A “To-Do List” For Our Watershed

On February 18, 2016, The Friends of the Mark West Watershed hosted a well-attended meeting with landowners and the Sonoma Resource Conservation District (SRCD). The goal of the meeting was to discuss the recently completed Watershed Management Plan for both the Upper Mark West and the Mayacamas Watersheds and to determine our priorities for action.

The discussion and a previous survey sent to FMWW listserv revealed a clear message of interest and concern.

The top three priorities for landowners in the Upper Mark West Watershed are:

1) Water Resilience  
2) Wildfire Reduction  
3) Groundwater Recharge

Given this feedback we discussed how to best address these priorities. Here is our “to-do” list for the upcoming year – stay posted!

• Educate ourselves on water resilience and groundwater recharge opportunities. To begin this task, SRCD will provide a workshop on water infiltration projects based on their publication: Slow It, Spread It, Sink It, Store It. (Hint: Come to the Hike and Hoot and meet Anya Starovoytov of SRCD.)

• Educate interested landowners on the latest “Carbon Farming” research and the connection to water-holding capacities of soils. (Hint: Come to the Hike and Hoot and hear John Wick from the Marin Carbon Project! www.marincarbonproject.org)

• Fuel Reduction Programs: Coordinate with CalFIRE and SRCD to access cost sharing opportunities for landowners to reduce overstocked forests. Continue to work on building a collaborative network of landowners to take advantage of granting opportunities when they arise.

Research and apply for funds to create a detailed study of the geological and hydrological processes of the Upper Mark West system. (Hint: Come to the Hike and Hoot and meet Matt O’Conner, Geohydrologist!)

(To download your own copy of Watershed Management Plan, visit www.markwestwatershed.org/documents.)

An Update On CFIP Activity In The Mark West Watershed Area

Over the past year, seven Management Plans in the Upper Mark West Watershed were successfully funded thanks to the collaborative efforts of FMWW, private landowners, and Jill Butler of CAL FIRE. That represents an additional 1,568 acres of forestlands now eligible for funding support for fuel reductions and forest improvement projects. At least three additional landowners want to participate and have started applications for management plans.

Many felt frustrated by the process back in 2014. Unfortunately, the application process for the Greenhouse Gas Reduction Fund proved to be very challenging, and ultimately the state’s Air Resources Control Board chose not to fund any fuels reduction projects anywhere in California.

Now, CFIP funding news is much more encouraging! Three million dollars are available statewide this fiscal year and funding is expected to hold steady or increase in the foreseeable future. Program monies are now being provided through the Timber Regulation and Forest Restoration Fund, generated by a 1% tax on the sale of lumber. Future funds may also be provided from the sales of carbon credits and from mitigation funds for the bullet train. Future prospects are promising!

The current challenge is a shortage of personnel. Heather Morrison, a forester with the North Coast Resource Management consulting firm who produced beautiful management plans during the spring of last year, is now working for CAL FIRE. The hunt continues for one or more foresters to assist landowners with paperwork, management plans, and design and supervision of projects.

In addition, Jill Butler, your local CAL FIRE Forest Assistance Specialist (FAS), has reduced her hours. Jim Robbins, Jill’s counterpart for Mendocino, Humboldt, and Del Norte counties, is currently assisting her with local projects. Recruitment efforts are underway for a new full-time FAS to be based in Santa Rosa. Stay tuned for developments on all of the above!
In partnership with LandPaths, the 12th Annual

Hike & Hoot Potluck
Saturday, April 9th, 2016

Please join us for all or part of the festivities:
1:30 PM  Begins: meet your neighbors, sign-up for hikes, and visit tables hosted by the Coho Monitoring Project, FMWW’s Wildlife Camera Program, the Sonoma RCD, the Bird Rescue Center, and LandPaths

Plus, free Comet Popcorn!

