

# City Watersheds of Sonoma Valley: Fryer Creek Project Background

## THE CHALLENGES

**Groundwater Supply:** The Sonoma Valley currently meets more than half its water demand with local groundwater resources. A 2006 United States Geological Survey (USGS) Study of Sonoma Valley groundwater found major water supply challenges include localized decline of groundwater levels in some areas and potential groundwater quality problems from seawater intrusion and geothermal upwelling.

**Flooding:** Flooding also causes problems for many residents in many locations in the Sonoma Creek watershed. The current Federal Emergency Management Agency (FEMA) floodplain mapping and the City of Sonoma Storm Drain Masterplan show areas of the City of Sonoma that are at high risk of flooding during large storms.

## SETTING THE CONTEXT

**Sonoma Valley Groundwater:** To help address declining groundwater supplies, in 2006 the Sonoma County Water Agency (Water Agency) convened the Basin Advisory Panel (BAP) based upon an impartial stakeholder assessment conducted by the Center for Collaborative Policy. The BAP is a stakeholder group comprised of different interest groups assisting the Water Agency in the creation of a Groundwater Management Plan and the implementation of the Groundwater Management Program. The 2007 Groundwater Management Plan's objective is to locally manage, protect, and enhance groundwater resources for all beneficial uses, in a sustainable, environmentally sound, economical, and equitable manner.

In the Plan, groundwater model predictions were used to assess the potential benefit of several water management options under various water availability scenarios from 2001 through 2030 including: **1) stormwater recharge; 2) groundwater banking of imported winter surplus water; 3) increased use of recycled water; and 4) increased conservation and subsequent demand reduction.** The model simulations indicate future demands exceed existing supplies, resulting in a reduction in groundwater in the Sonoma Valley under all cases except for those where all four water management options are implemented.

**All four methods are needed to achieve a sustainable water supply for Sonoma Valley.**

**Stormwater Management – Groundwater Recharge:** Besides providing for a more sustainable water supply, groundwater recharge benefits flood control efforts. That is, slowing and sinking water into the ground upstream prevents or reduces downstream flooding. The City Watersheds project concept to address both flood reduction and groundwater recharge in Sonoma Valley was identified first by the 2007 Basin

Advisory Panel Groundwater Management Plan and again in the 2010 Water Supply Action Plan.

The February 2011 *Sonoma Valley Groundwater Recharge Potential Mapping Project Technical Report* (Recharge Technical Report) and April 2012 *Sonoma Valley Stormwater Management and Groundwater Recharge Scoping Study: Screening Evaluation and Prioritization Memorandum* (Scoping Study) were direct outcomes of those plans.

The Recharge Technical Report, prepared by the Sonoma Ecology Center and the Sonoma County Water Agency, examined prior literature and studies, vegetation, soil, slope and geology to determine potential areas of groundwater recharge. These areas were then overlaid with properties in public ownership that could be feasible locations for groundwater recharge projects. Agricultural acreage was also identified as a key land use category.

The goal of the Scoping Study, prepared by the Sonoma County Water Agency, ESA PWA, Daniel B. Stephens & Associates, and Parker Groundwater, was to identify opportunities to implement integrated, multi-benefit projects that could address multiple watershed objectives. The study also aligned with the Water Supply Action Plan in regards to combined water supply and flood control projects, and projects that could be developed to be highly eligible for various grant funding opportunities. The outcome of the Scoping Study identified core and supporting objectives, opportunities and constraints, types of project concepts most likely to achieve the objectives, and general locations or regions where implementation was anticipated to be most effective and/or feasible within each watershed.

## CITY WATERSHEDS OF SONOMA VALLEY

The City Watersheds of Sonoma Valley project is part of a larger, integrated regional water management initiative that addresses groundwater management and flood control in Sonoma Valley. The multi-benefit projects being developed in the City Watersheds effort will help address local flooding, promote groundwater recharge, improve water quality, educate the public, and enhance habitats along identified sites in Sonoma Valley.

