

# **AGREEMENT FOR SUNNY DAY DAM BREACH ANALYSIS AND FLOOD INUNDATION MAPS**

This Agreement is made and entered into by and between the County of Lake, hereinafter referred to as “County”, and Kimley-Horn and Associates Inc., hereinafter referred to as “Contractor”, collectively referred to as the “parties”.

1. **SERVICES.** Subject to the terms and conditions set forth in this Agreement, Contractor shall provide to County the services described in the Scope of Services attached hereto and incorporated herein as Exhibit A at the time and place and in the manner specified therein. In the event of a conflict in or inconsistency between the terms of this Agreement and Exhibit A – Scope of Services, Exhibit B - Fiscal Provisions, and Exhibit C – Compliance Provisions, the Agreement shall prevail.

2. **TERM.** This Agreement shall commence on January 1, 2026 and shall terminate on January 1, 2027, unless earlier terminated as hereinafter provided. In the event County desires to temporarily continue services after the expiration of this Agreement, such continuation shall be deemed on a month-to-month basis, subject to the same terms, covenants, and conditions contained herein.

3. **COMPENSATION.** Contractor has been selected by County to provide the services described hereunder in Exhibit “A” (Scope of Services), attached hereto. Compensation to Contractor shall not exceed **\$32,500**.

The County shall compensate Contractor for services rendered, in accordance with the provisions set forth in Exhibit “B” (Fiscal Provisions), attached hereto, provided that Contractor is not in default under any provisions of this agreement. Compensation to Contractor is contingent upon appropriation of federal, state and county funds.

4. **TERMINATION.** This Agreement may be terminated by mutual consent of the parties or by County upon 10 days written notice to Contractor.

In the event of non-appropriation of funds for the services provided under this Agreement, County may terminate this Agreement, without termination charge or other liability.

Upon termination, Contractor shall be paid a prorated amount for the services provided up to the date of termination.

5. **MODIFICATION.** This Agreement may only be modified by a written amendment hereto, executed by both parties; however, matters concerning scope of services which do not affect the compensation may be modified by mutual written consent of Contractor and County executed by the Water Resources Director.

6. **NOTICES.** All notices between the parties shall be in writing addressed as follows:

County of Lake  
Water Resources Department  
255 N. Forbes St.  
Lakeport, CA 95453

Contractor  
Kimley-Horn and Associates Inc.  
7900 Rancharrah Parkway, Suite 100  
Reno, NV 89511  
Attn: Shaker Gorla, P.E., CFM

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7. **EXHIBITS.** The Agreement Exhibits, as listed below, are incorporated herein by reference:

Exhibit A – Scope of Services  
Exhibit B – Fiscal Provisions  
Exhibit C – Compliance Provisions

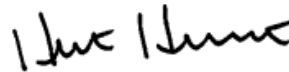
8. **TERMS AND CONDITIONS.** Contractor warrants that it will exercise the professional standard of care to comply with all terms and conditions of this Agreement and Exhibits, and all other applicable federal, state and local laws, regulations and policies.

9. **INTEGRATION.** This Agreement, including attachments, constitutes the entire agreement between the parties regarding its subject matter and supersedes all prior Agreements, related proposals, oral and written, and all negotiations, conversations or discussions heretofore and between the parties.

Executed at Lakeport, California on \_\_\_\_\_.

COUNTY OF LAKE

CONTRACTOR



\_\_\_\_\_  
CHAIR, Board of Supervisors

\_\_\_\_\_  
Kimley-Horn and Associates Inc.

*If applicable*

ATTEST:  
SUSAN PARKER  
Clerk to the Board of Supervisors

APPROVED AS TO FORM:  
LLOYD GUINTIVANO  
County Counsel

By: \_\_\_\_\_

By:  \_\_\_\_\_

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## EXHIBIT “A” – SCOPE OF SERVICES

### PROJECT UNDERSTANDING

Kimley Horn understands that Lake County has been informed by the California Department of Water Resources – Division of Safety of Dams that the current flood inundation maps illustrating dam breach scenarios for Highland Creek and Adobe Creek require updates to accurately represent a sunny day dam breach event. Kimley-Horn provides the following scope of services and fee to conduct sunny day dam breach analyses for the two dams, as requested by the County.

