
September 2 2026



Irrigation
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Results of an Irrigation Audit?

A comprehensive audit performed by a qualified professional will answer the question, *repair or replace?* The information gathered during the field audit (see Irrigation System Evaluation sheet) will build the case for either approach by defining the costs & benefits of all recommendations. With this information the property owner will be able to decide how to move forward.

Before beginning the field audit it's a good idea to look back at the service history to see what repairs have been required to date. The type & frequency of specific repairs can be an indicator of structural problems with a system. Special attention should be given to the condition of the major system components (i.e. pipe & fittings, wire, valves, heads & controller) to see if any have required multiple or more frequent repair/replacement. The age of the system should be considered when making recommendations to replace any system component group.

Cost estimates will provide the information needed to make decisions about major system repairs. For example, multiple &/or more frequent service calls to repair leaking or nonfunctioning zone valves at \$125 per service visit can justify total system valve replacement at \$200 per valve. Increasing service visits to trouble shoot electrical issues at \$200 per service call can warrant spending \$2,000 to replace all field wiring. System age & increased water usage can point to the need for sprinkler head replacement, usually \$30 to \$60 per head, especially considering increasing water costs.

Once the existing service & water usage history has been reviewed, a complete walk thru & assessment of the system will need to be completed. This review should start at the Point of Connection. A static water pressure reading (no water flowing) should be recorded. Maximum system flow rate will be determined by the largest zone(s) flow rate. This max flow along with mainline pipe size & type will determine max flow pipe velocity which should not exceed 5 feet per second. A working water pressure should be recorded at the P.O.C. once the largest zone(s) flow rate is determined. An operating pressure recorded at the largest flow zone & farthest from

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the water source will provide total pressure loss numbers. This information will enable the auditor to determine if the system is working in an acceptable pressure range.

Next all of the controller information fields will be collected. Is the controller a Stand Alone type or some version of a SMART device? If SMART, how is it remotely connected (i.e. cell, ethernet or other)? What is the type and size of the field wire? What is the longest wire run to the farthest solenoid valve? Does the system have a rain &/or soil moisture override sensor? Does it have multiple soil moistures connected to different zone groups? What are the current programs & how are they organized (turf/shrub or annuals)? Does the controller make periodic adjustments automatically?

With the advances in controller technology, any professional audit should ask & answer these question. Should a controller replacement be recommended & why? How much water & dollars can be saved? Will these saving projections cover the new SMART controller cost in a reasonable period of time, usually 3 – 5 years? A new controller for a residential system can cost \$600 to \$900. A commercial SMART controller install can be \$1,000 to \$1,500 or more depending on the station count, flow rate & controller selected. When recommending a new controller, a professional audit must ask & answer this question. Who is going to be responsible for monitoring, managing & reporting. The potential benefits in plant health & water/dollar savings will only be realized when this on-going management takes place.

Now it is time to turn ON each zone & record any issues such as those listed on the attached report as well as all relevant zone information. Precipitation rates per zone can be calculated by means of a catch can test or estimated when appropriate. The projected costs of repairs or replacements should be summarize in the final audit report. This final report should organize recommendations according to priority as well as cost/benefit analysis. In summary, a professional audit report will contain all necessary information to facilitate cost effective decisions to answer all *repair or replace* questions.