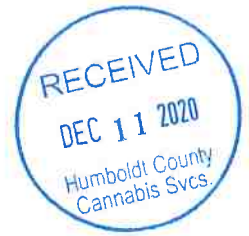


ATTACHMENT 1A

Cultivation and Operations Plan

Cultivation Operations

APN: 210-142-005



Project Description: The applicant/owner is seeking Humboldt County approval to allow new **outdoor cannabis cultivation up to 10,000 ft²** and development of appurtenant support infrastructure/facilities on the subject parcel.

The applicant acknowledges that the commercial cannabis activity approval being sought is subject to compliance with all other applicable Humboldt County zoning and land use regulations, as well as other applicable provisions of the Humboldt County Code and applicable state laws. Determination of compliance will require multi-agency review of proposed activity/development described herein and, may also require site inspections by personnel from various governmental agencies.

Parcel Information: The subject parcel (210-142-005) comprises approximately 124 acres and is **zoned AE**. It is located in the vicinity of Buck Mountain near the east border with Trinity County

Topography/Landscape: The peak elevation on the parcel is approximately 4,880 and it is located near the central portion of the parcel which is generally devoid of trees. Hillsides descend from the peak elevation in a NW and SW direction with forested areas occurring.

Surface Water Features: There are Class II and Class III watercourses on the parcel and a rain catchment pond; all of which have been shown on the Site Plan and addressed in applicable state documents included with CCLUO permit application materials.

Roads/Stream Crossings/Easements: Internal roads were found to be in acceptable condition with rock surfacing. Some seasonal roads and trails were found to require upgrades as detailed in the *Site Management Plan* included with CCLUO permit application materials. Stream crossings are addressed in the CDFW 1600 Agreement. There are no easements through the subject parcel.

Parking: The proposed cultivation and associated activities on the subject parcel shall be conducted by the **owner/applicant**. The site plan indicates areas available for **parking and Emergency Vehicle** turnaround. The image below shows one such area located 160 feet east of the northern cultivation site.



Utilities: The parcel is only used for limited seasonal cultivation due to the **long winter conditions occurring at the elevations above 4,000 feet**. It is not suitable for residential occupancy. A permitted rain catchment pond supplies water. Portable restroom facilities will be utilized for seasonal agriculture. A portable generator will supply power for miscellaneous hand tools or appliances.

Water Supply: Permitted Rain Catchment Pond with an approximate capacity of 250,000 gallons

Water Storage: The seasonal water demand can be met by the following storage/infrastructure. There may be additional tanks added in the future to facilitate operational efficiency.

In addition to the Rain Catchment Pond there are some plastic tanks as follows:

2 – 2,000 gallon tank

2 – 1,550 gallon tanks (two used for fertilizer mixing)

1 – 1,300 gallon tank (fertilizer mixing)

4 – 550 gallon tanks (fertilizer mixing)

Structures: There are (2) - 20' x 50' agricultural support structures; both shown on the site plan.

Cultivation Area Proposed: Shown on Site Plan –

The cultivation area is located near the central portion of the parcel. A review of Google Earth imagery indicates that sometime between August of 2015 and May of 2016 a portion of land was cleared to accommodate additional cultivation area. The cultivation proposed in this area consists of one garden measuring 7,500 ft² and another measuring 2,500 ft² as shown on the Site Plan.

Proposed cultivation areas and surrounding ground surfaces were evaluated in the development of a *Site Management Plan* under State Water Board mandate. Any conditions observed during the evaluation having the potential to impact water resources/environment are described in the *Plan*. The *Plan* details corrective measures addressing all areas of concern and prescribe a timeframe in which to complete corrective actions. Corrective measures prescribed in the *Plan* do not preclude the need for Cultivation Areas or other manmade features to be brought into compliance with all applicable state and local grading, excavation and erosion/sediment control regulations and requirements.

Peak Water Demand: The “Monthly Water Use” Table below shows projected water use (gallons/month) throughout the growing season.

November - April: No Water Use

	Cultivation – 10,000 ft ²
May	5,000
June	10,000
July	20,000
August	24,000
September	19,000
October	10,000

Totalizing flow meters shall be installed in the irrigation system and water use shall be monitored and recorded in accordance with all applicable state/local requirements.

Irrigation Method(s): Individual plants will be carefully hand-watered. Water delivery throughout the system will be carefully monitored on a regular basis to ensure proper function and responsible water use. Mulch will be carefully placed as a top dressing to optimize soil water retention.

