This Agreement is entered into between the Contracting Agency and the Contractor named below:

CONTRACTING AGENCY NAME
Department of Pesticide Regulation, hereinafter referred to as "DPR"

CONTRACTOR NAME
United States Geological Survey, "(USGS) (All references to 'Contractor' shall mean USGS, a U.S. Government Entity)"

The term of this Agreement is:

START DATE
May 1, 2019, or upon final approval by DPR, whichever occurs first

THROUGH END DATE
December 31, 2020

The maximum amount of this Agreement is:
$145,400.00

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.

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<td>2</td>
</tr>
</tbody>
</table>

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 [https://www.dgs.ca.gov/OLS/Resources](https://www.dgs.ca.gov/OLS/Resources)

IN WITNESS WHEREOF, THIS AGREEMENT HAS BEEN EXECUTED BY THE PARTIES HERE TO.

CONTRACTOR
United States Geological Survey

CONTRACTOR BUSINESS ADDRESS
6000 J Street, Placer Hall

CITY
Sacramento

STATE
CA

ZIP
95819

PRINTED NAME OF PERSON SIGNING
Eric G. Reichard

TITLE
Director, California Water Science Center

CONTRACTOR AUTHORIZED SIGNATURE
Eric G. Reichard

DATE SIGNED
6-3-19

STATE OF CALIFORNIA

CONTRACTING AGENCY NAME
Department of Pesticide Regulation

CONTRACTING AGENCY ADDRESS
1001 I Street

CITY
Sacramento

STATE
CA

ZIP
95814

PRINTED NAME OF PERSON SIGNING
Leslie Ford

TITLE
Branch Chief

CONTRACTING AGENCY AUTHORIZED SIGNATURE
Leslie Ford

DATE SIGNED
6-7-19

CALIFORNIA DEPARTMENT OF GENERAL SERVICES APPROVAL

EXEMPTION (If Applicable)
Delegation Letter 74.6
EXHIBIT A
STANDARD AGREEMENT

SCOPE OF WORK

1. This Agreement is between the United States Geological Survey (USGS), hereinafter referred to as USGS or Contractor, and the State of California, Department of Pesticide Regulation, hereinafter referred to as DPR.

2. Whereas, the USGS is authorized to perform collaborative work and prosecute projects in cooperation with other agencies, Federal, State or private, pursuant to 43 USC §36c; 43 USC 50; and the USGS is authorized to receive payments in arrears from any State, Territory, Tribe, possession, or political subdivision by 43 USC §50b.

3. This Agreement will commence on the start date May 1, 2019 as presented herein or upon final approval by DPR, whichever is later and no work shall begin before that time. This Agreement is of no effect unless approved by DPR. USGS shall not receive payment for work performed prior to the approval of the Agreement and before receipt of the notice to proceed by the Contract Manager. This Agreement shall expire on December 31, 2020. The services shall be provided during normal working hours.

4. The Project Representatives during the term of this Agreement will be:

   A. All official communications, except invoices, shall be directed to the attention of the DPR Contract Manager, Scott Wagner, or designee, at:

      Department of Pesticide Regulation
      Environmental Monitoring Branch, MS 3B
      1001 I Street
      P.O. Box 4015
      Sacramento, CA 95812-4015

      Phone: (916) 324-4087 Fax: (916) 324-4088
      E-mail: Scott.Wagner@cdpr.ca.gov

   B. All invoices from the USGS to DPR shall be directed to:

      Department of Pesticide Regulation
      Attn: Accounts Payable
      P.O. Box 4015, MS 4A
      Sacramento, CA 95812-4015
      Fed ID# 68-0325102

   C. All programmatic communications from DPR to the USGS shall be directed to the attention of James Orlando, or designee at:

      USGS, California Water Science Center
      6000 J St, Placer Hall
      Sacramento CA, 95819-6129
      916-278-3271
      jorlando@usgs.gov
D. All administrative communications, except payments, from DPR to USGS shall be directed to:

James Orlando
USGS, California Water Science Center
6000 J St, Placer Hall
Sacramento CA, 95819-6129
916-278-3271
jorlando@usgs.gov

E. All payments from DPR to the USGS shall be directed to:

Janee D. Hieett
Budget Analyst
USGS, California Water Science Center
6000 J Street, Placer Hall
Sacramento, CA 95819-6129
916-278-3001
916-278-3070 Fax
jdhiett@usgs.gov

F. The Project Representatives during the term of this Agreement may be changed by mutual written agreement without the necessity of formal amendment to this Agreement.