#### Assumptions

Kimley-Horn’s scope and fee are based on the following assumptions:

- LiDAR data for Highland Creek, Adobe Creek reservoirs, and downstream regions is available from the USGS National Map or will be supplied by the County.
- Both dams may be incorporated into a unified hydraulic model, utilizing distinct dam breach parameters for each structure.
- A single Technical Memorandum presenting the results of the dam breach analyses for both dams is acceptable, provided that separate inundation maps are prepared for each dam.

If any of these assumptions are not correct, then the scope and fee will change.

### SCOPE OF SERVICES

The sunny day dam breach inundation analysis for the two dams will be performed using the U.S. Army Corps of Engineers’ HEC-RAS 2D unsteady flow model. The objective is to evaluate potential inundation zones and flow characteristics resulting from a hypothetical dam breach scenario under normal reservoir conditions and to document the findings in a concise Technical Memorandum. Kimley-Horn will provide the services specifically set forth below.

#### Task 1. Data Collection and Review

- Gather available topographic data (USGS LiDAR data or County provided topographic data)
- Collect dam geometry, outlet works configuration, spillway data, and reservoir storage-elevation curve.
- Review hydrologic and hydraulic data from previous studies, if available.
- Obtain relevant GIS layers such as land cover, hydrography, and infrastructure (roads, buildings).
- Review applicable California Department of Water Resources – Division of Safety of Dams regulatory guidance.

#### Deliverable:

- Summary of available data and data gaps (included in Task 5 - Tech Memo).

#### Task 2. Terrain and Model Setup

- Develop or refine a combined terrain model by merging LiDAR with dam geometry and outlet/spillway features.
- Define the 2D flow area to encompass the downstream channel, floodplain, and potential inundation extent.
- Assign appropriate computational mesh size and breaklines to capture key hydraulic features (e.g., dam crest, roads, channels).
- Configure boundary conditions for reservoir and downstream flow boundaries.

#### Deliverable:

- HEC-RAS 2D geometry file and terrain model included in zipped HEC-RAS model.

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## **Task 3. Dam Breach Parameter Development**

- Define dam breach parameters (location, bottom width, side slopes, and breach formation time) based on dam type and materials using established guidelines (FERC, USACE, or state dam safety criteria).
- Determine the initial reservoir water level corresponding to normal pool (sunny day condition).
- Document assumptions and justifications for all breach parameters.

### **Deliverable:**

- Breach input parameters and rationale table (included in Tech Memo).

## **Task 4. Unsteady Flow Simulations, Mapping**

- Configure and execute the unsteady flow simulation for the sunny day breach scenario.
- Run model iterations to ensure numerical stability and realistic flow propagation.
- Perform sensitivity checks on key breach parameters (e.g., breach width, formation time).
- Post-process model results to generate inundation mapping layers showing the following at key locations:
  - Maximum flood depth (one foot or greater)
  - Maximum velocity
  - Flood arrival time
- Develop GIS-based inundation maps showing the extent of flooding downstream.
- Delineate impact areas for critical infrastructure and access routes.

### **Deliverable:**

- GIS map package and shapefiles of inundation extent and hydraulic parameters.

## **Task 5. Technical Memorandum**

Prepare a concise Technical Memorandum summarizing the analysis and results. The memo will include:

- Project purpose and methodology
- Data sources and model setup
- Breach parameter selection and justification
- Simulation results and key findings
- Discussion of uncertainties and limitations
- Inundation mapping figures and tables

### **Deliverable:**

- Final Technical Memorandum in PDF format

## **SERVICES NOT INCLUDED**

Any other services, including but not limited to the following, are not included in this Agreement:

## **ADDITIONAL SERVICES**

Any services not specifically provided for in the above scope will be billed as additional services and performed at Kimley-Horn's then-current hourly rates.

## **INFORMATION PROVIDED BY CLIENT**

Kimley-Horn shall be entitled to rely on the completeness and accuracy of all information provided by the Client or the Client's consultants or representatives. The Client shall provide all information requested by Kimley-Horn during the project, including but not limited to the following:

- If the USGS does not have LiDAR data that could be used for hydraulic modeling, topographic data covering the dam extents, downstream areas shall be provided by the County
- As-built drawings for the two dams and reservoirs

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## SCHEDULE

Kimley-Horn will perform the services as expeditiously as practicable with the goal of meeting a mutually agreed upon schedule.

## FEE AND EXPENSES

Kimley-Horn will perform the services in Tasks 1 - 5 for the total lump sum labor fee below. Individual task amounts are informational only. In addition to the lump sum labor fee, direct reimbursable expenses such as express delivery services, air travel, subconsultant costs, and other direct expenses will be billed at 1.15 times cost. All permitting, application, and similar project fees will be paid directly by the Client. Should the Client request Kimley-Horn to advance any such project fees on the Client's behalf, a separate invoice for such fees, with a fifteen percent (15%) markup, will be immediately issued to and paid by the Client.

