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PACIFIC WATERSHED ASSOCIATES INC.

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January 6, 2020

Keenan Hilton
Planner
Humboldt County Planning and Building Department
3015 H Street
Eureka, CA 95501

Re: Characterization of existing structures within SMA, APN # 218-151-005

Dear Mr. Hilton
This memo serves to provide you with our characterization and recommendations for the future management of two buildings constructed on APN# 218-151-005. The buildings in question are located on a property managed for cannabis cultivation, both the buildings were constructed prior to the County initiation of the cannabis permitting process. The buildings in question (See attached maps) are both located within a streamside management area as defined in Humboldt Counties building and planning codes. The northern building is located on the left bank of an ephemeral stream and is labeled as a "#1" (Figure 2). The southern building is located on the flats above Chamise Creek and is labeled as a "#2" (Figure 2). Both of these buildings are currently being used for the cannabis operations. The overall objective of this memo is to provide you with a detailed characterization of the buildings and their physiographic settings, their potential environmental impacts, and any environmental protection measures that are currently being taken. The goal of this memo is to provide Humboldt County with the pertinent information so that your organization and the land manager can agree that the buildings can be used in their current configuration until replacement facilities can be established outside the SMA setbacks or a plan to allow the buildings permanently can be agreed upon.

Northern Building "Supply shed/drying/propagation/storage"
The northern building is located on the left bank of an ephemeral stream adjacent to the main ranch access road. The building is used as a "supply shed/propagation/storage building" and is labeled as "CUB#1" on the attached map. Currently the building is being used for storing non-hazardous supplies such as plumbing, hardware, electrical, and gardening materials additionally it is used for drying and propagation of plants. The building is well constructed and appears to conform to County building construction codes. The roof is metal and is fully functioning to keep the interior dry and protected from water damage. The building has been constructed on a slab of which the footprint falls within the SMA. Specifically, the building is located approximately 10' from the 100-year flow path of the adjacent unnamed stream (See photos).

The intervening landscape between the building and the stream exhibits an approximately 2%-5% grade and is composed of a grass and duff covered surface overlaying a rocky substrate. The intervening area also exhibits mostly closed canopy from adjacent undisturbed oak trees. The stream itself is fed not only by the natural hillside but also receives significant amount of runoff from the shared access road upslope of the property. I estimate at least 40% of the surface water in the stream comes from the road runoff. This contributing runoff results in the stream appearing larger through the property than would be normally observed from undisturbed conditions. It has also resulted in an increase in the cross-sectional area of the stream which reduces its likelihood of overbank flooding.

The runoff from the rain intercepted by the roof of the building is currently being entirely captured by a rainwater capture system and is being integrated into the cannabis operation. The results of the rainwater capture system is that there is no concentrated runoff coming off of the building which could lead to environmental degradation.

Southern Building "Propagation/Drying/harvest storage"
The southern building is located at the top of the left bank of Chamise Creek at the southernmost segment of the cannabis operations. The building is labeled "CUB#2" on the attached map. Currently the building is being used for plant propagation/drying/storage for the operations. Materials commonly observed within this building include small amounts of potting soil, plant containers, watering infrastructure, and other nursery related infrastructure. Additionally, the building will contain drying plant material during the latter half of the growing season. The operations are conducted such that no materials within the building are capable of migrating outside the building footprint. The building is well constructed as a metal shed on a slab and appears to conform to Humboldt County building permit requirements. The roof is metal and is fully functioning to keep the interior of the building dry and protected. The SW corner of the footprint of the building is located approximately 85' from the left bank highwater edge of Chamise Creek, a steelhead bearing stream.

The intervening landscape between the Southern Building and Chamise Creek ranges in grade from 20%-65% and is composed of a grassy and herbaceous landscape with a dense canopy of primarily oak trees and conifers. The upper hillside exhibits minor soil development while the lower hillside exhibits bedrock and regolith at the ground surface. There is abundant duff and natural forest debris on the hillside between the building and Chamise Creek.

The past runoff from the building roof was discharged onto the hillside below the building. Recent observations indicate there were no established surface water flow paths between the building and Chamise Creek and that the roof runoff dispersed and infiltrated the native undisturbed ground within 30' of being discharged off the roof. Regardless, the landowner installed gutters and a rainwater capture system for the building to assure enhanced environmental protection in the form of eliminating all runoff from the building footprint.

