question of fact arising under this Agreement that is not disposed of by agreement shall be decided by the Department's Contract Officer, who may consider any written or verbal evidence submitted by the contractor. The decision of the Contract Officer, issued in writing, shall be the final decision of the Department.
- B. Neither the pendency of a dispute nor its consideration by the Contract Officer will excuse the contractor from full and timely performance in accordance with the terms of the Agreement.

2. Subcontractors

The contractor shall perform the work contemplated with resources available within its own organization and no portion of the work shall be subcontracted.

3. Termination

- A. The Department of Pesticide Regulation reserves the right to terminate this Agreement without cause upon thirty (30) days written notice to the Contractor or immediately in the event of material breach by the Contractor.
- B. In the event that the total contract amount is expended prior to the expiration date, the State may, at its discretion, terminate this contract with 30 days notice to contractor.

4. Retention of Records/Audits

For the purpose of determining compliance with Public Contract Code Section 10115, *et seq.* and Title 21, California Code of Regulations, Chapter 21, Section 2500 *et seq.*, when applicable, and other matters connected with the performance of the Agreement pursuant to Government Code Section 8546.7, the Contractor, subcontractors and the State shall maintain all books, documents, papers, accounting records, and other evidence pertaining to the performance of the Agreement, including but not limited to, the costs of administering the Agreement. All parties shall make such materials available at their respective offices at all reasonable times during the Agreement period and for three years from the date of final payment under the Agreement. The State, the State Auditor, FHWA, or any duly authorized representative of the Federal government having jurisdiction under Federal laws or regulations (including the basis of Federal funding in whole or in part) shall have access to any books, records, and documents of the Contractor that are pertinent to the Agreement for audits, examinations, excerpts, and transactions, and copies thereof shall be furnished if requested.

EXHIBIT D
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5. Harassment Free Workplace

The Department of Pesticide Regulation (DPR) is committed to providing a safe, secure environment, free from sexual misconduct. It is policy of the Department that employees have the right to work in an environment that is free from all forms of discrimination, including sexual harassment. This policy specifically speaks to freedom from a sexually harassing act that results in the creation of an intimidating, hostile or offensive work environment or that otherwise interferes with an individual's employment or work performance. As a Contractor with DPR, you and your staff are expected to comply with a standard of conduct that is respectful and courteous to DPR employees and all other persons contacted during the performance of this Agreement. Sexual harassment is unacceptable, will not be tolerated; and may be cause for prohibiting some or all of the Contractor's staff from performing work under this Agreement.

EXHIBIT E
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ADDITIONAL PROVISIONS

1. Liability Insurance Provisions

- A. Contractor is responsible for any deductible or self-insured retention contained within the insurance program.
- B. The Insurance policy shall contain a provision that states that coverage will not be cancelled without 30 days prior written notice to the State.
- C. Coverage must be in force for the complete term of this Agreement. If insurance expires during the term of this Agreement, a new certificate must be received by the State at least ten (10) days prior to the expiration of this insurance. This new insurance must still meet the terms of this Agreement.
- D. In the event contractor fails to keep in effect at all times the specified insurance coverage, the State may, in addition to any other remedies it may have, terminate this Agreement upon the occurrence of such event, subject to the provisions of the Agreement.
- E. Any insurance required to be carried shall be primary, and not excess, to any other insurance carried by the State.
- F. The State will not be responsible for any premiums or assessments on the policy.

Workers' Compensation/Employer's Liability

Contractor shall maintain statutory workers' compensation and employer's liability coverage for all its employees who will be engaged in the performance of the Agreement, including special coverage extensions where applicable. Employer's liability limits of **\$1,000,000** per incident shall be required.

2. Force Majeure

Neither party shall be liable to the other for any delay in or failure of performance, nor shall any such delay in or failure of performance constitute default, if such delay or failure is caused by "Force Majeure." As used in this section, "Force Majeure" is defined as follows: Acts of war and acts of god such as earthquakes, floods, and other natural disasters such that performance is impossible.

3. Contractor Evaluation

The Contractor is hereby notified that its performance under this Agreement shall be evaluated within thirty (30) calendar days following the Expiration of this Agreement. The evaluation may include statements on the adequacy of the service or the product, whether the service was satisfactory, whether the service or the product was provided or completed within the time limitations, reasons for time or cost overruns, whether the product is operational or being utilized by the State, and/or the State plans for implementation, and the State's general impression as to the competency of the Contractor and its staff. The evaluation shall be filed in the State's official Contractor Evaluation File.

EXHIBIT E
Standard Agreement

4. Consulting Services

- A. The Contractor is hereby advised of its duties, obligations and rights under Public Contract Code § 10335.5.
- B. The Contractor's key personnel assigned to perform work under this Agreement and their level of responsibility shall be mutually acceptable to the State and the Contractor.

