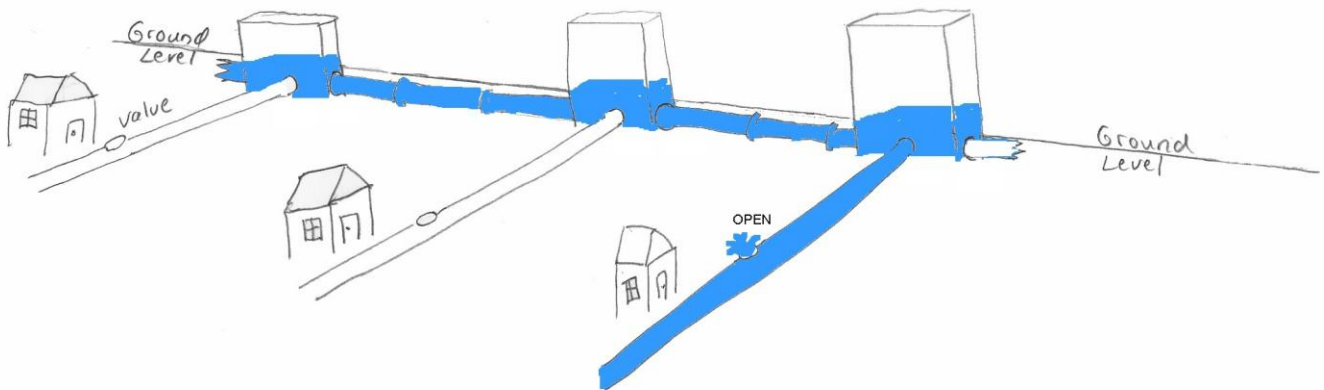
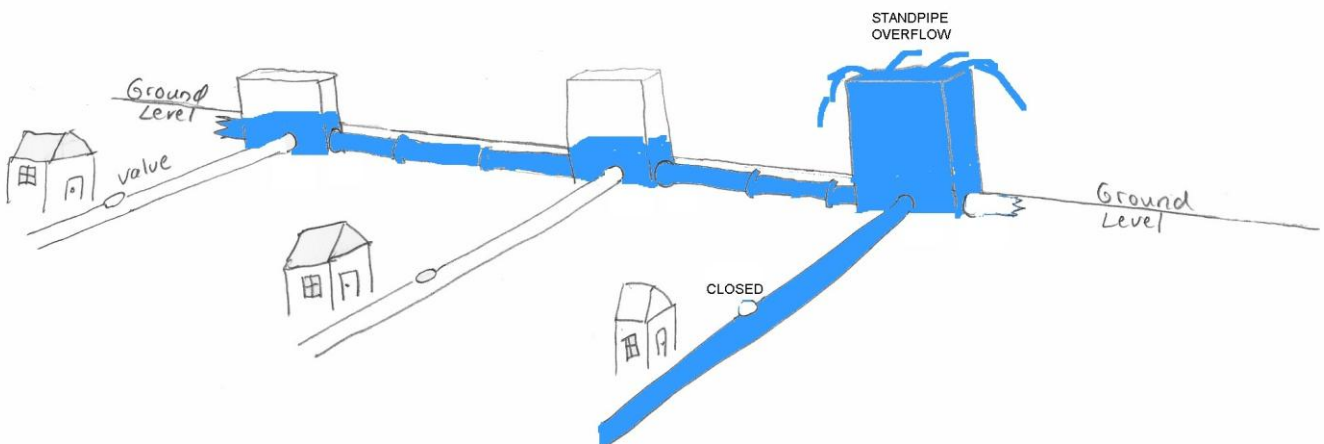


