NORTH COAST RESOURCE PARTNERSHIP

A. General Project Information

1. Organization / Project Sponsor Name:
   Shelterwood Collective

2. Project Name:
   Shelterwood Collective Water Infrastructure Renovations

3. Has the organization implemented similar projects in the past? ☐ yes ☒ no

4. If the project sponsor has worked with NCRP in the past, describe the project and outcome.

   No, Shelterwood Collective has not worked with the NCRP in the past. However, we recently received a $5M CAL FIRE grant for implementation of a multi-year forest restoration and wildfire resilience plan (Grant Number: 8GG21613), and are interested in future Technical Assistance through the NCRP Regional Forestry and Fire Capacity (RFFC) program.

5. Please describe the qualifications, experience, and capacity of the project team that will be overseeing project implementation.

Nikola Alexandre is the Executive Director of Shelterwood Collective, a conservation non-profit hosting this project. He will be working with the accounting firm Sutro Li to manage the reporting of the grant, something he is already doing with the $5M Cal Fire forest health grant the organization received last spring. Sherwood Design Engineers, the technical leads on this effort, is a civil engineering practice committed to the integration of ecology, infrastructure, and design.

6. Is this project part of a larger project or program? If so, what effectiveness monitoring is being conducted and what are the results?

This water infrastructure project is a central piece of our larger water conservation efforts, which will also include a centralized water reuse septic facility and landscape design program that will allow for improved water infiltration and reduced erosion. These water improvements are the base of the renovation of a community center we're working on to help Black and Indigenous communities reconnect with nature. Results will be tracked by monitoring water quality and quantity metrics.

7. Project Abstract [500 characters max.]

The proposed project will create a resilient water system at Shelterwood, which will enable the restoration of endangered species habitat, strengthen community wildfire resilience, and improve watershed health. The project includes repairing an antiquated water distribution network, bringing a newly built well online, retiring use of a surface water collection system, expanding storage capacity, and establishing a fire protection system.

8. Project Description [3,000 characters max.]

Shelterwood is a 900-acre Indigenous, Black, and Queer-led community center, forest, and collective of land protectors based in Cazadero, CA on unceded Pomo and Kashaya territory. Established as a 501(c)3 non-profit in 2020, Shelterwood is a sanctuary of climate resilience, healing, and human connection. Over the coming years, we are renovating infrastructure on the property - a former summer camp - to create a space where communities who face historical barriers to accessing the outdoors can reconnect with nature. The center will include 7 staff houses, 1 18-room lodge, 1 multipurpose educational building, 6 cabins, a sustainable wood product maker space, and 4 tiny-houses. Alongside this space, under a recently secured $5M CAL FIRE grant, Shelterwood will restore the surrounding forest and model the practices necessary to improve the health of Northern Californian forests.

The Shelterwood Water Infrastructure Renovations project will be pivotal in transforming the community center from a site of water waste to a model of water conservation. The water system that Shelterwood inherited is inefficient, outdated, and unsafe. The current piping system breaks and leaks frequently, cutting off water supply to living spaces and wasting invaluable water resources drawn from two springboxes on the property. As a first step towards remediation, after extensive hydrological studies by GHD, we installed a 300 foot well and plan to retire the primary springbox once we can bring the well online. This project will allows us to (1) improve our storage capacity to 20,000 gallons of domestic storage and 50,000 gallons of wildfire fighting storage (2) connect our well system to the new storage system (3) renovate our entire below-ground campus water distribution system to replace metal pipes, install water meters, and install redundant leak failsafes, and (4) install fire protection systems (hydrants) in strategic areas across the community center.

The project approach was developed through consultations with Sherwood Engineers, a leading civil engineering firm well-versed in holistic water resource management; Mithun, a nationally-recognized architectural and design company; the Cazadero and Fort Ross fire departments; and over 150 community members who plan to use the community center for short and long-term programming (see Technical Appendix pgs 5 and 47 for more detail on community engagement and partners). Costs were provided by Primo Engineering and Consultants.

We are also working with landscape architects to create “soft” water conservation practices, including rainwater catchment systems and bioswales for gardening / erosion control. This landscaping work will not be included in this grant application.

9. Specific Project Goals/Objectives

Goal 1: Improve storage capacity to 20,000 gallons of domestic and 50,000 gallons of fire water storage [100 characters max.]
Goal 1 Objective: Proactive placement of wildfire protection infrastructure [200 characters max.]
Goal 1 Objective: Reliable supply of water for daily demands
Goal 1 Objective:
Goal 1 Objective:

Goal 2: Connect new well to the storage tanks, and underground distribution system from tanks to campus
Goal 2 Objective: Take pressure off existing surface water collection systems (primary spring) to ensure adequate water is available for endangered coho salmon and other habitat needs
Goal 2 Objective: Install 3,000 linear feet of trenched 3" piping between well and tanks, and between tanks and main campus
Goal 2 Objective: Install 1,300 linear feet of 8" fire main line connecting tanks to main campus
Goal 2 Objective:

Goal 3: Renovate the entire piping network to replace old infrastructure, and install water meters.
Goal 3 Objective: Install 1,300 linear feet of 8" fire mainline, trenched below main campus and buildings
Goal 3 Objective: Install 1,300 linear feet of 2" domestic water infrastructure, trenched below the main campus and buildings
Goal 3 Objective:
Goal 3 Objective:

Additional Goals & Objectives (List)
Goal 4: Install 2 fire protection hydrants in strategic areas across the community center
Goal 4 Objective: Provide robust and reliable access for wildfire protection purposes regionally
Goal 4 Objective: Prove shared resources with neighboring properties to create resilient and redundant protection systems for the community
Goal 4 Objective: Increase protection and response capability for wildfire and firefighting within the Shelterwood center

10. **Describe how the project addresses the NCRP Goals and Objectives selected**. [1,000 characters max.]

The project addresses NCRP Goals 1 and 3, as well as Objectives 1, 2, 6, and 7 by hosting several local members of surrounding communities and the watershed, to not only share how Shelterwood could be a home for ecological knowledge sharing, but also to contribute to a Regional Watershed Stewardship Plan, to protect Coho Salmon habitat, improve creek water quality, and replace outdated infrastructure.

The project addresses NCRP Goal 2, as well as Objectives 4 and 5 by improving and expanding built and natural infrastructure systems, as well as building more housing opportunities for local communities that frequent Shelterwood, many of whom are members of BIPOC and LGBTQ+ communities.

The project addresses NCRP Goal 4, as well as Objectives 8, 9, and 10 by increasing access to domestic and firewater across the Shelterwood center, improving drinking water quality, as well as increasing storage for both types of water.

11. Describe the physical, biological and/or community need for the project. [1,000 characters max.]

Currently, Shelterwood is not able to provide safe and reliable drinking water to its staff or visitors. The communities Shelterwood serves are from historically marginalized groups, who are often harmed by unsafe or nonexistent water systems (e.g., Flint, Michigan). It is imperative that we provide safe and clean drinking water upon arrival at one of the only outdoor retreat center spaces in the country built intentionally for BIPOC and LGBTQ communities.

The existing water supply is derived from surface springs, removing important water resources from local salmon bearing streams. This is particularly impactful during the dry summer months when stream flows are low. With climate change likely to only exacerbate drought conditions, water conservation for endangered species habitat is critical for the long-term resilience of our forests. The proposed improvements will return those surface flows to the watershed, increasing the forest's ecological health.

12. Describe the financial need for the project. [1,000 characters max.]

While Shelterwood has a strong track record for stewarding financial resources, we have an urgent need for funds to support this project. Shelterwood's philanthropic and individual donor fundraising resources often go towards covering core operations and programming. While Shelterwood successfully secured multi-year state CAL FIRE funding to support its forest stewardship activities, the water infrastructure system upgrades proposed here are not reimbursable under that grant.

The IRWM Program is one of the only sources identified that is strategically aligned with the critical water system upgrades we require in the timeframe and scale at which they are needed. We estimate the full cost of our water infrastructure plan to be around $3.5M, once our septic

and landscape design needs are factored into the goals above. IWRM's support would cover a critical third of that cost, with the remainder coming from private donors.

13. **Describe potential adverse impacts from project implementation and how they will be mitigated.**

    No long term adverse impacts are anticipated from the proposed project.
    The only known adverse impacts are temporary disruption associated with trenching and equipment access; the majority of work will be conducted in areas that are already programmed (i.e. fire road, historical use, etc.).

    We are confident that the project will be successful in achieving the intended goals of reducing impacts to habitat, surface water and hydrology, as well as increasing fire resilience within the community.

14. **Will this project mitigate an existing or potential Cease and Desist Order or other regulatory compliance enforcement action?** ☒ yes ☐ no
    If yes, please describe. [500 characters max.]

Yes. The project requires an improved water supply, to replace outdated on-site water supply that is out of compliance for the proposed project / program. The installed well resolves this issue, but requires additional infrastructure described herein for the water supply to be usable.

15. **Does the project address a contaminant listed in AB 1249 (nitrate, arsenic, perchlorate, or hexavalent chromium)?**
    ☐ yes ☒ no
    If yes, provide a description of how the project helps address the contamination. [500 characters max.]

16. **Describe how the project contributes to regional water self-reliance and addresses climate change.** [1,000 characters max.]

A recent UCLA-led study found that California's 2020 wildfires, the most disastrous on record, released twice as much greenhouse gas emissions as the total reduction in such pollutants in California between 2003-2019. Shelterwood is directly addressing climate change through its forest restoration work by improving forest resilience and reducing wildfire risk and intensity. Such activities, already funded through our CalFire grant, include forest thinning, low-intensity controlled burns, and native habitat plantings. This work will only be possible in the coming years with a successful community center and adequate staffing on the land, which require the safe and reliable water resources enabled by this project. The project will also directly reduce water demand by improving efficiency of our own, self-contained water system.

17. Does the project increase public safety with regards to flood protection, wildfire hazard risk reduction, increasing firefighting capacity, or in other ways contribute to regional emergency resiliency?
☒ yes ☐ no
Please explain. [500 characters max.]

Our proposed project will allow for hyperlocal resilience and self-reliance to wildfire threats. Cazadero is a densely forested area with steep terrain, making access and egress challenging. In addition, the quickest response time from the nearest fire station to Shelterwood is roughly 40 minutes. The increase in water storage and installment of a fire protection system will provide additional firefighting resources for residents, firefighters, and first responders in times of need.

18. Does the project employ new or innovative technologies or practices, including Decision Support Tools that support the integration of multiple jurisdictions, including, but not limited to, water supply, flood control, land use, and sanitation? ☒ yes ☐ no
If yes, please describe. [500 characters max.]

The project relies on a 300' bedrock well that will pump water from below ground up an additional 175' to storage tanks that sit above the main campus. Water then relies on gravity to flow into the campus. This means that in the event of wildfire or power outage, water can still be used. Furthermore, the infrastructure plan was developed through consultations with over 150 local community members and organizations who want to use the center.

19. Describe the population served by this project, including any economically disadvantaged communities or Tribes that will directly benefit.

This project will contribute to an improved water ecosystem in Cazadero and the Russian River Watershed, much of which is classified as an Economically Disadvantaged Community. Additionally, Shelterwood prioritizes sourcing products and labor from local businesses. As we embark on a multi-year capital infrastructure effort, our project will support economic development in these communities. Finally, though Shelterwood itself is not situated in a designated disadvantaged community, the individual

20. Describe local and/or political support for this project. [500 characters max.]

Shelterwood hosted in-person sessions and conducted surveys with over 150 members of our core communities - including local residents of Cazadero, Guerneville, Forestville, Santa Rosa, Oakland and other neighboring communities; BIPOC and LGBTQ+ individuals; representatives from social justice organizations; and artists working around climate

resilience. To add to this effort, Shelterwood recently won a $5 million CAL FIRE grant, which has been approved by local state representatives.

21. List all collaborating partners and agencies and nature of collaboration. [750 characters max.]

• Sherwood Engineers: Technical partner and the lead organization in developing the technical plans and overseeing project implementation.
• Mithun: Design Team and primary designer in developing the vision plan and conceptual designs for the retreat center.
• Sutro Li: Accounting firm managing Shelterwood's state grant portfolio.
• Sterling Minter, Fort Ross Fire Department and Mendocino CAL FIRE Unit: Advise Shelterwood on wildfire resilience and required firefighting infrastructure.

Residents and stakeholders from neighboring communities of Cazadero, Guerneville, Forestville, and Santa Rosa: Contributed to vision for Shelterwood retreat center.

22. Is this project part or a phase of a larger project? ☒ yes ☐ no
Are there similar efforts being made by other groups? ☐ yes ☒ no
If yes to either, please describe. [500 characters max.]

Shelterwood's water infrastructure upgrades support the larger vision of building a multifunctional, ecologically-aligned community center on the land we steward, as previously discussed. Additionally, Shelterwood is working on a Regional Watershed Stewardship Plan to minimize water consumption, replace outdated infrastructure, and promote the quality and quantity of water from Bear Pen Creek that flows into Russian River, both of which are critical Coho Salmon habitat.

B. Project Location

1. Describe the latitude and longitude of the project site.
Latitude: 38.580172 Longitude: -123.135829

2. Site Address (if relevant):
23500 King Ridge Rd, Cazadero, CA 95421

3. Does the applicant have legal access rights, easements, or other access capabilities to the property to implement the project?
☒ yes If yes, please describe below
☐ no If no, please provide a concise narrative below with a schedule, to obtain necessary access

☐ NA If NA, please describe below why physical access to a property is not needed

Explanation. [500 characters max.]

Yes, Shelterwood owns the entire 900-acre property, which includes the 10-acre former summer camp. As such, Shelterwood Collective has legal access rights, easements, or other access capabilities to the property to implement the project.

4. **Project Location Notes:**

Shelterwood lies within unincorporated Sonoma County, California. The land consists of four parcels within the Russian River Watershed. The Community Center is accessed via King Ridge Road, via an entry easement across adjacent parcels. The center's core is situated on a level bench at the heart of the site, perched above several small creeks. A network of former logging roads and trails weave the four parcels together through varying topography.

C. Benefits To Disadvantaged Communities and/or Tribes

1. **Does the project provide direct water-related benefits to a project area comprised of Disadvantaged Communities or Economically Distressed Communities?** If partially, please estimate percentage of project that benefits disadvantaged communities and list the communities.
   ☐ Entirely
   ☒ Partially; estimate the percentage of benefits provided directly to DAC:

Cazadero, CA (town proper) is included in a Census Block that qualifies as disadvantaged. Shelterwood is north of Cazadero along King Ridge Road and falls outside of a mapped disadvantaged area. Although Shelterwood itself is not situated in a designated disadvantaged community, the individuals we serve - the majority of whom are members of BIPOC and LGBTQ+ communities - are primarily from economically disadvantaged or severely disadvantaged communities across Sonoma and Alameda counties. See Q19 for more context.

   ☐ No

   List the Disadvantaged Community(s)

   Cazadero, CA

2. **Does the project provide direct water-related benefits to a project area comprised of Severely Disadvantaged Communities (SDAC)**? If partially, please estimate percentage of project that benefits disadvantaged communities and list the SDACs.
   ☐ Entirely
   ☐ Partially; estimate percentage of benefits provided directly to SDAC:
   ☒ No

List the Severely Disadvantaged Community(s)
N/A

3. **Does the project provide direct water-related benefits to a Tribe or Tribes**? If partially, please estimate percentage of project that benefits Tribe(s) and list the Tribes.
   ☐ Entirely
   ☐ Partially; estimate percentage of benefits provided directly to Tribe(s):
   ☒ No
   List the Tribal Community(s)
   N/A
   If yes, please provide a letter of support from each Tribe listed as receiving these benefits.

4. **If the project provides benefits to a DAC, EDA or Tribe, explain the water-related need of the DAC, EDA or Tribe and how the project will address the described need.** [750 characters max.]
   N/A

5. **Describe the kind of notification, outreach and collaboration that has been completed with the county(ies) and/or Tribes within the proposed project impact area, including the source and receiving watersheds, if applicable.** [500 characters max.]

6. Shelterwood worked with the county to secure all permits necessary for the well we installed in January 2021. We will continue to work collaboratively with the county as needed.

D. Project Benefits & Justification

1. **For each of the Potential Benefits that the project claims, complete the following table to describe an estimate of the benefits expected to result from the proposed project. Provide quantitative benefit amounts for at least the primary and secondary benefits. Provide a qualitative narrative description of expected benefits that cannot be quantified.** *See the NCRP Project Application Instructions for more information and a listing of potential benefits.*

PROJECT BENEFITS TABLE

Benefit Description	Units	Quantitative Amount	Qualitative Description
Water Supply			
Increased Water Supply Quantity	Gallons	3.7M / year	See supplimental doc

Benefit Description	Units	Quantitative Amount	Qualitative Description
Replaced water distribution piping	Feet	1,930	See supplimental doc
Water Quality			
Climate Change			
Increase in number of visitors learning about climate resilience	Number of guests/yr	185	See supplimental doc
Improved ability to restore a degraded forest and reducing its risk of wildfire related destruction	acres	900	See supplimental doc
Other Ecosystem Service Benefits			
Increased water quan	Gallons	5M / year	See supplimental doc
Increased fire water	Gallons	50,000	See supplimental doc
Fire hydrants	number of	2	See supplimental doc
Jobs Created or Maintained			
Forest restoration BIPOC staff	FTE	15	See supplimental doc
Civil engineering and construction workers	part time jobs	10	See supplimental doc
Other Benefits			

Benefit Description	Units	Quantitative Amount	Qualitative Description
Enhanced Fire Fighting Capabilities	Acres protected/yr	900	See supplimental doc
Safety of Staff and majority BIPOC Guests	persons / yr	1500	See supplimental doc

2. Does the proposed project provide physical benefits outside of the North Coast Region?
   ☐ yes ☒ no
   If yes, describe the impacts to areas outside the North Coast Region. [500 characters max.]
   N/A

3. List the impaired water bodies (303d listing) that the project benefits:
   N/A

4. Describe how the project benefits salmonids, endangered/threatened species and sensitive habitats.

   Fish and Wildlife completed a survey at the end of summer 2022 and found 114 coho salmon fry in the portion of Bearpen creek stewarded by Shelterwood. Upon completion of this project, Shelterwood will be able to remove the springbox at the mouth of a class II watercourse that feeds Bearpen creek, increasing the amount of water available to the salmon. Furthermore, the forest management activities enabled by the community center's renovations will allow for Douglas-Fir thinning and other stewardship practices that will likely increase the water table and improve water quantity and quality within the creek.

5. Have alternative methods been considered to achieve the same types and amounts of physical benefits as the proposed project?
   ☐ yes ☒ no
   Please explain. [500 characters max.]

   Other alternative methods to achieve the same types of physical benefits were not considered for the proposed project, as repairing existing water infrastructure, expanding infrastructure and incorporating storage can only be done through this method.

6. Is the proposed project the lowest cost alternative to achieve the physical benefits?
   ☒ yes ☐ no
   Please explain. [500 characters max.]
   Yes, the proposed project is the lowest cost alternative to achieving its physical benefits of expanded water infrastructure and storage.

7. How will the project be monitored to determine whether it is producing the desired benefits?

   Monitoring devices are proposed throughout the proposed water infrastructure, which will allow for accurate and timely reporting on efficiency of the system and manage operations effectively. Some degree of adaptability is also designed into the proposed infrastructure, allowing Shelterwood to respond to information and improve the operation of on-site systems. Additionally, through private funding, we are setting up water quantity and quality monitors downstream to track how our infrastructural and forest management practices are changing the water available to creek life.

8. Provide a narrative for project technical justification. Include any other information that supports the justification for this project, including how the project can achieve the claimed level of benefits listed below. [3,000 characters max.]

-
- In its current state, Shelterwood's water to its buildings is supplied by two spring systems, flowing through 3 miles of outdated infrastructure. This system is highly susceptible to breaks, leaks and results in thousands of gallons of water being wasted, and leaving the community center without water for multiple days until the break can be found, repaired, and refilled. The primary spring that feeds our current system sits at the head of a coho salmon bearing creek, diverting water from a critical endangered species' habitat.
- The Shelterwood Water Infrastructure Renovations project will transform the community center from a site of "water as waste" to "water as asset". After extensive hydrological studies by GHD, we installed a 300' well (permit attached in the Technical and Reference Supporting document) and plan to retire the primary springbox once we can bring the well online. This project allows us to:
- 1. Improve our storage capacity to 20,000 gallons of domestic storage and 50,000 gallons of wildfire fighting storage,
- 2. Connect our new well to the storage tanks and water distribution systems in order to retire the primary springbox using 3,000 linear feet of 3" trenched mainline pipe and 1,300 linear feet of trenched 8" fireline pipe.
- 3. Install 1,300 linear feet of fire mainline and 1,3000 linear feet of domestic water pipe to replace existing piping network, water meters, and redundant leak failsafes,
- 4. Install fire protection systems (hydrants) in strategic areas across the community center,

- In order to determine the effectiveness of this project and measure its success, we will install monitoring devices throughout the proposed infrastructure. This will not only allow for accurate reporting on the efficiency of the system, but will also aid in managing the infrastructure's operations effectively. Additionally, we are setting up water quantity and quality monitors downstream to track how our infrastructural and forest management practices are changing the water available to creek life.

9. List and include any studies, plans, designs or engineering reports completed for the project as a "Technical & Reference Supporting Materials" into one document that includes a Table of Contents and is limited to approximately 50 pages. *Please see the instructions for more information about submitting these documents with the final application.*

10. Project Justification & Technical Basis Notes: Please provide any additional information *not included above* that you think is important.

