

Peterson Creek Vernal Pool Complex Restoration
Supplemental Environmental Project (SEP) Proposal

Basic Information:

1. **Project Name:** Peterson Creek Vernal Pool Restoration
2. **Project Developed By:** Laguna de Santa Rosa Foundation
3. **Project to be Performed By:** Laguna de Santa Rosa Foundation
4. **Project Amount:** \$416,000
5. **Contact:** Sarah Gordon, sarah@lagunafoundation.org, 707-480-8938

Site History

The Peterson Creek Vernal Pool Restoration project site is made up of two adjacent properties, the Fox Hollow West Preserve and Youth Community Park, both of which contain natural vernal pools within a grassland and scattered oak savannah upland totaling 67 acres (Figure 1 and Attachment A). The Fox Hollow West Preserve¹ (Preserve) was created in accordance with Section 404 of the Clean Water Act and associated Biological Opinions to protect, in-perpetuity, vernal pool habitat occupied by endangered Sonoma sunshine (*Blennosperma bakeri*) and California tiger salamander (*Ambystoma californiense*) dispersal habitat as mitigation for multiple residential developments. The City of Santa Rosa owns Youth Community Park (Park) which contains vernal pools, grassland and oak woodland in the undeveloped western portion. Sonoma sunshine has historically been observed in two of the Park's vernal pools, and recreational uses such as dog walking and disc golf occur in this portion of the Park. Together these adjacent properties provide outstanding opportunities to restore and conserve unique vernal pool habitats and associated rare and endangered species found on the Santa Rosa Plain.

The tasks proposed in this SEP described below are designed to be compatible with the goals of and activities allowed in the Habitat Management Plan (HMP, Attachment B) for the Preserve that was completed in 2020 in coordination with the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service to establish objectives, priorities and tasks to monitor, manage, maintain, and report on the status of resources within the Preserve. Three responsible parties ensure the legal protection of the land and management of the resources in accordance with the HMP, 1) the fee title holder, Fulton West Preserve, LLC, 2) the land manager, The Wildlife Project, and 3) the conservation easement holder, Agricultural-Natural Resources Trust (Ag-Trust). The long-term management tasks described in the HMP (see specifically Section 4 Management and Monitoring on pgs. 7-10) are funded by a non-wasting endowment established by City Ventures and managed by the Ag-Trust and are distinct from the tasks proposed in this

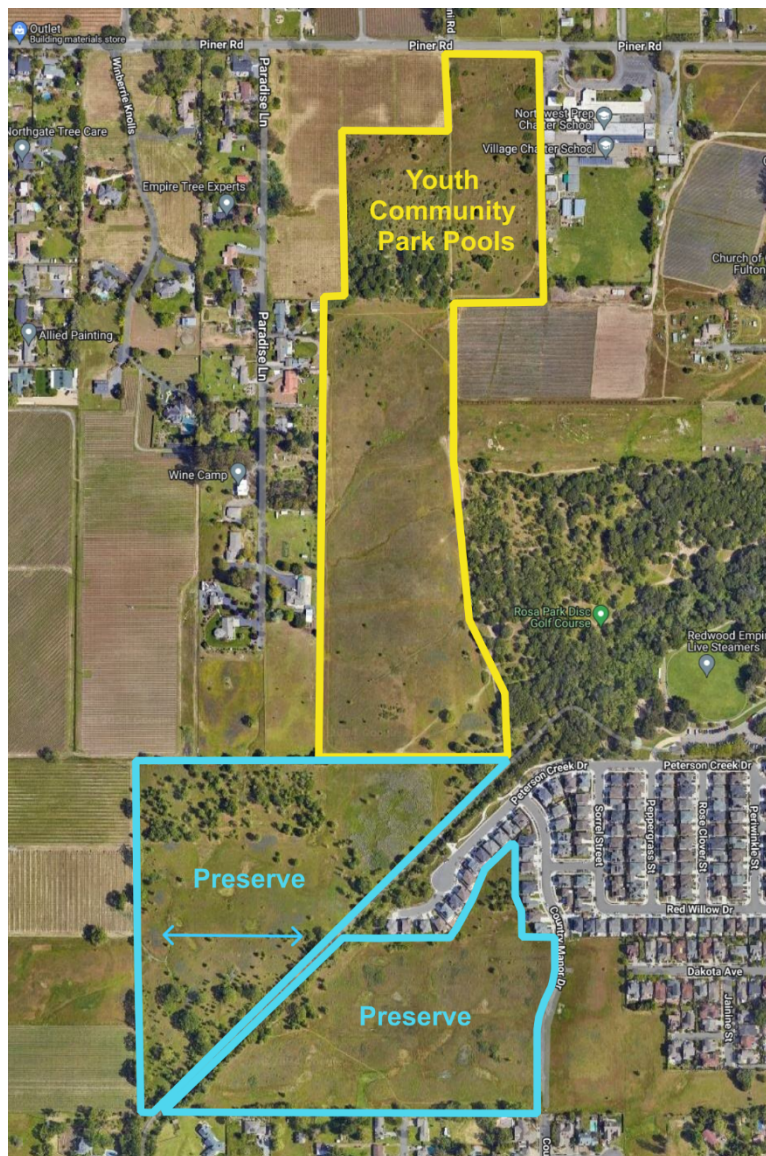
¹ Also referred to as the Fulton West Preserve

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SEP. The HMP applies only to the Preserve and does not apply to vernal pools within the Park.

