TOWN OF PAYSON
WATER RESOURCES MANAGEMENT

2009 STATUS REPORT

APRIL 2ND, 2009

Prepared By:
Town of Payson Water Department

2009 PAYSON WATER RESOURCES STATUS SUMMARY

The Town of Payson desires to maintain water usage below what is replaced on a long-term average basis by rain and snowfall within the watersheds that recharge or re-fill the aquifer upon which it relies. Maintaining groundwater usage below this amount is considered "Safe Yield". The amount of groundwater available to the Town of Payson within a Safe Yield state is estimated at up to 2,681ac-ft/y.

It is the policy of the Town of Payson local government that the Town will make attempts to manage its water supply and take efforts relating to water development and water conservation to achieve and/or maintain a "Safe Yield" condition of its groundwater supplies each year. Currently, Payson's water consumption remains below the long-term state of "Safe Yield". In 2008, Payson residents consumed local groundwater resources in an amount equal to 62% of "Safe Yield". The net per person usage of water for 2008 was only 80gpcd. This value is below the Payson Water Department's target of 89gpcd.

Because per person water use remains far below 89gpcd, groundwater levels have risen dramatically from a wet winter season, and yet there remains an expectation for the return of dry conditions, the **Town of Payson will implement Water Conservation Level I** water use limitation level for the period of April 2009 to May 2010. This level of conservation includes a ban on washing paved areas such as sidewalks or drives and limiting outside water use to certain days of the week. Complete details are available at the Payson Water Department. These efforts in combination with increased water conservation education, including the Town's annual participation in "Arizona Project WET" are meaningful attempts by Town government to achieve the Town's water resources demand goals. The Level I water use limits are commensurate with the reality of our environment and the potential for recurring drought conditions. Water conservation and demand management success has positively influenced both the short and long-term water supply status of the Town of Payson.

Agreements with Salt River Project on future C.C. Cragin surface water deliveries and rights have been completed. Applications are also pending process for formal water rights transfers and required federal national environmental policy act studies "NEPA".

2008 WATER RESOURCES STATUS

GROUNDWATER LEVELS

Groundwater levels in the Payson area are ever changing, not only from year to year but also from day to day. It is important to note that changes in groundwater levels either up or down are normal, within the context of a particular area's history. Because the Town of Payson currently obtains all of its potable water supplies from a fractured aquifer groundwater source, highly variable groundwater levels are indeed expected.

Groundwater level changes are related to many factors. Recharge or re-filling of the aquifer occurs in times of precipitation (rainfall and snowmelt). This results in groundwater level rise. In an opposite way, groundwater levels will drop in response to periods of no recharge or drought. Groundwater levels will also drop and rise in response to well(s) pumping or not pumping. The topic becomes more complicated by the type of aquifer of which the Town and communities in the region depend on. The Payson regional aquifer is in fact a complex system of interconnected cracks and sections of porous (sponge like) earth that yield water to wells. Nearly all of the earthen material beneath Payson and its surrounding area consist of the "Payson Granite". Some areas in the granite have more cracks and porous earth (decomposed granite) than others and some of the cracks or "fractures" are more interconnected than others. Therefore, interpreting changes in depth to groundwater can become complicated.

Groundwater levels are measured quarterly from all wells in the Town of Payson's observation network. This network consists of nearly 100 wells in the Payson area. Monthly measurements are collected at all active production wells and also at key observation wells. Some wells have water level monitoring devices installed that collect and record data automatically. The water level data is maintained in a database by Water Department staff.

In 2008, groundwater levels have been observed to increase nearly everywhere. Most groundwater levels are actually higher than last year due to an unprecedented (in recent times) consecutive wet winter season. Therefore, the Town's groundwater resources are observed to be in improved condition from previous years.

2009 WATER RESOURCES STATUS

CONSERVATION

Conservation Programs

Through water efficient practices within our community we have once again beat our target goal for per person use by staying under the established 89 gpcd (gallons per person per day) target. During 2008 the usage per person was 80 gpcd.

We currently have two rebate programs in place for the Payson homeowner. The WashSmart washer replacement rebate of $200.00 and Low-Flow toilet replacement rebate of $100.00 is available to qualified customers until June 1st. Additionally, there are commercial programs available to assist local businesses in retro-fitting plumbing fixtures that do not meet the current water conservation code.

