January 15, 2020
Oregon Country Fair (OFC)
Land Use Management Planning Committee
Attn: Dennis Todd, PhD
442 Lawrence Street Eugene, Oregon 97401
(541) 554-0359

https://www.oregoncountryfair.org/
Submitted electronically to: rfq@oregoncountryfair.org

*Re: Request for Qualifications (RFQ): Comparative Analysis of Greywater Recycling Systems for OCF*

Dear Dennis,

Thank you for encouraging Watershed Progressive's (WP) participation in the RFQ process for conducting the *Comparative Analysis for Greywater Recycling Systems for OCF*. Watershed Progressive is a leader in innovative water and climate resiliency treatments. We specialize in developing sustainable onsite water remediation for varied habitats and environments while focusing on water conservation and reuse, stormwater management, watershed health and community water security.

We have been a major proponent in onsite water conservation and reuse projects for residential, commercial, institutional and governmental clients. We specialize in design-build services, engineering, consultation, outreach and water education initiatives. The *OFC Comparative Analysis for Greywater Recycling Systems* effort directly aligns with our technical expertise and demonstrated leadership in innovative water resiliency treatments.

We are excited to share our Statement of Qualifications with you. In addition to our successful projects, WP is filled with heart-driven professionals that value projects prioritizing land stewardship. Building healthy and resilient communities is at the core of all our projects; OCF's mantra, "Above all, reverence for the land" resonates deeply with us. Over the past several years, we have prioritized scaling our engagement with larger sites, for events and gatherings, and we're excited to work more intimately with conferences and festivals to incorporate net-zero water operations, water reuse, purification and energy-saving systems.

We believe your innovative project goals will benefit from our expertise and leadership in developing and implementing climate resiliency treatments at multiple scales; and our shared desire to create resilient and healthy communities through collaboration and meaningful design. We look forward to working with you.

Sincerely,

Regina Hirsch, Executive Director

# Watershed Progressive
# 2020 Statement of Qualifications
# Prepared for: The Oregon Country Fair

Central Sierra Office: 18653 Main Street
Groveland, CA 95321

Central Coast Office: 106 N. Signal Street. Ste S
Ojai, CA 93023

## COMPANY OVERVIEW

Watershed Progressive is a leader in innovative climate resiliency treatments utilizing a regenerative, holistic design approach. Our scope of work includes project development, management and implementation, from high-level analysis to design, engineering, community outreach and education, installation, maintenance and monitoring.

We specialize in developing sustainable onsite water remediation specific to the varied habitats and environments of the western United States, that includes water conservation, stormwater management, watershed health and community water security in service of climate resilient communities. Watershed Progressive collaborates on robust demonstration projects in local neighborhoods, public, and commercial settings. We work with residential, commercial, institutional and governmental clients.

## VISION AND FOCUS

We envision thriving communities participating as stewards of their resilient ecosystems. We focus on demonstration projects including installation and monitoring at schools, lodges, resorts and neighborhood communities where Low Impact Development (LID) can enhance water quality and security. We create solutions while modeling best practices for to reach optimum watershed health for our future generations.

## WATERSHED PROGRESSIVE & OREGON COUNTRY FAIR

The *Comparative Analysis for Greywater Recycling Systems for OCF* directly aligns with our technical expertise and demonstrated leadership in innovative water resiliency treatments. Our approach is to work with the values and goals of OCF to identify the optimal possibilities for greywater recycling systems. We incorporate best available data and science to drive development of projects, conduct  analyses, and use stakeholder-partner input to develop a suite of integrated approaches.

## PROPOSED APPROACH

*"Above all, reverence for the land."*

We work with the values of land stewardship and an ethos of "relatives, not resources." Our goal is to reduce or eliminate OCF's reliance on importing and transporting water and to localize available alternative onsite water sources to fit the needs of OCF's water demand and use.

Additionally, we explore a portfolio of approaches that promotes multiple benefits to onsite water reuse, including reduced embedded energy, carbon sequestration, and increased soil health, water quality and security to foster resilient communities.