The tasks proposed in this SEP will not take the place of the ongoing annual management requirements that are funded by the Preserve HMP endowment. The SEP tasks described herein will provide *critical additional habitat restoration* to benefit the listed species at the Preserve, bring important management support for protection of pools in the Park, and therefore contribute to habitat quality and species conservation across the larger Peterson Creek Vernal Pool Complex.

Map of Peterson Creek Vernal Pool Complex



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Figure 1: **Fox Hollow West Preserve** is outlined in blue (the blue east-west arrow indicates the parcel line between the previously named Fox Hollow Preserve [north side of arrow] and the previously named DeAngelis Preserve [south side of arrow]) and the section of **Youth Community Park** with vernal pool habitat is outlined in yellow.

Project Description

This project focuses on the restoration of a 67-acre vernal pool complex adjacent to Peterson Creek between Piner Road to the north and Guerneville Road to the south in Santa Rosa, California. Vernal pools are seasonally inundated wetlands where rain water pools for long enough to create a unique ecosystem of native plants and animals. While the wetlands on these properties are currently legally protected from development by a conservation easement on the Preserve and their status as a City park, they are severely degraded due to lack of targeted management that is specifically designed to enhance the vernal pool and upland habitat. The main threats include invasive species, accumulation of thatch, homeless encampments, recreational vehicle traffic and off-trail park users.

A primary goal of this project is to establish a successful conservation grazing program at the Preserve so that the long-term mitigation agreement (as described by the HMP) can be successfully implemented on the Preserve to sustain a healthy population of the endangered Sonoma sunshine. The purpose of grazing is to help reduce invasive species and the accumulation of thatch in and around the vernal pools that smothers and precludes healthy populations of Sonoma sunshine. In order to start a successful grazing program, it is important to ensure the site is secure and meets the needs of the grazing animals. These needs include access to water, palatable forage and site-specific safety modifications. There is currently no water access or water resource infrastructure on either side of Peterson Creek and invasive plant species establishment have substantially degraded the grazing forage. Highly competitive non-native species of Himalayan blackberry and Harding grass, in particular, create dense thickets that prevent the animals from grazing on the more palatable new growth and invade high quality vernal pool habitat. There are also approximately 100 open soil pits on the Preserve excavated by the previous landowner to determine soil characteristics throughout the site. These open pits will need to be filled in to recreate the natural site topography and because the open pits are a danger to grazing animals, as well as relic barbed wire cross fencing that will need to be removed.

Once the Preserve habitat has been enhanced through highly targeted invasive species management and grazing, Sonoma sunshine restoration, through collection of on-site seed, amplification in the Laguna de Santa Rosa Foundation's (Laguna Foundation)

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nursery, and outplanting back into the vernal pools with suitable habitat, will boost Sonoma sunshine to a more robust population as previously observed within the Peterson Creek Vernal Pool Complex.

Another goal is to implement additional conservation measures in the Park to include identification of sensitive resources, including seasonal wetlands, endangered plant populations and high quality native plant habitat, and installation of temporary fencing around vernal pools to prevent damage from off-trail bicycling and trampling so that the City can effectively manage their vernal pool habitat.

SEP Roles During Project Implementation

Laguna de Santa Rosa Foundation (SEP Project Lead) – is the lead party responsible for implementing the Peterson Creek Vernal Pool Complex Restoration project, and works with all parties to fulfill the SEP responsibilities and submit reports to the North Coast Regional Water Quality Control Board (Regional Water Board).

Agricultural-Natural Resources Trust – holds the conservation easement and ensures that all SEP activities being implemented are consistent with the terms of the easement. Collaborates with the Laguna Foundation and The Wildlife Project (Land Manager) to fulfill specific SEP responsibilities as defined herein. A letter of support for the overall project concept is included in Attachment C.

City Ventures – is funding this project as part of the settlement of a Regional Water Board enforcement action. A letter in support of funding the Peterson Creek Vernal Pool Complex Restoration is included in Attachment C.

Fulton West Preserve, LLC – is the fee title owner of the Fulton West Preserve property and works with the Laguna Foundation, the Ag-Trust, and The Wildlife Project to provide access to the project property. A letter of support is included in Attachment C.

The Wildlife Project – is land manager of the property under the HMP and collaborates with the Laguna Foundation and the Ag-Trust to fulfill specific SEP responsibilities defined herein.

