

November 13, 2013

TO: Jacob Bornstein – CWCB

FROM: Mark Shively – DCWRA

SUBJECT: Next Steps - Rotary Sprinkler Nozzle Retrofit Pilot Study

There were several findings from the study that lead to *actionable* “next steps” items.

- a) Customers must be pre-screened to determine who is overwatering. The retrofits should be limited to those who are overwatering. The most intuitive way to determine overwatering is to contrast current watering practices against a **water budget**. Some providers have water budgets, while others do not have the capability. HB-1051 will require new reporting. Kevin Reidy of CWCB staff is coming out next week to detail same. As part of this upgrade, it might be possible to extend water budgets to more water providers. Grant funding to create these water budgets as part of conservation plan upgrades is worthy of pursuit.
- b) One-half of the water efficiency reported in the study was derived from the improved design of the rotary sprinkler nozzles, and one-half was derived from educating the homeowner on how to better use their irrigation system. This means communication is imperative. Less than half of providers have assembled E-mail addresses of their customers. The report shows E-mail to be the preferred communication path, and that costs of E-mail communications can be a fraction of other methods. Some providers have done a masterful job of pulling together their customer’s E-mail addresses, and some offer electronic billing, rather than physically mailing out bills every month. There is no doubt that most all billing will be electronic, due to the cost savings that are available. DCWRA and S. Metro Water Supply Authority are consolidating January 1<sup>st</sup>. Part of the scope of work contemplated in 2014 includes assembling a regional communications plan. Assembling **E-mail lists** will be a cornerstone of that plan.
- c) Manufacturers claim that rotary nozzles are up to 30% more efficient than traditional designs. While we saw a 28.6% improvement, only half of that improvement could be attributed to nozzles. The rest came from communications (education and outreach). Incremental efficiencies that may be possible from nozzle design are negated by poor initial system design, poor initial system design, and poor maintenance practices over time. This suggests there should be more training in the commercial sector. DCWRA has applied for a grant to train landscape installers and operators – and the land use representatives who should inspect these installations for compliance with best practices. This pilot study very much underscores the need for additional training in the commercial sector.

- d) Retrofit projects should continue when results can be measured, and communications with citizens optimized. **Once providers are able to measure who is overwatering, and once E-mail lists are in place, the program detailed in the pilot study should be replicated widely.** At the 11/6 DCWRA meeting, there was discussion about next steps to further implement the program to a broader audience in the study area. Water providers should budget for additional retrofits, and implement such a program. This message should be repeated to the Metro Round Table, and a presentation to that group is contemplated in three weeks. Those entities will also need *water budgets and E-mail lists*. The subject study area has already reduced per capita consumption by 32% over the past ten years. Incremental efficiency of 4% is possible through retrofits. Retrofits bring per capita consumption to the long-term Metro Round Table goal of 128 gpcd. Net costs of \$65 million can be avoided through retrofits. Costs to avoid such expenditures are economic, costing about ten cents on the dollar, given water rates that will be part of the WISE Agreement between Denver Water, Aurora, and South Metro Water Supply that is made possible through the Colorado Cooperative Agreement.
- e) Most water providers are trying to deliver what are essentially the same messages to their customers about water efficiency. Thornton Water and DCWRA partnered to produce ten videos with accurate generic messaging about water efficiency. All water providers should combine budgets to spread, share, and reduce costs for communications with the public on water topics. Clearly, we should speak with one voice. While surveys conducted as part of this pilot study show 100% agreement, there is currently no leadership on any such initiative. There are communications efforts with the state water plan, and with the value of water campaign. There are education initiatives through the Colorado Foundation for Water Education. But, the dots are not being connected. The partnership between Thornton Water and DCWRA is the closest template we have to next steps in effective water communications. A recent PSA featuring Governor Hickenlooper received 165,000 views during a four-week test marketing effort that was part of this pilot. That sort of number is unheard of for water communications, but exactly what is needed if we are to communicate:

the importance of water

the need for the efficient use of water

and the need to support water solutions for five million residents of Colorado.