We held two "Project Wet" Water Festivals during 2008, one in May and one in October. Hereafter, this will be an annual event that occurs in the fall of each year. Project Wet is a multi agency sponsored education program designed for interaction with and the education of 4th grade students Through this festival we are able to educate our future water users about the water cycle, the watershed, groundwater and aquifers and, of course, water conservation.

In an effort to provide more current information to our customers, we continually update our web pages on the Town of Payson website, www.ci.payson.az.us There you will find most of the brochures that we offer in a PDF format, as well as tips for improving your water efficiency practices and a water audit that you can conduct in your homes to determine more areas where you could become a water wise consumer. In addition the Town of Payson Native and Low-Water Use Plant List is also available.

Conservation Level

Water conservation requirements pursuant to Resolution No. 1742 anticipate that Water Conservation Level requirements be enacted according to the deficit or surplus of precipitation that occurred in the twelve month period immediately preceding the annual water report. Additional, resource factors are also considered when setting the Water Conservation Level requirements for any given year. Precipitation for Payson's water year of 2008-09 (April 08-March 09) was over 22 inches (official values from the NWS were not available at printing time). This amount is above the long-term average of 22 inches per year as referenced in conservation ordinances.

In light of Payson's already low per-person (per capita) water use it is determined that Water Conservation Level I remains as the appropriate measure to implement upon Council acceptance of this report in April, 2009 for the following year. It is anticipated that implementation of Level I water use limitations will continue to promote responsible water use and maintain annual water use below the target 89gpcd (per-person) level.

2009 WATER RESOURCES STATUS

WATER DEMAND

Water demand for the 2008 year decreased a total average of 5% over 2007. It is believed that the recent economic down-turn is partially responsible for the overall decrease in water consumption in 2008. This can be explained by fewer visitors and part-time residents coming to Payson in 2008 than in previous years along with an obvious increase in unoccupied homes. Still, residents appear to be maintaining an awareness of conservation as a way of life in the high desert environment of Payson.

For 2009 past water demand analyses were revisited to assess the longer term impacts of the Department's and Town's citizenry efforts in stabilizing water demand. A form of the chart on the following page was originally developed in 1998 as part of the "Long-Term Management Program of the Town of Payson's Water Resources" report as prepared by Southwest Ground-water Consultants Inc. The analyses were revisited again in 2001 when an alarming short-term trend was identified, which lead to the Town's creation of aggressive conservation programs. In analyzing the chart the trained eye can see the following salient points:

- ✓ The stabilization of growing demand has in affect set aside the valuable time needed for the Town to complete the Cragin project while also maintaining sustainability of its water resources.

- ✓ The timeliness of the Town's conservation programs and the positive significance of the acquisition of a developer funded water supply in 05-06 (past policy).