E. Project Tasks, Budget, And Schedule

1. Projected Project Start Date: 10/1/23
   Anticipated Project End Date: 10/1/24

2. Describe the basis for the costs used to derive the project budget in each budget category. [500 characters max.]

The budget costs listed in the Major Tasks, Schedule and Budget for the NCRP IRWM Project Solicitation for the proposed project are based on planning, design, and construction costs quoted to us by the construction firm Primo Engineering and Consultants. The costs included are for expansion of water infrastructure, domestic and fire water storage, and installation of two hydrants based on average market value.

3. Provide a narrative on cost considerations including alternative project costs. [500 characters max.]

There is no alternative to replacing the outdated and antiquated water distribution system currently at Shelterwood. Incorporating hard water treatment infrastructure systems will not only significantly increase infrastructure costs, but would also prevent the development of a sustainable and resilient wastewater system, and would also increase carbon emissions on site. These could potentially exacerbate problems in the current infrastructure system and were therefore not analyzed for costs.

4. **List the sources of non-state matching funds, amounts and indicate their status**. Proposition 1 requires a minimum cost share of 50% of the total project costs, though a waiver may apply (see Question 6 below).

Private foundation funds (Rauschenberg Foundation, Wend foundation) - total of $420,000 secured and spent in 2020 on well installation and associated costs. An additional $2M are currently being identified through our existing donor base to support septic improvements and water resilient landscaping.

5. **List the sources and amount of State matching funds.**
N/A

6. **Cost Share Waiver Requested (DAC or EDA)?** ☐ yes ☒ no
Describe what percentage of the proposed project area encompasses a DAC/EDA, how the community meets the definition of a DAC/EDA, and the water-related need of the DAC/EDA that the project addresses. In order to receive a cost share waiver, the applicant must demonstrate that the project will ***directly*** provide benefits that address a water-related need of a DAC/EDA.

We request a reduced cost-share waiver. Although we are not situated in a DAC, many of the BIPOC community members who we serve are. Thus, we conservatively estimate that 25% of the people we serve are from a DAC and will directly benefit from this project. We hope a proportional cost-sharing amount will be allowable.

7. **Is the project budget scalable?** ☒ yes ☐ no

8. **Describe how a scaled budget would impact the overall project,** its expected benefits and state the minimum budget amount that would be viable (see Instructions E.7 for scaled budget examples). [500 characters max.]

To allow for a scalable framework for executing this project, a Phasing Plan has been developed. The 1st phase is to upgrade water storage capacity. The 2nd phase involves connecting the well system to the storage and distribution network, allowing for the improvement in salmonid habitat. The 3rd phase renovates the below ground piping system.. The 4th phase focuses on fire fire protection through the installation of hydrants. Each phase can be funded independently. Please see attached budget.

9. **Major Tasks, Schedule and Budget for Project Solicitation**
Please complete MS Excel table available at https://northcoastresourcepartnership.org/ncrp-proposition-1-irwm-round-2-solicitation/see instructions for the information to be included

in this document and for how to submit the required excel document with the application materials.

10. Project Tasks, Budget and Schedule Notes:

Please note that the budget is scalable BY TASKS. Tasks 1, 2, 3 and 4 can all be started and completed as independent items. All other costs, such as administrative grant management and permitting, are fixed.

11. Project Information Notes. Please provide any information that that has not been specifically requested that you feel is important for the NCRP to know about your project.

Bios:

Shelterwood Collective is a Black and Indigenous-led conservation 501(c)3 non-profit working to build climate resilience and reconnect marginalized groups to the forests of Northern California. Shelterwood's primary focus areas include land and food stewardship, active forest restoration and wildfire mitigation, and community and cultural programs. The organization stewards a 900-acre forest located in Cazadero, CA, which includes a 10-acre former summer camp. In the coming years, Shelterwood will redevelop the existing infrastructure into a multi-purpose community center featuring best-in-class sustainability and fire resilience infrastructure.

Shelterwood has already gained national attention as a leader in the climate and conservation sector. In 2021, Shelterwood was selected in the inaugural cohort of the national Justice40 Accelerator, which supports climate justice organizations led by disinvested communities to be prepared for future state and federal investment. Shelterwood's co-founders are experienced stewards of both land and community-building efforts: Nikola Alexandre has served as a steward for forests ten times the size of Shelterwood and has worked internationally to lead large scale restoration projects. Layel Camargo is a nationally-recognized Indigenous/Latinx climate justice organizer who has founded and led myriad climate activism initiatives.

Mithun is a design firm that believes in design's vital capacity to connect people to place and each other through intentional and memorable experiences. Through an alert sense for experience, a culture of discovery, optimism, and an abiding responsibility to our environment, Mithun is committed to design's ability to anticipate and address the challenges of the future.

Sherwood Design Engineers is a civil engineering practice committed to the optimal integration of ecology, infrastructure, and design. Sherwood specializes in sustainable infrastructure design, innovation and sound engineering to make big ideas possible at a building, neighborhood, and district scale. They have a proven track record of delivering projects from idea to implementation around the world. Sherwood works collaboratively with project teams to

find ways to maximize efficiencies through an integrated and ecological approach that results in high-performance projects that are resilient, economical, and get approved and built.

Sutro Li is an accounting firm working with Shelterwood Collective to manage our state grant portfolio. The firm has an extensive background in nonprofit management and state grant management, and is already managing Shelterwood's $5M CAL FIRE grant. Their team is well equipped to ensure all expenses associated with this particular project are properly handled.

Major Tasks, Schedule and Budget for North Coast Resource Partnership IRWM Project Solicitation

Project Name: Shelterwood Collective Water Infrastructure Renovations
Organization Name: Shelterwood Collective

PLEASE NOTE: the below budget is scaleable by tasks. Each of the four tasks listed in category (d) can be funded and completed alone, although benefits are best achieved if all are funded. Costs outside of each task are fixed unless specified.

Task #	Major Tasks	Task Description	Major Deliverables	IRWM Task Budget	Non-State Match	Other Match	Total Task Budget	Current Stage of Completion (%)	Start Date	Completion Date	Total by project
A	**Category (a): Direct Project Administration**										
1	Administration	Sign a sub-grantee agreement for work to be completed on this project. Develop invoices with support documentation. Provide audited financial statements, progress reports, and other deliverables as required	Invoices, audited financial statements and other deliverables as required	$15,000.00	$0.00	$0.00	$15,000.00	0%	10/1/23	10/1/24	
3	Subcontractor management	Hire and manage subcontractors	Sub contractor agreements	$15,000.00	$0.00	$0.00	$15,000.00	0%	10/1/23	10/1/24	
B	**Category (b): Land Purchase/Easement**										
1	n/a										
C	**Category (c): Planning/Design/Engineering/Environmental Documentation**										
1	Survey	Assessing and recording details about the Shelterwood center, to help plan construction efforts.	Completed Survey drawings and documents	$20,000.00	$0.00	$0.00	$20,000.00	0%	10/1/23	11/30/23	
2	Civil Design & Permitting	5-10% of construction costs - grading moratorium from 1 march to 15 april for stormwater purposes	100% Civil Design Documents and Sonoma County PRMD Permit in Hand	$50,000.00	$0.00	$0.00	$50,000.00	0%	11/30/23	5/1/24	
3	Permit Fees	Sonoma County PRMD Permitting		$20,000.00	$0.00	$0.00	$20,000.00	0%	4/24/24	5/1/24	
D	**Category (d): Construction/Implementation - scaleable by task**										
0.1	**DOMESTIC:** 300' well design, permitting, and installation	Construction of well on site for access to domestic water - to be completed in November 2022	Completed functioning well	$0.00	$420,000.00	$0.00	$420,000.00	100%	1/1/21	11/1/22	
0.2	**GRADING:** Road access improvements	Improved roads to allow heavy equipment to pass	Usable roads	$0.00	$17,000.00	$0.00	$17,000.00	100%	10/15/21	10/18/21	
0.2	**GRADING**: Mobilization	Site mobilizaton and set up for construction efforts.	Site ready for construction and infrastructure installation	$60,000.00	$0.00	$0.00	$60,000.00	0%	6/1/24	10/1/24	
0.3	**GRADING**: Potholing	Potholing for verification of existing utility infrastructure	clearer understanding of underground utilities and existing infrastructure on site	$9,000.00	$0.00	$0.00	$9,000.00	0%	6/1/24	10/1/24	
TASK 1: Improve storage capacity to 20,000 gallons of domestic storage and 50,000 gallons of wildfire fighting storage											
1.1	**GRADING**: Tank Site Clearing and grubbing	Site preparation and clearing of vegetated matter to install storage tanks.	Preparing site for grading for domestic and fire storage tanks	$18,000.00	$0.00	$0.00	$18,000.00	0%	6/1/24	10/1/24	
1.2	**GRADING**: Tank Site Grading	Earthwork and base material for storage tank installation	clean and levelled ground to install domestic water and fire water storage tanks	$25,000.00	$0.00	$0.00	$25,000.00	0%	6/1/24	10/1/24	**$165,500.00**
1.3	**DOMESTIC**: Domestic Water Tank	Dedicated domestic water storage tank	A storage tank to hold 20,000 gallons specifically for domestic water storage	$35,000.00	$0.00	$0.00	$35,000.00	0%	6/1/24	10/1/24	
1.4	**FIRE:** Fire Water Tank	Dedicated fire water storage tank	A storage tank to hold 50,000 gallons specifically for fire water storage	$87,500.00	$0.00	$0.00	$87,500.00	0%	6/1/24	10/1/24	
TASK 2: Connect well system installed in 2022 to the storage tanks, and provide a below ground distribution system connecting the tanks to the campus											
2.1	**GRADING**: Crush Quarry Rock	Preparation of trench backfill material	Backfill material ready for trench for underground infrastructure	$30,000.00	$0.00	$0.00	$30,000.00	0%	6/1/24	10/1/24	
2.2	**GRADING**: Rough Grading for pipe alignment	Grading to prep existing surface for trench excavation	Prepped surface ready for trenching	$1,875.00	$0.00	$0.00	$1,875.00	0%	6/1/24	10/1/24	
2.3	**DOMESTIC:** 2" Well Manifold / Connection	Domestic water infrastructure component, designed to combine, distribute, control, and monitor flow.	Installed well manifolds and connections	$16,500.00	$0.00	$0.00	$16,500.00	0%	6/1/24	10/1/24	**$82,775.00**
2.4	**DOMESTIC:** 2" Well Valving	Installing valves at well head	Installed well valves	$9,000.00	$0.00	$0.00	$9,000.00	0%	6/1/24	10/1/24	
2.5	**DOMESTIC**: 2" Well to Tank Fill Assembly	Installing on/off switch valves from well to storage tanks.	Installed Well to Tank Valves	$5,900.00	$0.00	$0.00	$5,900.00	0%	6/1/24	10/1/24	

2.6	**GRADING**: Aggregate Base - Trench Backfill	Putting soil back into the trenches for underground infrastructure after installation is complete, to prevent the trench from settling, shifting and eroding.	filled up trenches after domestic and fire water infrastructure completion	$19,500.00	$0.00	$0.00	$19,500.00	0%	6/1/24	10/1/24	
TASK 3: Renovate the entire piping network below the campus to replace old infrastructure and leaks, and install water meters.											
3.1	**GRADING**: Crush Quarry Rock	Preparation of trench backfill material	Backfill material ready for trench for underground infrastructure	$30,000.00	$0.00	$0.00	$30,000.00	0%	6/1/24	10/1/24	
3.2	**GRADING**: Rough Grading for pipe alignment	Grading to prep existing surface for trench excavation	Prepped surface ready for trenching	$1,875.00	$0.00	$0.00	$1,875.00	0%	6/1/24	10/1/24	
3.3	**DOMESTIC**: 3" Domestic Mainline from Tank	New domestic line to site core (to be extended in future)	Installed 3,000 linear feet of 3" piping between wells and tanks	$136,500.00	$0.00	$0.00	$136,500.00	0%	6/1/24	10/1/24	
3.4	**FIRE:** 8" Fire Mainline	New fire line to project core (to be extended in future)	Install 1,300 linear feet of 8" fire main line connecting tanks to main campus	$156,000.00	$0.00	$0.00	$156,000.00	0%	6/1/24	10/1/24	**$509,375.00**
3.5	**DOMESTIC:** Domestic Valving	Installing domestic valves to allow for system control	Valves installed across all domestic water pipes	$8,000.00	$0.00	$0.00	$8,000.00	0%	6/1/24	10/1/24	
3.6	**DOMESTIC**: 2" Mainline Well to Tank	New fill line from well to domestic/fire tanks	Installed fill line from well to storage tanks	$157,500.00	$0.00	$0.00	$157,500.00	0%	6/1/24	10/1/24	
3.7	**GRADING**: Aggregate Base - Trench Backfill	Putting soil back into the trenches for underground infrastructure after installation is complete, to prevent the trench from settling, shifting and eroding.	filled up trenches after domestic and fire water infrastructure completion	$19,500.00	$0.00	$0.00	$19,500.00	0%	6/1/24	10/1/24	
TASK 4: Install 2 fire protection hydrants in strategic areas across the community center											
4.1	**FIRE:** 2 6" Fire Hydrants	New hydrants at site core (to be extended in future)	2 installed and functioning fire hydrants across the Shelterwood center	$29,000.00	$0.00	$0.00	$29,000.00	0%	6/1/24	10/1/24	**$75,000.00**
4.2	**FIRE:** 8" PIV and Connections	Installing post indicator valves (PIVs) for automatic sprinkler systems	Installed PIV connections	$46,000.00	$0.00	$0.00	$46,000.00	0%	6/1/24	10/1/24	
	Total North Coast Resource Partnership IRWM Grant Request			**$1,021,650.00**	**$437,000.00**	**$0.00**	**$1,458,650.00**				
	Percentage of Total Project Cost			**70%**	**30%**	**0%**	**100%**				

BUDGET DETAIL

Row (a) Direct Project Administration Costs					
Project Management Type	**Personnel by Discipline**	**Number of Hours**	**Hourly Wage**	**% of Cost ***	**Total Admin Cost**
Labor - grant management, subcontractor management	Nikola Alexandre, ED, Shelterwood Collective	200	$75.00		$15,000.00
Labor - accounting, invoices, reporting	Sutro Li, accounting firm contracted with Shelterwood Collective	100	$150.00		$15,000.00
Total		**300**	**$225.00**	**0**	**$30,000.00**
*** What is the percentage based on (including total amounts)?**		**n/a**			
*** How was the percentage of cost determined?**		**n/a**			

Row (b) Land Purchase/Easement
na/ land on which project occurs is owned in full

Row (c) Planning/Design/Engineering & Environmental Documentation					
Personnel (Discipline)	**Major Task Name**	**Number of Hours**	**Hourly Wage**	**Total Cost**	**Reimbursables**
Civil Principal	QA/QC	24	$250.00	$6,000.00	$300.00
Civil PM	Project Management	48	$210.00	$10,080.00	$300.00
Civil Designer	Civil Engineer Design--water systems	120	$175.00	$21,000.00	$300.00
Civil Drafter	Design Support/Drafting	80	$155.00	$12,400.00	$300.00
Total		**272**	**$790.00**	**$49,480.00**	**$1,200.00**

Row (d) Construction/Implementation				
Personnel (Discipline)	**Work Task and Sub-Task (from**	**Number of**	**Hourly**	**Total Cost**
Site Superintendent	Manages construction team			Costs included in
Operator	Operates construction machinery			Costs included in
Operator	Operates construction machinery			Costs included in
Laborer	Misc on-site labor			Costs included in
Laborer	Misc on-site labor			Costs included in
Materials and Equipment	**Work Task and Sub-Task (from**	**Number of**	**Unit Cost**	
Note: because of how we received the quote form our contractor, labor and equipment costs are together in each cost line item in the Project Task tab				
Total				**$1,338,650**

NORTH COAST RESOURCE PARTNERSHIP

ORGANIZATION INFORMATION

1. **Project Name:**
   Shelterwood Collective Water Infrastructure Renovations

2. **Applicant Organization Name:**
   Shelterwood Collective

3. **Contact Name/Title**
   Name: Nikola Alexandre
   Title: Stewardship Lead
   Email: niko@shelterwoodcollective.org
   Phone Number (include area code): 203-915-5613

4. **Organization Address (City, County, State, Zip Code):**
   23500 King Ridge Rd, Cazadero, CA 95421

5. **Organization Type**
   ☐ Public agency
   ☒ 501(c)(3) Non-profit organization
   ☐ Public utility
   ☐ Federally recognized Indian Tribe
   ☐ California State Indian Tribe listed on the Native American Heritage Commission's California Tribal Consultation List
   ☐ Mutual water company
   ☐ Other:

6. **Authorized Representative** (if different from the contact's name)
   Name:
   Title:
   Email:
   Phone Number (include area code):

7. **List all projects the organization is submitting to the NCRP for this Solicitation in order of priority.**
   This is the only application / project Shelterwood is submitting to NCRP.

8. **Organization Information Notes:**
   Shelterwood Collective is a Black and Indigenous-led conservation 501(c)3 non-profit working to build climate resilience and reconnect marginalized groups to the forests of Northern California. Shelterwood's primary focus areas include land and food stewardship, active forest restoration and wildfire mitigation, and community and cultural programs. The organization

stewards a 900-acre forest located in Cazadero, CA, which includes a 10-acre former summer camp turned retreat center. In the coming years, Shelterwood will redevelop the existing infrastructure into a multi-purpose community center featuring best-in-class sustainability and fire resilience infrastructure.

ELIGIBILITY

1. North Coast Resource Partnership Goals and Objectives

GOAL 1: INTRAREGIONAL COOPERATION & ADAPTIVE MANAGEMENT

- ☒ Objective 1 - Respect local autonomy and local knowledge in Plan and project development and implementation
- ☒ Objective 2 - Provide an ongoing framework for inclusive, efficient intraregional cooperation and effective, accountable NCRP project implementation
- ☐ Objective 3 - Integrate Traditional Ecological Knowledge in collaboration with Tribes to incorporate these practices into North Coast Projects and Plans

GOAL 2: ECONOMIC VITALITY

- ☒ Objective 4 - Ensure that economically disadvantaged communities are supported and that project implementation enhances the economic vitality of disadvantaged communities by improving built and natural infrastructure systems and promoting adequate housing
- ☒ Objective 5 - Conserve and improve the economic benefits of North Coast Region working landscapes and natural areas

GOAL 3: ECOSYSTEM CONSERVATION AND ENHANCEMENT

- ☒ Objective 6 – Conserve, enhance, and restore watersheds and aquatic ecosystems, including functions, habitats, and elements that support biological diversity
- ☒ Objective 7 - Enhance salmonid populations by conserving, enhancing, and restoring required habitats and watershed processes

GOAL 4: BENEFICIAL USES OF WATER

- ☒ Objective 8 - Ensure water supply reliability and quality for municipal, domestic, agricultural, Tribal, and recreational uses while minimizing impacts to sensitive resources
- ☒ Objective 9 - Improve drinking water quality and water related infrastructure to protect public health, with a focus on economically disadvantaged communities
- ☐ Objective 10 - Protect groundwater resources from over-drafting and contamination

GOAL 5: CLIMATE ADAPTATION & ENERGY INDEPENDENCE

☒ Objective 11 - Address climate change effects, impacts, vulnerabilities, including droughts, fires, floods, and sea level rise. Develop adaptation strategies for local and regional sectors to improve air and water quality and promote public health
☐ Objective 12 - Promote local energy independence, water/ energy use efficiency, GHG emission reduction, and jobs creation

GOAL 6: PUBLIC SAFETY

☐ Objective 13 - Improve flood protection, forest and community resiliency to reduce the public safety impacts associated with floods and wildfires

2. Does the project have a minimum 15-year useful life?
   a) ☒ yes ☐ no
   b) If yes, will the organization be able to provide compliance documentation outlined in the instructions should the project be selected as a Priority Project?
   ☒ yes ☐ no

3. Other Eligibility Requirements and Documentation

CALIFORNIA GROUNDWATER MANAGEMENT SUSTAINABILITY COMPLIANCE

a) Does the project directly affect groundwater levels or quality?
   ☒ yes ☐ no
b) If yes, will the organization be able to provide compliance documentation outlined in the instructions including a Groundwater Sustainability Agency letter of support, to include in the NCRP Regional Project Application should the project be selected as a Priority Project?
   ☒ yes ☐ no

CASGEM COMPLIANCE

a) Does the project overlie a medium or high groundwater basin as prioritized by DWR?
   ☐ yes ☒ no
b) If yes, list the groundwater basin and CASGEM priority:
c) If yes, please specify the name of the organization that is the designated monitoring entity:
d) If yes, please specify whether the local Groundwater Sustainability Agency has endorsed the project:

URBAN WATER MANAGEMENT PLAN

a) Is the organization required to file an Urban Water Management Plan (UWMP)?
   ☐ yes ☒ no
b) If yes, has DWR verified the current 2020 UWMP?
   ☐ yes ☐ no

c) If the 2020 UWMP has not been verified by DWR, explain and provide anticipated date for verification:

d) Has DWR verified a water loss audit report in accordance with SB 555 as submitted by the urban water supplier?
☐ yes ☐ no

e) Does the urban water supplier meet the water meter requirements of CWC 525?
☐ yes ☐ no

f) Does the urban water supplier meet the State Water Resources Control Board's Water Conservation and Production Reporting requirement?
☐ yes ☐ no

g) If yes, will the organization be able to provide compliance documentation outlined in the instructions, to include in the NCRP Regional Project Application should the project be selected as a Priority Project?
☐ yes ☐ no

AGRICULTURAL WATER MANAGEMENT PLAN

a) Is the organization – or any organization that will receive funding from the project – required to file an Agricultural Water Management Plan (AWMP)?
☐ yes ☒ no

b) If yes, will the organization be able to provide compliance documentation outlined in the instructions, to include in the NCRP Regional Project Application should the project be selected as a Priority Project?
☐ yes ☐ no

SURFACE WATER DIVERSION REPORTS

a) Is the organization required to file State Water Resources Control Board (SWRCB) annual surface water diversion reports per the requirements in CWC Part 5.1?
☐ yes ☒ no

b) If yes, will the organization be able to provide compliance documentation outlined in the instructions, to include in the NCRP Regional Project Application should the project be selected as a Priority Project?
☐ yes ☐ no

STORM WATER MANAGEMENT PLAN

a) Is the project a stormwater and/or dry weather runoff capture project?
☐ yes ☒ no

b) If yes, does the project benefit a Disadvantaged Community with a population of 20,000 or less?
☐ yes ☐ no

c) If this is a stormwater/dry weather runoff project but does not benefit a small DAC population, please provide documentation that the project has been included in a Stormwater Resource Plan that has been incorporated into the NCRP IRWM Plan:

d) If no, will the organization be able to provide documentation that the project is included in a Stormwater Resource Plan that has been incorporated into the NCRP IRWM Plan, should the project be selected as a Priority Project?

