KACHESS WATER SYSTEM ANNUAL REPORT FOR 2007

The water system has continued to function well for Kachess residents supplying us with clean uncontaminated water throughout the year. 2-3 times a week, chlorine levels were checked and maintained at safe drinking water levels and bacterial tests have been passing the grade as well.

LEAKS AND REPAIRS

During the year one major leak and possibly several minor leaks led to some homeowners going with very low pressures for about a week. A leak from a homeowner supply caused by freezing during the cold spell combined with another as yet unidentified persistent leak caused the tanks to empty resulting in very high chlorine levels and the low pressures.

When the homeowner supply leak was remedied, there was still a unresolved100% jump in daily water usage as of November 2007.

This could be another homeowner supply leak that is undetected or leak from a contractor frost free faucet. These are possible sources of bacterial contamination from backflow and should be removed after construction is complete.

Leaks from these are also difficult to detect as they usually leak underground.

Further leak resolution will have to wait till after the snow melts.

COMMUNITY WELL FOR WATER

The existing well that was drilled as a test well in 1974 was tested and found to be poorly functional. Further development in this area will be addressed in the water system replacement discussion.

WATER RESOURCE ISSUES IN THE KITTITAS VALLEY

Water for irrigation and drinking has come to the forefront in our community at Kachess for a number of reasons. As development occurs water becomes a shrinking resource because there is only a limited supply of it.

State wide the Department of ECOLOGY has had an ongoing battle to get a handle on how much water resources the State has and how much is being used and how efficiently. In an effort to get a handle on the efficiency of water use in the State, regulations were passed to first identify all the users and sources and then in the coming years to quantify efficiency of use and waste.

Concurrently, as the population begins to realize that water is now an important commodity, claims to water resources and sale of water resources, sometimes fraudulently, separate from real property sales, , has complicated matters of enforcement and tracking.

The Department of HEALTH involved with the quality of Drinking Water became the default ENFORCEMENT agency because they had the sources of drinking water in all the rural communities like ours on their books since we have had to report to them water quality on a consistent basis.

This in turn stretched Department budgets further in Olympia when large population groups claimed water rights that were apparently in existence when the "first white settlers came to town!"

These regulatory matters and claims necessitated the use of regulation to determine who owned what water resource and who was drawing from the potential sources upstream; how much was being used and how much wasted and what population base is this supporting as drinking water; and what was being used for crops and fish.

The effects have been wide and likely appropriate over the longer term. Physical changes to water plants and distribution systems have to be phased in, federal and state funding for smaller communities made available. More importantly ongoing tracking of all these smaller systems and resource personnel trained to assist must be made available.

TIMELINE OF CHANGE AND ENFORCEMENT

All these events have been in the works for about a decade and only in the last 3-4 years has it trickled down to small water systems like ours. Also we have begun to see the likes of DAN RIBLETT in the community. They are people who have been trained by the State to oversee small water systems, assist in their maintenance and trouble shoot disruptions and more importantly for us to know when, how and where to get help from the Department of Health who licenses them.

In the coming decade, enforcement will become paramount as more systems come under the umbrella of the Departments of Ecology and Health and staying in compliance will require a lot of energy.

FOR EXAMPLE:

One of the many requirements is for us to come up with an OPERATION MANUAL so that in an emergency inspectors will know how to find things and operate things. This requires a filing cabinet with specific sections in it that the Regulators have determined that are appropriate and what needs to be filed IN THERE!

Another is an EMERGENCY PLAN when water goes down or when bacterial count exceeds the limits specified by the DOH. These have all to be distributed to the community and must contain certain contact info and telephone tree etc!

Every year THE COMMUNITY that uses the water must be sent forms to rate the performance of the system! These have to be filed!

In the last three years I have been working with Dan to do the first and have the filing cabinet set up, the files purchased and Dan is now in the process of filing data in the required fashion! Copies have to go to file with the State!

In short, ours is a transient community and we all have city jobs and Scott and I CAN keep the water quality and delivery in compliance when the system functions but we CANNOT keep up with the regulatory requirements and paperwork at least not in the present state of the physical plant.

WHAT IS IN STORE FOR OUR WATER SYSTEM.

Some of you would have read a detailed rendition of what is the physical state of our water system by Bob Angrisano some months ago. We MAY face a situation where we cannot meet regulatory requirements in the coming years for a number of reasons.

A: Our water collection system is an infiltration trench that was built in 1974 on Forest Service Land leased to us. This was tested and found to be influenced by surface water. At that time it performed very well and had low particulate and bacterial count that did not necessitate installation of expensive and complicated filtering equipment.

This type of system MAY become obsolete in the near future because water quality is heavily influenced by development in the surrounding areas especially uphill from it. It, being a 300 foot trench about 10 feet underground, is difficult to secure from contamination.

