Concerns Over Villages at Vigneto

By Robert Weissler

A huge, new development proposed for Benson called “The Villages at Vigneto” is a source of concern to members of the Friends. Our mission is to work for the preservation of the San Pedro River and the natural and cultural resources within SPRNCA. The Villages at Vigneto poses a significant potential threat to riparian habitat contained within SPRNCA.

El Dorado Holdings, Inc., a real estate development corporation, proposes to build this new Benson community along Highway 90, in the shadow of the Whetstone Mountains, north of Huachuca City and Mustang Corners. The developers want to construct 27,760 new homes for as many as 70,000 residents. (The former planned “Whetstone Ranch” would have put up about 20,000 homes on 8,000 acres.) The developer’s vision is to recreate Tuscany in southern Arizona in a development on roughly 12,000 acres that would include commercial properties, lakes, golf courses and parks, vineyards and orchards, plus the roads and utilities to support them.

Since various project approvals date from nearly 10 years ago for Whetstone Ranch, a smaller development, we believe these approvals must be revisited by assessing the impacts of the new plan, “Vigneto,” on the river and on surrounding communities. Circumstances have changed significantly in the past decade, as has the scientific data and other information available about the hydrology in the watershed. Given the extensive scope of the new development plan, we need to ensure that the analysis informing these approvals remains valid and comprehensive. The analysis must consider all significant scientific information and the changed circumstances, in order to make an informed final determination on the approval of this massive project.

Of special concern is the potential for this new city to deplete the aquifer in the middle San Pedro River Valley. How will the developers supply water to the new development? What measures will they employ to mitigate its impact on other users of the aquifer, including the federally protected SPRNCA and indirectly Fort Huachuca by exposing it to risk in the Base Realignment and Closure (BRAC) process? The developer will drill new wells that will draw water from deep in the aquifer. This poses a potential risk for all users of the aquifer in the area.

We wonder about the details of the new urban landscape to be created. Will the developer utilize xeriscape landscaping? The Tuscan theme suggests a more water-thirsty landscape. We do not know whether effluent will be used for watering green spaces or if recharge of the aquifer will be factored

(continued on p. 2)
into the plan—either effluent or storm water recharge. With the watershed having experienced so many years of drought and the uncertainty that climate change scenarios overlay on top of that, we believe we cannot become complacent about our water resources and their conservation.

If the developer proceeds as currently planned, this new community would pump roughly 12 times the volume of water annually than was pumped in 2013 by the entire City of Benson. Local property owners dependent on private wells should be concerned about the potential impact to them. We believe only sustainable developments should be approved: sustainable should mean net-zero draw on the aquifer through recharge.

This project likely would threaten natural resources in SPRNCA, including a Globally Important Bird Area, the St. David Cienega, and the water flow in the northern portion of SPRNCA. We are also concerned about the impact on Kartchner Caverns State Park, which lies on the western edge of the development. A depleted aquifer would threaten wildlife habitat, particularly riparian areas that listed bird species like the western Yellow-billed Cuckoo depend on. The development also would impact wildlife corridors between the Whetstone Mountains and the San Pedro River and the cultural resources contained in the area to be developed.

We await the answers to all of these questions. The Benson City Council will vote in the near future on the final plan for The Villages at Vigneto. We hope that it will consider these issues before making a final decision. We also hope that El Dorado Holdings will incorporate water conservation features like xeriscape landscapes, passive infiltration, effluent reuse, and storm water recharge into its plans, so that the development can be shown to be sustainable over the long haul. The goal of such measures is to protect precious water resources for existing residents, Ft. Huachuca, wildlife, cultural attractions, and unique natural resources, including riparian habitat protected in SPRNCA.

---

**New Faces on FSPR Board of Directors**

*Ron Serviss Leaves Board*

After many years on the Board of Directors, Ron Serviss has decided to resign. We thank Ron for his passion, enthusiasm, and dedicated service to the Board and FSPR, especially his years as president. We are particularly grateful as Ron and the Board faced some of the most challenging years of the organization, including resolution of legal issues and a period of capacity building supported by funding from the Conservation Lands Foundation. We wish Ron all the best in his new pursuits.

*Welcome to the Board*

We are happy to report that the FSPR Board is back at full strength with the appointment of three new members. They all bring those most-important elements to the organization: dedication, energy, and enthusiasm for the river, its protection, and its varied resources. Following is a brief summary of their backgrounds and experience.

*Pam Corrado*

Pam is a graduate of Brattleboro Union High School and has completed courses in marketing, communication, and public relations at Marlboro College in Vermont. A native Vermonter, she spent most of her working career as a marketing communications manager for a small, independent company that manufactured insulated window shades. The company, Appropriate Technology Corp., was at the time on the cutting edge of conservation in heat loss prevention through windows. After leaving ATC, Pam's career shifted to book production. She worked for a book manufacturing plant as a customer service rep for some major publishers on the East Coast and later moved to New York City to become production manager of the Reprint Dept at St. Martin’s Press. While in Arizona, Pam worked for the 4A's Corporation (Arlene's retail) in Tombstone, now retired after almost 10 years there. She still fills in when the company needs help.
Charles Corrado
Charles is a graduate of DeWitt Clinton High School in the Bronx and attended classes at New York Institute of Technology. His 25-year work career was in book and magazine sales in New York City. He has worked part time in sales for Sears and Lowe’s since being here in Arizona, but is now retired. Prior to moving to Arizona, the Corrados owned and operated a small motel in upstate New York for 10 years. They have been married for 23 years and live in Sierra Vista with their indoor cat, Gabby. They love to hike, swim, garden, and volunteer. They are members of the Sierra Club, as well as FSPR. Charles is a 30-year member of the Numismatic Association.