Conclusions
Two building have been identified as falling within the SMA on APN# 218-151-005. Both of the buildings are currently in use and appear to be well planned and constructed. The owner has clearly minimized, to the extent possible, disturbance to the adjacent riparian zones at the building sites. I did not observe any potential environmental threats from the activities being conducted within the buildings. In my opinion, the biggest environmental threat from these buildings is from the roof runoff causing

increased erosion and sediment delivery to the watershed. The landowner has mitigated these potential threats by constructing rainwater capture infrastructure on both the Northern and Southern Buildings and by maintaining an undisturbed native landscape between the buildings and creeks on the property.

Recommendations
(1) Although the buildings have been constructed in the SMA, it is my opinion that they pose minimal short or long term threats to the environment and that the landowner should be able to continue use of the structures until more suitable locations can be agreed upon.
(2) Upon negotiations with the County, an SMA variance should be granted for these structures as the environmental degradation from decommissioning these buildings and relocating them will likely be more significant that leaving them in place.

Sincerely,

PACIFIC WATERSHED ASSOCIATES INC.

Thomas H. Leroy, Certified Engineering Geologist #2593
toml@pacificwatershed.com

Photos of the two buildings constructed within the SMA
APN: 218-151-005

Photo of the northern building looking south. Note the rocked road, gutter system, and straw waddles that provide water quality protection.

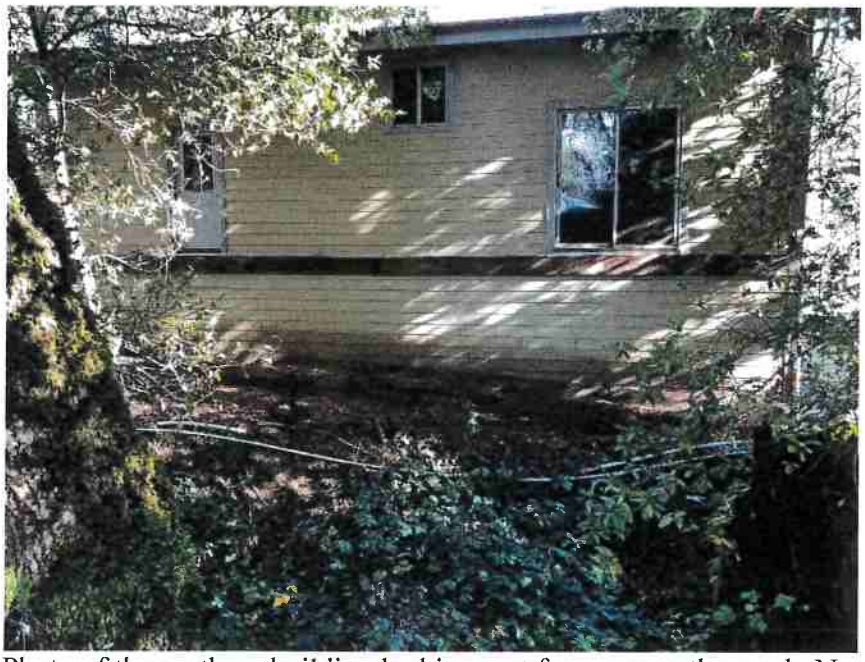


Photo of the northern building looking east from across the creek. Note the duff layers, Creekside vegetation, and lack of observed runoff from

the building site.

Photo of the southern margin of building #1. Note the rainwater capture system and the grassy undisturbed ground.