☒ yes ☐ no

4. Eligible Project Type under 2022 IRWM Grant Solicitation

- ☐ Water reuse and recycling for non-potable reuse and direct and indirect potable reuse
- ☒ Water-use efficiency and water conservation
- ☒ Local and regional surface and underground water storage, including groundwater aquifer cleanup or recharge projects
- ☒ Regional water conveyance facilities that improve integration of separate water systems
- ☒ Watershed protection, restoration, and management projects, including projects that reduce the risk of wildfire or improve water supply reliability
- ☐ Stormwater resource management projects to reduce, manage, treat, or capture rainwater or stormwater
- ☐ Stormwater resource management projects that provide multiple benefits such as water quality, water supply, flood control, or open space
- ☐ Decision support tools that evaluate the benefits and costs of multi-benefit stormwater projects
- ☐ Stormwater resource management projects to implement a stormwater resource plan
- ☐ Conjunctive use of surface and groundwater storage facilities
- ☐ Decision support tools to model regional water management strategies to account for climate change and other changes in regional demand and supply projections
- ☒ Improvement of water quality, including drinking water treatment and distribution, groundwater and aquifer remediation, matching water quality to water use, wastewater treatment, water pollution prevention, and management of urban and agricultural runoff
- ☐ Regional projects or programs as defined by the IRWM Planning Act (Water Code §10537)
- ☐ Other:

5. Describe how the project provides a benefit that meets at least one of the Statewide Priorities as defined in DWR's Final 2022 Guidelines (see page 7) and Tribal priorities as defined by the NCRP?

- Utilize natural infrastructure - Through its drive to restore local environments, and promote resiliency and environmental justice through outreach.
- Encourage regional approaches among water users - Through improving land and water health, providing effective water management solutions to the Center.
- Drought Preparedness - Through sustainable water storage to address long-term drought preparedness.

Climate Resilience - Leverage the creation of a safe and reliable drinking water supply to host.

NORTH COAST RESOURCE PARTNERSHIP

CERTIFICATION OF AUTHORITY

By signing below, the Authorized Representative executing the certificate on behalf of the Project Sponsor affirmatively represents that s/he has the requisite legal authority to do so on behalf of the Project Sponsor. The Authorized Representative executing this proposal on behalf of the project sponsor understands that the NCRP is relying on this representation in receiving and considering this proposal. The person signing below hereby acknowledges that s/he has read the entire NCRP 2022 Project Review and Selection Process Guidelines and the NCRP 2022 Proposition 1 IRWM Round 2 Project Application & Instructions documents and has complied with all requirements listed therein.

Official Authorized to Sign for Proposal

Signature

Nikola S. Alexandre

Date
11/04/22

NORTH COAST RESOURCE PARTNERSHIP

2022 Proposition 1 IRWM Project Application

SHELTERWOOD COLLECTIVE GRANT APPLICATION

TECHNICAL & REFERENCE SUPPORTING DOCUMENT

NORTH COAST RESOURCE PARTNERSHIP

NORTH COAST RESOURCE PARTNERSHIP

2022 Proposition 1 IRWM Project Application

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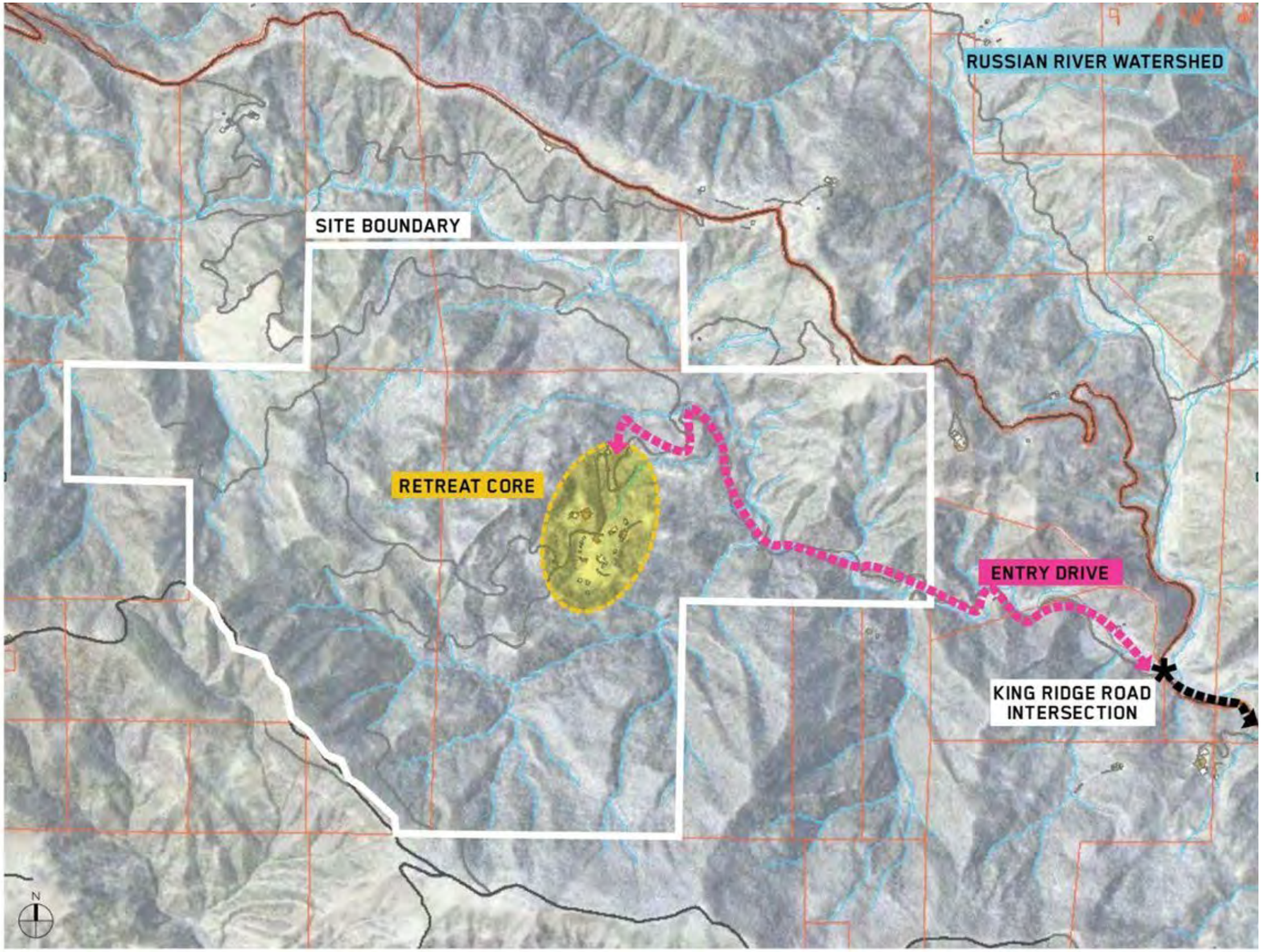
1. Shelterwood Facilities Renovation Vision Plan
2. Civil Infrastructure Conceptual Drawings
3. Civil Infrastructure Technical Drawings
4. Wildfire Hazard Projections Map
5. Well Permit
6. Shelterwood Hydrological Report
7. Letter of Support from Sherwood Design Engineers
8. Letter of Support from CalFire Battalion Chief
9. Shelterwood FY21 Resourcer Report
10. Shelterwood NCRP IRWM Project Benefits Table

1

Shelterwood Facilities Renovation Vision Plan

Site Context

Shelterwood lies within unincorporated Sonoma County, California. The land consists of four parcels within the Russian River Watershed. The Retreat is accessed via King Ridge Road, via an entry easement across adjacent parcels. The retreat core is situated on a level bench at the heart of the site, perched above several small creeks. A network of former logging roads and trails weave the four parcels together through varying topography.



Community Engagement

Collective Dreaming towards a new future

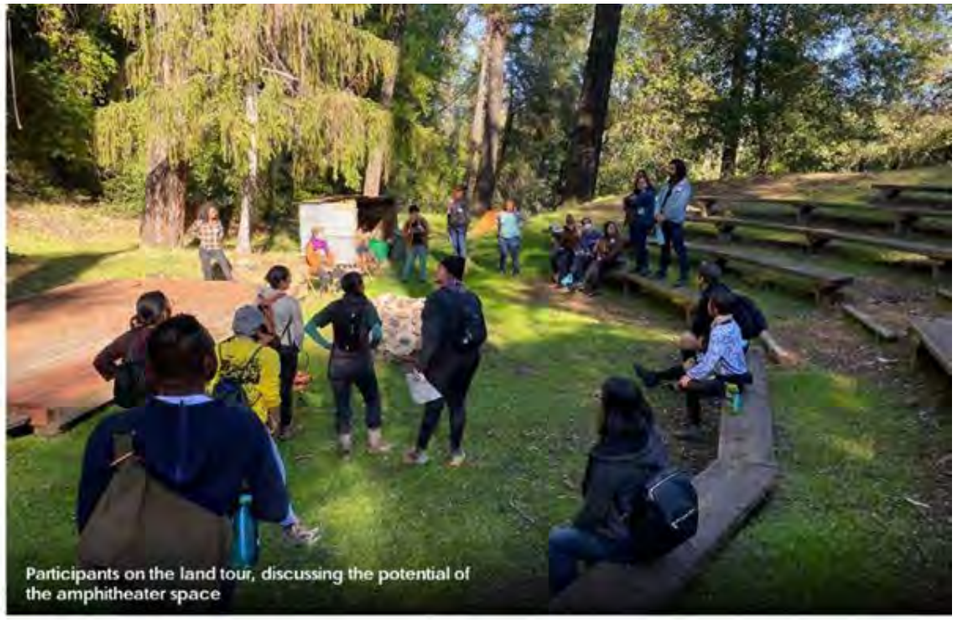
Text drawn from Freedom Verses report.

In December 2021, Shelterwood hosted four in-person community visioning sessions on the land, inviting members of our core communities to share ideas and dreams about how the area could be used as a place for respite and recreation. The visioning sessions were designed to unearth how we might redevelop the former summer camp and create a forest-based community center that advances our liberation and joy.

The in-person sessions were tailored for four distinct groups: (1) local folks from Cazadero, Guerneville, Sebastopol, Santa Rosa, Occidental, and neighboring communities; (2) BIPOC individuals, the majority of whom were also queer and/or trans; (3) representatives from social justice organizations and partner groups; and (4) artists, especially those working around climate resilience.

Participants were given an overview of the recent history of the land and toured the built structures of the former Christian youth camp. Activities were designed to spark individual and collective dreaming, generate timelines for developing the land, and give people personal time to reflect in connection with the land. Participants offered their visions for upgrading our physical structures, repurposing outdoor spaces, and organizing community events (such as personal, artist, and organizational retreats, performances, and healing gatherings). They also shared their broader goals related to liberation and land justice, including learning from Shelterwood to develop additional land projects in other locations and returning land to Indigenous stewardship.

Notes and feedback from the visioning sessions and a group survey helped form the basis of Shelterwood's founding approach and inform the underlying design principles shown in this vision plan. The team will continue to reference the information collected from these meaningful gatherings as design moves forward.



Participants on the land tour, discussing the potential of the amphitheater space

Participants engaging with a timeline visioning exercise

Proposed Facilities

Based on the community consultations, workshops with the Shelterwood leadership, research with key partners, and the preliminary building conditions assessment, the following areas summary represents the desired full build out for the land. Renovations of specific existing buildings are paired with phased new construction to create a campus that can fulfill Shelterwood's long-term goals.

Residential areas include a new Lodge that houses eighteen single rooms and nine double rooms, two communal "living room" spaces, shared bath facilities, and a kitchen. Six individual family cabins have their own living, bath, and cooking facilities and sleep between four and six people each. The Tiny Home cluster consists of five to six small homes for solo artists or foresters in residence. Staff residences include four new houses and three of the existing camp residences, each ranging from one to three bedrooms apiece.

The renovated Main Hall will house dining facilities with the capacity to serve up to 120 people, and the ability to host events, workshops, or trainings in the main gathering space. The Restorative Hub includes a combination bath house / pool house that includes changing spaces, restrooms, and potentially amenities like saunas or hot tubs. The renovated barn will house artist studio and workshop space, and the amphitheater renovation will include a drag closet and the potential for an updated stage and seating.

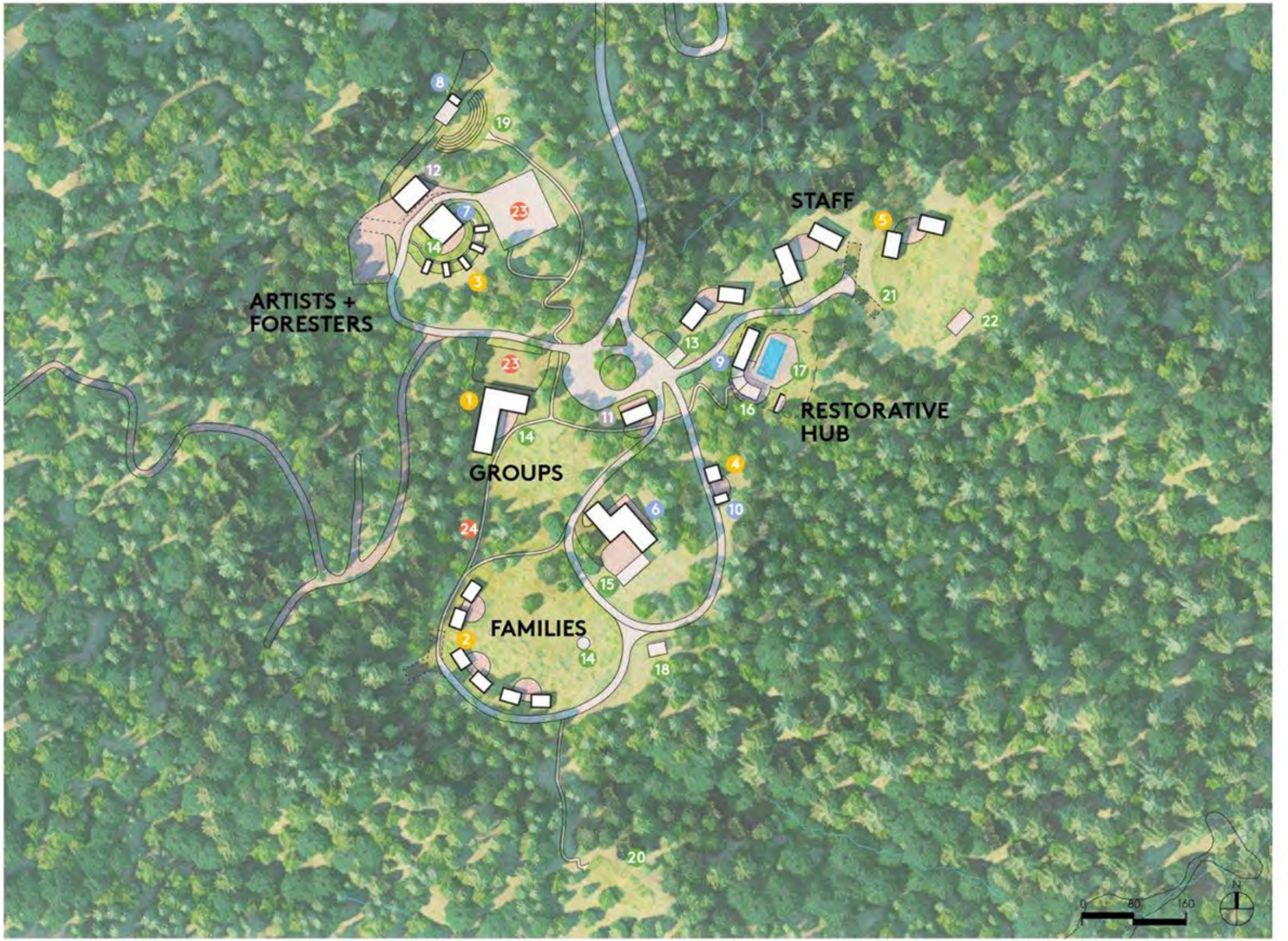
Outdoor amenities include a variety of gathering areas, shelters, fire circles, and gardens to fit the needs of individual retreat visitors, groups, and staff.

Facility Type	*GSF*
Residential	
Lodge (18 single & 9 double guest rooms)	9500
Family Cabins (6)	3600
Artist/Forester in Residence Tiny Homes (5-6)	1800
Staff Residences (4 new)	4400
Staff Residences (3 existing)	3550
Indoor Amenities & Gathering	
Main Hall (existing, renovated)	4,000
Restorative Hub bath/pool house	1,500
Library	400
Shared Studio Barn (existing, renovated)	2300
Drag Closet (for amphitheater)	150
(2 "living room" gathering areas in Lodge)	
Operations	
Welcome Building & Office	1,100
Workshop / Storage	2,000
Total New Building Area	24,450
Total Renovated Building Area	3,850

Facility Type	*GSF*
Outdoor Amenities & Gathering	
Main Hall Outdoor gathering	4,000
Pool Structures - Gazebo & Outdoor Shower	1000
Pool (existing, renovated)	2000
Creekside Overlook / Ceremony Space	2500
Amphitheater	5000
Meditation Platforms (2+)	500
Welcome shelter	560
Meadow shelter	560
Fire plazas (4)	600
Staff garden	2000
Staff outdoor kitchen & gathering	300
Total New Outdoor Structures / Areas	5520
Total Renovated Outdoor Structures / Areas	3,500

Key:
light grey shading = existing building, renovated
no shading = new building

Site Plan



BUILDINGS / STRUCTURES

Residential

1. LODGE
2. FAMILY CABIN CLUSTERS
3. TINY HOME CLUSTER
4. RETREAT MANAGER RESIDENCE
5. STAFF RESIDENCE CLUSTERS

Indoor Amenities & Gathering

6. MAIN HALL
7. SHARED STUDIO BARN
8. DRAG CLOSET
9. RESTORATIVE HUB / POOLHOUSE
10. LIBRARY

Operations

11. WELCOME BUILDING & OFFICE
12. WORKSHOP / STORAGE

SITE

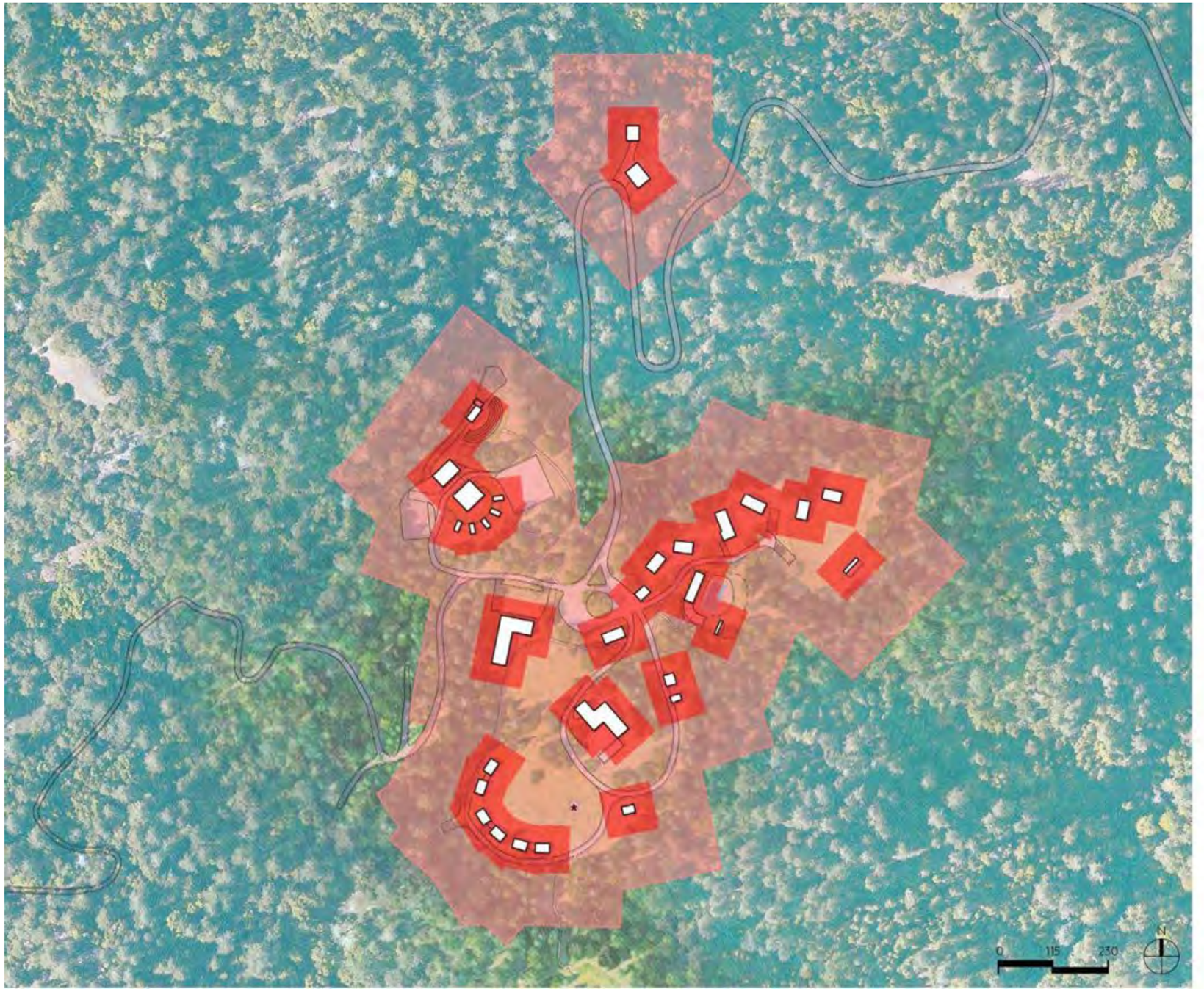
Outdoor Amenties & Gathering

13. WELCOME SHELTER
14. FIRE PLAZA
15. MAIN HALL OUTDOOR GATHERING
16. POOL GAZEBO
17. POOL
18. MEADOW SHELTER
19. AMPHITHEATER
20. CREEKSIDE OVERLOOK
21. STAFF GARDEN
22. STAFF OUTDOOR KITCHEN & GATHERING

PARKING & CIRCULATION

23. GUEST PARKING
24. LOOP TRAIL

Defensible Space



Central to the Shelterwood mission is to return its forest environment to balance, for the health and well-being of human and non-human kin. Shelterwood's forest is grossly overstocked and suffers from years of neglect, containing five times as many trees as would be found in this habitat range pre-colonization. 150 years of fire suppression in this ecosystem, which would traditionally have experienced low-intensity burns every 10-15 years, have resulted in an extensive accumulation of flammable, woody debris and ladder fuels.