Task Number & Name		Fee	Type
1	Data Collection and Review	\$4,540	Lump Sum
2	Terrain and Model Setup	\$5,500	Lump Sum
3	Dam Breach Parameter Development	\$2,200	Lump Sum
4	Unsteady Flow Simulations, Mapping	\$10,410	Lump Sum
5	Technical Memorandum	\$9,850	Lump Sum
Total		\$32,500	

Lump sum labor fees will be invoiced monthly based upon the overall percentage of services performed. Payment will be due within 30 days of your receipt of the invoice and should include the invoice number and Kimley-Horn project number.

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**EXHIBIT “B” – FISCAL PROVISIONS**

**1. CONTRACTOR’S FINANCIAL RECORDS.** Contractor shall keep financial records for funds received hereunder, separate from any other funds administered by Contractor, and maintained in accordance with Generally Accepted Accounting Principles and Procedures and the Office of Management and Budget’s Cost Principles.

**2. INVOICES.**

2.1 Contractor’s invoices shall be submitted in arrears on a monthly basis, or such other time that is mutually agreed upon in writing, and shall be itemized and formatted to the satisfaction of the County.

2.2 County shall make payment within 20 business days of an undisputed invoice for the compensation stipulated herein for supplies delivered and accepted or services rendered and accepted, less potential deductions, if any, as herein provided. Payment on partial deliverables may be made whenever amounts due so warrant or when requested by the Contractor and approved by the Assistant Purchasing Agent.

**3. AUDIT REQUIREMENTS AND AUDIT EXCEPTIONS**

3.1 Contractor warrants that it shall comply with all audit requirements established by County and will provide a copy of Contractor’s Annual Independent Audit Report, if applicable.

3.2 County may conduct periodic audits of Contractor’s financial records, notifying Contractor no less than 48 hours prior to scheduled audit. Said notice shall include a detailed listing of the records required for review. Contractor shall allow County, or other appropriate entities designated by County, access to all financial records pertinent to this Agreement.

3.3 Contractor shall reimburse County for audit exceptions within 30 days of written demand or shall make other repayment arrangements subject to the approval of County.

**4. BUDGET.** The Contractor shall submit, in advance, a detailed budget, in the format provided by County for review and approval by the County. Contractor shall be compensated only for expenses included in the approved budget. Modification to the budget must be approved in advance by the County.

**5. EXPENDITURE OF FUNDS.**

5.1 Funds payable through this agreement shall not be used to purchase food or promotional merchandise or to attend conferences unless specifically approved in the budget.

5.2 County reserves the right to refuse payment to Contractor or disallow costs for any expenditure determined to be unreasonable, out of compliance, or inappropriate to the services provided hereunder.

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**EXHIBIT “C” – COMPLIANCE PROVISIONS**

1. **INFORMATION INTEGRITY AND SECURITY.** Contractor shall immediately notify County of any known or suspected breach of personal, sensitive and confidential information related to Contractor’s work under this Agreement.
2. **NON-DISCRIMINATION.** Contractor shall not unlawfully discriminate against any qualified worker or recipient of services because of race, religious creed, color, sex, sexual orientation, national origin, ancestry, physical disability, mental disability, medical condition, marital status or age.
3. **DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS**
  - 3.1 The Contractor certifies to the best of its knowledge and belief, that it and its subcontractors:
    - A. Are not presently debarred, suspended, proposed for disbarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency;
    - B. Have not, within a three-year period preceding this Agreement, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction; violation of federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
    - C. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity with commission of any of the offenses enumerated in the preceding paragraph; and
    - D. Have not, within a three-year period preceding this Agreement, had one or more public transactions terminated for cause or default.
  - 3.2 Contractor shall report immediately to County, in writing, any incidents of alleged fraud and/or abuse by either Contractor or Contractor’s subcontractor. Contractor shall maintain any records, documents, or other evidence of fraud and abuse until otherwise notified by County.
4. **AGREEMENTS IN EXCESS OF \$100,000.** Contractor shall comply with all applicable orders or requirements issued under the following laws:
  - 4.1 Clean Air Act, as amended (42 USC 1857).
  - 4.2 Clean Water Act, as amended (33 USC 1368).
  - 4.3 Federal Water Pollution Control Act, as amended (33 USC 1251, et seq.)
  - 4.4 Environmental Protection Agency Regulations (40 CFR and Executive Order 11738).

