



#### **Application**

# 14016 - Notify for Emergency Work - Final Application

49609 - Shadow Light Ranch Emergency Landslide Stabilization Region 1 (Coastal)

Status: Submitted

Submitted Date:

03/26/2024 6:17 PM

Additional Contacts:

Joshua Sweet

Select any additional contacts within your organization that will also manage

An Applicant may designate and authorize an agent (e.g., lawyer, consultant, or other individual) to act as Designated Representative.

The Designated Representative is authorized to sign the notification and any agreement on behalf of the applicant. The Designated Representative listed here must be listed in the "Additional Contacts" field above to receive emails related to the notification and permit.

**Designated Representative:** 

Joshua Sweet

#### Applicant Information

#### Applicant:

- User accounts must be registered using an individual's name. If you will be submitting a notification on behalf of an organization (e.g., business, government agency, etc.) you can associate that organization with your personal user account during the registration process (see Organization Information section below).
- Register for only one user account. A single user account may be associated with multiple notifications/applications and/or multiple organizations. If you do not receive an automated confirmation email within a few minutes of registering, please check your Spam/Junk email folder.
- New User Registration Approval is not automated and may take up to 72 hours. Once approved, you will receive two emails, one containing your User ID, and one containing your temporary password. These emails may also go to your
- DO NOT USE ALL CAPITAL LETTERS WHEN COMPLETEING THIS FORM.
  - NOTE: If ALL CAPS are used in any field on this form, the registration will be denied.

Title:

Joshua

Middle Name

Sweet

User Email:

admin@kingrangeandco.com

User Address:\*

Po Box 250

Garberville

California State/Province 95542 Postal Code/Zip

User Phone:\*

310-710-7549

Ext.

#### **Organization Information**

- Associating an EPIMS user with an organization (either new or existing) allows other EPIMS users affiliated with that organization to revise the EPIMS account. The organization fields below should be completed using your project or
- If you are an applicant that has hired or may hire a business or agent (e.g., lawyers and consultants) to assist you with the notification process, please fill out the Organization Information section with a unique organization name for your project using your project details (something relevant to the project being completed). Share this information with the person or company assisting you with your notification so they can associate with the same organization in EPIMS.
- Consultants: Both you and the applicant must have user accounts and the applicant must create an organization when they register (see Organization Information section below). The applicant is responsible for complying with the terms and conditions of the agreement and therefore must request consultants association to their organization.
- Applicants: To provide consultants access to your application create an organization during registration and direct your consultant to register with EPIMS. You (the applicant) are responsible for contacting the EPIMS Help Desk to associate a
- consultant with your organization.

  Government Agencies: To grant multiple employees access to an application, create an organization during registration and direct your employees to register with EPIMS under the same organization. The applicant is responsible for contacting the EPIMS Help Desk to associate a consultant with the applicant's organization in EPIMS.
- Enter the full name of the organization. <u>DO NOT USE ABBREVIATIONS OR ACRONYMS.</u> **DO NOT** USE ALL CAPITAL LETTERS WHEN COMPLETEING THIS FORM.
  - NOTE: If ALL CAPS are used in any field on this form, the registration will be denied.

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Organization Name:\* Shadow Light Ranch, LLC

Organization Website URL:

Address:\* Po box 250

95542 Garberville California Postal Code/Zip State/Province

Phone:\* 310-710-7549 Ext.

#### Contact Information

Provide information for the Person, Business, or Agency that is responsible for the emergency work. If the emergency work is being conducted by a business, agency, or utility, provide the name of your designated representative.

Name:\*

Sweet Joshua First Name Last Name

**Business/Agency Name:** Shadow Light Ranch, LLC

Street Address:\* PO Box 250

Garberville California 95542

City/Town State Zip Code

Phone Number:\* 310-710-7549

Email:\* joshua@kingrangeandco.com

## Location of Work

#### Is the emergency work being conducted located at a physical address?

Physical Address:\*

**OProvide the street** address where the project will take place. . Work Site Address:\*

960 SHADOW LIGHT RANCH RD

City:\* Garberville 95542

Zip Code\*

Provide the name of the county where the project will take place. If you do not see your county on this list, you are applying to the wrong region. Return to the Main Menu and start a new application in the correct region.

**Humboldt County** 

OAssessor's Parcel

County: \*

223-061-038-000

Number can be found on deeds and tax records. Work Site APN:\*

APN Format: 000-000-000-000 (Always ends in "000")

Does the work site include multiple assessor parcels?

223-073-005-000 223-073-004-000

24 APN APN APN

APN	APN	APN
APN	APN	APN
APN	APN	APN

OAccess Google Maps Help to find your GPS latitude and longitude coordinates. GPS Coordinates:\*

40.092643 -123.769016

Latitude Minimum Requirement ##.##### Longitude Minimum Requirement -###.#####

Does the work site include multiple GPS coordinates?						
*	No					
Additional GPS Coordinates:	Latitude Minimum Requirement ##.#####	Longitude Minimum Requirement -###.#####				
Additional GPS Coordinates:	Latitude Minimum Requirement ##,#####	Longitude Minimum Requirement -###,#####				
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Additional GPS Coordinates:	Latitude Minimum Requirement ##.#####	Longitude Minimum Requirement -###.#####				
Additional GPS Coordinates:	Latitude Minimum Requirement ##.#####	Longitude Minimum Requirement -###.#####				
Additional GPS						

#### Affected Body of Water

Coordinates:

Provide the name of the stream or lake in or near where the Covered Activity will occur. If the river, stream or lake is unnamed, please select "unnamed stream or lake" in the drop-down box.

- Unnamed -

Latitude Minimum Requirement ## #####

Searchable List: this is a very large list, click once and wait 2-3 seconds to let the drop-down open.

Longitude Minimum Requirement -###.####

lake" in the drop-down box.
The following websites may assist you in identifying the name of the stream or lake in or near the project.

EPA Maps

USGS The
 National Map

Disclaimer – CDFW
cannot and does not
portray the links provided
above as an exhaustive
and comprehensive
inventory of all river,
streams, or lakes
statewide. Field
verification will always be
an important obligation
of the applicant.
River, Stream, or Lake
Affected:\*

\*\*OProvide the watercourse or waterbody to which the stream or lake identified above is tributary.

- EPA Maps
- USGS The National Map

Disclaimer – CDFW cannot and does not portray the links provided above as an exhaustive and comprehensive inventory of all river, streams, or lakes statewide. Field verification will always be an important obligation of the applicant.

Bear Canyon Creek

Searchable List: this is a very large list, click once and wait 2-3 seconds to let the drop-down open.

Waterbody Tributary:\*

#### Wild and Scenic Rivers Act (WSRA)

Is the river or stream segment affected by the project listed in the state or federal Wild and Scenic Rivers Acts?

The State Wild and Scenic Rivers Act (WSRA) is codified at Public Resources Code section 5093.50 et seq. and can be found at California Wild and Scenic Rivers Act.

If the

project is located within a segment of a river or stream that is listed in the State or federal WRSA. CDFW cannot approve the proposed project unless it is

No

Wild and Scenic Rivers?:\*

consistent with the act(s).

#### Nature of Emergency Work

Emergency was

Date

03/14/2024

Discovered:\*

ate Work

Date Work Began:\*

03/16/2024

**Olf CDFW** does not receive the emergency notification within 14 days after the work begins, or the work did not constitute emergency work, the entity responsible for the work may be

09/30/2025

Type of Property Affected:\*

subject to criminal or civil prosecution. Date Emergency Work Was or Will Be Completed:\*

Levee or Other Bank Protection

Select all that apply.

Describe Other:

Complete if "Other" is selected above.

Type of Emergency Work:\*

Landslide Select all that apply.

Describe the Emergency Work:\* On March 14th, 2025 I was notified by an employee checking the water level monitoring system on "pond 1" who notified me that a landslide had occurred below the toe of the embankment.

Character Limit: 5,000

OBriefly describe the dimensions (e.g., length and width) of the area or areas affected by the emergency and the work area.

Dimensions of Area Affected:\*

~10000 SF area of impact. ~40-50'x100' prism slipped out across approximately 100'. Final disturbed area and stabilization to be evaluated by geological and engineering consultant SHN

Character Limit: 5,000

\*\*Describe any work you intend to complete after the emergency to restore the affected area

Restoration:

Currently being evaluated. An engineering geologist will provide a stamped review letter or stability analysis depending on his assessment of the slide and a stabilization plan (geotechnical and erosion and sediment control) will be prepared. The total footprint of the disturbed area will be reviewed to determine if the area of impact was fully encompassed by the previously prepared grading and restoration plans, additional documents to follow pending design professional review.

I am performing emergency de-watering of the pond to reduce load on the impacted embankment. Water is being de-watered from Pond 1 to Pond 2 (see attached draft restoration and grading plans, these will be submitted as an update to draft LSAA 1600-2018-0857-R1)

Character Limit: 5,000

#### Documents and Maps

Row		
Description:	Engineering geologist initial assessment	Engineering Geologist Initial Review.pdf
Description:	Emergency correspondence with CDFW and the Waterbo	Emergency Correspondence to CDFW and Waterboard.pdf
Description:	Grading and restoration plans for Ponds 1 and 2	SLR_RP_Draft_11-16-2023 Pond 1 and 2.pdf
Description:		
Description:		

# Electronic Signature

I hereby certify that to the best of my knowledge the information in this emergency notification is true and correct and that I am authorized to sign this notification as, or on behalf of, the person, business, or agency responsible for the emergency work.

I Certify:\* Yes

I understand that if CDFW does not receive this emergency notification within 14 days after the emergency work begins, or the work does not constitute emergency work, I and/or the person, business, or agency responsible for the emergency work may be subject to criminal or civil prosecution.

I Understand:\* Yes

Joushua Sweet First and Last Name Electronic Signature:\*

Date:\* 03/26/2024



# Pond 1 Embankment Slope Failure - Shadow Light Ranch LLC

Gary Simpson < gsimpson@shn-engr.com>

Mon, Mar 18, 2024 at 5:14 PM

To: "Utley, Shannon M@Waterboards" <ShannonM.Utley@waterboards.ca.gov>, Steven Luu <steven@slconsultinginc.com>, "Manthorne, David@Wildlife" <David.Manthorne@wildlife.ca.gov>

Cc: "Bauer, Scott@Wildlife" <Scott.Bauer@wildlife.ca.gov>, "Curtis, Joshua R.@Waterboards" <Joshua.Curtis@waterboards.ca.gov>, "Dougherty, Mona@Waterboards" <Mona.Dougherty@waterboards.ca.gov>, "Garwood, Rebecca@Wildlife"

<Rebecca.Garwood@wildlife.ca.gov>, "Grady, Kason@Waterboards" <Kason.Grady@waterboards.ca.gov>, "Kippen, Dan@Waterboards" <Dan.Kippen@waterboards.ca.gov>, "Lewis, Patrick@Waterboards" <Patrick.Lewis@waterboards.ca.gov>, "Lynch, Brendan@Wildlife" <Brendan.Lynch@wildlife.ca.gov>, "Valverde, Jeremy@Wildlife" <Jeremy.Valverde@wildlife.ca.gov>, "admin@kingrangeandco.com" <admin@kingrangeandco.com>, "ipshua@kingrangeandco.com" <joshua@kingrangeandco.com>, "mpera@hohmanandassociates.com" <mpera@hohmanandassociates.com>, "natalie@kingrangeandco.com" <natalie@kingrangeandco.com>, "Van de Wyngard, Christopher@Waterboards" <Christopher.VandeWyngard@waterboards.ca.gov>, "Feiler, Stormer@Waterboards" <Stormer.Feiler@waterboards.ca.gov>, "Murano, Taro@Waterboards" <taro.murano@waterboards.ca.gov>

#### Good afternoon:

I visited ponds at Shadow Light to review the reports of recent embankment failure. It's fair to say there was more there than I expected.

The area below Pond #1 had been impacted by a large slide complex that appears to consist of two main parts. The lower area, encompassing the low gradient slope below the pond embankment, has failed in a broad earthflow. The ground here has moved laterally an estimated 30± feet, and trees at the toe of the slope are all jackstrawed. The toe of the failure is apparent above the creek bank; material has piled up behind the vegetation. Debris appears to have stopped just shy of the Class II; it is choked with woody debris and negligible (if any) sediment delivery has occurred.

The lower slide extends up the slope to a 15+ foot high escarpment that extends into the toe of the embankment. The lower slide is interpreted to be a naturally-occurring failure that occurred first.

Due to the lower slide encroaching into the toe of the Pond #1 embankment, the embankment has almost entirely failed. To be clear, the embankment failure appears to have resulted due to the void formed by the lower slide. The embankment failure occurred as slumping, once toe support was removed.

The released pond water appears to have dissipated onto (into) the slide body of the lower slide, which is a low gradient jumble of chaotic slide blocks. There is no flow path through the lower slide mass and no apparent sediment delivery.

The failure complex has currently reached a state of equilibrium and there is a much-reduced potential for additional substantial movement. The potential for catastrophic embankment failure is negligible due to what occurred on the slope below. Removing the water from Pond #1 will reduce the potential for additional movement to a very low level.

Until the pond can be entirely removed and re-graded, the remaining embankment (once dry) should be notched to prevent any storage of water. The minor natural spring flow is negligible (not currently flowing) and will dissipate into the lower slide body. Minor erosion control may be applied at the slide toe, adjacent to the creek, but removing the (natural) transported debris is not feasible.

Gary D. Simpson, CEG
Sr. Engineering Geologist
SHN
(707) 441-8855
(707) 845-3046 (cell)
From: Utley, Shannon M@Waterboards <shannonm.utley@waterboards.ca.gov></shannonm.utley@waterboards.ca.gov>
<b>Sent:</b> Monday, March 18, 2024 4:11 PM
To: Steven Luu <steven@slconsultinginc.com>; Manthorne, David@Wildlife <david.manthorne@wildlife.ca.gov></david.manthorne@wildlife.ca.gov></steven@slconsultinginc.com>
Cc: Bauer, Scott@Wildlife <scott.bauer@wildlife.ca.gov>; Curtis, Joshua R.@Waterboards <joshua.curtis@waterboards.ca.< td=""></joshua.curtis@waterboards.ca.<></scott.bauer@wildlife.ca.gov>

<Rebecca.Garwood@wildlife.ca.gov>; Grady, Kason@Waterboards <Kason.Grady@waterboards.ca.gov>; Gary Simpson <gsimpson@shn-engr.com>; Kippen, Dan@Waterboards <Dan.Kippen@Waterboards.ca.gov>; Lewis, Patrick@Waterboards

Jeremy@Wildlife <Jeremy.Valverde@wildlife.ca.gov>; admin@kingrangeandco.com; joshua@kingrangeandco.com; mpera@hohmanandassociates.com; natalie@kingrangeandco.com; Van de Wyngard, Christopher@Waterboards <Christopher.VandeWyngard@waterboards.ca.gov>; Feiler, Stormer@Waterboards <Stormer.Feiler@waterboards.

ca.gov>; Murano, Taro@Waterboards <taro.murano@waterboards.ca.gov>
Subject: RE: Pond 1 Embankment Slope Failure - Shadow Light Ranch LLC

gov>; Dougherty, Mona@Waterboards < Mona. Dougherty@waterboards.ca.gov>; Garwood, Rebecca@Wildlife

<Patrick.Lewis@Waterboards.ca.gov>; Lynch, Brendan@Wildlife <Brendan.Lynch@wildlife.ca.gov>; Valverde,

**CAUTION:** This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Steve and Josh,

Let me know if you have any questions.

Gary

[Quoted text hidden]



# Pond 1 Embankment Slope Failure - Shadow Light Ranch LLC

Manthorne, David@Wildlife < David.Manthorne@wildlife.ca.gov>

Sun, Mar 17, 2024 at 7:10 PM

To: Steven Luu <steven@slconsultinginc.com>

Cc: "Dougherty, Mona@Waterboards" <Mona.Dougherty@waterboards.ca.gov>, "Utley, Shannon M@Waterboards" <ShannonM.Utley@waterboards.ca.gov>, "Grady, Kason@Waterboards" <Kason.Grady@waterboards.ca.gov>, "Kippen, Dan@Waterboards" <Patrick.Lewis@waterboards.ca.gov>, "Lewis, Patrick@Waterboards" <Patrick.Lewis@waterboards.ca.gov>, "Gsimpson@shn-engr.com" <Gsimpson@shn-engr.com>, "mpera@hohmanandassociates.com" <mpera@hohmanandassociates.com" <mpera

Hi Steven,

I concur with Josh and Gary that the pond appears extremely unstable, and that attempting to dewater the pond seems like the best temporary solution. I believe it could be challenging to dewater the pond without a substantial pump, especially if wet weather returns. CDFW requests that a screen is used for the pumping activity. This will help avoid clogging of the pump and impingement of amphibians. The larger the volume of screen the better, with openings not to exceed 3/32 of an inch. Once pumping begins at a higher rate, the upper and lower ponds should be monitored to avoid additional unforeseen impacts. An emergency 1600 should be filed, but there is a two week window from the emergency activity start to submit the notification. Please let me know if you have any questions.

Thanks you

From: Steven Luu <steven@slconsultinginc.com>

Sent: Saturday, March 16, 2024 8:20 PM

To: Curtis, Joshua R.@Waterboards < Joshua. Curtis@Waterboards.ca.gov>

Cc: Dougherty, Mona@Waterboards <Mona.Dougherty@waterboards.ca.gov>; Utley, Shannon M@Waterboards <ShannonM.Utley@waterboards.ca.gov>; Grady, Kason@Waterboards <Kason.Grady@waterboards.ca.gov>; Kippen, Dan@Waterboards <Dan.Kippen@Waterboards.ca.gov>; Lewis, Patrick@Waterboards <Patrick.Lewis@Waterboards.ca.gov>; Gsimpson@shn-engr.com; mpera@hohmanandassociates.com; admin@kingrangeandco.com; joshua@kingrangeandco.com; natalie@kingrangeandco.com; Bauer, Scott@Wildlife <Scott.Bauer@wildlife.ca.gov>; Manthorne, David@Wildlife <David.Manthorne@wildlife.ca.gov>; Lynch, Brendan@Wildlife <Brendan.Lynch@wildlife.ca.gov>

Subject: Re: Pond 1 Embankment Slope Failure - Shadow Light Ranch LLC

WARNING: This message is from an external source. Verify the sender and exercise caution when clicking links or opening attachments.

We reached out today to David Manthorne's office line but have not heard back (understandable due to the weekend). We have filed for the CDFW EPIMS account to submit the emergency 1600 permit.

Given the risk of further failure of the embankment, the decision was made to begin dewatering to relieve pressure on the embankment and reduce potential sediment delivery in the event of a failure. De-watering has begun using four water lines (two 3/4", one 1-1/4" and one 1-3/4") via siphon flow from Pond 1 into Pond 2. Joshua is working to mobilize a larger trash pump tomorrow.

Attached is a photolog showing the condition of the embankment and the de-watering operations.

Sincerely,

On Fri, Mar 15, 2024 at 4:52 PM Curtis, Joshua R.@Waterboards < Joshua. Curtis@waterboards.ca.gov> wrote:

Mr. Luu,

From the images provided, there appears to be water on the slope which is indicative of potential, imminent catastrophic failure. Please take all appropriate safety precautions while resolving this emergency. The North Coast Regional Board in consultation with the Division of Water Rights support you taking limited emergency actions to avoid pond failure as soon as possible. We recommend considering dewatering into the lower pond at a velocity that does not cause bed and bank erosion downstream. Additionally, you should confer with CDFW prior to any action and we recommend requesting an emergency 1600 permit from them to dewater the reservoir.

This email does not abrogate any obligations of Shadow Light Ranch, LLC; The Hills, LLC; and Joshua Sweet pursuant to the settlement of the state's litigation with those parties (Humboldt County Superior Court Case No. CV2001113).

Please report back to us every 24 hours as to the status of the pond. If you have any emergency issues requiring Regional Board input over the weekend, please call Mona Dougherty at 707-445-6129. We will reach out on Monday to work with you to resolve any remaining issues.

Sincerely,

Josh Curtis

Note: I have copied CDFW staff on this email exchange for their awareness.

\_\_\_\_\_

Managing and protecting California's water resources is a critical and complex task—particularly during periods of drought. We each have a role to play in sustaining California's water supply and building the state's resiliency against the effects of climate change.

For Drought Updates and Information related to the Water Boards, please visit Drought | California State Water Resources Control Board.

\_\_\_\_\_

Joshua R. Curtis

**Assistant Executive Officer** 

North Coast Regional Water Quality Control Board

5550 Skylane Blvd., Suite A

Santa Rosa, CA 95403

Pronouns: he, him, his

Joshua.curtis@waterboards.ca.gov

Office: 707-576-2695

Mobile: 707-230-1908

Fax: 707-523-0135

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From: Steven Luu <steven@slconsultinginc.com>

**Sent:** Friday, March 15, 2024 12:54 PM

To: Utley, Shannon M@Waterboards <ShannonM.Utley@waterboards.ca.gov>

Cc: Cannabis, NorthCoast@Waterboards <NorthCoast.Cannabis@Waterboards.ca.gov>; Feiler, Stormer@Waterboards

<Stormer.Feiler@waterboards.ca.gov>; Gary Simpson <Gsimpson@shn-engr.com>; Mark Pera

<mpera@hohmanandassociates.com>; admin <admin@kingrangeandco.com>; joshua <joshua@kingrangeandco.com>; natalie

<natalie@kingrangeandco.com>

Subject: Pond 1 Embankment Slope Failure - Shadow Light Ranch LLC

EXTERNAL:
Hello,
I am writing to notify all parties about a slope failure that was observed yesterday at the embankment of Pond 1 at Shadowlight Ranch.
Gary Simpson at SHN has been scheduled to inspect and provide stabilization recommendations at his earliest availability which is Monday March 18th.
Per the phone discussion between Gary and Josh Sweet, Gary recommended that the pond be dewatered to relieve load on the embankment but Josh is precluded from this action in the stipulated judgement. We wish to seek direction on this matter and emergency authorization to begin dewatering if deemed appropriate.
The property is available for inspection at your convenience.
Please see below photos below.







## CAUTION:

#### UNAUTHORIZED CHANGES & USES

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONALS.

#### **NOTES**

# THE PARCEL IS SPLIT-ZONED AGRICULTURE EXCLUSIVE (AE) AND TIMBER PRODUCTION ZONE (TPZ) WITH A B-5 COMBINING ZONE, HAS A GENERAL PLAN DESIGNATION OF AGRICULTURAL GRAZING (AC) AND IS IN THE STATE RESPONSIBILITY AREA (SRA).