Irrigation Runoff/Erosion Control: Proposed cultivation will occur in areas having nearly level (< 5% slope) ground surface. Irrigation runoff from cultivation areas shall be minimized by carefully regulated hand watering to prevent any overwatering or residual discharge of nutrient solutions outside of the “targeted” root zone. In the unlikely event that residual discharge did occur, it would be rapidly absorbed upon contact with permeable soil surrounding the cultivation area. Cultivation activities will be limited to the immediate area surrounding cultivation areas and conducted so materials are kept confined. The ground surface within and around the cultivation areas is nearly level and managed year-round to prevent any movement of entrained constituents such as fine sediment, fertilizer or other organic particles beyond the cultivation area.

Stormwater Management: Development proposed herein does not include creation of any significant areas of impermeable ground surface or modification to existing areas resulting in impermeable ground surface or redirection of stormwater runoff. The subject parcel is approximately 124 acres; it peaks near the central portion with heavily forested slopes descending to the NW and SW. Cultivation areas are surrounded by significant vegetative buffers and they will be winterized in accordance with a

site-specific *Site Management Plan* which calls for erosion prevention measures and monitoring. The internal road network is also addressed in the *Site Management Plan* to ensure prevention of unwanted runoff/sediment transport.

Watershed Protection: The Proposed Cultivation Areas on the subject parcel are located on nearly level "flats" suited for such activity. Project activity proposed on this site is addressed in a *Site Management Plan* included with this submission. The cultivation meets applicable setback requirements to watercourses, riparian zones or wetlands (see site plan). Sheet flow of rainwater or transport of cultivation byproducts over permeable, gently sloped soils in and around the cultivation area is unlikely with implementation of winterization measures. Vegetative buffers have been maintained at natural slope around the entire perimeter of cleared/developed area. **Watershed protection** will be ensured by adherence to measures prescribed in the *Site Management* developed specifically for this parcel.

The applicant shall engage in ongoing monitoring, reporting and maintenance including periodic site inspections and reviews of operational practices to ensure regulatory requirements related to the following listed items are being met:

<i>Site maintenance, erosion control, and drainage features</i>	<i>Stream crossing maintenance</i>
<i>Riparian and wetland protection and management</i>	<i>Spoils management</i>
<i>Water storage and use</i>	<i>Irrigation runoff</i>
<i>Fertilizers and soil amendments</i>	<i>Pesticides and herbicides</i>
<i>Petroleum products and other chemicals</i>	<i>Cultivation-related wastes</i>
<i>Refuse and human waste</i>	

The applicant shall ensure management measures and controls are effectively protecting water resources, and that any newly developing problems representing a water quality concern are identified and corrected quickly.

Upon completion of seasonal cultivation, the applicant shall ensure areas surrounding cultivated sites are sufficiently vegetated with grass and if needed, shall be sown with grass seed to stabilize surface soil over winter. Additional measures for site "winterization" shall be implemented as prescribed in the *Site Management Plan*.

Energy Usage: This is an outdoor cultivation with no light usage proposed at this time. Upon conceptual project approval, plans for Solar Powered Water Pump/Storage system shall be prepared by a qualified professional and submitted to the County Building Division for review/approval.

As previously mentioned, outdoor cultivation proposed is not reliant upon recurring electric power input. The occasional portable generator (Honda 2000/3000) use for hand tool operation would be less than 20 % of the cannabis related energy demand (pumping water).

Noise Source: The subject parcel is essentially undeveloped and intended for seasonal agricultural use limited to a single term outdoor cultivation operation. **There will be no fans used or generators to facilitate cultivation.**

Detectable Ambient noise occurring at property lines of the subject parcel depends upon several variables which include topography, vegetation and wind conditions. Other transitory localized spikes in sound pressure levels are expected to occur from various human activity such as *neighbors road use or chainsaw operation*. A more likely contributing factor to a persistent ambient sound pressure given the elevation of the subject parcel would be *wind/weather conditions*.

The outdoor cultivation and associated activity as proposed would not likely contribute to an increase in ambient noise level above that which occurs in the off season. The nearest proposed cultivation area to any property line is approximately 80 feet. The occasional use of a portable Honda 3000 generator will most likely be the only detectable noise source (aside from a vehicle) emanating from the subject parcel. The noise level standing next to a portable Honda 3000 generator at rated load is 57 db. The anticipated noise level at the nearest property line - if the generator was used at full load at a distance of 80 feet (*not considering any attenuation from trees*) would be 21 db - which is significantly less than normal human speech which ranges around 60 db.