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**5. INDEMNIFICATION AND HOLD HARMLESS.**

Each party shall indemnify and hold the other harmless against all actions, claims, demands, and liabilities and against all losses, damage, cost, expenses, and reasonable attorney's fees, arising directly or indirectly out of an actual or alleged injury to a person or property in the same proportion that its own negligent acts and/or omissions caused said claim, demand, liability, loss, damage, cost, expenses, and/or attorney's fees. This provision shall not extend to any claim, demand, liability, loss, damage, cost, expenses, and/or attorney's fees covered by the insurance of either party.

Contractor's obligations under this Section shall survive the termination of the Agreement.

**6. STANDARD OF CARE.** Contractor represents that it is trained, licensed, experienced and competent to perform all the services, responsibilities and duties specified herein and that such services, responsibilities and duties shall be performed, whether by Contractor or designated subcontractors, in a manner according to generally accepted practices.

**7. INTEREST OF CONTRACTOR.** Contractor assures that neither it nor its employees has any interest, and that it shall not acquire any interest in the future, direct or indirect, which would conflict in any manner or degree with the performance of services hereunder.

**8. DUE PERFORMANCE – DEFAULT.** Each party agrees to fully perform all aspects of this agreement. If a default to this agreement occurs then the party in default shall be given written notice of said default by the other party. If the party in default does not fully correct (cure) the default within 30 days of the date of that notice (i.e. the time to cure) then such party shall be in default. The time period for corrective action of the party in default may be extended in writing executed by both parties, which must include the reason(s) for the extension and the date the extension expires.

Notice given under this provision shall specify the alleged default and the applicable Agreement provision and shall demand that the party in default perform the provisions of this Agreement within the applicable time period. No such notice shall be deemed a termination of this Agreement, unless the party giving notice so elects in that notice, or so elects in a subsequent written notice after the time to cure has expired.

**9. INSURANCE.**

9.1 Contractor shall procure and maintain Workers' Compensation Insurance for all of its employees.

9.2 Contractor shall procure and maintain Comprehensive Public Liability Insurance, both bodily injury and property damage, in an amount of not less than one million dollars (\$1,000,000) combined single limit coverage per occurrence, including but not limited to endorsements for the following coverage: personal injury, premises-operations, products and completed operations, blanket contractual, and independent contractor's liability.



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9.3 Contractor shall procure and maintain Comprehensive Automobile Liability Insurance, both bodily injury and property damage, on owned, hired, leased and non-owned vehicles used in connection with Contractor's business in an amount of not less than one million dollars (\$1,000,000) combined single limit coverage per occurrence.

9.4 Contractor shall procure and maintain Professional Liability Insurance for the protection against claims arising out of the performance of services under this Agreement caused by errors, omissions or other negligent acts for which Contractor is liable. Said insurance shall be written with limits of not less than one million dollars (\$1,000,000).

9.5 Contractor shall not commence work under this Agreement until it has obtained all the insurance required hereinabove and submitted to County certificates of insurance naming the County of Lake as additional insured. Contractor agrees to provide to County, at least 30 days prior to expiration date, a new certificate of insurance.

9.6 In case of any subcontract, Contractor shall require each subcontractor to provide all of the same coverage as detailed hereinabove. Subcontractors shall provide certificates of insurance naming the County of Lake as additional insured and shall submit new certificates of insurance at least 30 days prior to expiration date. Contractor shall not allow any subcontractor to commence work until the required insurances have been obtained.

9.7 For any claims related to the work performed under this Agreement, the Contractor's insurance coverage shall be primary insurance as to the County, its officers, officials, employees, agents and volunteers. Any insurance or self-insurance maintained by County, its officers, officials, employees, agents or volunteers shall be in excess of the Contractor's insurance and shall not contribute with it.

9.8 The Commercial General Liability and Automobile Liability Insurance must each contain, or be endorsed to contain, the following provision:

The County, its officers, officials, employees, agents, and volunteers are to be covered as additional insureds and shall be added in the form of an endorsement to Contractor's insurance on Form CG 20 10 11 85. Contractor shall not commence work under this Agreement until Contractor has had delivered to County the Additional Insured Endorsements required herein.

Coverage shall not extend to any indemnity coverage for the active negligence of the additional insured in any case where an agreement to indemnify the additional insured would be invalid under subdivision (b) of California Civil Code Section 2782.