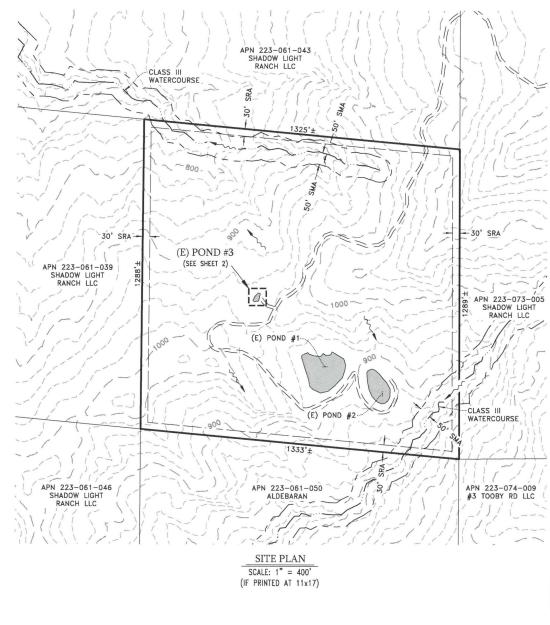
- THE PROPERTY IS CURRENTLY DEVELOPED WITH THREE (3) PONDS, AS SHOWN HEREON.
- PER CURRENT FEMA MAPPING, THE GRADED AREA AT THE POND SITE IS NOT DESIGNATED TO BE SUBJECT TO FLOODING
- 4. IT IS UNKNOWN AT THIS TIME WHETHER THE SITE IS UNDERLAIN BY SENSITIVE HABITAT AREAS, WETLAND AREAS OR ARCHAEOLOGICAL RESOURCES.
- 5. CONTOURS ARE BASED ON USGS 1-METER DIGITAL ELEVATION MODELS AND ARE AT 20-FOOT INTERVALS AS SHOWN HEREON

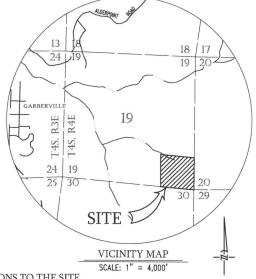
#### GRADING & EROSION CONTROL NOT

- 6. APPROXIMATELY 65 C.Y. OF SOIL MATERIAL WILL BE RELOCATED TO ACCOMPLISH THE POND DECOMMISSIONING AS SHOWN HEREON.
- 7. A FIELD INVESTIGATION WAS CONDUCTED ON OCTOBER 31, 2023 FOR THE PURPOSE OF INSPECTING THE POND (KNOWN AS POND #3) AND FORMULATING A PLAN FOR DECOMMISSIONING THE POND. THE POND'S BERM SHALL BE REMOVED, WITH THE EXCAVATED MATERIAL PLACED AS FILL IN THE LOWEST PORTION OF THE POND TO PREVENT THE RETENTION OF RAINWATER (REFER TO SHEET 2 HEREIN, FOR FULL PARTICULARS).
- 8. DUST SHALL BE CONTROLLED BY WATERING DURING CONSTRUCTION.
- ALL GROUND BARED BY EARTH-MOVING ACTIVIEICS SHALL RECEIVE EROSION CONTROL TREATMENT PRIOR TO THE ONSET OF THE WINTER RAINS. EROSION
  CONTROL TREATMENT SHALL CONSIST OF THE FOLLOWING:
- SPREAD NATIVE SEED MIX AT THE MANUFACTURERS RECOMMENDED RATE.
- b. SPREAD STRAW AT THE RATE OF 2 TONS/ACRE.
- c. STRAW SHALL BE STABLE AND NOT SUBJECT TO REMOVAL BY WIND. THE STRAW SHALL BE PLACED WITH PARTIAL EMBEDMENT INTO THE SOIL OR TREATED WITH A SUITABLE STABILIZING EMULSION.
- O. SITE MONITORING PRIOR TO AND AFTER SIGNIFICANT STORM EVENTS SHALL BE MADE BY THE APPLICANT (OR OWNER), TO VERIFY THAT THE EXISTING EROSION CONTROL MEASURES ARE REQUIRED. ADDITIONAL EROSION & SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED, AS NECESSARY, TO MINIMIZE REGISION AND/OF SEDIMENT LEAVING THE SITE.
- 11. THE GOAL OF THIS PLAN IS TO MINIMIZE SEDIMENT LEAVING THE SITE, AND TO ENSURE THAT ANY SEDIMENT THAT DOES LEAVE WILL HAVE AN INSIGNIFICANT IMPACT DOWNSTREAM.
- 2. RESTORED CUT AND FILL SLOPES ARE TO BE GRADED AT 3:1 MAXIMUM UNLESS OTHERWISE SHOWN HEREON
- 13. REVEGETATION WILL OCCUR VIA SEEDING AND NATURAL PROCESSES

# POND DECOMMISSIONING PLAN for

# SHADOW LIGHT RANCH LLC GARBERVILLE, CA





DIRECTIONS TO THE SITE

HWY 101 TO REDWOOD DRIVE TO ALDERPOINT ROAD TO FLAT ROCK ROAD TO 960 SHADOW LIGHT ROAD.

#### SYMBOL INDICATES DIRECTION OF SURFACE WATER RUNOFF/FLOW DIRECTION (P) (E) **EXISTING** (TYP.) **TYPICAL** CL CENTER LINE STATE RESPONSIBILITY AREA SETBACK STREAMSIDE MANAGEMENT AREA SETBACK BEST MANAGEMENT PRACTICES CONTOURS AT 20-FOOT INTERVALS W - ORIGINAL GROUND SURFACE PROPOSED CUT MATERIAL PROPOSED FILL MATERIAL

DRAWING INDEX

1 COVER / TI
2 POND DECOM

COVER / TITLE SHEET / SITE PLAN
POND DECOMMISSIONING. CROSS SECTIONS & DETAILS



CIVIL

Huberly D. Freston 126-33 RIMBERLY D. PRESTON R.C.E. 62665

OWNER/APPLICANT

SHADOW LIGHT RANCH LLC c/o JOSHUA SWEET P. O. BOX 250 GARBERVILLE, CA 95542 (310) 710-7549

REVISION	DATE	BY	OMSBERG & DRESTO	DESIG
			402 E Street Eureka, California 95501 Telephone (707) 443-869	51 C
			SURVEYORS PLANNERS ENGINEER	RS CHEC

DESIGNED BY DATE
DK 11/28/23
DRAWN BY DATE
443-8651
CWB 11/28/23
CHECKED BY DATE
KDP 12/06/23

APN 223-061-038

POND DECOMMISSIONING PLAN

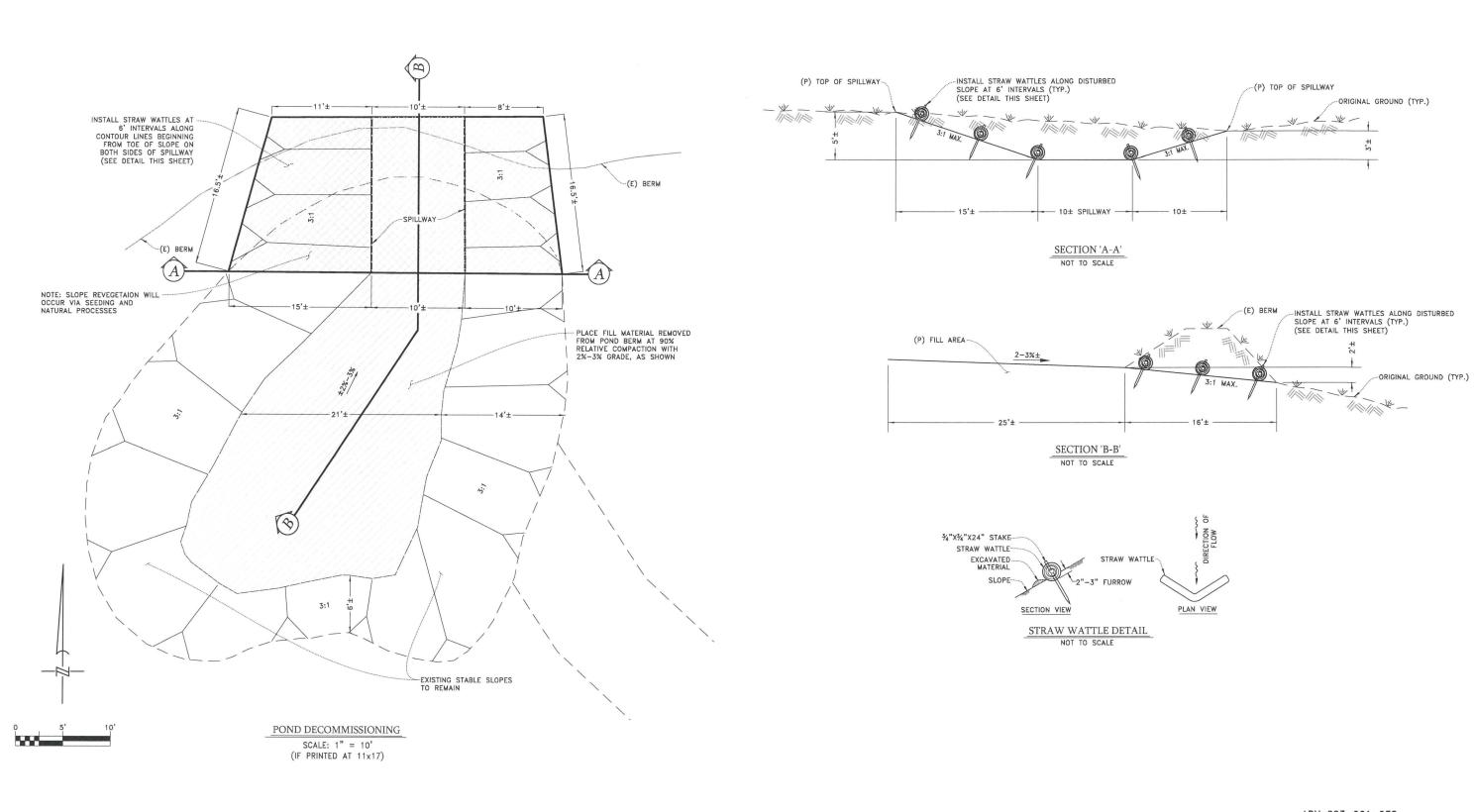
SHADOW LIGHT RANCH LLC

in the unincorporated area of Humboldt County Section 19, T.4S., R.4E. H.B.&M. AS SHOWN

JOB NO.

23-2315

SHEET OF



315 ASBLT 02.dwg 12/6/2023 2:18 PM

APN 223-061-038
POND DECOMMISSIONING,

CROSS SECTIONS & DETAILS

/6/
SHADOW LIGHT RANCH LLC
In the unincorporated area of Humboldt County
Section 19, 1.4.S., R.4E. H.B.&W.

11/28/23 DATE: 11/28/23 DATE: 11/28/23 DATE: 62665

OMSBERG & DRESTON

SURVEYORS PLANNERS ENGINEERS

23-2315 SHEET OF 2 2

SCALE AS SHOWN

JOB NO.

# Shadowlight Ranch Pond #3 Restoration Plan APN 223-061-038

#### **Project Description**

Pond #3 is a legacy stock pond situated on a topographic bench, approximately 300 feet upslope of the headwaters of an unnamed Class II stream, with potential for subsurface hydrologic connection to this stream. The pond appears to be fed by a nearby spring and sheetflow from rainwater. As per the Stipulated Final Judgement against Shadowlight Ranch et al, the ponds onsite must be rendered incapable of retaining water. On October 31, 2023, Omsberg & Preston (O&P) staff conducted a site visit to assess Pond #3 and collect data for its decommissioning. The conclusion from this visit is that more soil was removed to create the pond than is contained within the retaining berm and given that the pond has existed for many decades, the best option for restoration of this area is to decommission the pond by removing the retaining berm and restoring the disturbed area with seeding and planting of native vegetation. The retaining berm of the pond is between three to five feet in height and 15 feet wide by 25 feet in length. The proposed project is to remove the retaining berm and for the excavated material to be placed and stabilized in the lowest portion of the pond to prevent the retention of water, as outlined in the Pond Decommissioning Plan by O&P dated 12/6/2023. At the direction of the Regional Water Board, this plan shall be updated with additional erosion control measures, including the installation of straw wattles at and below the outlet of the proposed spillway and additional seeding and planting, as outlined below.

#### **Revegetation Recommendations**

Given the relatively flat area surrounding and within the pond footprint currently supports hydrophytic vegetation, it is likely that soil conditions and hydrology exist that allow for the enhancement of these potential seasonal wetlands by seeding and planting hydrophytic vegetation within the disturbed area of the pond and the removed retaining berm. In May of 2022, Native Ecosystems Inc. (NEI) assessed vegetative conditions onsite and found nearby existing areas of native wetland species which could be planted within the disturbed area with potential for high success of colonization. Therefore, it is recommended that seeding takes place following restoration, with planting of native grasses and forbs following adequate rainfall in the autumn and early winter months prior to freeze for the highest potential for success. If planting at this time is not feasible due to onsite conditions, new plantings should be watered within 24

hours of planting, and at a minimum weekly until the rainy season begins. Plantings should be installed in single species clusters of 5-20 individuals with spacing dependent on size and species type. Given the area is in a dominant oak woodland and grasslands region, it is recommended to seed and plant a dominant portion of *Danthonia californica* alongside wetland graminoids such as *Juncus effusus* and *Juncus patens*, and native forbs such as *Lupinus bicolor* and *Ranunculus occidentalis*, all of which have been identified onsite. This will help enhance biodiversity and improve habitat diversity for a wide variety of animal and insect species. Monitoring will occur over three years, during which a survival rate and native coverage of 85% shall be considered successful. Monitoring reports will be submitted to the appropriate agencies in a timely manner.

Reference: 018064

November 6, 2023

Joshua Sweet Shadow Light Ranch, LLC P.O. Box 250 Garberville, CA

Subject: Engineering Geologic Assessment of the Proposed Restoration at

Pond #3, Shadow Light Ranch, Garberville, California; APN 223-061-

038

Joshua Sweet:

SHN is providing this engineering geologic assessment to inform the proposed restoration work at Pond #3 at the Shadow Light Ranch, near Garberville, California. The pond restoration work is being completed as part of a legal agreement with the State and the information is being provided as part of a comprehensive application that includes a variety of other work at the site. The intent of this letter report is to identify and discuss potential mass wasting-related impacts associated with the proposed work, especially as they relate to water quality, and to provide mitigation recommendations, as appropriate. The proposed work at Pond #3 is relatively minor, and it does not appear that Humboldt County grading permitting will be required.

The subject pond is located at the following coordinates:

Latitude: 40.093858 Longitude: -123.770490

# **Site Conditions**

Pond #3 is a small, spring-fed stock pond created many years ago during the development of the original "Tooby Ranch." In fact, the ponds are often referred to locally as "Tooby ponds," as they dot the landscape in the area. The subject pond is about 60 feet long, 40 feet wide, and about 5 feet deep (based on staff measurements). It occurs in an upland setting, along a drainage divide, and appears almost exclusively spring-fed from a source just to the southwest (previous flow estimates identified a catchment area of about an acre).

Pond #3 has a nominal, 1- to 2-foot-high embankment; it appears that the spoils from excavation of the stock pond were placed in the shallow stream channel downstream of the pond to retain water and distributed over the surrounding ground as a low berm. The modest channel (a few feet wide and deep) is apparent downstream of the filled area. Flow into the pond is minor and seasonally ephemeral. There is no spillway, yet there is no apparent overflow; sufficient quantities of the retained water appear to be flowing through the buried channel to maintain equilibrium.

The area northwest of the pond is relatively low gradient and there is no geomorphic evidence of landsliding or unstable ground in the discharge area.

# **Proposed Project**

We understand the intention is to daylight the pre-existing channel downstream of the pond to reduce water retention and allow through-flow of the pond (no net storage). The pond will not be backfilled. We expect this minor restoration work to require minimal earthwork.

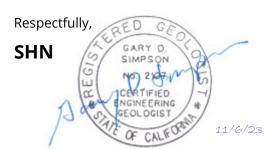
# **Discussion**

The proposed channel restoration at Pond #3 is a minor project with a limited, focused scope. The potential impacts related to geologic conditions at the site associated with the work are negligible. Because the pond does not overflow under current conditions due to low flows and hydraulic connection to the channel downstream of the pond, we do not expect significant change to downstream flows. As such, there is a negligible potential for impacts related to the integrity of the subject hillslopes or long-term water quality conditions at the site.

Removal of stored fill soils from the channel area has the potential for short-term impacts related to sediment and turbidity, which we understand will be addressed in the project restoration plan.

Based on the small volume of potential spoils, it does not appear that a Humboldt County grading permit is required. The spoils should be moved to a suitable disposal site and treated to control erosion, as appropriate.

We trust this focused engineering geologic assessment provides the information necessary to develop the application information requested by the Regional Water Quality Control Board. If additional information is required, please let us know and we will be happy to address any concerns or comments.



Gary D. Simpson, CEG Sr. Engineering Geologist

GDS:ame

David N. Lindberg, CEG Post Office Box 306 Cutten California 95534 (707) 442-6000

August 26, 2020 Project No: 0260.04

The Hills LLC
Mr. Josh Sweet
Post Office Box 250
Garberville, California 95542

Subject: Hydrologic Isolation of Existing Well from Surface Waters,

960 Shadow Light Ranch Road, Garberville, APN 223-073-004

Dear Mr. Sweet:

As requested, Lindberg Geologic Consulting has assessed your well on the above-referenced property to determine if it could potentially have hydrologic connectivity with nearby surface waters, so that pumping the well could affect surface water from nearby tributaries of Bear Canyon Creek (Figure 1). In our opinion it is unlikely that this well has a potential to be hydrologically connected to any of the nearby surface waters in a manner to affect surface flows. This well was drilled under county permit (#19/20-0154), in October of 2019, by Fisch Drilling of Hydesville. Fisch Drilling is a licensed (C-57 #683865) well-drilling contractor. Fisch filed the well completion report (DWR 188) in November 15, 2019 (copy attached). The well location is shown approximately on Figures 1 and 3.

Borehole depth was 240 feet, diameter was 10 inches, and the surface seal consists of bentonite from the ground surface to 20 feet below the ground surface (bgs). From 20 feet to the total depth of 240 feet bgs, the annulus was backfilled with a 3/8-inch pea gravel filter pack. From the surface to the total depth, the well was constructed of 6-inch diameter, low-carbon steel casing (ASTM grade A53) pipe, screened from depths of 90 to 235 feet. Depth to static water level in the completed and developed well was 92 feet bgs on October 31, 2019.

Parcel 223-073-004 (Figure 2) has an area of between 81.02 GIS acres (per County Planning), and 94 acres (per Assessor's web site, and the "assessed lot size" on WebGIS). Parcel 223-073-004 is zoned for agriculture (AG). The subject well is located at latitude 40.097818° north, and latitude 123.761395° west, approximately 1,860 feet northeast of the nearest mapped blue line stream, a small tributary of Bear Canyon Creek, and more than 2,000 feet from any other perennial watercourses (Figures 1 and 3). This parcel is in the southwest ¼ of Section 20, (T4S, R4E, HB&M). Based on the USGS Garberville topographic quadrangle map (Figure 1), the well elevation is approximately 1,500 feet above sea level. Elevation of the channel of the small tributary of Bear Canyon Creek at the nearest point to the well is approximately 1,000 feet, while the elevations of the other proximal watercourses to the southwest are less than 1,000 feet.

On the geologic map (Figure 4) the parcel is shown to be underlain by a landscape-scale Quaternary landslide. Landslide deposits originated in, and is underlain by mélange of the Central Belt of the Franciscan Complex. Central Belt mélange is described by McLaughlin and

David N. Lindberg, CEG Post Office Box 306 Cutten California 95534 (707) 442-6000

August 26, 2020 Project No: 0260.04 Page 2

Others (2000) as consisting of "a matrix of clayey, penetratively sheared argillite and fine-grained sandstone, locally with intercalated green tuff and hard elliptical carbonate concretions armored with scaly black argillite. Includes blocks up to several kilometers across, of diverse lithologies and ages. Age range of the Central belt is based on the paleontologic and isotopic age range of rocks in the mélange and on inferred range in age of penetrative shearing, boudinage, and related deformation that occurred during mélange formation".

On this parcel, the Central Belt Mélange is underlain on a fault contact by Wildcat group rocks (QTw) which is described by McLaughlin and Others (2000) as "Marine and nonmarine overlap deposits (late Pleistocene to middle Miocene), thin-bedded to massive, weakly lithified siltstone, fine- to medium-grained sandstone, silty to diatomaceous mudstone and locally soft, scaly mudstone. Locally includes lenses of pebble to boulder conglomerate, carbonate concretions, abundant molluscan fossils, woody debris, and horizons of rhyolitic volcanic ash that are greater than 1 meter thick in some areas. Includes the Wildcat Group of Ogle (1953), the Bear River beds of Haller (1980), and related outlier Neogene deposits isolated along faults near Briceland, Garberville, Benbow, Piercy, Bridgeville and northeast of Weott". The fault contact is thought to dip to the northeast at an angle of approximately 30 degrees.

Bedding and foliation in the QTw overlap deposits strikes northwest and dips 28° to 62° northeast according to the geologic map (Figure 4). Some beds are overturned and these beds exhibit the steeper dips. Materials reported by the driller on the geologic log of the well completion report show topsoil from zero to 4 feet, brown sandstone from 4 to 27 feet, shale from 27 to 72 feet, blue green sand stone from 72 to 143 feet, shale from 143 to 191 feet, blue sand stone from 191 to 228 feet, and soft shale from 228 to 240 feet. The materials logged and described by the driller in 2019, appear consistent with the geologic descriptions of the Central Belt Mélange, and Wildcat Group (QTw).

In our professional opinion, based on our experience, site observations, and review of pertinent information available, this well has a minimal likelihood of having any direct connection to nearby surface waters. Our conclusion is supported by the depth of the well (240 ft.), the distance from (~1,860 feet), and the elevation (~500 feet) above the closest Bear Canyon Creek tributaries, the mapped strike and dip of QTw bedding, the depth of the screened interval (90 to 235 feet bgs), depth to static water (92 feet bgs), and completion in sandstone (per driller) occurring between 90 and 235 feet bgs. Further, a comparison of well water with water from the Upper Pond and Pods A and C shows the well water to be distinctive with comparatively higher sodium, iron, manganese, potassium, sulfate and born. Magnesium was significantly lower in the well water. The irrigation water analysis reports from A & L Western Laboratories is are attached.

With the static water level at 92 feet bgs, and the top of the water bearing formation thus at approximately 1,410 feet of elevation, or 410 feet higher in elevation than the closest tributary of Bear Canyon Creek at its closest point. With the QTw formation dipping northeast, away from the nearest tributaries of Bear Creek, we interpret groundwater to flow down dip toward

Post Office Box 306 Cutten California 95534 (707) 442-6000

August 26, 2020

Project No: 0260.04

Page 3

the northeast from the well-site. Thus Bear Canyon Creek (main stem) higher in the stratigraphic section than the sourced aquifer as are the closest unnamed tributaries. Nearby creeks are supplied with base flow from the shallowest aquifer with is within the Quaternary landslide deposits (Qls), and are thus interpreted to be hydrologically separated from the QTw formation from which the water is being drawn at depth.

The sandstone aquifer tapped by this well appears to be sandwiched between units of shale that presumably dip to the northeast. Surface water infiltrating through the Qls materials beneath this site is expected to flow sub-parallel to the ground surface in the upper, unconfined aquifer. The producing aquifer extends from 72 to 228 feet bgs. Groundwater infiltrating from the surface through the Qls and mélange units should, upon reaching the QTw materials, flow in the down-dip in the sandstone aquifer section. Geometrically, this suggests that this well is drawing water from an aquifer at a considerably greater depth in the section than what is exposed at the surface, and thus should have no hydrologic influence on the surface flow in Bear Canyon Creek or its tributaries. If the dip is consistent, the sandstone aquifer tapped by the well is far below the channel of any creeks to the northeast.

Based on our professional experience, it appears likely that the aquifer from which the subject well draws groundwater is recharged by water slowly infiltrating from the surface from the abundant annual precipitation the area receives. The "Water Level and Yield of Completed Well" section of the Well Completion Report shows the static water level dropped to 50 feet from a static water depth of 92 feet in four hours when pumped at 50 gallons per minute in October 2019.

In our opinion, and given the horizontal and vertical distances and elevation differences between this well and the surface waters of the nearby tributaries of Bear Canyon Creek, or other nearby watercourses, and given the apparent limiting conditions of the aquifer (i.e., depth of sandstone, strike and dip of bedding), it would appear extremely unlikely for the subject well to be hydrologically connected to, or to influence surface water flows in of Bear Canyon Creek, its nearby tributaries, or other nearby watercourses.