Invasive Species: A report prepared by a professional Biologist is included with this submission

Cultivation Operations/Practices: The applicant anticipates a single harvest during the growing season. Operations shall be carried out by owner/applicant and business partner.

January	Winter snow – no activity
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February	Winter snow – no activity
March	Assess winterization BMP's and implement protective measures, monitor effectiveness of BMP's
April	Continue site Monitoring, Obtain seedlings – standby for favorable weather to start planting
May	General garden care and site maintenance
June	Ongoing garden care and site maintenance.
July	Ongoing garden care, monitor water supply, etc.
August	Ongoing garden care, monitor water supply, etc.
September	General garden care – harvest prep.
October	Begin harvest, set plants to dry – and site cleanup
November	Complete harvest, start site preparations for winter.

Soils Management: The applicant shall refurbish existing soil to the greatest extent practicable upon completion of cultivation. The goal is to use 100% organic amendments in the refurbishment process. An appropriate "cover-crop" shall be sown in and around the cultivation area following completion of crop harvest. If it becomes necessary, exhausted soil will be removed from cultivation beds and carefully mixed and spread over and into native top-soils on level ground at select locations to initiate microbial reconditioning and prevent unwanted constituent migration.

No spent soil shall be dumped off-site. Spent growth medium containing inorganic substances such as perlite, will be stored in weatherproof containers and hauled to an approved waste facility as needed.

Materials Management: Cultivation related wastes are sorted such that compostable materials are recycled/composted onsite within a small area (shown on Site Plan) equipped with perimeter and top containment to prevent unwanted movement of materials due to weather conditions or animals/pests. Other materials, unsuitable for composting, are stored in conventional trash containers with lids secured within an area alongside/within the metal support building. When trash containers are full, they are hauled to an approved transfer station for proper disposal.

Any soil amendments and/or cultivation materials not used at start-up shall be kept inside the metal support building in original packaging/containers in accordance with manufacturer's directions.

Hazardous Materials: The applicant uses only compost teas in the cultivation and the ingredients for the compost tea will be appropriately stored within the Ag support building. No additional nutrients are used. Preparation of compost tea shall occur within an appropriately contained area such that accidental spillage can be efficiently addressed preventing any environmental impact.

There are no cleaning chemicals stored on-site. Gasoline is stored in conventional canisters in an amount not exceeding 20 gallons. The canisters shall be stored in the metal support structure with an appropriate spill kit away from any potential ignition source.

In the event that pesticide use is needed, only substances that are included in the *Legal Pest Management for Marijuana Growers – State Water Boards* will be utilized.

The applicant acknowledges that the storage and/or use of certain materials in specified volumes and/or weights will be subject to regulation through Humboldt County Division of Environmental Health CUPA and may require: submittal of inventories for those materials, documentation of emergency and training procedures, maintenance of hazardous waste disposal records, obtaining an EPA generator ID number and be subject to site inspections.

Human Waste: The project site is only utilized seasonally for agricultural operations; it is not developed for regular domestic occupancy. Portable toilet units equipped with handwash stations are proposed for usage.

Processing: Plants will be inspected to ensure that any indication of pests, molds, mildews or disease are immediately addressed and crop quality is maintained. When ready, individual plants are hand harvested, placed inside clean transport containers and immediately transferred to the Ag support building where they are hung to dry. The drying area is kept cleaned thoroughly to minimize potential contaminant contact.

The applicant/operator is cognizant of potential mold and mildew problems associated with cultivation. Any suspect plant matter which appears compromised for any reason is carefully removed and disposed of avoiding cross contaminant contact with other product, equipment or utensils. A separately designated green-waste stream is implemented to recycle/compost plant waste.