The Nathanson and Fryer Creek subwatersheds cover approximately 80% of the geographic area of the City of Sonoma. The City Watersheds Project is conceived as a Stormwater Management – Groundwater Recharge project occurring in multiple phases including a Nathanson Creek project and a Fryer Creek project. Both projects have multiple benefits and address both the risk of flooding and also recharging groundwater to help create resiliency in the water supply system.

While the City Watersheds Fryer Creek project has received grant funding and there have been some preliminary site investigations, it is still at the concept and site investigation phase. The Nathanson Creek stormwater/recharge project is still at the site investigation phase and currently only partially funded. To date, nothing has been designed on either project. For both projects, if an acceptable and feasible design is developed, an environmental review process will be conducted, which will include the examination of potential alternatives, impacts and mitigation measures along with the accompanying public consultation.

**Funding the City Watersheds Project:** After the plans, studies, and technical reports were released, a number of conversations and stakeholder meetings occurred in spring-summer 2012 to determine how to best fund Stormwater Management – Groundwater Recharge projects and which sites might be feasible. Discussions focused on the viability of a variety of sites with both flood control and groundwater benefits based on the 2011 Recharge Technical Report, 2012 Scoping Study, project readiness, partner willingness, available match funds, and feasibility.

Participants in these meetings discussed the initial feasibility and use of California State Park land and associated potential funding sources, as well the Bay Area Integrated Regional Water Management Program (IRWMP) Round 2 Proposition 84 implementation grant funding and California Department of Water Resources (DWR) Stormwater-Flood Management Prop 1E grants. The City Watersheds Projects concepts and project partners were identified at these meetings.

**Summary of Site Considerations:** Key factors in determining site considerations and feasibility for these types of projects were: a) need for the project, b) willing partners and project readiness, c) grant funding eligibility and ability to leverage financing with matching funds, d) land suitability, location, acreage, and physical characteristics, e) land access and ownership, f) land use compatibility and potential community benefits/impacts, and g) consistency with federal, state, and local policies and plans.

In terms of flood sites discussed at the stakeholder meetings, the focus was on the City of Sonoma as a high number of people are affected by flood hazards. The Nathanson and Fryer Creek subwatersheds cover approximately 80% of the geographic area of the City of Sonoma. The City of Sonoma 2011 Storm Drain Master Plan and the effective FEMA Flood Insurance Study were

consulted to find areas that would derive the most benefit from flood reduction. Fryer Creek, near the West MacArthur Street crossing and upstream near West Napa Street, Church Street, as well as properties along and near Fano Lane were called out as areas at high risk of flooding during large storms.

To help solve the problem, the Storm Drain Master Plan recommended both removal of a culvert on Fryer Creek and diverting some storm water to Sonoma Creek. The City Watershed project addresses the culvert problem, and makes the diversion to Sonoma Creek unnecessary.

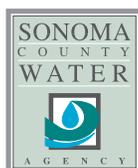
An appropriate Fryer Creek upper watershed groundwater recharge site was considered related to a variety of factors. Most viable land for recharge projects is in private ownership and therefore, project development would likely take a significant amount of time to develop due to the need for land acquisition or easement agreements. California State Parks was contacted regarding groundwater recharge projects on park land, but declined involvement at this time. While both private and state-owned properties may be viable alternatives in the future, they are not feasible in the near term. This led to a focus on land already in public ownership or with an appropriate easement already in place.

Although specific site investigations were yet to be conducted, the Montini Open Space Preserve was discussed at this point because it is large, already owned by the public with an easement agreement that allows for groundwater recharge projects, and located upstream of a potential flood risk reduction site on Fryer Creek.

Montini Open Space Preserve and Fryer Creek were identified as the most feasible locations to concentrate efforts based on the identified flood risks, a previously-developed culvert modification project concept, partner readiness, limitations in locally-available match funds, and an upstream parcel of publicly-owned land large enough with the right general specifications to accommodate recharge.

Based on the site identified, a project team including the City of Sonoma, the Sonoma County Water Agency, the Sonoma Ecology Center (SEC), and the Sonoma County Agricultural Preservation and Open Space District (OSD) was formed.