Please contact us if you have questions or concerns regarding our findings and conclusions.

OF CALIFO

Sincerely,

David N. Lindberg, CEG

Lindberg Geologic Consulting

DNL:sll

David N. Lindberg, CEG Post Office Box 306 Cutten California 95534 (707) 442-6000

August 26, 2020 Project No: 0260.04 Page 4

#### Attachments:

Figure 1 Topographic Map of Well Location
Figure 2 Assessor's Parcel Map of 223-073-004
Figure 3 Satellite Image of Wellsite and Vicinity

Figure 4 Geologic Map

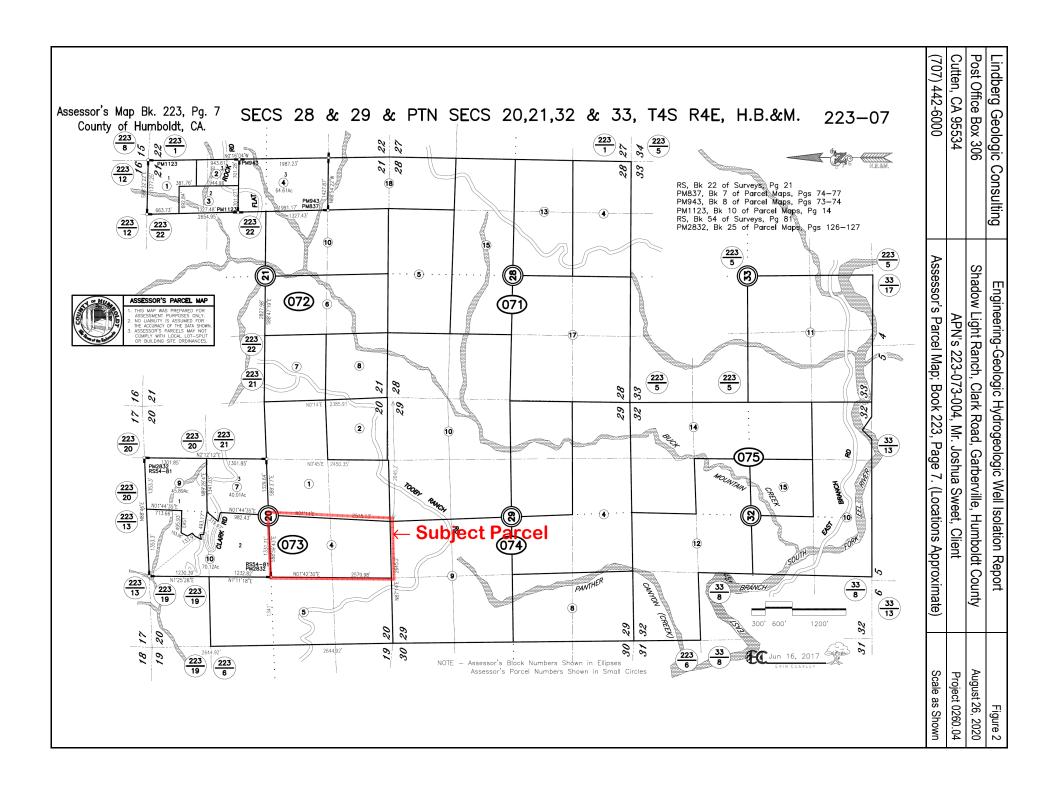
Figure 4a Geologic Map Explanation

Attached: State of California Well Completion Report

Irrigation Water Analysis Reports, A & L Western Agricultural Laboratories

Lindberg Geologic Consulting	Engineering-Geologic Hydrogeologic Well Isolation Report	Figure 1
Post Office Box 306	Shadow Light Ranch, Clark Road, Garberville, Humboldt County	August 26, 2020
Cutten, CA 95534	APN's 223-073-004, Mr. Joshua Sweet, Client	Project 0260.04
(707) 442-6000	Topographic Location Map (Locations Approximate)	1 inch ≅ 2,100 feet
Cutten, CA 95534 (707) 442-6000	APN's 223-073-004, Mr. Joshua Sweet, Client Topographic Location Map (Locations Approximate)	Project 0260.04
600	8 Station Pan 600 Radeo Grobnds Capping Pan 600 Fin	922

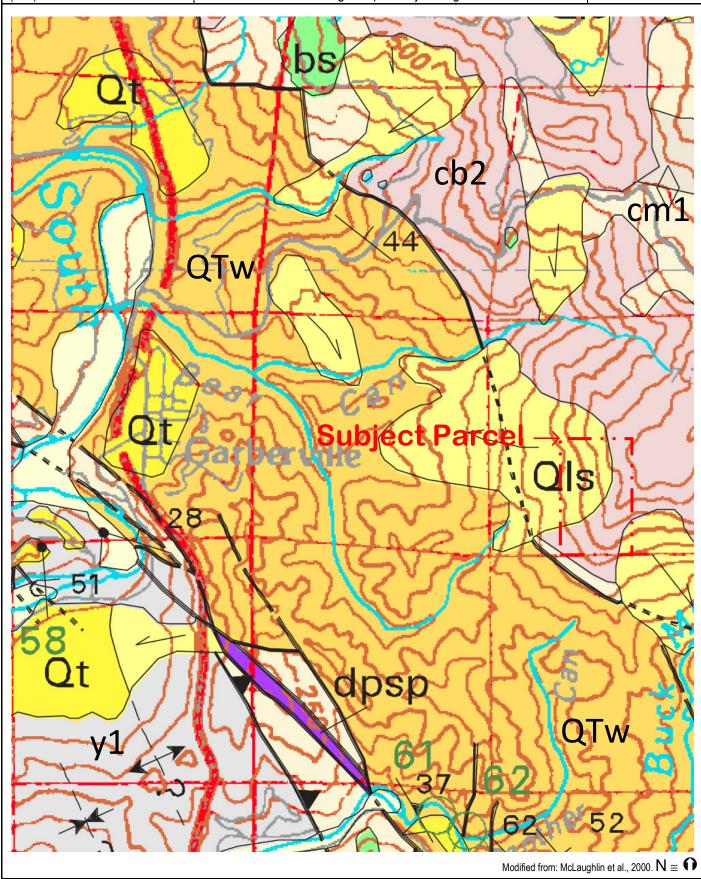
Modified from: USGS "Garberville, Calif.", 7.5' Quadrangle, (1970).  $N \cong \mathbf{0}$ 



Lindberg Geologic Consulting	Engineering-Geologic Hydrogeologic Well Isolation Report	Figure 3
Post Office Box 306	Shadow Light Ranch, Clark Road, Garberville, Humboldt County	August 26, 2020
Cutten, CA 95534	APN's 223-073-004, Mr. Joshua Sweet, Client	Project 0260.04
(707) 442-6000	Satellite Image of Project Site (all locations approximate)	1" ≅ 250'



Lindberg Geologic Consulting	Engineering-Geologic Hydrogeologic Well Isolation Report	Figure 4
Post Office Box 306	Shadow Light Ranch, Clark Road, Garberville, Humboldt County	August 26, 2020
Cutten, CA 95534	APN's 223-073-004, Mr. Joshua Sweet, Client	Project 0260.04
(707) 442-6000	Geologic Map of Project Region	1 inch ≅ 2,300 feet



Lindberg Geologic Consulting	Engineering-Geologic Hydrogeologic Well Isolation Report	Figure 4a
P. O. Box 306	Shadow Light Ranch, Clark Road, Garberville, Humboldt County	August 26, 2020
Cutten, CA 95534	APN's 223-073-004, Mr. Joshua Sweet, Client	Project 0260.04
(707) 442-6000	Geologic Map Explanation	No Scale

(707) 442	2-6000		Geologic Map Explanation			No Sca
		DESCR	IPTION OF MAP UNITS		GREAT VALLEY	SEQUENCE OVERLAP ASSEMBLAGE
	QUATERNARY AND TERTIARY OVERLAP DE	DOSITS				Hayfork terrane
Qal	Alluvial deposits (Holocene and late Pleistocene?)	CC CC	Chert (Late Cretaceous to Early Jurassic)		Eastern Hayfork subterra	ne:
	Undeformed marine shoreline and aolian deposits	bs	Basaltic rocks (Cretaceous and Jurassic)	eh	Melange and broken for (early? Middle Jurassic)	mation
Qm	(Holocene and late Pleistocene)	m	Undivided blueschist blocks (Jurassic?)	ehls	Limestone	
Qt	Undifferentiated nonmarine terrace deposits (Holocene and Pleistocene)	gs	Greenstone	ehsp	Serpentinite	
Qls	Landslide deposits (Holocene and Pleistocene)	С	Metachert	Chip	Western Hayfork subtern	ane:
QTog	Older alluvium (Pleistocene and [or] Pliocene)	yb	Metasandstone of Yolla Bolly terrane, undivided	whu		site of Irwin (1985), undivided
QTw	Marine and nonmarine overlap deposits (late Pleistocene to middle Miocene)	b	Melange block, lithology unknown	Wild	(Middle Jurassic)	
Ti	Volcanic rocks of Fickle Hill (Oligocene)		Eastern Belt	whwg	Wildwood (Chanchelulla pluton (Middle Jurassic)	Peak of Wright and Fahan, 1988)
11	voicanie rocks of rickie rini (oligocene)		<u>Pickett Peak terrane (Early Cretaceous or older)</u>	whwp	Clinopyroxenite	
	COAST RANGES PROVINCE FRANCISCAN COMPLEX		Metasedimentary and metavolcanic rocks of the Pickett Peak terrane (Early Cretaceous or older):	whji	Diorite and gabbro pluto	ons (Middle? Jurassic)
	Coastal Belt	ppsm	South Fork Mountain Schist	_	Ra	ttlesnake Creek terrane
	Coastal terrane(Pliocene to Late Cretaceous)	mb	Chinquapin Metabasalt Member (Irwin and others, 1974)	rcm	Melange (Jurassic and ol	der)
	Sedimentary, igneous, and metamorphic rocks of the	ppv	Valentine Springs Formation	rcls	Limestone	
1	Coastal terrane (Pliocene to Late Cretaceous):	mv	Metabasalt and minor metachert	rcc	Radiolarian chert	
co1	Melange		Yolla Bolly terrane (Early Cretaceous to Middle Jurassic?)	rcis	Volcanic Rocks (Jurassic	
co3	Melange  Broken sandstone and argillite		Metasedimentary and metaigneous rocks of the Yolla Bolly terrane (Early Cretaceous to Middle Jurassic?):	rcic	Intrusive complex (Early	
co4	Intact sandstone and argillite	-1-	Taliaferro Metamorphic Complex of Suppe and Armstrong (1972)	rcum	Plutonic rocks (Early Jura Ultramafic rocks (age un	
cob	Basaltic Rocks (Late Cretaceous)	ybt	(Early Cretaceous to Middle Jurassic?)	rcpd	Blocky peridotite	Ler calli)
cols	Limestone (Late Cretaceous)	ybc	Chicago Rock melange of Blake and Jayko (1983) (Early Cretaceous to Middle Jurassic)	тери		estern Klamath terrane
m	Undivided blueschist (Jurassic?)	gs	Greenstone		Smith River subterrane:	
	King Range terrane (Miocene to Late Cretaceou:	<u>c</u>	Metachert	srs	Galice? formation (Late J	urassic)
Krp	Igneous and sedimentary rocks of Point Delgada (Late C	retaceous) ybh	Metagraywacke of Hammerhorn Ridge (Late Jurassic to Middle Jurassic)	srv	Pyroclastic andesite	
m	Undivided blueschist blocks (Jurassic?)	С	Metachert	srgb	Glen Creek gabbro-ultra	mafic complex of Irwin
	Sandstone and argillite of King Peak (middle Miocene to Paleocene[?]):	gs	Greenstone		and others (1974)	
krk1	Melange and (or) folded argillite	sp	Serpentinite	srpd	Serpentinized peridotite	
krk2	Highly folded broken formation	ybd	Devils Hole Ridge broken formation of Blake and Jayko (1983)			MAP SYMBOLS
krk3	Highly folded, largely unbroken rocks	ybu	(Early Cretaceous to Middle Jurassic)		Contact	
krl	Limestone	C	Radiolarian chert	?	Fault	
krc	Chert	ybi	Little Indian Valley argillite of McLaughlin and Ohlin (1984) (Early Cretaceous to Late Jurassic)	<b>▲</b> - <b>▲</b> - <b>▲</b> - <b>♦</b> -	Thrust fault	
krb	Basalt		<u>Yolla Bolly terrane</u>	?	Trace of the San Andreas with 1906 earthquake ru	
	False Cape terrane (Miocene? to Oligocene?)	yb	Rocks of the Yolla Bolly terrane, undivided		Strike and dip of bedding	g:
fc	Sedimentary rocks of the False Cape terrane (Miocene? to Oligocene?)		GREAT VALLEY SEQUENCE AND COAST RANGE OPHIOLITE	10/ 20/	Inclined	
	Yaqer terrane (Eocene to Paleocene?)		Elder Creek(?) terrane	× ×	Vertical	
	Sedimentary rocks of the Yager terrane (Eocene to Paleo	cene?): ecms	Mudstone (Early Cretaceous)	$\oplus$	Horizontal	
y1	Sheared and highly folded mudstone		Coast Range ophiolite (Middle and Late Jurassic):	10/20/	Overturned	
y2	Highly folded broken mudstone, sandstone,	ecg	Layered gabbro	20	Approximate	
=	and conglomeratic sandstone  Highly folded, little-broken sandstone,	ecsp	Serpentinite melange	10	Joint	
у3	conglomerate, and mudstone		Del Puerto(?) terrane	10,	Strike and dip of cleavag	e
Ycgl	Conglomerate		Rocks of the Del Puerto(?) terrane:	10 _	Shear foliation: Inclined	
	Central belt	dpms	Mudstone (Late Jurassic)	/	Vertical	
	Melange of the Central belt (early Tertiary to Late Cretac		Coast Range ophiolite (Middle and Late Jurassic):		Folds:	
	Unnamed Metasandstone and meta-argillite (Late Cretaceous to Late Jurassic):	dpt	Tuffaceous chert (Late Jurassic)	←+	Synclinal or synformal ax	is
cm1	Melange	dpb	Basaltic flows and keratophyric tuff (Jurassic?)	<b>←</b>	Anticlinal or antiformal a	
cm2	Melange	dpd	Diabase (Jurassic?)	<del>-U</del>	Overturned syncline	
cb1	Broken formation	dpsp	Serpentinite melange (Jurassic?) Undivided Serpentinized peridotite (Jurassic?)		Landslide	
cb2	Broken formation	36	onarraed serpendinized pendodite (Julassic:)	Qls	Melange Blocks:	
cwr	White Rock metasandstone of Jayko and others (1989) (Paleogene and [or] Late Cretaceous)		KLAMATH MOUNTAINS PROVINCE	$\triangle$	Serpentinite	
chr	Haman Ridge graywacke of Jayko and others (1989) (Cre	taceous?)	Undivided Great Valley Sequence:		Chert	
cfs	Fort Seward metasandstone (age unknown)	Ks	Sedimentary rocks (Lower Cretaceous)	$\Diamond$	Blueschist	
cls	Limestone (Late to Early Cretaceous)			O	Greenstone	
				0"	Fossil locality and number	er

GEOLOGY OF THE CAPE MENDOCINO, EUREKA, GARBERVILLE, AND SOUTHWESTERN PART OF THE HAYFORK 30 X 60 MINUTE QUADRANGLES AND ADJACENT OFFSHORE AREA, NORTHERN CALIFORNIA (McLaughlin et al., 2000)

#### State of California

# Well Completion Report Form DWR 188 Complete 1/3/2020 WCR2019-016356

Owner's Well Number	Date Work Be	egan 10/17/2019	Date Work Ended	10/31/2019	
Local Permit Agency	Humboldt County Department of Health & Human Se	rvices - Land Use Program			
Secondary Permit Ager	cy Permit Nu	mber 19/20-0154	Permit Date	09/23/2019	

Well (	Owner (must remain confidential pursuant to Water Code 13752) Planned Use and Activity						ned Use and Activity	
Name	XXXXXXX	XXXXXXXXXXXX		Activity New Well				
Mailing Address XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX							Planned Use	Water Supply Irrigation -
		XXXXXXXXXXXXXXXX						Agriculture
City XX	xxxxxxx	XXXXXXXXXX	State	XX	Zip	XXXXX		

						Wel	Loca	ation	
Address	0 Walla	n RD							APN 223-073-005
City G	arberville			Zip	95542	County	Humb	ooldt	Township 04 S
Latitude	40	5	52.1447	N	Longitude	- -123	45	41.0219 W	Range 04 E
•	Deg.	Min.	Sec.	_	_	Deg.	Min.	Sec.	Section 20  Baseline Meridian Humboldt
Dec. Lat.	Lat. 40.097818 Dec. Long123.761395			Ground Surface Elevation					
Vertical D	atum			Н	orizontal Datu	m WGS8	34		Elevation Accuracy
Location A	Accuracy		L	ocatio	n Determination	on Method			Elevation Determination Method

	Borehole In	formation		Water Lev	el and	l Yie
Orientation Ve	ertical		Specify	Depth to first water		98
Drilling Method	Other - under-ream	Drilling Fluid	Air	Depth to Static		
Ĭ	down hole hammer	ŭ		Water Level	92	(Fee
		•		Estimated Yield*	50	(GPI
Total Depth of Bo	oring 240		Feet	Test Length	4	(Ηοι
Total Depth of Co	ompleted Well 240		Feet	*May not be represent	ative of	a well

Water Level and Yield of Completed Well											
Depth to first water		98	(Feet below surface)								
Depth to Static			_								
Water Level	92 (Feet)		Date Measured	10/31/2019							
Estimated Yield*	50	(GPM)	Test Type	Air Lift							
Test Length	4 (Hours)		Total Drawdown	142 (feet)							
*May not be representative of a well's long term yield.											

	Geologic Log - Free Form									
Depth Surf Feet to	face	Description								
0	4	top soil								
4	27	brown sand stone								
27	72	shale								
72	143	blue green sand stone								
143	191	shale								
191	228	blue sand stone								
228	240	soft shale								

	Casings												
Casing #	Depth from Surface Feet to Feet		Casing Type	Material	Casings Specificatons	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description			
1	0	90	Blank	Low Carbon Steel	Grade: ASTM A53	0.188	6						
1	90	235	Screen	Low Carbon Steel	Grade: ASTM A53	0.188	6	Milled Slots	0.05				
1	235	240	Blank	Low Carbon Steel	Grade: ASTM A53	0.188	6						

	Annular Material											
Depth from Surface Feet to Feet		Fill	Fill Type Details	Filter Pack Size	Description							
0	20	Bentonite	Other Bentonite		Sanitary Seal							
20	240	Filter Pack	Other Gravel Pack	3/8 inch	Pea Gravel							

#### Other Observations:

Borehole Specifications										
Depth from Surface Feet to Feet		Borehole Diameter (inches)								
0 240		10								

	Certification Statement											
I, the under	signed, certify that this report is complete and	accur	ate to the best of my	y knowledge a	nd belief							
Name	FISCH DRILLING											
	Person, Firm or Corporation											
;	3150 JOHNSON ROAD	Η	YDESVILLE	CA	95547							
	Address		City	State	Zip							
Signed	electronic signature received		11/15/2019	683865								
Signed	electronic signature received C-57 Licensed Water Well Contractor		11/15/2019 Date Signed									

	Attachments
scan.pdf - Location Map	

DWR Use Only												
State We	ell Number		Site Code				Local Well Number					
		N							W			
itude De	g/Min/Sec			Longit	ude	Deg	/Min/	Sec	;			
		State Well Number	State Well Number	State Well Number Site	State Well Number Site Code	State Well Number Site Code	State Well Number Site Code Loca	State Well Number Site Code Local Well	State Well Number Site Code Local Well Number N			

# A & L WESTERN AGRICULTURAL LABORATORIES

1311 WOODLAND AVE #1 • MODESTO, CALIFORNIA 95351 • (209) 529-4080 • FAX (209) 529-4736



**REPORT NUMBER:** 20-230-039 **CLIENT:** 9999-D

SUBMITTED BY: BEN BRECKENRIDGE

SEND TO: THE HILLS LLC GROWER: JOSHUA SWEET

PO BOX 250

GARBERVILLE, CA 95542-

**DATE OF REPORT:** 08/19/20

## **IRRIGATION WATER ANALYSIS REPORT**

PAGE: 1

Sample ID	Lab Number	Sodium Na meq/L	Calcium Ca meq/L	Magnesium Mg meq/L	Carbonate CO <sub>3</sub> meq/L	Bicarbonate HCO <sub>3</sub> meq/L	Chloride Cl meq/L	Conductivity E.C. dS/m	рН	Copper Cu ppm	Iron Fe ppm	Manganese Mn ppm	Zinc Zn ppm
UPPER POND POD-C POD-A	63083 63084 63085	0.39 0.39 0.30	0.50 1.60 1.75	0.74 0.58 0.66	0.00 0.00 0.00	1.80 2.56 2.90	0.14 0.14 0.11	0.16 0.29 0.30	7.1 7.0 7.9		<0.04 0.07 <0.04	0.01 0.01 <0.01	

Sample ID	Phosphorus P ppm	Potassium K ppm	Nitrate NO <sub>3</sub> ppm	Sulfate SO <sub>4</sub> ppm	Boron B ppm	Dissolved Solids ppm	Adjusted S.A.R.	Langelier Saturation Index	NOTES:
UPPER POND	0.01	1.0	< 2	1	0.01	145	0.45		
POD-C	0.02	1.3	< 2	6	0.05	216	0.40		
POD-A	<0.01	1.0	< 2	6	0.01	238	0.31		This report applies only to the sample(s) tested. Samples are retained a maximum of thirty days after testing.
									Rogell Rogers, CCA, PCA
									A & L WESTERN LABORATORIES, INC.

# A & L WESTERN AGRICULTURAL LABORATORIES

1311 WOODLAND AVE #1 • MODESTO, CALIFORNIA 95351 • (209) 529-4080 • FAX (209) 529-4736



**REPORT NUMBER: 20-191-158 CLIENT: 9999-D** 

SUBMITTED BY: BEN BRECKENRIDGE

SEND TO: THE HILLS LLC GROWER: JOSHUA SWEET

PO BOX 250

GARBERVILLE, CA 95542-

**DATE OF REPORT:** 07/15/20

## **IRRIGATION WATER ANALYSIS REPORT**

PAGE: 1

Sample ID	Lab Number	Sodium Na meq/L	Calcium Ca meq/L	Magnesium Mg meq/L	Carbonate CO <sub>3</sub> meq/L	Bicarbonate HCO <sub>3</sub> meq/L	Chloride Cl meq/L	Conductivity E.C. dS/m	рН	Copper Cu ppm	Iron Fe ppm	Manganese Mn ppm	Zinc Zn ppm
1 WELL	62693	2.96	0.95	0.16	0.00	4.20	0.11	0.44	7.8		0.32	0.03	

Sample ID	Phosphorus P ppm	Potassium K ppm	Nitrate NO <sub>3</sub> ppm	Sulfate SO <sub>4</sub> ppm	Boron B ppm	Dissolved Solids ppm	Adjusted S.A.R.	Langelier Saturation Index	NOTES:
1 WELL	0.01	2.1	< 2	11	1.48	364	4.50		
									This report applies only to the sample(s) tested. Samples are retained a maximum of thirty days after testing.   Rogell Rogers, CCA, PCA  A & L WESTERN LABORATORIES, INC.