Robert Luce
Bob helped manage the family farm in Nebraska through high school; attended college in Nebraska, then transferred to Colorado State University, where he received a BS in wildlife biology in 1972. Bob worked as a wildlife biologist in Wyoming for three decades. Songbird, marsh bird, and small mammal surveys; black-footed ferret reintroduction; bat surveys in caves and abandoned mines; mule deer trapping to conduct migration studies; and counting deer, elk, pronghorn, and moose from small planes and helicopters are just a few of his job experiences. He served as the interstate coordinator for the 11-state Prairie Dog Conservation Team from 2000 to 2004. Bob retired to a home by the San Pedro River near Sierra Vista in 2004. Since then, he has been active on volunteer wildlife-related projects in Sonora, Mexico and Belize; worked at an eco-lodge in the US Virgin Islands; and was an eco-tourist guide in Brazil. He also helped Tom Whetten Photography conduct wildlife photography workshops in Arizona and New Mexico. Bob enjoys international travel, birdwatching, backpacking, gardening, and hunting. He recently backpacked the 817-mile Arizona Trail from the Mexican border to Utah and the Grand Enchantment Trail in Arizona and New Mexico. Bob has authored a number of technical wildlife publications and written wildlife-related articles for several outdoor magazines. He has published two outdoor mystery books—Disappearance Creek, set in the mountains of Wyoming, and Outlaw Creek, set in Wyoming and Arizona—as well as authored River of Life, a photo essay book about the San Pedro River. Bob has three sons who live in Wyoming, Arizona, and New Mexico, respectively.

Volunteers Map Perennial Surface Water along San Pedro

By Robert Weissler

People in the arid Southwest are concerned about the fate of rivers such as the San Pedro and their riparian ecosystems, since many perennial streams have been lost in the past century. The loss of perennial reaches of streams and rivers has important social, economic, and environmental impacts and consequences, so land managers, scientists, and concerned citizens have sought various approaches to monitor their status. One method that has proved effective is what is known as wet-dry mapping.

What is wet-dry mapping? It is a simple, low-cost method for mapping which portions of a river are wet and which are dry during the driest month of the year, namely June in southeast Arizona. Over the years, the surface flow has increased for parts of the San Pedro River, apparently due to conservation actions,
while other parts were stable or have declined. The Nature Conservancy has mapped the data to reveal areas with surface water each year. In 2010, such areas totaled over 30% of the river length through SPRNCA. These maps display areas with variations from one year to the next in the length of surface flows, which indicate changes in local groundwater circumstances and can provide early warning of undesirable environmental changes.

Since 1999, a diverse group of scientists, land managers, and volunteers has been marshaled by The Nature Conservancy and the Bureau of Land Management to map dry and wet stretches of the main stem of the river. In 2010, the effort involved 125 people on foot, horseback, and kayak, covering more than 220 stream miles. Partners include BLM, Community Watershed Alliance, FSFR, Cascabel Volunteers, CONANP, BIDA, Reserva Forestal Nacional y Refugio de Fauna Silvestre Ajos-Bavispe, and Naturalia. More recently, volunteers also cover portions of the river’s tributaries, such as the Babocomari, Aravaipa, and Los Fresnos in Mexico. These volunteers are divided into teams covering a reach of the river. This effort is both a comprehensive and rewarding method for monitoring the river. Each year, usually the third Saturday in June, these volunteers walk or ride horseback along reaches of the river and its tributaries and use hand-held GPS units to record where there is surface water and where the surface is dry. Using GIS software, the starting and ending locations of each wet portion along a reach are translated to lines on a map for display and analysis. This year, the annual wet-dry mapping of the San Pedro was held on Saturday, June 20, just before the onset of the summer monsoon.

With data from more than a decade and a half of monitoring, scientists and land managers can understand and manage our riparian and aquatic habitats better. There are a variety of ways to apply this information. For example, wet-dry mapping has been used to quantify long-term trends in surface water; to better understand the relationship of groundwater to surface water; to identify study areas in which to design and implement research and monitoring efforts; and to manage fish and other wildlife populations and the riparian habitats they use.

The wet-dry mapping approach has been applied in other Arizona rivers, such as Agua Fria and Cienega Creek. Mapping conducted since 2006 along Cienega Creek has revealed locations of perennial flow that were previously unknown. In the past, official state maps did not reflect that a significant portion of Upper Cienega Creek and two reaches of its tributary, Empire Creek, were perennial. Thus, these locations were omitted from mapping efforts like Arizona Game and Fish Department’s statewide inventory of riparian vegetation in the mid-1990s. Further downstream, where the creek has been tracked since 1984, reaches that were once perennial have become dry in some recent years.

So what are some additional benefits of such citizen science? First, wet-dry Mapping turns a casual walk through the cottonwood-willow gallery forest into meaningful science. Participants in past years have included ranchers, realtors, staff from regulatory agencies, conservationists, city councilpersons, children, and newspaper reporters. Wet-dry mapping gives interested people a chance to learn more about their rivers and to get their feet wet in the riparian habitat. And while conducting such mapping, volunteers have encountered many interesting wildlife species like yellow-billed cuckoo, coatimundi, beaver, mountain lion, leopard frog, black bear, Gila monster, bobcat, gray hawk, and longfin dace.
News from San Pedro House

By Laura Mackin

Girl Scouts at the San Pedro House
On Saturday, April 11, Girl Scout Troop 2020 visited SPH for a river walk, educational presentations, and a service project on SPRNCA. Daisies, Brownies, and Juniors from the troop enjoyed a morning at the river and got some hands-on experience planting native plants in the Community Xeriscape Garden. Afterward, they enjoyed a pizza lunch in the ramada. Funding for the planting project was provided by Hands on the Land, a federal initiative to connect youth with nature.

SPH Paint Project
On Saturday, March 28, volunteers painted the exterior of SPH. The project was spearheaded by volunteer and winter resident Douglas “Tug” Kellough. Tug was joined by volunteers from the Air Force (who are currently taking a Morse Code Course at Ft. Huachuca), Linda and Kevin Lee of Hereford, and BLM intern Maddie Adams. While preparing the house for paint, it was discovered that the stucco covering the foundation needs repair. This project will be completed sometime next year.

(Above) Girl Scout activities at San Pedro House. Photos by Ted Mouras.

(continued on p. 6)
Updated Birding Guide
Tucson Audubon's revised 8th edition of Finding Birds in Southeast Arizona brings together all the latest information on finding birds in our area. This is your latest source of detailed information that will help plan birdwatching adventures throughout southeast Arizona. You can purchase the new edition at SPH on sale for $20 (regular price $24.95).

New for the revised 8th edition:
» New birding sites across southeast Arizona
» New maps and updated older maps
» Updated contact information and web addresses
» Updated information on existing site locations
» Updated information on entering Mexico
» Updated IBA (Important Bird Area) information, including sites
» Updated bar graphs and species accounts for all species
» Printed locally on recycled paper using renewable energy
» Online addendum

BLM Presents Draft Resource Management Plan (RMP) Alternatives
By Robert Weissler

[This article was derived from the original BLM document. The final two paragraphs summarize comments submitted by FSPR to BLM about these draft alternatives.]

