

## SONOITA CREEK FLOOD and FLOW STUDY COMMITTEE

MISSION: The watershed is a vital component of this community's well being. The Sonoita Creek Flood and Flow Study Committee will (i) make recommendations to the Patagonia Town Council with respect to best practices within its jurisdiction to manage erosion, to enhance water flow, to create optimal flood mitigation and to promote the long-term health of the riparian corridor, (ii) look at the entire watershed area to influence upstream conditions and to optimize downstream consequences, and (iii) educate the public.

### MINUTES for August 11, 2016 Meeting

(NOTE: this meeting's recording is available at Town administrative office)

ATTENDEES: Carolyn Shafer, Kate Tirion, Anne Townsend, David Teel, Nick Beauregard, John Hays, Kathy West, Dave Ellis. Guests: Ron Pulliam, Susan Belt, Barbara Ellis, two Borderland Interns: Oliver & Laura, and Anu and Benjamin Kryzs

1. Kate moved and Dave seconded approval of minutes from the July 14, 2016 Flood and Flow Committee Meeting. Minutes were passed unanimously as written.
2. Item 5 - Observations of summer water flows in Sonoita Creek - was moved up on the Agenda, given this week's flooding in Town.  
Discussion ranged from how the crisis was handled (well) to how to take measures to avoid or reduce future flooding. The Town is aware of the problem with the concrete crossing of the Creek near Paton's, and the "scour hole" (John Hays' phrase) on the down-stream side of the crossing. It is a hazard but the Town has as a current priority repairing equipment needed to clean up the Town after the flood. Also, the Town has located an additional loose large tree in the Creek upstream of the Rt. 82 bridge and the State has agreed to come remove it. Also, the State has already re-inspected this bridge and certified that it is still safe. Finally, the Town has contacted the County Public Works Director Valdez regarding measures the County may be able to take to help us out.

Kathy West and Nick Beauregard will contact their supervisors at The Nature Conservancy and the Tucson Audubon Society re both the possibility of lending us some engineering/hydrologist expertise and the possibility of helping out the Town with the expense of repairing and delineating the concrete crossing to make it safer. In the meantime, these two agencies will see about setting up some posts with cables with reflecting tags hung up across that crossing as a temporary fix. And, as soon as the equipment is repaired, the Town will push back into the Creek bed the debris from the up-stream side of the crossing as a quick fix.

In the meantime, there are still ongoing long-term efforts underway to restore the Creek watersheds upstream on the two main waterways and their tributaries above Town, and to develop some large retaining ponds to slow down water flows.

Carolyn will write a draft report of our discussion for submission to the Town Council after the Committee has reviewed it.

3. Ron Pulliam reported that Borderlands Restoration Leadership Institute is developing detailed maps of topography, soils, vegetation, and land use for the Sonoita Creek watershed and using this information to develop two hydrological models, one focused on flood risk and one focused on stream flow and aquifer recharge. BRLI is also working with Friends of Sonoita Creek to identify trends in well depth and water levels in the watershed. Preliminary analysis of AZ Department of Water Resources well data indicates that, in general, wells near Sonoita Creek have shown little to no decline but water level in wells in the foothills away from the creek have declined significantly. Overall, the average depth to water for wells in the Sonoita Creek watershed has increased from approximately 65 feet in 1980 to over 150 feet currently and the percentage of wells with water levels of 400 feet or greater has increased from zero to over 25% during the same time period.
4. Carolyn mentioned that the Town has gotten Clear Creek Associates to give a workshop and report on August 24 to the Town community at 6p.m., and to report to the Town Council at 7p.m. This report should address some of the Town's flooding concerns.
5. Agenda Item #2 - Silver Jackets information and agenda item #4 - recommendation to the Town of Patagonia regarding bulk sale of water and draft water emergency are carried forward to next meeting.
6. The next meeting of the Flood and Flow Committee will be on September 8, 2016 at 10 a.m.

#### PARKING LOT (future agenda items)

Silver Jackets Community information program NOAA and USACE

Town of Patagonia watershed designation by FS

Status of FEMA Meetings

Town of Patagonia water improvement projects

Santa Cruz County flood plain review

List of private owners of creek bed

Conservation easement

Public education program on water related issues

Flood mitigation plan

Active Water Management Area (AMA)

AZ Municipal Water Users Association

Discussion of possible funding sources

QUARTERLY REPORT: sub-committee on sub-watershed work

QUARTERLY REPORT: sub-committee on retention pond solution

#### RADAR SCREEN

Hudbay property ownership

AZ Supreme Court ruling in AZ Dept of Water Resources vs McLennen