# 3150 JOHNSON RD.

HYDESVILLE, CA. (707)768-9800 dave@fischdrilling.com

November 15, 2019

Joshua Sweet Shadow Light Ranch P.O. Box 250 Garberville, CA. 95542

Shadow Light Ranch Wallan road. Garberville, CA. 95542

Results of site review of Shadow Light Ranch, APN 223-073-005. The well site in question is located Wallan road, on parcel 223-073-005 this well was completed October 31 2019.

The well was completed in the Franciscan Sandstone; the well was drilled into perched bedrock with no hydraulic connection to any surface water or any part of a larger shallow homogeneous aquifer.

Considering the depth of the well, it appears to falls within guidelines of a non-jurisdictional well of similar depth in the surrounding area.

Any questions please call (707)768-9800.

Thank You,

David Fisch Fisch Drilling

#### State of California

# Well Completion Report Form DWR 188 Submitted 11/15/2019 WCR2019-016356

Owner's	Well Num	ber	Date Work Bega	an 10/17/2019	Date Work Ended 10/31/2019
Local Pe	rmit Agend	y Humboldt County Department	of Health & Human Service	es - Land Use Progr	ram
Seconda	ıry Permit	Agency	Permit Numb	per 19/20-0154	Permit Date 09/23/2019
Well	Owner	(must remain confidentia	I pursuant to Wat	ter Code 13752	2) Planned Use and Activity
Name	SHADOV	V LIGHT RANCH, LLC, Joshua Swe	et .		Activity New Well
Mailing	Address	P.O. Box 250			Planned Use Water Supply Irrigation -
					Agriculture
City G	arberville		State CA	Zlp 9542	
			Well Lo	cation	
Address	0 Wall	an RD	<u> </u>		APN 223-073-005
City	Garberville	Zip 95	542 County Hu	mboldt	Township 04 S
Latitude	40	······································	ngitude -123 45	41,0219 W	Range 04 E
	Deg.	Min. Sec.	Deg. Min.	Martin Secretaria propriate and a second	Section 20
Dec. Lat			c. Long123.761395	060.	Baseline Meridian Humboldt
Vertical		The state of the s	ntal Datum WGS84		Ground Surface Elevation
		Company of the Compan	Minutes Communication		Elevation Accuracy Elevation Determination Method
LOCATION	Accuracy	LOCATION Del	ermination Method		Lievation Determination Method
		Borehole Information		Water L	evel and Yield of Completed Well
Orientati	on Verti	cal	Specify	Depth to first wate	r 98 (Feet below surface)
Drilling N	/lethod (	Other - under-ream Drilling Fluid	Air	Depth to Static	
arthrong r		own hole hammer	Sandal Maria Andrews Company of C	Water Level	92 (Feet) Date Measured 10/31/2019
The second se	**************************************	the state of the s	The state of the s	Estimated Yield*	50 (GPM) Test Type Air Lift
	pth of Bori		Feet	Test Length	4 (Hours) Total Drawdown 142 (feet)
Total De	pth of Con	pleted Well 240	Feet	-May not be repre	sentative of a well's long term yield.
			Geologic Log	- Free Form	
Depth Sur Feet t				Description	
0	4	top soil	The state of the s	· ·	
4	27	brown sand stone			
27	72	shale	<del>.</del>	<del></del>	
72	143	blue green sand stone		·	
143	191	shale	**************************************		
191	228	blue sand stone			
228	240	soft shale			

Casing #	Depth from Feet to	m Surface o Feet	Casir	ng Type	Material	Casings Specifications	Wall Thicknes (inches)	Outside Diameter (inches)	Screen Type	Stot Size if any (inches)	Descr	iption
1	0	90	Blank	ζ.	Low Carbon Steel	Grade: ASTM A53	0.188	6			Ministrative and the second section of the second section is a second section of the second section of the second section is a second section of the	al (Calendaria de Aracia) y de gran <sub>antic</sub> a egiza
	90	235	Scree	en	Low Carbon Steel	Grade: ASTM A53	0,188	6	Milled Slots	0.05	·	***************************************
Í	235	240	Blank	(	Low Carbon Steel	Grade: ASTM A53	0.188	6				
						Annular Ma	iterial					
Sur	n from face to Feet	FIII			FIII T	ype Details		Filter Pack	Size		Description	l
0	20	Bentor	nite	Other B	entonite					Sanitary Sea	I	
20	240	Filter P	ack	Other G	ravel Pack		3	8 Inch		Pea Gravel		
	Observa E h from	ations: Borehol	<u> </u>		ations	I, the undersi		Certific		Statement urate to the best of	my knowledge a	nd belief
Dept Su			<u> </u>			Name	ned, certify tha	<b>Certific</b> this report is com	plete and acc	Statement	my knowledge a	ind belief
Dept Su	E h from rface		<u> </u>		ations	Name	ned, certify tha	Certific this report is com	plete and acc FISCH I	Statement urate to the best of	my knowledge a	and belief
Dept Su Feet	h from rface to Feet	Boreho	<u> </u>		ations	Name	ned, certify tha	Certific this report is com in or Corporat DN ROAD	plete and acc FISCH I	Statement urate to the best of DRILLING	TO THE RESIDENCE OF THE PARTY O	·
Dept Su Feet	h from rface to Feet	Boreho	<u> </u>		ations	Name 3	Person, Fir 50 JOHNS Addre	Certific this report is com in or Corporat DN ROAD	FISCH I	Statement urate to the best of DRILLING HYDESVILLE	CA State	95547
Dept Su Feet	h from rface to Feet	Boreho 10	Bore		ations meter (inches)	Name 3	Person, Fir 50 JOHNS Addre	Certific this report is com n or Corporat DN ROAD as signature re ad Water Well C	FISCH I	Statement urate to the best of DRILLING HYDESVILLE City 11/15/2019 Date Signed	CA State	95547 Zip 33865
Depti Sur Feet 0	h from rface to Feet	Boreho 10	Bore	ehole Dia	ations meter (inches)	Name 3	Person, Fir 150 JOHNS Addre Electronic C-57 Licens	Certific this report is com n or Corporat DN ROAD as signature re ad Water Well C	FISCH I  ion  For Every description  VR Use	Statement urate to the best of DRILLING HYDESVILLE City 11/15/2019 Date Signed	CA State	95547 Zip 33865 ense Numb
Depti Su Feet 0	h from rface to Feet 240	Boreho 10	Bore	ehole Dia	ations meter (inches)	Name  3  Signed 2	Person, Fir 150 JOHNS Addre Electronic C-57 Licens	Certific this report is com n or Corporat DN ROAD ss signature re id Water Well C	FISCH I  FIS	Statement urate to the best of DRILLING HYDESVILLE City 11/15/2019 Date Signed	CA State 68 C-57 Lice	95547 Zip 33865 eli Numb
Dept Sur Feet 0	h from rface to Feet 240	Boreho 10	Bore	ehole Dia	ations meter (inches)	Name  3 Signed c	Person, Fir 50 JOHNS Addre Electronic C-57 Licens	Certific this report is com n or Corporat DN ROAD ss signature re id Water Well C	FISCH I  ion  For Every description  VR Use	Statement urate to the best of DRILLING HYDESVILLE City 11/15/2019 Date Signed	CA State 68 C-57 Lice	95547 Zip 33865 anse Numb
Depti Su Feet 0	h from rface to Feet 240	Boreho 10	Bore	ehole Dia	ations meter (inches)	Name  3 Signed c	Person, Fir 50 JOHNS Addre Electronic C-57 Licens	Certific  Inis report is com  on or Corporat  ON ROAD  ass  signature re  d Water Well Co  II Number	FISCH I  FIS	Statement urate to the best of DRILLING HYDESVILLE City 11/15/2019 Date Signed Only te Code	CA State 68 C-57 Lice	95547 Zip 33865 sinse Numb

#### lacy@fischdrilling.com

From:

Fisch Drilling <chris@fischdrilling.com>

Sent:

Friday, November 15, 2019 11:56 AM

To:

lacy@fischdrilling.com

Subject:

FW: OSWCR: Thank you for submitting Well Completion Report WCR2019-016356

From: OSWCR-NoReply@water.ca.gov <OSWCR-NoReply@water.ca.gov>

Sent: Friday, November 15, 2019 11:55 AM

To: chris@fischdrilling.com

Subject: OSWCR: Thank you for submitting Well Completion Report WCR2019-016356

#### \*\*\*\*\*Please do not reply to this e-mail message\*\*\*\*\*

Thank you for submitting your Well Completion Report - A New Production or Monitoring Well, **WCR2019-016356**, using the Online System for Well Completion Reports (OSWCR). The Department of Water Resources will review it for completeness. You will be notified if additional information is required. If you have any questions, please call your local DWR Region Office WCR contact.

DWR Northern Region Office April Scholzen (530)529-7368 April.Scholzen@water.ca.gov

To view this record, log in to OSWCR, or use the following link: https://civicnet.resources.ca.gov/DWR\_WELLS/urlrouting.ashx?type=1000&Module=WellCompletion&capID1=19CAP&capID2=00000&capID3=00DHT&agencyCode=DWR\_WELLS

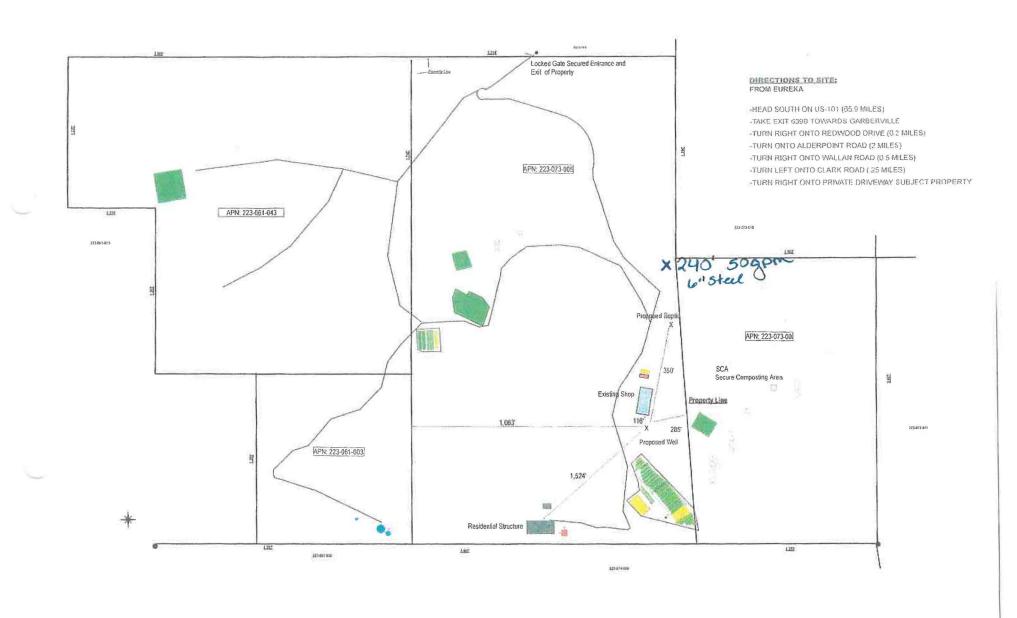
Licensed Contractor: FISCH DRILLING License Number: 683865

Well Owner: Joshua Sweet Shadow Light Ranch, LLC Well Owner Address: P.O. Box 250 Garberville CA 9542

Well Address: 0 Wallan RD, Garberville, CA 95542 County: Humboldt Parcel: 223-073-005

Latitude/Longitude: 40.097818°N, -123.761395°W

Submitted: 11/15/2019 Record Status: Submitted



#### The Hills, LLC

#### Water Source, Rain Catchment Overview and Water Management Plan

This analysis is to identify the baseline impact of the pre-existing cultivation areas which were developed and operated using illegal surface water diversions evaluated against the proposed well diversion and rain catchment systems

#### **Baseline Conditions**

Water was historically supplied by illegal surface water diversions in the baseline condition.

Pre-existing full sun outdoor canopy totals: 22,200 SF (Parcel 1 APN 223-061-043) 32,500 SF (Parcel 2 APN 223-061-038, 223-073-004, -005) 3,500 SF (Parcel 3 APN 223-061-046) 58,200 SF Outdoor

Pre-existing mixed light canopy totals: 6,2400 SF (Parcel 2 APN 223-061-038, 223-073-004, -005) 1,500 SF (Parcel 3 APN 223-061-046) 7,740 SF Mixed Light

At an estimated 15 gallons per square foot for the full sun outdoor in pots, hand watered and 12.5 gallons per square foot for mixed light (pots in greenhouses, hand watered), the total estimated water usage is:

58,200 SF X 15 gallons per SF per year = 873,000 gallons 7,740 SF X 12.5 gallons per SF per year = 96,750 gallons

Total water usage is estimated at baseline levels of 969,750 gallons.

#### **Interim Conditions**

Based on 2019 waterboard reporting, for the interim permitted and cultivated canopy of 10,000 square feet of mixed light and 47,300 square feet of outdoor, the total water usage was 741,340 gallons, approximately 12.9 gallons per square foot canopy. This represents a reduction of 228,410 gallons from baseline levels. Efficient drip irrigation systems were implemented to irrigate pots in lieu of hand watering.

#### **Proposed Conditions**

The project will be broken out into multiple phases. Water is currently supplied by a permitted well diversion.

The following is a breakdown of rain catchment surfaces and estimated usage and diversion reduction by phase.

Garberville CA has an average annual rainfall of 57 inches of rainfall per year pr the Western Regional Climate Center however the water balance analysis is based on the record setting 2020-2021 water year drought (~29.12 inches of rainfall). See appended analysis by phase and historic water records from the Eel River Camp gage located just north of Redway.

#### Rain Catchment Surface and Storage Summary Phase 1 (2022)

BLDG A, 1,200 SF (E) Warehouse; BLDG B 5,050 SF (P) Warehouse

6,250 SF Rain Catchment Surface

Existing storage tank volume: 59,500 gallons

Water use estimated at:

12 gallons per square foot canopy for 10,000 square feet of mixed light (utilizing raised beds and drip irrigation).

10 gallons per square foot canopy for 37,440 square feet of light deprivation outdoor canopy (utilizing raised beds and drip irrigation)

15 gallons per square foot canopy for 3,500 square feet of full sun outdoor canopy, in pots.

5 gallons per square foot canopy for 10,000 square feet of commercial nursery canopy.

See appended analysis for a water balance based on current severe drought conditions.

An estimated well diversion of 516,557 gallons is proposed based on drought conditions representing a reduction of over 215,000 gallons from interim conditions and over 450,000 gallons over baseline conditions.

#### Rain Catchment Surface and Storage Summary Phase 2 (2023 or later)

Phase 1 Catchment Surface Area = 6,250 SF

BLDG C 7,090 SF

Cultivation Agritek - 10,000 SF

Total Phase 2 Rain Catchment Surface Area = 23,340 SF

Water storage expansion – 100,000 gallons – total storage = 159,500 gallons

18 gallons per square foot canopy for 10,000 square feet of full season mixed light.

10 gallons per square foot canopy for 37,440 square feet of light deprivation outdoor canopy (utilizing raised beds and drip irrigation)

15 gallons per square foot canopy for 3,500 square feet of full sun outdoor canopy, in pots.

7.5 gallons per square foot canopy for 10,000 square feet of commercial nursery canopy (full season).

A total of 756,900 gallons of water use is proposed mitigated by 289,686 gallons of rain catchment based on a water balance using current severe drought conditions rainfall data. A net well diversion of 467,214 gallons is expected, a reduction of 498,00 gallons from baseline conditions and a reduction of 49,343 gallons from Phase 1 conditions.

#### Rain Catchment Surface and Storage Summary Phase 3 (2024 or later)

Additional rain catchment surface from the 10,000 SF nursery Agritek and future building D would further increase rain catchment surface and provide further improvement to the operations. The development of these structures will be based on market conditions.

#### Drought Year Water Balance Analysis (2020-2021 Water Year) for Phase 1 Operations

Year				2020	2021								
Month	Sept	Oct	Nov*	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug*	TOTAL
Precipitation (IN)	0.09	0.1	3.78	5.03	9.94	4.75	4.05	1.04	0	0.32	0.02	0	29.12
Rain Catchment (GAL) Roof	054	000	4.4700	40500	00705	40505	45770	4050		40.47	70		440447
Area 6,250 SF	351			19596	38725	18505				1247		0	113447
Estimated Water Use (GAL)	109005	57315	27345	0	0	0	7500	18500	62065	94472.5	113817.5	114380	604400
Net to Storage or Use (GAL)	-108654	-56925	-12619	19596	38725	18505	8278	-14448	-62065	-93226	-113740	-114380	
Well Diversion (GAL)	108654	56925	12619	0	0	0	0	0	17013	93226	113740	114380	516557
Storage Volume (59.5K GAL				40500	50004	50500	50500	45050					
max)	0	0	0	19596	58321	59500	59500	45052	0	0	0	0	

<sup>\*</sup>Analysis conservatively uses 2020 September and October weather data which represent the most severe recent drought conditions
Precipitation data from Eel River Camp RAWS station

1	PI	าล	2	_	1

10000 ml													
9000 dep			March	April	May	June	July	/ Aug	gust Se	eptember O	ctober N	ovember	
3500 fso	12	10000 ml			0.05	0.1	0.15	0.175	0.2	0.175	0.1	0.05	1
10000 nursery	15	3500 fso			0	0.05	0.125	0.175	0.2	0.25	0.15	0.05	1
22200 dep	10	37440 dep				0.1	0.15	0.2	0.2	0.2	0.1	0.05	1
6240 dep	5	10000 nursery		0.15	0.25	0.2	0.275	0.175	0.1	0	0	0	1
37440													
			March	April	May	June	July	, Aug	just Se	eptember O	ctober N	ovember	
	12	10000 ml		0	6000	12000	18000	21000	24000	21000	12000	6000	120000
	15	3500 fso		0	0	2625	6562.5	9187.5	10500	13125	7875	2625	52500
	10	37440 dep		0	0	37440	56160	74880	74880	74880	37440	18720	374400
	5	10000 nursery		7500	12500	10000	13750	8750	5000	0	0	0	57500
		Total		7500	18500	62065	94472.5	113817.5	114380	109005	57315	27345	604400

#### Drought Year Water Balance Analysis (2020-2021 Water Year) for Phase 2 Operations

Year				2020	2021								]
Month	Sept	Oct	Nov*	Эес	Jan	Feb	Mar	Apr	May	June	July	Aug*	TOTAL
Precipitation (IN)	0.09	0.1	3.78	5.03	9.94	4.75	4.05	1.04	0	0.32	0.02	0	29.12
Rain Catchment (GAL) Roof													
Area 23,340 SF	1309	1455	54994	73179	144613	69106	58922	15131	0	4656	291	0	423655
Estimated Water Use (GAL)	116505	67815	38345	14000	14000	14000	27000	37000	78065	108222.5	122567.5	119380	756900
Net to Storage or Use (GAL)	-115196	-66360	16649	59179	130613	55106	31922	-21869	-78065	-103567	-122277	-119380	
Well Diversion (GAL)	115196	66360	0	0	0	0	0	0	0	44001	122277	119380	467214
Storage Volume (159.5K GAL max)	0		16649	75828	159500	159500	159500	137631	59566	0	0		

\*Continues from August Start of from Sept 2021 Analysis Start of 2020

<sup>\*</sup>Analysis conservatively uses 2020 September and October weather data which represent the most severe recent drought conditions
Precipitation data from Eel River Camp RAWS station

Phase 1																
10000 ml																
9000 dep			Jan	Feb	March	April	May	June	July	Augu	ıst Se	otember Oc	tober No	vember Dec	cember	
3500 fso	12	10000 ml		0.075	0.075	0.1	0.1	0.15	0.15	0.175	0.2	0.175	0.125	0.1	0.075	1.5
10000 nursery	15	3500 fso					0	0.05	0.125	0.175	0.2	0.25	0.15	0.05		1
22200 dep	10	37440 dep						0.1	0.15	0.2	0.2	0.2	0.1	0.05		1
6240 dep	5	10000 nursery		0.05	0.05	0.15	0.25	0.2	0.275	0.175	0.1	0.075	0.075	0.05	0.05	1.5
37440		-														
			Jan	Feb	March	April	May	June	July	Augu	ıst Ser	otember Oc	tober No	vember		
	12	10000 ml		9000	9000	12000	12000	18000	18000	21000	24000	21000	15000	12000	9000	153000
	15	3500 fso		0	0	0	0	2625	6562.5	9187.5	10500	13125	7875	2625	0	52500
	10	37440 dep		0	0	0	0	37440	56160	74880	74880	74880	37440	18720	0	374400
	10	10000 nursery		5000	5000	15000	25000	20000	27500	17500	10000	7500	7500	5000	5000	135000
		Total		14000	14000	27000	37000	78065	108222.5	122567.5	119380	116505	67815	38345	14000	714900



Tip: To view from different directions, place your mouse cursor over the compass images above. To view a larger image, click on a compass direction or the preview image.

Photos taken: May 2009

#### **Station Information**

**Location** Eel River Camp California

 Latitude
 40° 08' 18"
 NESS ID
 CA2AC1F8

 Longitude
 123° 49' 25"
 NWS ID
 040421

 Elevation
 446 ft.
 Agency
 S&PF



Monthly Summary for

### September, 2020

of         Solar Rad. Ave. V. Dir. Max.         Mean Max         Min Mean         Min Mean         Max         Min Mean         Max         Min Mean         Min Mean         Min Mean         Min Mean         Min Mean         Min Mean
---

<sup>° 1</sup> ly = 1 cal/cm<sup>2</sup> =  $4.1855 \text{ J/cm}^2 = 3.6855 \text{ BTU/ft}^2 = .01163 \text{ KW-hr/m}^2$ 





Monthly Summary for

### October, 2020

Day Day	Total		Wind		Air Te	mper	ature	Fuel To	emper	ature	Hu	midit	y	Dew	Wet	Total
of of	Solar Rad.	Ave.	V. Dir.	Max.	Mean	Max	Min	Mean	Max	Min	Mean	Max l	Min	Point	Bulb	Precip.
Month Year	ly.	mph	Deg	mph	Deg. I	ahrei	nheit	Deg. 1	Fahrer	nheit	Pe	rcent		Deg. Fal	renheit	inches
<u>1</u> 275	315	0.9	291	14.0	67	97	50	66	102	45	66	99	13	51	57	0.00
<b>2</b> 276	362	1.4	289	24.0	67	97	49	66	105	44	60	98	11	47	55	0.00
<u>3</u> 277	400	1.2	259	13.0	66	97	45	66	109	39	58	98	13	45	53	0.00
<u>4</u> 278		1.5	345	13.0	62	84	47	62	92	41	68	98	28	49	54	0.00
<u>5</u> 279			345	9.0	60	88	44	59	96	38	74	99	26	49	53	0.00
<u>6</u> 280				12.0	59	92	43	58	102	35	66	99	14	43	50	0.00
<u>7</u> 281	385			13.0	56	84	36	55	97	29	68	98	18	42	47	0.00
<u>8</u> 282	286	1.2	234	10.0	55	78	43	57	89	38	78	99	37	47	50	0.00
<b>9</b> 283				14.0	60	75	51	63	89	51	74	93	45	51	54	0.00
<u>10</u> 284				15.0	59	68	52	59	73	51		100	72	56	57	0.09
<u>11</u> 285				14.0	58	76	45	60	87	40		100	33	47	51	0.01
<u>12</u> 286				17.0	60	82	42	62	95	37		100	35	50	53	0.00
<u>13</u> 287				14.0	63	84	48	65	96	43		100	30	52	56	0.00
<u>14</u> 288				20.0	65	76	55	68	88	52		96	26	51	56	0.00
<u>15</u> 289				17.0	64	89	48	64	99	42		95	22	47	53	0.00
<u>16</u> 290				19.0	67	98	42	66	109	37	56	98	11	44	53	0.00
<u>17</u> 291				19.0	65	90	46	66	101	39		96	22	48	55	0.00
<u>18</u> 292				21.0	62	83	45	63	95	39		99	26	48	53	0.00
<u>19</u> 293				18.0	60	78	48	61	90	43		98	39	50	54	0.00
<u>20</u> 294				18.0	62	82	46	64	94	43	66	97	31	48	54	0.00
<u>21</u> 295				29.0	58	72	47	59	84	42		95	44	47	51	0.00
<u>22</u> 296				22.0	55	71	40	56	84	34		84	26	37	45	0.00
<u>23</u> 297				18.0	53	77	33	53	90	26		98	17	35	43	0.00
<u>24</u> 298				19.0	54	68	42	56	80	37	75	94	52	46	49	0.00
<u>25</u> 299				15.0	51	75	35	51	83	27		96	18	36	43	0.00
<u>26</u> 300				14.0	50	80	28	49	93	21	40	73	3	19	37	0.00
<u>27</u> 301	338			13.0	53	86	31	51	98	24		79	12	29	41	0.00
28 302			236	8.0	53	85	32	51	98	24		95	14	34	42	0.00
29 303			237	8.0	51	83	32	50	96	25	63	97	17	35	42	0.00
<u>30</u> 304				14.0	52	78	32	51	91	25		96	23	36	43	0.00
31 305			243	5.0	53	84	36	53	94	30	74	99	22	42	46	0.00
MONTHLY		IC2	W:		A in To			Decal To			11	::		D	Wat	Total
	Total	A ***	Wind			-		Fuel To	-			midity		Dew	Wet	Total
	Solar Rad.							Deg. l				rcent		Point Deg. Fal		Precip.
Total	ly. 10512	-	Deg	шрп	Deg. I	amei	шен	Deg. 1	amei	men	re	rcent		Deg. Fai	nemen	0.10
Ave.			21/	15.5	5Q 7	82.5	42 A	50 A	93.5	36.9	66	96	26	44	50	0.10
Ave. Max.			314	29.0	38.7 67	82.3 98	42.4 55	39.0 68	109	52		100	72	56	57	0.09
Min.				5.0		98 68	28	49	73	21	40	73	3	19	37	0.09
	140 whicet to fi															

Data are subject to further review and editing. Please refer any questions to the Western Regional Climate Center.

