

STATE OF OREGON
COUNTY OF CLATSOP

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

CITY OF GEARHART
PO BOX 2510
GEARHART, OR 97138

The specific limits and conditions of the use are listed below.

APPLICATION FILE NUMBER: G-16489

SOURCE OF WATER: WELL 1, WELL 2, WELL 3, WELL 4, WELL 5, WELL 6, WELL 7, WELL 8, WELL 9, WELL 10, WELL 11, WELL 12, WELL 13, AND WELL 14 IN NEACOXIE CREEK BASIN

PURPOSE OR USE: MUNICIPAL USE

MAXIMUM RATE: 2.18 CUBIC FEET PER SECOND (CFS), FURTHER LIMITED TO 0.443 CFS FROM JULY 1 THROUGH JULY 31, 0.289 CFS FROM AUGUST 1 THROUGH AUGUST 31, 0.410 CFS FROM SEPTEMBER 1 THROUGH SEPTEMBER 30, AND 0.485 CFS FROM OCTOBER 1 THROUGH OCTOBER 31

PERIOD OF USE: YEAR ROUND

DATE OF PRIORITY: JUNE 28, 2005

WELL LOCATIONS:

WELL 1 - SE $\frac{1}{4}$ SE $\frac{1}{4}$, SECTION 4, T6N, R10W, W.M.; 3658 FEET NORTH & 1136 FEET WEST FROM E $\frac{1}{4}$ CORNER, SECTION 9

WELL 2 - SE $\frac{1}{4}$ SE $\frac{1}{4}$, SECTION 4, T6N, R10W, W.M.; 3528 FEET NORTH & 1136 FEET WEST FROM E $\frac{1}{4}$ CORNER, SECTION 9

WELL 3 - SE $\frac{1}{4}$ SE $\frac{1}{4}$, SECTION 4, T6N, R10W, W.M.; 3398 FEET NORTH & 1136 FEET WEST FROM E $\frac{1}{4}$ CORNER, SECTION 9

WELL 4 - SE $\frac{1}{4}$ SE $\frac{1}{4}$, SECTION 4, T6N, R10W, W.M.; 3268 FEET NORTH & 1136 FEET WEST FROM E $\frac{1}{4}$ CORNER, SECTION 9

WELL 5 - SE $\frac{1}{4}$ SE $\frac{1}{4}$, SECTION 4, T6N, R10W, W.M.; 3138 FEET NORTH & 1136 FEET WEST FROM E $\frac{1}{4}$ CORNER, SECTION 9

WELL 6 - SE ¼ SE ¼, SECTION 4, T6N, R10W, W.M.; 3008 FEET NORTH
& 1136 FEET WEST FROM E ¼ CORNER, SECTION 9
WELL LOCATIONS (CONTINUED):

WELL 7 - SE ¼ SE ¼, SECTION 4, T6N, R10W, W.M.; 2878 FEET NORTH
& 1136 FEET WEST FROM E ¼ CORNER, SECTION 9

WELL 8 - SE ¼ SE ¼, SECTION 4, T6N, R10W, W.M.; 2819 FEET NORTH
& 1136 FEET WEST FROM E ¼ CORNER, SECTION 9

WELL 9 - SE ¼ SE ¼, SECTION 4, T6N, R10W, W.M.; 2759 FEET NORTH
& 1136 FEET WEST FROM E ¼ CORNER, SECTION 9

WELL 10 - NE ¼ NE ¼, SECTION 9, T6N, R10W, W.M.; 2699 FEET NORTH
& 1136 FEET WEST FROM E ¼ CORNER, SECTION 9

WELL 11 - NE ¼ NE ¼, SECTION 9, T6N, R10W, W.M.; 2639 FEET NORTH
& 1136 FEET WEST FROM E ¼ CORNER, SECTION 9

WELL 12 - NE ¼ NE ¼, SECTION 9, T6N, R10W, W.M.; 2577 FEET NORTH
& 1096 FEET WEST FROM E ¼ CORNER, SECTION 9

WELL 13 - NE ¼ NE ¼, SECTION 9, T6N, R10W, W.M.; 2517 FEET NORTH
& 1096 FEET WEST FROM E ¼ CORNER, SECTION 9

WELL 14 - NE ¼ NE ¼, SECTION 9, T6N, R10W, W.M.; 2457 FEET NORTH
& 1096 FEET WEST FROM E ¼ CORNER, SECTION 9

THE PLACE OF USE IS LOCATED AS FOLLOWS: WITHIN THE SERVICE BOUNDARY
OF THE CITY OF GEARHART

Measurement, recording and reporting conditions:

- A. Before water use may begin under this permit, the permittee shall install a totalizing flow meter at each point of appropriation. The permittee shall maintain the meter(s) in good working order. The permittee shall keep a complete record of the amount of water used each month, and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director. Further, the Director may require the permittee to report general water-use information, including the place and nature of use of water under the permit.

- B. The permittee shall allow the watermaster access to the meter(s); provided however, where any meter is located within a private structure, the watermaster shall request access upon reasonable notice.

Prior to diversion and use of water under this permit, the City of Gearhart must resolve the deed restriction with Clatsop County and submit evidence to the Department of the resolution.

Within three years of permit issuance, the permittee shall submit a Water Management and Conservation Plan consistent with OAR Chapter 690, Division 86. The Director may approve an extension of this time line to complete the required Water Management and Conservation Plan.

The wells shall produce ground water only from the unconsolidated sand ground water reservoir.

CITY OF GEARHART MONITORING AND ACTION PLAN

This monitoring and action plan has been prepared consistent with provisions outlined by Oregon Water Resources Department (OWRD), input solicited from Oregon Department of Environmental Quality (DEQ), input solicited from Oregon Department of Fish and Wildlife (ODFW), and discussions held by these agencies in conjunction with the City of Gearhart.

This plan identifies the data collection requirements necessary to ensure sustainability of ground water and surface water resources. The plan may also undergo revision upon a demonstration that an alternative monitoring or action method, or discontinuance of one or more of the methods, can be made without reducing resource protections. Any modification to this plan will require agreement of the City of Gearhart, OWRD, DEQ, and ODFW.

The components of this plan, in conjunction with additional data gathered from baseline monitoring will address the objectives, target levels and concentrations as appropriate. *Following the 4/18/2007 meeting between Gearhart, Kennedy/Jenks, ODFW, DEQ, and OWRD, the monitoring components related to a pump-back mitigation strategy have been removed from this monitoring and action plan. The pump-back mitigation strategy will not be necessary for this permit due to a reduction in Gearhart's proposed groundwater withdrawal rate during the summer months. For clarity, the numbered items follow OWRD's numbered provisions from the 4/25/07 draft, and have been labeled as sections.*

SECTION 1 - Objective: Measure baseline conditions of the aquifer and Neacoxie Creek prior to wellfield usage in order to establish background water level and water quality data.

A minimum of one year of ground water data and surface water data (outlined below) shall be collected prior to ground water use from the proposed municipal wells. OWRD will allow up to 0.156 cfs (70 gallons per minute) to be used for construction purposes following issuance of a groundwater permit for Gearhart. Construction water may be used during the one-year of baseline data collection.

SECTION 2 - Objective: Monitor for landward migration of the fresh and saline interface.

Gearhart will install three monitoring wells (MW-1, MW-2, MW-3) in a north-south line between the Pacific Ocean and the proposed wellfield generally as shown in **Figure 1**. All wells are expected to be located within publicly owned property. The wells shall be completed into the same waterbearing zone as the production wells (screened near the base of the dunal aquifer). The monitoring wells shall be located in the north-south direction such that the north, south, and central areas of influence on the aquifer from the production wells are monitored. Gearhart will continuously (or at no less frequently than two-hour intervals) measure water levels in each monitoring well. Water level data collection shall begin one year prior to any ground water withdrawal allowed by the permit (*except for construction purposes as indicated in item ONE above*). Gearhart will regulate ground water withdrawal in the wellfield to maintain acceptable aquifer head conditions in the monitoring wells. Acceptable head is assumed to be 3.0 feet above a referenced sea level datum. This initial number and the relative vertical datum are open to revision based on observations following well construction.

