

Edelweiss Community Board of Directors

Meeting of August 25, 2014

Present: John Kirner (President), Alan Fahnestock (V. Pres), Steve Ralph (Secretary), Jim McDonald (Treasurer), Larry Halford, Josh Jankowski, Will Fohrell,

Absent: Bill Craven, Chris Skagen

Staff Present: Dick Volckmann and Craig Hook

Guests: No one.

Chair: John Kirner

Minutes Recorder: Steve Ralph

Purpose: This meeting was convened to discuss and resolve several issues needing immediate attention.

AGENDA:

1. Approval of meeting minutes
2. Pool Committee Report
3. Water System Consulting Engineer (Erlandsen Engineering, Inc.) Phase I Report
4. Discussion of Water System Emergency Preparedness

Meeting was opened at 6:10 PM and closed at 8:45 PM .

1. Minutes of the Last Meeting	
A motion was made to accept the meeting minutes from the last meeting.	Approved by voice vote
2. Treasurer's Report	
Not needed at this special meeting	
3. Pool Committee Report	
John gave a summary report from Tom Lasater. (pool committee) who could not be here tonight. Tom has been working with contractors and consultants to refine the total cost estimate which is now ~\$200K for demolition of the existing pool and replacement with a new "free-form" pool that will be twice the surface area of the old pool or ~ 1200 ft sq. That estimate includes everything including but replacement of the existing perimeter fence. The Pool Committee will firm up non-pool contractor items to get estimates from local (e.g. fencing) Artist's rendering of the "free form" design of pool were distributed (see attached), and included several plan and oblique views of new pool.	

The pool committee is working up a final estimate of the cost per lot owner to fund the pool project. This estimate will be communicated to the members when they will be asked to vote on approval to move ahead (or not) with the project. The cost of pool replacement also does not include any changes to the existing changing rooms and toilet facilities, with the exception of including diaper changing stations. There was some discussion of possibly using some financing from the existing sewer maintenance fund to help with initial cost of the pool to allow each member to pay his/her share over a three year period. Jim McDonald subsequently sought legal advice on this possibility and was told that doing so would require a change in the bylaws to execute.

Next Steps: Once we get those cost estimates for fencing and changing stations firmed up, add those to the total for the pool, and come up with an estimate of the cost per owner. Then do a vote of the owners sometime this fall to gauge their support; 30 day turn-around. Given the timing, it is not likely that we'll do any demolition this year, but this will be done early next year once overall construction begins.

4. Water Supply Engineering Report

The long awaited consulting (from Erlandsen Engineering) report has been completed and distributed, which brings to conclusion the Phase I of their work and completion of all associated tasks. Once this report has been assimilated, the next task order to be issued Erlandsen (Phase 2) will focus on the low water pressure that is affecting some discrete area of the Community, and will identify various options to resolve those issues. Erlandsen engineers initially suggested building a new tank to service those areas with low pressure, but such a fix is very expensive. We assert that there are other options to help partially resolve the issue without going to the expense of a whole new tank based system, or relying on pressure pumps to feed the homes on the upside of Trillium Rd. Craig has some ideas for some practical solutions. There are only two major low pressure areas, Trillium is one of the big areas of low pressure. Only a few lots are involved, maybe 5 that chronically experience low water pressure. Before we talk to Erlandsen we need to get our crew together and come up with some specific options we want them to look at. The other area needing resolution of low water pressure is the undersized line servicing the Eagles Nest area, which requires a new pipe underneath Fawn Creek. Craig is on this and is hoping to run the 4 inch line up to Eagles Nest –put new line under it in October, if he can get the requisite agency approval. Steve will help Craig with the channel geomorphology and environmental write-up for the permit application. Craig mentioned that he has already received notice from DNR but the permit application now needs to go thru technical evaluation phase; Craig will need help on stream restoration; Steve volunteered.

5. Water System Emergency Preparedness

This topic is of considerable importance given the events of this summer. A valley-wide power outage on July 17th associated with the growing Carlton Complex fire affected the community's water supply by virtue of having not electrical power to operate the well pumps to refill the water supply reservoirs. The power was out for ~ 8 days. During this time, water was available to the community for a few days until the water tanks ran dry. Concerns about the potential for fire moving up into the community were confounded by the fact that homeowners had no capacity to use their irrigation systems or household water supply to protect their property, even nominally. Other communities in the valley had similar power interruptions but were generally able to secure generators to allow their well pumps to operate. The Edelweiss Community had no such capacity.

These events compelled the Board to discuss options for us to be prepared to address the need to power the well pumps if and when we experience a similar, prolonged power outage. Dick went over his analysis of the cost of generator rental, fuel, delivery etc. and compared our costs to those experienced by the Community of Pine Forest. Craig Hook also provided his perspective on the practicality of purchasing the three large capacity generators and electrical connectors necessary to run the system, given that they would rarely need to be used. The storage capacity of the existing water system is sufficient to provide water to the community for in excess of 3 to 4 days (depending upon consumption rates) even when power is interrupted.