<sup>° 1</sup> ly = 1 cal/cm² =  $4.1855 \text{ J/cm}^2 = 3.6855 \text{ BTU/ft}^2 = .01163 \text{ KW-hr/m}^2$ 



Monthly Summary for

### November, 2020

Day Day	Total		Wind		Air Te	mper	ature	Fuel T	emper	ature	Hu	midit	y	Dew	Wet	Total
of of	Solar Rad.	Ave.	V. Dir.	Max.	Mean	Max	Min	Mean	Max	Min	Mean	Max l	Min	Point	Bulb	Precip.
Month Year	ly.	mph	Deg	mph	Deg. F	ahrei	nheit	Deg. 1	Fahrei	nheit	Pe	rcent		Deg. Fal	renheit	inches
<b>1</b> 306	309	0.8	234	9.0	53	85	36	52	98	30	70	99	19	40	46	0.00
<b>2</b> 307	305	1.0	240	13.0	51	85	34	50	95	28	66	98	13	37	43	0.00
<u>3</u> 308	297	0.6	215	8.0	50	80	32	50	90	26		97	17	35	42	0.00
<u>4</u> 309	285	0.9	283	8.0	57	80	41	59	93	37	66	98	30	44	49	0.00
<u>5</u> 310	282	2.1	194	14.0	60	81	46	63	90	41	74	100	33	50	54	0.00
<u>6</u> 311	192	1.8	75	14.0	49	56	45	49	66	42	84	98	62	44	46	0.07
<u>7</u> 312	282	5.2	347	25.0	50	57	44	51	69	42	68	95	43	39	44	0.05
<u>8</u> 313	239	4.4	323	28.0	44	52	29	43	61	24	69	95	40	33	39	0.06
<b>9</b> 314	226	1.7	342	18.0	39	57	26	39	66	19	70	97	29	28	34	0.00
<u>10</u> 315	209	0.9	245	8.0	45	62	33	45	72	29	73	97	46	36	40	0.00
<u>11</u> 316	250	1.2	306	9.0	43	63	33	44	74	26	81	99	36	36	39	0.00
<u>12</u> 317	209	0.8	237	7.0	44	59	34	46	69	33	80	98	46	38	41	0.00
<u>13</u> 318	87	1.4	304	11.0	47	57	42	48	59	42	95	99	88	46	46	0.78
<u>14</u> 319	151	1.0	271	6.0	47	55	42	49	60	43	91	100	63	45	46	0.00
<u>15</u> 320	100	0.5	244	6.0	54	61	47	55	63	48	96	99	88	53	53	0.48
<u>16</u> 321	203	0.8	227	5.0	57	69	50	57	73	48	95	100	74	55	55	0.03
<u>17</u> 322	35	3.0	275	26.0	54	58	48	53	57	46	93	100	67	52	52	1.17
<u>18</u> 323	179	2.0	226	19.0	52	59	47	53	63	47	90	99	70	49	50	0.96
<u>19</u> 324	168	1.3	271	7.0	47	57	40	48	66	38	93	100	65	44	45	0.05
<u>20</u> 325	238	1.2	352	13.0	43	59	37	46	71	35	88	100	39	39	41	0.01
<u>21</u> 326	201	1.2	281	6.0	41	57	35	44	66	35	93	100	57	39	40	0.00
<u>22</u> 327	88	1.0	249	8.0	41	47	35	42	51	37	97	100	81	40	41	0.01
<u>23</u> 328	215	1.9	327	19.0	48	59	41	49	69	40	87	99	57	44	45	0.01
<u>24</u> 329	234	1.6	164	14.0	47	62	37	49	71	34	86	99	47	42	44	0.07
<u>25</u> 330	158	1.3	250	15.0	43	53	37	44	60	34	92	100	59	41	42	0.01
<u>26</u> 331	237	1.2	229	13.0	41	58	33	43	69	31	88	100	46	37	39	0.00
<u>27</u> 332	187	1.1	243	5.0	40	59	34	41	69	30		100	53	37	38	0.00
<u>28</u> 333	187	0.8	222	4.0		58	32	41	68	33		99	52	36	37	0.01
<u>29</u> 334			253	6.0		54	32	40	63	30		99	59	36	37	0.00
<u>30</u> 335			259	9.0	42	58	33	44	67	34	91	100	52	39	40	0.01
MONTHLY	STATIST	ICS														
	Total		Wind			-		Fuel T	-			midit		Dew	Wet	Total
	Solar Rad.										Mean	Max l	Min	Point	Bulb	Precip.
	ly.		Deg	mph	Deg. F	ahrei	nheit	Deg. 1	Fahrei	nheit	Pe	rcent		Deg. Fal	renheit	inches
Total	6084															3.78
Ave.	203		263	11.8					70.3			99	51	41	44	
Max.	309			28.0		85	50	63	98	48		100	88	55	55	1.17
Min.	35	0.5		4.0	38	47	26	39	51	19	65	95	13	28	34	0.00
Data ana a	uhioat ta fi	wth on		anda	ditina	Dloor	10 #of				the II	Taatam	. D.	oional C	limata C	lantan

<sup>° 1</sup> ly = 1 cal/cm<sup>2</sup> =  $4.1855 \text{ J/cm}^2 = 3.6855 \text{ BTU/ft}^2 = .01163 \text{ KW-hr/m}^2$ 





Monthly Summary for

### December, 2020

Day Day	Total		Wind		Air Te	mpera	ature	Fuel T	emper	ature	Hu	midit	y	Dew	Wet	Total
of of	Solar Rad.	Ave.	V. Dir.	Max.	Mean	Max	Min	Mean	Max	Min	Mean	Max l	Min	Point	Bulb	Precip.
Month Year	ly.	mph	Deg	mph	Deg. F	ahrer	heit	Deg.	Fahrer	heit	Pe	rcent		Deg. Fal	ırenheit	inches
<b>1</b> 336	224	0.9	251	13.0	46	63	36	47	72	34	87	99	49	42	43	0.00
<b>2</b> 337	169	0.4	243	5.0	44	61	38	46	70	39	94	100	57	42	43	0.00
<u>3</u> 338	115	0.3	272	4.0	43	53	39	44	60	37	96	100	73	42	42	0.01
<u>4</u> 339	150	0.8	299	4.0	41	58	37	43	67	34	95	100	62	40	41	0.00
<u>5</u> 340	84	0.8	243	9.0	42	51	35	44	55	36	97	100	84	42	42	0.02
<u>6</u> 341	216		299	12.0	48	61	37	49		33	87	99	48	43	45	0.00
<u>7</u> 342			249	6.0	44	65	36	46		36	91	100	49	41	42	0.01
<u>8</u> 343	175	1.0	291	5.0	42	60	35	44		36	94	100	59	40	41	0.00
<u>9</u> 344				17.0		56	38	46		33		100	73	43	44	0.01
<u>10</u> 345		1.8	339	16.0		59	34	46	69	29	82	99	40	39	42	0.00
<u>11</u> 346	60	0.5	183	5.0	40	44	35	41	46	35	97	99	93	39	40	0.26
<u>12</u> 347	75	0.7	191	6.0	48	51	44	49	54	44	96	99	88	47	47	0.11
<u>13</u> 348			311	14.0		53	41	49		38	95	99	82	47	48	1.26
<u>14</u> 349			251	7.0		52	40	45		41	95	99	72	42	43	0.01
<u>15</u> 350			145	5.0		48	41	46		42	98	100	92	44	45	0.11
<u>16</u> 351		1.5	199	18.0	51	56	47	52	57	48	97	99	91	50	50	1.00
<u>17</u> 352				20.0		53	37	46	61	35	87	99	59	41	43	0.11
<u>18</u> 353		0.7	218	5.0		56	36	44	67	33	92	100	59	39	40	0.00
<u>19</u> 354		0.4	279	5.0		54	37	46		38		100	73	42	43	0.01
<u>20</u> 355			245	10.0	49	57	45	50		43	95	100	74	47	48	0.00
<u>21</u> 356				20.0		53	44	50		41		100	79	47	48	0.20
<u>22</u> 357				14.0		54	33	42		30	88	99	57	38	40	0.00
<u>23</u> 358			261	6.0		53	33	41		31	93	99	62	36	37	0.00
<u>24</u> 359				21.0	41	58	32	44		34	92		66	39	40	0.01
<u>25</u> 360				20.0	52	56	47	51		47	85	93	55	47	49	1.00
<u>26</u> 361				12.0	48	57	43	50		43	91	99	64	46	47	0.44
<u>27</u> 362			232	6.0	43	57	39	46		37	90	99	51	40	42	0.00
<u>28</u> 363			225	5.0	40	53	36	42		34		100	68	38	39	0.00
<u>29</u> 364		1.0	231	5.0		51	34	40		34		100	73	37	37	0.01
<u>30</u> 365		0.8	191	7.0		45	34	41		34		100	89	40	40	0.44
<u>31</u> 366			212	6.0	46	54	42	47	58	43	95	100	75	44	45	0.01
MONTHLY		ICS							_					_		
	Total		Wind		Air Te	-			_			midit		Dew	Wet	Total
	Solar Rad.															Precip.
m . 1	ly.	_	Deg	mph	Deg. F	ahrer	iheit	Deg.	Fahrer	iheit	Pe	rcent		Deg. Fal	irenheit	
Total			255	0.0	440	5 4 C	20.2	4	(1.0	27.0	00	00	<b>CO</b>	40	40	5.03
Ave.			255	9.9		54.9			61.8			99	68	42	43	1.00
Max.				21.0		65	47	52		48		100	93	50	50	1.26
Min.	33			4.0	38	44 D1	32	. 40		29	82	93	40 D	36	37	0.00

Data are subject to further review and editing. Please refer any questions to the Western Regional Climate Center.

<sup>° 1</sup> ly = 1 cal/cm² =  $4.1855 \text{ J/cm}^2 = 3.6855 \text{ BTU/ft}^2 = .01163 \text{ KW-hr/m}^2$ 



Monthly Summary for

### **July, 2021**

of         Solar Rad.         Ave. V. Dir. Max.         Mean Max Min Deg. Fahrenheit         inches           Month Year         ly.         mph         Deg. Fahrenheit         Deg. Fahrenheit         Deg. Fahrenheit         Deg. Fahrenheit         Deg. Fahrenheit         Deg. Fahrenheit         inches           1         182         681         6.2         61         18.0         69         87         59         74         102         59         64         82         34         55         60         0.00           2         183         702         3.1         80         15.0         75         98         53         79         112         49         57         97         13         54         61         0.00           4         185         700         2.9         95         15.0         73         94         55         78         111         53         60         90         32         56         61         0.00           4         185         700         3.4         66         18.0         68         92         52         73         110
1       182       681       6.2       61       18.0       69       87       59       74       102       59       64       82       34       55       60       0.00         2       183       702       3.1       80       15.0       74       97       55       79       114       53       60       94       15       55       61       0.00         3       184       717       2.9       97       15.0       75       98       53       79       112       49       57       97       13       54       61       0.00         4       185       700       2.9       95       15.0       73       94       55       78       111       53       60       90       32       56       61       0.00         5       186       698       2.4       86       14.0       73       98       53       78       113       49       56       94       22       53       59       0.00         6       187       709       3.4       66       18.0       68       92       52       73       110       49       63       92       26
2 183       702 3.1       80 15.0       74 97 55       79 114 53 60 94 15 55       55 61 0.00         3 184       717 2.9       97 15.0       75 98 53 79 112 49 57 97 13 54 61 0.00         4 185       700 2.9       95 15.0       73 94 55 78 111 53 60 90 32 56 61 0.00         5 186       698 2.4       86 14.0       73 98 53 78 113 49 56 94 22 53 59 0.00         6 187       709 3.4       66 18.0       68 92 52 73 110 49 63 92 26 52 57 0.00         7 188       704 5.0       57 20.0       65 81 50 69 93 45 65 92 38 51 56 0.00         8 189       718 3.3       43 17.0       66 88 48 71 103 45 62 96 28 50 56 0.00         9 190       707 3.4       70 17.0       70 96 48 75 111 45 56 92 20 50 57 0.00         10 191       702 3.5       43 16.0       69 95 49 73 109 45 61 94 22 51 57 0.00         11 192       716 3.3       48 19.0       68 92 51 73 107 46 61 92 25 51 57 0.00         12 193       713 4.0       41 20.0       65 87 47 69 102 43 65 96 32 50 55 0.00         13 194       700 3.8       60 18.0       66 90 47 71 103 43 63 96 27 50 56 0.00         14 195       684 3.2       41 19.0       65 87 48 70 102 46 65 95 31 51 51 56 0.00
3       184       717       2.9       97       15.0       75       98       53       79       112       49       57       97       13       54       61       0.00         4       185       700       2.9       95       15.0       73       94       55       78       111       53       60       90       32       56       61       0.00         5       186       698       2.4       86       14.0       73       98       53       78       113       49       56       94       22       53       59       0.00         6       187       709       3.4       66       18.0       68       92       52       73       110       49       63       92       26       52       57       0.00         7       188       704       5.0       57       20.0       65       81       50       69       93       45       65       92       38       51       56       0.00         8       189       718       3.3       43       17.0       66       88       48       71       103       45       62       96       28
4       185       700       2.9       95       15.0       73       94       55       78       111       53       60       90       32       56       61       0.00         5       186       698       2.4       86       14.0       73       98       53       78       113       49       56       94       22       53       59       0.00         6       187       709       3.4       66       18.0       68       92       52       73       110       49       63       92       26       52       57       0.00         7       188       704       5.0       57       20.0       65       81       50       69       93       45       65       92       38       51       56       0.00         8       189       718       3.3       43       17.0       66       88       48       71       103       45       62       96       28       50       56       0.00         9       190       707       3.4       70       17.0       70       96       48       75       111       45       56       92       20
5       186       698       2.4       86       14.0       73       98       53       78       113       49       56       94       22       53       59       0.00         6       187       709       3.4       66       18.0       68       92       52       73       110       49       63       92       26       52       57       0.00         7       188       704       5.0       57       20.0       65       81       50       69       93       45       65       92       38       51       56       0.00         8       189       718       3.3       43       17.0       66       88       48       71       103       45       62       96       28       50       56       0.00         9       190       707       3.4       70       17.0       70       96       48       75       111       45       56       92       20       50       57       0.00         10       191       702       3.5       43       16.0       69       95       49       73       109       45       61       94       22
6       187       709       3.4       66       18.0       68       92       52       73       110       49       63       92       26       52       57       0.00         7       188       704       5.0       57       20.0       65       81       50       69       93       45       65       92       38       51       56       0.00         8       189       718       3.3       43       17.0       66       88       48       71       103       45       62       96       28       50       56       0.00         9       190       707       3.4       70       17.0       70       96       48       75       111       45       56       92       20       50       57       0.00         10       191       702       3.5       43       16.0       69       95       49       73       109       45       61       94       22       51       57       0.00         11       192       716       3.3       48       19.0       68       92       51       73       107       46       61       92       25
7 188       704       5.0       57 20.0       65       81       50       69       93       45       65       92       38       51       56       0.00         8 189       718       3.3       43       17.0       66       88       48       71       103       45       62       96       28       50       56       0.00         9 190       707       3.4       70       17.0       70       96       48       75       111       45       56       92       20       50       57       0.00         10 191       702       3.5       43       16.0       69       95       49       73       109       45       61       94       22       51       57       0.00         11 192       716       3.3       48       19.0       68       92       51       73       107       46       61       92       25       51       57       0.00         12 193       713       4.0       41       20.0       65       87       47       69       102       43       65       96       32       50       55       0.00         13 194
8       189       718       3.3       43       17.0       66       88       48       71       103       45       62       96       28       50       56       0.00         9       190       707       3.4       70       17.0       70       96       48       75       111       45       56       92       20       50       57       0.00         10       191       702       3.5       43       16.0       69       95       49       73       109       45       61       94       22       51       57       0.00         11       192       716       3.3       48       19.0       68       92       51       73       107       46       61       92       25       51       57       0.00         12       193       713       4.0       41       20.0       65       87       47       69       102       43       65       96       32       50       55       0.00         13       194       700       3.8       60       18.0       66       90       47       71       103       43       63       96       27 </td
9       190       707       3.4       70       17.0       70       96       48       75       111       45       56       92       20       50       57       0.00         10       191       702       3.5       43       16.0       69       95       49       73       109       45       61       94       22       51       57       0.00         11       192       716       3.3       48       19.0       68       92       51       73       107       46       61       92       25       51       57       0.00         12       193       713       4.0       41       20.0       65       87       47       69       102       43       65       96       32       50       55       0.00         13       194       700       3.8       60       18.0       66       90       47       71       103       43       63       96       27       50       56       0.00         14       195       684       3.2       41       19.0       65       87       48       70       102       46       65       95       31<
10     191     702     3.5     43     16.0     69     95     49     73     109     45     61     94     22     51     57     0.00       11     192     716     3.3     48     19.0     68     92     51     73     107     46     61     92     25     51     57     0.00       12     193     713     4.0     41     20.0     65     87     47     69     102     43     65     96     32     50     55     0.00       13     194     700     3.8     60     18.0     66     90     47     71     103     43     63     96     27     50     56     0.00       14     195     684     3.2     41     19.0     65     87     48     70     102     46     65     95     31     51     56     0.00
11     192     716     3.3     48     19.0     68     92     51     73     107     46     61     92     25     51     57     0.00       12     193     713     4.0     41     20.0     65     87     47     69     102     43     65     96     32     50     55     0.00       13     194     700     3.8     60     18.0     66     90     47     71     103     43     63     96     27     50     56     0.00       14     195     684     3.2     41     19.0     65     87     48     70     102     46     65     95     31     51     56     0.00
12     193     713     4.0     41     20.0     65     87     47     69     102     43     65     96     32     50     55     0.00       13     194     700     3.8     60     18.0     66     90     47     71     103     43     63     96     27     50     56     0.00       14     195     684     3.2     41     19.0     65     87     48     70     102     46     65     95     31     51     56     0.00
13     194     700     3.8     60     18.0     66     90     47     71     103     43     63     96     27     50     56     0.00       14     195     684     3.2     41     19.0     65     87     48     70     102     46     65     95     31     51     56     0.00
<u>14</u> 195 684 3.2 41 19.0 65 87 48 70 102 46 65 95 31 51 56 0.00
<u>15</u> 196 696 4.1 70 18.0 64 83 54 69 98 53 64 84 37 50 55 0.00
<u>16</u> 197 690 4.3 41 17.0 65 82 49 70 96 46 61 94 32 50 55 0.00
<u>17</u> 198 687 4.3 23 20.0 67 86 50 71 102 48 61 94 29 51 56 0.00
<u>18</u> 199 702 3.3 21 22.0 69 95 48 72 106 44 61 95 24 51 57 0.00
<u>19</u> 200 640 3.9 25 20.0 68 89 51 70 101 48 61 99 28 52 57 0.00
<u>20</u> 201 713 3.9 346 24.0 66 86 47 68 96 42 63 100 24 50 56 0.00
<u>21</u> 202 21.0 81 55 93 52 88 35
<u>22</u> 203 19.0 87 51 99 47 89 22
<u>23</u> 204 692 3.4 19 20.0 71 94 47 72 103 43 54 100 20 48 57 0.00
<u>24</u> 205 654 2.5 45 19.0 73 101 50 75 112 45 55 93 20 51 59 0.00
<u>25</u> 206 604 2.1 127 13.0 74 100 51 76 111 47 57 98 23 54 60 0.00
<b>26</b> 207 587 2.6 134 14.0 73 94 54 76 105 51 54 90 28 54 60 0.00
<u>27</u> 208 308 1.4 260 11.0 69 87 59 70 96 55 72 100 36 58 61 0.02
<u>28</u> 209 648 1.9 247 16.0 77 102 57 80 114 54 57 100 15 55 62 0.00
<b>29</b> 210 663 2.0 244 15.0 80 105 58 82 117 54 46 88 12 52 62 0.00
<u>30</u> 211 670 2.2 257 16.0 81 107 60 83 118 55 44 79 8 50 61 0.00
<u>31</u> 212 652 1.9 208 19.0 74 103 54 75 116 49 55 93 17 53 60 0.00
MONTHLY STATISTICS
Total Wind Air Temperature Fuel Temperature Humidity Dew Wet Total
Solar Rad. Ave. V. Dir. Max. Mean Max Min Mean Max Min Mean Max Min Point Bulb Precip.
ly. mph Deg mph Deg. Fahrenheit Deg. Fahrenheit Percent Deg. Fahrenheit inches
Total 19456 0.02
Ave. 671 3.2 52 17.6 70.3 92.4 51.9 73.8 105.6 48.5 59 93 25 52 58
Max. 718 6.2 24.0 81 107 60 83 118 59 72 100 38 58 62 0.02
Min. 308 1.4 11.0 64 81 47 68 93 42 44 79 8 48 55 0.00

Data are subject to further review and editing. Please refer any questions to the Western Regional Climate Center.

