



FALLBROOK PUBLIC UTILITY DISTRICT
MEETING OF THE ENGINEERING & OPERATIONS COMMITTEE

AGENDA

PURSUANT TO WAIVERS TO CERTAIN BROWN ACT PROVISIONS UNDER EXECUTIVE ORDERS ISSUED BY GOVERNOR NEWSOM RELATED TO THE COVID-19 STATE OF EMERGENCY THIS MEETING WILL BE CONDUCTED VIA WEB AND TELECONFERENCE USING THE BELOW INFORMATION, AND THERE WILL BE NO PHYSICAL LOCATION FROM WHICH MEMBERS OF THE PUBLIC MAY PARTICIPATE. INSTEAD, MEMBERS OF THE PUBLIC ARE ENCOURAGED TO PARTICIPATE IN THE COMMITTEE MEETING VIA WEB CONFERENCE USING THE BELOW CALL-IN AND WEBLINK INFORMATION.

Join Zoom Meeting

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MEETING ID 846 6235 9110

AUDIO PASSCODE 853041

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PUBLIC COMMENTS: Members of the public may submit public comments and comments on agenda items in one of the following ways:

SUBMIT COMMENTS BEFORE THE MEETING:

- By emailing to our Board Secretary at leckert@fpud.com
- By mailing to the District Offices at 990 E. Mission Rd., Fallbrook, CA 92028
- By depositing them in the District's Payment Drop Box located at 990 E. Mission Rd., Fallbrook, CA 92028

All comments submitted before the meeting by whatever means must be received at least 1 hour in advance of the meeting. All comments will be read to the Committee during the appropriate portion of the meeting. Please keep any written comments to 3 minutes.

MAKE COMMENTS DURING THE MEETING: The Committee Chair will inquire prior to Committee discussion if there are any comments from the public on each item.

- Via Zoom Webinar go to the "Participants List," hover over your name and click on "raise hand." This will notify the moderator that you wish to speak during oral communication or during a specific item on the agenda.
- Via phone, you can raise your hand by pressing *9 to notify the moderator that you wish to speak during the current item.

THESE PUBLIC COMMENT PROCEDURES SUPERSEDE THE DISTRICT'S STANDARD PUBLIC COMMENT POLICIES AND PROCEDURES TO THE CONTRARY.

MONDAY, MAY 17, 2021
2:00 P.M.

FALLBROOK PUBLIC UTILITY DISTRICT
990 E. MISSION RD., FALLBROOK, CA 92028
PHONE: (760) 728-1125

If you have a disability and need an accommodation to participate in the meeting, please call the Secretary at (760) 999-2704 for assistance so the necessary arrangements can be made.

I. PRELIMINARY FUNCTIONS

CALL TO ORDER / ROLL CALL

PUBLIC COMMENT

II. ACTION / DISCUSSION------(ITEMS A – B)

A. SOLIDS MANAGEMENT OPTIONS

B. MOU AGREEMENT – NORTH COUNTY FIRE PROTECTION DISTRICT
(NCFPD) AND FALLBROOK PUBLIC UTILITY DISTRICT

III. ADJOURNMENT OF MEETING

* * * * *

DECLARATION OF POSTING

I, Lauren Eckert, Executive Assistant/Board Secretary of the Fallbrook Public Utility District, do hereby declare that I posted a copy of the foregoing agenda in the glass case at the entrance of the District Office located at 990 East Mission Road, Fallbrook, California, at least 72 hours prior to the meeting in accordance with Government Code § 54954.2.

I, Lauren Eckert, further declare under penalty of perjury and under the laws of the State of California that the foregoing is true and correct.

May 13, 2021
Dated / Fallbrook, CA

/s/Lauren Eckert
Executive Assistant/Board Secretary

M E M O

TO: Engineering & Operations Committee
FROM: Owni Toma, Chief Plant Operator
DATE: May 17, 2021
SUBJECT: Solids Management Options

Description

The District purchased the Fenton Sludge Heat Dryer in 2006 and began operating it shortly thereafter. The Fenton Dryer was purchased to offset hauling costs. If solids are not processed by the dryer, they typically must be disposed of in a landfill or out of state. If solids are processed to a higher level such as through thermal drying, they are characterized as Class A biosolids and they can be used like ordinary fertilizer. The dryer was estimated to have a 15-20 year service life. The dryer has required increasing repairs as it came closer to its service life. In December of 2020, its boiler system was determined to be inoperable and requires significant costs to repair.