Currently, the retreat center infrastructure and primary-use structures located in the middle of the property have no defensible space, and most buildings are overtopped by Douglas Fir and California Bays. Extensive woody debris surrounds the buildings and presents immediate wildfire risk to the infrastructure and visitors. Shelterwood has secured multiple grants to restore the forest, including a multimillion dollar grant from CALFIRE, to restore the ecological health of the forest and help limit the spread of wildfire to surrounding populated areas.

The defensible space around Shelterwood structures will be 33% larger than the standards set by the State of CA; vegetation within 40 feet of buildings will be completely managed "lean, clean, and green" while within a 140' buffer, there will be elimination of all ladder fuels and minimum 10 feet of spacing created between tree canopies; where slopes exceed 20%, this spacing will increase to 20'. Defensible space will be regularly maintained through controlled burns and mechanical thinning. Retreat guests will have the opportunity to learn about the fire mitigation and restorative practices on the land, which we hope will spread these critical climate solutions beyond our forest edge.

DEFENSIBLE SPACE

- PRIMARY USE STRUCTURE
- 40' BUFFER (224,000 SF)
- 150' BUFFER (1,100,000 SF)
- * MEADOW FIRE CIRCLE

Program Breakdown

BUILDINGS / STRUCTURES

Residential

1. LODGE
2. FAMILY CABIN CLUSTERS
3. TINY HOME CLUSTER
4. RETREAT MANAGER RESIDENCE
5. STAFF RESIDENCE CLUSTERS

Indoor Amenities & Gathering

6. MAIN HALL
7. SHARED STUDIO BARN
8. DRAG CLOSET
9. RESTORATIVE HUB / POOLHOUSE
10. LIBRARY

Operations

11. WELCOME BUILDING & OFFICE
12. WORKSHOP / STORAGE

SITE

Outdoor Amenties & Gathering

13. WELCOME SHELTER
14. FIRE PLAZA
15. MAIN HALL OUTDOOR GATHERING
16. POOL GAZEBO
17. POOL
18. MEADOW SHELTER
19. AMPHITHEATER
20. CREEKSIDE OVERLOOK
21. STAFF GARDEN
22. STAFF OUTDOOR KITCHEN & GATHERING

PARKING & CIRCULATION

23. GUEST PARKING
24. LOOP TRAIL

Sustainability Principles

WATER & ENERGY

AIM FOR ON-SITE ENERGY PRODUCTION AND NET-ZERO-READY DESIGN. CONSERVE AND PROTECT ALL WATER RESOURCES BY OPTIMIZING BUILDING, INFRASTRUCTURE, AND SITE SYSTEMS.

Shelterwood structures should be designed to minimize impacts to the site while maximizing passive solar, daylighting, and ventilation strategies. Building orientation and roof pitches should optimize solar access and allow opportunities to collect rainwater for onsite use. Operable windows should allow passive cross ventilation, and openings should be placed in ways to ensure a daylit space. Renewable energy infrastructure should be considered, and buildings should analyze the feasibility of solar panel integration or PV-ready design. Water conservation should be prioritized, and the collection of rainwater for emergency or site uses should be considered, as should composting toilets and water-efficient fixtures. All sustainable building elements should be considered an educational or interpretive opportunity and should be celebrated through the design. Where possible, holistic campus-level systems should be considered for energy generation, water use, and waste.

ECOSYSTEMS

CREATE AND STEWARD BIODIVERSE, INTERCONNECTED HABITATS WITHIN AND BEYOND PROJECT BOUNDARIES.

Shelterwood's development is driven by a call to be in deep relationship with the land. Primary landscape design is driven by stewardship of the natural communities on site, promoting low-maintenance, fire-resilient, and biodiverse areas to engage with the land. Active forest management, restoration, and land tending will prove a critical pillar in Shelterwood's programming. Campus landscape design should reinforce this ethic, creating opportunities to engage with natural communities and strengthening the existing ecological value of the site. Forest management practices and ecosystem attributes should be considered opportunities for interpretive moments to connect guests to a deeper ecological understanding of the site.

RESILIENCE

PROACTIVELY PLAN AND DESIGN FOR THE POTENTIAL IMPACTS OF NATURAL DISASTERS & ADDRESS THE LONG TERM VULNERABILITIES ASSOCIATED WITH A CHANGING CLIMATE.

Rising temperatures, water scarcity, and increasing wildfire risk should be accounted for in land management and site development. Fire resilient design principles should remain paramount in further design phases. Defensible space buffers should surround all site structures and form a core part of the campus landscape strategy, and structures should use flame resistant materials like metal roofs.

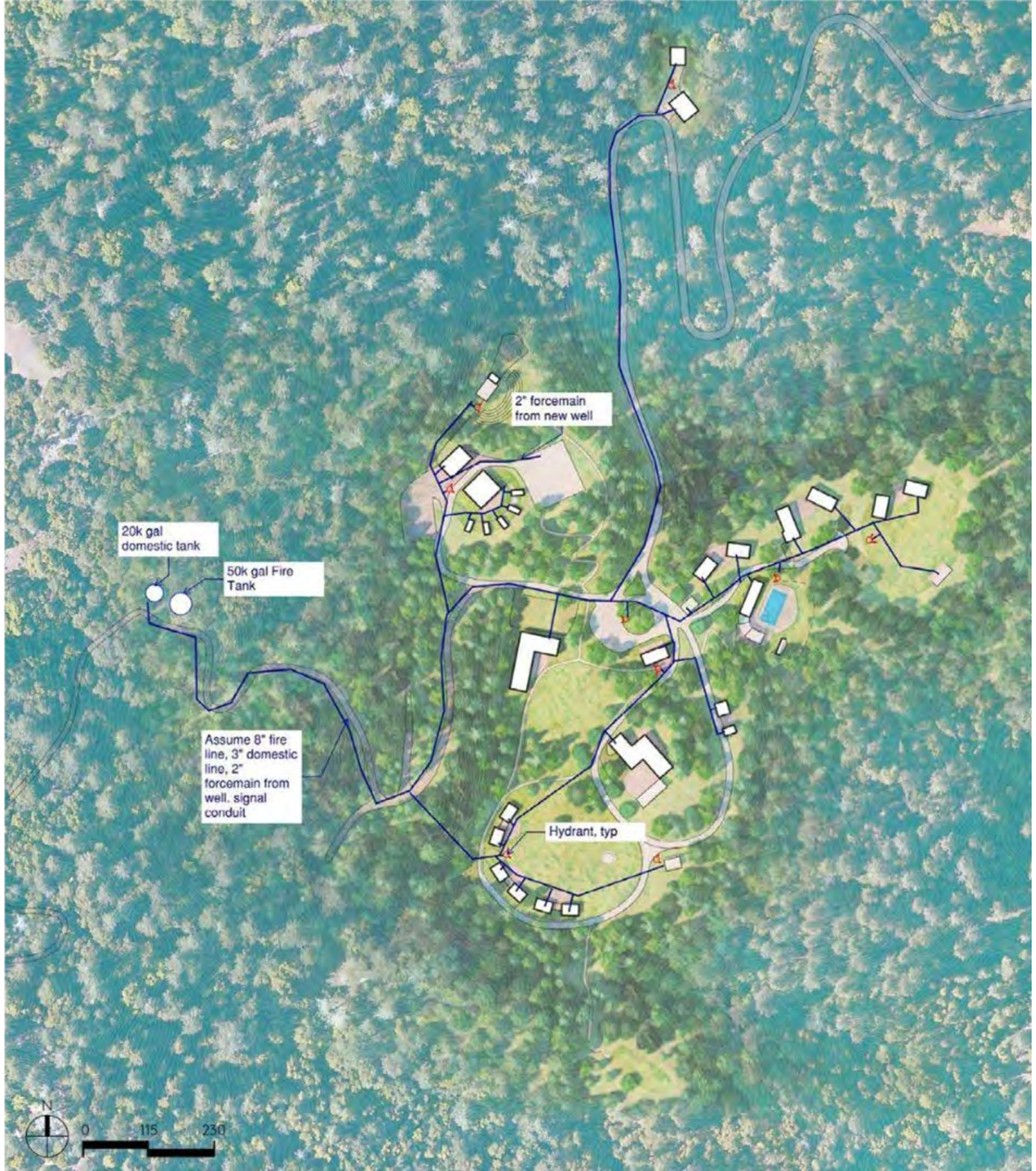
Site structures should also incorporate passive design and shading strategies that can increase occupant comfort during high summer temperatures, and should be adequately insulated in order to maintain acceptable temperatures in extreme winter temperatures. Water conservation and reuse should be a continued priority in the face of increasing water scarcity.

INCLUSION

PLAN AND DESIGN FOR THE PHYSICAL, MENTAL, AND SOCIAL WELL BEING OF ALL COMMUNITY MEMBERS.

Community members of all ages and abilities should feel welcomed and empowered to engage with nature at Shelterwood. Wide trail systems at easy grades, accessible residential options, intuitive site signage and wayfinding, and an ADA stabilized trail option will ensure all ages and abilities can enjoy their experience on site. Activity and gathering areas should include a range of accessible seating options, and fire access routes can double as vehicular access depending on an individual's needs. Spaces should remain flexible and adaptable for a variety of groups and uses, and intentional management and programming should support group experiences on site.

Water Infrastructure



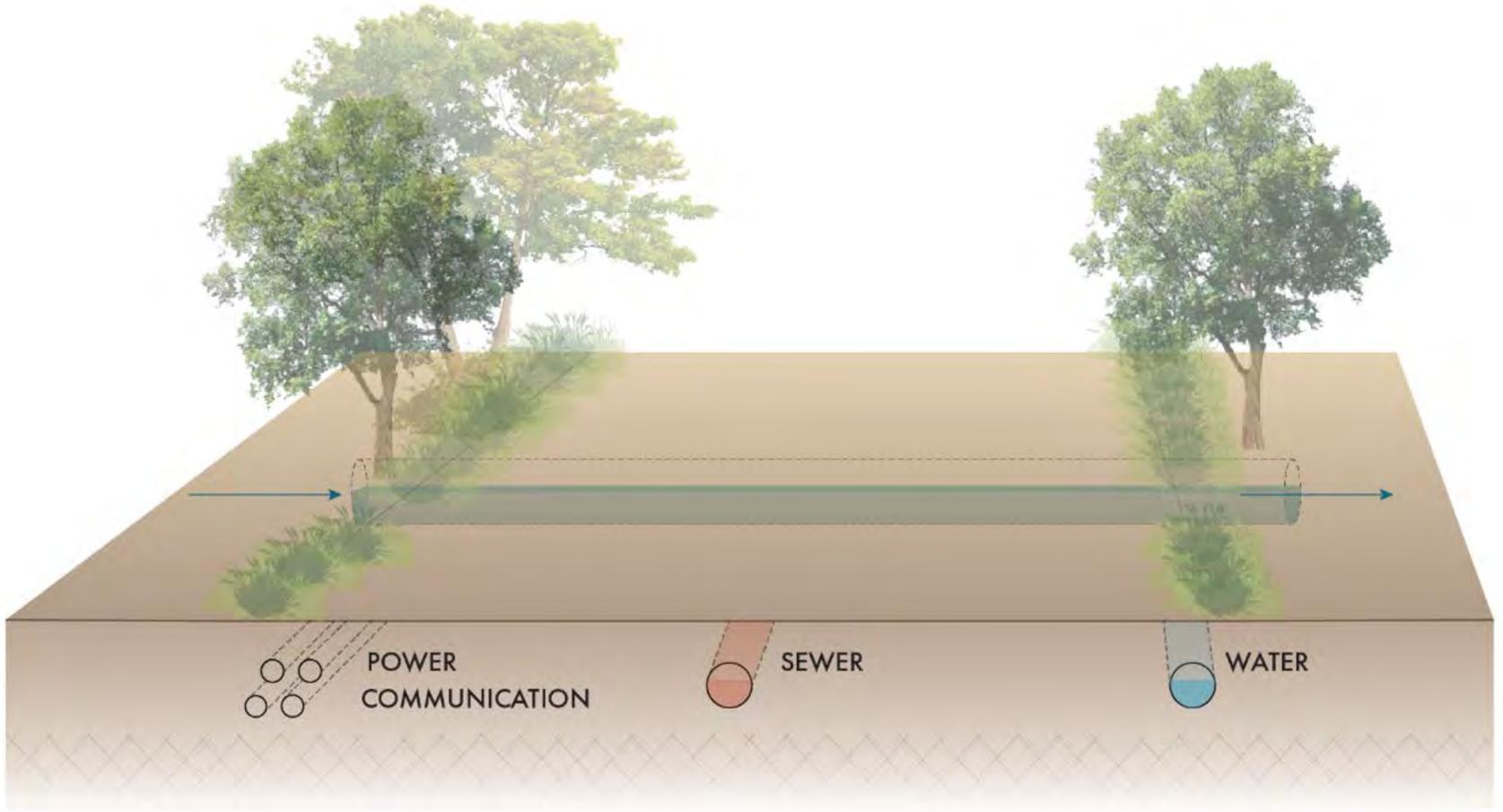
2

Civil Infrastructure Conceptual Drawings

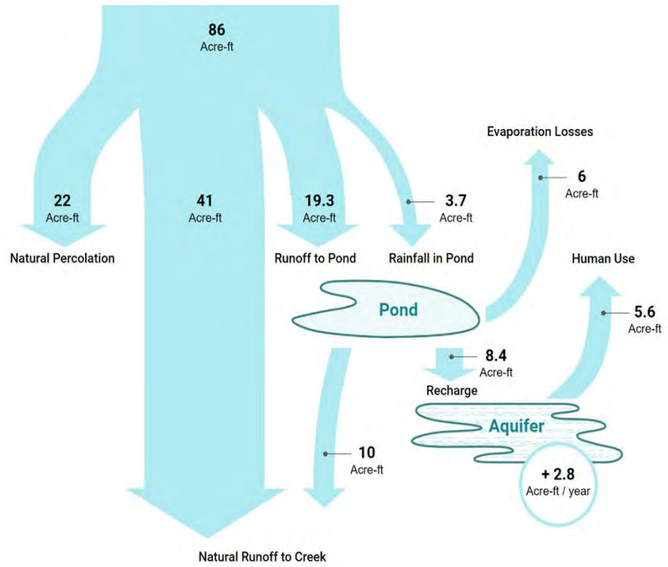
UTILITIES

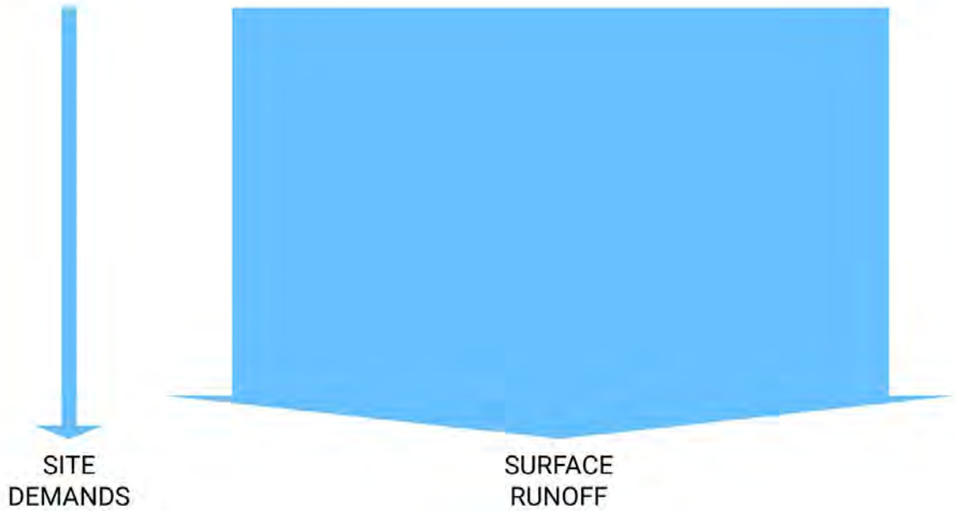
- Utility distribution involves routing water in the ground for properly buried domestic supply and fire protection

- Currently there is routing of dry utilities for power (PG&E) - currently no distributed internet at the moment but important to be prepared for integration of communication utilities in the future



UTILITIES - NON-POTABLE





ANNUAL RAINFALL

85 in

Cazadero receives an average of **85 in (220 cm) of rain a year**, and is reputed to be the second-wettest town in California, after Gasquet. According to the United States Census Bureau, the CDP covers an area of 7.1 square miles (18.4 km^2), 99.98% of it land and 0.02% of it water.