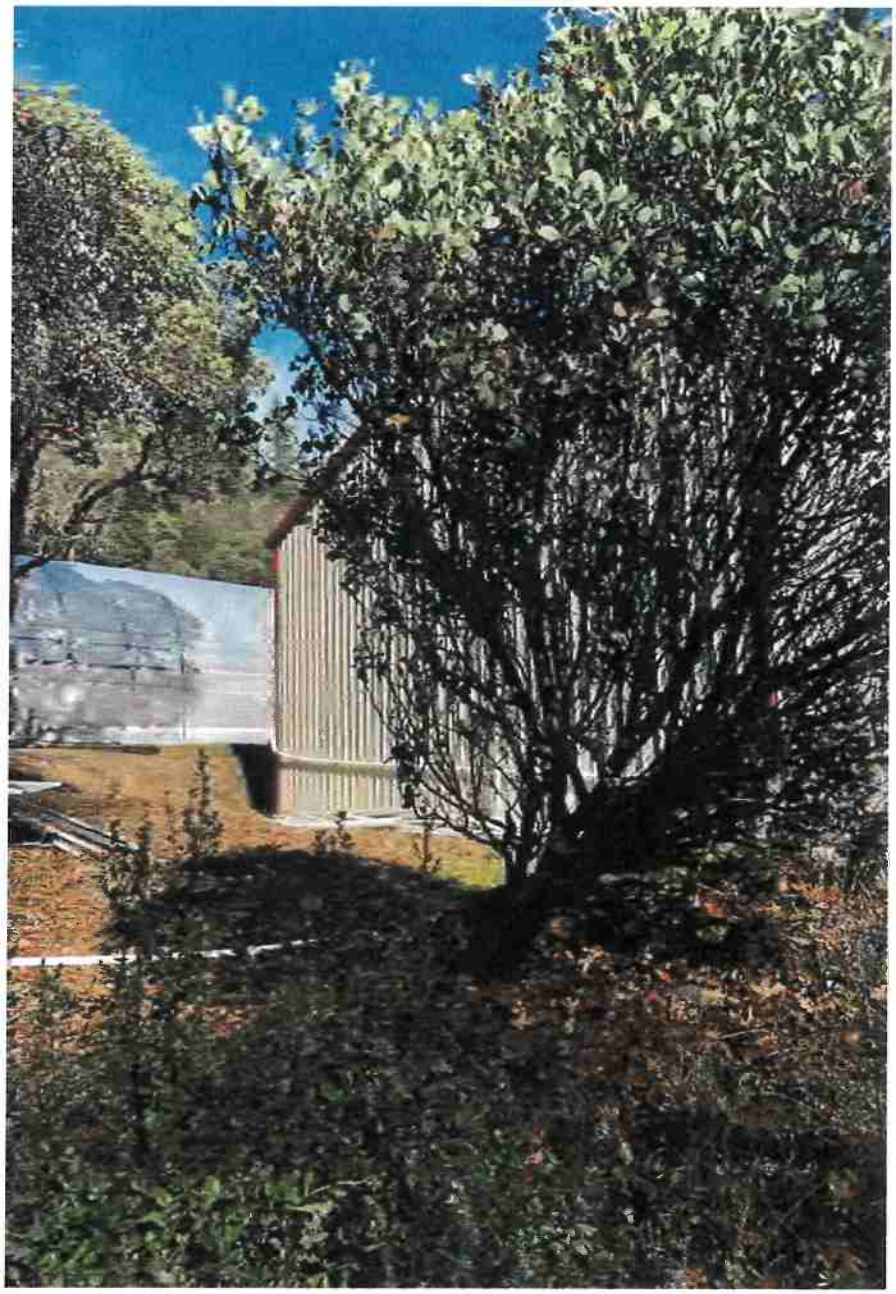


Photo of building #2 looking northeast. Note the thick vegetation and duff layers in the foreground.

