



## City of Ketchum

May 4, 2020

Mayor Bradshaw and City Councilors  
City of Ketchum  
Ketchum, Idaho

Mayor Bradshaw and City Councilors:

### **Recommendation to Approve Contract #20467, Contribution Agreement for HDR Biosolids Composting Study**

#### Recommendation and Summary

Staff is recommending the council approve Contract #20467 and adopt the following motion:

I move to approve Contract #20467, Contribution Agreement (HDR Biosolids Composting Study), for \$5296.00 and to authorize Mayor Bradshaw to sign the agreement.

The reasons for the recommendation are as follows:

- The HDR Biosolids Composting Study is necessary for the development of an operations plan to dispose of the biosolids created by the Ketchum/Sun Valley Water and Sewer District (SVWSD) wastewater treatment plant.
- The \$5296.00 being paid to the City of Hailey is the Ketchum/SVWSD pro-rated share of the cost of the study based upon past sludge volumes created by all the contributing partners

#### Introduction and History

Wastewater treatment plants in the Wood River Valley create sewage sludge that is taken to Blaine County owned drying lagoons at the Ohio Gulch Waste Transfer Station. In accordance with the Ohio Gulch Biosolids Facilities Report and Procedures Manual, after drying, the left over biosolids have been removed from the lagoons and used at the transfer station for ground cover at the construction demolition disposal area.

#### Analysis

In the fall of 2019, the Idaho Department of Environmental Quality notified the managers of the waste transfer station, Southern Idaho Solid Waste (SISW), biosolids could no longer be disposed of at the Ohio Gulch Waste Transfer Station. SISW, Blaine County and the affected treatment plants have been meeting to determine the best way to dispose of the biosolids. HDR Engineering, as the civil engineering firm used by Hailey and Ketchum treatment plants, has been asked for biosolids disposal options which include this composting study. The City of Hailey has commissioned HDR Engineering to perform the study as an amendment to an already existing engineering contract with HDR.

#### Sustainability

The recommended action will further the goals of the 2020 Ketchum Sustainability Action Plan in the following ways:

- Waste Priority Level 2: Work with regional and local agencies to evaluate options for disposal and beneficial use of wastewater biosolids.

Financial Impact

Funding for Ketchum/SVWSD share of this contract will come from the Professional Services line of the wastewater budget. This will be a shared expense with the Sun Valley Water and Sewer District.

Attachments:

Contribution Agreement

Amendment #2 to Hailey Wastewater Facility Planning Study

Attachment A – Scope of Work for Engineering Services

**CONTRIBUTION AGREEMENT**  
**(HDR BIOSOLIDS COMPOSTING STUDY)**

THIS CONTRIBUTION AGREEMENT (“Agreement”) is made and entered into effective this \_\_\_\_ day of April, 2020, by and between the CITY OF HAILEY 115 South Main Street, Hailey, Idaho 83333, a municipal corporation (hereinafter referred to as “Hailey”), and The City of Ketchum, (“Ketchum”) City of Bellevue, (“Bellevue”) Sun Valley Water and Sewer District, (“Sun Valley”) the Mid-Valley Sewer Company LLC (the “Meadows”), Quigley Farm and Conservation Community LLC (“Quigley”) (hereinafter referred to as “Contributing Partners”).

RECITALS

A. Hailey, and the Contributing partners treat waste water on behalf of the citizens and resident customers, which waste water treatment creates sludge that is hauled to the Ohio Gulch Solid Waste Transfer Station drying bed, resulting in biosolids that must be disposed of by some means.

B. Hailey has entered into an Agreement with HDR Engineering relating to its Wastewater, sludge, biosolids and potential composting thereof, an Amendment, and this proposed Amendment #2, thereto.

C. Hailey has approved Amendment #2 to said Agreement with HDR Engineering, Inc., contingent upon the Contributing Partner’s approval of this Contribution Agreement, the purpose of which Amendment #2 is to confirm biosolids quantities from each contributors’ and determining the composting requirements of said biosolids; the cost of said engineering services will be \$12,240.00.

D. Based on the current data the Contributing Partners are delivering the percentage of volume of sludge as follows: Hailey-38%, Ketchum/Sun Valley-45%, Bellevue-15%, Meadows-2%, Quigley-TBD.