Each monitoring well will be sampled quarterly for laboratory chloride and total dissolved solids (TDS) analyses. Water quality sample collection from these monitoring wells will begin one year prior to any ground water withdrawal under this permit (*except for construction purposes as indicated above*). These four quarterly samples collected prior to wellfield use will establish the background chloride and TDS concentrations. Depending on spatial and seasonal variability, more than one background concentration may be established. Gearhart will also measure and record weekly the specific conductance of ground water from each production well, and sample each production well

quarterly for laboratory chloride and TDS analyses. If chloride or TDS concentrations from any monitoring or production well water samples increase by more than 20% above the established background concentration(s) for two consecutive quarterly sampling events, monthly water quality sample collection for all wells shall be implemented, and OWRD shall be notified. Gearhart will report data annually and upon reasonable request to OWRD.

SECTION 3 - Objective: Monitor for impact from wellfield pumping on shallow ground water elevations west and east of Neacoxie Creek.

Gearhart will install three monitoring wells (MW-4, MW-5, MW-6) in an east-west line near Neacoxie Creek east of the center of the wellfield, generally as shown in **Figure 2**. All wells are expected to be located within public rights-of-way. One well will be located east of Neacoxie Creek with the intent to evaluate pumping influence that could potentially propagate beyond the stream. Gearhart will continuously (as above) measure water levels in each well. Gearhart will report data annually and upon reasonable request to OWRD.

SECTION 4 - Objective: Monitor water use from wellfield.

Gearhart will install and maintain totalizing flow meters on each municipal well. Gearhart will record monthly flow values for each well and report annually and upon reasonable request to OWRD.

SECTION 5 - Objective: Monitor potential impacts on Neacoxie Creek.

Gearhart will install and maintain a surface water monitoring station (SW-MS1) on Neacoxie Creek to include stream stage, temperature, and specific conductance, generally as shown in **Figure 3**. Parameters shall be measured and recorded at least once every 15 minutes. Water quality sample collection and stream stage data collection from this monitoring station shall begin at least one year prior to ground water withdrawal under this permit (*except for construction purposes as indicated in Section One above*). Installation, survey, and data collection will be to USGS standards (Rantz, S.E. and others, 1982. *Measurement and Computation of Streamflow: Volume 1 & 2*. U.S. Geological Survey Water Supply Paper 2175). This monitoring station shall be as close as possible to the ground water monitoring wells installed near Neacoxie Creek. Gearhart will report data annually and upon request to OWRD. OWRD will allow

up to 0.156 cfs (70 gallons per minute) total from any combination of wells to be used for construction purposes following issuance of a groundwater permit for Gearhart. Construction water may be used during the one-year of baseline data collection.

If surface water or ground water monitoring data indicate that the impact to Neacoxie Creek stage or quality from wellfield pumping is observed to be increasing beyond model-simulated levels, additional monitoring of surface water and ground water may be required.

SECTION 6 - Objective: Survey each well.

All observation sites shall be surveyed to a horizontal accuracy of +/- five feet. Reported coordinates shall include the datum and projection of the coordinate system. A water level measurement point shall be described for each well. The measurement point elevation shall be surveyed to a vertical accuracy of +/-0.1 feet and referenced to a height above land surface. Surface water sites shall be surveyed to USGS standards.

SECTION 7 - Objective: Use water level and water quality thresholds to implement a water system action plan to halt the landward migration of the fresh/saline ground water interface.

The Department may restrict ground water use based upon increases in ground water salinity or TDS or reductions in aquifer head. This Monitoring and Action Plan includes steps to be taken by the permittee that will halt, if observed, the landward migration of the fresh and saline interface. These steps, consistent with Gearhart's Water Management and Conservation Plan include:

- Voluntary water conservation and curtailment of water use
- Mandatory water conservation with reductions in water use
- Mandatory curtailment of irrigation
- Cessation of ground water use and bringing online backup sources of municipal water

The two primary thresholds are the freshwater head in the aquifer west of the wellfield and the ground water chloride and TDS concentrations west of, and at, the wellfield. A freshwater head of 3.0 feet above an agreed upon reference datum shall be

maintained at all times in the monitoring wells located west of the production wells. This number and the relative vertical datum are open to revision based on observations following well construction.