## CITY WATERSHEDS OF SONOMA VALLEY: FRYER CREEK PROJECT PARTNERS



# City Watersheds of Sonoma Valley: Fryer Creek

## Public Outreach

### PUBLIC OUTREACH

The Sonoma County Water Agency (Water Agency) and its partners are committed to providing a transparent and participatory process, recognizing that stakeholder and public involvement will make the regional City Watersheds project stronger. To that end, the Water Agency has already conducted considerable public outreach over five years to develop plans to address groundwater management and flood risk reduction.

While the City Watersheds Fryer Creek project has received grant funding and there have been some preliminary site investigations, it is still at the concept and site investigation phase. The Nathanson Creek project status also remains at the site investigation phase and is currently only partially funded. To date, nothing has yet been designed on either project. Additionally, the environmental review and permit compliance process—which will include an examination of potential alternatives, impacts and mitigation measures along with the accompanying public consultation—is still in the future.

In addition to the Fryer Creek public meeting held on January 29, 2014 (at the initial concept stage of the project), the following list constitutes a variety of stakeholder and public outreach opportunities used for the City Watersheds project.

### Contributing Stakeholders and Advisory Groups

**Zone 3A Advisory Committee:** The Water Agency maintains 7 flood protection zones within Sonoma County in areas where they own title or have easements to perform maintenance. The zones were established as a means to finance the construction and maintenance of flood protection in the county. Zone 3A encompasses the Valley of the Moon/Upper Sonoma Creek Watershed. The Zone is funded by property taxes. The Zone 3A Advisory Committee annual meetings are noticed in the Sonoma Index Tribune, and the public is welcome to attend.

**Sonoma Valley Basin Advisory Panel (BAP):** The BAP is a group of 20 stakeholders comprised of different interests. The BAP was convened by the Sonoma County Water Agency in 2006 and tasked with helping to develop and provide input on the 2007 Sonoma Valley Groundwater Management Plan. Stakeholder interests represented on the Panel include economic, agricultural, environmental, local agencies with jurisdiction in Sonoma Valley, land use, residential groundwater users, and special districts, with a broad geographic distribution across the Sonoma Valley.

The BAP introduced the Stormwater Management – Groundwater Recharge programmatic effort that includes the April 2012 Sonoma Valley Stormwater Management and Groundwater Recharge Scoping Study: Screening Evaluation and Prioritization Memorandum and hosted two public workshops on this effort. The BAP was instrumental in setting the goals and concepts outlined by the City Watersheds project. The BAP meets quarterly, has done extensive public outreach on its efforts since 2006, and the public is welcome to attend meetings.

**Sonoma Valley Technical Advisory Committee (TAC):** The BAP designated an ad-hoc committee, the TAC, to advise the Water Agency on technical matters and to develop recommendations on Groundwater Plan implementation. Overall, the TAC provides scientific guidance to the BAP and the Water Agency and is staffed by subject-matter experts. Groundwater recharge at individual properties was the subject of numerous TAC site visits and discussions. Site visits included ranches and vineyards and private residences to look at and discuss current practices for surface water drainage management controls, water retention, rainfall harvesting, soil erosion issues and possible recharge options. The TAC meets monthly and the public is welcome to attend.

**North Bay Watershed Association (NBWA):** NBWA is a group of 16 regional and local public agencies located throughout Marin, Sonoma, and Napa counties committed to crafting a set of regional approaches to the problems and issues associated with managing our common watershed. The concept for the City Watersheds project was presented at their Board meetings in 2010 related to the Stormwater Management – Groundwater Recharge Scoping Study. City Watersheds was considered as part of the BAIRWMP funding. NBWA meets monthly and meetings are open to the public.

**The Bay Area Integrated Regional Water Management Plan (Bay Area IRWMP):** Bay Area IRWMP is a nine-county effort to coordinate and improve water supply reliability, protect water quality, manage flood protection, maintain public health standards, protect habitat and watershed resources, and enhance the overall health of the bay. In summer 2012, discussions began on City Watersheds project as well as concepts for other projects in the region. The coordinating committee meets monthly.