City of Santa Rosa Recreation and Parks – fee title owner and land manager of the Youth Community Park property. The City will work with the Laguna Foundation to implement the SEP responsibilities and provide access to the Park. A letter of support for the overall project concept is included in Attachment C.

Benefits

The benefits of the Peterson Creek Vernal Pool Restoration SEP project goals include:

1. 67 acres of enhanced vernal pool complex.

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2. Stabilize the population of Sonoma sunshine, a federally listed endangered species.
3. Healthy wetlands capture and store rain water and slow the flow to Peterson Creek.
4. This complex is part of a larger matrix of vernal pools in the northern Santa Rosa Plain, and the health of the larger matrix depends on the health of the smaller complexes.
5. California tiger salamanders, a federally endangered species, have been found in pools just a few hundred yards north of this site and could conceivably use this site if it were restored.
6. Public access to healthy vernal pool ecosystems on the Santa Rosa Plain is limited and the city park location would provide opportunities for the public to learn about these important unique wetlands.
7. Limiting homeless encampment near Peterson Creek will limit trash and polluted runoff from being washed into the creek and substantially reduce the occurrence and risk of wildfire to the surrounding community.

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List of tasks

Each task is described below. The timeline for implementation is provided in the Schedule (Table 2).

Task 1: Grazing

Grazing on the Preserve will be the primary management tool to manage invasive plants, deter homeless encampments, and bring the habitat back to prime condition to sustain the vernal pool habitat in the long term.

The HMP recognizes grazing as an approved vegetation management technique on the Preserve; however, grazing is not required and there is no dedicated funding to support the installation of grazing infrastructure. The SEP funds will be used to install necessary grazing infrastructure. The Laguna Foundation will work with the Land Manager to initiate grazing. After the SEP is completed, the Land Manager will assume grazing responsibilities as part of long-term vegetation management under the HMP.

All proposed grazing related tasks are compatible with the HMP but the HMP endowment does not fund grazing therefore this task covers activities beyond the scope of the HMP; the SEP will specifically fund Tasks 1.1-1.3 (see below) that are critical to implementing grazing on the Preserve.

Together Tasks 1 and 2 below provide an identifiable and stand-alone environmental benefit, which is described further in the “Interim Milestone” section.

Task 1.1 Install water source

Water infrastructure will be installed to support grazing management. A groundwater well, solar pump and trough will be installed on the northwest side of Peterson Creek; and a waterline connected to City water will be installed on the southeast side of the creek with associated grazing infrastructure (piping and trough). The Laguna Foundation will subcontract this work in collaboration with City Ventures and the Ag-Trust.

Deliverable: Two water sources will be established on the Preserve, including one water source on the northwest side of Peterson Creek and one on the southeast side.

Task 1.2 Access locations and other infrastructure

Access locations for livestock will be identified and appropriate infrastructure such as portable livestock panels will be purchased and installed. The Laguna Foundation will collaborate with the Ag-Trust and the Land Manager to fulfill this task.

Deliverable: A map identifying access locations for grazing and necessary infrastructure on the Preserve.

Task 1.3 Initiate grazing management

The Laguna Foundation will initiate the first year of grazing and work with the Land Manager to identify grazing lease details such as vegetation and thatch reduction target

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amounts, number of animals, and timing for when grazing will occur. The Laguna Foundation will provide sample vernal pool grassland grazing management plans and written recommendations and guidelines specific to the Preserve to the Ag-Trust and the Land Manager to support their long-term management under the HMP after the SEP is completed.

Deliverable: Written grazing management recommendations and guidelines for the Preserve will be developed and implemented during the project period. Final recommendations will be produced by the end of the SEP implementation period.

Task 2: Grazing safety

Livestock operators require grazing sites that provide safe conditions for their animals. The perimeter fencing is intact at the Preserve, but there are two existing property hazards that are dangerous to grazing animals: the soil pits excavated by the previous landowner and the relic barbed wire fencing between the original Fox Hollow property and the DeAngelis property (see east-west running fence line bisecting the Preserve, noted by blue arrow, Figure 1).

All proposed grazing safety related tasks are compatible with the HMP but not funded by the HMP endowment; SEP funding will cover Tasks 2.1 and 2.2 that are critical to implement grazing as a long-term habitat management tool.

Task 2.1 Fill in soil pits in level with the surrounding grade

Large soil pits were excavated with a backhoe by the previous owner to determine soil characteristics throughout the property and were never restored to the natural topography. Large soil pits are dangerous to grazing animals, as they can fall into or trip on the edge (breaking legs). The pits also create hazards to people and machinery used during vegetation management and fire control. The soil pits will be filled and leveled with the surrounding grade using the soil originally removed from the pits which is currently piled to the side of each pit. The overall amount of soil to be moved is substantially less than 50 cubic yards, which is the amount that triggers a grading permit in the City of Santa Rosa. The Ag-Trust has confirmed this activity is compatible with the HMP and conservation easement. The Laguna Foundation will implement this task.

