Will Goodyear’s water curtailment plan reduce the city’s water consumption by 5% from stage 1, 10% by stage 2, and 15% by stage 3? If these steps do not meet that requirement, what actions will reduce consumption to meet Goodyear’s goals?

**Findings**

### Stage 1: Water Watch (Voluntary)
- If outdoor consumption was limited to odds days through the entire year of 2017 or only the month of June there will be an 8% savings (see fig. 2). Assuming 25% of residents will take part.

### Stage 2: Water Alert (Mandatory)
- In stage 2 all actions are now mandatory. Calculated savings if outdoor usage was restricted to odds days equates to 30% (see fig. 2), this meets stage 2, 3 and 4 goals.

### Stage 3: Water Warning (Mandatory)
- No filling or refill of pools will add an extra 10% savings (see fig. 2) because the actions in stage 2 carry over into stage 3.

**Future Recommendations**
- Re-write the plan to make outdoor water usage the only enforced mandatory action and list the rest as optional.
- Outline enforcement of mandatory actions, which is currently unmentioned.
- Enforcement could include HOA involvement, community watch programs and social media. Police patrol would be a last resort since it could leave a negative, untrustworthy attitude between residents and city officials.
- Make the plan easily accessible to the public so residents fully understand their part, like how the actions will be enforced and the penalties for any violations.
- Viable options would be to leave paper copies on driveways or door to door.

**Conclusion**
- The estimated savings meet the plan’s goals of reducing residential consumptions by 5% at stage 1, 10% by stage 2 and 15% by stage 3.
- At stage 3, pool refill restrictions offer limited water savings compared to restricted outdoor usage, which carries over from stage 2.
- Restricted outdoor usage has an extremely high savings, meeting all of the plan’s goals. If this is the only enforced action, then other actions could be voluntary.
- All outdoor savings could happen if enforced by, for example:
  - Reminding residents of odd-day watering.
  - Monitoring irrigation through visible signs of watering (i.e. dark soil, water in street) on non-watering days.
- The curtailment strategies from each stage will reduce consumption, allowing the city to manage its water supplies.
- These savings apply to summer months and year-round because the savings from yearly to monthly are either equal or within +/- 2%.

**Fig. 2 is the percentage of water savings from stages 1-3.**