# SERVICES

## ENVIRONMENTAL PLANNING

- Water Management Planning
- Water Management Goal Setting
- Preferred Alternative Analysis and Prioritization of Phasing Options
- Instream Flow Contribution Analysis
- Onsite Water Budget Analysis
- Grant/Financial Assistance Planning, Administration and Acquisition
- Greywater LID Disposal Systems
- Groundwater LID Recharge Siting
- Habitat Typing
- Passive Phytoremediation Cooling Site Design
- Permit Coordination and Compliance
- Rainwater Reuse Systems
- Remedial Design
- Site Evaluations
- Soils Infiltration/Percolation Testing
- Soils Macroinvertebrate/Fauna Diversity Indexing
- Stormwater LID Mitigation
- Stormwater Pollution Prevention Plan (SWPPP) Monitoring
- Stormwater Project Planning Assistance
- Erosion and Slope Stability Rehabilitation
- Wastewater Phytoremediation
- Above and Underground Storage Tank Evaluation and Closure
- Coastal Sage Scrub, Sierra Foothill, Lower Riparian and Upper Montane Habitat Regeneration and Bank Stabilization
- QAPP Manuals

## HOLISTIC LANDSCAPE

- Bioremediated Water features: Commercial /Residential
- Constructed Wetland Habitats
- Drycropping for Native and Food Forests
- Ecological/Natural System Design Integration
- Guilded Food Forest Systems Planning/Installation
- Irrigated Reclaimed and Recycled Water Systems
- Irrigation Audits and Remote Control Customization
- LED Outdoor Lighting
- Rainwater, Greywater, Stormwater LID Installations
- Rainwater, Greywater, Stormwater LID Monitoring
- Erosion and Slope Stability Rehabilitation
- Permeable Hardscapes Identification and Planning
- Regenerative Native/Non-exotic Non-invasive plant schemes
- Comprehensive Site Design, Permitting

## EDUCATIONAL/OUTREACH

- Local Government Guidance Documents
- Public Outreach Strategic Plans (Including DAC/K12 School)
- Public Meeting Direction/Facilitation/Scheduling
- Stakeholder Identification, TAC Formation
- Public/Client Survey Feedback Analysis
- Facilities Maintenance & Public Water Management Trainings
- Interpretative Display Custom Model Building
- Augmented Watershed Sandbox Fire/Flood Modeling
- Mobile Water Learning Laboratory Design/Build
- Regional Holistic Design Seminars
- Native Greenhouse Management Trainings
- Onsite Maintenance and Monitoring Guidance Documents
- Onsite Water Reuse Workshops
- Printed Project Summary (printed/digital)
- Interpretative Signage Design and Installation

# ADDITIONAL INFORMATION

## CLIENTS

Butte County
Cal Polytechnic University, San Luis Obispo
California Conservation Corp
California National Guard
Camp Mosaic
Camp Tawonga
Central Coast Salmon Enhancement
City of Ojai
Evergreen Lodge, Yosemite
La Casa de Maria, Montecito
Mariposa County Public Works
Mono Lake Committee
Morro Bay National Estuary Program
Ojai Unified School District
Ojai Valley Inn
Rancho El Chorro Outdoor School, San Luis Obispo
Rush Creek Lodge, Yosemite
San Luis Obispo County Office of Education
Senior Canyon Mutual Water District
The Thacher School, Ojai
Tuolumne Resource Conservation District
Tuolumne River Trust
Trout Unlimited
United States Forest Service
Ventura River Water District

## TRAINING/PRESENTATIONS

American Rainwater Catchment Systems Association (ARCSA)
Americorp National Civilian Community Corps (NCCC) Watershed Stewards
Bioneers, Central Coast
California Directors of Environmental Health Directors Association
California Governor's Office Water Forum
California Onsite Water Association
California Green Building Association
California Native Grasslands Association
California Society for Ecological Restoration (SERCAL)
California State Water Reuse Forum
California Stormwater Quality Association
California UC Cooperative Extension
Central Coast Salmon Enhancement
Garden Clubs of California
Green Building Coalition
Greywater Action
Localizing California Waters Conference
National Association Wastewater Trainers
Next Generation Water Summit
River Advocacy Training
Salmon Restoration Federation
South Yuba River Citizens League (SYRCL) Water Conservation Training
The Water Foundation
Utah Onsite Wastewater Association

# ADDITIONAL INFORMATION

## PROJECT PARTNERS/AFFILIATES

American Rainwater Catchment Association
Americorp Watershed Stewards
Bushman Tanks, American Tanks
California Conservation Corp
California Onsite Water Association
California Fish and Wildlife
California Green Building Association
California Master Gardeners
California Onsite Water Association
California Stormwater Quality Association
California UC Cooperative Extension South Coast Habitat Restoration
Central Coast Salmon Enhancement
Central Coast Water Conservancy
Decentralized Water Policy Council
Greywater Action
In Good Company
Jensen Engineering and Survey
National Oceanic and Atmospheric Administration (NOAA)
Northstar Engineering
Occidental Arts and Ecology Center
Ojai Valley Green Coalition
Ojai Valley Land Conservancy
Santa Barbara Land Trust
Salmon Restoration Federation
Stillwater Sciences
Telele Foundation
Tom Hicks Law
TriCounty Fish Team
Trout Unlimited
Tuolumne Resource Conservation District
Tuolumne River Trust United States Forest Service
Upper Merced Watershed
Upper Salinas Resource Conservation District
Ventura County Resource Conservation District