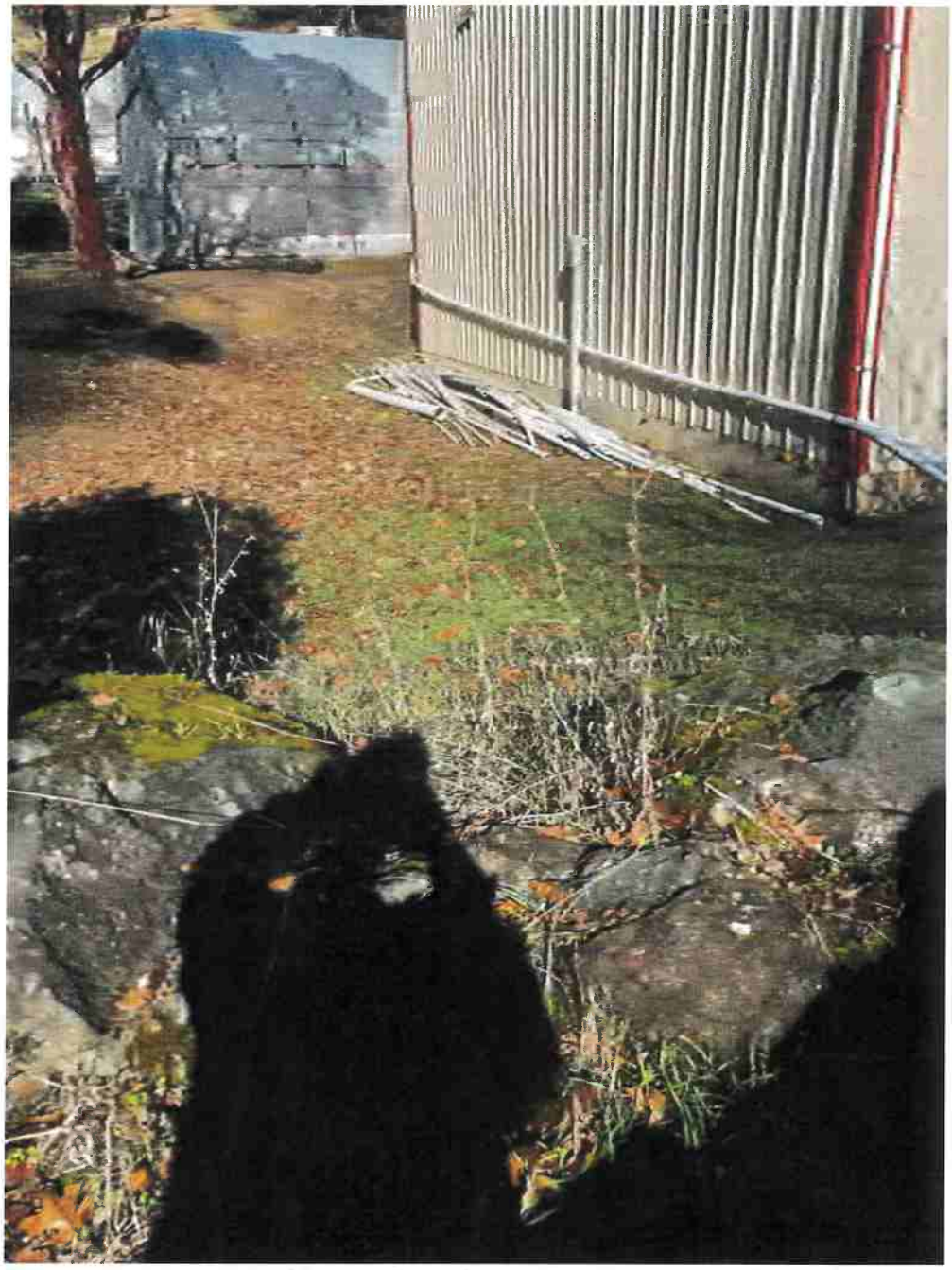
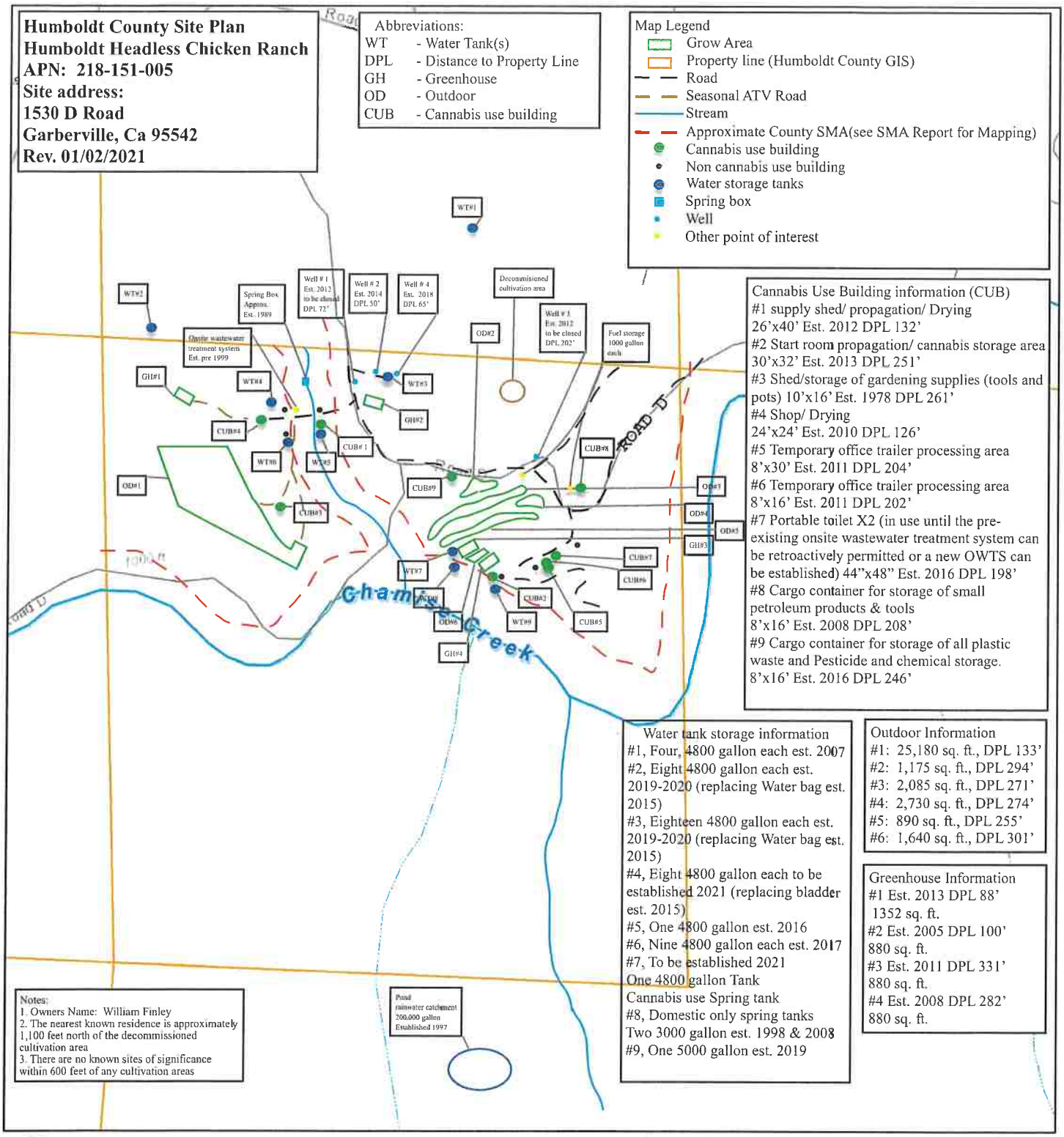