The Tucson Field Office of the Bureau of Land Management recently presented a set of draft management alternatives for the San Pedro Riparian National Conservation Area (SPRNCA). Once BLM establishes its final set of alternatives, after considering public input, the agency will proceed with analyzing impacts of those alternatives, then drafting the RMP and Environmental Impact Statement (EIS). The four proposed alternatives include the required No Action (or current management) Alternative and three action alternatives reflecting a variety of management strategies.

The No Action Alternative carries forward current management of the affected public lands and resources, based on guidance provided by existing applicable land use plans and amendments and the enabling legislation for SPRNCA (PL 100-696). The action alternatives present a range of public land uses and resource management practices that address issues identified during the scoping process. Each alternative varies in emphasis and intensity of management and describes a set of decisions and desired outcomes that would collectively direct future management for SPRNCA. Additionally, each alternative consists of a set of designations, land use allocations, allowable uses, and management actions necessary to implement it.

Management Strategies That Would Be Unchanged
Regardless of which alternative is selected to guide management of SPRNCA, BLM would continue to collaborate and coordinate with stakeholders, protect the federal reserved water right for SPRNCA, apply standards for ecosystem health, and ensure natural and cultural resources are monitored effectively.

Management Strategies That Are the Same for All Action Alternatives
There are a number of management strategies that BLM would implement that are common to each of the Action Alternatives. First, BLM would establish common natural resource objectives for healthy upland and riparian vegetation, fish and wildlife habitats, and water and soil resources. In addition, BLM
would identify priority species and habitats—including fish, amphibians and reptiles, birds, mammals, and plants—for targeted protection and management. The agency would suppress any natural or human fire starts other than a prescribed fire. BLM is also considering replacing Areas of Critical Environmental Concern (ACEC) within SPRNCA with identification of priority habitats. Adaptive management would be the framework to guide management strategies and actions to ensure that resource objectives are on track. BLM would allocate cultural sites to one of several uses: scientific, conservation, public use, or traditional use. And finally, target shooting and plinking would be prohibited throughout SPRNCA.

Comparison of Alternatives
This is where the alternative themes begin to emerge. While all three action alternatives attempt to reach the same set of desired future conditions, the strategies and tools for getting there vary for each.

Alternative A—No Action Alternative
This alternative would continue existing management under the Safford RMP (1992 and 1994) and the San Pedro River Riparian Management Plan (1989). The No Action Alternative is required to be included in all NEPA documents. This alternative would continue current public use and resource protection and conservation prescriptions without change, including limits on recreation, continued grazing on four existing allotments, and the absence of adaptive management. Species reintroduction, water recharge, and stream restoration would be done on a case-by-case basis. The entire SPRNCA would be available for a broad use of restoration tools on a case-by-case basis, including chemical, biological, mechanical, and prescribed fire. The eligible San Pedro River and associated tributaries would be managed as recreational, scenic, and wild. No portion of SPRNCA would be managed for wilderness characteristics, but would be instead treated as a Special Recreation Management Area without designated zones, but consistent with conservation values. New rights-of-way would be considered on a case-by-case basis. Off-highway vehicle (OHV) use would be limited to designated roads throughout SPRNCA. Charleston Utility Corridor would be established. Finally, hunting would be allowed in designated areas.

Due to the substantial changes in circumstances and conditions, few existing management strategies and decisions remain relevant, so little will be carried forward as common to all alternatives.

Alternative B—Resource Use Emphasis
This alternative emphasizes a diversity of resource use, with some “hands-on” landscape restoration. This alternative seeks to answer the question “What would happen if we emphasized the diversity of allowable resource uses such as recreation and grazing, while allowing for some ‘hands-on’ restoration?” It would maintain the existing four livestock grazing allotments, but would allow for a forage reserve allotment on the rest of SPRNCA of 38,740 acres. In addition, it would allow for a maximum range of recreational opportunities, including vehicular and backcountry access. It focuses landscape restoration and enhanced natural water recharge on the uplands and the tributaries first and foremost. Restoration in the main stem of the San Pedro River would be on a case-by-case basis and only after tributary work is complete. Half of SPRNCA would be available for a broad use of restoration tools, including chemical, biological, mechanical, and prescribed fire as appropriate to the vegetation community.

Protective special designations for Wild and Scenic Rivers, Visual Resource Management (VRM) Class I, and areas managed for wilderness characteristics would be prescribed at a moderate acreage. Some 12,962 acres would be managed as VRM Class I and as “wild” under Wild and Scenic Rivers, while 19,118 acres would be managed for wilderness characteristics (roughly 70% of such lands). The San Pedro River, classified as scenic and recreational with some wild, would be recommended as suitable for Wild and Scenic River designation. The entire SPRNCA would be managed as a Special Recreation Management Area with three specific zones, alternately focused on natural history, human history, or backcountry recreational opportunities. SPRNCA would be an avoidance area for new rights-of-way, with the exception of the Charleston corridor and corridors along Highways 82, 90, and 92. Some 21,314 acres would be closed to OHV travel, while 34,677 acres would be limited to designated roads. Hunting would be allowed in designated areas. Finally, there would be two proposed backcountry byways.

(continued on p. 8)
This alternative responds to public comment that called for the BLM to analyze enhanced recreation, including increased access to sites, increased grazing, restoring upland health conditions to improve riparian and aquatic health, active removal of non-native species, enhanced water quantity through recharge basins and detention structures, and active development of off-channel habitat for native fish.

**Alternative C—Restoration Emphasis**

This alternative generally emphasizes the highest level of “hands-on” landscape restoration and answers the question “What would occur if BLM lifted limitations on broad landscape restoration?” This alternative would attempt to move SPRNCA toward achieving the Desired Future Conditions in the shortest amount of time. Restoration could use a diverse range of tools, including chemical, biological, mechanical, and prescribed fire as appropriate to the vegetation community. It would maintain the existing four livestock grazing allotments. Outdoor recreation would be focused on 1,135 acres within two Recreation Management Zones around developed recreation sites. Hunting would not be allowed. Travel throughout SPRNCA would be limited to designated roads. There would be one proposed backcountry byway. SPRNCA would be an exclusion area for new rights-of-way, with the exception of the Charleston Utility Corridor and corridors along Highways 82, 90, and 92. Protective special designations for Wild and Scenic Rivers and VRM would be prescribed at their lowest acreage (without any VRM Class I) to provide flexibility for concerted restoration efforts and there would be no areas managed for wilderness characteristics. The San Pedro River, classified as recreational, would be recommended as suitable for Wild and Scenic River designation. It contains the most robust efforts to enhance natural water recharge and increase water quantity, relying on the widest range of techniques, including focusing on in-stream modification of the main stem of the San Pedro River to improve river function.