E. Attached hereto and made a part hereof, marked **Exhibit “A”**, is Amendment #2 and Attachment A thereto.

F. Hailey and Contributing Partners agree to enter into this Agreement, subject to the terms and conditions set forth herein.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants, terms, and conditions set forth herein, Hailey and Contributing Partners agree as follows:

1. Contributing Partners to Pay Pro-rata Share. Each Contributing Partner agrees to and shall pay to the City of Hailey their pro rata share of the \$12,240 HDR Amendment #2 Contract price based on the projected volume of sludge produced and delivered to Ohio Gulch Solid Waste Transfer Station drying bed as follows:

Blaine County Fixed Fee:	\$235
Quigley Fixed Fee:	\$235
Ketchum/Sun Valley:	\$5296
Bellevue:	\$1765

Meadows: \$235

2. Change Orders. There shall be no modification or amendment of this Agreement, nor any increase in the amount of consideration provided above, except by means of written change orders executed by both parties hereto.
3. Notices. All notices given in connection with this Agreement shall be in writing and mailed to the appropriate party at the following addresses:

HAILEY:

City of Hailey  
Public Works Manager  
115 South Main Street  
Hailey, Idaho 83333

CONTRIBUTING PARTNERS:

Sun Valley Water and Sewer District  
General Manager  
PO Box 2410  
Sun Valley, ID 83353

City of Ketchum  
Public Works Manager  
480 East Ave., N  
Ketchum, ID 83340

City of Bellevue  
Public Works Manager  
PO Box 825  
Bellevue, ID 83313

Mid-Valley Sewer Company LLC  
PO Box 4380  
Ketchum, Idaho 83340-4380  
George Kirk, Manager

Quigley Farm and Conservation Community, LLC  
PO Box 2720  
Ketchum, Idaho 83340  
David B. Hennessy, Agent

4. Attorney's Fees. In the event any party hereto is required to retain an attorney to interpret or enforce the terms and conditions of this Agreement, or to recover damages as a result of a breach of this Agreement, the prevailing party in any such dispute shall recover from the other party all attorney's fees and costs

incurred by the prevailing party, whether or not litigation is instituted or concluded, on appeal or in bankruptcy proceedings.

5. Governing Law. This agreement is governed by, and enforced in accordance with, the laws and decision of the State of Idaho.
6. Entire Agreement. This Agreement sets forth the entire understanding and agreement between the parties hereto, and no amendment or modification to this Agreement shall be made except by means of a written instrument duly executed by both parties.
7. Authority. Each of the persons executing this Agreement represents that they have lawful authority and authorization to execute this Agreement, as well as any other documents required hereunder, for and on behalf of the entity executing this Agreement.

EXECUTED effective the day and year first above written.

CITY OF HAILEY

By \_\_\_\_\_  
Martha Burke, Mayor

ATTEST:

\_\_\_\_\_  
Mary Cone, City Clerk

CONTRIBUTING PARTNERS

City of Ketchum

By \_\_\_\_\_  
Neil Bradshaw, Mayor

City of Bellevue

By \_\_\_\_\_  
Ned Burns, Mayor

Sun Valley Water and Sewer District

By \_\_\_\_\_

Jim Loyd, Board Chair

Quigley Farm Conservation Community LLC

By \_\_\_\_\_

David B. Hennessy, Agent

Mid-Valley Sewer Company LLC

By \_\_\_\_\_

George Kirk, Manager

**AMENDMENT #2**

This Amendment to an Agreement by and between City of Hailey, (“OWNER”), and HDR Engineering, Inc. (“ENGINEER”), dated March 12, 2019, (“the Agreement”). Engineer shall perform services on the project described below as provided herein and in the Agreement. This Task Order shall not be binding until it has been properly signed by both parties. Upon execution, this Amendment shall supplement the Agreement as it pertains to the project described below.

AMENDMENT NUMBER: 2

PROJECT NAME: Hailey Wastewater Facility Planning Study

PART 1.0 PROJECT DESCRIPTION: Biosolids Compost SOP

PART 2.0 SCOPE OF SERVICES TO BE PERFORMED BY ENGINEER ON THE PROJECT: Exhibit A

PART 3.0 OWNER’S RESPONSIBILITIES:

PART 4.0 PERIODS OF SERVICE: April 6, 2019 to December 31, 2020

PART 5.0 ENGINEER’S FEE: See Exhibit A for breakdown.

Original Fee:	\$109,410.00
Amendment #1:	5,000.00
Amendment #2	<u>12,240.00</u>
Revised Total Fee:	\$126,650.00

PART 6.0 OTHER: N/A

This Amendment is executed this \_\_\_\_\_ day of March, 2020.