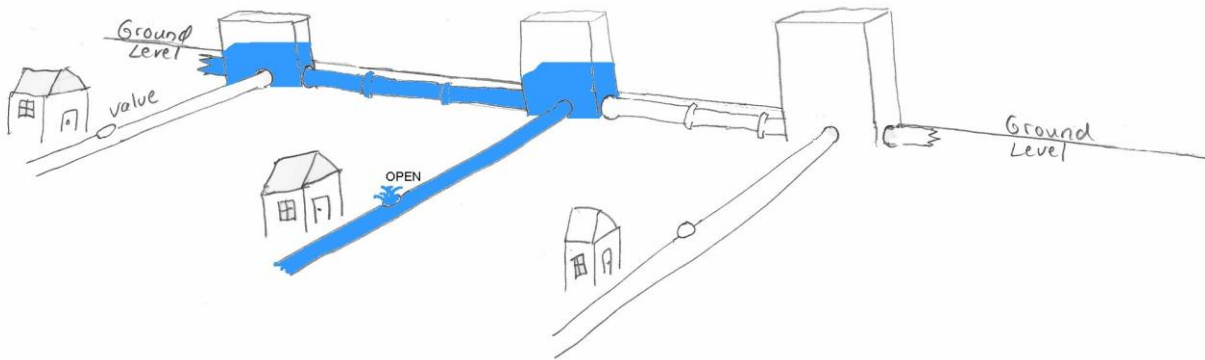
## An Illustrated Guide to Citrus Highlands Irrigation System and its Problems with a Summary at the End



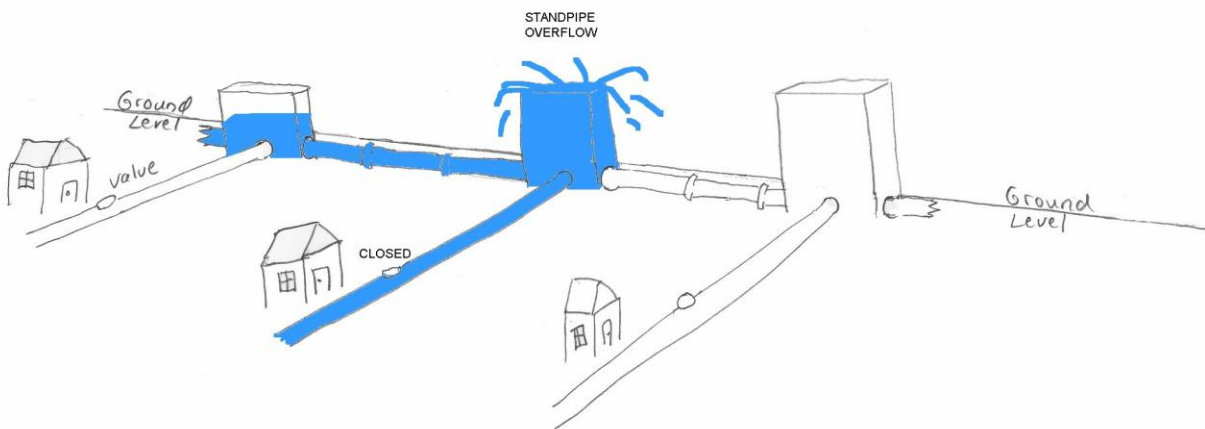
1. The standpipes are set properly. The irrigation user opens valve for duration of irrigation period.