Dissolved chloride and TDS concentrations in ground water samples collected from the monitoring or production wells shall not increase above the established background concentrations (pre-wellfield development) by more than 20 percent. If the freshwater head at the monitoring wells declines below 3 feet relative to the reference datum, Action Plan operations shall be implemented and OWRD and DEQ shall be notified immediately. If a quarterly chloride or TDS concentration from any well increases by more than 20 percent over the established background concentrations, Action Plan operations shall be implemented and OWRD and DEQ shall be notified immediately. OWRD and Gearhart will agree on the established background chloride and TDS concentrations based on the results of the pre-development monitoring data.

SECTION 8 - Objective: Provide alternate source for Gearhart's municipal water in the event of saltwater intrusion or other persistent degradation of the drinking water aquifer.

Gearhart will maintain a physical connection to an alternate municipal water supplier and an alternate water supply plan for backup water supply sufficient to insure that provision is made for an adequate and safe supply of water which is available year round for water customers of Gearhart in the event that the permitted use is restricted due to saltwater intrusion into the freshwater aquifer, or other water quality or quantity problems. Any future Water Management and Conservation Plans submittal must include the most recent copy of the alternate water supply plan adopted by Gearhart.

SECTION 9 - All permit requirements of the Oregon Department of Environmental Quality shall be met and maintained, including, where utilized in the project, water quality of flow augmentation and backwash water, NPDES and/or WPCF permit compliance and associated water quality monitoring.

SECTION 10 - All measurements shall be made by qualified personnel. Qualified personnel include certified water rights examiners, registered professional geologists, registered professional engineers, or licensed well constructors or pump installers licensed by the Construction Contractors Board. Gearhart may work with OWRD to train the licensed water

treatment plant operator for data collection purposes. Measurements shall be submitted on a form provided by the Department or in an electronic form approved by the Department. All water-level measurements shall be made with equipment that is accurate to at least 0.3 percent. Measurements made with a pressure transducer or other automated measuring devices shall be calibrated to an e-tape or steel tape measurement at least once every two months. No air-line measurements will be accepted.

SECTION 11 - The Department requires the individual performing the measurements to:

- A. Identify each well and measurement with an owner's well name and an OWRD well Log ID;
- B. Measure and report water levels to the nearest hundredth of a foot as depth-to-water below ground surface;
- C. Specify the method of measurement;
- D. Specify the status (static, pumping, rising) of each measurement; and
- E. Certify the accuracy of all measurements and calculations submitted to the Department.

SECTION 12 - Gearhart will submit to OWRD all monitoring data annually in a report prepared and stamped by registered professional geologist or a registered professional engineer. The report will include discussions and plots of water level and water quality trends, water use amounts, maps with well and monitoring locations, and amounts of water used for flow augmentation, if any. All of the water level, water use, and water chemistry data shall also be submitted electronically in Microsoft Excel or other delimited file format acceptable to the Department.

SECTION 13 - Gearhart will allow the Department access to all wells, meters, water level, water temperature, and water chemistry data. The Department may request access upon reasonable notice to representatives of the permittee.

SECTION 14 - Other standard permit conditions for ground water permits will also apply, and are attached to this monitoring and action plan for reference.

The water user shall measure and report annually to the Oregon Water Resources Department (OWRD) water levels for each production well in January, April, July, and October for each year. The Director may

require the user to measure and report additional water levels each year if more data are needed to evaluate the aquifer system.

STANDARD CONDITIONS

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

If the number, location, source, or construction of any well deviates from that proposed in the permit application or required by permit conditions, this permit may not be valid, unless the Department authorizes the change in writing.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

The wells shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine water level elevation in the well at all times.

Where two or more water users agree among themselves as to the manner of rotation in the use of water and such agreement is placed in writing and filed by such water users with the watermaster, and such rotation system does not infringe upon such prior rights of any water user not a party to such rotation plan, the watermaster shall distribute the water according to such agreement.

Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.

This permit is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.


By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The use of water shall be limited when it interferes with any prior surface or ground water rights.

Completion of construction and complete application of the water to the use shall be made on or before five years from the date of permit issuance. If the water is not completely applied before this date, and the permittee wishes to continue development under the permit, the permittee must submit an application for extension of time, which may be approved based upon the merit of the application.

Within one year after complete application of water to the proposed use, the permittee shall submit a claim of beneficial use, which includes a map and report, prepared by a Certified Water Rights Examiner (CWRE).