Photo of building #2 looking north-northeast. Note the grass, native rock, and duff on the margins of the building. Also note the rainwater capture infrastructure attached to the building.

Humboldt County Site Plan
Humboldt Headless Chicken Ranch
APN: 218-151-005
Site address:
1530 D Road
Garberville, Ca 95542
Rev. 01/02/2021

Abbreviations:
WT - Water Tank(s)
DPL - Distance to Property Line
GH - Greenhouse
OD - Outdoor
CUB - Cannabis use building

Map Legend
- Grow Area
- Property line (Humboldt County GIS)
- Road
- Seasonal ATV Road
- Stream
- Approximate County SMA(see SMA Report for Mapping)
- Cannabis use building
- Non cannabis use building
- Water storage tanks
- Spring box
- Well
- Other point of interest



Cannabis Use Building information (CUB)
#1 supply shed/ propagation/ Drying
26'x40' Est. 2012 DPL 132'
#2 Start room propagation/ cannabis storage area
30'x32' Est. 2013 DPL 251'
#3 Shed/storage of gardening supplies (tools and pots) 10'x16' Est. 1978 DPL 261'
#4 Shop/ Drying
24'x24' Est. 2010 DPL 126'
#5 Temporary office trailer processing area
8'x30' Est. 2011 DPL 204'
#6 Temporary office trailer processing area
8'x16' Est. 2011 DPL 202'
#7 Portable toilet X2 (in use until the pre-existing onsite wastewater treatment system can be retroactively permitted or a new OWTS can be established) 44"x48" Est. 2016 DPL 198'
#8 Cargo container for storage of small petroleum products & tools
8'x16' Est. 2008 DPL 208'
#9 Cargo container for storage of all plastic waste and Pesticide and chemical storage.
8'x16' Est. 2016 DPL 246'

Water tank storage information
#1, Four, 4800 gallon each est. 2007
#2, Eight 4800 gallon each est. 2019-2020 (replacing Water bag est. 2015)
#3, Eighteen 4800 gallon each est. 2019-2020 (replacing Water bag est. 2015)
#4, Eight 4800 gallon each to be established 2021 (replacing bladder est. 2015)
#5, One 4800 gallon est. 2016
#6, Nine 4800 gallon each est. 2017
#7, To be established 2021
One 4800 gallon Tank
Cannabis use Spring tank
#8, Domestic only spring tanks
Two 3000 gallon est. 1998 & 2008
#9, One 5000 gallon est. 2019

Outdoor Information
#1: 25,180 sq. ft., DPL 133'
#2: 1,175 sq. ft., DPL 294'
#3: 2,085 sq. ft., DPL 271'
#4: 2,730 sq. ft., DPL 274'
#5: 890 sq. ft., DPL 255'
#6: 1,640 sq. ft., DPL 301'

Greenhouse Information
#1 Est. 2013 DPL 88'
1352 sq. ft.
#2 Est. 2005 DPL 100'
880 sq. ft.
#3 Est. 2011 DPL 331'
880 sq. ft.
#4 Est. 2008 DPL 282'
880 sq. ft.

Notes:
1. Owners Name: William Finley
2. The nearest known residence is approximately 1,100 feet north of the decommissioned cultivation area
3. There are no known sites of significance within 600 feet of any cultivation areas

ArcGIS Web Map
Humboldt County Planning and Building Department

0 180 360 720 Feet
0 0.0325 0.065 0.13 Miles
RF= 1:4,514 1 in = 376 ft

Printed: December 21, 2020 Web AppBuilder 2.0 for ArcGIS