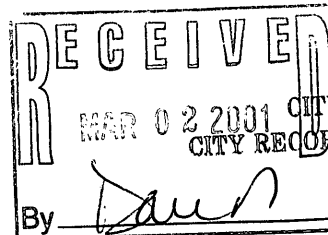


interoffice

MEMORANDUM



to: Duane Cole, Terry Mahr, Dan Danicic, Barton Brierley, Howard Hamilton
cc: John Junkin, Jeff Barry
from: Mike Soderquist
re: Water Resources Department Collector Well Permit
date: February 26, 2001

Today we received the Water Resources Department Permit for our proposed collector well. Attached is your copy (Terry has the original). You will note that it includes a new water right of 20 cfs. (13.6 mgd).

New regulations have been adopted recently which will impact us directly. They include the requirement that we prepare a Water Management and Conservation Plan. I'll be meeting with Jeff Barry on March 20 at 2:00 to discuss this and other issues, including the process for transferring the new water right from the collector concept to traditional wells.

from the desk of...

Mike Soderquist
Director

Community Development Department
P.O. Box 970
414 E. First Street
Newberg, OR 97132

Phone: 503-537-1240
Fax: 503-537-5013

email: soderqm@ci.newberg.or.us

STATE OF OREGON

COUNTY OF YAMHILL

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

CITY OF NEWBERG
414 E 1ST ST
NEWBERG, OREGON 97132

The specific limits for the use are listed below along with conditions of use.

APPLICATION FILE NUMBER: G-12515

SOURCE OF WATER: ONE WELL IN THE WILLAMETTE RIVER BASIN

PURPOSE OR USE: MUNICIPAL USE

RATE/VOLUME: 20.00 CFS

THE PERIOD OF ALLOWED USE IS YEAR ROUND

DATE OF PRIORITY: MAY 3, 1991

POINT OF DIVERSION LOCATION: NE 1/4 SW 1/4 SECTION 29 TOWNSHIP 3 SOUTH, RANGE 2 WEST W.M.; 180 FEET SOUTH AND 2500 FEET EAST FROM W1/4 CORNER, SECTION 29, TOWNSHIP 3 SOUTH, RANGE 2 WEST, W.M.

THE PLACE OF USE IS LOCATED AS FOLLOWS:

NE 1/4 SE 1/4

SE 1/4 SE 1/4

SECTION 36

TOWNSHIP 2 SOUTH, RANGE 3 WEST, W.M.

NW 1/4 NW 1/4

SW 1/4 NW 1/4

NE 1/4 SW 1/4

NW 1/4 SW 1/4

SW 1/4 SW 1/4

SE 1/4 SW 1/4

SW 1/4 SE 1/4

SECTION 6

ALL

SECTION 7

ALL

SECTION 8

ALL

SECTION 9

ALL

SECTION 16

ALL

SECTION 17

ALL

SECTION 18

ALL

SECTION 19

ALL

SECTION 20

ALL

SECTION 21

NE 1/4 NE 1/4

NW 1/4 NE 1/4

SW 1/4 NE 1/4

SE 1/4 NE 1/4

NE 1/4 NW 1/4

NW 1/4 NW 1/4

SW 1/4 NW 1/4

SE 1/4 NW 1/4

SECTION 26

NE 1/4 NE 1/4

NW 1/4 NE 1/4

SW 1/4 NE 1/4

SE 1/4 NE 1/4

NE 1/4 NW 1/4

NW 1/4 NW 1/4

SW 1/4 NW 1/4

SE 1/4 NW 1/4

SECTION 27

NE 1/4 NW 1/4

NW 1/4 NW 1/4

SECTION 28

TOWNSHIP 3 SOUTH, RANGE 2 WEST, W.M.