Issued November 3, 2008


for Phillip C. Ward, Director
Water Resources Department

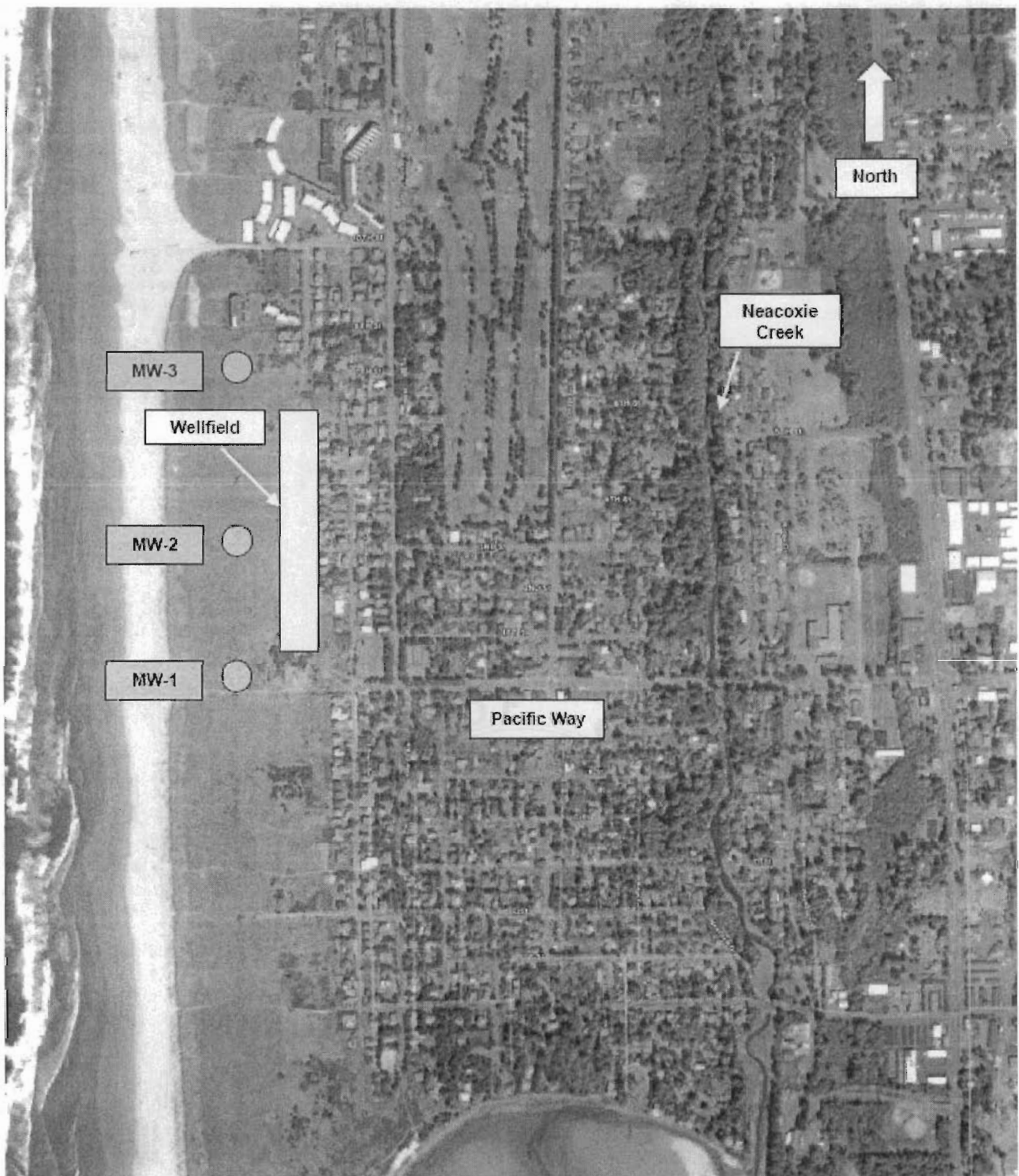


Figure 1 - Monitor for landward migration of fresh and saline interface (MW-1, MW-2, MW-3)