5. Background and Goals

Neonicotinoid insecticide use has increased rapidly over the last decade, driven in part by their increasing use as seed coatings (application of chemical prior to planting). Previous research has focused on the fate of neonicotinoid insecticides applied as seed coatings to corn and soybeans; however, many other crops also use neonicotinoid seed coatings. In addition, fungicides are commonly included as seed treatments. In California, crops such as lettuce can use neonicotinoid and/or fungicide treated seeds and/or receive a neonicotinoid direct soil application (shanking) at planting. Because of the different climates and growing seasons in lettuce production versus that of corn and soybeans research is needed to determine the environmental transport of neonicotinoids and fungicides to aquatic systems.

Whereas, the USGS has a mission in understanding water quality and has need of pesticide usage and application practices data to support this mission; and

Whereas, Collaborator has expertise in pesticide usage and application practices and has need of USGS expertise in current-use pesticide analyses; and

Whereas, the Project entitled DPR Seed Treatment Study is intended by the Parties to be mutually beneficial and to benefit the people of the United States.
**Objectives**

The objectives are to:

1. Determine concentrations of neonicotinoid insecticides and fungicides in surface water runoff from treatment/control plots. Plots will be planted with lettuce seeds treated with the neonicotinoid clothianidin and the fungicide azoxystrobin (Plot 1), the fungicide azoxystrobin with an imidacloprid direct soil application (shanking) (Plot 2), the neonicotinoid imidacloprid and the fungicide azoxystrobin (Plot 3), and seeds with no neonicotinoid or fungicide applications (control plot).

2. Determine concentrations of neonicotinoid insecticides and fungicide in composite surface soil samples collected from seed treatment, drenching and control plots.

3. Determine concentrations of neonicotinoid insecticides in shallow, (0-5’ depth) soil cores in a neonicotinoid drenched plot.

University of California Agriculture and Natural Resources (UCANR) will be conducting the field planting, water collection, and sediment collection portion of the study funded under a separate DPR Agreement (Agreement #18-C0072).

**6. Work to Be Performed**

**Task 1:** Analyze surface water runoff samples from each treatment and control plot for neonicotinoids fungicides for two growing seasons. Samples will be collected at the end of each irrigation day during the irrigation/germination period. Additional samples may be collected if precipitation events occur during the growing season. A total of up to 34 water samples per season will be collected: (4 treatments x 7 events (5 irrigation, 2 potential precipitation)) = up to 28 samples + 6 QC.

**Task 2:** Analyze composite surface soil samples from each treatment/control plot for neonicotinoid insecticides and fungicides. Samples will be collected at the beginning and end of each growing period. Work will be conducted over two growing seasons. A total of 9 soil samples per season will be collected: (4 treatments x 2 events) = 8 samples + 1 QC.

**Task 3:** Analyze soil core samples from a drenched plot and control plot for neonicotinoid insecticides (3 cores from a drenched plot and 1 core from the control). Samples will be collected at the beginning (control plot) and end of the growing period (treatment plot) during the first growing season. Work will be conducted over one growing season. A total of up to 44 soil samples will be collected: (4 cores x 10 samples/core) = 40 samples + 4 QC.

**Task 4:** Provide sample analysis results from Tasks 1-3 to DPR contract manager following completion of Tasks 1-3 in Year 1 and Year 2.