These two documents are posted below. At this time, Dick does NOT recommend we either purchase or rent such equipment because we never really know how long such an outage will last.

There was quite a bit of discussion about the merits of this; also about the benefits of having water to provide water in the eventuality of fire. The Board will look in to the costs of installing the necessary electrical transfer panels and fuel supply at each pump house to facilitate easy hook up of generators, if needed. These estimates will be described and put in a proposal to the members to gauge their support to pay for these improvements and or actually acquire generators to continue water supply in the eventuality of another long power loss. Josh suggests we write down the complete plan of operation as best we can understand, and get it out there to the members.

The actual cost of the generators (ether purchase or rental) and the fuel (either propane or diesel) have also been described in the analysis completed by Dick and Craig.

Motion – the EMC will examine the feasibility of getting our pumps ready to accept electrical generators in the event they are needed to keep the community water supply constant if and when we experience another protracted power outage.

6. Current Storm Damage to the Road Network Next Meeting Date	
<ol style="list-style-type: none"> 1. Dick – the recent torrential rain storms of August 21st have damaged many of the roads in the Community. Dick is contacting McHugh Excavating to schedule him to come up and grade the roads, paying for it with the un-used funds for applying lignin to the road surfaces. 2. The next regularly scheduled quarterly meeting is now scheduled for October 6th. 	
<p style="text-align: center;">The need for generators?</p> <p>By Craig Hook</p> <p>As usually happens after a power outage, the question of generators for our water system arises. This is an issue that has been kicked around several times in the past. This summer was extraordinary for the length of the outage (8 ½ days) and the cause. After doing a little asking around, I have discovered that this is the first time in 14 years that the tanks have run dry due to a power outage. Collective memories start to fade before that time so I do not know when or if it has ever happened before. Not that there haven't been empty tanks in the past. Telemetry problems, large main leaks and pump failure are the usual culprits. As it was, the Fawn Reservoir which feeds Trillium, Heather and upper Highland never ran out and had one day of water left when the power came back on. Many homes in the lower gradients of Edelweiss also reported a trickle of water remaining in their lines. We were aided by the fact that most part-timers and many full-timers chose to find better living conditions outside the valley. Those that remained conserved as best as they could. With the river nearby, there was no emergency for drinking or cleaning water.</p> <p>Most proponents of generators feel that being able to water your house or lawn should be your first line of defense but many aerial photographs taken after the fire show the charred remains of houses surrounded by lush green pastures and lawns. The paper reported that the fire traveled at a rate of 3.8 acres per minute. The main pumps and wells sit in a natural chimney and may very well be consumed first during a fire along with the generators. It has also been mentioned that insurance rates may come down if we had water. Not once have I ever seen insurance rates come down due to a better rating. I doubt that a garden hose would be looked on the same as a fire hydrant. The prevailing wisdom is that if a fire breaks out, you should hightail it out of Edelweiss and let the firemen do their job.</p> <p>If we were to spend money on generators, would they ever be used? If these were permanent</p>	

generators they would have to be exercised every month or two (time consuming), the fuel would have to be drained and replaced every year, and a protective structure would have to be built over each one. An electrician would have to be hired to advise and wire in the generators. The Cassal Well and Booster would have their generators run simultaneously or do we have one generator and run a line down to the well? Or would it be more cost effective to fix the leaks in our system so that we have water. On a hot summer day, 15% leakage would result in a loss of 22000 gallons.

Alan had an idea to pre-wire the pump houses to be ready to accept generators. This has some merit if we could find the generators of the right size and rent them.

Summary of Information on Renting or Purchasing Generators for the Edelweiss Water System by Dick Volckmann

Power to the Methow Valley was terminated on July 18, 2014 by the Okanogan PUD as a precaution, when it became apparent that the transmission lines over Loup Loup Pass would be impacted by the Carleton Complex fire. The power outage extended to the morning of July 25, 2014. As a direct result of the outage, the Edelweiss wells and booster pumps were inoperable and were unable to replenish the water to the reservoirs. Our water reserves lasted until July 21st for the residences at the upper reaches of the system. This meant that these residences were without water for approximately 3 1/2 days. Several resident have questioned why we didn't employ a generator to supply power to the pumps. The following is an analysis of the costs and effectiveness of obtaining generators for emergency situations.

On July 22, I met with a representative from Washington State, along with an electrician with Sunbelt Rentals of Tacoma, WA. The electrician determined that in order to power the main water system, we would need 3 large generators as follows:

- A 20 KW generator for the Cassal well pumps
- A 20 KW generator for the Highland booster pump
- A 36 KW generator for the Cassal 3-phase booster pumps

We would also need a 10KW generator to run the campground well pump.