HIKES:
• Botany Hike re. drought impact with Steven Swain, UC Extension Botanist
• Hydrology & Geology Hike with Matt O’Conner, Geohydrologist
• Native Wildflowers & Plants Hike (strenuous) with Sue Smith; 15 max.
• Kid’s Nature Walk with Nic Whitaker from LandPaths
• Pond Exploration with Steve Williams

4:15  Meet back at the HUB for popcorn and beverages

4:30-5:15  Main Speaker: John Wick, Marin Carbon Project

5:30-6:15  Potluck Supper:

Last name: A to I = Bring entrees, sides, or vegetables;
J to S = Bring desserts;
T to Z = Bring salads or appetizers.

Please bring enough to serve 12 and label ingredients.

6:15-6:40  Raffle — bring cash, preferred, or a checkbook — proceeds go to cover H&H costs

6:40-7:00  Potluck clean-up

7:00-9:15  Fire-circle (weather permitting) with storytelling and music jam

8:15-9:15  Hooter Hike, while fire circle continues (sunset is 7:42 PM)

9:15 PM  Close down and clean-up

Location: 7899 Saint Helena Road (7899 Puff Lane)

Please join us for all or part of the festivities: Hiking shoes or boots, sunscreen, water bottle and flashlight recommended. Children and musical instruments welcome! Car-pooling strongly encouraged.

Monan’s Rill House Rules: No smoking, no pets, and stay away from the ponds. All guests sign a release form when checking in at HUB.

Directions to Monan’s Rill: 7899 St. Helena Rd, Santa Rosa CA 95404. Approx. four miles up St. Helena Rd. from Calistoga Rd, look for the Hike & Hoot signs. On a sharp right turn, there are several mailboxes on the left, at the base of “Puff Lane,” a one-lane gravel road. Follow the H&H signs up Puff Lane: it’s approximately one mile to HUB building. Drive pass HUB to parking areas as designated by signs or attendants.

Questions? info@markwestwatershed.org or call 538-5307
Consider the scary headlines this past year: Hottest Year on Record. Catastrophic Wildfires. Devastating Drought. Emergency Water Orders. Wouldn’t it be wonderful to sprinkle just a bit of fairy dust on our beloved watershed to make it more fire resistant, absorb water like a super sponge, and perhaps pull us all back from the brink of climate catastrophe? Fairy Dust and serious science do not typically go together — but in the case of John Wick and the Marin Carbon Project, they just might. Although fairy dust, in this story, comes in the form of compost…and some well-managed grazers.

John Wick and his wife Patty Rathmann moved onto a ranch in Nicasio in 1998. They loved the open space and wanted to do their part to be responsible stewards. They observed the rolling hills were covered with thin grasses and, in many places, exposed soil. They were curious about how they could help replenish the landscape. They engaged Dr. Jeff Creque who suggested that the land might recover best with the introduction of grazing. Further inquiry added the question: What would happen if we feed the grassland a stable, organic fertilizer like compost?

**Regenerative Rangeland Management**

What they found was astonishing. By adding a thin layer of compost on grasslands, followed by a carefully managed grazing regime, the entire grassland system was nudged into greater productivity. In the flourishing grasses, John and Patty saw the potential for big positive impact — for the entire planet.

Encouraged by their results, John and Peggy brought in Dr. Whendee Silver from UC Berkeley to see what the best ecosystem scientists could learn about this process and its impact on carbon sequestration. Whendee was doubtful that changes in soil carbon could be measured reliably, but over time, she discovered that it could be measured with a high level of accuracy. The data was compelling.

The results so far show that a single application of as little as ¼ inch of compost on grasslands nudged the system in the right direction. It’s as if the compost acted to “prime the natural carbon pumps” moving carbon from the air into plants and soil.

Treated grasslands showed:

- A 50% increase in plant growth — above ground and below ground.
- One to three meter increase in root growth.
- 25% to 50% increase in atmospheric carbon uptake.
- Carbon is held in long-lasting compounds deep in the soil.
- Increase in water-holding capacities of the soils.

Six years of data collection show that these beneficial effects continue year after year and that soils continue to sequester an additional amount of carbon annually.

**The Carbon Cycle (Quick and Dirty)**

The earth has a limited amount of carbon stored in five pools. Carbon does not disappear (remember middle school science?) and when carbon moves from one pool to another it tends to go through chemical change.