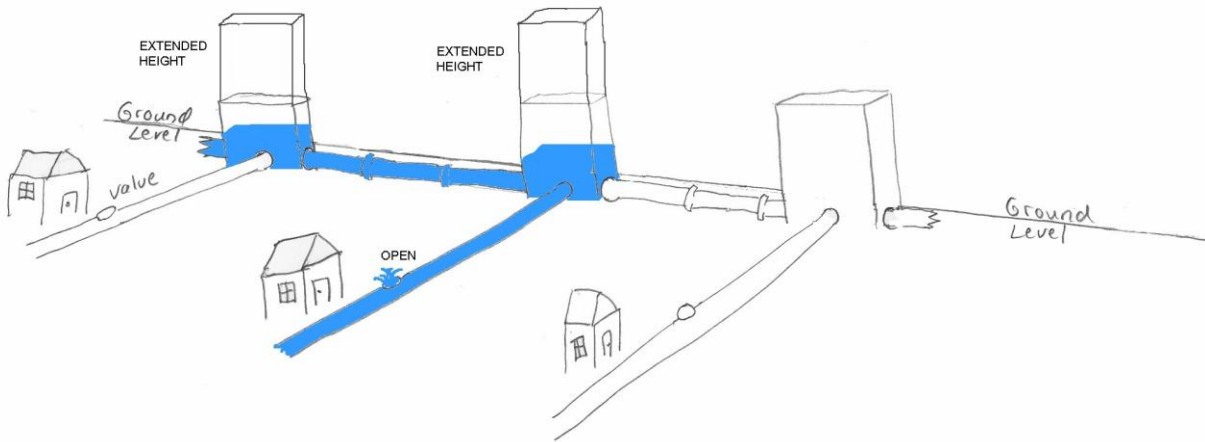
2. The irrigation user fails to open valve during irrigation period.



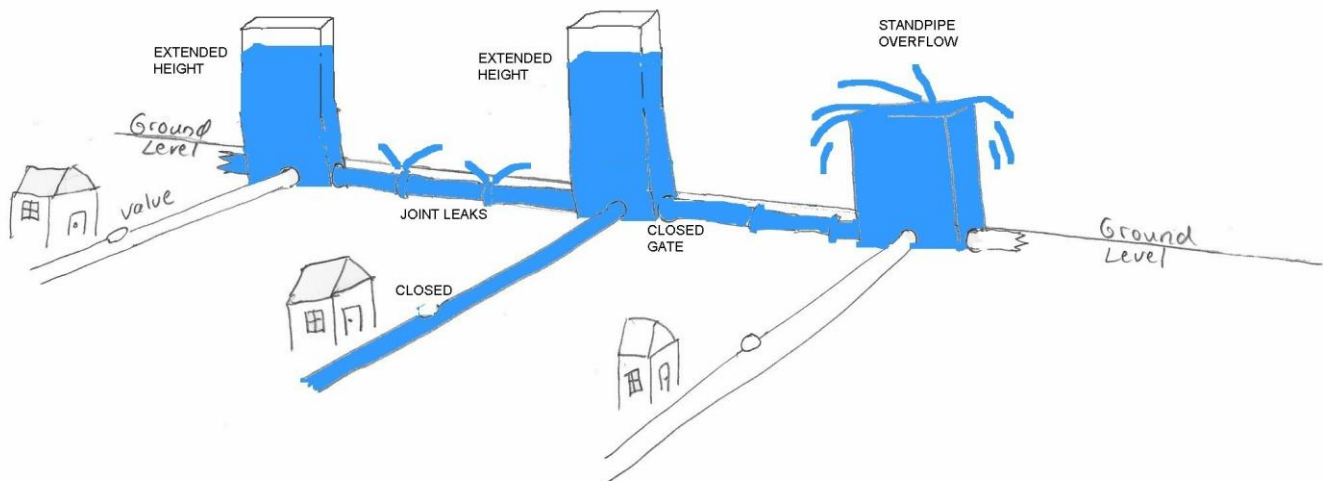
3. The standpipes are set properly. A different irrigation user opens valve for duration of irrigation period.