MEADOW BASED RESIDENTS ENCLAVE

CONSIDER CAR / ROAD ACCESS

PONDSIDE FAMILY CABINS

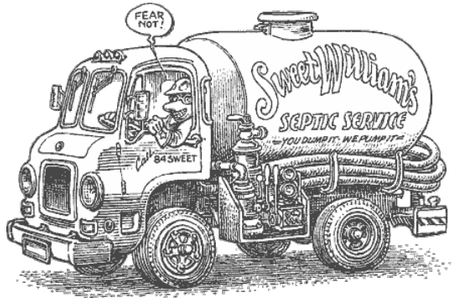
SPRING

AMENITY

UTILITIES - BLACKWATER

UPDATED SEPTIC SYSTEM

STORE AND TRANSPORT OFFSITE

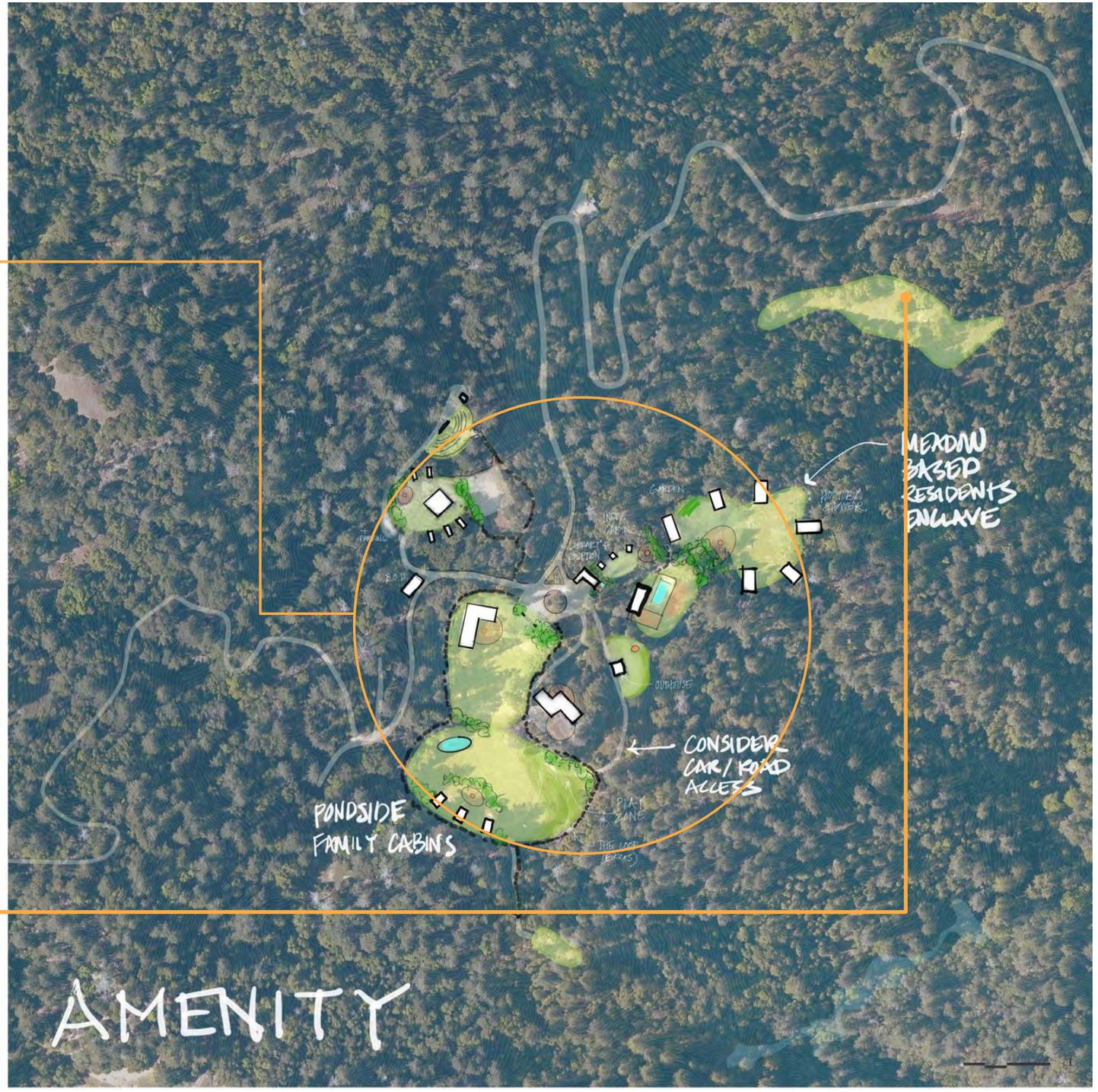


ONSITE TREATMENT

ADVANTEX
Subsurface Irrigation

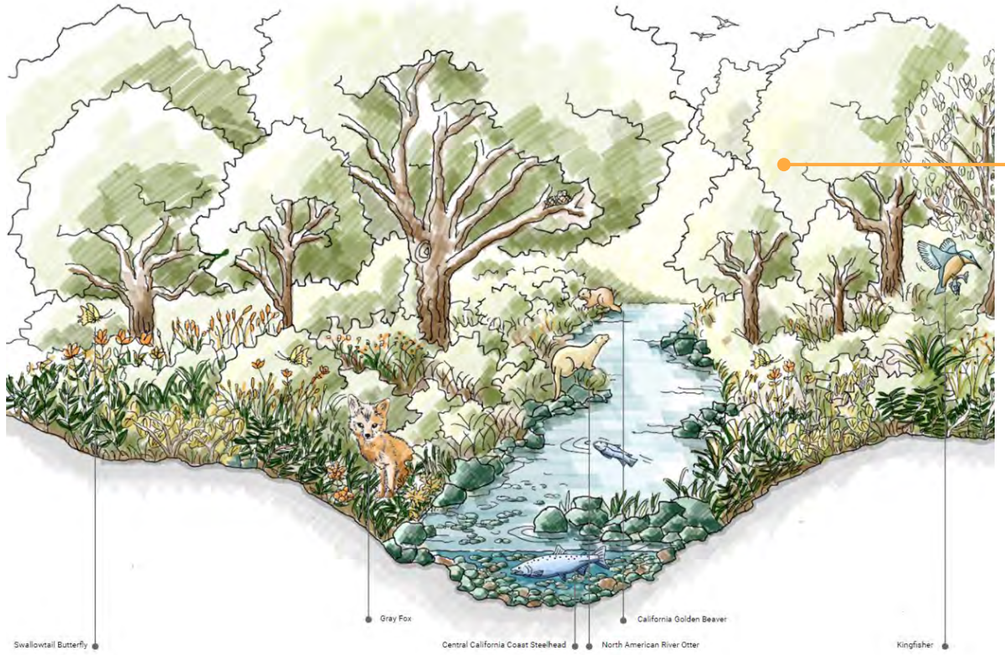
BUILDING SCALE
Trickling Filters

BUILDING SCALE
Membrane Bioreactor (MBR)



ECOSYSTEM STEWARDSHIP

ECOSYSTEM ENHANCEMENT



Native Trees

Coastal Redwood
Douglas Fir
Buckeye
Madrone
Tan Oak
Live Oak
Canyon/Maul Oak
Black Oak
Valley Oak
Oregon Oak
California Maple
Manzanita
Hazelnut

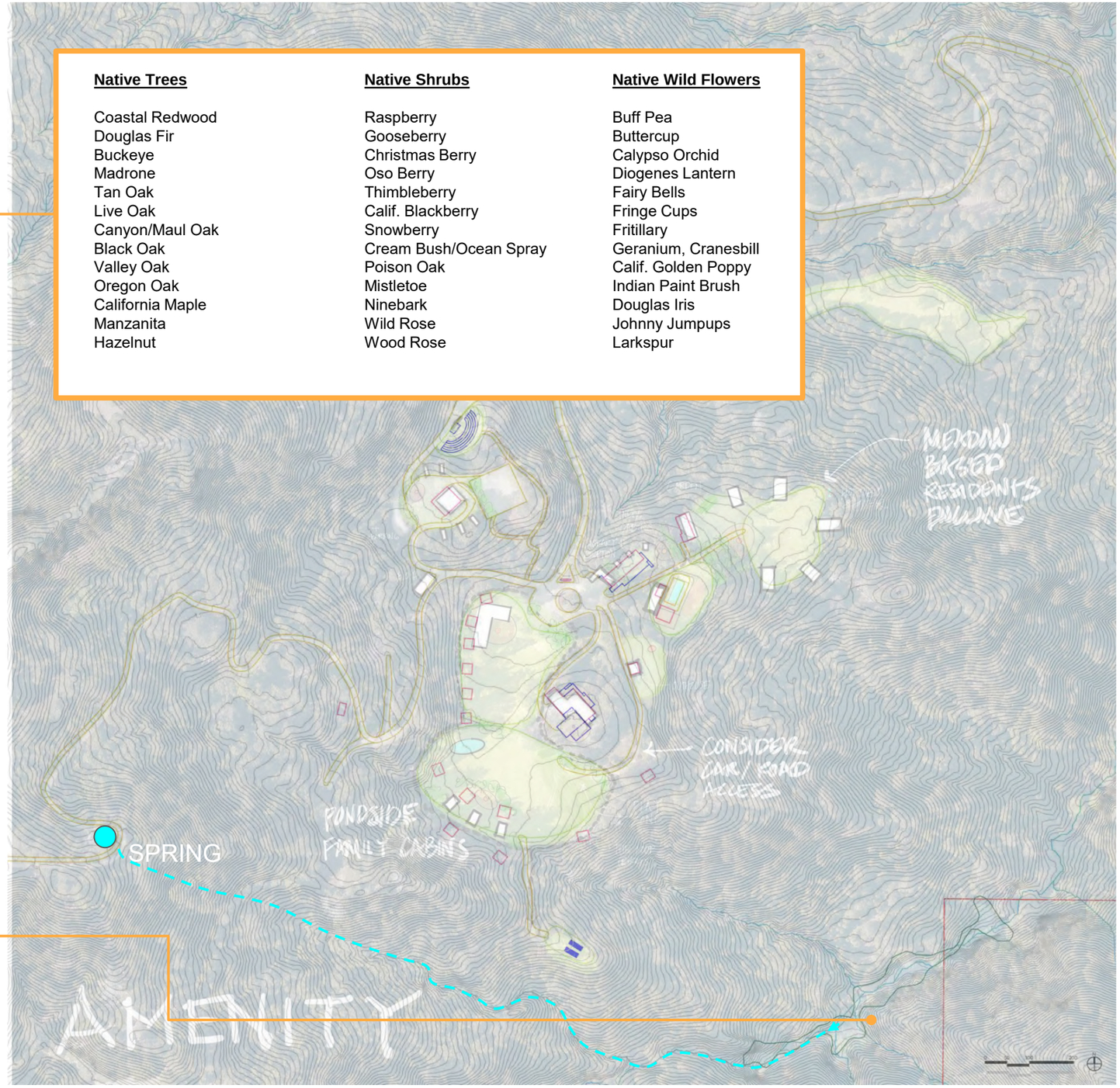
Native Shrubs

Raspberry
Gooseberry
Christmas Berry
Oso Berry
Thimbleberry
Calif. Blackberry
Snowberry
Cream Bush/Ocean Spray
Poison Oak
Mistletoe
Ninebark
Wild Rose
Wood Rose

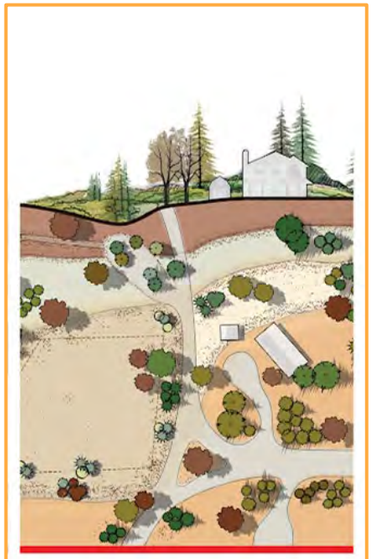
Native Wild Flowers

Buff Pea
Buttercup
Calypso Orchid
Diogenes Lantern
Fairy Bells
Fringe Cups
Fritillary
Geranium, Cranesbill
Calif. Golden Poppy
Indian Paint Brush
Douglas Iris
Johnny Jumpups
Larkspur

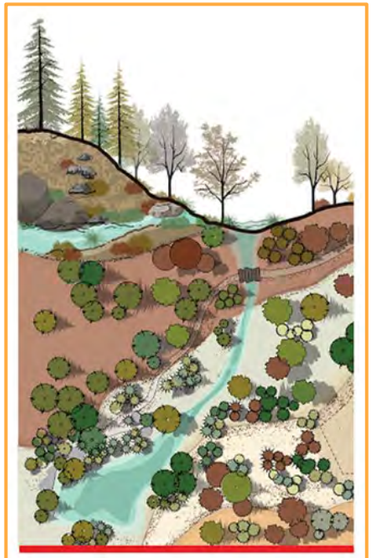
CREEK RESTORATION



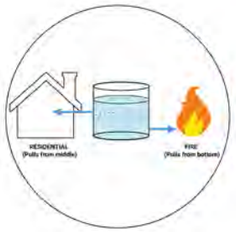
WILDFIRE RESILIENCE



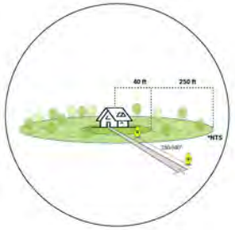
RURAL



WILDLANDS

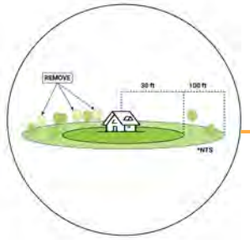


NON DEDICATED WATER TANK

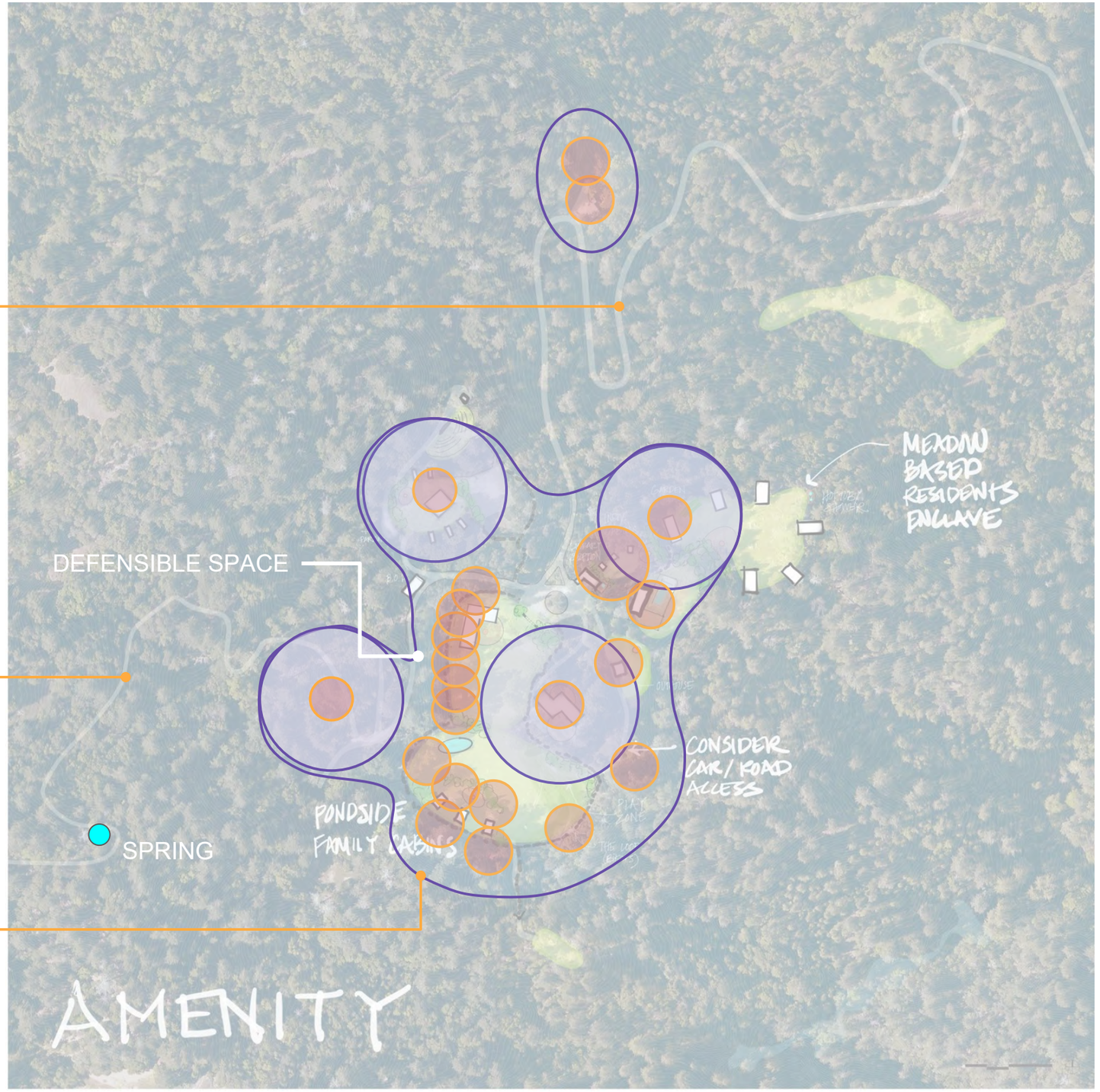


FIRE HYDRANT SPACING

EGRESS ROUTES

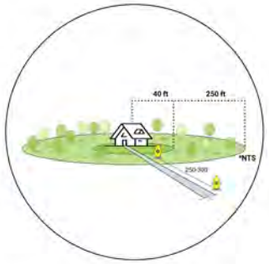


VEGETATION MANAGEMENT

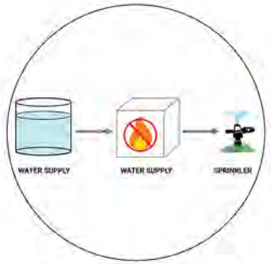


EXECUTE PLANNING AND INFRASTRUCTURE DOCUMENTATION

Perform site engineering work and prepare narrative and planning documents. Integrate infrastructure to reduce fire risk and enhance survivability. Prioritize Access/Egress,Vegetation Management, Building Strategy, and Water Resources.

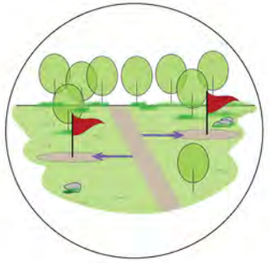


FIRE HYDRANT SPACING

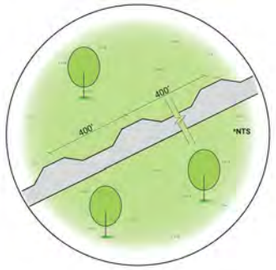


FIRE DEDICATED WATER TANK

HEAT ACTIVATED / DEPLOYED SYSTEMS

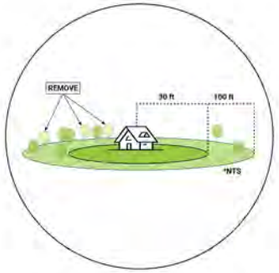


AREAS OF REFUGE



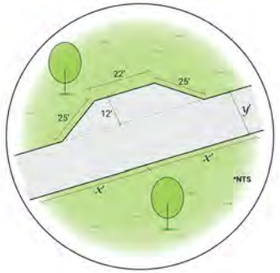
TURNOUT SPACING

EGRESS ROUTES

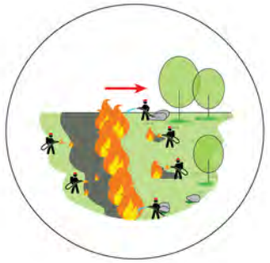


VEGETATION MANAGEMENT

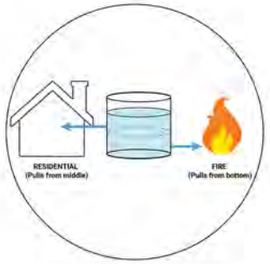
NATURAL FIREBREAK



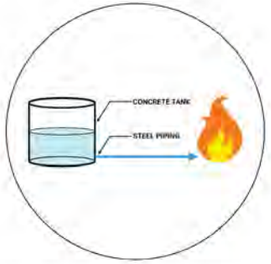
TURNOUT DIMENSIONS
Variables depend on county codes



CONTROLLED BURN



NON DEDICATED WATER TANK



WATER STORAGE FACILITIES
Concrete / Steel Materials

3

Civil Infrastructure Technical Drawings

SHELTERWOOD DRAFT PLAN 1″=100′

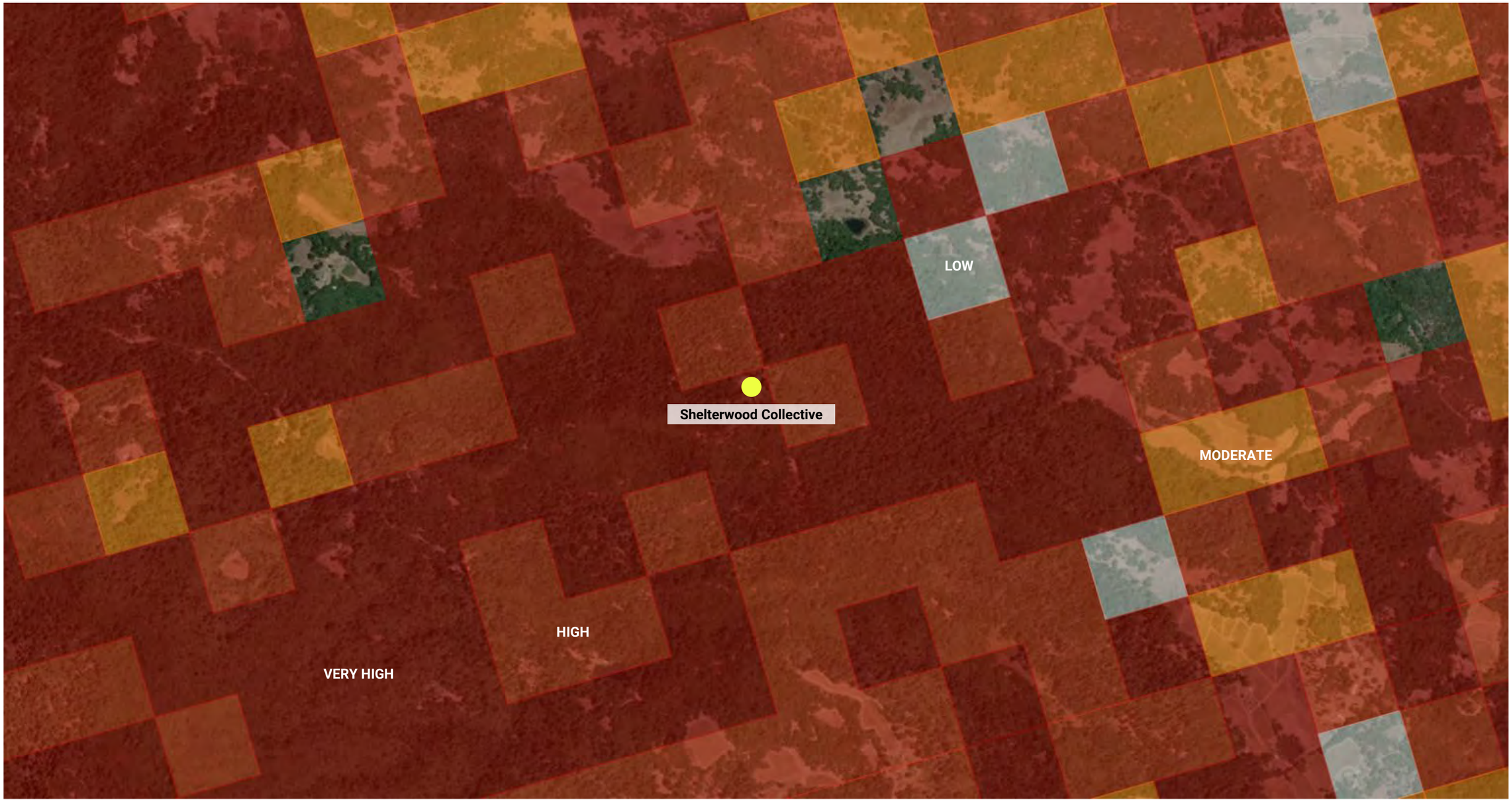
N

0 50 100 200

4

Wildfire Hazard Projections Map

Wildfire Hazard Potential (USFS, 2018)



5

Well Permit

PERMIT SONOMA
WELL AND SEPTIC SECTION
APPROVED BY Tuan Huynh
DATE March 1, 2022
PERMIT # WEL22-0064

Well Permit Application
WLS-031

23500 KING RIDGE ROAD		Permit Number	
Site Address		107-050-001-000	
CAZADERO		Assessor's Parcel Number	
City/Town	CA 95421 State Zip	CASCADE DRILLING	
SHELTER WOOD COLLECTIVE		Well Driller Name	
Owner Name		3000 DULUTH ST	
23500 KING RIDGE ROAD		Mailing Address	
Mailing Address		WEST SACRAMENTO	CA 95691
CAZADERO		City/Town	State Zip
City/Town	CA 95421 State Zip	1058336	
203-815-5613		License Number	
Phone		916-638-1169	DONG@CASCADE-DW.COM
NIKO ALEXANDRE		Phone	Email
Contact Person			

The validity of this permit depends upon the accuracy of the information provided by the applicant. A site plan must accompany this application. In addition to the information required on the Minimum Standard Site Plan (Form CSS-019), the site plan shall also include the proposed well location, existing well(s) location(s), GPS coordinates of proposed well, sewer mains and laterals, and other potential sources of contamination. If an inadequate site plan is provided and a second field visit is required, a charge at the current hourly rate will be assessed. The precise site location of the proposed well must be staked with the driller's name.