Deliverable: Soil pits on the Preserve will be filled by the end of the SEP implementation period.

Task 2.2 Remove interior fence line

The original property boundary between the Fox Hollow Preserve and the DeAngelis Preserve (Figure 1) has an old barbed wire fence in disrepair. This fence will be removed as it poses a danger to livestock grazing; much of the fence is broken and falling down, grazing animals can get injured by getting stuck in the barbed wire either

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by dehydrating because they can't move or sustaining injury. The Laguna Foundation will implement this task.

Deliverable: Internal fencing separating the Fox Hollow Preserve and DeAngelis Preserve and any other grazing hazards identified by the Laguna Foundation will be removed.

Task 3: Manage and reduce invasive species

Due to a long history of site neglect by the previous land owner and lack of suitable management specific to vernal pool habitat, invasive perennial species such as Himalayan blackberry and Harding grass have become well established at the site over the past decade. Their extensive footprint causes the accumulation of undesirable biomass (thatch), degrades upland and wetland habitat by competing with native species, creates unpalatable grazing forage, provides cover for homeless camps, and becomes a high risk fuel source for wildfires. If these species are initially managed through intensive targeted control (described below), grazing and mowing are suitable techniques to maintain long-term control into the future at levels that allow native species to compete and thrive.

Under this SEP, these invasive species will be intensively reduced by a multiyear Integrated Pest Management approach which includes one or two years of mowing treatments followed by two years of targeted herbicide application to reduce the overall cover and allow the grazing animals access to the tender sprouts when they re-emerge each growing season. This two-step best management practice has been successfully applied elsewhere by the Laguna Foundation in vernal pool habitats on the Santa Rosa Plain to reduce populations of these aggressive invasives and create higher quality grazing forage resulting in increased abundance and health of native species. Each target invasive species will be managed at the appropriate time of year for the species.

While the HMP provides limited funding for invasive species management, the goal of the HMP is to *maintain baseline conditions* that existed at the time the HMP was completed (HMP Page 10, Section 4.3, Paragraph 2). The goal of the SEP funding is to restore and enhance the overall vernal pool habitat to better than baseline conditions by dramatically reducing the cover and extent of these species and ensure the forage is more palatable and desirable for livestock grazing, and consequently ensuring the success of long-term management under the HMP after the SEP is completed. This invasive species reduction is critical to the success of using grazing as a long-term tool for habitat management. The Laguna Foundation will implement this task.

Deliverable: Implement Integrated Pest Management targeting Himalayan blackberry and Harding grass populations each year during the SEP implementation period, performance measures are discussed below in Project Performance Measures.

Task 4: Restore Sonoma sunshine

The Fox Hollow West vernal pool mitigation was undertaken to protect endangered Sonoma sunshine but the lack of grazing and delay in implementing mowing during property ownership changes over the past 10 years has allowed the invasive species to expand and the thatch to build up in the pools which in turn smothers the small vernal pool plants. The Laguna Foundation will collect a small percentage of onsite seed in summer 2025 (Task 4.1), grow the plants out in its nursery to amplify the seed stock during the following year (Task 4.2), then return the nursery grown seeds back into pools in fall 2026 on the site where they occurred previously under more optimal conditions (Task 4.3). Seed amplification has proven to be an effective technique piloted and implemented as a best practice by the Laguna Foundation at other vernal pool complexes on the Santa Rosa Plain. The Laguna Foundation will hold the permit obtained through the California Department of Fish and Wildlife (CDFW) to handle endangered plant seed.

Rare plant restoration work is compatible with the HMP but not funded by the HMP. The SEP funding will be used to re-establish healthy populations of Sonoma sunshine on the Fox Hollow Preserve as a complement to the HMP objectives. The Laguna Foundation will implement this task.

Deliverable: Obtain CDFW 2081a permit to work with protected species and grow additional seed for planting at the Preserve, performance measures are discussed below in Project Performance Measures.

Task 5: Youth Community Park habitat conservation and public outreach

The Laguna Foundation will conduct field surveys to identify and map the location of Sonoma sunshine and other sensitive resources such as seasonal wetland habitat and high quality native plant habitat and coordinate with City of Santa Rosa Parks and Recreation to protect and manage the endangered Sonoma sunshine and reduce impacts from off-trail public activities. The Laguna Foundation will provide a map to the City with the Sonoma sunshine locations and install temporary fencing and signage around the sensitive habitat. These actions are intended to help launch a new collaborative effort with the City to establish public outreach including guided tours and volunteer stewardship projects to maintain the vernal pools in the park through other funding opportunities. The Laguna Foundation will implement this task.

Deliverables: A map of the Park where endangered species are located; installation of fencing and signage.