There are three options for the District to consider:

1. Repair the existing dryer
2. Purchase a new dryer
3. Continue to haul biosolids

Option 1: Repairing the Dryer

On February 16 2021, RF Macdonald provided a packaged quote to replace the boiler, which included a new thermal heater unit, installation, system integration and start up, priced at \$220,000. In addition to the capital cost, the annual O&M cost would be \$121,471 assuming good working order thereafter. If the Fenton Dryer were to last three more years, annualizing the capital cost results in \$73,333 each year, resulting in a net annual cost of \$194,804.

Due to the history of issues with the Fenton Dryer, the probability of other failures is high, which could add to the cost above. For example, in 2019, the following repairs were completed:

2019 Malfunctions & Repairs	Cost
Major repair, large hole on top of burner chamber, allowing gasses and flame to escape while the dryer is running, could cause fire.	\$32,000
RK48 Hopper Auger for Dryer and thrust washer, labor to sandblast & coat auger	\$4,500
Thermal fluid heater repair	\$3,899
Inspection of thermal fluid heater	\$1,938

Fill Door	\$1,650
Dryer Connecting Links from Valley Chain	\$955
Replacing proximity sensors	\$640
EEPROM	\$600
PLC parts	\$500
Total	\$46,682

Option 2: Replacing the Fenton Dryer

The Gryphon Dryer is an option to replace the Fenton Dryer. This option employs a newer dryer technology that is advertised as more energy efficient and mechanically modular than traditional dryer systems. It is estimated to cost \$1.5 in initial capital costs and \$92,200 per year in O&M costs (including estimated labor cost of \$40,935). It will have many of the same Fenton Dryer costs when it comes to regulatory requirements, energy and labor.

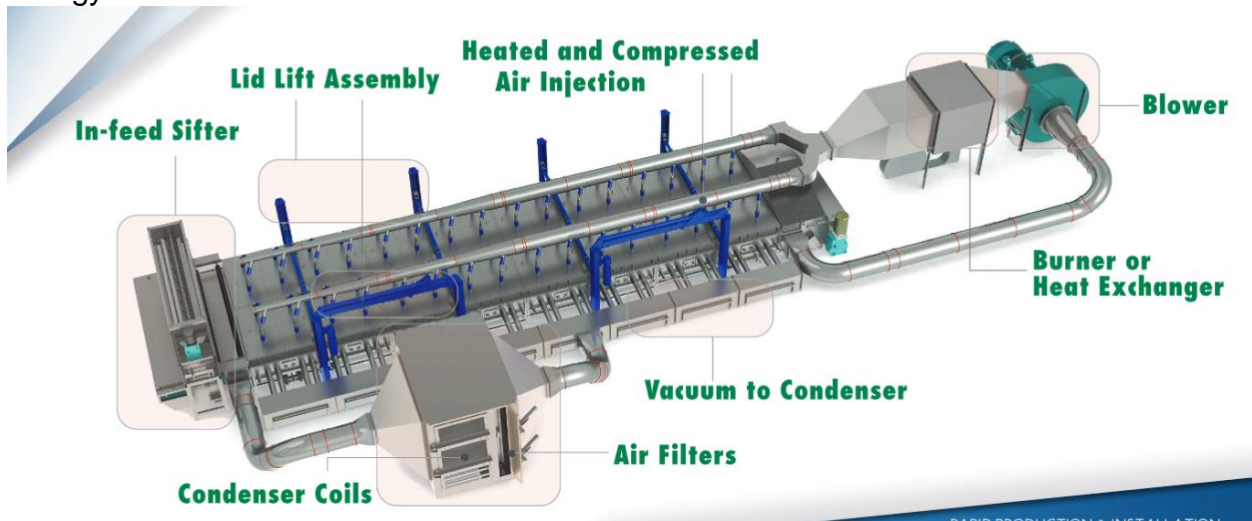


Figure 1 Gryphon Dryer System Schematic

The estimated annual energy cost of the Gryphon Dryer is \$37,000, compared with the Fenton Dryer at \$61,000. This includes the SDG&E rate increase implemented on March 1, which raised natural gas costs by 16% and electrical costs 5.2%. Overall, the energy savings would be \$24,000/year when compared with the old Fenton Dryer.