**Water Agency Board of Directors:** The Water Agency Board of Directors are also the Sonoma County Board of Supervisors. The Board generally meets weekly in a forum open to the public. While Water Agency staff have met with Supervisor Gorin to keep her informed, the City Watersheds project went before the Board three times—once for the grant application, once for a project update, and once for contractor agreement approval.

### **Sonoma Valley Citizens Advisory Committee (CAC):**

CAC is a joint advisory agency with representation from the County of Sonoma and the City of Sonoma to share responsibility for local planning in the Sonoma Valley. CAC provides a regular forum for citizen participation in the formation of public policy, consider issues concerning the Sonoma Valley, evaluate solutions of these issues, advise elected officials and other decision makers, and form a bridge for communication between the various governmental agencies and the general public. The BAP groundwater initiatives have been agenda items on two occasions. The CAC monthly meetings are open to the public.

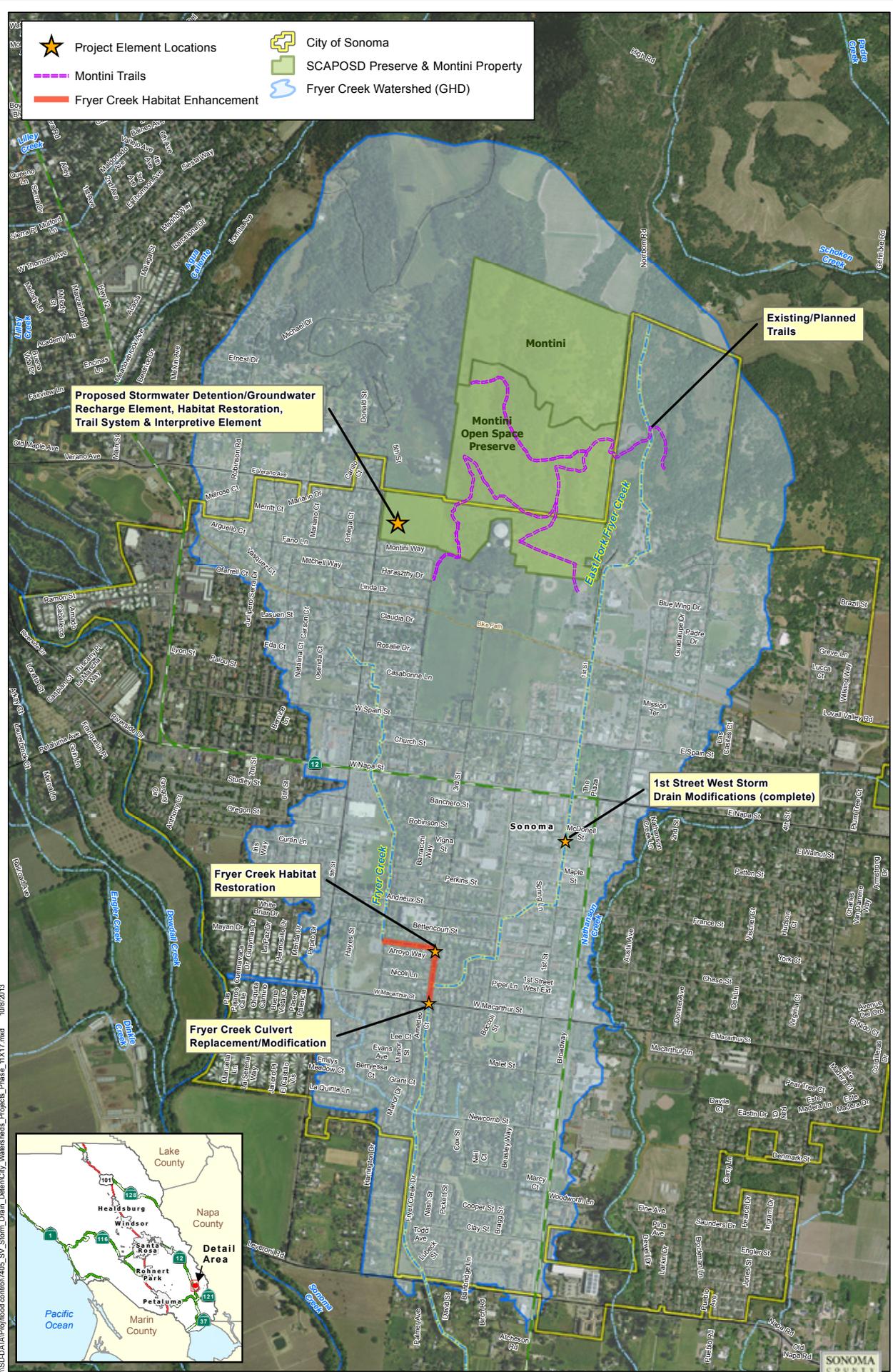
### **News Articles To Date**

1. Dec 13, 2013: Sonoma Index Tribune  
[Sonoma County Water Agency eyes flood control](#)
2. Dec 25, 2013: Sonoma Index Tribune  
[Searching for water solutions](#)
3. Jan 8, 2014: Press Democrat  
[Sonoma Valley residents asked to weigh in on flood work](#)
4. Jan 10, 2014: Sonoma Index Tribune  
[Meeting to unveil Fryer Creek flood reduction plan](#)
5. Jan 22, 2014: Sonoma Valley Sun  
[Plan to reduce flooding, recharge groundwater](#)
6. Feb 1, 2014: Kenwood Press  
[Sonoma Valley water supplies at risk](#)
7. Feb 4, 2014: Sonoma Index Tribune  
[Water Agency outlines flood mitigation](#)