INDICATE TYPE AND NUMBER OF PROPOSED WELLS/BORINGS:

Indicate use: ■ Residential ☐ Community ☐ Irrigation ☐ Industrial

Reason for new well: DANGEROUSLY CLOSE TO BEING OUT OF WATER - TOTALLY OUT OF POTABLE WATER

☐ Destruct ■ Class I Well ☐ Class II Well ☐ Reconstruction Reason for Class II: _____

Number of Geotechnical Borings: _____ Number of Geoexchange: _____ Number of monitoring: _____ Number of Cathodic: _____

Number of Performance Wells: 0 Number of Piezometers: _____ Number of Inclinometers: _____ Number of Other: _____

Total number of wells on property: _____ Number in use: _____ Number inactive: _____ Number abandoned: _____

Well located within an existing public water system boundary: Yes ☐ No ■ Name of System: _____

CONSTRUCTION PROPOSED:

Casing: Diameter: 5" Gauge: SCH 40 Material: PVC Gravel Pack ☐ Conductor: Yes ☐ No ☐

Sand Pack ■

Annular Space: Size: 2"T Depth of Seal: 50' Seal Material: CEMENT GROUT

Method of Disinfection: CHLORINATION Method of Sealing Access Opening: SANITARY SEAL Type of Joint: rush

DESTRUCTION PROPOSED: Well Diameter: _____ Well Depth: _____ Well Casing: _____

Method of Destruction: _____

WORKER'S COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for worker's compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☒ I have and will maintain worker's compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My worker's compensation insurance carrier and policy number are:

Carrier: ACE American Insurance Company

Policy No.: WLRC68930856

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

I hereby agree to comply with all laws and regulations of the County of Sonoma and State of California pertaining to water well construction. I will notify Permit Sonoma Well & Septic Division 24 hours prior to commencing this work. I will furnish Permit Sonoma and the owner a copy of the State Well Completion Report. Within thirty (30) days in order to obtain final approval on this well as required by SONOMA COUNTY CODE, CHAPTER 25B. I acknowledge that the application will become a permit only after the site approval and payment of fee.

I understand that this permit is not transferable and expires one year from the date of issuance.

Signature of Well Driller: [signature] Date: 2/24/2022

WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

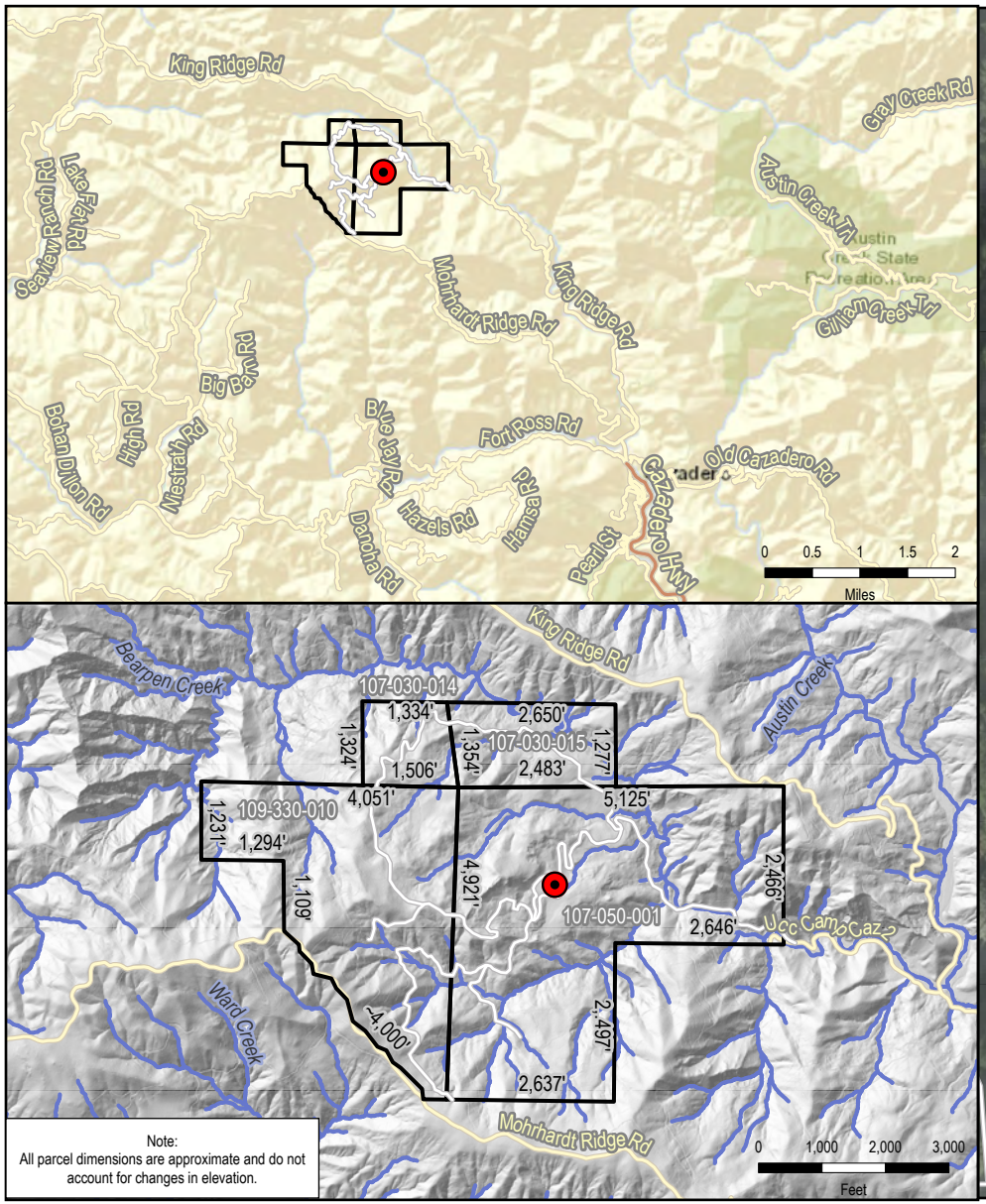
********** DO NOT WRITE BELOW THIS LINE - To Be Completed by Permit Sonoma Staff **********

Site Approved by: _____ Date: _____ Seal Inspection Date: _____ EHS _____

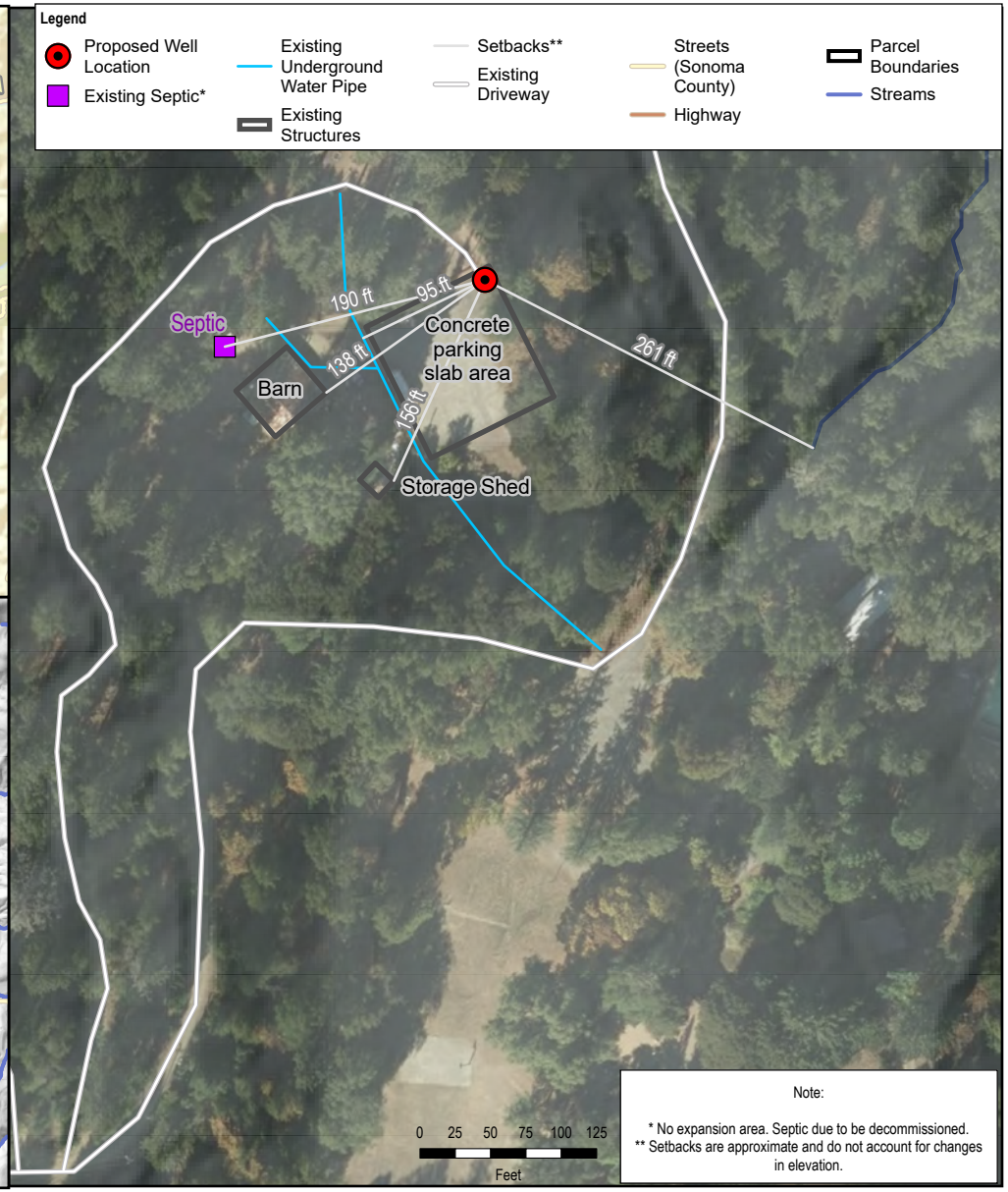
Finaled by: _____ Date: _____ GW Zone: 1 ☐ 2 ☐ 3 ☐ 4 ☐

Comments: _____

Sonoma County Permit and Resource Management Department
2550 Ventura Avenue ✣ Santa Rosa, CA ✣ 95403-2829 ✣ (707) 565-1900 ✣ Fax (707) 565-1399



Note:
All parcel dimensions are approximate and do not account for changes in elevation.



Note:

* No expansion area. Septic due to be decommissioned.
** Setbacks are approximate and do not account for changes in elevation.

Paper Size ANSI A

0 25 50 75 100 125
Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California II FIPS 0402 Feet

N

GHD

Shelterwood Collective
Well Permit Application

Project No. **12564435**
Revision No. **-**
Date **Feb 2022**

Vicinity and Site Map Option 2

FIGURE 2

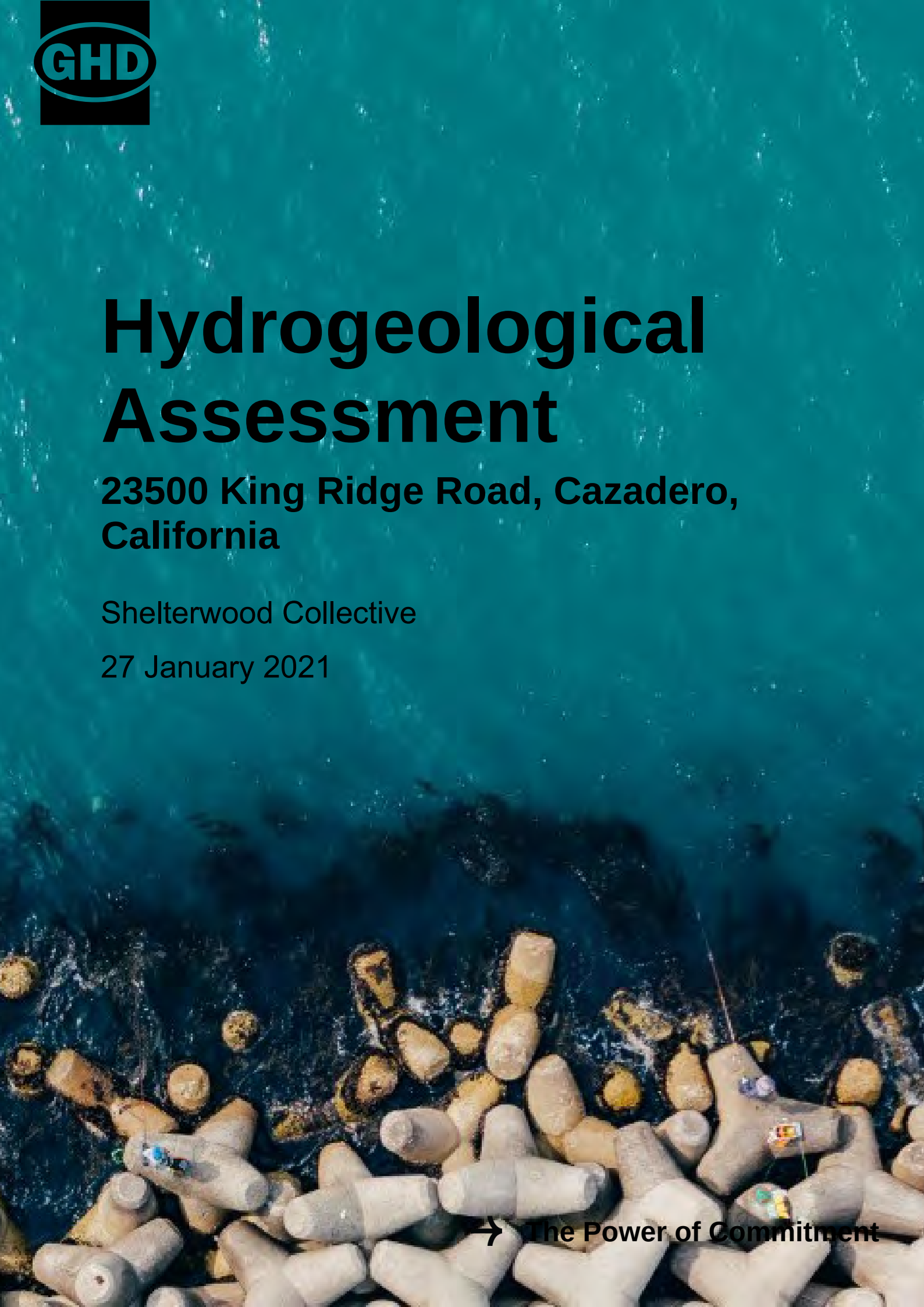
\\ghdnet\ghd\US\Santa Rosa\Projects\561\12564435\GIS\Maps\Deliverables\12564435_WellPermit.aprx - 12564435_002_WellPermitSiteMap_Option2
Print date: 22 Feb 2022 - 18:21

Hydrogeological Assessment

23500 King Ridge Road, Cazadero, California

Shelterwood Collective

27 January 2021



The Power of Commitment

1. Introduction

1.1 Purpose of this report

GHD, Inc. (GHD) was engaged by Shelterwood Collective (Shelterwood) to prepare this report to assess the hydrogeologic conditions to support the development of a new domestic supply well. The project Site is comprised of four parcels (Assessor Parcel Numbers; 107-050-001, 109-330-010, 107-030-015, 107-030-014) that combine to a total of 900-acres. The primary location of interest is the Shelterwood Community Site that is located on a relatively flat plateau, shown in Figure 1. GHD understands that the existing water supply system that supplies the Site is antiquated, is considered a surface water source, can be unreliable, and has high operation and maintenance costs.

1.2 Scope and limitations

This report: has been prepared by GHD for Shelterwood Collective and may only be used and relied on by Shelterwood Collective for the purpose agreed between GHD and Shelterwood Collective as set out in section 1.1 of this report.

GHD otherwise disclaims responsibility to any person other than Shelterwood Collective arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

1.3 Assumptions

GHD assumes the information provided by Shelterwood and the supporting references used to base conclusions and recommendations herein to be correct to the best of everyone's knowledge.

1.4 Topographic Setting

The Site is located approximately 4.4 miles northwest of Cazadero within the Sonoma Coastal Mountain Range. Elevations across the project location range from approximately 2,000 feet above mean sea level (msl) along the Moorheart Ridge located at the southern boundary of the property and 400 feet above msl at the eastern boundary, where Bearpen Creek exits the property. Slopes around the Site range from relatively steep 1.5-2:1 (horizontal: vertical) in the southern half of the property to mild and shallow in the northern half of the property. The Shelterwood Community Site is elevated approximately 900 feet above msl on an approximately 4 acre-plateau on a southeast facing hillslope. At the lower elevations of the Site are multiple seasonal tributaries that all eventually discharge into Bearpen Creek. Multiple unnamed tributaries originating from upland source ravines at the Site confluence with Bearpen Creek in areas generally flowing to the north and east of the plateau.

Site access is provided by a private dirt road branching off Kings Ridge Road, traveling along Bearpen Creek for approximately 1 mile before winding west 0.3 miles to the Shelterwood Community. The road continues east as a seasonal road, circling around the property in a clockwise direction, traveling along the ridge crests of the two largest catchment basins on the west side of the property and back down to the flat meadows boarding Bearpen Creek on the eastern side of the property. Smaller roads branch off the circuit to provide access to the far reaches of the property. Notably one of these roads travel across the large southern tributary to connect to Mohrhard Ridge Road approximately 0.7 miles south of the Shelterwood Community.

1.5 Geologic Setting

Regional geology consists of the Coast Ranges geomorphic province which is comprised of northwest-trending mountain ranges, typically between 2,000 and 4,000 feet above sea level. The northern Coast Ranges are dominated by irregular, knobby, landslide-topography of the Franciscan Complex that in large areas are overlain by volcanic cones and flows of the Quien Sabe, Sonoma and Clear Lake volcanic fields (CGS, 2002). Ongoing tectonic forces resulting from the collision of the North American Plate with the Pacific Place have created a broad zone of active, dormant, and inactive faults that are dominated by the San Andreas Fault System which trends along the western margin of the County 6 miles southwest of the Site. The fault system results in a north-western structural alignment controling the overall orientation of the County's ridges and valleys through a series of right lateral faults the largest being the Rodgers Creek and Maacama (18 miles east of the Site) faults. Due to the proximity of the Site to this active fault system, bedrock underlying the Site is expected to be variably fractured throughout.

The Site is location in a complex geologic setting with underlying bedrock consisting of Franciscan Coastal Belt units: Cretaceous and Jurassic aged Graywacke and mélange (KJfs), Cretaceous and Jurassic aged greenstone (gs), and late Eocene to Late Cretaceous Coastal Belt sandstone (TKfs), that are overlain in large areas by Quaternary aged landslide deposits (Qls). Franciscan graywacke and mélange generally consists of lithic wacke, siltstone, shale, and slate that grades into mélange that consists of sheared argillite and graywacke matrix that encloses blocks/lenses of sedimentary, metamorphic, and volcanic rocks. Greenstone bedrock generally consists of pillowed greenstone and basalt with basalt breccia and diabase. Coastal Belt sandstone is generally massively bedded brown sandstone with detrital biotite and muscovite in places and disrupted thin beds of shale and slate (Blake, Graymer, and Stamski, 2002).

1.6 Hydrologic Setting

The property spans over a large and complex hydrological area, covering the majority of 4 large tributary basins to Bearpen Creek and at least a portion of seven other smaller tributaries. Bearpen Creek flows across the properties northern boundary and flows southeast into Austen creek, a major tributary to the Russian River, approximately 1 mile southeast of the property boundary. Basin drainages consist of classic dendric drainage patterns that are well-developed in areas mapped as bedrock (southern and western drainage basins) to relatively undeveloped in recent landslide deposits (northern shallow drainage basins). Drainage pathways predominately flow east towards Bearpen Creek with exception to the furthermost western drainage which flows north off the property before bending back down southeast and generally consists of a portion of the headwaters of Bearpen creek (See Figure 2).

The Sonoma County Soil Survey indicates that the Site is covered in well-draining, high runoff soils that consist of primarily gravely loams with bedrock encountered typically around four feet below ground surface (bgs) (USDA 2019). Due to the tectonic deformation of the region and the abutting nature of the underlying bedrock units, fracturing within the bedrock is likely very high which increases the capacity for deeper groundwater storage and hydraulic conductivity.

1.7 Well Completion Report Analysis

Publicly available Well Completion Reports (WCR) from the Department of Water Recourses database were reviewed within the project vicinity to evaluate potential yield from similar geologic settings. No wells were identified within the hydrologic catchment of the Site, however; two wells were identified within 1 mile of the Shelterwood Community and one additional well was identified within 2 miles of the Shelterwood Community, shown in Figure 2. The wells were constructed between 1998 and 2007 and ranged in depth from 160 to 300 feet bgs. Well construction consisted of a 5-inch diameter well casing with a single large screen placed at the bottom. The annular space of the wells was filled with sand from the bottom to the surface seal, typically 25 feet bgs. WCR field measurements indicated a depth to water and estimated yield, ranged from 220 to 61 feet bgs and 15 to 40 gallons per minute, respectively. The identified wells WCRs are included as Appendix 1.