CITY OF HAILEY

"OWNER"

BY: \_\_\_\_\_

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

City of Hailey  
115 Main Street South,  
Suite H  
Hailey, ID 83333

HDR ENGINEERING, INC.

"ENGINEER"

BY: \_\_\_\_\_

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_



Kate Eldridge

Vice President

412 E. Parkcenter Blvd.,  
Suite 100

Boise, ID 83706



**ATTACHMENT A  
SCOPE OF WORK  
FOR ENGINEERING SERVICES**

**STANDARD OPERATING PROCEDURE FOR  
COMPOSTING OF MUNICIPAL BIOSOLIDS AT  
OHIO GULCH TRANSFER STATION**

**CITY OF HAILEY, IDAHO (OWNER)**

**AND**

**HDR ENGINEERING, INC. (ENGINEER)**

**HDR Engineering, Inc.**

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## SCOPE OF SERVICES

### **Background – Sludge Handling at Ohio Gulch Transfer Station**

Sludge drying beds were developed at the Ohio Gulch Landfill site (now the Ohio Gulch solid waste transfer station) decades ago with the purpose of natural dewatering (drying) of liquid municipal sludge (biosolids) from the cities of Hailey and Ketchum/Sun Valley. The dry climate and remote location provides an ideal site to dry biosolids during the summer months. The sludge drying beds were historically managed by the Southern Idaho Regional Solid Waste District until 1999, when Blaine County (the property owners) established a 20 year lease between the County and the City of Hailey and City of Ketchum (along with partner Sun Valley Water & Sewer District (SVWSD)).

The Cities agreed to operate the beds in full compliance with the Federal 40 CFR, Part 503 Standards for the Use or Disposal of Sewage Sludge (“503”) and other applicable state and local regulations. In addition, Ketchum/SVWSD and Hailey were allowed to extend usage of the beds to other municipal corporations or privately owned treatment plants in Blaine County. This provision extended the use to the City of Bellevue wastewater treatment plant (WWTP) and *The Meadows* private WWTP. Eight of the twelve drying beds are used by plants treating municipal wastewater. The other parties to the agreement are septage haulers of domestic sewer materials using four of the twelve beds.

The wastewater from the treatment plants has been screened prior to biological treatment (screenings are landfill disposed). Therefore, the biosolids hauled to the drying beds has minimal plastic debris content. The biosolids from Hailey are additionally dewatered to about 16 to 18 percent solids before hauling to the drying beds to minimize trucking. The biosolids from Ketchum/SVWSD are hauled in liquid form, at about 3 percent solids (97% water). Likewise the solids from The Meadows and Bellevue are also hauled in liquid form at about 1 to 2 percent solids.

Biosolids are generated during the biological treatment of municipal wastewater. Ketchum/SVWSD, Hailey, and Bellevue aerobically digest their solids, thereby stabilizing their waste activated sludge (biosolids) at their respective facilities, prior to hauling to the Ohio Gulch Landfill drying beds. The digested solids from Ketchum/SVWSD and Hailey are managed to obtain a formal designation of Class B solids under the 40 CFR, Part 503 regulations. The Meadows does not hold waste biosolids, but instead wastes directly from the clarifier underflow into a tanker for hauling to the drying beds.

Based upon data from 2019 annual “503” reports for the drying beds, the current volume of municipal sludge treatment is approximately 550 dry metric tons. The percentages from the sources is roughly as follows:

Hailey: 38%  
Ketchum/SVWSD: 45%  
Bellevue: 15%  
Meadows: 2%

Aerobic digestion is used by Ketchum, Hailey and Bellevue which significantly reduces the pathogens by holding biosolids for 40 days at 20°C, or 60 days at 15°C. This also reduces the volatile solids (VS) fraction of the sludge or the degradable organics, and is one of the methods to reduce vector attraction (reduction of VS by 38 percent). The drying bed process provides a secondary method of achieving the vector reduction criteria (percent solids greater than 75 percent).

After drying in the beds, the end product appearance is similar to flakey dried silt from a mud puddle. The solids are removed from the drying beds annually and disposed on-site at the Ohio Gulch solid waste transfer station. Data from the last three years indicates the total solids content from the beds range from about 80 to 90 percent. The volatile solids content is about 60 percent. The current final disposal of the dried biosolids is on the landfill cover or combined with the woody waste debris. This final disposal method is not consistent with Blaine County's transfer station mission of serving non-municipal waste.

