



JEFFERSON COUNTY

PLANNING COMMISSION

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February 19, 2003

Recommendation to the Board of County Commissioners for addressing seawater intrusion on Marrowstone Island

Based on a Report to the Planning Commission by the *Planning Commission Seawater Intrusion Subcommittee*

The Subcommittee had one meeting of two sessions, both open to the public, on Thursday, February 13 and Sunday, February 16, 2003. The following is the Report of the Subcommittee, which was accepted by the Planning Commission after discussion and amendment on February 19, 2003.

WHEREAS The Western Washington Growth Management Hearings Board order mandates that Jefferson County must, on Marrowstone Island, adopt more stringent requirements to prevent further seawater intrusion or adopt a moratorium on development within 90 days or be declared out of compliance with the Growth Management Act,

WHEREAS adopting a moratorium will not be a solution to the problem in as much as it will not prevent further seawater intrusion caused by water withdrawal from existing wells,

WHEREAS to prevent further seawater intrusion, it is necessary to establish a baseline of what the present seawater intrusion amount is,

WHEREAS Marrowstone Island apparently has many individual aquifers with varying degrees of chloride readings, shown by a review of the data on building permits for 2002.

This shows that of 18 permits issued, 12 or 67% were classified as “Coastal Seawater Intrusion Protection Zones (SIPZ)” or under 100 PPM, 4 or 22% were “AT RISK SIPZ” or between 100 and 200 PPM, and 2 were “HIGH RISK SIPZ” over 200 PPM. (See attachment.)

WHEREAS the validity of existing data on many wells regarding chloride readings is questionable and is not of a repetitive nature, therefore the data does not provide any measurement as to the bettering or worsening of the seawater intrusion problem,

WHEREAS the data on the location of wells on the Marrowstone Island Seawater Intrusion Protection Zones (SIPZ) map is acknowledged to be of limited accuracy,

WHEREAS there is a lack of coordination of information regarding well locations, date of drilling and chloride readings between County departments and between the County and the Public Utility District #1 (PUD),

WHEREAS the existing voluntary testing program by the PUD initiated February 2002, started in summer of 2002 consists of 13 wells on Marrowstone Island tested one time in August and early September 2002 and,

WHEREAS some of the wells test by PUD have a prior record of testing by the County that potentially could be used for comparison,

WHEREAS the need to address the seawater intrusion problem on Marrowstone Islands both for the benefit of the residents and to protect the environment requires a coordinated effort by all parties involved,

THEREFORE it is recommended that

1. There be closer cooperation and coordination of records between the County departments and the PUD.
2. The County staff should develop an accurate map of known wells to improve the current the “Marrowstone Island Seawater Intrusion Protection Zones” map.
3. To provide a knowledge basis for determination of increasing or lessening of seawater intrusion problem, we immediately institute a **monitoring program for chloride and the amount of use**, to included as a minimum;
 - a. 25 wells rated “HIGH RISK” on Marrowstone Island
 - b. 25 wells rated “AT RISK” on Marrowstone Island
 - c. 25 wells in the “Coastal SIPZ” on Marrowstone Island
 - d. This testing program would be given a jump-start if most of the test wells came from the new building permit group of wells, which have been tested in the past five years.
 - e. These wells should be monitored **quarterly for at least two years** to provide data for all seasons of the year and for annual variations. This will give a limited factual basis for determining what further action might

be necessary. (There are meters that are available for this purpose from the PUD. Also, the State has a grant program at this time that might cover the cost of the meters and installation.)

4. In addition to the above, **all new wells** should be **required** to be monitored quarterly, have volume (flow) **meters installed** and read quarterly, have **variable speed pumps** controlled from the surface (to reduce the withdrawal rate, as may be necessary), have **1000-gallon minimum storage tank** (to reduce the need for intermittent high demand), and it is **recommended** that timers be installed on new installations to permit the controlling the use of pumps to low demand times.
5. All testing of wells should be by a certified laboratory or disinterested parties should take the samples (PUD).
6. Creative methods should be used to encourage more widespread participation in water metering and periodic well testing for chloride in order to increase and improve the bank of Marrowstone Island information available for analysis.

It is further recommended that, in the event the above actions determine there is an increase in seawater intrusion on Marrowstone Island that:

1. A maximum permitted volume should be established for each household.
2. That volume (flow) meters be required on all wells on Marrowstone Island.
3. That the meters be read quarterly to provide a factual basis for water limitations and for compliance with the permitted amount allowed.

Regardless of the results of the monitoring/testing program, it is recommended that immediate steps be taken to conduct a Water Conservation Education Program. (See attachment.)

This Subcommittee recommends and supports the long-range solution of a public water supply for Marrowstone Island. Every effort to achieve this should be taken as soon as possible.

This Subcommittee recommends that the BOCC request a time extension of 6 months of the existing deadline:

1. **To permit the implementation of the above recommended outreach program of workshops and public education,**
2. **To accomplish the research necessary to implement an appropriate testing and monitoring program,**
3. **And to deal with the authority issues.**

[END]