Option 3: Continuing to Haul

This option is estimated to cost the District an estimated \$140,500 in O&M costs yearly with no capital cost.

The plant was designed to allow for hauling of biosolids when the dryer was down. The plant has had to haul solids for long periods of time during dryer outages and has the appropriate infrastructure to support it, including a dedicated storage and discharge zone for the trailer and a conveyor system with various discharge points.



Figure 2 Dedicated area for trailer

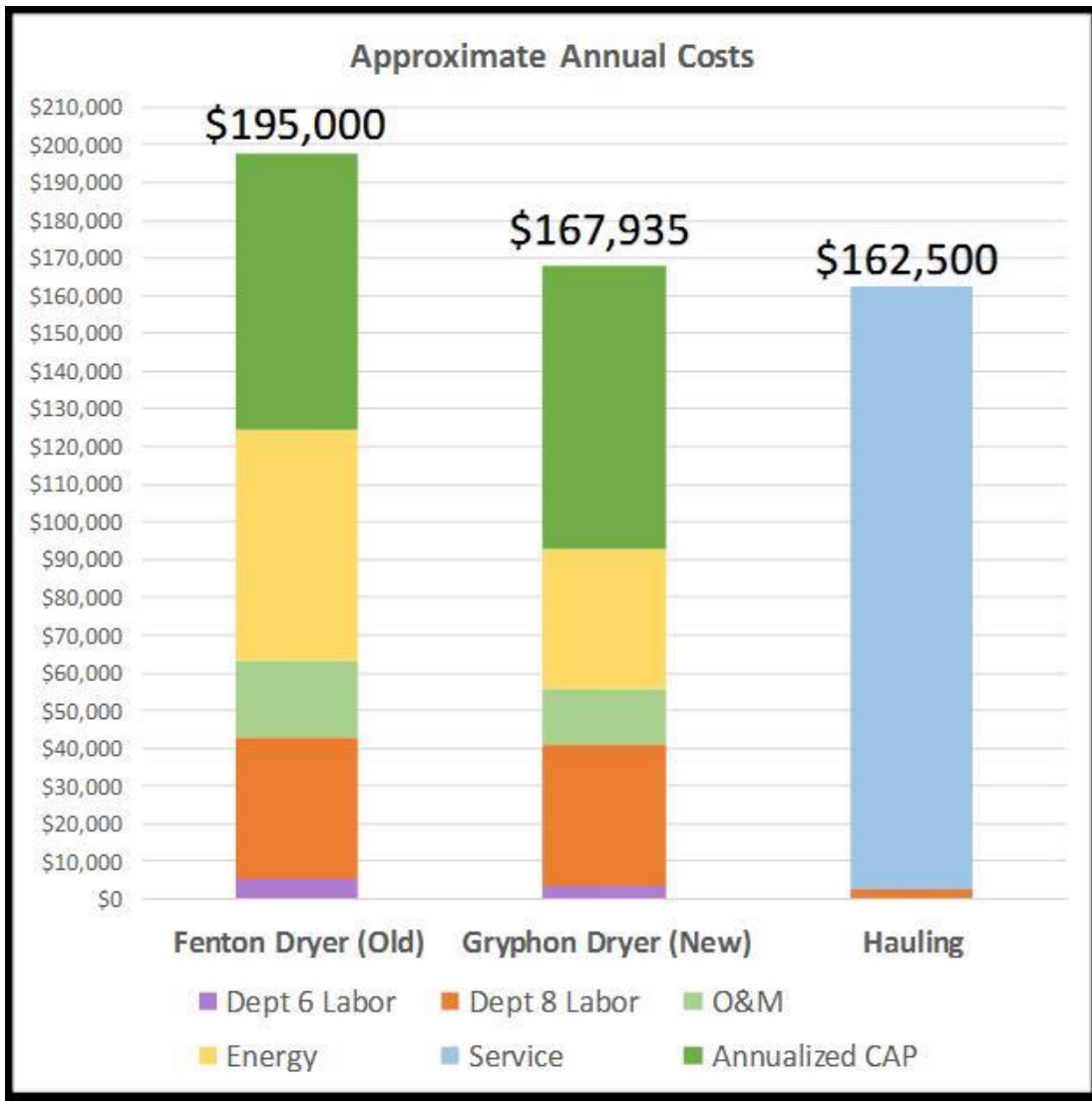
Hauling solids significantly cuts labor involved in the solids handling operation since it only involves operating the conveyer and moving trailers, which is approximately 2.5 hours/week of staff time. In addition, the conveyer system, which has always been limited to local manual operation is currently undergoing a 2-phase upgrade which will upgrade its controls from relays and timers to one that is PLC-based, allowing it to be programmed and automated using SCADA.