# City Watersheds of Sonoma Valley: Fryer Creek Timeline

- **2006:** Characterization, Water-Chemistry, and Ground-Water Flow Simulation Model of the Sonoma Valley Area (USGS Study) released detailing critical groundwater depressions in Sonoma Valley.
- **February 2006:** Center for Collaborative Policy releases Sonoma Valley Groundwater Issues Assessment to provide an impartial recommendation for representing stakeholder interests.
- **2006:** Sonoma Valley Basin Advisory Panel (BAP) comprised of a variety of stakeholders was formed.
- **2007:** Groundwater Management Plan released by BAP. Identifies stormwater management-groundwater recharge as one of four actions needed to address Sonoma Valley water supply issues.
- **2008:** Sonoma Valley Groundwater Management Program initiated by BAP.
- **2010:** Water Agency releases Water Supply Strategies Action Plan. Identifies stormwater management – groundwater recharge as an action.
- **August 2010:** Department of Water Resources releases Prop 1E (the Disaster Preparedness and Flood Prevention Bond Act of 2006) grant guidelines.
- **February 2011:** Sonoma Valley Groundwater Recharge Potential Mapping Project Technical Report published.
- **April 2011:** Sonoma Valley Stormwater Management and Groundwater Recharge Scoping Study: Draft Issues Assessment and Project Objectives Framework released.
- **April 21, 2011:** BAP Stormwater Management – Groundwater Recharge Public Meeting: Draft Issues Assessment and Project Objectives Framework discussed.
- **May 2011:** City of Sonoma releases the Storm Drain Master Plan.
- **October 2011:** Sonoma Valley Stormwater Management and Groundwater Recharge Scoping Study: Project Objectives Framework, Issues Assessment, and Draft Screening Evaluation and Prioritization Memorandum released.
- **October 20, 2011:** BAP Stormwater Management – Groundwater Recharge Public Meeting: Draft Screening Evaluation and Prioritization discussed.
- **April 2012:** Sonoma Valley Stormwater Management and Groundwater Recharge Scoping Study: Screening Evaluation and Prioritization Memorandum released.
- **Spring-Summer 2012:** Meetings with potential partners, including California State Parks, to discuss feasible sites, as well as Prop 84 and Prop 1E grant opportunities. The City Watersheds Fryer Creek Project was considered at these meetings.
- **August 6, 2012:** Water Agency and Open Space District meet with Bill Montini to discuss potential development of a detention-recharge project at the Montini site.
- **September 7, 2012:** Application deadline for new projects submitted for Bay Area Integrated Regional Water Management Program (BAIRWMP) 2013 update. City Watersheds Project submitted, including potential Montini Preserve site.
- **October 18, 2012:** BAP meeting. Discussed projects submitted to BAIRWMP including City Watersheds project and Montini site.
- **December 11, 2012:** Zone 3A Flood Control Advisory Committee Meeting. City Watersheds Fryer Creek Project concept described including Montini site, and plan to submit grant application discussed.
- **January 15, 2013:** Board of Directors approve grant application.
- **January 17, 2013:** BAP meeting. City Watersheds project and Montini site discussed.
- **January 28, 2013:** Public workshop on BAIRWMP 2013 update and overview of submitted projects.
- **February 1, 2013:** DWR Prop 1E grant application submitted.
- **June 3, 2013:** City of Sonoma City Council Meeting. Presentation given on Sonoma Valley groundwater challenges and initiatives.