## TCRCD LANDOWNER RESILIENCE PROGRAM

### WATER CONSERVATION, REUSE, OUTREACH, & EDUCATION PROJECTS

The Landowner Resilience Program originated in Tuolumne County in partnership with the Tuolumne County Resource Conservation District, and engages with landowners to promote local onsite water treatments, including rainwater harvesting, greywater reuse, stormwater management and water efficient landscaping.

The Demonstration Site Public Program engages larger public space sites for the application of water conservation treatments. These sites demonstrate the potential for a range of tools and treatments available for larger scale projects and have been used as educational spaces for community engagement.

Combined, both programs have installed on-site water treatment projects that recharge and conserve approximately 1,240,300 gallons of water annually, and we project another 870,000 gallons per year for projects in 2020. Over the course of 10 years, nearly 20,000,000 gallons of fresh water supply will be conserved, equating to more than 6.5 gallons for every dollar spent in this program.

More than just preserving fresh water supply, these projects are moving toward critical community values of fire and energy resilience and habitat restoration. The multiple benefits of these treatments range from fire and energy resilience to increased soil health and food security. For example, a residential client installed a 15,000 gallon rain tank on their property to conserve potable water. The additional water supply allowed them to irrigate the trees on their landscape, contributing to the benefits of habitat creation and fire resilience in addition to water security and increased soil health.

## EVERGREEN LODGE YOSEMITE, CA

### WATER REUSE, ECOLOGICAL LANDSCAPE PROJECT

Evergreen Lodge is a historic resort just outside Yosemite National Park. In 2010, a greywater system was installed to recycle 1.9 million galls on water annually from guest cabins, staff housing and commercial laundry. At the time of installation, Evergreen was the largest permitted greywater installation in Tuolumne County and is widely referenced as a case study for the potential of larger, commercial greywater systems in four season environments.

This wastewater reuse project provides native plant habitat rehabilitation while simultaneously decreasing potable water needs from groundwater wells. WP developed, permitted and implemented planning elements for Evergreen Lodge to provide wastewater harvesting, transporting, phytoremediation and storing dispersal of greywater from the commercial laundry, staff dorms and guest cabins. The water is used to facilitate the growth of landscaped areas, create habitat regeneration as well as alleviate onsite wastewater processing loads. These systems are all localized and onsite based for highest ecological regenerative and low maintenance values. Seven greywater delivery systems were installed and are monitored per the Evergreen Lodge Monitoring and Maintenance Manual quarterly for water, soil and ecological values.

Additional stormwater mitigation BMPs were also installed in late 2013 to reduce stormevent erosion from Rim Fire effects as well as hazardous snow melt runoff, which are currently being monitored for effectiveness.

Some of these have been combined with greywater in an effort to create ecological wetland systems that can detoxify roadway runoff, as well as other nutrient loads.

Calculations include:

- 1.9 mgy for additional shower greywater project planned
- 20,000 greywater and rainwater reuse

## RUSH CREEK LODGE YOSEMITE, CA

### WATER REUSE, ECOLOGICAL LANDSCAPE PROJECT

To further enhance the water/energy saving efforts of the Lodge, WP is proposing the addition of a recycled water system to utilize treated greywater from showers and sinks. This innovative solution will recycle the twice-used water for a third time, preserving critical freshwater supplies, decreasing water and nutrient load concentration, reducing the strain on the septic system, and enhancing and hydrating the landscape to nourish habitat to benefit the health and well-being of the land, community, and surrounding natural resources.

This wastewater reuse project harvests over 3.3 million gallons of greywater annually while providing native plant habitat rehabilitation while simultaneously decreasing potable water needs from groundwater wells. WP developed, permitted and implemented planning elements for Rush Creek Lodge to provide wastewater harvesting, transporting, phytoremediation and storing dispersal of greywater from the commercial laundry, staff dorms and guest cabins. The water is used to facilitate the growth of landscaped areas, create habitat regeneration as well as alleviate onsite wastewater processing loads. These systems are all localized and onsite based for highest ecological regenerative and low maintenance values.