Table 1. Budget

The Laguna Foundation staff will implement all tasks except in the instances where sub-contracts are identified. The total proposal budget is \$416,000. The Laguna Foundation rate sheet is in Attachment D.

	Laguna Foundation Planning, Coordination, Reporting and Administration	Laguna Foundation Field Personnel	Equipment	Supplies	Sub-contract Ag-Trust, oversees and administers installation contract	Sub-contract (Other)	Totals	Staff assignment	Notes
Task 1 - Grazing									
Task 1.1 Installation of water source, city water (east side)	\$ 500				\$ 6,000	\$35,000	\$ 41,500	PD, PM	Sub-contract (other) to general contractor for installation of water source
Task 1.1 Installation of water source, well (west side)	\$ 500				\$ 6,000	\$50,000	\$ 56,500	PD, PM	Sub-contract (other) to general contractor for installation of water source
Task 1.2 Access locations and other infrastructure	\$ 500		\$ 1,000	\$ 4,000	\$ 2,000		\$ 7,500	PD, PM, CS	Supplies: livestock panels, fencing, spigot, trough
Task 1.3 Initiate grazing management	\$ 2,000	\$ 2,000			\$ 2,000		\$ 6,000	PD, PM, CS	
Task 2 - Grazing safety	\$ 3,000	\$ 14,500	\$ 4,500				\$ 22,000	Adm, PD, PM, FS, CS, RT	Equipment: tractor, trailer, vehicle usege, ATV, hand tools, dump fees
Task 3 - Invasive species	\$ 25,000	\$ 85,000	\$ 30,000	\$ 10,000	\$ 1,000		\$ 151,000	Adm, PD, PM, FS, CS, RT	Equipment: tractor, trailer, vehicle usege, ATV, spray rig, backpack sprayer, Brush Mower, Brush Cutter, hand tools; PPE, consummables, herbicide, surfactant, PCA recommendation
Task 4 - Sonoma sunshine restoration	\$ 21,000	\$ 45,000	\$ 2,000	\$ 8,000	\$ 500		\$ 76,500	Adm, PD, PM, FS, CS, RT, NM	Equipment: vehicle usage, nursery equipment; Supplies: irragation, seed storage, soil, frost cloth, weed cloth, consummables, plant maintenace supplies
Task 5 - Coordination and fencing with City of Santa Rosa	\$ 20,000	\$ 25,000	\$ 5,000	\$ 5,000			\$ 55,000	Adm, PD, PM, FS, CS, RT	Equipment: ATV, vehicle usage, brush cutter, other misc; Supplies: fencing supplies, hand tools, signage, dump fees
Staff Codes							\$ 416,000		
Administrative Staff (Adm)									
Program Manager/Director (PD)									
Project Manager (PM)									
Field Supervisor (FS)									
Conservation Specialist (CS)									
Restoration Technician (RT)									
Nursery Manager (NM)									

Compliance with SEP Criteria

This section addresses how the project meets SEP criteria.

1. The project directly addresses beneficial uses of waters of the State.
2. The SEP contains only measures that go above and beyond applicable obligations.
3. The SEP does not directly benefit, in a fiscal manner, the Regional Water Board's functions, its members, or its staff. All funds will be used for the project as described.
4. The SEP has a nexus to the location of the violation.
5. Long-term maintenance of the mitigation properties is ensured by the existing Habitat Management Plan, Endowment, and Conservation Easement.

SEP Category

The project qualifies as a SEP under the following categories:

1. Pollution Prevention. The project is designed to discourage unauthorized access to the project area by the public and homeless camps by removing cover and secure fencing. Limiting homeless encampments near Peterson Creek will prevent the accumulation of trash and the discharge of polluted runoff from the project area into the Creek and reduce the potential for escaped camp fires, which have occurred multiple times over the past few years. The project will also restore and expand existing wetlands, which will capture and store rain water and slow the flow to Peterson Creek which in turn flows into the Laguna de Santa Rosa and subsequently the lower Russian River.
2. Environmental Restoration and Protection. Vernal pools are important seasonal wetlands on the Santa Rosa Plain but encroachment from housing development and a lack of adequate management has endangered the species that depend on this critical habitat. This project will set this vernal pool complex up for long term success and contribute to the recovery goals of the Santa Rosa Plain Conservation Strategy² and Recovery Plan for the Santa Rosa Plain.³

Accounting

The Laguna Foundation follows Generally Accepted Accounting Principles (GAAP) and maintains a separate job code for each project and every transaction entered must have both a job code and an account number. Our Financial Manager does not pay bills without the authorization of the Project Manager to ensure that unauthorized

² U.S. Fish and Wildlife Service. 2005. Final Santa Rosa Plain Conservation Strategy. December 1, 2005. 62 pp.

³ U.S. Fish and Wildlife Service. 2016. Recovery Plan for the Santa Rosa Plain. May 31, 2016. 144 pp.