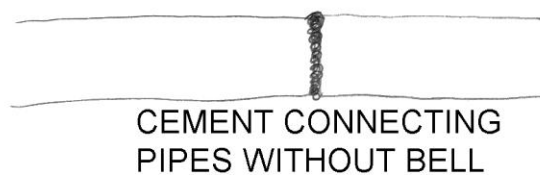
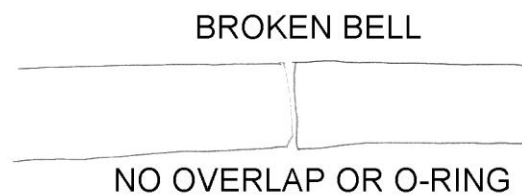
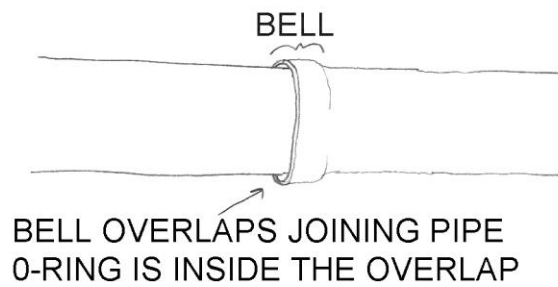
4. The irrigation user fails to open valve during irrigation period.



5. The heights were extended on some of the standpipes. If users on the laterals served by the extended height standpipes take all of their irrigation water, the water does not rise into the extensions and there is no increase in water pressure.



6. If users on the laterals served by the extended height standpipes do not take all of their irrigation water, the water rises into the extensions resulting in a tremendous increase in water pressure. Water pushes out pipe joints and through closed gates. The standpipe overflow happens at a normal height standpipe downstream.



7. The intersection of Lynwood and 26<sup>th</sup> Street runs over part of the irrigation line that connects the 2 extended height standpipes. The top of the pipe is about 1 foot beneath the road. The bell is broken on the connecting joints. The 2 pipes are cemented together as shown in the diagram. This has been repaired twice. Water leaks from the cemented joint whenever water is not taken in the area served by the extended height standpipes.

Before another repair can be attempted on this joint, the problem of the extended height standpipes must be dealt with.

summary on next page

## SUMMARY

RWCD delivers water to the head of our irrigation system which is on Hermosa Vista. They start or stop water. We are each charged for how much water we sign up for. If RWCD perceives a problem, they stop the water. As soon as RWCD believes the problem is gone, they turn the water back on. That's it. The irrigation system belongs to the people whose land it is on. After the head, we're on our own.

In 2003, Mesa formed the Citrus Highlands registered neighborhood to encompass our irrigation area. They asked us to be their unpaid liaisons to help fix the irrigation problems. Major standpipe repairs were needed, water theft and floods were rampant, and the police were being called during irrigation on a regular basis. Since that time, we have been doing whatever it takes to keep the irrigation system working properly. Many shutdowns have been avoided without users ever knowing that a major problem was repaired. Regular standpipe maintenance performed between irrigation periods prevents many problems. A lot of the work can be done without hiring a contractor. We do not charge for our labor which is considerable. Other volunteers weld for free. Money is only collected when contractors or materials are necessary. Street leaks require a licensed contractor and flashing barricades.

The standpipes must be correctly set, all of the irrigation water must be taken, and the system must be allowed to function as it was designed. If these 3 rules were followed, most of the repairs would not be needed. Below are the most destructive of our current problems:

1. Standpipe overflows relieve water pressure when people do not take all of their irrigation water. In the past, some of the standpipe heights were increased in an attempt to get around standpipe overflows. When irrigation water is not taken in the areas served by the extended height standpipes, the extra water rises into the higher extension instead of overflowing. As the water level in the extension rises, the water pressure increases. This increased water pressure pushes water out pipe joints and through closed gates. The water overflows downstream at a normal sized standpipe. If people take all of their irrigation water, the water would not rise into the extensions and no action would be necessary. If people in these areas continue to not take all of their water, the extensions need to be removed or have holes put in them to relieve pressure.
2. Someone is opening the gate going south to hide standpipe overflows on the southern standpipe at 26th and Leonora. This moves the standpipe overflow downstream where it is causing damaging floods.
3. Some people who close standpipe gates are overturning to tighten it. This has the opposite effect. When a gate is over tightened, the stem bows and the plate is pushed away from the pipe. Water leaks through the pushed away gate, the stem is permanently bowed, and guide rails may break.