## TUOLUMNE RCD K-12 SCHOOLS WATER RESOURCES PROGRAM, CA

### WATER REUSE, ECOLOGICAL LANDSCAPE PROJECT

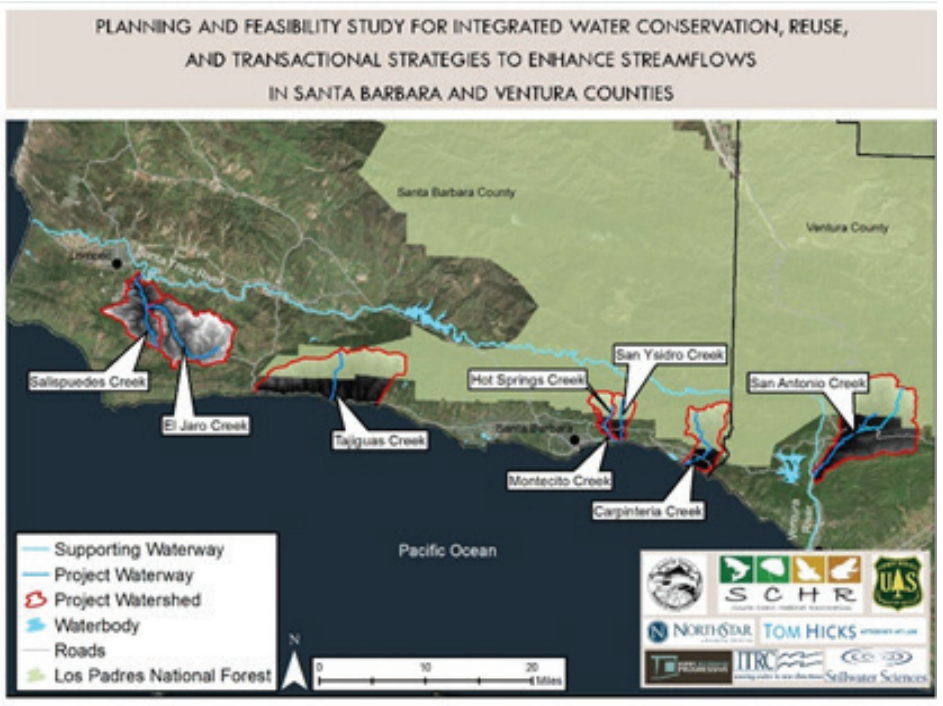
Tuolumne County Resource Conservation District contracted Watershed Progressive to assess all schools in Tuolumne, Calaveras County along HWY 4 and HWY 120 corridor. Assessment will help schools identify its water expenditure and suggests best management options. Each school will have a two-day installation project completed by Watershed Progressive, students, and local volunteers. The assessments created the framework for larger projects and grant opportunities. Assessment and two day installations were completed July 2018.

## PLANNING AND FEASIBILITY STUDY FOR INTEGRATED WATER STRATEGIES TO ENHANCE STREAMFLOWS SANTA BARBARA & VENTURA COUNTIES

### WATER REUSE, ECOLOGICAL LANDSCAPE PROJECT

This WCB Planning and Feasibility Study will frame, geographically identify and prioritize water conservation and reduced consumptive use opportunities that promote the highest potential for instream flow contributions in five different watersheds in Santa Barbara and Ventura Counties. The study will assess a variety of acquisition and implementation project types that in the aggregate present a unique non-regulatory strategy to reduce surface and/or groundwater diversions and enhance flows for the long-term persistence of viable, self-sustaining, populations of anadromous steelhead (Oncorhynchus mykiss) in Santa Barbara and Ventura Counties.

The Planning and Feasibility Study will scope and measure the individual and cumulative potential for geographically significant conservation projects. Based on the crucial "time value" of water in already recognized and prioritized California Department of Fish and Wildlife (DFW) fragile steelhead habitats, new projects will be assessed and rated by their local instream flow benefits such as: on site recycled water opportunities, ornamental and agricultural irrigation best management strategies, Low Impact Development (LID) storm water infiltration, Water Conservation Management Best Management Practices (BMP) employment, and voluntary water right transactions such as acquisition, lease, and donations. Consultants will quantify the opportunity in water savings to the user as well as multiple benefits to watershed processes and landowner.




Watershed Progressive is the Water Resource planner, designer, analyst, for site prioritization, as well as Public Outreach Monitor and Stakeholder group formation and planning.

