

EDUCATION

Volunteer Network Spawns RainMapper Service

Data from backyard rain gauges are supporting research, drought monitoring, weather reporting, and a new Web service that provides neighborhood-specific rainfall reports to homeowners without rain gauges. *RainLog.org* is a Web-based network of more than 1,100 volunteer weather watchers that measure and report rainfall in their backyards.



Rainmapper shows rainfall recorded in the subscribers' neighborhood.

As the Southwest enters a tenth year of drought, many homeowners are more carefully irrigating their landscapes and adjusting for weather conditions. But the intense, localized nature of monsoon precipitation makes it difficult to determine how much rain fell in a specific

neighborhood. Official rainfall amounts are usually measured at an airport or some other public site far from residential neighborhoods, making it difficult to adjust an individual irrigation schedule to the local conditions.

RainMapper is a free service based on *RainLog.org*, developed at the University of Arizona with support from a U.S. Bureau of Reclamation conservation grant. Homeowners who register for the free *RainMapper* service

through the *RainLog.org* website receive e-mails with information on how much rain fell in their neighborhood each time it rains within five miles.

Soon, *RainMapper* also will provide interpolated rainfall estimates based on research by Garcia and others (in

review). These interpolations will improve upon the current practice of estimating rainfall at an ungauged location using an inverse distance squared function by using more advanced approaches to weight readings from nearby gauges. The advanced method improves accuracy particularly for convective storms such as the Southwest's summer monsoons.

These findings emphasize the need for a dense network of gauges to capture the spatial variability of monsoon storms. Therefore, *RainMapper* results will be most reliable in areas with many active RainLoggers. Currently, the metropolitan Tucson area has over 450 RainLoggers and Maricopa County has over 300.

For more information, or to subscribe to *RainLog* or *RainMapper*, visit www.rainlog.org.

Reference.....
Garcia, M., C.D. Peters-Lidard, and D.C. Goodrich, Spatial interpolation of precipitation in a dense gauge network for monsoon storm events in the southwestern U.S., *Water Resour. Res.* (in review).



You Can't RE-ZIST The ZIST!

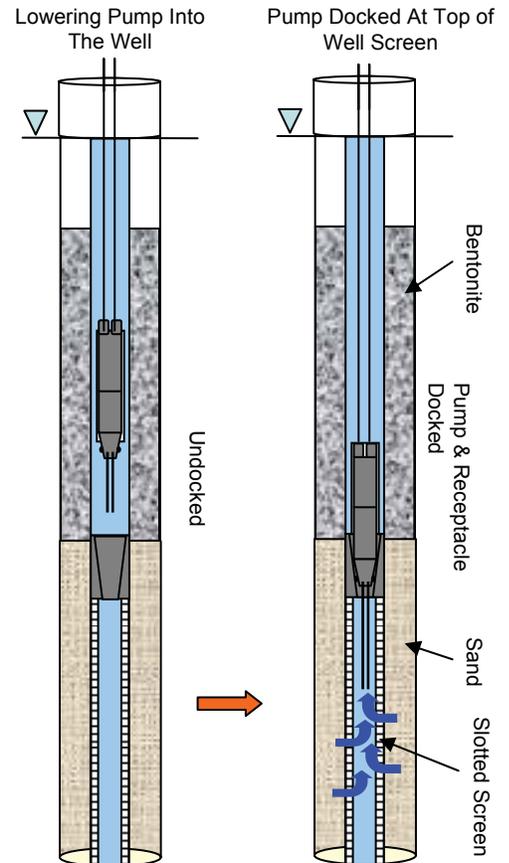
-Zone Isolation Sampling Technology -

- Pump Isolates Well Screen**
- Purge and Sample Well Screen Only**
- No Drawdown Monitoring**
- Accurate VOC Samples**
- Pump Sizes 0.75" or 1.75" OD**
- 3,000-Foot Lift Capacity**
- 30-year Pump Warranty**

New Well Installation or Retrofit Existing Wells:
1", 2" or 4" wells
Single and Multi-level Applications
Isolate Passive Diffusion Bags

--Rated the highest overall score for efficiency, usability, durability and cost in a multi-level comparability study funded by the USACE 06'--

866.298.8701 / www.besstinc.com



(Patent Pending)