Alternative C responds to public comment that called for the BLM to analyze the restoration of deteriorated riparian habitat, prioritizing species reintroductions and augmentation, improve water quantity through recharge basins and detention structures, and remove of non-native species.

**Alternative D—Natural Processes Emphasis**

This alternative generally emphasizes natural processes to improve landscape health and minimizes human disturbance within SPRNCA. This alternative answers the question “What would happen if BLM allowed natural processes to be the predominant agent of landscape restoration within SPRNCA?” This alternative would remove all grazing from SPRNCA. The focus of outdoor recreation management would be primitive backcountry recreation. Protective special designations such as Wild and Scenic Rivers and wilderness characteristics would be prescribed at their highest level under this alternative. There would be an emphasis on natural variation and spread/colonization in species populations, with minimal intervention on a case-by-case basis. Alternative D would use natural processes to enhance natural water recharge and increase water quantity.

This alternative responds to public comment that called for the BLM to analyze the elimination of grazing on SPRNCA, the reintroduction of species only as needed, and the preservation of wilderness characteristics, including protection of naturalness, opportunities for solitude, and primitive recreation. Alternative D would rely on natural processes to improve water quantity and watershed function. Some 27,529 acres would be managed for their wilderness characteristics. Meanwhile, 32,773 acres would be closed to OHV travel, while travel on 23,219 acres would be limited to designated roads without a backcountry byway. Some 21,912 acres would be managed for VRM Class I. The river would be recommended as suitable for Wild and Scenic River designation, with portions identified as wild, scenic, or recreational. Only bow hunting would be allowed. Finally, the entire SPRNCA would be an exclusion area for new rights-of-way and land use authorizations, while it also would be a Special Recreation Management Area with three specific zones alternately focused on natural history, human history, or backcountry recreational opportunities.

**FSPR Response**

The Friends submitted comments to BLM on June 9, 2015. Among those comments, FSPR recommended keeping the Areas of Critical Environmental Concern in the Action Alternatives, to

(continued on p. 9)
ensure their implications are captured in the analysis of the alternatives and to preserve the public's input on those designations. In addition, FSPR recommended that the land proposed for the forage reserve allotment needs to be reduced significantly. It should exclude areas of SPRNCA managed for wilderness characteristics, VRM Class I, and those closed to OHV travel, in order to be consistent with enabling legislation for SPRNCA. Such a forage reserve allotment can only be implemented if BLM receives sufficient budget appropriations to implement the monitoring to support adaptive management. Otherwise, grazing has the potential to compromise the ability to achieve desired standards of land health and natural resource objectives for SPRNCA.

With regard to motor vehicle access, FSPR commented that such access should be limited to existing designated roads as they are currently managed. Likewise, to limit the impact of large-scale restoration projects on cultural resources to avoid severe and irreversible damage, restoration should be restricted to low-impact projects without heavy equipment like bulldozers. Meanwhile, grassland restoration should be aimed at natural resource objectives for upland and riparian health, not rangeland criteria for grazing. As for recreation strategies in the alternatives, FSPR noted that it is confusing to mix increased grazing with increased recreational opportunities in the resource-use intensive theme of Alternative B. Ideally, these disparate resource uses should not be mixed together under a single category or alternative. Finally, FSPR mentioned that non-consumptive recreation uses should be emphasized in Alternative D. Not all recreation uses are appropriate for an alternative in which the processes of Mother Nature have priority. The public should be able to enjoy those recreational uses that do not compromise wilderness values.

A rattlesnake seeks shelter under a house at Fairbank Townsite. Photo by Jim Peterson.

**FSPR Library Coming to Fairbank**

*By Sally Rosén*

Big changes are coming to the Fairbank Schoolhouse, and it all started with a donation by one of FSPR’s founding members. Two summers ago, boxes and boxes of books and other resources appeared in the back room of the San Pedro House. They were a donation by Jim Herriwig to the FSPR Docent Library, which is housed there, on about eight shelves. We knew right away that we needed more room. Volunteers got busy digitizing slides and photographs, adding new book titles to the existing spreadsheet, sorting through news articles, maps, and charts, and incorporating them into the docent files.

*(continued on p. 10)*
A committee planning how to house the expanded library met several times. After weighing all the options, it was decided that the best place for a library is in a school. Fairbank Schoolhouse has the room and, more importantly, some funds available for the project.

After many months of planning, the cloakroom of the schoolhouse was emptied and cleaned. Prior to then, the room had been half-storage, half-museum. All of the "storage" was sorted and discarded or packed away. Some of the furniture was discarded, repurposed, or relocated. Some of the museum displays have been moved to the main schoolroom and other items are waiting to be displayed in the remodeled room.

New, old-style linoleum has been installed, paint has been touched up, and repairs have been made to the model of the Presidio Santa Cruz de Terrenate. Bookshelves for the new library have been brought in from the woodworking shop, where they were designed and built especially for us by John Porter. John also designed and built the original shelves in the bookstore portion of the schoolhouse. New ceiling fans and light fixtures have been purchased to improve the lighting and better circulate the air. (Did we mention that we now have a heating/air conditioning system that former residents of Fairbank could only have dreamed of?)

The books will be moved during July. We will finish cataloging and organizing them so that not only docents, but all FSPR members, will be able to not only enjoy the Schoolhouse, but the Native American and Spanish displays and a lending library/reading room.

Other furniture is being sought and, by the fall edition of River Roundup, we should be ready to go. With all of these improvements, Fairbank Schoolhouse will be a nicer place to work, visit, and learn.

---

**24th Annual Southwest Wings Festival July 29-August 1**

The Friends of the San Pedro will be among the vendors at this year’s festival in Sierra Vista. Many field trips to birding spots throughout southeastern Arizona are offered, as well as lots of free presentations. Go to [www.swwings.org](http://www.swwings.org) for details.