The labor savings in the maintenance and Electrical/SCADA team can be reallocated to the new Ground Water Treatment Plant. It will also allow these staff to dedicate more time to maintain the various sites across the District such as lift stations, pump stations, the UV plant, etc.

Summary of Options

	Option	Benefits	Drawbacks
Option # 1	Repairing Existing Fenton Dryer	<p>Revives the dryer into a working state</p> <p>Stretches initial investment over a longer time</p>	<p>High cost to replace combustion system (\$220k)</p> <p>High probability of other failures due to being at the end of its useful life.</p> <p>Increased energy rates</p> <p>Limited market for product; May end up hauling if cannot secure market / customers, which is a problem historically</p> <p>More labor involved than hauling</p> <p>Components and parts mostly proprietary</p>
Option # 2	Replace Dryer with Gryphon Dryer	<p>More mechanically modular than old dryer; parts and components largely non-proprietary</p> <p>More energy efficient than old dryer</p>	<p>High capital cost (\$1.5 million)</p> <p>Increased energy rates</p> <p>More labor involved than hauling</p> <p>Limited market for product; May end up hauling if cannot secure market / customers, which is a problem historically</p>
Option # 3	Continue Hauling	<p>Ease of operation</p> <p>Labor savings can be applied to new Groundwater Treatment Plant, Lift Stations, UV Plant, etc</p> <p>Less regulatory requirements</p>	<p>If driver runs into issue on the road, pick up may not occur on the desired day</p> <p>Overfilling or under filling trailer can incur additional cost</p> <p>Increasing disposal costs and potential for future regulations to impact disposal options</p>

Annual Operating Cost Comparison



Approximate Annual Costs - Tabular Form

Options	Dept 6 Labor	Dept 8 Labor	O&M	Energy	Service	Annualized CAP	Total
Fenton Dryer (Old)	\$5,315	\$37,435	\$20,581	\$61,000	N/A	\$73,333	\$197,664
Gryphon Dryer (New)	\$3,500	\$37,435	\$15,000	\$37,000	N/A	\$75,000	\$167,935
Hauling	N/A	\$2,500	N/A	N/A	\$160,000	N/A	\$162,500

Local Examples

The District was one of the few smaller District's to implement sludge drying. There are two local examples of similar size facilities that have evaluated options and decided to continue to haul Class B biosolids.

Valley Center Moosa Creek WWTP

The Valley Center Municipal Water District Treatment Plant currently creates Class B Biosolids and hauls to Otay Landfill. The last time their solids handling strategy was reevaluated was six years ago. They considered creating Class A through extended aeration treatment in the digestion process but decided against it due to the higher regulatory requirements and testing associated with Class A. They concluded hauling was more cost-effective with the benefit of ease of operation. Currently their processed sludge is stored and hauled in 20-yard roll-off containers.

Olivenhain 4S Wastewater Treatment Plant

This plant is a 2 million gallon a day extended aeration plant that produces Class B and hauls. They have hauled Class B solids for the last 15+ years. Their solids handling system was recently rehabbed, and they use a belt filter press to produce the Class B and haul solids in 20 yard roll-off bins to Yuma, Arizona. The limited market for the product and rising energy costs have been deciding factors for not creating Class A.

Budgetary Impact

The dryer was budgeted for potential replacement in the FY 2023-24 capital budget. Due the dryer being out of service, the District has been hauling biosolids. The additional annual costs excluding labor is about \$80,000. The projected operating budget for FY 21-22 includes the additional projected operating costs.

Recommended Action

Due to the fact it is at the end of its projected service life and its high repair cost and its continued maintenance and operational problems, it is not recommended to repair the existing dryer.