**Pool #1 Fossil Fuels:** These fuels hold carbon in deep, stable storage areas far away from our atmosphere. (Oops! We have pulled out carbon from this pool and put it into the atmosphere: hence our current climate crisis!)

**Pool #2 Atmosphere:** Here carbon is found mostly as carbon dioxide — an excellent trap for the sun’s warmth. (Check out Venus.)

**Pool #3 Oceans:** Our oceans are absorbing huge amounts of atmospheric carbon. (This is changing the pH of the oceans, making life difficult for critters and effecting marine food webs.)

**Pool #4 Soil:** Soils are alive! Soils are a rich network of organisms attached to the exudates of plant roots. The cycles of carbon in the soil are complex. Some carbon-based compounds are less stable and can be released to the atmosphere when soils are disturbed. Other compounds are stable; they keep carbon trapped deep in the soil.

**Pool #5 Plant Life!** Plants have the ability to take in atmospheric carbon during photosynthesis and combine it with water to create carbohydrates. Sweet and starchy carbohydrates are stored in plant tissues (we call this food) and exuded from their roots to feed a long list of beneficial soil organisms.

Carbon itself is not the problem. We are, after all, carbon-based life forms. The problem is that we now just have too much carbon in the wrong pool – the atmosphere!

We will not be able to solve this atmospheric carbon crisis by limiting emissions alone. Thankfully, soils and plants provide us with a storage pool for carbon that is beneficial to life. (Please see next page.)
Donations To FMWW Welcomed

Friends of the Mark West Watershed has officially begun the process to become its own 501(c)3 non-profit. Being our own 501(c)3 — rather than being sponsored by another 501(c)3 — will give FMWW greater flexibility to both collect funds and perform our mission. (Go to markwestwatershed.org to see the work we do.)

You’re welcome to donate now and if our application is accepted (as we expect) we’ll mail you our Tax Number when it becomes available for your tax deduction. Please make checks payable to “FMWW”, 6985 Saint Helena Rd, Santa Rosa, CA 95404.

Thank you for your support and participation!

Road & Creek Clean-Up On May 1st

Come meet your neighbors as we beautify our roads and creeks. Plus, help remove non-native, fire-hazardous Scotch Broom.

Sunday, May 1st, from 9AM to noon (lunch provided)
Rancho Mark West, 7125 Saint Helena Rd.

Dress in layers: wear long pants (poison oak protection), long-sleeve shirt, sturdy shoes or boots, work gloves, hat, sunglasses, and a small daypack for carrying water, snacks, garbage bags, and found treasure. Lunch and refreshments provided at noon. Please, no children (road’s too dangerous!) and no pets. Thanks!

Carbon Farming (cont’d)

We just need to we figure out how to boost the natural processes to get more carbon into plants and soils. John Wick and the Marin Carbon Project are showing a way forward.

Opportunities: What does this mean for us?
The recent Integrated Management Plan for the Upper Mark West Watershed shows in 6,009 acres of grazing rangeland in our watershed. That is a total of 28% of the watershed. Clearly there is a compelling reason to consider these management practices.

Practical Questions for us to consider:
How do we assess the potential costs and benefits of “carbon farming” on a watershed scale?
Are there grassland locations that are best suited to this process within our watershed?
Are there opportunities for cooperative projects with landowners who provide grazing areas? How would we connect with trained, dedicated herd managers?
Could this management approach significantly boost upland water recharge capacities in our watershed?
Are there compost-making opportunities within the watershed?

Is it possible to mimic this management technique without grazing? How would we discourage invasive perennials without grazing?

Come and Learn More!
John Wick will be our guest presenter at this year’s Hike and Hoot. Come and find out more about the Marin Carbon Project. Sonoma RCD will also be in attendance and eager to speak with any landowners who would like to go further with carbon framing projects.
http://www.marincarbonproject.org
Also see articles at Mother Jones 3/2/2016 and SFGate 10/18/2014.

April 9th Hike & Hoot!

Carbon Farming (cont’d)