NE 1/4 NE 1/4

SE 1/4 NE 1/4

NE 1/4 SE 1/4

SE 1/4 SE 1/4

SECTION 1

NE 1/4 NE 1/4

NW 1/4 NE 1/4

SW 1/4 NE 1/4

SE 1/4 NE 1/4
NE 1/4 SE 1/4
NW 1/4 SE 1/4
SW 1/4 SE 1/4
SE 1/4 SE 1/4

SECTION 12

NE 1/4 NE 1/4
NW 1/4 NE 1/4
SW 1/4 NE 1/4
SE 1/4 NE 1/4
NE 1/4 SE 1/4
NW 1/4 SE 1/4
SW 1/4 SE 1/4
SE 1/4 SE 1/4

SECTION 13

NE 1/4 NE 1/4
SE 1/4 NE 1/4
NE 1/4 SE 1/4
SE 1/4 SE 1/4

SECTION 24

TOWNSHIP 3 SOUTH, RANGE 3 WEST, W.M.

Measurement, recording and reporting conditions:

- A. Before water use may begin under this permit, the permittee shall install a meter or other suitable measuring device as approved by the Director. The permittee shall maintain the meter or measuring device in good working order, 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 or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

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.

Within one year of permit issuance, the City of Newberg shall submit a conservation management plan consistent with Oregon Administrative Rule 690-86

STANDARD CONDITIONS

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.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

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.

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.

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.

The Director finds that the proposed use(s) of water described by this permit, as conditioned, will not impair or be detrimental to the public interest.

Actual construction of the well shall begin by February , 2002 and shall be completed on or before October 1, 2004. Complete application

of the water to the use shall be made on or before October 1, 2005.

Issued February 22, 2001

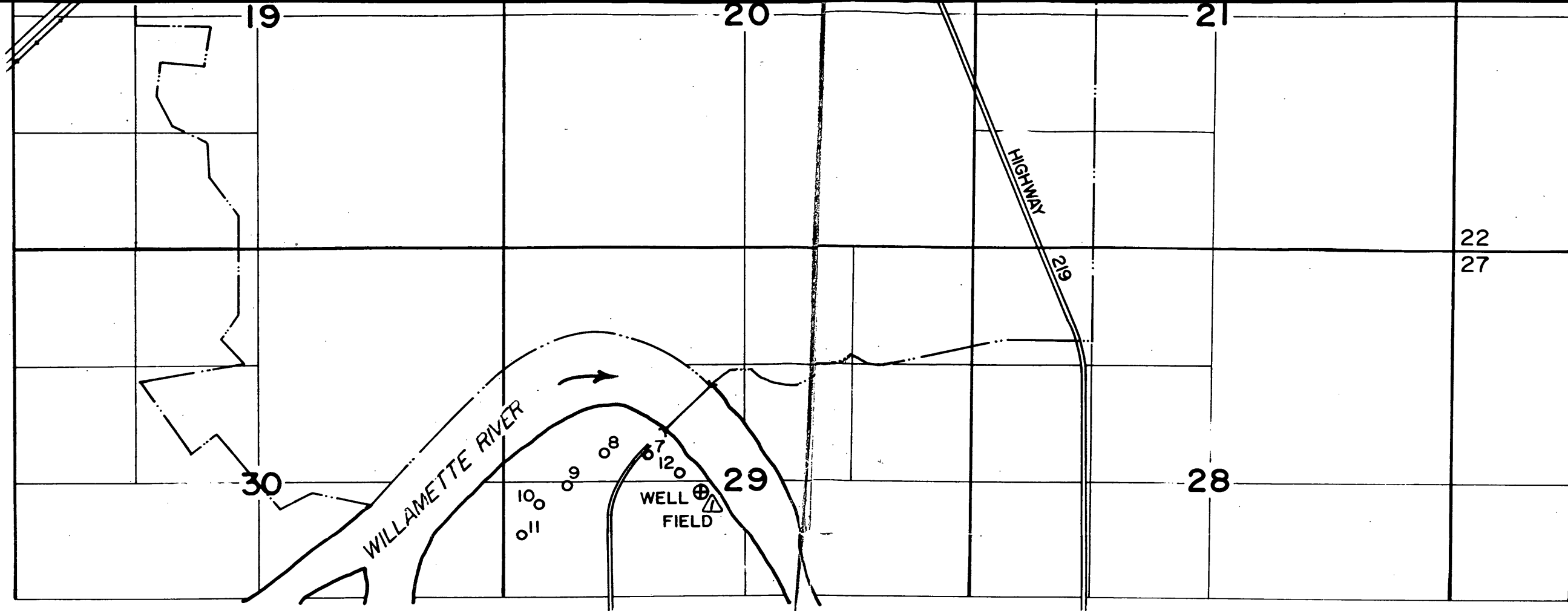

Paul R. Cleary, Director
Water Resources Department

NOTE: Pursuant to ORS 537.330, in any transaction for the conveyance of real estate that includes any portion of the lands described in this permit, the seller of the real estate shall, upon accepting an offer to purchase that real estate, also inform the purchaser in writing whether any permit, transfer approval order, or certificate evidencing the water right is available and that the seller will deliver any permit, transfer approval order or certificate to the purchaser at closing, if the permit, transfer approval order or certificate is available.