---

**Water Awareness Month: Showcasing Conservation at the San Pedro House**

*By Dutch Nagle*

*Reprinted from the Sierra Vista Herald*

The driest time of the year is approaching and is a good time to reflect on one of our region’s most precious resources: water. April is Water Awareness Month, an especially good time to visit the San Pedro House to learn more about water conservation in our beautiful--albeit arid--home.

The Friends of the San Pedro River completed a water conservation project at the San Pedro House in 2010. This project combined the planting of gardens with a water collection system to sustain them. The purpose of the project was to demonstrate to people that they could have a lovely landscape without depleting our aquifer. This was done by putting in low-water-use native plants, using various types of mulch and installing a water collection system. (One square foot of roof surface collects 0.623 gallons of water for each inch of rain that falls on it.)

*(continued on p. 11)*
The garden plants are native, therefore, they are already acclimated to our weather conditions and do not need much water to remain healthy. Selecting the plants was one of the most difficult tasks, since there are so many to choose from. You will be amazed when you look at the list of ground cover, wildflowers, grasses, vines, shrubs, patio trees, large trees, and cacti that are low water users. The University of Arizona Cooperative Extension’s Water Wise Program produces pamphlets listing low-water plants for Cochise County as well as many other informative brochures on water conservation. (You can contact them at www.ag.arizona.edu/cochise/waterwise or 520-458-8278 ext. 2141)

After the plants were put into the ground, three different kinds of mulch were used to cover the area around the plants with an attractive, natural blanket that protects the ground from the sun, thereby reducing evaporation. This keeps the soil from drying out.

For the water collection system, rain gutters were installed on the amphitheater with a downspout on each corner. One downspout directs the water to the ground, and the area around it is contoured to hold the water like a large puddle. The plants near this corner do not need any supplemental watering. Two corners each have a downspout that directs the water into a large barrel-like container. Hoses can be connected to the bottom of the barrels and used to water nearby plants. You could also dip into the barrels with a watering can and walk around and water wherever you need to. On the fourth corner the downspout directs the water into a 1500-gallon tank. This tank is connected to a drip irrigation system that supplies the gardens with any supplemental water that might be needed. An electric pump, used in the drip system, is powered by a solar panel mounted on the roof of the amphitheater.

This project demonstrates how little or how much effort/dollars can be expended to use natural plants and rainwater collection. It is easy to capture rainwater in a barrel for a very small outlay. Almost anyone could contour areas around plants so that the water would collect and slowly sink into the ground instead of running off. You could also just put some mulch around the plants to hold in the moisture, thus reducing the frequency of watering. If you want to invest more effort/dollars you could put in a large collection tank(s), drip irrigation system, contour larger areas for water retention, etc.

It has been over 5 years since completion of the project at the San Pedro House and the occasions that potable water had to be used on these gardens have been extremely rare. Cochise County Master Gardeners, along with FSPR members, maintain these gardens and would appreciate any assistance from others. If you are interested in getting down and dirty, please contact the Friends.

On a personal note, my home collection system consists of rain gutters, downspouts and 3 barrels. It collects about 700 gallons for each inch of rain. My storage capacity is only 400 gallons, so six-tenths of an inch of rain fills my barrels. I have not used any potable water on my outdoor plants in the last 8 years.

The Friends have published a book detailing the process of creating the gardens and water collection system, which is for sale in the San Pedro House bookstore. We also have several other books on those subjects to choose from.

The previous issue of River Roundup contained an article about a program where Cochise College students studied wildlife corridors along the San Pedro River. Its accompanying photos were not included. At left is an image of a puma captured by game cameras on December 24, 2013.
Transportation In & Around the San Pedro River Valley in the 19th Century: Part I

By Gerald R Noonan PhD

[NOTE: All maps can be found at end of article.]

From approximately 1846 to 1869, the federal government searched for passages through the West by which wagons and railroads could travel from the Mississippi to the Pacific without crossing difficult terrain (Davis, 2001, p. 27-28). Its general philosophy about road construction (Jackson, 1965, p. xii) emphasized discovering suitable natural passages rather than constructing finished roads.

The Mormon Battalion established the first wagon route (Map 1) across southern Arizona in 1846 (Jackson, 1965, p. 21). In May 1857, the Secretary of the Interior appointed James B. Leach as superintendent of a wagon road that was to be made between El Paso and Fort Yuma, crossing southern Arizona near the 32nd parallel (Davis, 2001, p. 123-128; Jackson, 1965, p. 220-232). The Secretary also designated N. Henry Hutton as chief engineer of the road. The road (Map 2) was to be 18 feet wide on straight stretches and 25 feet along curves, and workmen were to remove timber, brush, and rocks from the road to facilitate the transit of wagons. A federal survey of possible railroad routes (Map 3) by Lieutenant John G. Parke and his party in 1854 and 1855 revealed additional possible travel routes across and within the San Pedro River Valley.

By the late 1850s, travelers going to California had several options (Maps 3-5). They could go through Croton Springs and Nugents Pass to reach the river in the region of Tres Alamos. They then could travel northward along the eastern side of the river to Fort Grant and there turn westward to California. Alternatively, they could journey to Dragoon Springs and then travel southwestward through Quercus Cañon (name then used by federal surveyors and mapmakers for Dragoon Wash) to reach the San Pedro River. They then went northward 6 miles along the eastern side of the San Pedro River to where the Butterfield Overland Mail crossed the river in the region of current day Benson and took a northwest route that joined the California route coming from Fort Grant. By approximately late October 1858, travelers from the east could shorten their routes by avoiding Quercus Cañon and taking a newly established road directly to the San Pedro Crossing in the region of current day Benson. Persons with destinations such as Tubac or other places south of Tucson sometimes crossed the river where Quercus Cañon intersected it and took a road that went along the northern edge of the Huachuca Mountains and then southwestward to Tubac. The army usually took this route to reach Fort Buchanan.