## MOBILE WATER LEARNING LAB & AUGMENTED SANDBOX

### OUTREACH WATER CONSERVATION & STORMWATER PROJECT

The Mobile W.A. T. E. R. (Working Alternatives Toward Efficient Resource Use) Learning Lab was designed and constructed by WP for use by the Tuolumne Resource Conservation District (TCRCD) and their partnering outreach program. It's programmatic and adhoc use has reached thousands of Tuolumne County residents, and has been showcased at numerous stormwater and water conservation conferences.


Custom built by Watershed Progressive, the Augmented Reality Sandbox Watershed Model was modeled after various typologies, and customized for TCRCD in their school outreach program. The model combines these attributes for teaching curriculum:

1) Flood modeling
2) Earthworks modeling for BMPs
3) Snow and fire modeling
4) Basic Watershed topography
5) Additional real time modeling (added screen) based on hydrologic input

## CALIFORNIA CONSERVATION CORPS, LOS PADRES CENTER
### STORMWATER MITIGATION & WATER CONSERVATION LID

The California Conservation Corp and National Guard site in San Luis Obispo has had three distinct phases of its Water Conservation Project installed:

**1. NATIVE PLANT RESTORATION PROJECT**

Watershed Progressive provided instruction and a 2-year curriculum for Special Corp Members on Native Greenhouse Management, while developing Native Greenhouse and Nursery and sample protocols. In collaboration with the CCC, National Guard and NOAA, Watershed Progressive designed and facilitated the installation a 44,000 rainwater catchment aimed at supplying irrigation for the Native Greenhouse plants in Fall of 2011.

**2. STORMWATER MITIGATION AND WATER CONSERVATION LID PILOT 1533**

In collaboration with CCC, National Guard, NOAA, Prop 84 funding, and the MBNEP, a one acre pilot project on Crew Dormitory 1533 focused on 95% stormwater mitigation plan to reduce flooding, erosion and other storm event effects through BMPs and contextual LID techniques. Multi-functioning LID measures were installed to decrease heat island sinks, increase native habitat, increase carbon sequestering, increase water quality to adjacent surface and groundwater, decrease storm event hydrograph, improve soil permeability, increase interstitial flows, decrease reliance on drinking waters while providing an educational demonstration site and to increase base flows to adjacent Chorro Creek. Even through record drought precipitation levels, preliminary monitoring data has shown better than targeted results across the project site, namely in the sequestration of salts within the phytoremediation inclusion basins. Data will be compiled annually, and reported biannually through Watershed Progressive in accordance to the MBNEP CCC Stormwater 1533 Monitoring Plan.

**3. STORMWATER MITIGATION & WATER CONSERVATION LID TYPOLOGY**

In collaboration with CCC, National Guard, and the MBNEP, a twenty-one acre planning scope to mitigate storm event effects and utilized appropriate BMP and LID techniques was performed by Watershed Progressive in 2012-2013. Goals of the planning effort included those performed in 1533 Pilot Project, as well as focusing on feasible improvements for recycled water and reuse as well as groundwater recharge. Outcomes included added beneficial uses such as wetland bioremediation and habitat creation as well as improved management of utilities for staff and crew members.

## RANCHO EL CHORRO OUTDOOR SCHOOL
### STORMWATER MITIGATION & WATER CONSERVATION LID EDUCATIONAL PROJECT

Together with Trout Unlimited, San Luis Obispo County Education and NOAA, Watershed Progressive has facilitated goal setting priorities and generated plans development for alternative water reuse and stormwater mitigation LID measures. These measures will assist in modifying the current instream diversion, protect instream pool resources, provide alternative water source for dry season wetland pond uses, develop infiltration BMPS's on the Outdoor School to increase groundwater recharge and interstitial summer base flows.

In 2016 the SWRCB awarded Rancho El Chorro over $650,000 to implement LID practices such as greywater, stormwater, rainwater to assist in water conservation and public outreach and trainings. WP is providing planning, project lead and public outreach with stakeholder identification for this projects. Installation of LID measures is currently out to bid.

Calculations include:

- 292,000 gallons Rainwater captured (average rainfall year, used for outdoor irrigation, interpretative exhibits)
- 850,000 gallons Stormwater Capture annually (Heavy Metal and Sediment Filtration Effective Capture through Bioswales/Raingardens)
- 2.5 Acres of Habitat Restoration through wetland creation
- 4 New Outdoor Watershed Learning Laboratories
- 3,100 sqft of LID BMPs (raingardens, bioswales and infiltration basins)
- 9,400 sqft Impervious areas removed (using mulch and soft-scape)
- 18 existing standard-flow toilets removed and replaced with low-flow toilets
- 120 gal/day of greywater reuse

## THE THACHER SCHOOL WATER MANAGEMENT PROGRAM

### WATER MANAGEMENT PLANNING; RAINWATER; GREYWATER REUSE

The purpose of the Thacher School Water Management Plan (WMP) is to analyze water resources, both existing and available to Thacher School. The WMP prioritizes uses in context of current and available Best Management Practices (BMP) to work most efficiently in line with the objectives, goals and management of the Thacher campus and landscape.

