



## Home Inspection Services Newsletter

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March, 2009

### Educational: **Evaporative (Swamp/Desert) Coolers**

Some people “love’em”, some “hate’em”, many don’t know what they are.

**What:** Simply stated, an evaporative cooler is a low cost alternative to air conditioning in dry climates. The “evap” unit consists of a reservoir of water, a pump that distributes water across pads and a fan that draws outside air through the water soaked wet pads. The dry outside air picks up moisture and is distributed through the home via air ducts. The moist air lands on your skin, evaporates, and makes you feel cooler. The temperature in the home does not change. The evap has a water line and a float to keep the reservoir full. The distribution ductwork may be the same as the AC system or may be stand alone. Since air is not recycled (as in air conditioning), open windows allow air to flow out of the home to make room for a continuous flow of moist air.

**When:** The dryer the air, the more effective the unit. In Phoenix, evaps provide relief until Monsoon season (when relative humidity is too high). Evap cooler effectiveness is covered in most newspaper’s weather page.

**Cost:** Although costs vary, a professional installation costs 1/8 to 1/4 of an AC system (moot point in Phoenix because we need the AC for monsoon season). The operational cost is about 1/4 of the cost of AC.

**Issues:** Air in the home will be 80 to 90% relative humidity. This may result in corrosion and decreased life of electronic equipment. Evaps do not filter out pollutants, pollen, etc. with the air in the home typically changing 12 to 15 times per hour during operation.

**Home inspection issues:** Evaps often leak or overflow onto the roof. Long term leakage typically results in roof covering and roof structure damage. Units are not maintained and it is not unusual to see algae laden water (swamp cooler) in the reservoir. Mineral content is high in AZ water and older units are mineral encrusted and housings are corroded.

**Advice:** Only utilize an evap if you are prepared to maintain it and if your family is tolerant of the outside air quality and moisture laden air.

## Question of the Month: **Why does pool water need to be changed?**

Every couple of years (generally one to three), AZ swimming pools have to be drained and the water replaced. The reason is that our water has a high mineral content. As water evaporates (pools can lose an inch of water per day in the summer), mineral content increases (minerals don't evaporate). Eventually, mineral content is so high that water chemistry can not be properly maintained. Pool stores test water for free and will advise when it's time to change the water.

## Maintenance Item for March: **Changing Pool Water**

If you have to change your swimming pool water, March is an excellent time to do it. Plaster pools have a propensity to crack when empty during the heat of the summer (why chance it with pebble or other finishes).

There are two ways to change the water:

1. Hire a pool service, pay your fee, and your done (some companies will bring in water; most will refill from your house).
2. Rent a pump from a hardware store. Rent enough hose to reach your sewer clean outs (hopefully, your home has these). Shut off the pool's auto fill, pump the water into the main waste line clean out (usually in front yard - furthest of the two angles towards the street), clean the pool finish if needed, and refill the pool.

## Safety Tip of the Month: **Pet doors**

Small children can access swimming pools through pet doors. If you have a pool and small children, review your pool safety strategy in general and don't overlook the pet door.

**Inspection class for realtors:** I offer several classes for realtors including a 3 hour class for credit (in conjunction with Arizona School of realtors). I also have programs from 30 minutes to an hour for new realtors covering such items as CBS codes, Standards of Practice, understanding an inspection report, etc. Feel free to call on me to help.

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***Let our experience work for you!***



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