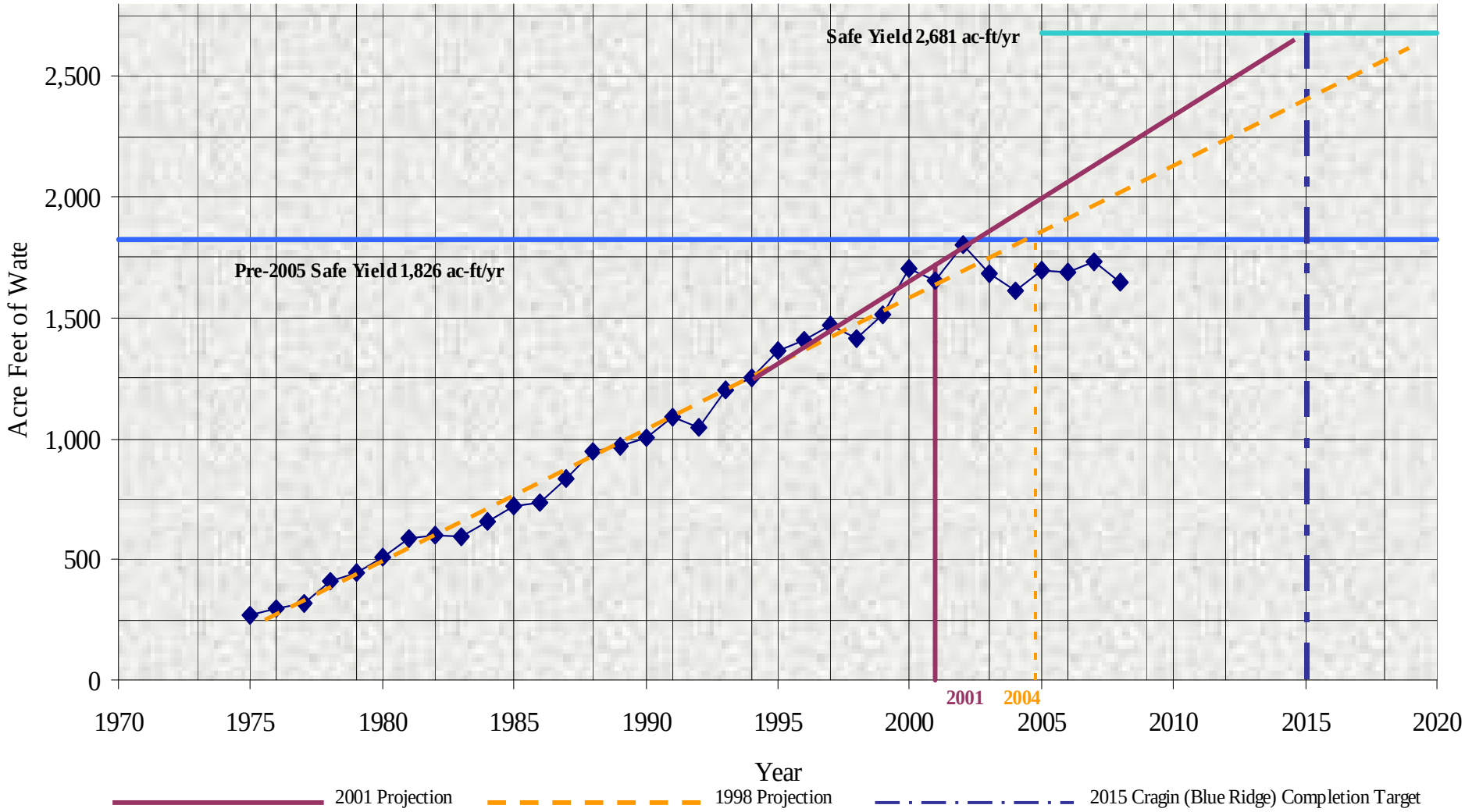
- ✓ The significance of maintaining the 2015 target date as ideal for completion of the Cragin pipeline project.

- ✓ The vital importance of on-going efforts to utilize Cragin (Blue Ridge) surface water.

- ✓ If water demand trends were to increase to pre-2002 rates, existing water supplies would be adequate to meet those demands until the Cragin project is completed.

- ✓ The Department is prepared to deal with potential for a return of growth related increases in water demand as likely financial recovery looms in a post 2008 economic environment.