Staff recommends continuing to evaluate the future potential of dryers but not moving forward with a replacement dryer at this time, for the following reasons:


- Recent Increases in natural gas energy costs and potential for continued escalation;
- Uncertain maintenance profile of Gryphon Dryer combined with past maintenance requirements of previous dryer;
- FPUD produced only 375 tons of Class A Biosolids which is considered a small application and there are challenges finding references for smaller dryer applications;
- Only 3/25 member agencies of SCAP (Southern California Alliance of Publicly Owned Treatment Works) are using drying technology and creating Class A Biosolids and these are larger agencies. Other smaller agencies similar to FPUD such as Valley Center Municipal Water District and Olivenhain have hauled their solids due to lack of market for Class A, regulatory burdens around creating and distributing Class A, and rising energy costs.

Staff recommends Option 3: Continuing to Haul, as the preferred solids management strategy at this time for the following reasons:

- Labor savings in department 8 and 6, both of which can be reallocated to the new Groundwater Treatment Plant and maintaining various District sites;
- Ease of operation;
- Reliability;
- Lowest projected annual cost to District ratepayers.

Lastly, while continued hauling is the current recommendation of this report, The District should continue to try to gather additional information on smaller dryer applications and to ensure hauling continues to remain the most cost effective path for District ratepayers.

M E M O

TO: Engineering & Operations Committee
FROM: Jason Cavender, Operations Manager 
DATE: May 17, 2021
SUBJECT: MOU Agreement - North County Fire Protection District & Fallbrook Public Utility District

Description

To provide a summary of the proposed changes to the MOU between the North County Fire Protection District (NCFPD) and Fallbrook Public Utility District (FPUD).

Purpose

To optimize allocation of resources between FPUD and NCFPD for maintenance of the water system and emergency response for the community.

Largely due to financial and resource challenges, NCFPD has discontinued hydrant maintenance. Routine maintenance must be performed to ensure that the hydrants are functional, thereby reducing the risk of property damage and minimizing the potential loss of life.

FPUD staff has been responsible for developing and implementing emergency response plans for the District. The increased frequency of wildfires and power outages has elevated the need for comprehensive emergency response planning.

The revised MOU represents a collaborative approach to both hydrant maintenance and emergency response preparation, better aligning each agencies responsibilities with our areas of expertise.

Summary of Responsibilities**FPUD Responsibilities**

1. Perform hydrant maintenance, repair, and replacement within shared boundaries, and bear all associated costs

NCFPD Responsibilities

1. Provide emergency response training to FPUD staff
2. Provide annual Community Emergency Preparedness training
3. Assist with the development and maintenance of FPUD's Emergency Response Plan (ERP)
4. Conduct annual functional disaster planning exercise
5. Provide FPUD with three emergency response radios

Shared Responsibilities

1. Conduct quarterly joint operations meetings for disaster planning

Budgetary Impact

There will be some saving for emergency response planning and training, but there will be additional costs for hydrant maintenance and repair. The initial annual cost for labor and materials associated with hydrant maintenance and repair is estimated at \$60,000. This amount is included in the FY 21-22 Operations budget.

Recommended Action

That the Committee recommend the approval of the proposed MOU revisions.

Attachment A

MEMORANDUM OF UNDERSTANDING (MOU)
FOR SHARED FACILITY USE
BETWEEN
FALLBROOK PUBLIC UTILITY DISTRICT
AND
NORTH COUNTY FIRE PROTECTION DISTRICT

THIS MEMORANDUM OF UNDERSTANDING (this MOU) is between the Fallbrook Public Utility District (FPUD) and the North County Fire Protection District (NCFPD). FPUD and NCFPD may be referred to herein collectively as the Parties and individually as a Party.

1. PURPOSE:

The purpose of this MOU is to outline a cooperative relationship between NCFPD and FPUD that allows both Parties to engage in cooperative efforts that involve an exchange of like-in-kind services. FPUD and NCFPD have determined that each Party possesses certain specialized resources and capabilities that, when shared, provide for more effective and efficient use of public resources.

This MOU replaces the Parties' prior Memorandum of Understanding for Shared Facility Use dated October 24, 2017 (Prior MOU) and supersedes the 6-9-64 hydrant letter agreement . Upon execution of this MOU, the Prior MOU shall no longer be of any force or effect.