**Task 5:** Prepare and provide a draft manuscript article prepared for submission to a peer-reviewed technical journal based on the data from Tasks 1-4. The manuscript will summarize UCANR experimental field trials and results from Tasks 1-4.
EXHIBIT A
STANDARD AGREEMENT

Changes to the frequency and timing of sample events, sampling methodologies, active ingredients, or experimental field growing procedures can be made upon mutual agreement between DPR Contract Manager, UCANR, and USGS.

7. Deliverables

USGS will:

1. Provide sample analysis results to contract manager and UCANR at the end of each year. At the end of year 1 and year 2, the data will be provided as an Excel spreadsheet.
2. Provide a final technical report as a draft USGS data release to DPR 21 days before completion of the agreement.
3. Provide a draft manuscript to be prepared for submission to a peer-reviewed technical journal based on the data included in the data release. The manuscript will summarize UCANR experimental field trials and sample results from the USGS deliverable. The manuscript will be emailed to DPR's contract manager no less than 30 days prior to submission.
4. For agreements of $5,000 or more, any document or written report prepared for or under the direction of the DPR, shall include a notation on the inside cover as follows: “Prepared as part of DPR agreement number 18-C0071 pursuant to Government Code Section 7550.” followed by the words “California Department of Pesticide Regulation.”
5. Present one seminar to DPR, toward the end of the project, on the findings of the conducted research.

8. Project Timeline

The project will last from Spring, 2019 through 2020.

<table>
<thead>
<tr>
<th>Task</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>May</td>
<td>Jun</td>
</tr>
<tr>
<td>Surface Water Analysis</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Soil Analysis</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Soil Core Analysis</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Data Reporting</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Journal Article Preparation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. DPR's Responsibilities

A. DPR will review the final technical report prepared as Deliverable #2 and will provide comments within 14 days of submission.
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B. DPR will review the draft manuscript prepared as Deliverable #3 and provide comments within 21 days of submission.

C. DPR staff will collect the soil core samples for analysis in Task 3 and be responsible for the delivery of the samples to the contractor.

D. DPR is responsible for executing the agreement with UCANR (agreement #18-C0072) that is responsible for generating the samples to be analyzed in Tasks 1, 2, and 3:
Budget Detail and Payment Provisions

1. Invoicing

A. In no event shall the USGS request reimbursement from DPR for obligations entered into or for costs incurred prior to the commencement date or after the expiration of this Agreement.

B. For services satisfactorily rendered and approved by the Contract Manager and upon receipt and approval of the invoices, DPR agrees to compensate USGS for actual allowable costs incurred as specified herein and in accordance with the rates specified herein or attached hereto. Incomplete or disputed invoices shall be returned to USGS, unpaid, for correction.

C. DPR’s Contract Manager shall review the deliverables as they are completed and shall complete this review within 30 days of written notice of completion by USGS. DPR’s Contract Manager shall determine the acceptability of the technical work on behalf of DPR and approve or reject invoice on this basis. DPR’s Contract Manager shall provide written documentation to USGS of acceptability or non-acceptance of the work. Such documentation must be received by USGS before USGS may forward invoices to DPR for payment. Disputes shall be resolved according to the provisions in Exhibit D. USGS will have the authority to issue an invoice 30 days after a deliverable is provided if no response to this review has been received from DPR.

D. USGS shall submit two (2) copies of each invoice and any supporting documentation, not more frequently than quarterly in arrears, to:

Department of Pesticide Regulation  
Attn: Accounts Payable  
P.O. Box 4015, MS 4A  
Sacramento, CA 95812-4015

E. All invoices shall contain the name of the USGS, the USGS address as specified on the first page of this Agreement (Std 213), the Agreement number 18-C0071, the date of the invoice, the USGS invoice number, the invoice period, and a description of the services provided.

2. Budget Contingency Clause

A. This Agreement is valid and enforceable only if sufficient funds are made available to DPR by the United States Government or the California State Legislature for the current year and/or any subsequent years covered under this Agreement. In addition, this Agreement is subject to any additional restrictions, limitations, or conditions enacted by
EXHIBIT B
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the Congress or any statute enacted by the Congress or the California State Legislature which may affect the provisions, terms or funding of this Agreement in any manner.