The first regularly scheduled stagecoach line that crossed the San Pedro River Valley was the San Antonio-San Diego Mail Line. On June 22, 1857, the U.S. Postmaster General awarded to James Birch a contract for carrying mail twice a month between San Antonio and San Diego (Giddings et al., 1957). The agreement provided $149,800 annual compensation beginning on July 1, 1857 and was to expire on June 30, 1861. The fare from San Antonio to San Diego was $200 and from San Antonio to El Paso was $100. Passengers were allowed 30 pounds of personal baggage, not counting blankets and firearms, with a dollar a pound charged for excess baggage between El Paso and San Diego. A coach could carry as much as 600 pounds of mail at a time. People commonly called the stagecoach line the Jackass Mail because the 100 miles through the Colorado Desert were traveled on mule back because of the heavy sand.
The stage line route went to Dragoon Springs, then southwestward through Quercus Cañon (Dragoon Wash) to the San Pedro River and then went north 6 miles (Map 4; Ormsby, 2007, p. 85; Wood, 1858, p. 17, 40) to the San Pedro Crossing in the current day Benson area. The route crossed the river there and proceeded northward toward Tucson. Politics, the start of the Butterfield Overland Mail Company, and a variety of other factors including Indian attacks resulted on October 23, 1858 in the discontinuation of the stage line’s service between El Paso and Fort Yuma (Farish, 1916, p. 288; Giddings et al., 1957, p. 235).

The Overland Mail Company began service shortly before the San Antonio-San Diego Mail Line ended its route within the state (Winther, 1957). After dealing with much political maneuvering by bidders, politicians, and businessmen, U.S. Postmaster General Aaron Venable Brown signed a contract on September 11, 1857 with John Butterfield and his associates to carry mail between San Francisco and St. Louis and Memphis (Winther, 1957). The contract specified that letter mail was to be carried twice weekly each way over the prescribed route, with each trip not taking more than 25 days. Mail was to be delivered at post offices enroute. The contract called for the use of four horse coaches or wagons, and service was to begin within 12 months. The government agreed to pay $600,000 per year for a period of 6 years. This was a very large sum of money for that time. In terms of 2014 labor costs, the sum was (MW, 2015) the equivalent of $119 million (using figures for unskilled wages) or $235 million (using figures for more skilled wages). Adjustment of the 1858 figure to reflect the relative share of Gross Domestic Product yields a sum of $2.55 billion because the 1858 economy was much smaller than that of 2014.

Butterfield and his associates organized a firm known legally as “The Overland Mail Company.” The company made use of existing railroad and wagon road facilities. This meant that the portion of the journey done by wagon extended only within 160 miles of St. Louis and ended at the railroad terminal in Tipton, Missouri. The company transported the mail by railroad over the remaining 160 miles. Map 4 shows the route in and near the San Pedro River Valley.

The company expended about $1 million before service began (Winther, 1957). It quickly established station sites, searched for water and dug wells, arranged to haul water to places without it, graded some portions of the route, and built bridges as needed. The company also arranged for the sending of forage and grain to the stations along the route. It employed approximately 800 men to operate the line and used more than 1000 horses and 500 mules, approximately 250 stagecoaches and special mail wagons, large numbers of freight wagons and water wagons, harnesses, food, and assorted equipment and supplies. Employees included superintendents, station keepers, blacksmiths, herders, roustabouts, and most importantly stage drivers and conductors.

The Overland Mail Company used two types of stages (Ahnert, 2013; Dixon and Kasson, 1859; Ormsby, 2007, p. 18; Winther, 1957, p. 95-96). On approximately 30% of its route, it employed a stagecoach that had a strong sub-frame covered by colorfully decorated wooden paneling and equipped with comfortably padded seats. The strong roof often had a metal railing around its outer edges and could carry luggage and passengers. The back of the stage had a platform for carrying mailbags and luggage. Mail and passengers were consolidated at Fort Smith and transferred to a Celerity Coach for the trip from Fort Smith to Los Angeles (Ahnert, 2013, p. 10). From Los Angeles to San Francisco, passengers generally
The company at first used wild mules and horses between Fort Smith, Arkansas and Los Angeles, California (Ahnert, 2013, p. 14), with more wild mules than wild horses being used. Near the end of the stage service through Arizona, the company may have switched mostly to tame draft animals.

Waterman L. Ormsby, a special correspondent for the New York Herald, was the first passenger from St. Louis to San Francisco, arriving in San Francisco on Sunday, October 10 (Ormsby, 2007, p. vii, 17-18, 129-130). During most of the trip, Ormsby was the only passenger; therefore, he had a somewhat more comfortable experience than that accorded later travelers. The stage traveled day and night, with brief breaks to change horses or mules or to allow the passengers a quick meal. In Springfield, everyone changed from a coach to one of the Celerity coaches. Despite hardships endured during the trip, Ormsby concluded, “To many Americans who travel for pleasure this route will be a favorite.”

Some passengers had less-favorable opinions, often because of overcrowding. The Englishman William Tallack described his journey from San Francisco to St. Louis a few months before the secession of the South (Tallack, 1865). The first portion of the trip was in a conventional stage wagon that held nine passengers inside, three at the rear, three in front, and three on a movable seat whose back was a leather strap. The passengers fitted inside by sitting close and dovetailing their knees. The outside of the coach had the driver and conductor and a varying number of passengers. Tallack remarked that “by popular permission, an American vehicle is never ‘full,’ there being always room for ‘one more.’”

In the San Joaquin Valley, Tallack and fellow passengers changed to a “mud wagon.” On the fourth day, the stage reached Tejon Pass at the southern end of the central valley. Passengers ate a late supper around midnight, then shifted into a different wagon at approximately 1 am. Tallack recollected:

*We tumbled hastily into our new wagon, wrapping ourselves up in coats or blankets nearly as they came to hand, waiting till morning for more light and leisure to see which was our own. By means of a blanket each, in addition to an overcoat, we managed to settle down warmly and closely together for a jolting but sound slumber. What with mail-bags and passengers, we were so tightly squeezed that there was scarcely room for any jerking about separately in our places, but we were kept steady and compact, only shaking “in one piece” with the vehicle itself.*

Tallack remarked that immediately east of Tucson stations were far apart:

*Thus, after leaving Tucson, we traveled two stages of thirty-five and twenty-four miles consecutively, with only four miserable horses in each case. Two of them laid down and would not stir, though beaten as it seemed, cruelly with sticks and poles; but, on passing a rope around the fore-leg of one of them, they started, but soon flagged again; and we had to walk over the roughest part of the distance at night, to relieve the poor jaded creatures.*

At a mountain station east of the San Pedro River, Tallack noted that a group of 10 Apaches, some painted with bright daubs of vermilion and white, loitered nearby. The station keepers were “armed to the teeth” with revolvers and Bowie knives and had a stand of rifles inside. On the 13th day near the border with Texas, there was nearly a gunfight because passengers disagreed over who would put up with having all the leg space in front of them filled with mailbags.