9.9 Insurance coverage required of Contractor under this Agreement shall be placed with insurers with a current A.M. Best rating of no less than A: VII.

Insurance coverage in the minimum amounts set forth herein shall not be construed to relieve the Contractor for liability in excess of such coverage, nor shall it preclude County from taking other action as is available to it under any other provision of this Agreement or applicable law. Failure

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of County to enforce in a timely manner any of the provisions of this section shall not act as a waiver to enforcement of any of these provisions at a later date.

9.10 Any failure of Contractor to maintain the insurance required by this section, or to comply with any of the requirements of this section, shall constitute a material breach of the entire Agreement.

**10. ATTORNEY'S FEES AND COSTS.** If any action at law or in equity is necessary to enforce or interpret the terms of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees, costs, and necessary disbursements in addition to any other relief to which such party may be entitled.

**11. ASSIGNMENT.** Contractor shall not assign any interest in this Agreement and shall not transfer any interest in the same without the prior written consent of County except that claims for money due or to become due Contractor from County under this Agreement may be assigned by Contractor to a bank, trust company, or other financial institution without such approval. Written notice of any such transfer shall be furnished promptly to County. Any attempt at assignment of rights under this Agreement except for those specifically consented to by both parties or as stated above shall be void.

**12. PAYROLL TAXES AND DEDUCTIONS.** Contractor shall promptly forward payroll taxes, insurances, and contributions to designated governmental agencies.

**13. INDEPENDENT CONTRACTOR.** It is specifically understood and agreed that, in the making and performance of this Agreement, Contractor is an independent contractor and is not an employee, agent or servant of County. Contractor is not entitled to any employee benefits. County agrees that Contractor shall have the right to control the manner and means of accomplishing the result contracted for herein.

Contractor is solely responsible for the payment of all federal, state and local taxes, charges, fees, or contributions required with respect to Contractor and Contractor's officers, employees, and agents who are engaged in the performance of this Agreement (including without limitation, unemployment insurance, social security and payroll tax withholding.)

**14. OWNERSHIP OF DOCUMENTS.** All non-proprietary reports, drawings, renderings, or other documents or materials prepared by Contractor hereunder are the property of County. Any modifications made by the County to any of the Contractor's documents, or any use, partial use or reuse of the documents without written authorization or adaptation by the Contractor will be at the County's sole risk and without liability to the Contractor.

**15. SEVERABILITY.** If any provision of this Agreement is held to be unenforceable, the remainder of this Agreement shall be severable and not affected thereby.

**16. ADHERENCE TO APPLICABLE DISABILITY LAW.** Contractor shall be responsible for knowing and adhering to the requirements of Section 504 of the Rehabilitation

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Act of 1973, the Americans with Disabilities Act, (42 U.S.C. Sections 12101, et seq.). California Government Code Sections 12920 et seq., and all related state and local laws.

**17. HIPAA COMPLIANCE.** Contractor will adhere to Titles 9 and 22 and all other applicable Federal and State statutes and regulations, including the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and will make his best efforts to preserve data integrity and the confidentiality of protected health information.

**18. SAFETY RESPONSIBILITIES.** Contractor will adhere to all applicable CalOSHA requirements in performing work pursuant to this Agreement. Contractor agrees that in the performance of work under this Agreement, Contractor will provide for the safety needs of its employees and will be responsible for maintaining the standards necessary to minimize health and safety hazards.

**19. JURISDICTION AND VENUE.** This Agreement shall be construed in accordance with the laws of the State of California and the parties hereto agree that venue of any action or proceeding regarding this Agreement or performance thereof shall be in Lake County, California. Contractor waives any right of removal it might have under California Code of Civil Procedure Section 394.

**20. RESIDENCY.** All independent contractors providing services to County for compensation must file a State of California Form 590, certifying California residency or, in the case of a corporation, certifying that they have a permanent place of business in California.

**21. NO THIRD-PARTY BENEFICIARIES.** Nothing contained in this Agreement shall be construed to create, and the parties do not intend to create, any rights in or for the benefit of third parties.

**22. PUBLIC RECORDS ACT.** Contractor is aware that this Agreement and any documents provided to the County may be subject to the California Public Records Act and may be disclosed to members of the public upon request. It is the responsibility of the Contractor to clearly identify information in those documents that s/he considers to be confidential under the California Public Records Act. To the extent that the County agrees with that designation, such information will be held in confidence whenever possible. All other information will be considered public.

8/28/23