1.8 Sources of Water

According to Shelterwood, the water system that currently provides water to the Shelterwood Community is based on springs that provide a combined steady flow of approximately 3-15 gpm, depending on the time of year. Spring water is developed in spring boxes and then transported through a PVC/polyethylene pipe system over 1 mile long before being stored on several water supply tanks ranging up to 5,000-gallons in size for a combined 15,000-gallons of storage, then distributed to Site individual buildings. The current system requires water quality testing on a weekly basis (turbidity) and monthly (bacteriological). While surface water rights are currently maintained, the system requires a relatively high level of maintenance and has been unreliable during large storms events and extended drought conditions. A groundwater well should provide a higher quality water source that requires less testing and maintenance than the current system. Anticipated future agricultural and/or pastural use may be better suited for the existing surface water use due to the less stringent testing procedures required.

Alluvial soils around the are relatively shallow, limited in area, and relatively fast draining, therefore a shallow alluvial well is unlikely to provide a steady production of potential or anticipated peak water demands. The geologic maps and outcrops viewed during the Site visit indicate that bedrock is likely highly fractured due historical faulting, resulting in a moderate potential for groundwater storage and a high enough hydraulic conductivity to sustain a steady producing well that could operate year-round within anticipated peak water demands. GHD assumes a well extending to approximately 250-300 feet bgs and will be able to provide a yield of approximately 10 to 20 gallons per minute or more.

1.9 Site Visit

On October 8, 2021, a GHD professional geologist/hydrogeologist conducted a Site visit with Shelterwood Project Manager Nikola Alexandre. GHD review the central main Site (water tanks, lodge and Site structures), northwest portion (spring box and water supply lines), and northern (Homestead Meadow) areas of the Site. The main purpose of reviewing these initial locations were to:

- review the surface topography and geology;
- review the current water supply and system;
- assess the shallow well and horizontal well development potential;
- prepare preliminary deeper well target locations for both near-term and longer-term development and access; and,
- observe the upland watershed drainages and conditions around the main Site for potential alternative energy or supply considerations.

1.9.1 Findings and Conclusions

The following findings were observed from the initial October Site visit:

1. Shallow water supply as additional springs or horizontal well development would be problematic, due to the shallow depth to bedrock and relatively dry conditions encountered in the Fall/Dry seasons with very low spring yields near the main Site structures.
2. Existing water supply location is a relatively long distance from the end point uses, while the water conveyance piping and treatment requirements (surface water treatment standards from the State of California) are cumbersome and will have relatively high long-term operation and maintenance costs along with reliability issues.
3. Deeper supply well potential near the main Site buildings was relatively good with decent access for drilling rigs on-site (pending of-site access over County of Sonoma Bridges and roads).
4. The potential for both solar, micro-hydroelectric, and pumped (closed loop) hydroelectric alternative energy sustainability is relatively high due to the solar radiation potential, topographic relief, and seasonal upland drainage of wet season water (See Figure 3).

Subsequent to the October 8, 2021, Site visit, GHD reached out to several northern California drilling firms (Cascade, Maggiora Brothers, Fisch Brothers, Weeks) to briefly discuss driller well construction availability and capabilities for the upcoming 6-12 months or less. A contact from Cascade drilling, Jim Whitely (driller/foreman/estimator) working concurrently on another north coast California well construction site, responded and coordinated with GHD and Shelterwood for a Site visit on December 8, 2021. Based on conversations with GHD and a preliminary well targets map, it was found that one of the three preliminary targets (See Figure 2) would work best for drill rig access and Cascade would provide County of Sonoma bridge access information on accessibility to the Site in early 2022. If the Site was found to be accessible for their hardrock drill rigs Cascade would provide a proposal/cost estimate to Shelterwood sometime in early 2022 to drill a 6" diameter casing well to 250-300 feet deep. The remaining drilling companies with equipment to perform such a hardrock well construction told GHD that drilling wait times are between 6 and 18 months, and are still looking into County bridge and road access details. Any additional correspondence from drilling companies will be forwarded and shared with Shelterwood immediately hereafter.

Additionally, GHD reached out to previous private micro-hydroelectric permit/design clients regarding the potential to do a Site visit and meeting with Shelterwood about design, site constraints/considerations, costs, and permitting. GHD received one response for a micro-hydroelectric Site visit to be conducted in February for initial consultation together with Shelterwood.

2. Future Sustainability

2.1 Sources of Energy

The topography and hydrology of the Site indicate a high potential for micro-hydroelectric and pumped hydroelectric (closed loop) power which could provide a substantial amount of energy during the winter months. The tributary near the main spring that currently provides water to the Site has an elevation drop of approximately 300 feet (although 150-200 feet may be sufficient) over a distance 2,000 feet and is a non-fish bearing upland stream (Class 2 or 3). A full survey of the area and streamflow measurements would be needed to provide an accurate estimate of the hydroelectric potential, however; a rough estimate can be made by using the head potential, streamflow and the following equation.

{[System head (feet) - head loss (feet)] * Stream flow (gpm) * system efficiency (percent) * generator efficiency (percent) / 1000 = kilowatts (kW) of energy}

On the high end - assuming a head potential of 300 feet, a head loss of 20 percent, an 18 percent system efficiency, a 50 percent generator efficiency and a seasonal flow of 500 gallons per minute (1.11 cubic foot per second) for 6 months of the year, there is the potential for 10.8 kilowatts of energy for 6 months of the year (7,776 kilowatt hours per month).

(300 ft – 300*0.20 ft) * 500 gpm * 0.18 * 0.5 / 1000) = 10.8 kW

For the summer months when less hydroelectric power is available solar power is a possible source of energy. In particular the low-lying areas along the eastern side of the main Site have the most photovoltaic potential and could provide for the majority of energy use during the dry season and spring/summer/fall months. GHD provided and initial solar radiation potential map for Site solar locations relative to existing power lines (grid tie-in) and structures (See Figure 3) which indicated a large area of approximately 1.5 acres or more that could provide around 1,300 - 1,400 kW/hours of energy per 3 x 3 foot area (solar power unit). Further refinements to the energy generation via solar would need to consider the space Shelterwood is willing to dedicate to photovoltaic panels and the set-up of various types of associated hardware.

3. Recommendations

From the information provided by the Shelterwood, the Site visits from GHD and Cascade Drilling, and review of Site geology, surrounding wells, and preliminary renewable energy (existing and practical applications) potential, GHD has the following recommendations:

1. Consider exploring for deeper (up to approximately 300-feet deep) water supply sources at the location provided on Figures 2 and 3 by collecting a few drillers reasonable cost estimates and schedules.
2. Conduct brief additional studies on the flow potential within the two drainages indicated on Figure 3 for micro-hydroelectric power supply feasibility analysis and permitting options and solar power system options.
3. Since existing PG&E power lines cross through the Site close to existing structures, engage PG&E as to the feasibility, requirements, and rates for renewable energy grid tie-in (generating energy for the grid), and if the power pole can be utilized to bring power return cables from hydroelectric turbines to the Site.
4. If alternative deeper groundwater sources are obtained - retain surface water rights to existing springs and consider converting that infrastructure into pumped hydroelectric (closed loop) power, as back-up water supply, fire suppression, or diverting to irrigation needs in future agricultural projects.

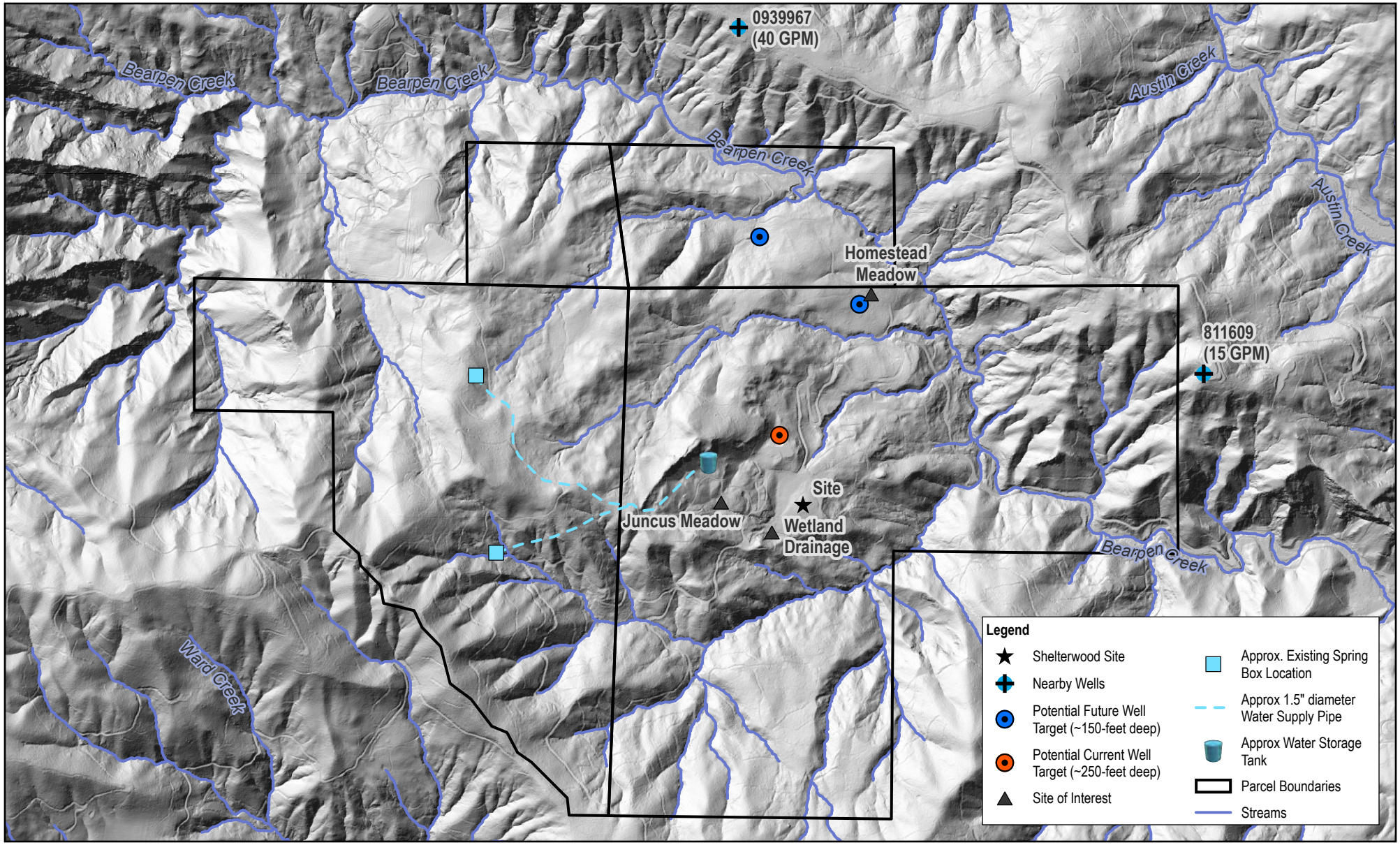
4. References

Blake, M.C., Graymer, R.W., and Stamski, R.E., 2002, Geologic map and map database of western Sonoma, northernmost Marin, and southernmost Mendocino Counties, California, U.S. Geological Survey, Miscellaneous Field Studies Map MF-2402, 1:100,000.

California Department of Water Resources (DWR). “Well Completion Reports.” Accessed November 15, 2021. https://water.ca.gov/Programs/Groundwater-Management/Wells/Well-Completion-Reports.

California Geological Survey (CGS) 2002. “Note 36 California Geomorphic Provinces”, Revised December, 2002. https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf.

U.S. Department of Agriculture, 2019, Soil Survey Sonoma County, California. Web, last modified July 31, 2019. https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx



DRAFT

Paper Size ANSI A

0 350 700 1,050 1,400

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California II FIPS 0402 Feet

N

GHD

Shelterwood Collective
Hydrological Assessment

Project No. **12564435**
Revision No. **-**
Date **Jan 2022**

Proposed Well Locations and Existing Water Supply Locations

FIGURE 2

N:\US\Santa Rosa\Projects\561\12564435\GIS\Maps\Deliverables\12564435_Shelterwood.aprx
Print date: 26 Jan 2022 - 17:38

Data source: Sonoma County LiDAR, 2014; Sonoma County Streams, 2020; Shelterwood, 2021; GHD, 2021; . Created by: jclark2

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No. 0916082

DWR USE ONLY — DO NOT FILL IN
08N12W02
STATE WELL NO / STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. Hole #2
Date Work Began 6/16/2004, Ended 6/17/2004
Local Permit Agency Sonoma County PRMD
Permit No. WEL03-0545 Permit Date 10/22/2003

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL — HORIZONTAL — ANGLE — (SPECIFY)
DRILLING METHOD AIR ROTARY FLUID N/A

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain, size, color, etc.*
0	2	Fractured brown sandstone
2	63	Brown clayee sand and sandstone
63	68	Gray sandstone
68	70	Clayee brown sandstone with embedded rock
70	145	Shaly gray sandstone, some clayee streaks
145	160	Shaly gray clay, some rock

TOTAL DEPTH OF BORING 160 (Feet)
TOTAL DEPTH OF COMPLETED WELL 160 (Feet)

WELL OWNER

WELL LOCATION

Address 1370 Big Barn Road
City Fort Ross CA
County Sonoma
APN Book 107 Page 110 Parcel 029
Township ____ Range ____ Section ____
Latitude ____ DEG. MIN. SEC. ____ DEG. MIN. SEC.

LOCATION SKETCH
NORTH / WEST / EAST / SOUTH
Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)
✓ NEW WELL
MODIFICATION/REPAIR
— Deepen
— Other (Specify)
— DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG"

PLANNED USES (✓)
WATER SUPPLY
✓ Domestic — Public
— Irrigation — Industrial
MONITORING —
TEST WELL —
CATHODIC PROTECTION —
HEAT EXCHANGE —
DIRECT PUSH —
INJECTION —
VAPOR EXTRACTION —
SPARGING —
REMEDIATION —
OTHER (SPECIFY) —

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ____ (Ft.) BELOW SURFACE 1
DEPTH OF STATIC WATER LEVEL 61 (Ft.) & DATE MEASURED 6/17/2004
ESTIMATED YIELD 30 (GPM) & TEST TYPE BAILED
TEST LENGTH 1/2 (Hrs.) TOTAL DRAWDOWN frm bt (Ft.)
May not be representative of a well's long-term yield.

CASING (S)

DEPTH FROM SURFACE Ft	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	25	11								
25	160	7 7/8								
0	160		✓				PVC	5	CL200	
60	160			✓						.032

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
2	5	✓			concrete
5	25		✓		
25	160			✓	1/8 x 1/4 gravel

ATTACHMENTS (✓)

— Geologic Log
— Well Construction Diagram
— Geophysical Log(s)
— Soil/Water Chemical Analysis
— Other ____
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.
NAME Weeks Drilling & Pump (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
P.O. Box 176 ADDRESS Sebastopol CITY CA STATE 95473 ZIP
Signed Melissa G Lopez WELL DRILLER/AUTHORIZED REPRESENTATIVE
06/29/04 DATE SIGNED
177681 C-57 LICENSE NUMBER

DWR 188 REV 11-97
IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

STATE OF CALIFORNIA

WELL COMPLETION REPORT

No. 811609

DWR USE ONLY — DO NOT FILL IN

09N/1W/3H

STATE WELL NO. STATION NO.

LATITUDE LONGITUDE

APN / TRS / OTHER

OWNER'S WELL No. 3884

Date Work Began 9/24/98 Ended 9/25/98

Local Permit Agency Sonoma

Permit No. WEL98-0363 Permit Date 8/28/98

GEOLOGIC LOG

ORIENTATION Vertical Degree of Angle ____

DEPTH FROM SURFACE DEPTH TO FIRST WATER ____ (ft.) BELOW SURFACE

Ft.	Ft.	DESCRIPTION
0	2	Topsoil
2	35	Clay
35	170	Weathered Greenstone
170	195	Schist
195	202	Shale
202	300	Sandstone

WELL LOCATION

Address 23023 King Ridge Rd.

City Cazadero County Sonoma

Apn Book 107 Page 050 Parcel 018

or

Township ____ S Range ____ E Section ____ 1/4 ____ 1/4

or

Latitude ____ ____ ____ NORTH Longitude ____ ____ ____ WEST

Deg. Min. Sec. Deg. Min. Sec.

LOCATION SKETCH

ACTIVITY NEW WELL PLANNED USE(S) Domestic Water

DRILLING METHOD ROTARY AIR FLUID

DEPTH OF STATIC WATER LEVEL 220 (Ft.) & DATE MEASURED Sep 25 1998

ESTIMATED YIELD* 15 (G.P.M.) & TEST TYPE Airlift

TEST LENGTH. 2 (Hrs.) TOTAL DRAWDOWN 280 (FT.)

*May not be representative of a well's long-term yield.

TOTAL DEPTH OF BORING 300 (Feet)

TOTAL DEPTH OF COMPLETED WELL 300 (Feet)

CASING

DEPTH FROM SURFACE Ft.	To Ft.	BORE-HOLE DIA.	TYPE	Material / Grade	Dia.	Gauge	Slot size
0	25	10 5/8	Blank	F480 PVC	5	200	
25	180	7 7/8	Blank	F480 PVC	5	200	
180	300	7 7/8	Screen	F480 PVC	5	200	1/32

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	To Ft.	Seal Material	Filter Pack (Type / Size)	
0	25	Bentonite		
25	300		Gravel	Fine
				Pea

Attachments

no Geologic Log

no Well Construction Diagram

no Geophysical Logs

no Soil Water Chemical Analyses

no Other

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Fisch Bros. Drilling, Inc.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

5001 Gravenstein Hwy No. Sebastopol CA 95472

Signed Ed Fisch 9-28-98 399226

WELL DRILLER / AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

STATE OF CALIFORNIA

WELL COMPLETION REPORT

No. 0939967

DWR USE ONLY — DO NOT FILL IN
09N12W25
STATE WELL NO. STATION NO.
LATITUDE LONGITUDE
APN / TRS / OTHER

OWNER'S WELL No. 6202

Date Work Began 8/27/07 Ended 8/27/07

Local Permit Agency SONOMA

Permit No. WEL07-0263 Permit Date 6-28-2007

GEOLOGIC LOG

ORIENTATION Vertical Degree of Angle ____

DEPTH TO FIRST WATER ____ (ft.) BELOW SURFACE

DEPTH FROM SURFACE Ft.	Ft.	DESCRIPTION
0	20	brown clay
20	50	blue clay with shale
50	60	sandstone, shale and clay
60	80	brown clay with weathered sandstone
80	110	weathered greenstone and greenstone
110	120	greenstone
120	160	sandstone and greenstone with some shale

WELL OWNER

WELL LOCATION

Address 24295 KING RIDGE ROAD

City CAZADERO County SONOMA

Apn Book 107 Page 030 Parcel 012

or Township ____ Range ____ Section ____ 1/4 ____ 1/4

or Latitude ____ ____ ____ NORTH Longitude ____ ____ ____ WEST
Deg. Min. Sec. Deg. Min. Sec.

LOCATION SKETCH

ACTIVITY NEW WELL PLANNED USE(S) DOMESTIC WATER

DRILLING METHOD ROTARY AIR FLUID

DEPTH OF STATIC WATER LEVEL 70 (Ft.) & DATE MEASURED Aug-27-2007

ESTIMATED YIELD * 40 (G.P.M.) & TEST TYPE AIR

TEST LENGTH. 2 (Hrs.) TOTAL DRAWDOWN 140 (FT.)

*May not be representative of a well's long-term yield.

TOTAL DEPTH OF BORING 160 (Feet)

TOTAL DEPTH OF COMPLETED WELL 160 (Feet)

CASING

DEPTH FROM SURFACE Ft.	To Ft.	BORE-HOLE DIA.	TYPE	Material / Grade	Dia.	Gauge	Slot size
0	40	10	BLANK	F480 PVC	5	200	
40	80	8 3/4	BLANK	F480 PVC	5	200	
80	160	8 3/4	PERF	F480 PVC	5	200	Factory

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	To Ft.	Seal Material	Filter Pack (Type / Size)	
0	22	BENTONITE		
22	160		1/4 X 1/8	

Attachments
- no Geologic Log
- no Well Construction Diagram
- no Geophysical Logs
- no Soil Water Chemical Analyses
- no Other

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME FISCH BROS DRILLING, INC
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

5001 GRAVENSTEIN HWY NO SEBASTOPOL CA 95472

Signed steve unterseher 08/28/07 399226
WELL DRILLER / AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

7

Letter of Support from Sherwood Design Engineers

SHERWOOD
DESIGN ENGINEERS

2548 MISSION STREET, SAN FRANCISCO, CA 94110
(415) 677-7300 | WWW.SHERWOODENGINEERS.COM

2022 Proposition 1 IRWM Project Application
North Coast Resource Partnership
RE: Funding Opportunity for Shelterwood Collective

To whom it may concern,

I am Cody Anderson, the Principal for the civil infrastructure component of the Shelterwood Collective Water Infrastructure Renovation Project. I have also visited the project site and its surrounding communities for the past several years. With my intimate knowledge of both the engineering design and the community, I am writing to express my full support for the funding of the water infrastructure and storage expansions proposed for the Shelterwood Collective in Cazadero, CA.

The Shelterwood Collective is a large community forest and community Center in Cazadero, CA, with a focus on ecosystem conservation, climate resilience, and healing. The Collective strongly believes that the health of the ecosystem can be measured by the strength and resiliency of the interdependent relationships between the humans, animals, insects, plants, fungi, spirits, and waters within this landscape.