B: Regulation already requires us to measure and report water use efficiency and waste and this requires individual home owner accountability and will require the use of meters to every home.

C: Shutoff and Diversion valves that may need to be installed to contain leaks and reduce leakage when pipes break and to isolate sections to prevent contamination from backflow during breaks. Systems to flush segments after repair to certify them free of contamination before putting them back on line.

D: Regulation regarding chlorination systems may make ours obsolete because we are loosing chlorine into the stream into the LAKE.

E: We do not have fire hydrants that meet code for use in winter and summer.

In short we have a water system that functions to supply us with clean safe drinking water and potentially could last us many more years perhaps with increasing operational and maintenance costs.

However with the history of incorrectly bedded pipes, need to modify major operational segments to meet regulations and need to get into a true ground source of water for our community, this is likely the time to bring our water system up to the standards required to satisfy regulations that will surely be enforced in the coming few years.

Besides as more development occurs around the lake, the risk of forest fires increase yearly and hydrants that function and perform for our volunteer crew would be a good investment.

WHERE DO WE STAND NOW?

From the beginning of my tenure 3 years ago, I made it my aim to learn more about our water system, the regulations, the controlling regulatory departments and politics behind all the changes and also invested time in making contacts and networks within the Department of Health to get a bigger picture of the problems facing us as a community.

LEGAL:

We are a CLASS A transient Community Water System that is classified as BLUE because we satisfy most of the requirements but we are not allowed to expand our system by giving out water hookups to our system.

We have documentation to use the infiltration trench to supply us water and initially the system ended at LOT 99 but a segment including Wilderness Crescent? was added in 1976/77.

There is legal documentation to petition the State to allow us to do this.

There is also a document to show the Forest Service giving us the distribution system that was built by the US Army Corps of Engineers.

There are documents showing the rights for us to get water from the trench but I do not see one regarding the test wells that were drilled at about that time and why they eventually did not use them for water supply as they had evidence of good water flow.

There has to be a permit to drill those wells and more documentation as to their availability to be used as a ground water source.

We have estimates for drilling new wells from 3 contractors and the Board has authorized Dan Riblett to research County records for a PERMIT to drill wells and obtain one if necessary.

FINANCING:

Concurrently we have estimates from 3 engineering firms to replace the distribution system and will likely modify these as we learn more about automatic chlorination systems and recording equipment.

I will be attending a DRINKING WATER seminar in the month of September 2008 where DOH has an educational agenda to update and inform interested parties of regulations and numerous topics of interest to us.

Also present will be contractors, equipment purveyors and other exhibitors that would be a source of info regarding equipment selection and material selection for pipes and valves etc. New materials and info is coming on line all the time and we need more info to be able to choose between the different engineering firms who may use different materials and standards. eg a paper from AUSTRALIA where the soil is dry and acid found that certain plastics do not do well in it over time. Joints can be affected by these soil conditions as well. What is best for our weather and soil? How much compaction for bedding, what is our earthquake standing? These all determine the final choice and final COST of the system.

Further research into our WATER RIGHTS has to be made concurrently as we proceed to determine FINANCING because LEGAL COSTS can be significant.
This will begin with getting the records of what rights we have to use our present system and what rights are required to drill and obtain water from wells if we go that route.

At the same time, we will continue to look for SOURCES OF FUNDING. The State as mentioned has made resources available for small water systems like ours at low (?3%) interest rates and amortized over 10 or 15 years. There are classes to attend to learn how to fill in the forms to apply! It may take close to a year to obtain these funds.

We have asked Dan to pursue this line as he has just obtained a $750,000+ loan for the other water system he oversees.

THE GATHERING STORM:

As we move forward on this major infrastructure project, we as a community need to think and look at other features in our community that will make this a community with infrastructure for the future. The vision can be seen as we drive through Suncadia for example.
My experience with development of residential and commercial property alike show significantly different appreciation rates for projects that build in infrastructure that benefit the community that is progressive and innovative. Besides these projects prove to be cheaper in the long run because project cost inflation has historically been faster than home value appreciation.

In our community there are true transients who buy a home and in short order resell it for a profit. Others make this their lifetime commitment and the commitment of each to infrastructure developments is radically different. How would a new homeowner recoup the infrastructure cost in a short term purchase and a resale. Could he add his portion of the cost to the cost of his sale? Is the loan transferable? If he is accountable to his own water use with a meter at his home, does his own part of the water right? Is the water right owned by the community? How much water can the community draw from the wells and does an individual have a proportion of this? How is this to be proportioned? by persons, by square footage?

THIS IS THE FUTURE OF THE WATER SITUATION IN our community and State. As we move forward we will address these and perhaps offer alternatives for community members in different situations.

This $2-3 million project will take perhaps 2-3 years to complete and I hope each future years report will bring success and progress!

Respectfully submitted,

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