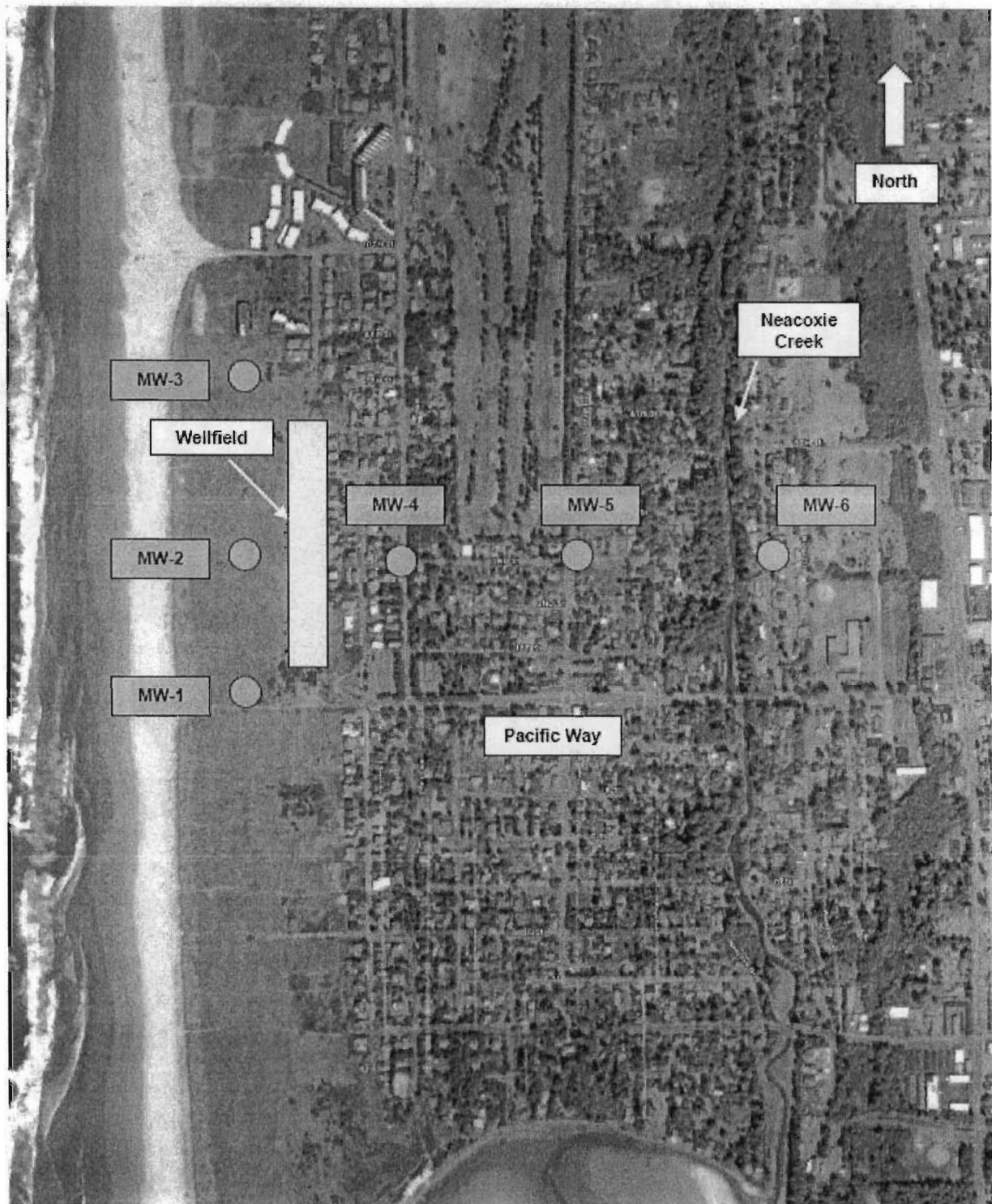


Figure 2 - Monitor for impact from wellfield pumping on shallow ground water elevations (MW-4, MW-5, MW-6)