Septage haulers take pumped sewage sludge directly to four separate drying beds without treatment and will not be part of a composting system. The septage placed in the dedicated drying beds contains plastics and other debris. Due to the trash and other unknown constituents, these solids are not appropriate for composting and will require transfer to the Milner Butte landfill for final disposal.

### **Final Biosolids Treatment by Composting**

The purpose of this memorandum is to;

- confirm biosolids quantities received from each participating party to the drying beds (biosolids quantity and moisture content),
- determine the appropriate requirements for composting the biosolids to a Class B or Class A level at the Ohio Gulch solid waste transfer station or nearby location including:
  - moisture requirements
  - bulking agents (wood chips, etc.)
  - composting time
  - composting temperature
  - testing and documentation
- and provide estimates of composting quantities generated.

The final destination of the dried WWTP solids after being composted will be determined based upon end product quality (Class A or B) with the receiving parties determined by the composting contractor along with Blaine County. This memorandum will provide a summary of the solids quantities to be managed, and will develop a preliminary recommended standard

operating procedure for composting to meet both Federal 40 CFR, Part 503 regulations and State of Idaho requirements for final disposal of the municipal sludge solids.

Idaho DEQ is aware of the Ohio Gulch sludge drying bed system, and has interest in a composting option that would be used by the participating parties for final solids disposition. The composting operations may be led by one of the participating parties, or may be managed by a separate third party. This memorandum will not include input on this decision, but will provide assistance with solicitation of interest to third parties to implement a composting pilot system for the summer of 2020.

The scope of services for the biosolids disposal/reuse study is outlined in four Tasks.

1. Project Management
2. Data Collection
3. Composting Standard Operating Procedure and Estimated Costs
4. Summary and Next Steps

#### **TASK 100: Project Management**

##### DESCRIPTION

- The ENGINEER will provide project management, coordination, and administrative activities through completion of deliverables.
- This task will include activities associated with management of the Project: general communication with the OWNER's project manager, oversight of Quality Control, monthly invoicing, and progress reporting.
- A kickoff meeting by telephone will serve as data gathering, drying bed review and an opportunity for the users to share ideas regarding the final solids disposal method.

##### ASSUMPTIONS

- Project duration is per the schedule outlined in this Scope of Services.
- The kickoff telephone call is in addition to the site visit performed by HDR, and is for data gathering. A formal kickoff telephone will be about two (2) hours duration. The telephone call will include individuals representing each community and the treatment plants contributing to the drying beds. Also attending will be Blaine County and Southern Idaho Solid Waste representatives and other interested parties invited by the users (composters for example). The group will assign a directing member for communication with the Engineer.
- HDR will include up to two (2) ENGINEER staff members for the kickoff telephone call.

##### DELIVERABLES

- Monthly progress reports and invoices.
- Notes from the kickoff telephone call, in .pdf format. Specifically the notes will include follow-up items for the OWNER so that information can be gathered pursuant to the schedule outlined below.

#### **TASK 200: Data Collection**

##### DESCRIPTION

- The drying bed number and surface area will be measured to determine holding volumes. The current drying bed operation will be summarized.

- The data collected from each of the participating entities will be analyzed to characterize the incoming drying content, i.e. quantity and characteristics.
- The biological solids (sludge) from each source will be described, including sludge quantity and quality including dewatering or moisture content.
- The future biosolids quantity will be provided by each participating entity (estimated based on population growth projections) using a 20 year planning period (2020 – 2040). The adequacy of the drying beds for future sludge drying and composting will be determined.
- Past dried sludge quantities and analytical data from the drying beds will be summarized with future quantity projections.

#### ASSUMPTIONS

- OWNERS will provide the ENGINEER with sludge data, treatment process information and hauled quantities to the drying beds. OWNERS will also provide future sludge projections for the 20-year planning period.
- Drying Bed management OWNERS (Ketchum/SVWSD and Hailey) will provide information on drying bed operation, regulatory reporting, and analytical data.

#### DELIVERABLES

- A summary of the collected information will be forwarded for each contributor to check for accuracy (in .pdf format).