Application G-12515
Basin 02
AMH

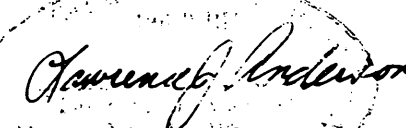
Water Resources Department
Volume 25
Willamette River & Misc.
MGMT.CODES 7BG 7BR

PERMIT G-13876
District 16



WELLS LOCATED:

- No. 7 - 300' N. and 1580' E.
- No. 8 - 320' N. and 1100' E.
- No. 9 - 50' S. and 700' E.
- No. 10 - 260' S. and 390' E.
- No. 11 - 620' S. and 200' E.
- No. 12 - 80' N. and 1930' E.
- All from W. 1/4 cor. sec. 29.

△	10-7-93
RANNEY COLLECTOR No.1 Located 130' S. and 2240' E. of the W 1/4 cor. Sec. 29	
 STATE OF OREGON	

URBAN GROWTH BOUNDARY

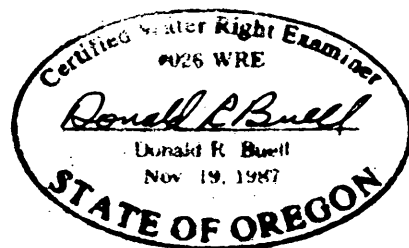
Application Map
for

CITY OF NEWBERG

Appl. No. G-12515
Per. No. 9 13876

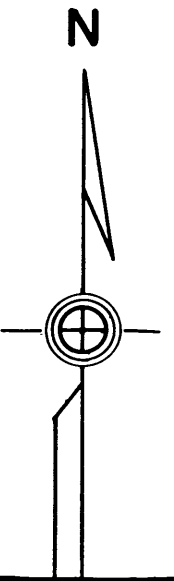
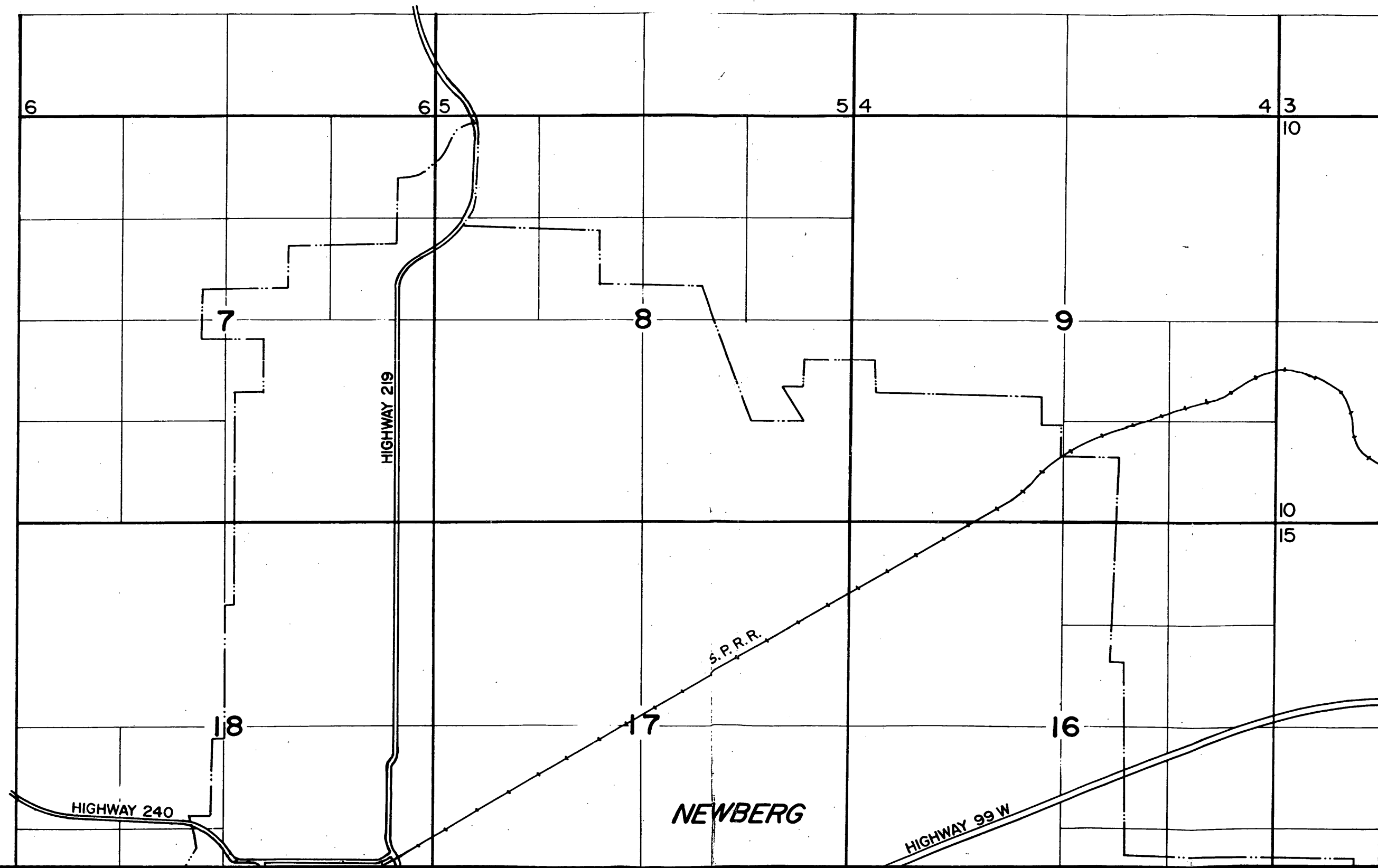
RECEIVED
NOV 12 1993
WATER RESOURCES DEPT.
SALEM, OREGON

