



PORT LUDLOW VOICE

Will Port Ludlow Have Its Own *Perfect Storm*?

by Ralph Thomas

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The purpose of this article is to draw your attention to an outdated drainage system and also to a potential cure. Drainage is a community problem. Many of us have taken steps to move surface water from our properties, which causes a tremendous amount of water to move laterally under many of our properties. This water must be conveyed down the hill in such a way that it does not create a hazard for our neighbors. The soon-to-be-voted-on North Bay Drainage District can bring us back to a condition that precludes the types of problems that have occurred in other areas and is a first step to protect all of our properties. The Drainage District will have very little financial impact on most homeowners while increasing our property value and making our homes safer. We have done nothing to date about the problem of a “perfect storm” and supersaturated land that could cause instability on the hillsides.

The possibility of a 100-year storm is only a probability that a monster storm will have a one-in-a-one hundred chance of occurring at any given time. As the period of time increases the probability of a monster storm also increases. This means that in a 100-year period there is a 100 percent chance that a monster storm will occur. It does not mean that we will only have a 100-year storm once every 100 years. A 25-year storm will drop 3.5 inches in a 24-hour period, a 50-year storm will have 3.7 inches and a 100-year storm will drop 4 inches in 24-hours.

From a hydrological point of view the danger from such a storm increases in proportion to the amount of saturation that already exists. If the ground already contains more water than normal, then runoff is more likely to cause damage since the ground cannot accept any more moisture. If the amount of rainfall in a given time period is excessive, the rain will have nowhere to go and will cut new channels, cause banks to collapse and hillsides to become unstable. In fact we don’t really need a monster storm because time will create the same condition. If we have even normal rain over a sustained period, the water will not have an opportunity to dissipate and the ground will become supersaturated.

In 1962 in Oakland, California, 9.4 inches of rain fell in a single day creating a 24-hour storm-of-record (greatest amount of rain in a 24-hour period ever recorded). This storm continued to dump water into the already oversaturated area resulting in 13.73 inches in 48 hours and considerable damage. In January of 1982 a storm dumped 27 inches of rain on the coastal area of San Francisco Bay. Not a record, but they still experienced slides and debris flows causing 17 fatalities and millions of dollars in damage. Heavy rainfall in 1996 in Seattle caused extensive damage and the loss of many homes. To this day you can still see homes that slid from Perkins Lane in Magnolia and ended up on the beach. Perkins Lane suffered six large mudslides causing forty homes to be vacated. On Bainbridge Island in 1997 a young couple that were remodeling a home that had been in existence for some time were killed along with their two children when their home was covered by a mudslide. Bainbridge Island had experienced more than 20 inches of rain in the previous two months. The ground was supersaturated and extremely unstable.

A long period of saturation and then a heavy rainfall can cause buoyancy that will turn dirt into a liquid-like substance causing slopes to destabilize. Gravity then steps in and the hillside



*Remember
August 6th,
Summerfest
See story on
page 5.*

comes down. Another factor contributing to slides is the buildup over time of soil and debris in drainage ditches and culverts. These dams divert the flow of runoff cutting new channels and causing erosion.

In addition to excessive rainfall we also have a problem of snow. The Edmonds Marina on December 29th, 1996 sustained 20 million dollars in damage due to snow. Edmonds rarely gets any significant snowfall. When a large snowfall melts it creates the same conditions that occur with rainstorms.

What has all this to do with Port Ludlow and particularly the North Bay?

We have been fortunate that the majority of our properties are stable and hopefully will remain so. However the North Bay has approximately 500 lots that have not been built on. When these lots have homes on them they will decrease the space available to handle rainfall. Using a figure of 3000 square feet for a home and driveway, multiplied by 500 lots we get 1,500,000 square feet of impervious surface added to an already over-taxed drainage system. The current drainage system for North Bay has culverts that were installed 35 years ago, some have rusted out and some are plugged. When first established the system took advantage of natural swales to get runoff water to the Sound. These swales have changed over time; water is no longer following the same paths it followed 35 years ago. Water has been diverted into the greenbelt areas to the point where they reach supersaturation each year. When this occurs the water follows the clay beds or bedrock and then, considering gravity, proceeds to move laterally to a point where it exits the greenbelt and enters drainage ditches on the other side. There are culverts within the greenbelt but they are in need of repair or replacement.

We have already seen the damage that can occur when a culvert is incapable of handling the runoff. Fortunately the County replaced the culvert on Montgomery. We have also seen the damage that occurred on Montgomery Court when a portion of the bluff eroded exposing and endangering the sewer line. Once again we are fortunate that it was repaired in time.

If Port Ludlow does have its own "perfect storm," we can be ready for it. Support the new Drainage District. It is a first step to protect all of our properties.

Our thanks to Dan Collins, Lt. Comdr. US Navy Retired and Meteorologist, who provided weather data.

Shellfish Monitoring

Paralytic Shellfish Poisoning (PSP), commonly known as Red Tide, is a continuing environmental problem in Puget Sound. Microscopic plankton release a toxin, which concentrates in shellfish. Eating contaminated shellfish can cause nervous system problems and even death.

Adopt-a-Beach recruits volunteers to assist state and local health agencies in monitoring for PSP and other biotoxins. Volunteers collect shellfish samples from 25 Puget Sound locations and the results are available on the PSP Hotline at 1-800-562-5632 or on the Internet at website www.doh.wa.gov/ehp/sf/biotoxin.htm

For the past three years Doris Monti and Janet Samples have been collecting mussels every other week for the Washington Department of Health Shellfish Program. Presently the Port Ludlow shellfish are contaminated with a reading of 101 micrograms. Washington State standard for PSP is under 80 micrograms per 100 grams. Janet or Doris will be glad to provide a reading monthly.

Investor Beware—Fraud Alert

Another attempt to defraud senior citizens has been uncovered. It's estimated that to date 300 million dollars have been taken by con artists using a business-related promissory note fraud. These investments are being promoted as risk free because they are insured notes. The insurance companies are from outside of the country and in some cases don't exist. The lure of the phony notes is the promise of insured obligations paying from 9 to 12 percent. This sum while not high enough to make one suspicious is pretty attractive for an insured no risk, bonded investment. However, there is really considerable risk since the insurance factor is non-existent.

A 38-state task force has been formed to fight this fraud. Civil and criminal charges are being filed as well as cease and desist orders. Many unwitting insurance agents have been recruited to sell these notes. In some cases insurance agents, unaware of the danger of these uninsured obligations, are selling them to their local clients. Federal securities regulators have asked insurance commissioners to educate agents about the fraud.

Thanks to George Dyer for bringing this scheme to our attention.