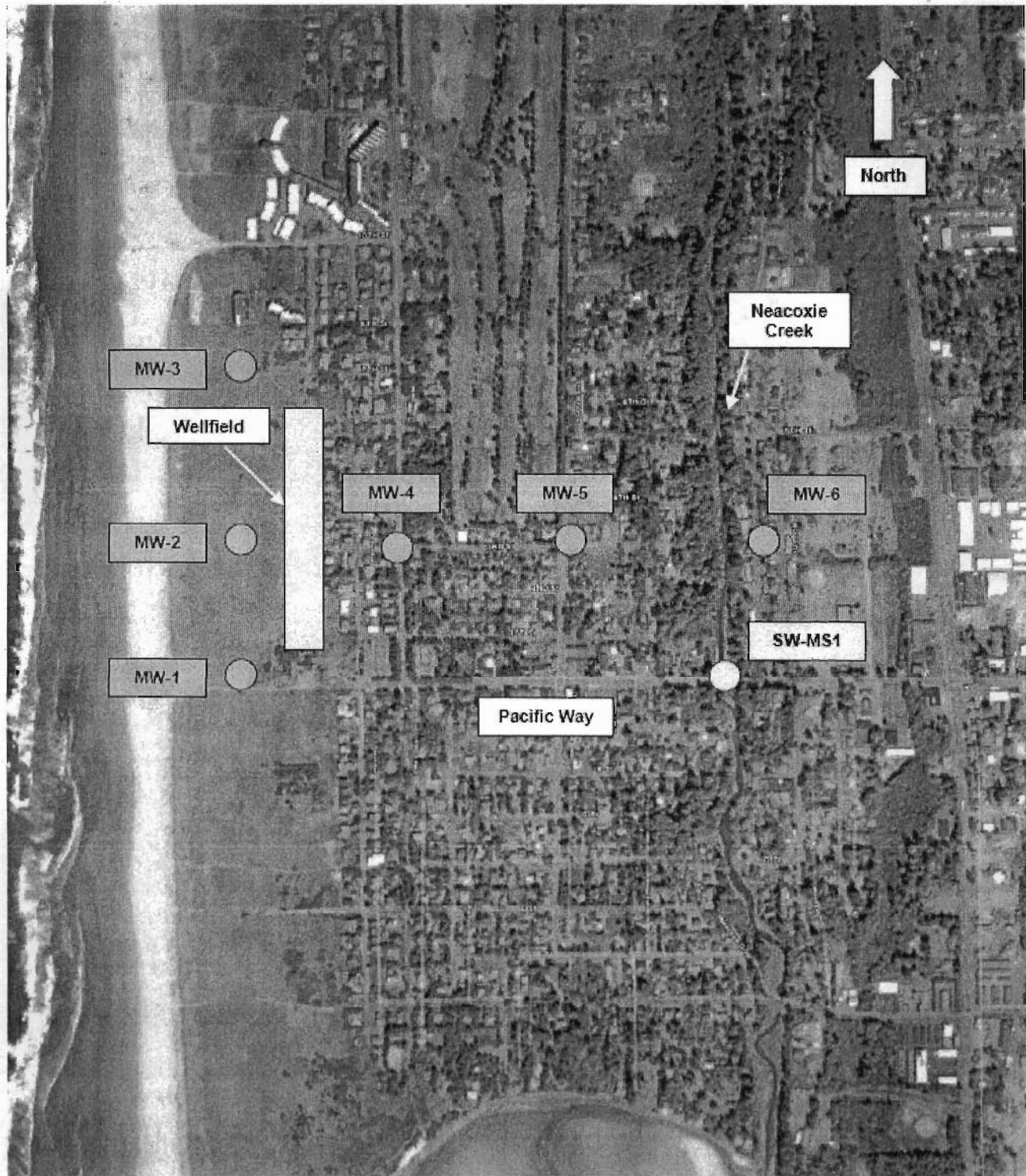
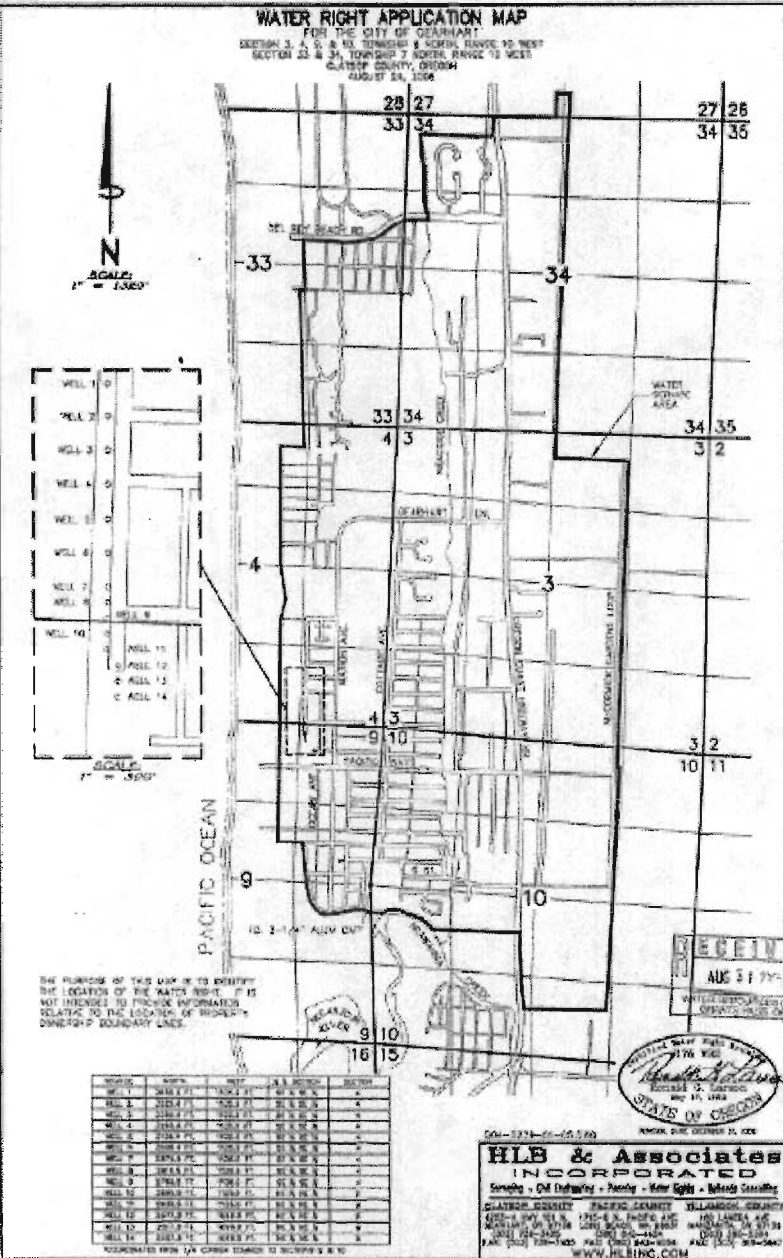