<sup>° 1</sup> ly = 1 cal/cm² =  $4.1855 \text{ J/cm}^2 = 3.6855 \text{ BTU/ft}^2 = .01163 \text{ KW-hr/m}^2$ 



Monthly Summary for

### January, 2021

Day	Day	Total		Wind		Air Te	mpera	ature	Fuel T	emper	ature	Hu	midit	y	Dew	Wet	Total
of	of	Solar Rad.	Ave.	V. Dir.	Max.	Mean	Max	Min	Mean	Max	Min	Mean	Max l	Min	Point	Bulb	Precip.
Month	Year	ly.	mph	Deg	mph	Deg. I	ahrer	nheit	Deg.	Fahrei	nheit	Pe	rcent		Deg. Fal	renheit	inches
<u>1</u>				205	14.0	47	55	43	49	64	44	93	100	64	45	46	0.35
2				224		50	55	47	51	57	48		100	80	49	49	0.14
3		85			10.0	52	57	49	52	59	49	94	99	83	50	51	0.13
4				226	23.0	50	57	44	49		43		99	81	47	48	1.47
<u>5</u>				75	8.0	45	55	40	47		38		98	63	42	43	0.00
<u>6</u>				351	8.0	45	51	40	46		41		100	97	44	45	0.63
7					10.0	47	53	42	48		42		99	73	45	45	0.39
8			1.1		12.0	47	56	40	49	66	38		99	49	43	45	0.28
9				292	7.0	43	55	38	45	66	39		100	63	41	42	0.00
<u>10</u>				140	6.0	48	55	43	49	58	44		100	82	47	47	0.24
<u>11</u>				359	9.0	49	57	46	51	67	46		99	64	46	47	0.00
<u>12</u>					10.0	53	57	48	54		48		99	92	52	53	1.56
<u>13</u>				17	9.0	57	64	54	57		52		100	78	55	56	0.34
<u>14</u>					6.0	54	67	49	56		49		100	65	51	52	0.00
<u>15</u>				180	7.0	51	60	47	53	67	47		100	75	50	50	0.00
<u>16</u>					13.0	52	65	42	54		39		100	54	47	49	0.01
<u>17</u>					12.0	49	68	38	51	79	37		100	43	44	46	0.00
<u>18</u>					13.0	48	70	36	48	80	32		98	28	40	44	0.00
<u>19</u>					12.0	43	66	31	43	76	28		99	21	35	39	0.01
<u>20</u>				240	6.0	39	62	29	40	73	26		98	40	34	36	0.00
<u>21</u>					10.0	41	56	34	42	60	32		99	56	37	39	0.13
<u>22</u>					15.0	45	52	40	47		39		98	62	40	42	0.13
<u>23</u>					19.0	44	55	36	45	68	34		99	53	38	41	0.00
<u>24</u>					23.0	41	45	37	41	47	34		95	78	38	40	0.43
<u>25</u>			3.1		24.0	40	46	34	41	54	33		97	60	34	37	0.00
<u>26</u>					16.0	36	41	32	36		33		99	81	34	35	1.18
<u>27</u>					24.0	45	50	38	45	51	39		98	67	41	43	0.62
<u>28</u>			1.2	12		43	47	41	44		42		98	82	42	43	0.91
<u>29</u>					10.0	44	52	38	46		39		96	61	40	41	0.03
<u>30</u>					15.0	47 50	55 54	42	48		42		98	60	43	45	0.07
31 MONE		40 STATIST		203	13.0	50	54	45	49	54	45	92	98	78	48	48	0.89
MON	IHLY	Total	ics	Wind		A in To	***		Evol T		otuno	11	i.di#		Darr	Wat	Total
		Solar Rad.	Arro						Fuel T				midit Mov	,	Dew	Wet	Precip.
				Deg													_
	Total	ly. 4246		Deg	шрп	Deg. I	amer	шеп	Deg.	ramei	шеп	rc	rcent		Deg. Fal	nemen	9.94
	Ave.			20/	12.3	46.6	56.1	40.7	47.6	62.2	<b>4</b> 0 1	90	99	66	43	45	7.7 <del>4</del>
	Ave. Max.			27 <del>4</del>	24.0	57	70	54	57	80	52		100	97	55	56	1.56
	Min.				6.0	36	41	29	36		26		95		34	35	0.00
Data		ubject to fi		roviou													

Data are subject to further review and editing. Please refer any questions to the Western Regional Climate Center.

<sup>° 1</sup> ly = 1 cal/cm² =  $4.1855 \text{ J/cm}^2 = 3.6855 \text{ BTU/ft}^2 = .01163 \text{ KW-hr/m}^2$ 



Monthly Summary for

### February, 2021

Day	Day	Total		Wind		Air Te	mper	ature	Fuel T	emper	ature	Hun	nidit	y	Dew	Wet	Total
of	of	Solar Rad.	Ave.	V. Dir.	Max.	Mean	Max	Min	Mean	Max	Min	Mean I	Max 1	Min	Point	Bulb	Precip.
Month	Year	ly.	mph	Deg	mph	Deg. I	ahre	nheit	Deg.	Fahrer	nheit	Per	rcent		Deg. Fal	renheit	inches
<u>1</u>	32	42	2.3	252	29.0	48	54	42	48	53	40	95	98	88	47	47	1.27
<u>2</u>	33	201	1.5	266	13.0	46	55	38	47	61	36	89	99	52	43	44	0.07
<u>3</u>	34	216	2.4	320	18.0	43	52	35	44	61	32	85	98	56	38	41	0.26
<u>4</u>	35	293	1.6	320	14.0	42	60	32	44	69	31	84	99	45	37	39	0.00
<u>5</u>				335	16.0	45	59	33	48	70	34		99	55	40	42	0.01
<u>6</u>			3.3	338	17.0	47	63	36	48	72	34		98	42	39	42	0.00
<u>7</u>				357	16.0		61	36	46		34	80	97	45	39	42	0.00
<u>8</u>			1.3	19	8.0		56	41	48	64		84	96	61	41	44	0.00
9	40	154	0.5	280	5.0	47	56	40	48	63	37	88	98	58	43	45	0.00
<u>10</u>				277	7.0	47	65	40	50	76	41	87	99	45	43	44	0.00
<u>11</u>	42	42	1.1	240	11.0	45	53	42	46	52	42	97	99	87	45	45	0.84
<u>12</u>	43	148	1.0	186	5.0	49	54	45	50	59	45	93	99	76	47	48	0.09
<u>13</u>	44	220	2.1	332	15.0	47	55	38	48	62	36	86	99	53	42	44	0.42
<u>14</u>	45			318			47	39	45	49	40	97	99	93	43	43	0.45
<u>15</u>	46	139	1.8	157	14.0	49	55	43	50	57	43	92	99	78	47	48	0.12
<u>16</u>	47	283	2.3	323	21.0	47	55	41	49	64	40	82	99	53	41	43	0.00
<u>17</u>	48	310	1.5	5	11.0	47	60	35	48	70	33	76	98	37	38	42	0.00
<u>18</u>	49	73	0.8	252	8.0	44	52	36	45	54	34	94	99	76	42	43	0.63
<u>19</u>	50	198	2.0	174	16.0	48	56	43	50	63	43	87	99	54	44	46	0.35
<u>20</u>	51	271	4.5	358	22.0	47	54	41	48	64	39	78	97	57	39	43	0.24
<u>21</u>	52	358	3.5	46	16.0	47	61	34	49	71	32	75	97	44	38	42	0.00
<u>22</u>	53	339	3.7	37	19.0	50	64	40	51	76	39	78	97	51	43	46	0.00
<u>23</u>	54	381	3.8	64	17.0	51	60	44	52	72	41	70	91	40	41	45	0.00
<u>24</u>	55	387	4.5	36	20.0	46	58	34	47	67	31	70	96	42	36	41	0.00
<u>25</u>	56	388	3.5	349	22.0	47	63	33	49	75	31	72	97	39	37	42	0.00
<u>26</u>	57	275	6.5	11	34.0	46	53	39	47	61	38	65	87	53	35	41	0.00
<u>27</u>	58	387	4.8	29	34.0	47	55	42	49	66	38	62	78	44	34	41	0.00
<u>28</u>	59	398	2.2	34	15.0	47	67	32	48	76	30	74	97	37	37	42	0.00
MONT	HLY	STATIST	ICS														
		Total		Wind		Air Te	mper	ature	Fuel T	emper	ature	Hun	nidit	y	Dew	Wet	Total
		Solar Rad.	Ave.	V. Dir.	Max.	Mean	Max	Min	Mean	Max	Min	Mean I	Max 1	Min	Point	Bulb	Precip.
		ly.	mph	Deg	mph	Deg. I	Fahrer	nheit	Deg.	Fahrer	nheit	Per	cent		Deg. Fal	renheit	inches
,	Total	6941															4.75
	Ave.	248		351	16.0	46.6	57.2	38.4	47.9	64.9	37.0	82	97	56	41	43	
	Max.				34.0		67	45	52	76	45	97	99	93	47	48	1.27
	Min.	42	0.2		4.0	42	47	32	44	49	30	62	78	37	34	39	0.00
			-		-												

<sup>° 1</sup> ly = 1 cal/cm² =  $4.1855 \text{ J/cm}^2 = 3.6855 \text{ BTU/ft}^2 = .01163 \text{ KW-hr/m}^2$ 





Monthly Summary for

## March, 2021

Day Day	Total		Wind		Air Te	mpera	ature	Fuel T	emper	ature	Hur	nidit	y	Dew	Wet	Total
of of	Solar Rad.	Ave.	V. Dir.	Max.	Mean	Max	Min	Mean	Max	Min	Mean l	Max ]	Min	Point	Bulb	Precip.
Month Year	ly.	mph	Deg	mph	Deg. I	ahrer	heit	Deg.	Fahrer	heit	Per	rcent		Deg. Fal	renheit	inches
<u>1</u> 60	336	2.1	262	20.0	44	66	34	45	77	31	82	99	26	37	40	0.00
<b>2</b> 61	361	0.8	275	7.0	46	72	35	49	81	30	79	99	18	38	41	0.00
<u>3</u> 62	405	1.3	255	14.0	45	70	31	46	83	28	72	98	17	33	39	0.00
<u>4</u> 63	404	2.8	215	23.0	45	63	33	46	73	30	74	97	36	36	40	0.00
<u>5</u> 64				22.0	49	60	37	50		37		96	56	42	45	1.20
<u>6</u> 65	404			11.0	44	58	35	47		33	80	97	42	37	40	0.01
<u>7</u> 66				11.0		59	36	48		34		97	42	38	41	0.03
<u>8</u> 67				17.0		50	35	43		34		98	71	38	40	0.31
<u>9</u> 68				19.0	42	48	38	42		38	90	97	76	39	41	0.86
<u>10</u> 69				22.0	42	54	36	45		34		98	49	37	40	0.05
<u>11</u> 70	396	2.0	6	17.0	44	59	35	47		33	80	99	39	37	40	0.01
<u>12</u> 71	436			14.0	47	68	34	50		30		99	25	37	42	0.00
<u>13</u> 72				13.0	46	61	38	49		37		97	54	39	43	0.00
<u>14</u> 73				20.0	43	50	37	43		37	88	97	66	39	41	0.72
<u>15</u> 74				40.0	43	49	35	44	59	33		93	48	31	37	0.08
<u>16</u> 75		2.6	336	18.0	41	57	29	43	68	28	71	97	31	30	36	0.00
<u>17</u> 76	424	2.9	227	23.0	42	58	30	45	70	28	79	98	49	35	39	0.02
<u>18</u> 77	179	3.2	213	23.0	48	55	41	49	59	42	90	98	71	45	47	0.61
<u>19</u> 78		1.8	306	17.0	46	54	40	47	60	39	90	99	62	43	44	0.14
<u>20</u> 79		2.7		17.0		56	35	48	71	32	80	99	51	38	42	0.01
<u>21</u> 80	456	3.5	355	23.0	46	57	35	48	69	32	73	98	49	37	41	0.00
<u>22</u> 81	285	3.6	0	31.0	48	58	39	51	67	38	71	92	56	39	43	0.00
<u>23</u> 82	506	3.3	19	19.0	48	62	37	49	73	33		96	36	36	42	0.00
<u>24</u> 83	438	3.1	334	21.0	48	62	36	50	72	32	74	97	40	38	43	0.00
<u>25</u> 84				28.0	47	56	37	49		33		95	49	37	42	0.00
<u>26</u> 85	526	2.2	348	14.0	48	69	32	50	80	28	71	97	32	38	42	0.00
<u>27</u> 86				13.0	53	80	35	55		32		98	21	40	45	0.00
<u>28</u> 87				17.0		76	37	55		33		99	21	39	45	0.00
<u>29</u> 88		6.0		25.0	49	59	40	51		38		92	36	36	42	0.00
<u>30</u> 89				15.0		75	33	52		30		96	22	36	43	0.00
<u>31</u> 90			259	13.0	53	80	33	54	91	28	63	98	12	35	44	0.00
MONTHLY	STATIST	ICS														
	Total		Wind		Air Te	1						nidit	•	Dew	Wet	Total
	Solar Rad.													Point	Bulb	Precip.
	ly.	-	Deg	mph	Deg. I	Fahrer	heit	Deg.	Fahrer	iheit	Per	rcent		Deg. Fal	renheit	inches
Total																4.05
Ave.				18.9		61.3			71.5		76	97	42	37	42	
Max.				40.0		80	41	55		42		99	76	45	47	1.20
Min.	72			7.0	41	48	29	42	51	28	63	92	12	30	36	0.00

Data are subject to further review and editing. Please refer any questions to the Western Regional Climate Center.

<sup>° 1</sup> ly = 1 cal/cm² =  $4.1855 \text{ J/cm}^2 = 3.6855 \text{ BTU/ft}^2 = .01163 \text{ KW-hr/m}^2$ 