RECEIVED
MAY 02 1991
WATER RESOURCES DEPT.
SALEM, OREGON



THIS MAP WAS PREPARED FOR THE PURPOSE OF IDENTIFYING THE LOCATION OF A WATER RIGHT ONLY AND IS NOT INTENDED TO PROVIDE LEGAL DIMENSIONS OR LOCATION OF PROPERTY OWNERSHIP LINES.

Township 3 South, Range 2 West, W. M.





Oregon

John A. Kitzhaber, M.D., Governor

Water Resources Department

Commerce Building
158 12th Street NE
Salem, OR 97301-4172
(503) 378-3739
FAX (503) 378-8130

CAREFULLY READ THE FOLLOWING INSTRUCTIONS

READ YOUR PERMIT. BE SURE YOU UNDERSTAND ALL OF THE PERMIT CONDITIONS BEFORE YOU USE THE WATER. FAILURE TO FOLLOW OR MEET ANY OF THE PERMIT CONDITIONS MAY RESULT IN CANCELLATION OF THE PERMIT.

If you have any questions about the wording on your permit, contact your local watermaster's office or our Salem office at 1.800.624.3199, ext. 499 within Oregon. Outside of Oregon, dial 1.503.378.8455, ext. 499.

Your permit has been recorded in our office, but you should hold the original permit as evidence of your right to use water. If the property is sold and you convey all interest in the property, an assignment to the new owner must be recorded in our office. Assignment forms will be furnished upon request by calling or writing the Salem office.

Time limits are fixed in the permit for beginning of construction and complete application of water to beneficial use. **You must begin actual construction within the time limits specified in the permit or your right will be lost.** (Some large reservoirs have longer beginning of construction time frames.) If this is a groundwater permit, the law requires that you begin actual construction of the well within one year from the date of issuance of permit or your right will be lost.

The Director of the Oregon Water Resources Department (WRD) may extend the time for complete application of water to the proposed use provided the beginning of construction date has been met. There must be good cause to extend the date and reasonable diligence must be shown in prosecution of work. **The Director has no authority to extend the time limit for beginning construction.** Forms to file for an extension of time will be furnished upon request. A fee of \$100 is required when you file a request for an extension.