B. If funding for any fiscal year is not appropriated, reduced or deleted by the United States Government or the California State Legislature for purposes of this program, DPR shall have the option to either cancel this Agreement with no liability occurring to DPR, or offer an Agreement Amendment to reflect the reduced amount.

C. USGS' contributions are subject to the availability of Congressional appropriations. USGS may request amendment or termination of this Agreement should funds not be made available.

D. It is mutually agreed that if the Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the program, this Agreement shall be of no further force and effect. In this event, the DPR shall have no liability to pay any funds whatsoever to USGS (except to reimburse USGS for expenses incurred) or to furnish any other considerations under this Agreement and the USGS shall not be obligated to perform any provisions of the Agreement

E. The recipient shall comply with the Single Audit Act and the reporting requirements set forth in OMB Circular A-133.

F. Ten percent (10%) withhold of the total amount shall be withheld by DPR until the satisfactory completion of this Agreement.

3. Payment

A. The USGS will submit invoices on a quarterly basis. Undisputed invoices shall be paid by DPR to USGS within 60 days of receipt of the invoice by DPR's Contract Manager or Accounting Office, whichever occurs later. If not paid by the due date, interest will be charged at the current Treasury rate for each 30 day period, or portion thereof, that the payment is delayed beyond the due date (31 USC 3717; Comptroller General File B-212222, August 23, 1983).

B. Travel costs shall not exceed rates authorized to be paid under Federal Travel Regulations (Title 41 Code of Federal Regulation (CFR) Chapters 300-304),

4. Cost Limitation

A. The total amount of this Agreement shall not exceed $145,400.00.

B. It is understood and agreed that this total is an estimate and that DPR will pay for only those services actually rendered as authorized by the DPR Contract Manager or his/her designee.

C. Funding provided by USGS in support of this Agreement shall not exceed $14,188.00.
EXHIBIT B
STANDARD AGREEMENT

Rates

Table 1. Budget Details by hours worked per State Fiscal Year (SFY).

<table>
<thead>
<tr>
<th>Job Class</th>
<th>Grades</th>
<th>Base Hourly Rate</th>
<th>SFY 2018-19</th>
<th>SFY 2019-20</th>
<th>SFY 2020-21</th>
<th>Estimated Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Chemist</td>
<td>GS-14</td>
<td>$148.81 – $193.45</td>
<td>37</td>
<td>159</td>
<td>49</td>
<td>244</td>
</tr>
<tr>
<td>Hydrologist</td>
<td>GS-12</td>
<td>$105.89 – $137.68</td>
<td>30</td>
<td>131</td>
<td>40</td>
<td>202</td>
</tr>
<tr>
<td>Chemist</td>
<td>GS-09</td>
<td>$73.04 – $94.94</td>
<td>52</td>
<td>224</td>
<td>69</td>
<td>345</td>
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<tr>
<td>Hydrologist</td>
<td>GS-09</td>
<td>$73.04 – $94.94</td>
<td>43</td>
<td>185</td>
<td>57</td>
<td>285</td>
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<tr>
<td>Chemist</td>
<td>GS-07</td>
<td>$59.71 – $77.61</td>
<td>48</td>
<td>206</td>
<td>63</td>
<td>317</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>209</td>
<td>905</td>
<td>279</td>
<td>1393</td>
</tr>
</tbody>
</table>

Table 2. Budget details by cost per SFY.