In turn, all identified water management recommendations were formed with these objectives:

- Increase stewardship and leadership opportunities for Thacher School community
- Increase independence of water resources for Thacher School
- Reduce water consumption and expenditures from offsite sources
- Reduce water consumption from ecologically sensitive sources, such as Thacher Creek
- Decrease nutrient loading in San Antonio watershed
- Decreasing runoff velocity and volumes during storm events
- Recharging groundwater base flows for landscape availability and ecological benefits

Calcuations once all planned projects are installed:

- 21.5 mgy water conserved
- 50 mgy stormwater treated
- 45 mgy streamflow enhanced
- 60 acres of habitat enhancement

Projects include:
Dormitory Laundry Greywater
Dormitory Tank to Toilet
Dormitory Shower Greywater
Equestrian Unit Rainwater Capture and Reuse
Equestrian Unit Stormwater Harvest and Treatment
Faculty Buildings Laundry to Landscape Greywater
Athletic Field Water Reuse
Turfgrass Reduction
Compost Project
Mechanical Water REuse
Blackwater TItle 23 Project
Agricultural Efficiencies and Learning Labs
Peak Flow Storage and Instream Flow Enhancement
Stormwater REuse Orchard and Groundwater Recharge Project

## AGRICULTURAL RAINWATER & STORMWATER PROJECT

### CALIFORNIA POLYTECHNIC UNIVERSITY, SAN LUIS OBISPO

Partnering with MBNEP, CCC, NOAA, and California Polytechnic State University, Watershed Progressive is designed and installed rainwater catchment system at the Beef Unit at California Polytechnic University, San Luis Obispo. By capturing over 289,000 gallons of rainwater from rooftops, high pollutant loaded stormwater runoff is lessened to adjacent Dairy Creek as well as providing summer drinking water for cattle on site.

Most importantly, this project aims at alleviating summer pumping pressure on neighboring Pennington Creek, a known Steelhead Trout habitat, while potentially increasing base flow in time of low flows or drought. This site will be a focus of monitoring of rainwater catchment effects on stream hydrology as well public demonstration of appropriate low impact development strategies.

## CITY OF OJAI COMPARATIVE ANALYSIS

### REDUCED CONSUMPTIVE USE & RECHARGE

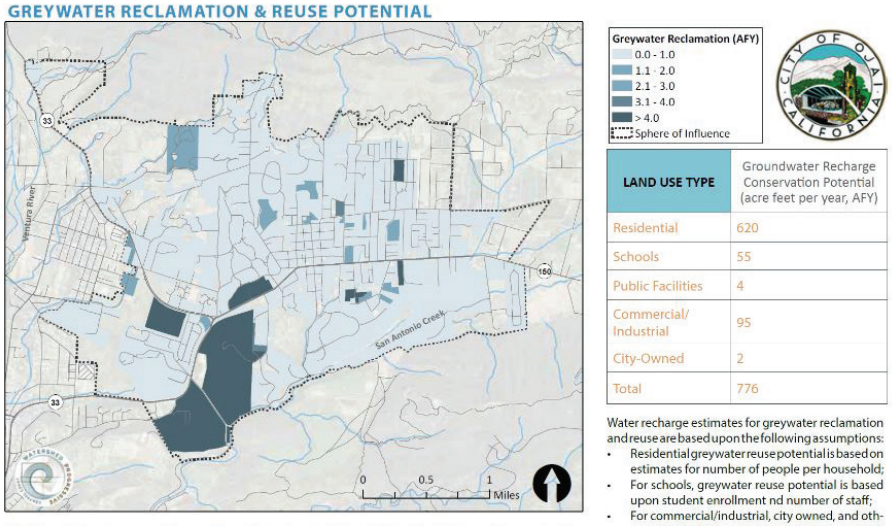
The City of Ojai contracted Watershed Progressive to quantify the City's local water demand and recharge potential and develop a Catalog of Projects aimed at optimizing the City's water use once funded and implemented. Key phases to this project speak to WP's process for comparative analyses:

Phase 1 provided visioning and spatial analysis to show how the City, its residents and businesses are using water, and also identified opportunities to reuse and conserve water.

Phase 2 explores climate scenarios and identifies and prioritizes projects that the City and partners within its Sphere of Influence (SOI) should consider implementing.