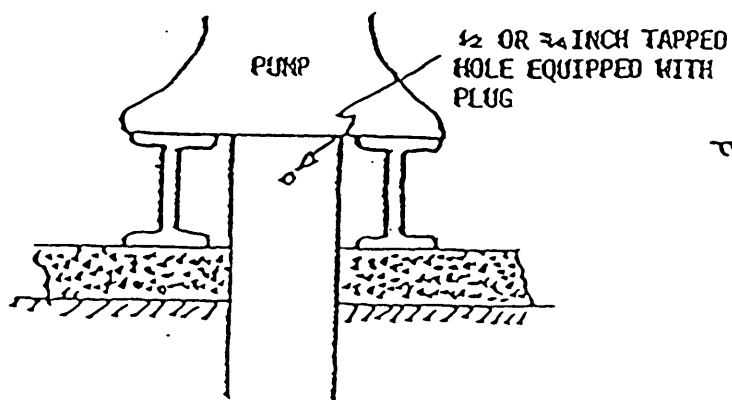
Within one year after you have completed application of water to the proposed use, you must submit a final proof map and claim of beneficial use report prepared by a Certified Water Rights Examiner (CWRE). (Smaller reservoir permits received under the expedited application review process require a final proof map and claim of beneficial use report but they do not need to be prepared by a CWRE.) The claim must document that all conditions in the permit have been met. This includes a demonstration that the beginning of construction date and the complete application to use water date requirements were met. A list of CWREs will be furnished upon request.

After satisfactory proof has been submitted to the Director, the right will be confirmed by issuance of a certificate of water right. The certification will limit the right to the extent that water has been applied to beneficial use in accordance with the terms of the permit.

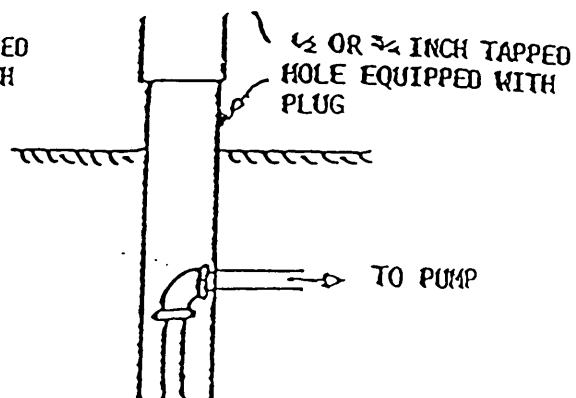
Any related correspondence from WRD's office will be mailed to the address on the permit unless the permittee notifies our office that the address has changed.



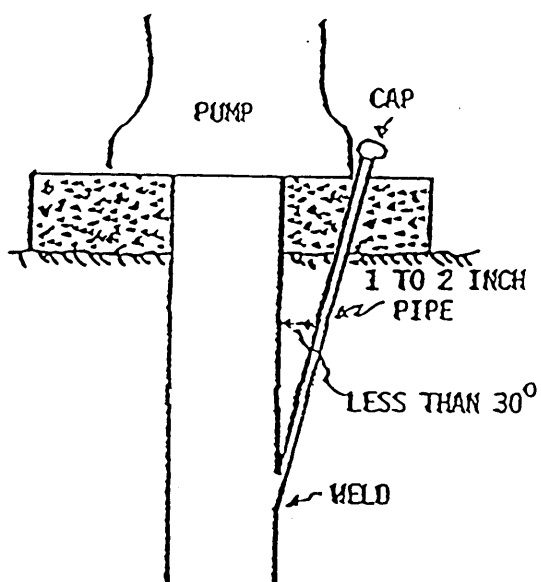
SUGGESTED METHODS OF INSTALLING ACCESS PORTS, PRESSURE GAUGES,
AND AIR LINES FOR MEASURING WATER LEVELS IN WELLS