Monthly Summary for

### **April, 2021**

Nonth   Nont	Day Day	Total		Wind		Air Te	mpera	ature	Fuel T	emper	ature	Hun	nidit	y	Dew	Wet	Total	
1 91 555 1.8 238 16.0 53 78 33 53 88 29 60 96 13 33 43 0.00 2 92 497 2.0 258 15.0 50 72 32 51 84 29 65 96 19 35 42 0.00 3 93 354 2.9 222 17.0 50 59 39 53 70 35 73 94 55 41 45 0.00 4 94 372 1.7 239 14.0 51 65 44 54 76 43 74 93 43 42 46 0.00 5 95 503 2.2 344 15.0 51 70 37 54 82 34 70 92 35 41 45 0.00 6 96 543 2.0 253 14.0 50 74 34 52 85 30 70 98 18 38 43 0.00 7 97 504 2.6 85 16.0 50 64 44 53 77 40 72 89 48 41 45 0.00 8 98 575 3.3 355 17.0 49 66 37 52 79 34 67 93 39 38 43 0.00 9 99 522 5.1 25 19.0 48 60 37 51 72 33 72 94 54 39 43 0.00 10 100 589 6.0 18 25.0 49 63 36 52 77 33 63 92 42 36 43 0.00 11 101 582 3.8 355 19.0 50 68 35 51 79 31 68 95 39 38 43 0.00 12 102 599 3.0 26 20.0 53 76 34 54 87 29 63 98 19 36 44 0.00 13 103 605 3.5 354 28.0 51 69 36 52 81 32 59 96 22 34 43 0.00 14 104 604 1.9 327 21.0 51 73 32 51 86 27 58 97 19 32 41 0.00 15 105 613 2.0 244 14.0 51 73 31 51 87 27 58 97 19 32 41 0.00 15 105 613 2.0 244 14.0 51 73 31 51 87 27 58 96 14 31 41 0.00 15 105 613 2.0 244 18.0 59 85 36 59 96 31 57 97 16 39 48 0.00 17 107 606 1.5 345 17.0 58 83 38 59 96 33 60 98 17 39 48 0.00 19 109 612 4.0 24 21.0 55 73 39 56 85 34 62 95 23 40 46 0.00 19 109 612 4.0 22 21.0 55 73 42 58 86 37 68 95 28 42 48 0.00 20 110 537 5.2 38 24.0 53 62 47 57 76 45 72 88 56 45 48 0.00 21 111 620 4.0 27 18.0 55 73 42 58 86 37 68 95 28 42 48 0.00 22 110 537 5.2 38 24.0 53 62 47 57 76 45 72 88 56 45 48 0.00 24 114 443 3.5 20 44 19.0 51 58 47 57 76 45 72 88 56 45 48 0.00 24 114 443 3.5 20 44 19.0 51 58 47 57 76 45 72 88 56 45 48 0.00 24 114 443 3.5 20 86 13.0 48 58 37 50 77 37 37 66 89 92 64 40 40 0.00 24 114 443 3.5 20 86 13.0 48 58 37 50 77 13 2 77 96 51 40 44 0.00 24 114 66 10 63 2.5 346 16.0 59 81 41 61 94 36 59 97 29 42 49 0.00 24 118 661 1.7 279 15.0 59 83 37 61 96 32 63 98 16 41 40 40 0.00 24 118 661 1.7 279 15.0 59 83 37 61 96 32 63 98 16 41 40 40 0.00 25 119 634 2.4 34 16.0 59 81 41 61 94 36 59 97 29 42 49 0.00 30 100 613 2.5 346 16.0 59 81 41 61 61 94 36 59 97 29 42 49 0.00 30 100 613 2.5 346 16.0 59 81 41 61 61 94 36 59 97 29 42 49	of of	Solar Rad.	Ave.	V. Dir.	Max.	Mean	Max	Min	Mean	Max	Min	Mean I	Max l	Min	Point	Bulb	Precip.	
2 92 497 2.0 258 15.0 50 72 32 51 84 29 65 96 19 35 42 0.00 3 93 354 2.9 222 17.0 50 59 39 53 70 35 73 94 55 41 45 0.00 4 94 372 1.7 239 14.0 51 65 44 54 76 43 74 93 43 42 46 0.00 5 95 503 2.2 344 15.0 51 70 37 54 82 34 70 92 35 41 45 0.00 6 96 543 2.0 253 14.0 50 74 34 52 85 30 70 98 18 38 43 0.00 7 97 504 2.6 85 16.0 50 64 44 53 77 40 72 89 48 41 45 0.00 8 98 575 3.3 355 17.0 49 66 37 52 79 34 67 93 39 38 43 0.00 10 100 589 6.0 18 25.0 49 63 36 52 77 33 63 92 42 36 43 0.00 11 101 582 3.8 355 19.0 50 68 35 51 79 31 68 95 39 38 43 0.00 11 101 582 3.8 355 19.0 50 68 35 51 79 31 68 95 39 38 43 0.00 11 101 582 3.8 355 19.0 50 68 35 51 79 31 68 95 39 38 43 0.00 11 101 582 3.8 355 19.0 50 68 35 51 79 31 68 95 39 38 43 0.00 11 101 60 60 31.6 297 17.0 55 81 33 56 93 29 62 96 22 34 43 0.00 11 104 604 1.9 327 21.0 51 73 31 51 87 27 58 96 14 31 01 0.00 11 105 613 2.0 244 14.0 51 73 31 51 87 27 58 96 14 31 01 0.00 11 100 60 1.5 345 17.0 55 81 33 56 93 29 62 96 20 38 45 0.00 11 101 606 603 1.6 297 17.0 55 81 33 56 93 29 62 96 20 38 45 0.00 11 109 612 4.0 24 21.0 55 73 39 56 85 34 62 95 23 40 46 0.00 12 109 612 4.0 24 21.0 55 73 39 56 85 34 62 95 23 40 46 0.00 12 110 537 5.2 38 24.0 53 62 47 57 76 45 72 88 56 45 48 0.00 12 110 537 5.2 38 24.0 53 62 47 57 76 45 72 88 56 45 48 0.00 12 110 537 5.2 38 24.0 53 62 47 57 76 45 72 88 56 45 48 0.00 12 110 537 5.2 38 24.0 53 62 47 57 76 45 72 88 56 45 48 0.00 12 110 537 5.2 38 24.0 53 62 47 57 76 45 72 88 56 45 48 0.00 12 110 537 5.2 38 24.0 53 62 47 57 76 45 72 88 56 45 48 0.00 12 111 620 4.0 24 21.0 55 73 41 88 57 87 33 62 97 26 39 46 0.00 12 110 537 5.2 38 24.0 53 62 47 57 76 45 72 88 56 45 48 0.00 12 110 537 5.2 38 24.0 53 62 47 57 76 45 72 88 56 45 48 0.00 12 111 620 4.0 24 18.0 55 73 41 88 57 87 33 62 97 26 39 46 0.00 12 111 630 32 1.2 28 18.1 6.0 55 74 38 57 87 33 62 97 26 39 44 40 0.00 12 111 630 32 1.2 268 13.0 48 58 37 50 71 32 77 96 51 40 44 0.00 12 111 630 32 1.2 268 13.0 48 58 37 50 71 32 77 96 51 40 44 0.00 12 111 631 52 3.3 34 18.0 59 81 41 61 94 36 59 97 29 42 49 0.00	Month Year	ly.	mph	Deg	mph	Deg. F	ahrer	heit	Deg.	Fahrer	heit	Per	cent		Deg. Fal	ırenheit	inches	
3 93 354 2.9 222 17.0 50 59 39 53 70 35 73 94 55 41 45 0.00 4 94 372 1.7 239 14.0 51 65 44 54 76 43 74 93 43 42 46 0.00 5 95 503 2.2 344 15.0 51 70 37 54 82 34 70 92 35 41 45 0.00 6 96 543 2.0 253 14.0 50 74 34 52 85 30 70 98 18 38 43 0.00 7 97 504 2.6 85 16.0 50 64 44 53 77 40 72 89 48 41 45 0.00 8 98 575 3.3 355 17.0 49 66 37 52 79 34 67 93 39 38 43 0.00 9 99 522 5.1 25 19.0 48 60 37 51 72 33 72 94 54 39 43 0.00 11 101 582 3.8 355 19.0 50 68 35 51 77 93 31 68 95 39 38 43 0.00 11 101 582 3.8 355 19.0 50 68 35 51 79 31 68 95 39 38 43 0.00 11 101 582 3.8 355 19.0 50 68 35 51 79 31 68 95 39 38 43 0.00 12 102 599 3.0 26 20.0 53 76 34 54 87 29 63 98 19 36 44 0.00 13 103 605 3.5 354 28.0 51 69 36 52 81 32 59 96 22 34 43 0.00 14 104 604 1.9 327 21.0 51 73 32 51 86 27 58 97 19 32 41 0.00 15 105 613 2.0 244 14.0 51 73 31 51 87 27 58 96 14 31 14 0.00 16 106 603 1.6 297 17.0 55 81 33 56 93 29 62 96 20 38 45 0.00 17 107 606 1.5 345 17.0 55 81 33 56 93 29 62 96 20 38 45 0.00 18 108 619 1.8 341 18.0 59 85 36 59 96 31 57 97 16 39 48 0.00 20 110 537 5.2 38 24.0 53 62 47 57 76 45 72 88 95 45 45 48 0.00 20 110 637 5.2 38 24.0 53 62 47 57 76 45 72 88 95 45 45 48 0.00 21 111 620 4.0 24 21.0 55 73 41 58 87 39 65 95 26 41 47 47 0.00 22 110 637 5.2 38 24.0 53 62 47 57 76 45 72 88 95 14 39 46 0.00 24 114 443 3.5 204 19.0 51 58 47 54 71 46 72 93 50 42 48 0.00 24 114 443 3.5 204 19.0 51 58 47 54 71 46 72 93 50 42 48 0.00 24 114 443 3.5 204 19.0 51 58 47 54 71 46 72 93 50 42 48 0.00 24 114 443 3.5 204 19.0 51 58 47 54 71 46 72 93 50 42 48 0.00 24 114 443 3.5 204 19.0 51 58 47 54 71 46 72 93 50 42 48 0.00 24 114 63 82 1.0 58 18 47 54 71 46 72 93 50 42 48 0.00 24 114 64 66 1.7 279 15.0 59 83 37 61 96 32 63 98 16 41 49 0.00 25 115 632 1.2 58 15.0 47 54 41 49 61 39 86 97 62 43 44 50 0.00 26 116 382 1.9 286 13.0 48 58 37 50 71 32 77 68 59 79 29 42 49 0.00 26 116 382 1.9 286 13.0 48 58 37 50 71 32 77 68 59 79 29 42 49 0.00 27 117 638 2.6 341 17.0 53 74 37 57 87 37 68 99 79 29 42 49 0.00 28 118 661 1.7 279 15.0 59 83 37 61 94 36 59 97 29 42 4	<u>1</u> 91	555	1.8	238	16.0	53	78	33	53	88	29	60	96	13	33	43	0.00	
4 94 372 1.7 239 14.0 51 65 44 54 76 43 74 93 43 42 46 0.00 5 95 503 2.2 344 15.0 51 70 37 54 82 34 70 92 35 41 45 0.00 6 96 543 2.0 253 14.0 50 74 34 52 85 30 70 98 18 38 43 0.00 7 97 504 2.6 85 16.0 50 64 44 53 77 40 72 89 48 41 45 0.00 8 98 575 3.3 355 17.0 49 66 37 52 79 34 67 93 39 38 43 0.00 10 10 0 589 6.0 18 25.0 49 63 36 52 77 33 63 92 42 36 43 0.00 11 101 582 3.8 355 19.0 50 68 35 51 79 31 68 95 39 38 43 0.00 12 102 599 3.0 26 20.0 53 76 34 54 87 29 63 98 19 36 44 0.00 13 103 605 3.5 354 28.0 51 69 36 52 81 32 59 96 22 34 43 0.00 14 104 604 1.9 327 21.0 51 73 32 51 86 27 58 97 19 32 41 0.00 15 105 613 2.0 244 14.0 51 73 31 51 87 27 58 96 14 31 41 0.00 16 106 603 1.6 297 17.0 55 81 33 56 93 29 62 96 20 38 45 0.00 17 107 606 1.5 345 17.0 58 83 38 85 9 96 33 60 98 17 39 47 0.00 18 108 619 1.8 341 18.0 59 85 36 59 96 31 57 97 16 39 48 0.00 19 109 612 4.0 24 21.0 55 73 39 56 85 34 62 95 23 40 46 0.00 20 110 537 5.2 38 24.0 53 62 47 57 76 45 72 88 56 45 48 0.00 21 111 620 4.0 24 18.0 55 73 42 58 86 37 68 95 28 42 48 0.00 22 112 625 5.0 45 23.0 55 73 41 58 87 39 65 95 26 41 47 0.00 23 113 523 2.5 182 16.0 55 73 42 58 86 37 68 95 26 41 47 0.00 24 114 443 3.5 204 19.0 55 73 42 58 86 37 68 95 26 41 47 0.00 24 114 443 3.5 204 19.0 55 73 42 58 86 37 68 95 26 41 47 0.00 25 115 321 2.1 268 15.0 47 54 4 14 9 61 39 86 97 26 39 46 0.00 24 114 443 3.5 204 19.0 55 73 42 58 86 37 68 95 26 41 47 0.00 25 115 321 2.1 268 15.0 47 54 41 49 61 39 86 97 26 40 44 0.00 26 116 382 1.9 286 13.0 48 58 37 50 71 32 77 96 51 40 44 0.00 26 116 382 1.9 286 13.0 48 58 37 50 71 32 77 96 51 40 44 0.00 27 117 638 2.6 341 17.0 53 74 37 57 87 37 68 99 26 40 44 0.00 28 118 661 1.7 279 15.0 59 83 37 61 96 32 63 98 16 41 49 0.00 29 119 634 2.4 34 16.0 59 81 41 61 94 36 59 97 29 42 49 0.00 20 110 633 2.5 346 16.0 58 75 39 61 88 34 64 95 30 44 50 0.00	<u>2</u> 92	497	2.0	258	15.0	50	72	32	51	84	29	65	96	19	35	42	0.00	
\$\frac{5}{9}\$ 503 2.2 344 15.0 51 70 37 54 82 34 70 92 35 41 45 0.00 \\ \begin{array}{c c c c c c c c c c c c c c c c c c c	<u>3</u> 93	354	2.9	222	17.0	50	59	39	53	70	35	73	94	55	41	45	0.00	
6 96 543 2.0 253 14.0 50 74 34 52 85 30 70 98 18 38 43 0.00   7 97 504 2.6 85 16.0 50 64 44 53 77 40 72 89 48 41 45 0.00   8 98 575 3.3 355 17.0 49 66 37 51 72 33 72 94 54 39 43 0.00   10 100 589 6.0 18 25.0 49 63 36 52 77 33 63 92 42 36 43 0.00   11 101 582 3.8 355 19.0 50 68 35 51 79 31 68 95 39 38 43 0.00   12 102 599 3.0 26 20.0 53 76 34 54 87 29 63 98 19 36 44 0.00   13 103 605 3.5 354 28.0 51 69 36 52 81 32 59 96 22 34 43 0.00   14 104 604 1.9 327 21.0 51 73 32 51 86 27 58 97 19 32 41 0.00   15 105 613 2.0 244 14.0 51 73 31 51 87 27 58 96 14 31 41 0.00   16 106 603 1.6 297 17.0 55 81 33 56 93 29 62 96 20 38 45 0.00   17 107 606 1.5 345 17.0 58 83 38 59 96 33 60 98 17 39 47 0.00   18 108 619 1.8 341 18.0 59 85 36 59 96 31 57 97 16 39 48 0.00   19 109 612 4.0 24 21.0 55 73 39 56 85 34 62 95 23 40 46 0.00   20 110 537 5.2 38 24.0 53 62 47 57 76 45 72 88 56 45 48 0.00   21 111 620 4.0 27 18.0 55 73 42 58 87 39 65 85 28 42 48 0.00   21 111 620 4.0 27 18.0 55 73 42 58 86 37 68 95 28 42 48 0.00   22 112 625 5.0 45 23.0 55 73 42 58 87 39 65 85 28 42 48 0.00   21 111 620 4.0 27 18.0 55 73 42 58 86 37 68 95 28 42 48 0.00   22 112 625 5.0 45 23.0 55 73 41 58 87 39 65 95 26 41 47 0.00   23 113 523 2.5 182 16.0 55 74 38 57 87 33 62 97 26 39 46 0.00   24 114 443 3.5 204 19.0 51 58 47 54 71 46 72 93 50 42 46 0.00   24 114 443 3.5 204 19.0 51 58 47 54 71 46 72 93 50 42 46 0.00   24 114 443 3.5 204 19.0 51 58 47 54 71 46 72 93 50 42 46 0.00   25 115 321 2.1 268 15.0 47 54 41 49 61 39 86 97 62 43 45 1.03   26 116 382 1.9 286 13.0 48 58 37 50 71 32 77 96 51 40 44 0.00   27 117 638 2.6 341 17.0 53 74 37 57 87 37 68 99 26 40 46 0.00   28 118 661 1.7 279 15.0 59 83 37 61 96 32 63 98 16 41 49 0.00   29 119 634 2.4 34 16.0 59 81 41 61 69 43 65 99 72 94 42 49 0.00   30 120 613 2.5 346 16.0 59 87 59 96 18 8 34 64 95 30 44 50 0.00   30 120 613 2.5 346 16.0 59 87 59 96 18 8 34 64 95 30 44 50 0.00   30 120 613 2.5 346 16.0 59 87 59 96 18 80 34 64 95 30 44 50 0.00   30 120 613 2.5 346 16.0 59 87 59 96 18 80 44 95 30 44 50 0.00   30 1	<u>4</u> 94	372	1.7	239	14.0	51	65	44	54	76	43	74	93	43	42	46	0.00	
7         97         504         2.6         85         16.0         50         64         44         53         77         40         72         89         48         41         45         0.00           8         98         575         3.3         355         17.0         49         66         37         52         79         34         67         93         39         38         43         0.00           9         99         522         5.1         25         19.0         48         60         37         51         72         33         72         94         54         39         43         0.00           10         100         589         6.0         18         25.0         49         63         36         52         77         33         63         92         42         36         43         0.00           11         101         582         3.8         355         19.0         68         35         51         79         31         68         95         39         38         43         0.00           12         102         50         3.6         36         52	<u>5</u> 95	503	2.2	344	15.0	51	70	37	54	82	34	70	92	35	41	45		
8 98 575 3.3 355 17.0 49 66 37 52 79 34 67 93 39 38 43 0.00 2 99 522 5.1 25 19.0 48 60 37 51 72 33 72 94 54 39 43 0.00 10 100 589 6.0 18 25.0 49 63 36 52 77 33 63 92 42 36 43 0.00 11 101 582 3.8 355 19.0 50 68 35 51 79 31 68 95 39 38 43 0.00 12 102 599 3.0 26 20.0 53 76 34 54 87 29 63 98 19 36 44 0.00 13 103 605 3.5 354 28.0 51 69 36 52 81 32 59 96 22 34 43 0.00 14 104 604 1.9 327 21.0 51 73 32 51 86 27 58 97 19 32 41 0.00 15 105 613 2.0 244 14.0 51 73 31 51 87 27 58 96 14 31 41 0.00 16 106 603 1.6 297 17.0 55 81 33 56 93 29 62 96 20 38 45 0.00 17 107 606 1.5 345 17.0 58 83 38 59 96 31 57 97 16 39 48 0.00 18 108 619 1.8 341 18.0 59 85 36 59 96 31 57 97 16 39 48 0.00 19 109 612 4.0 24 21.0 55 73 39 56 85 34 62 95 23 40 46 0.00 20 110 537 5.2 38 24.0 53 62 47 57 76 45 72 88 56 45 48 0.00 21 111 620 4.0 27 18.0 55 73 42 58 86 37 68 95 28 42 48 0.00 22 110 637 5.2 38 24.0 53 62 47 57 76 45 72 88 56 45 48 0.00 23 113 523 2.5 182 16.0 55 73 41 58 87 39 65 95 28 42 48 0.00 24 114 443 3.5 204 19.0 51 58 47 54 71 46 72 93 50 42 46 0.00 24 114 443 3.5 204 19.0 51 58 47 54 71 46 72 93 50 42 46 0.01 25 115 321 2.1 268 15.0 47 54 41 49 61 39 86 97 62 43 45 1.03 26 116 382 1.9 286 13.0 48 58 37 50 71 32 77 96 51 40 44 0.00 28 118 661 1.7 279 15.0 59 83 37 61 96 32 63 98 16 41 49 0.00 29 119 634 2.4 34 16.0 55 74 37 57 87 37 68 99 26 40 46 0.00 29 119 634 2.4 34 16.0 55 74 37 57 87 37 68 99 26 40 46 0.00 20 110 637 5.2 38 240 14 14 49 61 39 86 97 62 43 45 1.03 26 116 382 1.9 286 13.0 48 58 37 50 71 32 77 96 51 40 44 0.00 21 117 638 2.6 341 17.0 53 74 37 57 87 37 68 99 26 40 46 0.00 28 118 661 1.7 279 15.0 59 83 37 61 96 32 63 98 16 41 49 0.00 30 120 613 2.5 346 16.0 58 75 39 61 88 34 64 95 30 44 50 0.00	_												-					
9         522         5.1         25         19.0         48         60         37         51         72         33         72         94         54         39         43         0.00           10         100         589         6.0         18         25.0         49         63         36         52         77         33         63         92         42         36         43         0.00           11         101         582         3.8         355         19.0         50         68         35         51         79         31         68         95         39         38         43         0.00           12         102         599         30         26         20.0         51         69         36         52         81         32         59         96         22         34         43         0.00           14         104         604         1.9         327         21.0         51         73         32         51         86         27         58         97         19         32         41         0.00           15         105         61         20         244         14.0						50												
10   100   589   6.0   18   25.0   49   63   36   52   77   33   63   92   42   36   43   0.00     11   101   582   3.8   355   19.0   50   68   35   51   79   31   68   95   39   38   43   0.00     12   102   599   3.0   26   20.0   53   76   34   54   87   29   63   98   19   36   44   0.00     13   103   605   3.5   354   28.0   51   69   36   52   81   32   59   96   22   34   43   0.00     14   104   604   1.9   327   21.0   51   73   32   51   86   27   58   97   19   32   41   0.00     15   105   613   2.0   244   14.0   51   73   31   51   87   27   58   96   14   31   41   0.00     16   106   603   1.6   297   17.0   55   81   33   56   93   29   62   96   20   38   45   0.00     17   107   606   1.5   345   17.0   58   83   38   59   96   31   57   97   16   39   48   0.00     18   108   619   1.8   341   18.0   59   85   36   59   96   31   57   97   16   39   48   0.00     19   109   612   4.0   24   21.0   55   73   39   56   85   34   62   95   23   40   46   0.00     20   110   537   5.2   38   24.0   53   62   47   57   76   45   72   88   56   45   48   0.00     21   111   620   4.0   27   18.0   55   73   34   58   87   39   65   95   26   41   47   0.00     22   112   625   5.0   45   23.0   55   73   41   58   87   39   65   95   26   41   47   0.00     23   113   523   2.5   182   16.0   55   74   38   57   87   33   62   97   26   39   46   0.00     24   114   443   3.5   204   19.0   51   58   47   54   71   46   72   93   50   42   46   0.01     25   115   321   2.1   268   15.0   47   54   41   49   61   39   86   97   62   43   45   1.03     25   116   382   1.9   286   13.0   48   58   37   50   71   32   77   96   51   40   44   0.00     25   118   661   1.7   279   15.0   59   83   37   61   96   32   63   98   16   41   49   0.00     28   118   661   1.7   279   15.0   59   83   37   61   96   32   63   98   16   41   49   0.00     29   119   634   2.4   34   16.0   59   81   41   61   94   36   59   97   29   42   49   0.00     29   119   634   2.4   34   16.0   59   81   41						49	66											
11   101						48									39			
12   102   599   3.0   26   20.0   53   76   34   54   87   29   63   98   19   36   44   0.00     13   103   605   3.5   3.54   28.0   51   69   36   52   81   32   59   96   22   34   43   0.00     14   104   604   1.9   327   21.0   51   73   32   51   86   27   58   97   19   32   41   0.00     15   105   613   2.0   244   14.0   51   73   31   51   87   27   58   96   14   31   41   0.00     16   106   603   1.6   297   17.0   55   81   33   56   93   29   62   96   20   38   45   0.00     17   107   606   1.5   345   17.0   58   83   38   59   96   33   60   98   17   39   47   0.00     18   108   619   1.8   341   18.0   59   85   36   59   96   31   57   97   16   39   48   0.00     19   109   612   4.0   24   21.0   55   73   39   56   85   34   62   95   23   40   46   0.00     20   110   537   5.2   38   24.0   53   62   47   57   76   45   72   88   56   45   48   0.00     21   111   620   4.0   27   18.0   55   73   41   58   87   39   65   95   26   41   47   0.00     22   112   625   5.0   45   23.0   55   73   41   58   87   39   65   95   26   41   47   0.00     24   114   443   3.5   204   19.0   51   58   47   54   71   46   72   93   50   42   46   0.01     25   115   321   2.1   268   15.0   47   54   41   49   61   39   86   97   62   43   45   1.03     26   116   382   1.9   286   13.0   48   58   37   50   71   32   77   96   51   40   44   0.00     27   117   638   2.6   341   17.0   53   74   37   57   87   37   68   99   26   40   46   0.00     28   118   661   1.7   279   15.0   59   83   37   61   96   32   63   98   16   41   49   0.00     29   119   634   2.4   34   16.0   59   81   41   61   94   36   59   97   29   42   49   0.00     29   119   634   2.4   34   16.0   59   81   41   61   94   36   59   97   29   42   49   0.00     30   120   613   2.5   346   16.0   58   75   39   61   88   34   64   95   30   44   50   0.00    MONTHLY STATISTICS	<u>10</u> 100														36			
13   103   605   3.5   354   28.0   51   69   36   52   81   32   59   96   22   34   43   0.00     14   104   604   1.9   327   21.0   51   73   32   51   86   27   58   97   19   32   41   0.00     15   105   613   2.0   244   14.0   51   73   31   51   87   27   58   96   14   31   41   0.00     16   106   603   1.6   297   17.0   55   81   33   56   93   29   62   96   20   38   45   0.00     17   107   606   1.5   345   17.0   58   83   38   59   96   33   60   98   17   39   47   0.00     18   108   619   1.8   341   18.0   59   85   36   59   96   31   57   97   16   39   48   0.00     19   109   612   4.0   24   21.0   55   73   39   56   85   34   62   95   23   40   46   0.00     20   110   537   5.2   38   24.0   53   62   47   57   76   45   72   88   56   45   48   0.00     21   111   620   4.0   27   18.0   55   73   42   58   86   37   68   95   28   42   48   0.00     22   112   625   5.0   45   23.0   55   73   41   58   87   33   62   97   26   39   46   0.00     23   113   523   2.5   182   16.0   55   74   38   57   87   33   62   97   26   39   46   0.00     24   114   443   3.5   204   19.0   51   58   47   54   41   49   61   39   86   97   62   43   45   1.03     26   116   382   1.9   286   13.0   48   58   37   50   71   32   77   96   51   40   44   0.00     27   117   638   2.6   341   17.0   53   74   37   57   87   37   68   99   26   40   46   0.00     28   118   661   1.7   279   15.0   59   83   37   61   96   32   63   98   16   41   49   0.00     29   119   634   2.4   34   16.0   59   81   41   61   94   36   59   97   29   42   49   0.00     30   120   613   2.5   346   16.0   58   75   39   61   88   34   64   95   30   44   50   0.00     MONTHLY STATISTICS																		
14       104       604       1.9       327       21.0       51       73       32       51       86       27       58       97       19       32       41       0.00         15       105       613       2.0       244       14.0       51       73       31       51       87       27       58       96       14       31       41       0.00         16       106       603       1.6       297       17.0       55       81       33       56       93       29       62       96       20       38       45       0.00         17       107       606       1.5       345       17.0       58       83       38       59       96       33       60       98       17       39       47       0.00         18       108       619       1.8       341       18.0       59       85       36       59       96       31       57       97       16       39       48       0.00         19       109       612       4.0       24       21.0       55       73       39       56       85       34       62       95       23													98					
15   105	<u>13</u> 103	605	3.5	354	28.0	51				81			96			43		
16 106 603 1.6 297 17.0 55 81 33 56 93 29 62 96 20 38 45 0.00 17 107 606 1.5 345 17.0 58 83 38 59 96 33 60 98 17 39 47 0.00 18 108 619 1.8 341 18.0 59 85 36 59 96 31 57 97 16 39 48 0.00 19 109 612 4.0 24 21.0 55 73 39 56 85 34 62 95 23 40 46 0.00 20 110 537 5.2 38 24.0 53 62 47 57 76 45 72 88 56 45 48 0.00 21 111 620 4.0 27 18.0 55 73 42 58 86 37 68 95 28 42 48 0.00 22 112 625 5.0 45 23.0 55 73 41 58 87 39 65 95 26 41 47 0.00 23 113 523 2.5 182 16.0 55 74 38 57 87 33 62 97 26 39 46 0.00 24 114 443 3.5 204 19.0 51 58 47 54 71 46 72 93 50 42 46 0.01 25 115 321 2.1 268 15.0 47 54 41 49 61 39 86 97 62 43 45 1.03 26 116 382 1.9 286 13.0 48 58 37 50 71 32 77 96 51 40 44 0.00 27 117 638 2.6 341 17.0 53 74 37 57 87 37 68 99 26 40 46 0.00 28 118 661 1.7 279 15.0 59 83 37 61 96 32 63 98 16 41 49 0.00 29 119 634 2.4 34 16.0 59 81 41 61 94 36 59 97 29 42 49 0.00 30 120 613 2.5 346 16.0 58 75 39 61 88 34 64 95 30 44 50 0.00  MONTHLY STATISTICS  Total Wind Air Temperature Fuel Temperature Humidity Dew Wet Total	<u>14</u> 104	604	1.9	327	21.0	51							97	19	32	41		
17   107   606   1.5   345   17.0   58   83   38   59   96   33   60   98   17   39   47   0.00     18   108   619   1.8   341   18.0   59   85   36   59   96   31   57   97   16   39   48   0.00     19   109   612   4.0   24   21.0   55   73   39   56   85   34   62   95   23   40   46   0.00     20   110   537   5.2   38   24.0   53   62   47   57   76   45   72   88   56   45   48   0.00     21   111   620   4.0   27   18.0   55   73   42   58   86   37   68   95   28   42   48   0.00     22   112   625   5.0   45   23.0   55   73   41   58   87   39   65   95   26   41   47   0.00     23   113   523   2.5   182   16.0   55   74   38   57   87   33   62   97   26   39   46   0.00     24   114   443   3.5   204   19.0   51   58   47   54   71   46   72   93   50   42   46   0.01     25   115   321   2.1   268   15.0   47   54   41   49   61   39   86   97   62   43   45   1.03     26   116   382   1.9   286   13.0   48   58   37   50   71   32   77   96   51   40   44   0.00     25   117   638   2.6   341   17.0   53   74   37   57   87   37   68   99   26   40   46   0.00     28   118   661   1.7   279   15.0   59   83   37   61   96   32   63   98   16   41   49   0.00     29   119   634   2.4   34   16.0   59   81   41   61   94   36   59   97   29   42   49   0.00     30   120   613   2.5   346   16.0   58   75   39   61   88   34   64   95   30   44   50   0.00    MONTHLY STATISTICS  Total   Wind   Air Temperature Fuel Temperature   Humidity   Dew   Wet   Total	<u>15</u> 105	613	2.0	244	14.0	51			51				96		31	41		
18       108       619       1.8       341       18.0       59       85       36       59       96       31       57       97       16       39       48       0.00         19       109       612       4.0       24       21.0       55       73       39       56       85       34       62       95       23       40       46       0.00         20       110       537       5.2       38       24.0       53       62       47       57       76       45       72       88       56       45       48       0.00         21       111       620       4.0       27       18.0       55       73       42       58       86       37       68       95       28       42       48       0.00         22       112       625       5.0       45       23.0       55       73       41       58       87       39       65       95       26       41       47       0.00         23       113       523       2.5       182       16.0       55       74       38       57       87       33       62       97       26 <td><u>16</u> 106</td> <td>603</td> <td>1.6</td> <td>297</td> <td>17.0</td> <td>55</td> <td>81</td> <td>33</td> <td>56</td> <td>93</td> <td>29</td> <td>62</td> <td>96</td> <td>20</td> <td>38</td> <td>45</td> <td></td>	<u>16</u> 106	603	1.6	297	17.0	55	81	33	56	93	29	62	96	20	38	45		
19   109   612   4.0   24   21.0   55   73   39   56   85   34   62   95   23   40   46   0.00     20   110   537   5.2   38   24.0   53   62   47   57   76   45   72   88   56   45   48   0.00     21   111   620   4.0   27   18.0   55   73   42   58   86   37   68   95   28   42   48   0.00     22   112   625   5.0   45   23.0   55   73   41   58   87   39   65   95   26   41   47   0.00     23   113   523   2.5   182   16.0   55   74   38   57   87   33   62   97   26   39   46   0.00     24   114   443   3.5   204   19.0   51   58   47   54   71   46   72   93   50   42   46   0.01     25   115   321   2.1   268   15.0   47   54   41   49   61   39   86   97   62   43   45   1.03     26   116   382   1.9   286   13.0   48   58   37   50   71   32   77   96   51   40   44   0.00     27   117   638   2.6   341   17.0   53   74   37   57   87   37   68   99   26   40   46   0.00     28   118   661   1.7   279   15.0   59   83   37   61   96   32   63   98   16   41   49   0.00     29   119   634   2.4   34   16.0   59   81   41   61   94   36   59   97   29   42   49   0.00     30   120   613   2.5   346   16.0   58   75   39   61   88   34   64   95   30   44   50   0.00     MONTHLY STATISTICS	<u>17</u> 107	606	1.5	345	17.0	58	83	38				60			39			
20 110 537 5.2 38 24.0 53 62 47 57 76 45 72 88 56 45 48 0.00 21 111 620 4.0 27 18.0 55 73 42 58 86 37 68 95 28 42 48 0.00 22 112 625 5.0 45 23.0 55 73 41 58 87 39 65 95 26 41 47 0.00 23 113 523 2.5 182 16.0 55 74 38 57 87 33 62 97 26 39 46 0.00 24 114 443 3.5 204 19.0 51 58 47 54 71 46 72 93 50 42 46 0.01 25 115 321 2.1 268 15.0 47 54 41 49 61 39 86 97 62 43 45 1.03 26 116 382 1.9 286 13.0 48 58 37 50 71 32 77 96 51 40 44 0.00 27 117 638 2.6 341 17.0 53 74 37 57 87 37 68 99 26 40 46 0.00 28 118 661 1.7 279 15.0 59 83 37 61 96 32 63 98 16 41 49 0.00 29 119 634 2.4 34 16.0 59 81 41 61 94 36 59 97 29 42 49 0.00 30 120 613 2.5 346 16.0 58 75 39 61 88 34 64 95 30 44 50 0.00 MONTHLY STATISTICS  Total Wind Air Temperature Fuel Temperature Humidity Dew Wet Total			1.8	341	18.0	59									39	48		
21 111 620 4.0 27 18.0 55 73 42 58 86 37 68 95 28 42 48 0.00 22 112 625 5.0 45 23.0 55 73 41 58 87 39 65 95 26 41 47 0.00 23 113 523 2.5 182 16.0 55 74 38 57 87 33 62 97 26 39 46 0.00 24 114 443 3.5 204 19.0 51 58 47 54 71 46 72 93 50 42 46 0.01 25 115 321 2.1 268 15.0 47 54 41 49 61 39 86 97 62 43 45 1.03 26 116 382 1.9 286 13.0 48 58 37 50 71 32 77 96 51 40 44 0.00 27 117 638 2.6 341 17.0 53 74 37 57 87 37 68 99 26 40 46 0.00 28 118 661 1.7 279 15.0 59 83 37 61 96 32 63 98 16 41 49 0.00 29 119 634 2.4 34 16.0 59 81 41 61 94 36 59 97 29 42 49 0.00 30 120 613 2.5 346 16.0 58 75 39 61 88 34 64 95 30 44 50 0.00  MONTHLY STATISTICS  Total Wind Air Temperature Fuel Temperature Humidity Dew Wet Total	<u>19</u> 109	612		24	21.0			39	56		34	62			40	46		
22 112 625 5.0 45 23.0 55 73 41 58 87 39 65 95 26 41 47 0.00 23 113 523 2.5 182 16.0 55 74 38 57 87 33 62 97 26 39 46 0.00 24 114 443 3.5 204 19.0 51 58 47 54 71 46 72 93 50 42 46 0.01 25 115 321 2.1 268 15.0 47 54 41 49 61 39 86 97 62 43 45 1.03 26 116 382 1.9 286 13.0 48 58 37 50 71 32 77 96 51 40 44 0.00 27 117 638 2.6 341 17.0 53 74 37 57 87 37 68 99 26 40 46 0.00 28 118 661 1.7 279 15.0 59 83 37 61 96 32 63 98 16 41 49 0.00 29 119 634 2.4 34 16.0 59 81 41 61 94 36 59 97 29 42 49 0.00 30 120 613 2.5 346 16.0 58 75 39 61 88 34 64 95 30 44 50 0.00  MONTHLY STATISTICS  Total Wind Air Temperature Fuel Temperature Humidity Dew Wet Total	<u>20</u> 110	537	5.2	38	24.0	53	62	47			45		88		45	48		
23 113 523 2.5 182 16.0 55 74 38 57 87 33 62 97 26 39 46 0.00 24 114 443 3.5 204 19.0 51 58 47 54 71 46 72 93 50 42 46 0.01 25 115 321 2.1 268 15.0 47 54 41 49 61 39 86 97 62 43 45 1.03 26 116 382 1.9 286 13.0 48 58 37 50 71 32 77 96 51 40 44 0.00 27 117 638 2.6 341 17.0 53 74 37 57 87 37 68 99 26 40 46 0.00 28 118 661 1.7 279 15.0 59 83 37 61 96 32 63 98 16 41 49 0.00 29 119 634 2.4 34 16.0 59 81 41 61 94 36 59 97 29 42 49 0.00 30 120 613 2.5 346 16.0 58 75 39 61 88 34 64 95 30 44 50 0.00 MONTHLY STATISTICS  Total Wind Air Temperature Fuel Temperature Humidity Dew Wet Total															42			
24       114       443       3.5       204       19.0       51       58       47       54       71       46       72       93       50       42       46       0.01         25       115       321       2.1       268       15.0       47       54       41       49       61       39       86       97       62       43       45       1.03         26       116       382       1.9       286       13.0       48       58       37       50       71       32       77       96       51       40       44       0.00         27       117       638       2.6       341       17.0       53       74       37       57       87       37       68       99       26       40       46       0.00         28       118       661       1.7       279       15.0       59       83       37       61       96       32       63       98       16       41       49       0.00         29       119       634       2.4       34       16.0       58       75       39       61       88       34       64       95       30<							73								41			
25 115 321 2.1 268 15.0 47 54 41 49 61 39 86 97 62 43 45 1.03 26 116 382 1.9 286 13.0 48 58 37 50 71 32 77 96 51 40 44 0.00 27 117 638 2.6 341 17.0 53 74 37 57 87 37 68 99 26 40 46 0.00 28 118 661 1.7 279 15.0 59 83 37 61 96 32 63 98 16 41 49 0.00 29 119 634 2.4 34 16.0 59 81 41 61 94 36 59 97 29 42 49 0.00 30 120 613 2.5 346 16.0 58 75 39 61 88 34 64 95 30 44 50 0.00 MONTHLY STATISTICS  Total Wind Air Temperature Fuel Temperature Humidity Dew Wet Total	<u>23</u> 113	523							57	87			97		39	46		
26       116       382       1.9       286       13.0       48       58       37       50       71       32       77       96       51       40       44       0.00         27       117       638       2.6       341       17.0       53       74       37       57       87       37       68       99       26       40       46       0.00         28       118       661       1.7       279       15.0       59       83       37       61       96       32       63       98       16       41       49       0.00         29       119       634       2.4       34       16.0       59       81       41       61       94       36       59       97       29       42       49       0.00         30       120       613       2.5       346       16.0       58       75       39       61       88       34       64       95       30       44       50       0.00         MONTHLY STATISTICS         Total       Wind       Air Temperature Fuel Temperature       Humidity       Dew <td cols<="" td=""><td><u>24</u> 114</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>93</td><td></td><td></td><td></td><td></td></td>	<td><u>24</u> 114</td> <td></td> <td>93</td> <td></td> <td></td> <td></td> <td></td>	<u>24</u> 114												93				
27       117       638       2.6       341       17.0       53       74       37       57       87       37       68       99       26       40       46       0.00         28       118       661       1.7       279       15.0       59       83       37       61       96       32       63       98       16       41       49       0.00         29       119       634       2.4       34       16.0       59       81       41       61       94       36       59       97       29       42       49       0.00         30       120       613       2.5       346       16.0       58       75       39       61       88       34       64       95       30       44       50       0.00         MONTHLY STATISTICS         Total       Wind       Air Temperature Fuel Temperature       Humidity       Dew       Wet       Total	<u>25</u> 115												97					
28       118       661       1.7       279       15.0       59       83       37       61       96       32       63       98       16       41       49       0.00         29       119       634       2.4       34       16.0       59       81       41       61       94       36       59       97       29       42       49       0.00         30       120       613       2.5       346       16.0       58       75       39       61       88       34       64       95       30       44       50       0.00         MONTHLY STATISTICS         Total       Wind       Air Temperature Fuel Temperature       Humidity       Dew       Wet       Total						48	58											
29 119 634 2.4 34 16.0 59 81 41 61 94 36 59 97 29 42 49 0.00 30 120 613 2.5 346 16.0 58 75 39 61 88 34 64 95 30 44 50 0.00 MONTHLY STATISTICS  Total Wind Air Temperature Fuel Temperature Humidity Dew Wet Total						53	74									46		
30 120 613 2.5 346 16.0 58 75 39 61 88 34 64 95 30 44 50 0.00 MONTHLY STATISTICS  Total Wind Air Temperature Fuel Temperature Humidity Dew Wet Total																		
MONTHLY STATISTICS  Total Wind Air Temperature Fuel Temperature Humidity Dew Wet Total																		
Total Wind Air Temperature Fuel Temperature Humidity Dew Wet Total				346	16.0	58	75	39	61	88	34	64	95	30	44	50	0.00	
	MONTHLY	STATIST	ICS															
Solar Rad, Ave. V. Dir, Max, Mean Max, Min, Mean, Max, Min, Mean, Max, Min, Point, Bulb, Precip.							-			-			-					
<u>•</u>																	Precip.	
ly. mph Deg mph Deg. Fahrenheit Deg. Fahrenheit Percent Deg. Fahrenheit inches		-	_	Deg	mph	Deg. F	ahrer	heit	Deg.	Fahrer	heit	Per	rcent		Deg. Fal	ırenheit		
Total 16455 1.04																		
Ave. 548 2.9 334 17.8 52.7 70.6 37.8 54.7 82.8 34.1 66 95 32 39 45				334														
Max. 661 6.0 28.0 59 85 47 61 96 46 86 99 62 45 50 1.03																		
Min. 321 1.5 13.0 47 54 31 49 61 27 57 88 13 31 41 0.00	Min.																	