Phase III develops the details of prioritized projects and the Catalog of Projects. The Comparative Analysis project provides quantitative results for each parcel within the SOI of Ojai City, the current contract with the City does not include developing project plans beyond the conceptual phase.

A grant from the California Wildife Conservation Board has been awarded to further this effort and includes preparation of implementation ready plans (100% engineering designs and permits) for a subset of neighborhood-scale projects identified during the Comparative Analysis. This project has provided focus for crucial participation in Ventura River Watershed management collaboration, monitoring, and additional integrated strategy generation.




All of the data inputs, assumptions, and the estimated potential benefit identified in the spatial opportunities analysis is under review, and additional error analysis and ground truthing of this data is expected.

| LAND USE TYPE | Groundwater Recharge Conservation Potential (acre feet per year, AFY) |
|---|---|
| Residential | 620 |
| Schools | 55 |
| Public Facilities | 4 |
| Commercial/ Industrial | 95 |
| City-Owned | 2 |
| Total | 776 |

Water recharge estimates for greywater reclamation and reuse are based upon the following assumptions:

- Residential greywater reuse potential is based on estimates for number of people per household;
- For schools, greywater reuse potential is based upon student enrollment nd number of staff;
- For commercial/industrial, city owned, and other public facilities, greywater reuse potential is based upon estimated number of people using the structure and greywater production from bathroom sinks only.

The specific goals of the Comparative Analysis were to support implementation of a balanced water supply strategy. To meet this goal the Catalog of Projects had the following objectives:

- Quantify water demand and recharge opportunities for the City;
- Identify a suite of recommended projects;
- Form objectives and language for General Plan Elements updates, including a discussion of existing and recommended water management programming; and
- Provide the City with information necessary to leverage other future planning efforts and funding opportunities.

# KEY PERSONNEL

### Regina Hirsch | EXECUTIVE DIRECTOR

Regina Hirsch is dedicated to bringing appropriate best management solutions to the public by working on the ground in their homes and in public as well as commercial demonstration areas. After getting the watershed monitoring big at the Central Coast Regional Water Quality Board and the Morro Bay National Estuary Program, she moved to the Sierra Nevada for a different approach to reaching people and assessing effectiveness of non-point source pollution treatments. Regina founded Watershed Progressive, the consulting/ contracting firm which focuses on onsite water best management practices aimed at rehydrating watersheds. Since 2009, Watershed Progressive has helped design and install projects restoring habitat and aiming to increase watershed hydrologic recharge functionality through water conservation and reuse.

### Aimee Teaby | WATER RESOURCE & SPATIAL ANALYST II, DRONE PILOT

Analyst and Project Development Coordinator with Masters in Watershed Science; researcher with 10 years of ArcGIS, spatial data analysis and hydrological modeling experience, as well as hands-on knowledge of watershed, ecosystem-based and site-specific monitoring of erosion, water supply, water quality and sediment load. Currently, building the 'Green Consulting' aspect of WP to engage with large events/festivals to incorporate net-zero water operations; water reuse, purification, and energy- saving systems; composting; reusable wares; and self-sustaining and low-impact food production and service.

### Sydney Laudenslager | WATER RESOURCE ENGINEER, PE

Trained in biological engineering and sustainable development, as well as a California licensed mechanical engineer, Syndey has designed plumbing systems for sustainably oriented commercial and multi-family residential high-rise buildings and other developments seeking to control water consumption and enhance local ecosystems. She has helped to develop net-zero water designs for commercial buildings.

Sydney's passionate about integrating her plumbing engineering experience within water systems which enhance local sustainable agriculture realms such as hydroponics, aquaponics, permaculture. She's excited about working on projects that engage local community and teach about how to implement similar watershed health strategies or sustainable agriculture practices.

### Kevin Tulp | GIS ANALYST

Kevin has over ten years of GIS experience, working with industry leading companies in drone logistics, renewable energy and fiber optics and as a consultant. His diverse background has strengthened his ability to implement GIS solutions more broadly. With a focus on simplifying and automating processes, Kevin is quick to take "manual work" to the command line. He was recently working in Ghana, where he trained a local team on how to conduct and analyze surveys. When he's not working, you can find Kevin in a hot spring, backpacking to a new fly fishing stream, or continuing his education in programming.