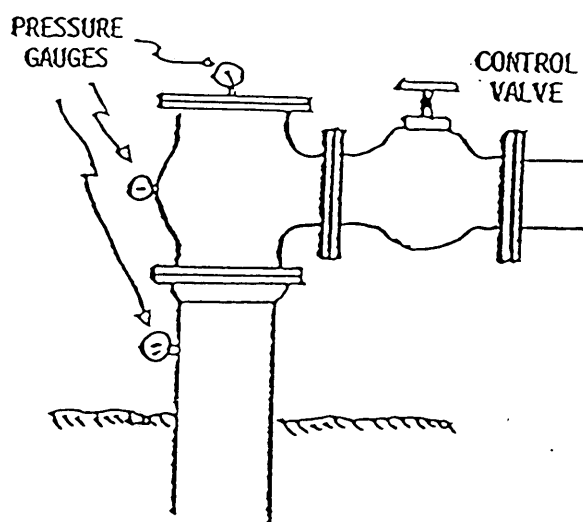
ACCESS PORT FOR MEASURING DEVICE



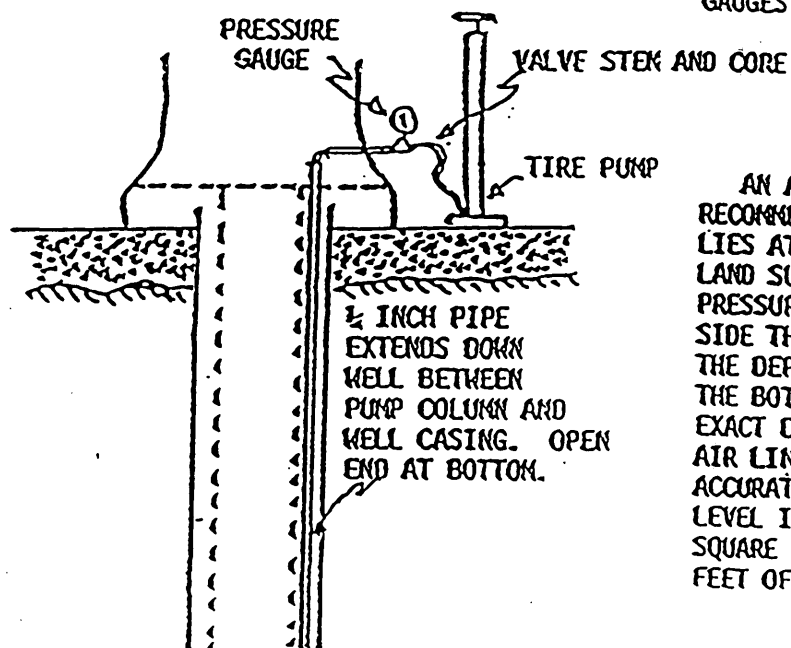
ACCESS PORT FOR MEASURING DEVICE



ACCESS PORT FOR MEASURING DEVICE



POSSIBLE LOCATION FOR PRESSURE
GAUGES ON AN ARTESIAN WELL



AIR LINE INSTALLATION

AN AIR LINE INSTALLATION IS RECOMMENDED WHERE THE WATER LEVEL LIES AT A CONSIDERABLE DEPTH BELOW LAND SURFACE. THE AMOUNT OF AIR PRESSURE THAT CAN BE BUILT UP INSIDE THE AIR LINE WILL BE EQUAL TO THE DEPTH OF WATER STANDING ABOVE THE BOTTOM OF THE AIR LINE. THE EXACT DEPTH OF THE BOTTOM OF THE AIR LINE IS REQUIRED TO OBTAIN AN ACCURATE MEASUREMENT OF THE WATER LEVEL IN THE WELL. ONE POUND PER SQUARE INCH PRESSURE EQUALS 2.31 FEET OF WATER.