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expenditures are not made. We use QuickBooks, a standard accounting program, which makes it easy to maintain accurate records and generate reports.

Project Performance Measures

The success of the project will be documented by photos, planting maps, vegetation surveys and the grazing management recommendations. The Laguna Foundation has been monitoring the three endangered plants associated with the Santa Rosa Plain vernal pools for more than 10 years. These sites have all been monitored in the past and will continue to be monitored throughout the life of the project and beyond, tracking population responses to management and restoration actions and environmental conditions. Sonoma sunshine population levels are correlated with annual precipitation and climate conditions and are highly variable between years, thus making it difficult to identify reliable performance targets. However, over the 3 years of the project there will be an overall trend towards:

- a) Sonoma sunshine population growth (i.e. re-establishment of introduced plants in wetlands where they historically have occurred by addition of nursery grown seed; evaluation will occur spring 2027) and
- b) Sonoma sunshine population stability (no decreasing trend in current population numbers),

provided that annual precipitation is within the range of normal (defined as no more than 20 percent variance from the 20-year average rainfall totals and standard pattern).

Target invasive species will be mapped at the start and end of the project and plant cover within treatment areas will be estimated using representative plots throughout the vernal pool complex. The goal will be to reduce overall cover of the targeted invasive species in the treatment areas by 70%; however, environmental factors beyond our control may impact the ability to reach this goal and it will not be a strict requirement for project success determination.

Interim Milestone

The SEP Policy at section IX.A provides that milestones that allow for a portion of the SEP Amount to be permanently suspended must have an identifiable or stand-alone environmental benefit. While the individual components (tasks) of this SEP have a unified and synergistic environmental benefit when viewed as a whole, the implementation of grazing (Tasks 1 and 2 combined) will be completed early in the project period and will provide a stand-alone environmental benefit. In other words, if the grazing tasks are implemented together, even without the other tasks, there would still be environmental benefits.

In particular, managed grazing (Tasks 1 & 2) is an excellent tool for stewarding and restoring vernal pool habitats. Grazing alone provides habitat enhancement and long-term maintenance benefits such as reducing thatch, invasive species cover, and non-native species competition; thus, ensuring that the upland and wetland habitats are better suited for native species. Grazing also helps to deter homeless trespass and establishment of encampments. The implementation of these tasks together serves as

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an interim milestone with an identifiable environmental benefit that is not contingent on any of the other project tasks. These tasks will be completed by December 31, 2025.

Reports to the Regional Water Board

The Laguna Foundation will submit quarterly reports on the progress toward completion of the SEP, any challenges or obstacles encountered, and recommendations to resolve any obstacles to the Regional Water Board and City Ventures. We will also provide a final report documenting completion of the SEP and addressing how the performance measures were met along with copies of our invoices recording our expenditures.

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Table 2. Project Schedule

Below is the project schedule assuming that work can commence in early Fall 2024. The full project will be completed within 36 months.

Working for final submission

	2024			2025				2026			2027				
	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall
Task 1 Install water infrastructure				Year 1			Year 2			Year 3					
Task 1.1 Install water sources															
Task 1.2 Other infrastructure															
Task 1.3 Intitate grazing management															
Task 2 Grazing safety															
Task 2.1 Fill soil pits															
Task 2.2 Remove interior fence line															
Task 3 Invasive species															
Task 3.1 Biomass removal															
Task 3.2 Follow up treatments															
Task 4 Sonoma sunshine restoration															
Task 4.1 Seed collection															
Task 4.2 Nursery propagation															
Task 4.3 Replanting seeds															
Task 5 Coordinate with the City of Santa Rosa															
Quarterly progress reports and final report to the Board															
															*Final

* Project start contingent on date SEP is funded. The project will extend 36 months beyond signing of Stipulated Order.

Qualifications

Laguna de Santa Rosa Foundation

The Laguna de Santa Rosa Foundation was established as a non-profit corporation in 1989 with a mission to restore and conserve the Laguna de Santa Rosa and inspire public appreciation of this Wetland of International Importance. Our Restoration and Conservation Science Department uses up-to-date science and restoration techniques to consistently and effectively implement ecological restoration projects within riparian, seasonal wetland and upland boundaries of the 254-square-mile Laguna de Santa Rosa watershed which includes the Santa Rosa Plain (roughly bounded by Sebastopol and Oakmont from west to east and Windsor to Cotati from north to south).

The Laguna Foundation's vernal pool conservation program, initiated in 2006, includes monitoring, restoration, habitat management, education and outreach. We obtain grant funding to restore vernal pool habitat degraded by inappropriate or lack of management, implement interim and long-term site management plans for mitigation properties, provide technical assistance and support for vernal pool property owners, and provide public education and habitat stewardship opportunities.