<sup>° 1</sup> ly = 1 cal/cm<sup>2</sup> =  $4.1855 \text{ J/cm}^2 = 3.6855 \text{ BTU/ft}^2 = .01163 \text{ KW-hr/m}^2$ 





Monthly Summary for

### May, 2021

Day Day	Total		Wind		Air Te	mpera	ature	Fuel T	emper	ature	Hun	nidit	y	Dew	Wet	Total
of of	Solar Rad.	Ave.	V. Dir.	Max.	Mean	Max	Min	Mean	Max	Min	Mean I	Max l	Min	Point	Bulb	Precip.
Month Year	ly.	mph	Deg	mph	Deg. I	ahrer	nheit	Deg.	Fahrer	heit	Per	cent		Deg. Fal	renheit	inches
<u>1</u> 121	579	3.8	11	21.0	56	66	49	60	80	47	73	97	55	47	51	0.00
<b>2</b> 122	637	3.9	107	20.0	57	67	50	62	83	48	66	83	43	45	50	0.00
<u>3</u> 123	661	5.2	46	27.0	59	73	49	62	86	45	61	87	31	44	50	0.00
<u>4</u> 124			17	23.0	60	73	45	62	87	40	64	94	35	46	51	0.00
<u>5</u> 125		2.3	293	17.0	63	87	43	65		39		97	20	46	52	0.00
<u>6</u> 126				24.0		73	41	59		35		97	42	45	49	0.00
<u>7</u> 127				27.0		62	47	58		44	57	75	42	39	46	0.00
<u>8</u> 128		5.9		34.0		71	46	61	86	43		81	30	40	47	0.00
<b>9</b> 129				30.0		69	49	61		46		81	39	44	50	0.00
<u>10</u> 130				18.0		84	42	64	98	39		96	25	44	51	0.00
<u>11</u> 131				16.0		87	41	65		36	59	97	19	44	51	0.00
<u>12</u> 132		2.8	24	16.0	64	88	43	67		37		97	24	46	53	0.00
<u>13</u> 133				19.0		83	44	65		39		96	25	46	52	0.00
<u>14</u> 134				23.0		69	49	60		49		84	49	46	50	0.00
<u>15</u> 135		4.3		19.0		78	46	64		42	65	93	34	47	52	0.00
<u>16</u> 136				15.0		91	44	66		41	66	95	20	47	52	0.00
<u>17</u> 137				21.0		74	44	61		42		94	42	46	50	0.00
<u>18</u> 138				20.0		71	42	59	86	37	64	96	35	42	48	0.00
<u>19</u> 139				31.0		61	45	56		41	54	76	37	36	44	0.00
<u>20</u> 140				32.0		59	46	56		44		70	37	35	43	0.00
<u>21</u> 141				33.0		63	45	58		42		81	39	39	46	0.00
<u>22</u> 142				20.0		73	41	60		37		95	31	41	48	0.00
<u>23</u> 143				21.0		76	39	60		35	57	93	25	39	47	0.00
<u>24</u> 144				18.0		79	41	66		37		95	32	46	52	0.00
<u>25</u> 145				20.0		70	47	63		44		92	46	47	52	0.00
<u>26</u> 146				16.0		78	44	64		40		92	37	46	52	0.00
<u>27</u> 147				16.0		78	40	65		35		97	40	48	53	0.00
<u>28</u> 148		4.6		16.0		81	49	67		46		84	33	46	53	0.00
<u>29</u> 149		4.2		20.0		79	44	64		41	64	94	29	45	51	0.00
<u>30</u> 150				20.0		84	43	68		39		96	26	46	53	0.00
<u>31</u> 151	705		5	18.0	71	98	46	74	109	41	53	92	19	48	56	0.00
MONTHLY		ICS												_		
	Total		Wind		Air Te	-			-			nidit		Dew	Wet	Total
	Solar Rad.															Precip.
m . 1	ly.	_	Deg	mph	Deg. I	ahrer	nheit	Deg.	Fahrer	iheit	Per	rcent		Deg. Fal	renheit	
Total			20	21.	<b>50.0</b>	75.	44 -	<i>(</i> 2 =	00.0	41.0		00	2.4	4.4		0.00
Ave.		4.2	29	21.6		75.6			89.8			90	34	44	50	0.00
Max.				34.0		98	50	74		49		97	55	48	56	0.00
Min.	513			15.0	52	59 Di	39	. 56	73	35	53	70	19 D	35	43	0.00

Data are subject to further review and editing. Please refer any questions to the Western Regional Climate Center.

<sup>° 1</sup> ly = 1 cal/cm² =  $4.1855 \text{ J/cm}^2 = 3.6855 \text{ BTU/ft}^2 = .01163 \text{ KW-hr/m}^2$ 



Monthly Summary for

### June, 2021

Day Day	Total		Wind		Air Te	mpera	ature	Fuel To	emper	ature	Hun	nidity	y	Dew	Wet	Total
of of	Solar Rad.	Ave.	V. Dir.	Max.	Mean	Max	Min	Mean	Max	Min	Mean N	Max I	Min	Point	Bulb	Precip.
Month Year	ly.	mph	Deg	mph	Deg. I	ahrer	heit	Deg. I	Fahrer	heit	Per	cent		Deg. Fal	renheit	inches
<u>1</u> 152	705	2.2	44	19.0	73	102	50	77	117	46	53	90	18	51	58	0.00
<b>2</b> 153	712	3.5	18	18.0	71	90	50	74	105	46	55	93	26	51	58	0.00
<u>3</u> 154	717	4.2	26	25.0	67	88	48	70	102	43	60	95	20	49	56	0.00
<u>4</u> 155	724	4.0	37	25.0	66	86	49	69	100	45	54	96	15	44	53	0.00
<u>5</u> 156	726	7.4	26	26.0	62	73	51	66	87	49	53	78	36	44	51	0.00
<u>6</u> 157	716	6.1	19	27.0	58	69	49	63	84	47	57	80	30	41	49	0.00
<u>7</u> 158	698	4.1	342	21.0	57	68	45	60	84	41	58	94	33	40	48	0.00
<u>8</u> 159	605	2.8	227	17.0	54	67	39	57	87	33	64	96	35	40	46	0.00
<b>9</b> 160	554	2.5	292	20.0	52	67	36	54	83	26	69	98	34	40	45	0.00
<u>10</u> 161	663	2.5	236	17.0	55	72	37	59	89	28	62	97	26	40	46	0.00
<u>11</u> 162	239	2.3	244	20.0	56	67	45	58	75	42	77	97	46	48	52	0.32
<u>12</u> 163	622	3.2	232	23.0	66	77	57	71	92	57	79	98	55	59	61	0.00
<u>13</u> 164	402	3.2	228	21.0	66	76	59	70	87	60	77	96	52	58	61	0.00
<u>14</u> 165	598	3.1	250	15.0	64	75	48	68	92	41	68	96	35	52	56	0.00
<u>15</u> 166	728	3.7	340	21.0	61	77	46	66	93	39	63	98	29	46	52	0.00
<u>16</u> 167	744	3.8	25	19.0	66	87	46	70	101	43	59	96	22	48	55	0.00
<u>17</u> 168	742	4.6	38	23.0	66	85	48	70	97	44	62	97	28	50	56	0.00
<u>18</u> 169	734	4.1	44	21.0	66	87	48	70	103	46	62	95	29	50	56	0.00
<u>19</u> 170	724	1.7	247	15.0	72	101	47	76	117	43	59	97	19	52	59	0.00
<u>20</u> 171	728	2.0	225	15.0	74	96	54	76	112	47	53	96	18	50	59	0.00
<u>21</u> 172	716	2.7	235	13.0	65	82	49	68	97	43	64	96	35	50	56	0.00
<u>22</u> 173	679			15.0		76	49	67	91	44	70	97	44	51	55	0.00
<u>23</u> 174	697			15.0		84	47	70	100	41	66	98	36	52	57	0.00
<u>24</u> 175	691	2.9		16.0		93	55	76	108	54	61	89	30	54	60	0.00
<u>25</u> 176	694			14.0		95	54	77	112	51	59	94	30	55	61	0.00
<u>26</u> 177	707	2.1	28	18.0		101	54	80	117	50	55	95	22	55	62	0.00
<u>27</u> 178				16.0		96	57		112	53		89	24			
<u>28</u> 179	710			20.0		89	54	75	107	50	62	93	31	55	60	0.00
<u>29</u> 180	702			22.0		95	53	77	110	48	59	97	23	54	61	0.00
<u>30</u> 181	694		53	20.0	69	87	55	74	101	51	67	95	38	56	60	0.00
MONTHLY	STATIST	<b>ICS</b>														
	Total		Wind			-		Fuel To	-			nidity		Dew	Wet	Total
	Solar Rad.															Precip.
	ly.	mph	Deg	mph	Deg. I	ahrer	nheit	Deg. I	Fahrer	heit	Per	cent		Deg. Fal	renheit	
Total	19373															0.32
Ave.	668	3.4	332	19.2		83.6			98.7		62	94	31	50	55	
Max.	744	7.4		27.0		102	59	80	117	60	79	98	55	59	62	0.32
Min.	239	1.7		13.0	52	67	36	54	75	26	53	78	15	40	45	0.00

<sup>° 1</sup> ly = 1 cal/cm<sup>2</sup> =  $4.1855 \text{ J/cm}^2 = 3.6855 \text{ BTU/ft}^2 = .01163 \text{ KW-hr/m}^2$ 





Monthly Summary for

### August, 2021

Day Day	Total		Wind		Air Te	mper	ature	Fuel T	emper	ature	Hu	midit	y	Dew	Wet	Total
of of	Solar Rad.	Ave.	V. Dir.	Max.	Mean	Max	Min	Mean	Max	Min	Mean	Max l	Min	Point	Bulb	Precip.
Month Year	r ly.	mph	Deg	mph	Deg. 1	Fahre	nheit	Deg.	Fahren	heit	Pe	rcent		Deg. Fal	renheit	inches
<u>1</u> 213	660	2.7	217	18.0	72	94	52	73	104	47	52	98	18	49	58	0.00
<u>2</u> 21 <sup>2</sup>	678	2.2	249	15.0	68	92	50	70	105	45	51	97	9	43	54	0.00
<u>3</u> 215	611	1.8	262	14.0	72	100	48	72	110	44	54	99	6	47	57	0.00
<u>4</u> 210	674	2.4	245	16.0	71	97	49	72	108	43	52	100	9	45	56	0.00
<u>5</u> 217		2.9	92	21.0	65	82	47	66	92	42	69	97	41	53	57	0.00
<u>6</u> 218				19.0		90	54		103	51		100	24			
<b>7</b> 219	516	3.0	36	16.0	72	91	57	74	101	54	68	99	34	59	63	0.00
<u>8</u> 220	631		41	17.0	71	88	54	73	99	50	62	85	33	55	61	0.00
<b>9</b> 221	616	2.4	248	17.0	73	97	50	74		46	54	97	16	51	59	0.00
<u>10</u> 222	591	2.0	287	15.0	78	102	54	79		49	49	95	15	51	61	0.00
<u>11</u> 223		1.6	341	16.0	78	104	56	78		52	47	84	12	50	60	0.00
<u>12</u> 224			40	14.0	75	99	56	76	108	51	49	83	19	51	59	0.00
<u>13</u> 225		1.4	266	13.0	70	90	59	71		54	57	80	28	53	59	0.00
<u>14</u> 220	386	2.1	72	15.0	71	91	55	72	100	52	61	88	31	55	60	0.00
<u>15</u> 227			15	20.0	71	94		73		51	66	96	32	57	61	0.00
<u>16</u> 228		5.1	24	20.0	68	87		70	99	50	67	100	30	54	59	0.00
<u>17</u> 229		6.0	39	27.0	66	77	53	69	88	49	64	89	36	52	57	0.00
<u>18</u> 230			37	19.0	63	79	48	63		42		100	35	50	55	0.00
<u>19</u> 231		3.1	31	17.0	67	89	48	68		44	64	100	21	51	57	0.00
<u>20</u> 232				20.0	66	84		67		49		100	32	53	57	0.00
<u>21</u> 233	592	4.0	354	21.0	65	82	49	66		45	65	100	28	50	55	0.00
<u>22</u> 23 <sup>2</sup>				15.0	64	87	48	66		46	68	99	33	51	56	0.00
<u>23</u> 235			295	14.0	64	91	44	66		40		100	17	46	53	0.00
<u>24</u> 236				17.0	64	88	44	65		38		100	22	46	53	0.00
<u>25</u> 237				17.0	64	86		66		42		100	17	46	53	0.00
<u>26</u> 238				23.0	67	86	50	68		45		100	23	51	57	0.00
<u>27</u> 239				21.0	68	87	53	69		49		100	30	52	58	0.00
<u>28</u> 240				14.0	71	102	47	71		42		100	16	49	57	0.00
<u>29</u> 24:				19.0	69	96		69		46	61	96	21	50	57	0.00
<u>30</u> 242				26.0	66	89		67		43		100	17	47	54	0.00
<u>31</u> 243			12	21.0	63	85	46	64	96	40	58	95	17	45	52	0.00
MONTHL	Y STATIST	ICS	4						_					_		
	Total		Wind			-			emper			midit		Dew	Wet	Total
	Solar Rad.															Precip.
	ly.	-	Deg	mph	Deg. 1	Fahre	nheit	Deg.	Fahren	heit	Pe	rcent		Deg. Fah	renheit	
Tota			_	100	<b>60.5</b>	00.5	50 <b>5</b>	60.0	101.0	46.5		0.0				0.00
Ave			7	18.0		90.5			101.2		60	96	23	50	57	0.00
Max				27.0				79		54		100	41	59	63	0.00
Min _			_	13.0		77		63		38	47	80	6	43	52	0.00
Data are	subject to fu	ırther	review	and e	diting	Plea	se ref	er any	questi	ons to	the W	ester!	n Re	gional C	imate C	enter.

° 1 ly = 1 cal/cm² =  $4.1855 \text{ J/cm}^2 = 3.6855 \text{ BTU/ft}^2 = .01163 \text{ KW-hr/m}^2$