State of Oregon
Water Resources Department

WATER METER SPECIFICATIONS

- A-1 Water meters shall be of the velocity propeller type or shunt line venturi type with enclosed propeller made of non-corrosive materials. Other types of meters may be used, provided prior approval is granted by the Director of the Water Resources Department.
- A-2 The meter shall have a rated accuracy of $\pm 2\%$ of actual flow for all rates of flow within the range of flow for which the meter is designed. The meter shall register the full range of discharge from the source of water for which it is to be used.
- A-3 The register head of the meter shall have a visual, recording, mechanical, digital totalizer located on or adjacent to the meter and shall be equipped with a test sweep hand so that flow rate can be quickly determined. The register face shall be protected by a suitable plate or cover.
- A-4 Units of water measurement shall be in acre feet, cubic feet, or in gallons. The totalizer shall read directly in the above-described units. Meters recording feet shall read to the nearest 1/10th acre-foot and the decimal multiplier shall be clearly indicated on the face of the register head.
- A-5 The totalizing meter shall have a sufficient capacity to record the quantity of water authorized to be withdrawn and/or diverted over a period of two years.
- A-6 Both the register and the meter unit shall be provided with a method of sealing with a wire or lead seal to prevent unauthorized tampering with the placement or position of the water meter.

WATER METER INSTALLATION

- B-1 The water meter shall be installed in accordance with the manufacturer's specifications and in such a manner that there shall be a full pipe of water at all times during which the water is being withdrawn.
- B-2 There shall be no turnouts or diversions between the source of water and the meter installation.
- B-3 The meter shall be placed in the pipe not less than five pipe diameters downstream from any valve, elbow, or other obstruction which might create turbulent flow, or straightening vanes installed as recommended by the meter manufacturer. There shall be at least one pipe diameter of unobstructed flow on the downstream side of the meter.

- B-4 All inline saddle meters equipped with U-bolt fasteners shall be provided with a sealing wire and lead seal near the terminal ends of the U-bolt following the complete installation of the meter.
- B-5 The meter and register shall not be locked in a building which would prevent access to the register. The register or meter shelter may be equipped with a lock to prevent tampering or breakage, provided that the Oregon Watermaster has a key.
- B-6 Provisions shall be made for rating of the meter in accordance with the manufacturer's specifications.
- B-7 The meter installation is subject to inspection and approval by the Director of the Oregon Water Resources Department.
- B-8 In the case of artesian wells which flow at various times, the meter shall be installed in a manner which will measure both pumped and flowing discharges.

WATER METER MAINTENANCE

- C-1 Meters shall be kept clear of vegetative growth, debris, or other foreign matter which could impede meter operation. All meters shall be lubricated as specified by the manufacturer.



Oregon

John A. Kitzhaber, M.D., Governor

Water Resources Department

Commerce Building
158 12th Street NE
Salem, OR 97301-4172
(503) 378-3739
FAX (503) 378-8130

ATTENTION PERMIT HOLDER:

Your permit contains a provision which requires the static water level in the well(s) to be measured and reported to Oregon Water Resources Department annually. Consulting your permit will show the required items for measuring and reporting, as well as a list of persons eligible to make the measurements.

Please use this report form for your reply, placing any additional information on the back side if necessary. We recommend that you keep a copy of this measurement report for your records.

MEASUREMENT REPORT

WELL NAME OR NUMBER (if any): _____

MEASUREMENT DATE: _____

PERSON MAKING MEASUREMENT: _____

DESCRIPTION OF MEASURING POINT: _____ FEET ABOVE/BELOW LAND SURFACE

STATIC WATER LEVEL: _____ FEET BELOW LAND SURFACE

LENGTH OF TIME WELL WAS IDLE BEFORE MEASUREMENT: _____

CALCULATION/COMMENTS: _____

I HEREBY CERTIFY THAT, TO THE BEST OF MY ABILITY, THE INFORMATION ON THIS REPORT IS ACCURATE AND AT THE TIME OF MEASUREMENT, REPRESENTATIVE OF THE STATIC LEVEL IN THE AQUIFER.