The mining engineer Raphael Pumpelly (1918, p. 183, 236 abs.) traveled from Syracuse to Tucson on the Overland Mail Stage in October 1860.

*I secured the right to a back seat in the overland coach as far as Tucson, and looked forward, with comparatively little dread, to sixteen days and nights of continuous travel. But the arrival of a woman and her brother dashed my hopes of an easy journey at the very outset, and obliged me to take the front seat, where, with my back to the horses, I began to foresee coming discomfort. The coach was fitted with three seats, and these...*
were occupied by nine passengers. As the occupants of the front and middle seats faced each other, it was necessary for these six people to interlock their knees; and there being room inside for only ten of the twelve legs, each side of the coach was graced by a foot, now dangling near the wheel, now trying in vain to find a place of support. An unusually heavy mail in the boot, by weighing down the rear, kept those of us who were on the front seat constantly bent forward, thus, by taking away all support from our backs, rendered rest at all times out of the question.

J.M. Farwell, special correspondent of the Daily Alta California, took the Overland stage from San Francisco to St. Louis in October 1858 and sent his paper a series of letters about the trip. His experiences illustrated the difficulty of handling wild horses (DAC, 1858).

Changing horses we started on again for the San Pedro station, near the San Pedro river, where the traveler going eastward takes leave of the waters flowing toward the Pacific. This is a branch of the Gila. We arrived at the station about 10 o’clock, A.M., about 1 mile to the eastward of the river. Some coffee was prepared for us, and we were soon ready to start again. This time, after we were all seated in the coach, the horses, which were said to have been always kind and gentle, refused to move. After a great deal of beating, coaxing and a trial of various methods suggested by almost every one present, we were all obliged to get out again, and after a great deal of trouble, the horses were started, but the passengers being out of the coach, the driver was obliged to stop again, and again, after they were in, the horses refusing to go. After working with might and main for some time, they were got off upon a run, and this time they were kept going. Hitherto, in starting from any station, a person was obliged to stand at the heads of the horses—they being with few exceptions wild ones—until the driver was seated on his box, the reins gathered and everything in readiness, when he would give the signal, “turn ’em loose,” or “let ’em go,” and away they would go upon a run. As we get further along, however, they are growing tame, and are more easily handled.

The Overland Mail route through southern Arizona ended in 1861 because of Indian attacks and the anticipation of the Civil War (Farish, 1915, p. 10, 14-15; 25, 29-30 abs.; Winther, 1957, p. 103-106). The route had never been a popular one, and many emigrants had preferred the shorter and less-hazardous trip by way of South Pass and Salt Lake. The southern faction that had caused the selection of the southern route no longer controlled Congress. On March 2, 1861, Congress directed that the company change to a more-northern route via South Pass and Salt Lake and gave the company a year to make the change. The Overland Mail Company suffered severe losses in making the route change. It gave up all of the improvements it had made in the way of stations and ferries and suffered heavy losses in stock, equipment, and forage. Texas confiscated whatever it could obtain in company property. Indians were emboldened by the withdrawal of federal troops from portions of the southern route and made attacks that produced severe losses and hindered the transfer of stock and equipment to the central route.

A transportation era had ended. Stage service to southern Arizona would not resume until 1866 (Ring, 2012, p. 8). (Future articles will discuss the role played by the San Pedro Crossing during the Civil War, the growth of a network of roads in the San Pedro River Valley, some of the many stage lines that operated in the valley, freighting companies, and the arrival and impact of railroads on the valley.)

References
Custer, H. 1859. Explorations and Surveys for a Rail Road Route from the Mississippi River to the Pacific Ocean. War Department. Route near the 32nd. Parallel of North Latitude. Vol. 11 of 13 vol. set. Map No. 2. From the Pimas villages to Fort Fillmore. From Explorations and Surveys Made under the Direction of the Hon. Jefferson Davis. By Lieut. John G. Parke. Top. Eng. assisted by Albert H. Campbell, Civil Engineer and N.H. Hutton H. Custer and G.G. Garner. Scale of 12 Miles to one Inch or 1.760320. 1854 & 55. Constructed and drawn by H. Custer. [The map has the following additional text: “Note. The Gila River, from the mouth of the valle del Sauz eastward, is laid down from the reconnaissance of Maj. W. H. Emory, U.S.T.E. in 1846, the remaining portion of the Gila; the positions of Frontera, El Paso, Ft. Fillmore and Tucson, and the topography along the Mexican Boundary Line were furnished by the office of the Mexican Boundary Commission, Maj. W. E. Emory Commissioner. The heavy dotted line indicates new trails were made by Lt. Parke’s Parties.” War Department, Washington D.C.] [The Library of Congress metadata about this map lists the publication date as 1859. Volume 7, published in 1859, of the 13 volume series mentioned the map. However, this map & most others in the series was published in 1859 in volume 11.] [JP2 downloaded April 17, 2015 from http://www.loc.gov/resource/g4330.rr001590/].


Talbot, D. 1858. Report to Hon. A. V. Brown, postmaster-general, on the opening and present condition of the United States overland mail route between San Antonio, Texas, and San Diego, California. 43 p. (PDF downloaded April 28, 2015 from http://babel.hathitrust.org/cgi/pt?id=miun.4f3376.0001.001.view=1up;seq=1).
**Map 1. Army of the West Explorations during Mexican-U.S. War.** Cropped to San Pedro River Valley region from Emory (1848b). Colonel Stefan Watts Kearny commanded Army of the West & led 1 of 2 columns that moved W. He traveled along Gila River. One mission of army was to create first accurate map of area from Rio Grande W to Pacific. Lieut. William Hamsley Emory, a highly skilled topographic engineer, led a 14-man contingent in column of topographic engineers. Emory produced accurate maps & wrote a very informative & well-received volume about W that Congress had published in 1848 (Emory, 1848a).

Captain Philip St. George Cooke commanded Mormon Battalion, 2nd column of Army of the West. Battalion was tasked with finding a suitable trail for passage both for its wagons & for those of future travelers. Battalion reached San Pedro River Dec. 9, 1846 by following Greenbush Draw to it, at a point ca. 3 km SW of current day Hereford (Talbot, 2002, p. 38). It then marched N along river until striking a route NW in area of current day Benson. Army promoted Cooke to Lieutenant Colonel by time of this map. Courtesy of David Rumsey Map Collection, Cartography Associates.