As life and land threatening fires rapidly increase in frequency and size over the years, California and other states have been experiencing fear, loss, and are in search for an inspiring path forward. With that in mind, Shelterwood has been working on expanding their footprint on their 900-acre property to grow into a larger sanctuary for community healing and an island for community resilience. Currently, Shelterwood's water infrastructure is sourced from an on-site spring, and uses gravity to flow to buildings and other programs at a lower elevation on the site. At the same time, temporary pipes have been placed above ground to replace the number of pipes that have failed recently, more so after the recent wildfires in the area. To add to that, the quickest response time for the nearest fire station to reach Shelterwood is close to an hour, indicating that there is a dire need to rely on independent water infrastructure and storage in regions where the threat of wildfires is high and only increasing.

To address these impacts, the Shelterwood Collective Water Infrastructure Renovation Project aims to upgrade their water infrastructure by repairing and expanding their water distribution network, expanding additional domestic and fire storage, establishing a fire protection system, and an upgrade of the proposed septic to achieve non-potable beneficial reuse of wastewater.

Given this, I strongly urge the North Coast Resource Partnership to consider the funding application of the Shelterwood Collective Water Infrastructure Renovation Project. On behalf of the community and the civil engineering team, we are very supportive of the project from not only a sustainability and water quality perspective, but also from a

2548 MISSION STREET, SAN FRANCISCO, CA 94110
(415) 677-7300 | WWW.SHERWOODENGINEERS.COM

stewardship and climate resilience perspective. Please feel free to contact me should you require any additional information.

Sincerely,

Cody Anderson
Principal, Sherwood Design Engineers
2548 Mission St.
San Francisco, CA 94110
(415) 548-2029 | canderson@sherwoodengineers.com

8

Letter of Support from CalFire Battalion Chief

DEPARTMENT OF FORESTRY AND FIRE PROTECTION
1199 Big Tree Rd
St. Helena, CA 94574
(707) 967-1400
Website: www.fire.ca.gov

November 1, 2022

2022 Proposition 1 IRWM Project Application
North Coast Resource Partnership
RE: Funding Opportunity for Shelterwood Collective

To Whom it May Concern,

I am Marshall Turbeville, a CAL FIRE Battalion Chief for the northwestern area of Sonoma County. I have worked and collaborated with the Shelterwood Collective a number of times, and it is my pleasure to write a letter in support of the Shelterwood Collective Water Infrastructure Renovation funding application.

Due to the increasing threats of climate change, more frequent and intense wildfires are becoming the new normal. Wildfires disrupt transportation, communications, utilities, and water supplies. Furthermore, they also result in a severe deterioration of air quality, not to mention the obvious loss of property, resources, animals and people.

CAL FIRE's role is protect lives, residences, and the environment. The Shelterwood Water Infrastructure Renovation Project proposes a dramatic and necessary water infrastructure upgrade, including the construction of a water distribution system with the storage of approximately 50,000 gallons of water and hydrants in strategic locations. This system will reduce the number of fire apparatus that may be needed for fires near the system as water will not needed to be hauled in. This will also allow for self-reliance from wildfire threats and reduce the need to acquire water from streams, creeks, and other waterways during the driest time of the year.

Please contact me if you have any questions.

Sincerely,

Marshall Turbeville
Battalion Chief
CAL FIRE Sonoma-Lake-Napa Unit
(707) 529-2523
marshall.turbeville@fire.ca.gov

9

Shelterwood FY21 Resourcer Report

Shelterwood Collective

Resourcer Report: January 2021 - March 2022

SUMMARY

Shelterwood was established on the premise that ecosystem health can only be achieved by communities who are in deep relationship with the earth and with one another. As our work has evolved, expanded, and deepened since our creation in 2020, we remain passionately committed to this core insight. As an Indigenous, Black, and Queer-led land collective, Shelterwood exists to create containers of transformation that restore our connection to the world's ecosystems.

We are proud and excited to share updates with you about Shelterwood's recent progress. Over the last 15 months, we found a permanent home in Northern California and have strengthened our infrastructure, partnerships, and organizational capacity in ways that will allow us to thrive in this new space. Our major accomplishments include:

- **Land Acquisition and Stewardship:** In Summer 2021, we became stewards of a 900-acre forest and former youth camp on unceded Kashaya and Southern Pomo territory, in what is now known as Sonoma, California. Since then, we have begun listening to what the land has to teach us and tending to the immediate needs of the land through high priority infrastructure upgrades and forest stewardship activities.
- **Community-Led Design and Planning:** We led a robust, participatory process with the communities we are a part of and those we wish to serve in order to collectively shape the future of the land we are now responsible for. We brought in facilitation and design experts to guide us through four community visioning sessions with BIPOC communities, LGBTQ+ communities, Southern Pomo Kashaya elders, climate justice organizations, sustainable design experts, and others, which will result in a Facilities Redesign Masterplan for Shelterwood's retreat and educational center.
- **Partnership Cultivation:** We have cultivated a strong foundation of partnerships with well-respected local and national organizations in the environmental, education, and arts sectors - such as The Cultural Conservancy and Movement Generation - with whom we are partnering towards shared visions of social justice and ecosystem healing.
- **Organizational Development:** Our co-founding leadership team formalized our life-long commitment to Shelterwood as a place and an organization, and have thoughtfully scaled our capacity to nurture our ambitious vision. We were accepted into the national Justice40 Accelerator, which supports climate justice organizations led by disinvested communities and positions us to access federal funds through the Biden-Harris Justice40 Initiative. In 2021, through the generosity of individual and philanthropic donors, we raised $3.8 million to acquire the land in Summer 2021 and began 2022 with approximately $1.5 million in committed grants to cover operations. We see our initial fundraising success as an early indicator of philanthropic interest in returning land and resources to BIPOC stewardship, and we are operationalizing strategies to diversify and expand our funding base in the coming year.
- **Supporting the Land Collective Movement:** We have continued to build solidarity with a national network of BIPOC-led land collectives that return resources to generative purpose, as well as funders and advocates seeking to resource the land collective movement in innovative ways. We are working with researchers at Brown University to document lessons learned from our journey to share with the field.

We are beyond grateful for your allyship, and look forward to continued partnership.

PROGRESS REPORT: JANUARY 2021 - MARCH 2022

Land Acquisition, Infrastructure Upgrades, and Planning

In Summer 2021, Shelterwood officially became the stewards of a 900-acre forest and former youth camp on unceded Kashaya and Southern Pomo territory, above what's now called the Russian River in Sonoma County, California. The land - which was at risk of being sold to a logging company and suffered from decades of neglect and extraction - has vast expanses of mixed conifer-hardwood forest, 10 cabins, 2 commercial kitchens, 2 multipurpose lodges, a pool, and three homes in which to nurture a Queer, BIPOC-led land collective.

Since acquiring[1] the land, we rolled up our sleeves and have been hard at work stepping into our position of building, restoring, and listening to this special ecosystem of multi-species kin. We have focused both on time-sensitive infrastructure upgrades while also creating space for longer-term, community-led dreaming of what this space will become.

One of our co-founders is serving as the General Contractor for these upgrades, managing a wide range of activities - from ordering supplies to coordinating construction and volunteer crews to direct construction work on facilities. With support from Queer and BIPOC resident builders and contractors, we upgraded two residences for staff and renovated one of the lodges. We improved the resiliency of our spring water system, with a new well installation underway. This first phase of high priority renovations, which should be complete by April 2022, ensures the safety of those visiting the land and a habitable environment for the leadership team and contractors as they work.

Meanwhile, we hired a values-aligned design firm - Mithun - to partner with us on a longer-term facilities redesign masterplan. Mithun has been a leader in environmental education and sustainable retreat design for over 20 years. They bring an interdisciplinary skill set of architecture, landscape architecture, interiors, and planning to our design process. The plan will outline renovations to be funded by our capital campaign, which will launch within the next year. We are in deep conversation with Mithun and providing feedback on initial design options and sketches they have developed. At the core of the plan is Shelterwood's dream to transform land stewardship and connect historically excluded BIPOC communities to the earth and each other.

Completing these infrastructure upgrades and our design plan brings us closer to being able to

[1] Note: we use terms like "acquisition" here for ease of understanding, but we think of such activities as "paying ransom on" land that was held; as it is our firm belief that land cannot be owned.

welcome communities to Shelterwood for retreats and events, and to diversify our funding beyond philanthropic support.

Programming

Land Stewardship and Conservation

These 900 acres of forested land have come under Shelterwood's stewardship at a critical time in the context of California's ecological health. Because of the exceptional fire risk, millions of dollars are being mobilized by the state to restore forests to a more natural and ecologically resilient position to mitigate the devastating impacts of wildfires sweeping through unmanaged forests. Shelterwood has worked with consultants as part of our inclusion in the Justice40 Accelerator, as well as local foresters and environmental stewardship organizations, to develop a preliminary forest restoration plan and formulate our first strong state grant application to CalFire. This grant was submitted in early March 2022 and many other state funding sources exist for our ongoing efforts to shape this forest into an ecologically sound and resilient space that will allow for humans, animals and all of our multi-species kin to flourish.

The preliminary forest restoration plan has three components. First, we will shift the forest's structure towards more resilient forest stands that contribute to the forest's ability to deliver long-term ecosystem services. This involves removing the encroaching firs, non-native pines, and dead tan oaks (sudden oak death is present on the property). Second, we will remove the species thinned in this way and the decades of stocked fuel loads from the site to reduce the forest's overall wildfire risk. The most ecologically appropriate way to do this is through pile burns and broadcast burns. Lastly, we will restore threatened habitat through plantings and the creation of growing space for redwoods and oaks.

Finally, we selected our first cohort of Summer Fellows for 2022. Our fellows are five college students who will support Shelterwood's land stewardship, communications, and retreat programming activities. The fellowship program has an intergenerational focus and seeks to nurture the next generation of Queer and BIPOC land stewards.

Artist Residencies

At Shelterwood, we embrace the role that art plays in allowing us to imagine a liberatory and liveable future. Once we are at full capacity, we plan to offer extended residencies for underrepresented artists creating content focused on climate activism that is nurtured through a deepened relationship and connection with land. As a step towards this vision, we have already hosted two artists - Eliana Juanita Polon and Joan Lora - to retreat and create work. Looking ahead, we have started connecting with a community of artists who wish to spend time at Shelterwood. For example, we are coordinating with The Center for Cultural Power to host a

two-week writing workshop with a group of screenwriters at Shelterwood in December 2022.

Community and Partner Engagement

As we take root in our new home, community engagement and partnership is an essential practice into which we are investing time, attention, and care. We are cultivating relationships with and humbly listening to the communities we are a part of and those we seek to serve, in order to remain accountable to them as we grow and continue to refine our vision.

For example, over four beautiful facilitated days in December 2021, we gathered feedback from communities whom Shelterwood will help shelter for generations to come, including LGBTQ+ people; people of color; grassroots groups interested in renting the space; artists of all disciplines who seek a place to perform, retreat, and create; and local Cazadero residents and neighboring community members who see Shelterwood as a local feature and ally in their region. Representatives from Mithun, our design firm, gathered inspiration and direction from our communities during these sessions to inform our facilities renovation plan.

We are also developing long-term partnerships that provide a foundation for our future work.

To ensure that we are aligned with local Southern Pomo Kashaya land stewardship efforts and integrating Indigenous wisdom in our forestry work, we are working with **The Cultural Conservancy** and the **Intertribal Synchione Wilderness Council**. For example, as part of our new well installation, we welcomed two local Indigenous elders to the land to help us honor the water flows and welcome in a new system. The well will allow us to free two surface springs that have been diverted for generations for the camp's use, which will help return water to the rest of the forest in these times of extreme drought.

To inform our artist residency initiative, we are building relationships with arts institutions that will help us create programming that meets the needs of locally-based, BIPOC artists. These groups include the **Yerba Buena Center for the Arts** and **The Center For Cultural Power.**

To help us build educational programming that benefits marginalized communities most impacted by the climate crisis, we are partnering with groups who specialize in community education and empowerment, including **Abundant Beginnings** and **Raizes Collective**.

Lastly, we are partnering with a number of ecological, conservation, and environmental organizations to influence the sector's climate justice efforts. Together, we are working to center the role of people in land care and amplifying Indigenous ways of knowing. We are advocating for Land Back and Reparations-oriented initiatives to be prioritized as climate change solutions.

Some of the organizations we are working with towards these goals include **Pole Mountain Fuels Crew, Sonoma Land Trust, and Movement Generation.**

Organizational Development and Operations

Shelterwood is a first-of-its-kind modern example of horizontal, queer Indigenous and Black land alliance. Through our horizontal community governance structure, we are leaving behind hierarchical systems of land domination and extraction inherited from colonial cultures, and returning to more relational, regenerative relationships with each other and with land as a path forward. When we officially became the stewards of Shelterwood last summer, our co-founding team formalized our life-long commitment to Shelterwood as a place and an organization. We also strengthened and expanded our governance structure to be inclusive of land and non-human kin.

In 2021, Shelterwood was accepted into the inaugural Justice40 Accelerator program, which provides support, information, and access to grassroots organizations led by Black and historically disinvested communities addressing environmental, climate, and social injustices. The accelerator aims to prepare groups to successfully apply to government funding opportunities presented by the Biden-Harris Administration Justice40 Initiative. So far, Justice40 has provided free consultation and technical assistance as we apply for our first state funding opportunity for forest stewardship activities.

We have intentionally scaled our staffing resources beyond our full-time co-founders, leveraging part-time staff, consultants, and volunteers to advise and support us on a number of priorities:

- **Collective Formation:** An expert on cooperative governance is helping us review and strengthen our governance processes
- **Community-Led Planning:** Teams from Freedom Verses provided facilitation and synthesis during our 2021-2022 community visioning sessions and a local facilitator guided our Board retreat to help refine our strategy
- **Renovation Design:** Mithun, as previously discussed, is leading the development of our facilities renovation masterplan
- **Retreat and Land Visit Coordination:** In response to overwhelming interest for visits to Shelterwood, we hired a retreat manager to coordinate land visits and pilot retreat programming
- **Marketing and Communications:** We hired a design firm to redesign our logo, website, and promotional materials

- **Fundraising and Financial Management:**
  - A skilled development professional is helping us create a comprehensive fundraising strategy and prepare to scale up our team's capacity for fundraising long-term
  - A part-time grant writer is supporting our philanthropic fundraising efforts
  - A part-time accountant and bookkeeper is supporting day-to-day financial management and setting up financial systems for the organization

Shelterwood enters 2022 in a strong financial position for such a new organization. In 2021, we raised $6.4 million from philanthropic sources, of which $3.8 million paid for the acquisition of the land. We also raised $8,000 from individual donors in 2021 through social media and newsletter appeals. After paying personnel and direct expenses throughout 2021, we entered 2022 with approximately $1.5 million in committed funds for operations and programming for the coming 18 months (January 2022 - July 2023).

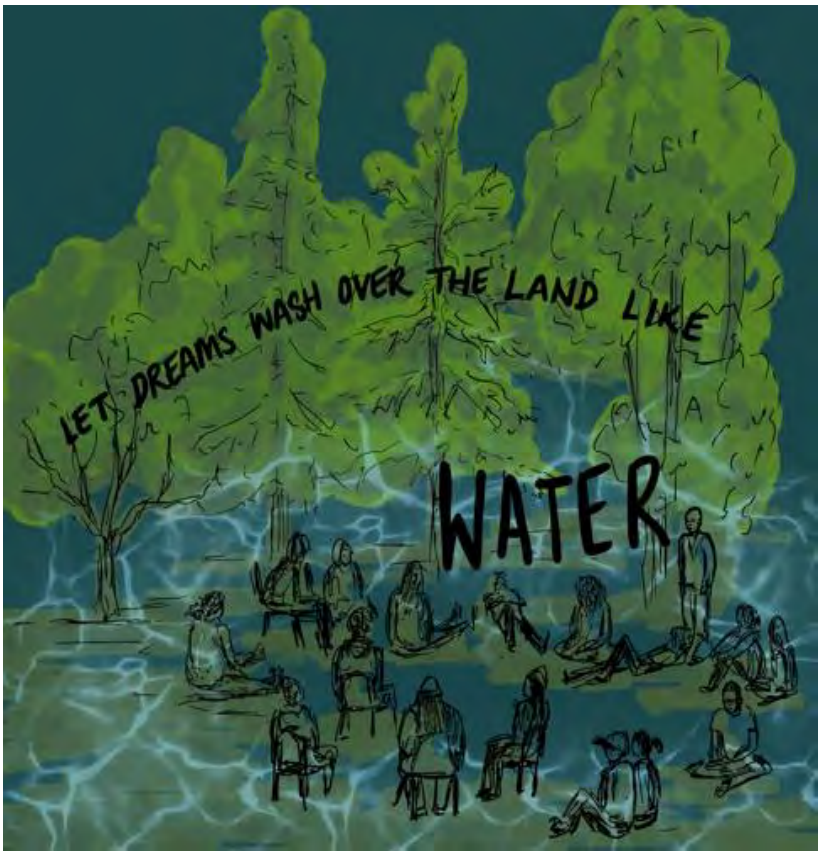
Finally, we have decided that 2023 is the most appropriate time for our capital campaign that will raise the funds required to overhaul Shelterwood's facilities. While we initially had envisioned launching the campaign this spring, our recent core team strategic planning retreat helped us narrow in on the importance of building the foundations of our collective in 2022, including our internal culture building, launching urgent programming around fire resiliency and safety prior to the start of wildfire season, and piloting programming that will help us determine our future staff hires and program mix. In other words, we see 2022 as a foundational rooting and capacity building year. We also believe that a 2023 capital campaign will allow us to take time in 2022 to build the strong base of foundation and individual donor relationships required to successfully raise several million dollars for a one-time infrastructure investment.

Supporting the Land Collective Movement

Given the nascent but growing mainstream interest in Land Back and Reparations initiatives, Shelterwood joins a community of BIPOC-led land collectives that is learning as we go. We are contributing to this community by working with a Brown University anthropologist and team to document our process. Even in our early years of visioning and land acquisition, we have learned numerous lessons of value for other BIPOC leaders following this path.

In addition, we are contributing to national conversations with influential voices on the cutting edge of climate adaptability and climate resiliency efforts. For example, we are in early dialogue with Meta (Facebook's parent company) and the National Indian Carbon Coalition to develop a framework that models how carbon credit projects can resource BIPOC-led land collectives while honoring Indigenous sovereignty. Through this effort, we are diving deeper into what it means to build a regenerative culture into projects that aim to advance ecological resilience. We see a radical carbon credit framework as one piece of the vast ecosystem needed to fund and empower climate solutions led by communities on the frontlines of the climate crisis.

In the future, we will have the capacity to host land collective leaders from across the country to allow them to learn applied lessons in farming, food sovereignty, collective governance, and sustainable land stewardship. We see ourselves as one node in an expanding network of BIPOC-led and Queer land justice projects, sharing our learning and receiving in return, in the same spirit of reciprocity as our stewardship of the land.



NORTH COAST RESOURCE PARTNERSHIP

PROJECT BENEFITS TABLE

Benefit Description	Units	Quantitative Amount	Qualitative Description
Water Supply			
Increased Water Supply Quantity	Gallons	3.7M / year	Once the new well is connected to the rest of the system, it will produce an average of 7 gpm throughout the year, or 3.7M gallons per year.
Replaced water distribution piping	Feet	1930	1,930 linear feet of 2" polyline piping will replace the rusted iron piping currently wasting water throughout the campus
Climate Change			
Increase in number of visitors learning about climate resilience	Number of guests per year	185	With Shelterwood's vision of growing into a sanctuary for community healing and resilience, the expansion from the Vision plan will allow for more guests to visit, learn, and grow with their environment.
Improved ability to restore a degraded forest and reducing its risk of wildfire related destruction	acres	900	The renovation of the community center will allow for staff, volunteers, and work crews to carry out the demanding work of restoring the 900-acre forest to reduce wildfire risk and therefore lower the amount of carbon released into the atmosphere from forest loss
Other Ecosystem Service Benefits			
Increased surface water flow to salmonid habitat	Gallons per year	5M / year	Shelterwood's water is currently coming from a spring situated above coho salmon habitat. Leaks and system inefficiencies lead to a lot more water getting diverted and wasted than is getting used by the camp. Once the new well is online, the spring box will be removed and the water will flow directly into salmonid habitat
Increased Fire water Storage	Gallons	50,000	In the event of a fire outbreak, with the quickest fire truck response time being roughly 40 minutes, Shelterwood would need to independently fight back fires till they arrive. Furthermore, because of Shelterwood's location at the end of a valley along a ridgeline, stopping a wildfire here would help minimize damages to properties down the valley, including those in the town of Cazadero proper.
Installation of Fire Hydrants	Number of hydrants	2	In the event of a fire outbreak, a fire hydrant can assure fast water supply by extracting water from the pipelines

Benefit Description	Units	Quantitative Amount	Qualitative Description
			on site. Shelterwood aims to install hydrants at strategic locations to increase response capability for wildfire and firefighting within the Shelterwood center
Jobs Created or Maintained			
Forest restoration BIPOC staff	number of full time equivalent jobs	15	The community center's renovation would allow Shelterwood's staff to be maintained and scaled up once the buildings are safe
Civil engineering and construction workers	number of part time jobs	10	The project will rely on expertise from both civil engineering firms (Sherwood Engineers) and contracting firms who would implement the necessary infrastructure projects.
Other Benefit			
Enhanced Fire Fighting Capabilities	Acres protected per year	900	By incorporating firefighting infrastructure and fire water storage, Shelterwood can not only help fight fires onsite themselves, but also be better prepared for emergencies when needed. This number does not include the additional impacts of stopping a fire burning through Shelterwood's property and spreading to neighboring properties.
Safety of Staff and majority BIPOC Guests	persons per year	1500	With the increased wildfire mitigation measures and fire water storage, the safety of the increased number of visitors and staff will be greater.