Figure 3 - Monitor potential impacts on Neacoxie Creek (SW-MS1)

WATER RIGHT APPLICATION MAP

FOR THE CITY OF DEERHART
 SECTION 3, 4, 9 & 10, TOWNSHIP 7 NORTH, RANGE 10 WEST
 SECTION 33 & 34, TOWNSHIP 7 NORTH, RANGE 10 WEST
 CLATSOP COUNTY, OREGON
 AUGUST 24, 2004



THE PURPOSE OF THIS MAP IS TO IDENTIFY THE LOCATION OF THE WATER RIGHT. IT IS NOT INTENDED TO PROVIDE INFORMATION RELATIVE TO THE LOCATION OF BODIES OF WATER OR BOUNDARY LINES.

WELL NO.	DEPTH (FEET)	DATE	AS APPLIED	SECTION
WELL 1	100.0	10/15/03	100.0	3
WELL 2	100.0	10/15/03	100.0	3
WELL 3	100.0	10/15/03	100.0	3
WELL 4	100.0	10/15/03	100.0	3
WELL 5	100.0	10/15/03	100.0	3
WELL 6	100.0	10/15/03	100.0	3
WELL 7	100.0	10/15/03	100.0	3
WELL 8	100.0	10/15/03	100.0	3
WELL 9	100.0	10/15/03	100.0	3
WELL 10	100.0	10/15/03	100.0	3
WELL 11	100.0	10/15/03	100.0	3
WELL 12	100.0	10/15/03	100.0	3
WELL 13	100.0	10/15/03	100.0	3
WELL 14	100.0	10/15/03	100.0	3

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