- **June 12, 2013:** DWR announces draft Prop 1E awards and public comment opportunity.
- **June 26, 2013:** Board of Directors updated on status of Prop 1E City Watersheds project recommendation.
- **July 11, 2013:** DWR conducts open house and public comment meeting on draft Prop 1E awards.
- **September 20, 2013:** Final \$1.9 million Prop 1E award announced by DWR for City Watersheds Fryer Creek Project.
- **September 24, 2013:** Fact Sheet and FAQ with public meeting date developed for door-to-door outreach.
- **October 1, 2013:** Meeting with Bill Montini to discuss project and identify issues.
- **October 8, 2013:** Board of Directors approve agreement with Water Agency engineering consultant, ESA PWA to conduct site investigations, prepare preliminary concept design, and support public outreach..
- **October 22, 2013:** Fact Sheet and FAQ with public meeting date published on website.
- **September/October 2013:** Partners began outreach with the Sonoma Index-Tribune and others.
- **October 25, 2013:** SEC staff conducted door-to-door personal contact with Montini area neighbors. Flyers left at nearby homes if residents were not at home.
- **October 28, 2013:** Postcard mailed prior to site investigations to 192 people in MacArthur Street area noticing public meeting and site investigation work.
- **November 21, 2013:** SEC staff hung signs and banners at Montini and MacArthur Street locations noticing site investigation work and upcoming public meeting.
- **December 10, 2013:** Zone 3A Flood Control Advisory Committee Meeting. City Watersheds Fryer Creek Project presentation.
- **December 12, 2013:** Sonoma Valley Groundwater Management BAP Meeting. City Watersheds Fryer Creek Project presentation, including update on current site investigation work.
- **December 13, 2013:** SEC staff installed bike trail closure signs for one or two-day MacArthur Street investigation work.
- **December 10 - 20:** Montini site investigations conducted.
- **December 19:** MacArthur site investigations conducted.
- **January 8, 2014:** Press release out to media on grant award and public meeting.
- **January 14, 2014:** Sonoma Unified School District Board of Trustees Meeting. City Watersheds of Sonoma Valley Project, including City Watersheds Fryer Creek Project presented.
- **January 17, 2014:** Public meeting reminder postcard mailed to 727 people in MacArthur Street and Montini neighborhoods.
- **January 22, 2014:** Sonoma Valley Citizens Advisory Committee Meeting. Sonoma Valley groundwater initiatives including City Watersheds Fryer Creek Project discussed.
- **January 22, 2014:** North Bay Agricultural Alliance Meeting. Sonoma Valley groundwater initiatives including City Watersheds Fryer Creek Project discussed.
- **January 29, 2014:** City Watersheds Fryer Creek Project Community Meeting to discuss project objectives and initial concepts.

-  Project Element Locations
-  Montini Trails
-  Fryer Creek Habitat Enhancement
-  City of Sonoma
-  SCAPOSD Preserve & Montini Property
-  Fryer Creek Watershed (GHD)



**Proposed Stormwater Detention/Groundwater Recharge Element, Habitat Restoration, Trail System & Interpretive Element**

**Existing/Planned Trails**

**1st Street West Storm Drain Modifications (complete)**

**Fryer Creek Habitat Restoration**

**Fryer Creek Culvert Replacement/Modification**



**City Watersheds of Sonoma Valley**

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