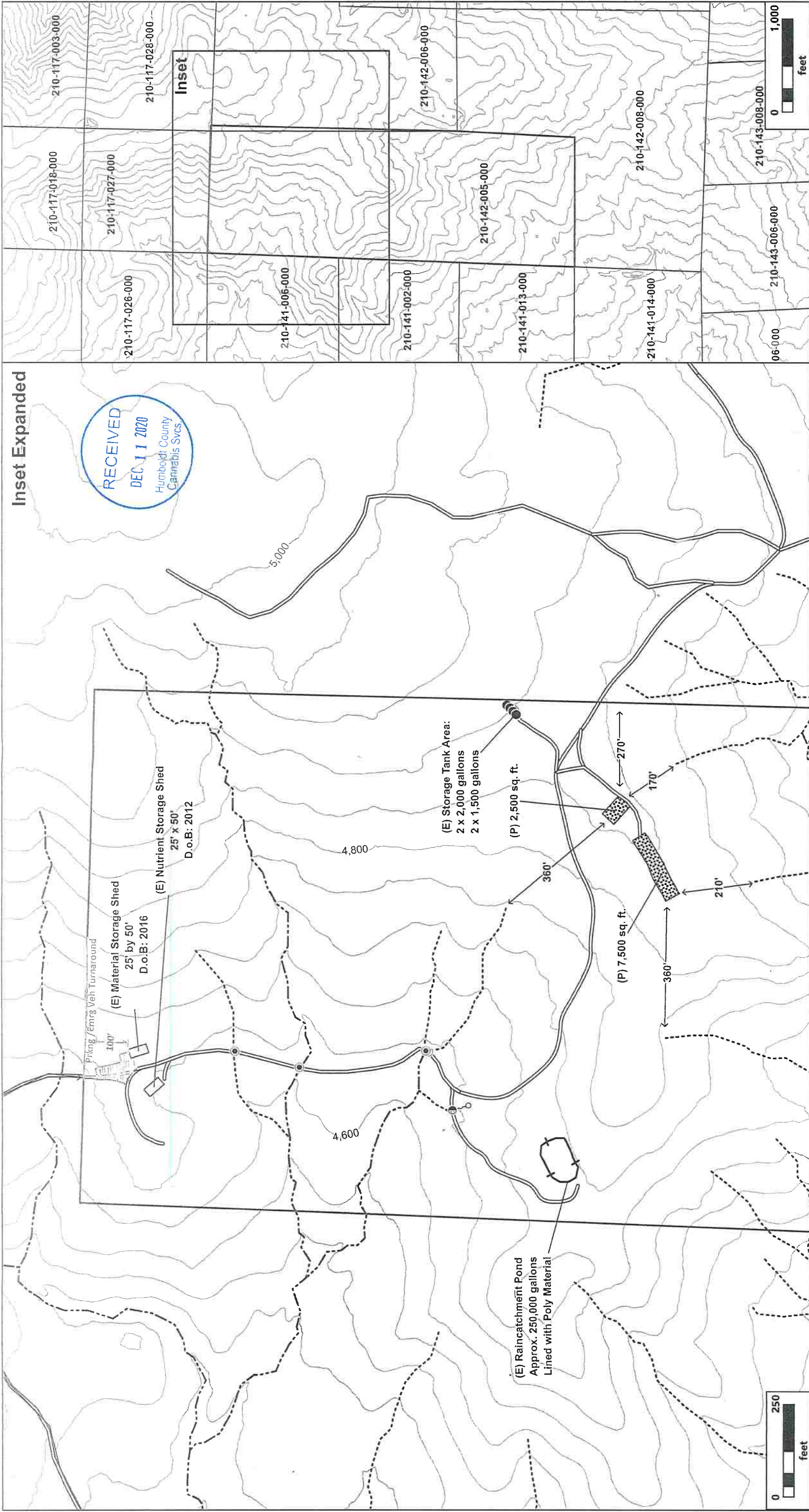
A fire extinguisher will be readily available. The working space will be kept clean and orderly with ample potable water for handwashing available. A portable restroom facility will be located in close proximity to the metal support building.

Trimming of dried plants will be done off-site at a licensed facility.

Security: Access to the parcel will be restricted by locking metal gate. The premises is normally occupied by the owner/applicant during the cultivation season.

Inset Expanded

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Directions to Site:
Beginning on HWY 101 S in Fortuna, CA
Continue on freeway until exit for SR 36 E
Take SR 36 east for 38 miles
Make Right turn onto Burr Valley Rd
Follow Burr Valley Road for 9 miles
Make Left at Unnamed 4-way intersection
Continue on Unnamed Road for 0.6 miles
Make Right up Unnamed Private Road
Follow Road for 1.2 miles
Enter Northern Property Line

Property Boundary
Outdoor Cultivation
Existing Structure
Stream Crossing
Ditch Relief Culvert

Private Road
HDPE Storage Tanks
Emergent Spring
Perennial Watercourse
Intermittent Watercourse
Ephemeral Watercourse

Applicant: Shayne Monroe
APN: 210-142-005-000
Acres: 124
Zoning: AE - Agricultural Exclusive
Cultivation Area: 10,000 sq. ft. Outdoor
No Easements
No Schools, Public Parks, or Places of Worship within 600'
Map Date: 12/11/2020

Timberland Resource Consultants

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