Map has notation "Numerous herds of Wild Cattle from San Bernardino to the point where the San Pedro is left"

"Bull Run" was Cooke’s name for current day Babocomari Creek.
Map 2. Leach Wagon Road. Cropped to San Pedro River Valley region from Campbell (1858). In May 1857 the Sec. of Interior appointed James B. Leach as Superintendent of wagon road to be established from El Paso to Fort Yuma (Davis, 2001, p. 123-128; Jackson, 1965, p. 220-232). Rte. went W through Railroad Pass, Sulfur Springs Valley, & Nugent's Pass to reach San Pedro River near Tres Alamos, & then N along E bank of San Pedro River for ca. 60 miles. It then went NW up Putnam Wash. Leach established a main camp in 1858 on San Pedro River, & 60 men based there cleared brush, mostly mesquite. Preliminary budget estimates were that a major expense would be removal of mesquite along San Pedro River. Excellent grass & water in San Pedro River Valley meant future travelers would have a rest area halfway through their journey W. Courtesy of David Rumsey Map Collection, Cartography Associates.

Heavy dotted lines showed new trails made by Lieut. John G. Parke's parties.

International Border
Indian attacks were a major concern, & 1859 Butterfield pamphlet (Dixon & Kasson, 1859) claimed 25 well armed men guarded every station & every wagon. Butterfield stations averaged ca. 18 miles apart, but some were as close as 12 & some more than 30 miles apart (Tallack, 1865). They were mostly log houses or adobe constructions, with each having several well armed men. For an extra charge passengers could obtain meals twice a day. **One stations was at Middle Crossing just E of San Pedro River** (DAC, 1858; Sanders, 2013, p 95). Butterfield fare for through passage between E and W was after some experimentation set at $200, not including meals, which averaged from $0.40 to $1 each (Farish, 1915, p. 13, 28 ads.; Winther, 1957, p. 97-98). Food generally was items such as (Farish, 1915, p. 13, 28 ads.; Tallack,1865) bread or heavy biscuits, corn bread, chicory coffee sweetened with molasses or brown sugar, tea, fried pork floating in grease, & fried steaks of bacon, venison, antelope, or mules. Vegetables, milk, & butter were only available within Calif. & at stations in central portions of W Mississippi valley.
*Map 5. Military map showing some major routes.* Cropped to San Pedro River Valley region from WarDept (1867). Map apparently based on info. from well before 1867. By late 1858 many travelers were able to save time & miles by going directly to San Pedro Crossing without detour through Quercus Canyon.
Events Calendar, July-September

[SPH = San Pedro House; FSH = Fairbank School House; HAS = Huachuca Audubon Society; SABO = Southeastern Arizona Bird Observatory]

SPH Open as Visitor Center (Daily), 9:30 am-4:30 pm

FSH Open as a Visitor Center (Friday-Sunday), 9:30 am-4:30 pm

Understanding the River Interpretive Walks
Every Saturday at SPH

» 8 am—July 4, 11, 18, 25
» 8 am—August 1, 8, 15, 22, 29
» 8 am—September 5, 12, 19, 26

FSPR Bird Walks
Every 2nd Wednesday & 4th Saturday at SPH

» 7 am—July 8, 25
» 7 am—August 12, 22
» 7 am—September 9, 26

FSPR/HAS/SABO Bird Walks
Every Sunday at Sierra Vista Environmental Operations Park (EOP)

» 7 am—July 5, 12, 19, 26
» 7 am—August 2, 9, 16, 23, 30
» 7 am—September 6, 12, 20, 27

SABO Hummingbird Banding
Observe at SPH between 4 and 6 pm on the following dates (donations gratefully accepted):

» July 5, 11, 17, 23
» August 1, 8, 15, 20, 31
» September 6, 12, 19, 26 & October 3

Special Events
» September 5, 9 am—Fairbank Townsite History Walk
» September 19, 9 am—Presidio Santa Cruz de Terrenate History Walk (tentative)

New & Renewing Members, February-June 2015

Ginny Anton & Steve Pearce*; Pamela Banas*; Sarah Barchas*; Gina, Terence & Andrew Berger; Cheryl & Bill Braun*; John Broz; Tom & Lin Clancy; Pamela & Charles Corrado; Duane & Lynn Daugherty*; Tina Eden*; Laura Fernandez*; Bret Galloway; Judie & Richard Gumm*; Robyn Heffelfinger*; Marilyn Henley & Steve Johnson; Barbara Kelly; Denny & Tracy Kitchen*; Menary Kitchen*; Jayne Knoche; Sandy & Rock Kousek; Sara Lane & JW Stengel; Robert Luce*; John Maier*; Rick Marsi; Cecile McKee & Jesse Zoernig*; Skip & Sonya Miller; Ken & Grace Murrillo*; David & Catherine Newell; Mary Rane; Karen Ratte’ & Jim Gressinger; Kathleen Scott & Charlie Miles*; Tom & Judy Shepherd; Kathleen & Wayne Shilson; David Singleton*; Sharon Sintz*; Ruthann & Joe Sitter; Pete Sockness; Stephani Stephenson*; Michelle Stranz*; Christine Szuter*; Mary & Scott Tillman; Ted White; Connie Wolcott & Janet Holzworth; Carol Wood & Wijbren Huisman

* = New member.

Contact List

• President—Tom Wood
• Vice-President—Robert Weissler
• Treasurer—Renell Stewart
• Secretary—Sally Rosén
• Directors—Charles Corrado, Pam Corrado, Robert Luce, Steve Ogle, Sally Rosén, Renell Stewart, Ron Stewart, Robert Weissler, Tom Wood
• Docent Activities—Tom Clancy, Ron Stewart
• Education—John Rose
• Membership—Renell Stewart
• Newsletter Editor—Sue Leskiw
• Administrative Officer—Renell Stewart
• Bookstore Manager—Laura Mackin

To contact any of the above individuals, please call the office at 520-459-2555 or send us e-mail at fspr@sanpedroriver.org or sanpedrohouse@sanpedroriver.org. Mailing address: 4070 East Avenida Saracino, Hereford, AZ 85615; Fax: 520-459-7334. Website: www.sanpedroriver.org

Friends of the San Pedro River (FSPR) is a nonprofit, volunteer organization dedicated to the conservation of the River and the health of its ecosystems through advocacy, educational programs, and interpretive events.

- 22 -