<table>
<thead>
<tr>
<th>Job Class</th>
<th>Grades</th>
<th>Base Hourly Rate</th>
<th>SFY 2018-19</th>
<th>SFY 2019-20</th>
<th>SFY 2020-21</th>
<th>Estimated Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Chemist</td>
<td>GS-14</td>
<td>$148.81 – $193.45</td>
<td>$6,620</td>
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<td>GS-12</td>
<td>$105.89 – $137.68</td>
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<td>TOTAL</td>
<td></td>
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<td>$21,255</td>
<td>$92,103</td>
<td>$28,339</td>
<td>$141,697</td>
</tr>
</tbody>
</table>

OPERATING EXPENSES
Laboratory Supplies (solvents, bottles, extraction supplies) $3,703

Total Agreement Amount $145,400

Explanation of Budget Determination
The budget amounts listed above shall be determined following all applicable Federal regulations and USGS guidelines.
Indirect costs

Budget amounts are total gross costs, including all indirect costs. The indirect cost rate in Federal fiscal year 2018 is 88.546% for most budget categories; this rate is subject to change in subsequent years. See section 501.1 of the USGS Manual for additional information about assessments (https://www2.usgs.gov/usgs-manual/500/501-1.html). The indirect cost assessment covers the following items: facilities, USGS management and regional support services, California Water Science Center support services (information technology (IT), administrative, data management, discipline specialists, etc.), and enterprise equipment/software, etc.

Personnel costs

USGS personnel salaries conform to the Federal Government General Schedule pay scale tables (https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/2018/general-schedule/) for the localities in which project personnel are based (Sacramento). Federal privacy regulations prohibit public release of payroll information in a format that would permit determination of exact salary, benefits, or leave information for identifiable individual employees. The number of personnel in each grade may vary over the course of the Agreement for reasons including, but not limited to, study requirements, personnel changes, and/or workload requirements. Personnel grade depends on experience, education and job function, and is determined according to Federal Government human resources policies and regulations. Scientists, technicians, and student assistants are all on the same pay scale. Personnel costs include estimated fringe benefits (33%), leave assessment (20%), and indirect costs (88.6%). The following chart (Table 3) illustrates an example calculation of gross hourly rates:

Table 3. Example calculation of gross hourly rates.

| Base hourly rate ($25.00) | Benefits ($8.25) 33% of base hourly | Leave ($6.65) 20% of the total of base hourly + benefits | Indirect ($35.35) 88.6% of the total of base hourly + benefits + leave | Gross hourly rate ($75.25) |

The percentages used for fringe benefits, leave assessment and indirect costs are for Federal fiscal year 2018 and are subject to change in subsequent fiscal years. Fringe benefits include agency contributions to employee health insurance, life insurance, and retirement plan. Leave assessment includes Federal holidays, sick, leave, and annual leave. See section 501.1 of the USGS Manual for additional information about assessments (https://www2.usgs.gov/usgs-manual/500/501-1.html).
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Special Terms and Conditions

1. Right to Terminate

A. Either Party reserves the right to terminate this agreement without cause upon 30 days written notice to the other Party, or immediately in the event of a material breach. In the event of termination, Contractor shall be paid for all allowable costs incurred up to the date of termination and upon receipt of the final invoice.

B. In the event that the total Agreement amount is expended prior to the expiration date, DPR may, at its sole discretion, terminate this Agreement with 30 days' notice to contractor.

2. Contracting

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

3. 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.

4. Disputes

A. DPR shall provide written notice to USGS regarding a dispute over the performance of this Agreement. As a first step, the Project Representatives for each party shall meet and attempt to seek a mutually agreeable resolution to any issue within 30 days written notice. USGS shall continue with its responsibilities under this Agreement during any dispute.

B. If agreement cannot be reached within 30 days of notice of a dispute, the Project Representatives shall submit the dispute to DPR's Director and to the USGS' California Water Science Center Director for resolution of the dispute. The parties may process an amendment to this Agreement, if appropriate, to implement resolution of the dispute.
5. Rights in Data:

All data and information obtained and/or received under this agreement shall be in the public domain. USGS and DPR shall have mutual rights to disclose, disseminate and use, in whole or part, any final form data and information received, collected, and developed under this agreement, subject to inclusion of appropriate acknowledgment of credit to USGS and DPR for their financial support, excluding the production of any privileged and/or otherwise private information that would be protected from disclosure. Use of draft data requires pre-approval by USGS and DPR. USGS will not sell or grant rights to a third party who intends to sell such products as a profit-making venture."