We received a quote from Sunbelt of \$6244.80 a week (incl tax) to rent the 2 - 20KW and the 36 KW. This did not include the diesel fuel to run them, nor did it

include the cables or cost of an electrician to install them. This amount would have been spent for 2.5 days of remaining power outage, or \$2500/day, not counting fuel or installation.

We have received information on generators that were rented from Birch Rentals in Bellingham by Pine Forest HOA during the power outage.

1. 7/21	Birch Equipment, generator rental	\$885.00
2. 7/21	Home Depot, wire and rope	\$85.14
3. 7/21	Platt Electric, plugs	\$21.29
4. 7/21	All Phase Electric, plug	\$35.15
5. 7/21-22	Mileage, 524mi @ .56/mi	\$293.44
6. 7/22	Gas for generators	\$86.36
7. 7/23	Terminal connectors	\$8.65
8. 7/23	Gas for generators	\$91.79
9. 7/28	Mileage, 303mi @ .56/mi	\$169.68
10. 7/28	Birch Equipment, gas top off	\$16.80
	Total	\$1693.30

Pine Forest has three very shallow wells and water is delivered by gravity directly from the wells, with no need for the water to be boosted to an elevated reservoir. This does not compare in any way with the situation and physical properties of the Edelweiss water system.

A representative from Birch Rentals informed me that the generators that were rented by Pine Forest consisted of 1- 8KW generator and 2 - 7KW generators. These could be transported by a pick-up truck from Bellingham.

When I indicated to the Birch Rentals representative the size generators Edelweiss would need for our main system, he responded that the closest they could come would be to rent us 2 - 25KW generators and 1 - 45KW generator. These are on trailers and each would have to be towed by a large pick-up.

The costs are as follows:

2 - 25KW @ \$490.00/week	\$980.00
1 - 45KW @ \$590.00/week	\$590.00
Basic rental	\$1570.00

The rental allows for 8 hours of use per day. Each additional hour is \$61.29 for the 25KW and \$73.75 for the 45KW. Our average running time in the summer is 13.5 hours for the Cassal system, and about 3 hours for the Highland booster pumps. Adding 5.5 hours daily to one of the 25KW and the 45 KW would bring the total rental to **\$2424.81**, including tax.

The 25KW uses 1.6 gallons of diesel per hour and runs 36 hours on a tank or fuel.

The 46KW uses 2.7 gallons of diesel per hour and runs 39 hours on a tank of fuel.

At 13.5 hours average per day, the combined 25KW and the 45KW will use 55.9 gallons of diesel per day. At an approximate cost of \$4.25 for diesel fuel, that's a total of \$238/day or \$1666.00 per week for 391 gallons of fuel. At 3 hours running time per day, the Highland booster pump would use approximately 4.8 gal/day or 33.6 gal/week, totaling \$142.80.

The total cost of diesel would be \$1808.80 per week for 425 gallons of diesel.

The cost of rental plus fuel;

\$2424.81 rental

\$1808.80 fuel

\$4233.61

The total does not include:

- the cost of driving three large pick-ups roundtrip to Bellingham, pulling a heavy trailer in two directions. (est. 141 miles x 4 trips x 3 vehicles x .56/mile = \$947.52
- the time taken by at least three drivers to pick up and deliver the generators
- the cost of an electrician to install the generators - ???
- the cost (and difficulty of) arranging delivery of several hundred gallons of diesel fuel - ???

One of the big questions is, when should the decision be made to 3 large generators? How do we know when the power will come back on? In our case the power was restored only 3.3 days after we ran out of water. and frankly, if residents had all turned off their irrigation, based on normal winter usage, our water should lasted at least 7 days instead of the 4 days it did indeed last.

One more factor to consider when talking about generators for Edelweiss would be to buy the generators needed to keep the water flowing. My research indicates that we can purchase two 20KW Generac generators for **\$4130.00** each, or **\$8260.00** for two. A 36 KW Generac will cost **\$11,328.00**, for a grand total of **\$21,155.00**. In researching the cost of installation of any of these generators, the consensus is that one should expect the installation cost to be about equal to the purchase cost of the equipment, bringing the total cost of purchasing an installing all three generators to **\$42,310.00**. This for three generators that will likely sit idle for many years until and if the power is ever out long enough to demand their use.

Bottom Line:

- Rental of generators adequate to run our pumps will approach or exceed

\$6000.00 for a week

- Purchase and installation of 3 standby generators will cost approximately \$42,000.

- It is unlikely that we will experience a week-long power outage in the near future.

We all survived the latest power outage and the loss of water with little difficulty! Due to the complexity and cost, I do not recommend the purchase or rental of generators for Edelweiss.

Dick Volckmann