Town of Payson
Annual Groundwater Demand and Trends



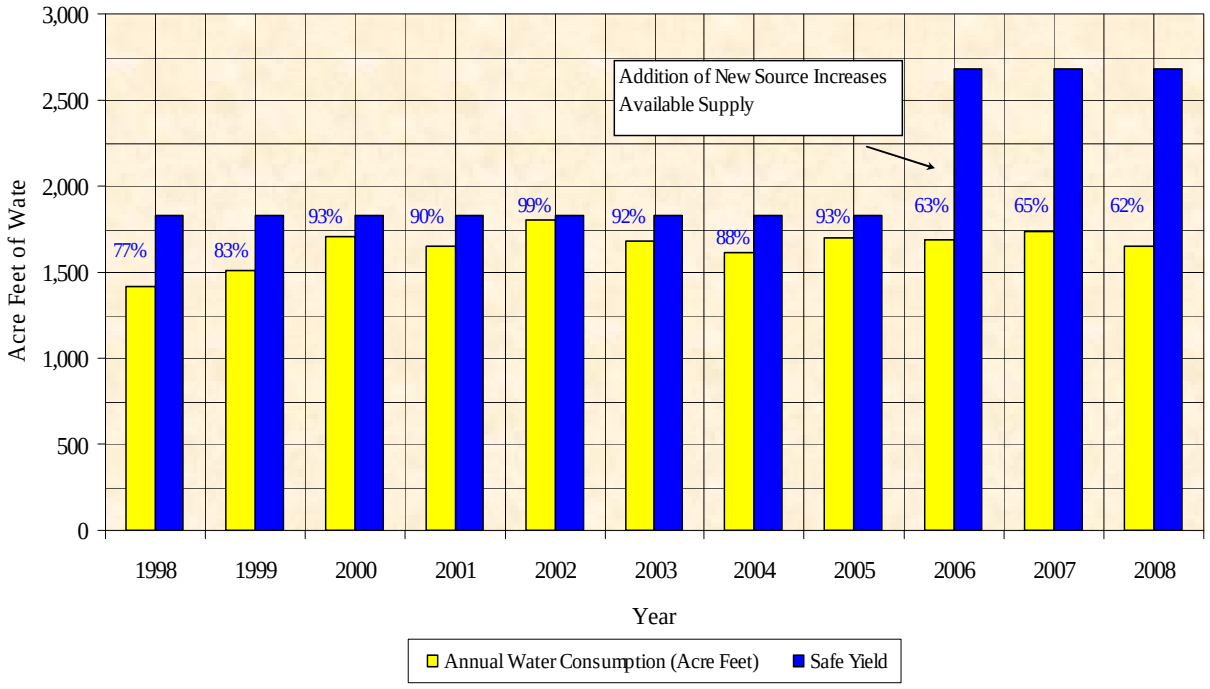
2009 WATER RESOURCES STATUS

SAFE YIELD

Safe Yield Status

Safe Yield is a term commonly used to define the amount of groundwater that is naturally and artificially replenished via deep percolation of precipitation into the subject aquifer. In Payson, this value has been estimated to be 2,681ac-ft/yr for its well fields. The value does not include artificial recharge or the now confirmed presence of a deep regional groundwater source. The 2,681c-ft/yr "Safe Yield" is considered quite conservative and by maintaining water use significantly below this value it serves as a tool for maintaining sustainability of groundwater supplies. In the year 2008, groundwater consumption decreased by 5% to 1,649ac-ft and represents 62% of the available groundwater supply.

Town of Payson Annual Groundwater Consumption Since 1998 Relative to % of Safe Yield



2009 WATER RESOURCES STATUS

C.C. CRAGIN STATUS

C. C. Cragin Reservoir Project

Negotiations with Salt River Project "SRP" surrounding the acquisition of Cragin water were formalized in May of 2008. The agreement reached with SRP requires Payson to pay its share (27.2%) of costs associated with the operation and maintenance of the existing pipeline and facilities. In the agreement, Payson caps groundwater production to 2,520 acre-ft/yr, on a 10 year average. In this way, the Town further acknowledges the necessity of managing its local groundwater supplies conservatively and as second in priority next to future surface water supplies. The agreement paves the way for future surface water deliveries from Cragin Reservoir and formalizes the Town's commitment to pursuer surface water as a primary source to replace existing groundwater supplies.

In February of 2009, the Water Department, in collaboration with SRP, successfully filed a "Severance and Transfer of Water Right" application with the Arizona Department of Water Resources. ADWR has published the severance and transfer request thus officially beginning Payson's process to formalize its water right to up to 3,500 acre-ft/yr from Cragin Reservoir (Blue Ridge).

The Water Department is also working in parallel to secure Federal permits for the right of way for construction of the Cragin pipeline infrastructure. Permits are required under the National Environmental Policy Act "NEPA" and are ultimately issued by the Tonto National Forest. The Town's application was formally accepted by the Forest Service in November of 2008 after over a year of effort from Town staff, the Mayor, and Senator Kyl's office. The Department is anxiously awaiting a draft cost recovery agreement and memorandum of understanding due from the Forest service, in order to proceed with the necessary studies required under NEPA process.

Federal stimulus dollars were made available via the passage of the American Recovery and Reinvestment Act "ARRA" of 2009. The Town Mayor, Kenny Evans and the Water Department filed for funding of up to $10.5M to offset anticipated costs relating to the Cragin Project.

The Town, Gila County, and the Bureau of Reclamation have essentially finalized the Mogollon Rim Water Resources Management Study. The study recommends that Reclamation pursue feasibility of the project. As such, the Town has submitted a letter of interest to the Bureau of Reclamation for funding of feasibility level works already in process or due to start, pending funding. The Bureau of Reclamation is authorized under the Rural Water Act of 2007 to fund qualifying rural water projects. Payson's proposed pipeline project is a perfect fit. It is possible that the Bureau's Rural Water program could become the means to an end for the construction of the project due to anticipated flexibility in funding mechanisms.