Native plant species for restoration are grown within the Laguna Foundation's own Native Plant Nursery at the Laguna Environmental Center. Native stock of seeds and cuttings are ethically collected by highly skilled botanical professionals under required permits, allowing for all restoration to be done with genetics local to the Laguna de Santa Rosa watershed. The Laguna Foundation has implemented successful vernal pool seed amplification projects, growing three endangered vernal pool species, Burke's goldfields (*Lasthenia burkei*), Sonoma sunshine (*Blennosperma bakeri*) and Sebastopol meadowfoam (*Limnanthes vinculans*) in the nursery for restoration of vernal pool habitat. We currently hold five California Department of Fish and Wildlife issued 2081(a) Scientific, Educational, or Management permits for our work with endangered species.

The Laguna Foundation has a wide range of experience working with multiple cities, agencies, and landowners using various sources of funding to implement complex integrated projects throughout the watershed. The Laguna Foundation is able to combine its own professionally-developed skills in ecological restoration with various partners to generate highly multifaceted, successful ecological restoration projects. The Laguna Foundation has worked closely with Sonoma County Agricultural Preservation and Open Space District, Sonoma County Water Agency, Sonoma County Regional Parks, Sonoma Land Trust, California Department of Fish and Wildlife, California Coastal Conservancy, California Department of Parks and Recreation, Federated Indians of Graton Rancheria, Sonoma and Gold Ridge Resource Conservation Districts, North Coast Regional Water Quality Control Board, Sonoma State University, Santa Rosa Junior College, City of Cotati, City of Santa Rosa, City of Sebastopol, and many more.

Planning and Management

Anne Morkill, Executive Director

Anne has worked in wildlife conservation for more than three decades, including 24 years as a wildlife biologist and refuge manager with the U.S. Fish and Wildlife Service's National Wildlife Refuge System in Colorado, Alaska, Florida, and California, and six years as a wildlife biologist with the Bureau of Land Management in Alaska. Before coming to the Foundation, she managed the San Francisco Bay National Wildlife Refuge Complex for 8 years which includes seven National Wildlife Refuges in the San Francisco and Monterey Bay areas and the Farallon Islands. Originally from Miami, Florida, Anne received a B.S. in Wildlife Biology from Colorado State University and a M.S. in Zoology from the University of Wyoming.

Sarah Gordon, Conservation Science Program Manager

Sarah is a plant ecologist with experience in seasonal wetland ecology, botanical surveys, vegetation mapping and rare plant conservation and mitigation. Sarah completed her B.A. at UC Santa Cruz and her M.S. degree at Sonoma State University examining landscape level genetic structure in California bay laurel, with a coursework focus on conservation genetics. After completing her thesis, Sarah worked for three years at SSU as a lecturer and researcher, investigating conservation genetics of rare vernal pool plant species and co-managing the DNA sequencing lab. Prior to joining the Laguna Foundation in 2017, Sarah worked as an ecological consultant, specializing in botany, rare plants and vernal pool ecosystems, primarily in Sonoma County. Sarah has been working on restoring, enhancing and managing created and natural vernal pool habitats on the Santa Rosa Plain since 2007.

Brent Reed, Ecological Program Manager

Brent's first professional experience with ecological restoration in the Laguna watershed was working on the Kelly Farm Demonstration Wetlands in 1989, while on summer break from studies for a B.S. degree in Natural Resources Management at Cal Poly, San Luis Obispo. After getting his degree, Brent moved back home to Sonoma County in 1995 and has been supervising, designing, and working in all facets of ecological restoration on projects throughout northern California as a former Restoration Specialist with Circuit Rider Productions and as independent contractor. Before joining the Laguna Foundation in November of 2011, Brent was involved in multiple restoration projects and on-going vernal pool monitoring in the Laguna watershed, often in partnership with the Laguna Foundation. Brent holds a CA State Contractors License (No. 1011225, C27-Landscaping).

Leading Field Operations

Asa Voight, Preserve Manager

Asa, a Certified Master Naturalist, California Prescribed-Fire Burn Boss, and holding a state Qualified Applicator License has been restoring and maintaining native habitats with the Laguna Foundation since 2015. Asa's strong background of working closely with native flora and fauna began with 7 years as a sustainable farmer along the Russian River riparian zone. Asa has extensive experience with the Laguna Foundation native plant nursery and supervises all vernal pool restoration projects. Asa

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successfully developed the nursery procedures to amplify Sebastopol meadowfoam in the Laguna Foundation nursery for the Balletto Field restoration project and managed the amplification of Sonoma sunshine and Burke's goldfields at the Laguna nursery. Aşa currently implements interim management plans for several vernal pool mitigation properties, including coordination of conservation grazing, infrastructure maintenance and replacement, and communications and outreach.