2. TERM AND TERMINATION:

This agreement is effective upon execution by the parties. This MOU may be terminated by mutual agreement of both Parties in writing, at any time. In the event of termination of this MOU, the assets of each Party shall be returned to that Party and jointly acquired assets shall be divided by mutual consent, the terms of which will be memorialized in a writing signed by both Parties. Notwithstanding the above, Section 5 (Indemnity) shall survive the expiration or termination of this MOU.

3. RESPONSIBILITIES:

3.1. FPUD RESPONSIBILITIES:

- 3.1.1. Perform comprehensive maintenance on all public fire hydrants within the joint jurisdictional boundaries of FPUD and NCFPD and bear all associated costs with hydrant repair and replacement and as provided by law. All decisions concerning such work shall be made in the sole discretion of FPUD.

3.2. NCFPD RESPONSIBILITIES:

- 3.2.1. Provide annual training to FPUD staff for the following:

- 3.2.2.1 CPR
- 3.2.2.2 AED
- 3.2.2.3 Confined Space
- 3.2.2.4 Hazardous Materials First Responder Operations
- 3.2.2.5 Emergency Communications and Radio Etiquette
- 3.2.2.6 Emergency Preparedness
- 3.2.2.7 _____ Incident Command System (ICS) Refresher

3.2.3. Provide annual Community Emergency Preparedness training in FPUD's Board Room.

3.2.4. Assist with development and maintenance of emergency operational policies, including an annual review of the Emergency Response Plan (ERP) and Action Plans.

3.2.5. Conduct at least one annual functional exercise based upon joint disaster planning.

3.2.6. Provide FPUD with three radios for use in emergency response.

3.3. SHARED RESPONSIBILITIES:

3.3.1 Conduct quarterly operations meetings which may include joint annual disaster planning, tabletop exercises, and multi-agency coordination.

3.3.2 Except as otherwise set forth herein, each Party shall bear its own costs in providing services to the other under this MOU.

4. CONFIDENTIALITY:

4.1. Each Party shall ensure that Confidential Information received from the other Party pursuant to this MOU is treated and maintained as confidential to the extent allowed by applicable Federal, State and local law. "Confidential Information" shall mean any and all confidential or privileged information made available in a tangible medium of expression and marked in a prominent location as privileged or confidential. Confidential Information shall not include information that: (a) was already known to the receiving Party or is otherwise a matter of public knowledge; (b) was disclosed to receiving Party by a third party without violating any confidentiality agreement; or (c) was not marked as Confidential Information in accordance with this section. Neither Party will disclose Confidential Information received from the other Party without first notifying the other Party. The other Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest a proposed disclosure; provided, however, that such Party shall seek such remedies at its sole expense. Notwithstanding the foregoing, the receiving Party may, without notification to the other Party, disclose information to its officers, employees, agents, contractors, subcontractors, or other representatives that have a need to know in connection with this MOU.

5. **INDEMNITY:**

- 5.1 NCFPD agrees to indemnify, defend and hold harmless FPUD, its officers, agents and employees (FPUD Indemnified Parties) from any and all claims, injuries, losses or damage, which arise in any way (i) out of or in connection with performance of this MOU by NCFPD or its officers, employees and agents and (ii) either directly or indirectly, from any act, error or omission or negligence of NCFPD or any of its officers, employees or agents, except to the extent caused by the acts, errors, omissions or negligence of the FPUD Indemnified Parties.
- 5.2 FPUD agrees to indemnify, defend and hold harmless NCFPD, its officers, employees and agents (NCFPD Indemnified Parties) from any and all claims, injuries, losses or damage, which arise in any way (i) out of or in connection with performance of this MOU by FPUD or any of its officers, employees or agents and (ii) either directly or indirectly from any act, error or omission or negligence of FPUD or any of its officers, employees or agents, except to the extent caused by the acts, errors, omissions or negligence of the NCFPD Indemnified Parties.

6. **INSURANCE:**

6.1. NCFPD shall provide FPUD with proof of insurance or an approved program of self-insurance for general liability in the minimum amount of \$1,000,000 and to the extent the insurance provided is not self-insurance, it shall name FPUD and its officers, employees and agents, as additionally insured. This proof shall be attached to the signed copy of this MOU. FPUD shall provide NCFPD with a current certificate of insurance for general liability in the minimum amount of \$1,000,000. The certificate shall be attached to the signed copy of this MOU and to the extent the insurance provided is not self-insurance, shall name NCFPD, and its officers, employees and agents, as additionally insured.