### Aja Bulla-Richards | ASSOCIATE CREATIVE DIRECTOR

Aja is an architectural and landscape designer, educator, and Associate Creative Director of Watershed Progressive. She brings her various backgrounds to work at the intersection between vast social, and ecological challenges and everyday experience. Her passion for designing environmentally and culturally sustainable water systems has lead her to work with multiple universities and communities as well as in architecture, landscape and urban design firms in LA, Berkeley, Oakland, and Ojai, Berlin Germany, and Charlottesville VA. Aja holds a Master of Architecture and a Master of Landscape Architecture from the University of Virginia, and an MSArch in Dry Lands Design from the Arid Lands Institute. She joined Watershed Progressive to work on regenerative site design, and demonstration projects that perform across scales, catalyzing a paradigm shift that re-imagines our relationship with natural & constructed water cycles helping adapt communities and regions to build a more resilient future.

### Nicole Stern | WATER & LANDSCAPE ARCHITECT

Nicole Stern is a landscape architect focused on regenerative design, green infrastructure, and integrated water systems. Over the past two decades, she has worked on watershed planning, ecological restoration, innovative stormwater management, constructed wetlands for wastewater filtration and reuse, native xeriscaping, urban ecology, and environmental justice projects in the US and internationally. Many of her team projects have achieved LEED Platinum, Living Building Challenge and SITES certifications. In addition to work in her native state of California, she has also worked extensively in the Chesapeake Bay Watershed while based in Baltimore, MD and in the high desert

southwest while living in Santa Fe, NM.

**Mari Beltran |ECOLOGICAL DESIGNER**

Mari Beltran is a designer with a background in fine arts who works across multiple mediums. At Watershed Progressive she works on site design and helps develop design aesthetics, documents and educational graphics. She has a Masters in Architecture from the Southern California Institute of Architecture in Los Angeles, CA, where she managed the digital fabrications lab for three years. She has worked with design studios in Los Angeles, and holds a Masters in Latin American Studies from UCLA.

**Tony Madrone | ENGAGEMENT HUB MANAGER & CONSTRUCTION ADVISOR**

Tony Madrone is a sustainable landscape designer/builder specializing in water intelligent design. With over 20 years of experience in the landscape industry, Tony brings a holistic breadth of knowledge to all of his projects. Tony is a landscape contractor, water sense partner, EPA certified water auditor, and is a board member of ReScape California as well as California Onsite Water Association. Having designed/built/maintained a wide array of ground breaking water management projects throughout the bay area, he carries the skills and understanding to address all water & landscape challenges with impactful solutions. With a passion for water conservation and sustainable business practices, Tony is dedicated to creating a healthier more astute approach to water use.

**Joe Madden | WATER RESOURCE PROJECT MANAGER**

Joe relocated to Ojai in 2018 to develop and manage water efficiency and reuse projects. Utilizing years of experience designing and building decentralized water treatments in Los Angeles, he thrives on connecting people and their lifestyles wiith the natural and built systems that they rely on to live. Joe has a deep connection with festivals and events, both professionally and personally. In 2006, he co-rounded the green/activist music festival “Chilla Vista” at UCSB, which continues to be a local annual event. He has created green demonstrations and worked with event producers at Bonnaroo Music Festival on waste diversion, composting and other green demonstration pieces. He is an organizer of large camps and rabble-rouser of community into participatory roles at events such as Burning Man, High Sierra Music Festival, and Davis Whole Earth Festival (to name only a few). Certified Permaculture Designer, Greywater Associate and Installer, EPA Water Sense and Water Harvester.

**Jen Paludi | WATER RESOURCE PROJECT MANAGER**

Jen provides capacity support in permitting, regional planning initiatives, and everything from project and program conceptualization to completion. As a conservation scientist, wildlife biologist, and habitat restoration practitioner, she understands the full circle of what it takes to create, plan, secure funds for, and successfully implement small-scale to regional-based projects. She has worked both with and for nonprofits, Resource Conservation Districts, technical consultants, private companies and federal agencies.

**Ryan Evans | WATER RESOURCE PROJECT MANAGER**

As a Project Manager, Ryan brings over ten years of experience in Environmental Field and Water Reuse, Ecological Landscape, Greywater and Rainwater Systems, Stormwater Monitoring and BMP installation, PMA and Food Forest design. He’s involved in the construction management and quality control of implementation for water best management practice systems. He holds a Permaculture Design Certification from the Virgin Islands Sustainable Farm Institute.

**Charles Upton | WATER RESOURCE SPECIALIST**

Charles is an integrated watershed systems expert, ecological designer, and environmental educator. He leverages special skills like natural building, rainwater harvesting, greywater reuse, and holistic management to build soil, landscapes, and community. He has extensive solo travel and work experience in India and the Middle East.

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