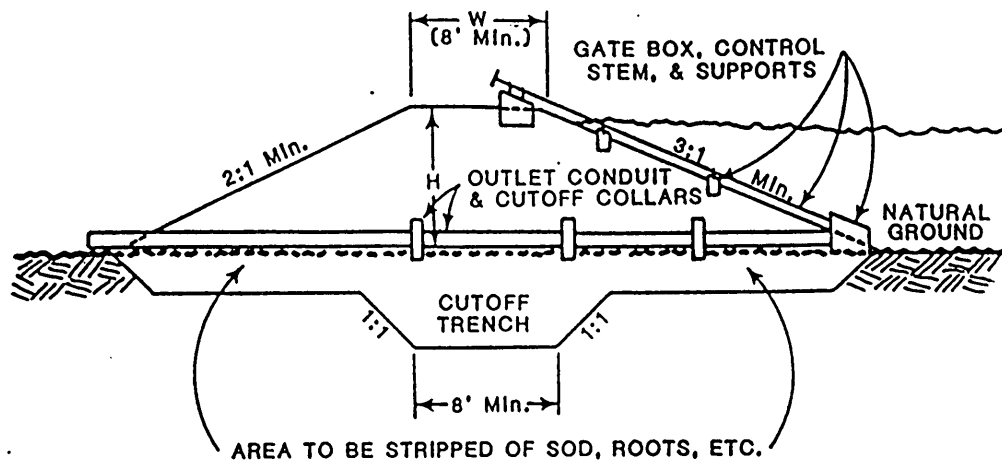
SIGNATURE OF PERSON MAKING THE MEASUREMENT: _____

TITLE: _____

ORGANIZATION: _____

Thank you for your attention to this matter. If you have any questions regarding this notice, contact the Oregon Water Resources Department, Groundwater/Hydrology Section at 503.378.8455, ext. 207.





TYPICAL CROSS SECTION OF SMALL DAM AND CONDUIT

Most small dams built in Oregon are earthfill structures. It is important to observe proper procedures during construction of the embankment, and to provide an adequate spillway to prevent failure by overtopping.

- (1) Minimum crest or top width of 8 feet.
- (2) Minimum upstream slope of 3:1 (three feet horizontal to one foot vertical).
- (3) Minimum downstream slope of 2:1 (two feet horizontal to one foot vertical).
- (4) Minimum spillway depth of 2.5 feet.
- (5) Minimum outlet conduit diameter of 8 inches.

During site preparation, strip all brush, trees, sod, stumps, roots and other organic material from the area to be occupied by the dam and from the borrow area. Dig a cutoff or core trench along the axis of the dam and backfill with compacted embankment material to prevent underseepage. The cutoff trench should have side slopes of 1:1 (one foot horizontal to one foot vertical), and should be deep enough to intercept any gravel layers or other deposits which could allow seepage under the dam.

Any dam which will be located on a stream channel must have an outlet conduit with a minimum diameter of 8 inches. Conduits allow emptying of the reservoir for repairs or maintenance, and passage of streamflow to satisfy downstream water rights. Place the conduit at the bottom or in the lower part of the embankment. Asphalt-dipped corrugated metal pipe with watertight joints is often used. Install the control valve at the upstream end of the conduit, to be operable by a control wheel and gate shaft accessible from the crest of the dam. Support the valve control stem with concrete piers placed in the upstream face.

Construct at least two cutoff collars. Collars are usually made of reinforced concrete at least four inches thick, and extending at least 24 inches around the conduit in all directions. Prefabricated asphalt-dipped metal cutoff collars are acceptable if a watertight joint is obtained between the collar and the conduit.

Spread embankment material parallel to the axis of the dam in layers not more than eight inches thick. Compact the layers properly with a sheepsfoot roller or similar equipment.

The best material for use in embankment construction is a soil with a mixture of silt, sand and clay. A straight silt or sand embankment may be subject to erosion and failure by seepage through the embankment. A straight clay material is often difficult to compact properly, and is subject to shrinking and cracking when dried.

Do not use roots, stumps, sod or other organic material in the embankment. Avoid using large rocks in the embankment unless to cover the slope to prevent erosion. After construction, keep the slopes free of brush and tree growth. A low grass covering helps prevent surface erosion. Squirrels and other burrowing rodents can cause damage to and even failure of small embankments and should be controlled.

All dams should have a spillway to prevent overtopping. The exception to this is excavated sumps not located on a stream channel or drainageway and for which the inflow can be controlled. For off-channel dams, the spillway capacity should be slightly greater than the capacity of the ditch or pipeline which delivers water to the reservoir. Build the spillway around the dam, not over the top. The spillway is normally dug in natural material and protected against erosion with a sod, rock or concrete lining.

For dams located on a stream channel, the spillway should be sized to pass the estimated 50-year peak flow. The spillway channel should return the flow to the natural channel far enough downstream to prevent erosion of the downstream toe of the embankment.

Adherence to these guidelines should result in a safe and useful structure.