7. **INDEPENDENT CONTRACTOR/STATUS OF EMPLOYEES:**

- 7.1 Each Party is providing like-kind services to the other Party as an independent contractor and not as an employee of the other Party. No employee or agent of a Party shall become an employee of the other Party by performance under this MOU. The Party performing the services shall be and remain responsible for all payroll, compensation, employee benefits, and employment administration of any of its employees providing like-kind services under this MOU.
- 7.2 When a service is provided by a Party, such Party shall direct appropriate employee(s) to perform the service as part of the employee's regular duties. The Parties acknowledge and agree that at all times the performing Party's employees shall remain under the exclusive control of the board of directors of the Party providing the service or a supervisor that reports directly to a management employee subject to the exclusive control of the performing Party's board of directors, such as the FPUD General Manager or NCFPD Fire Chief. The other Party shall not have any right to control the manner or means in which

the services are performed. Rather, the Party providing the services shall have the sole and exclusive authority to: (1) make decisions regarding hiring, retention, discipline or termination; (2) determine wages and benefits; (3) evaluate the performance of its own employees; and (4) perform similar functions with regard to its own employees.

8. **GENERAL PROVISIONS:**

- 8.1. Neither Party to this MOU has the authority to act on behalf of the other Party or bind the other Party to any obligation.
- 8.2. None of the provisions of this MOU shall be considered waived by either Party, unless such waiver is specified in writing.
- 8.3. This MOU shall be binding upon and shall inure to the benefit of the successors in interest, executors, administrators and assigns of each Party. However, neither Party shall assign or transfer by operation of law or otherwise any or all of its rights, burdens, duties or obligations without the prior written consent of the other Party. Any attempted assignment without such consent shall be invalid and void.
- 8.4. The unenforceability, invalidity or illegality of any provision(s) of this MOU shall not render the provisions unenforceable, invalid or illegal.
- 8.5. Any notice, approval, instrument or other communication required to be given or delivered pursuant to this MOU, shall be in writing and shall be delivered by certified or registered mail, return receipt requested, or reliable overnight courier as set forth below:

CONTACT PERSON FOR FPUD:

NAME: Jack Bebee
TITLE: General Manager
ADDRESS: 990 E. Mission Rd Fallbrook, CA. 92028
PHONE: 760-728-1125 ext. 1105
EMAIL: jackb@fpud.com

CONTACT PERSON FOR NCFPD:

NAME: Stephen Abbott
TITLE: Fire Chief/CEO
ADDRESS: 330 S. Main Avenue Fallbrook, CA 92028-2938
PHONE: 760-723-2012
EMAIL: sabbott@ncfire.org

All notices shall be effective upon actual receipt or refusal as shown on the receipt obtained pursuant to the foregoing.

- 8.6. This MOU constitutes the entire understanding between the Parties with respect to the matters set forth herein and supersedes all prior or contemporaneous understanding or agreements between the Parties with respect to the subject matter, whether oral or written.

- 8.7. This MOU may not be modified or altered except in writing signed by both Parties hereto.
- 8.8. This MOU may be executed in one or more counterparts, each of which shall be deemed an original and all of which taken together shall constitute the same instrument.
- 8.9. Nothing in this MOU shall be construed to give any rights or benefits to anyone other than the Parties.
- 8.10. This MOU shall be interpreted in accordance with the laws of the State of California. If any action is brought to interpret or enforce any term of this MOU, the action shall be brought in a state or federal court situated in the County of San Diego, State of California.

IN WITNESS WHEREOF, FPUD and NCFPD hereby agree to the terms of this MOU.

APPROVED FOR:

APPROVED FOR:

FALLBROOK PUBLIC UTILITY DISTRICT

NORTH COUNTY FIRE PROTECTION DISTRICT

BY:

BY:



Print: Jack Bebee, General Manager

Stephen J. Abbott, Fire Chief/CEO

Name/Title

DATE SIGNED: _____

DATE SIGNED: 4/26/2021

Approved as to Form:

Approved as to Form:

BY:

BY:

Paula de Sousa, District Counsel

Robert H. James, District Counsel