### **TASK 300: Composting Standard Operating Procedure and Estimated Costs**

#### DESCRIPTION

- The methods for sludge stabilization are fully described in the Federal Register under 40 CFR, Part 503. The regulations describe requirements and options for pathogen reduction and vector attraction reduction. The level of pathogen reduction divides sludge into Class A and Class B. Class type of biosolids drives use and disposal options. The Idaho requirements for solid waste handling, specifically municipal biosolids, are summarized by the State of Idaho in the IDEQ Processing (Composting) Facility Guidance and Checklists for Tier II and Tier III Processing Facilities.
- A condensed version of the criteria will be summarized to provide background information for final disposal options selection in Task 300.
- A draft Composting Standard Operating Procedure will provide the design basis for composting, a description of the recommended composting facility components, and a summary of the standard operating procedures for the composting operation.
- Capital cost and operating costs will be developed for the composting operation. Final disposition of the composted material will not be included in the summary.
- A telephone conference call will be held to discuss the draft memorandum: the sludge quantities/quality information, regulatory background, standard operating procedure and estimated costs. The telephone conference will also discuss next steps.

#### ASSUMPTIONS

- The regulatory background presented in the report will be restricted to Federal 40 CFR, Part 503 regulations and State of Idaho requirement for composting in the Ohio Gulch sludge drying beds or at an alternative location in close proximity to the Ohio Gulch waste transfer station.

- Preliminary SOP's by local composting operations will be shared.
- OWNERS will participate in a conference call discussion of the DRAFT Standard Operating Procedure.
- Conceptual level capital and O&M costs for the composting operation will be prepared. The capital cost estimate will be Class 4 in accordance with AACE Practice No. 17-97R (+40/-20% range of accuracy).
- OWNERS will review the draft Standard Operating Procedure, provide written consolidated comments, and participate in the review conference call.

#### DELIVERABLES

- Draft memorandum that provides a summary of the regulatory requirements, a description of the recommended Standard Operating Procedure for composting, and a summary of the estimated capital and operation and maintenance costs for the facility (.pdf format).

#### **TASK 400: Summary and Next Steps**

##### DESCRIPTION

- Based upon the meeting results from Task 300, the recommended composting Operating Procedure will be described and conceptually detailed. A "next steps" or implementation schedule will be developed based upon communication with the OWNERS, the public, and DEQ. This will include any further study (such as a piloting program), design of infrastructure needs, or further development of composting costs.

##### ASSUMPTIONS

- A draft copy of the memorandum will be distributed to the users for comment. The assigned lead from the users group (City of Hailey) will consolidate comments and provide to the ENGINEER for the preparation of the FINAL preliminary design memorandum.
- The FINAL memorandum can then be submitted to IDEQ by the user group. It has been assumed that IDEQ comments, if any, will be minor and no meeting is required. We have assumed 1 hour of ENGINEERING time for communication with IDEQ on the memorandum content.

##### DELIVERABLES

- Final Ohio Gulch sludge composting memorandum (.pdf format), sealed and suitable for submission to IDEQ.
- Assistance in preparation of a solicitation document for contracting with a third party to operate a biosolids pilot composting program for summer/fall 2020.

#### **COMPENSATION**

We have assumed one of the main users (Ketchum, Hailey or Blaine County) will become the single contracting agent with HDR. Consultant's total compensation for services provided pursuant to this agreement, including labor and overhead costs and expenses shall not exceed \$12,240 without written authorization by the contracting agent.

Consultant shall invoice monthly for Consultant’s services. Invoices shall itemize costs incurred for each task identified in the scope of work. The amounts in each task shall be allowed to shift between tasks up to the not-to-exceed amount.

<b>Task</b>	<b>Description</b>	<b>Total Cost</b>
100	Project Management	\$2,360
200	Data Collection	\$1,060
300	Composting Standard Operating Procedure and Estimated Costs	\$7,720
400	Summary and Next Steps	\$1,100
TOTAL		\$12,240

## **ANTICIPATED SCHEDULE**

The project schedule assumes the following milestones timeline for study completion. This schedule can be accelerated if desired.

<b>Activity or Milestone</b>	<b>Date</b>
Notice-to-Proceed (NTP)	April 6, 2020
Task 200 – Data Collection Complete	April 24, 2020
Task 300 – Composting Standard Operating Procedure and Estimated Costs Complete	May 15, 2020
Task 400 – Summary and Next Steps	May 29, 2020

The above schedule will be adjusted based on the actual day the NTP is issued and/or if the OWNER requests additional review time. An additional 30 days has been added to the overall contract period in the Task Order to allow for project closeout activities.