Sonoma Sunshine Restoration and Nursery Propagation

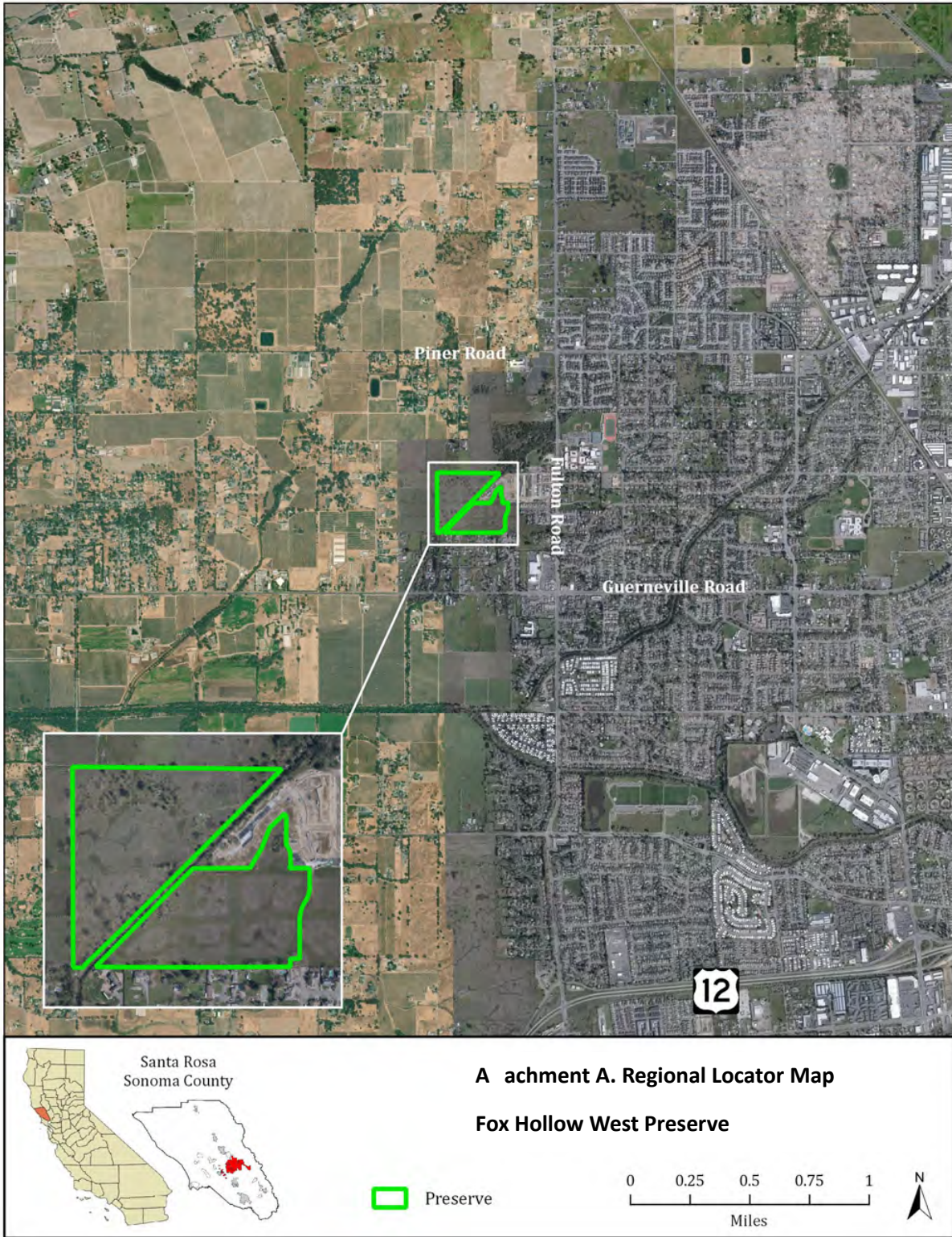
Ayla Mills, Native Plant Nursery Manager

Ayla graduated from Chico State University with an M.S. in biology focused on botany and has over ten years of experience in the habitat restoration field. Before joining the Laguna Foundation, Ayla worked at Floral Native Nursery and managed the nursery operations at Central Coast Wilds and the Sonoma Ecology Center's native plant nursery. She has also worked as a botanical consultant, restoration technician, and teacher. Ayla implemented seed amplification of two endangered vernal pool species, Burke's goldfields and Sonoma sunshine, at the Laguna Foundation nursery and presented the work at the California Native Plant Society Conservation Conference in 2023.

Attachment A

Regional Locator Map

Peterson Creek Vernal Pool Complex Restoration Plan
Laguna de Santa Rosa Foundation



Peterson Creek Vernal Pool Complex Restoration Plan
Laguna de Santa Rosa Foundation

Attachment B

Fox Hollow West Preserve Habitat Management Plan

Attachment C

Letters of Support

Agricultural-Natural Resources Trust
City Ventures Homebuilding, LLC
Fulton West Preserve, LLC
City of Santa Rosa

Peterson Creek Vernal Pool Complex Restoration Plan
Laguna de Santa Rosa Foundation

Attachment D

Laguna de Santa Rosa
Billing Rate Sheet