
HOUSE BILL 2203

State of Washington

54th Legislature

1996 Regular Session

By Representatives Mastin, Chandler, Honeyford and Robertson

Read first time 01/08/96. Referred to Committee on Agriculture & Ecology.

1 AN ACT Relating to the hydraulic continuity of ground and surface
2 waters; and adding new sections to chapter 90.44 RCW.

3 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

4 NEW SECTION. **Sec. 1.** A new section is added to chapter 90.44 RCW
5 to read as follows:

6 (1) Section 2 of this act establishes criteria to guide the
7 department in making determinations whether the water in wells is in
8 hydraulic continuity with surface water.

9 (2) For the purposes of this section and section 2 of this act:

10 (a) "Confined aquifer" means an aquifer in which ground water is
11 under sufficient hydrostatic head to rise above the bottom of the
12 overlying confining bed.

13 (b) "Confining bed" means a layer of low permeability material
14 immediately overlying a confined aquifer.

15 (c) "Department" means the department of ecology or its successor.

16 (d) "Director" means the director of ecology.

17 (e) "Hydraulic continuity" means a connection between the water in
18 a body of water located on the surface of land and water located in a
19 subsurface aquifer as determined under section 2 of this act.

1 (f) "Unconfined aquifer" means an aquifer in which the hydrostatic
2 head at the upper surface of the ground water is atmospheric.

3 NEW SECTION. **Sec. 2.** A new section is added to chapter 90.44 RCW
4 to read as follows:

5 For the purposes of permitting and distributing ground water, the
6 hydraulic continuity of ground water with surface water shall be
7 determined by the department.

8 (1) The department shall determine whether wells produce water from
9 an unconfined or confined aquifer. Except for wells that satisfy the
10 conditions in subsection (2) of this section, the department shall
11 further determine whether the aquifer is hydraulically continuous to
12 the surface water source. Where the aquifer is a confined aquifer, the
13 burden of proof of the determination of whether the aquifer is
14 hydraulically continuous to the surface water source is on the
15 department. The determination of whether the aquifer is hydraulically
16 continuous shall be based on a finding that there exists a clear and
17 direct relationship between a surface water body and the ground water
18 source from which water would be withdrawn. The relationship must be
19 demonstrable through a reasonable and repeatable test, or tests, that
20 can be applied in the field, and that apply generally accepted methods
21 of hydrogeologic science. The information from the field tests shall
22 be provided in the well water report for any well in question. If
23 there is no water well report available or if the information provided
24 is inadequate, the department shall make the determination on the basis
25 of the best available information. Such information may include other
26 water well reports, topographic maps, hydrogeologic maps or reports,
27 water level and other pertinent data collected during a field
28 inspection, or any other available data or information that is
29 appropriate, including any that is provided by potentially affected
30 parties.

31 (2) All wells located a horizontal distance less than one-fourth
32 mile from a surface water source that produce water from an unconfined
33 aquifer shall be assumed to be hydraulically continuous to the surface
34 water source, unless the applicant or appropriator provides
35 satisfactory information or demonstration to the contrary. Department
36 staff may provide reasonable assistance to the applicant or
37 appropriator in acquiring the satisfactory information.

1 (3) The department shall determine the horizontal distance between
2 any well in question and the nearest surface water source on the basis
3 of the edge of the surface water source as also determined by the
4 department.

5 (4) All wells that produce water from an aquifer that is determined
6 by field evidence to be hydraulically continuous to a surface water
7 source shall be assumed to have the potential to cause substantial
8 interference with the surface water source if the existing or proposed
9 ground water appropriation is within one of the following categories:

10 (a) The point of appropriation is a horizontal distance less than
11 one-fourth mile from the surface water source;

12 (b) The rate of appropriation is greater than five cubic feet per
13 second, if the point of appropriation is a horizontal distance less
14 than one mile from the surface water source;

15 (c) The rate of appropriation is greater than one percent of the
16 pertinent adopted minimum perennial streamflow or instream water right
17 with a senior priority date, if one is applicable, or of the discharge
18 that is equaled or exceeded eighty percent of the time, as determined
19 or estimated by the department, and if the point of appropriation is a
20 horizontal distance less than one mile from the surface water source;
21 or

22 (d) The ground water appropriation, if continued for a period of
23 thirty days, would result in stream depletion greater than twenty-five
24 percent of the rate of appropriation, if the point of appropriation is
25 a horizontal distance less than one mile from the surface water source.
26 Using the best available information, stream depletion shall be
27 determined or estimated by the department, employing at least one of
28 the following methods:

29 (i) Suitable equations and graphical techniques that are described
30 in pertinent publications (such as "Computation of Rate and Volume of
31 Stream Depletion by Wells", by C.T. Jenkins, in: "Techniques of Water-
32 Resources Investigations of the United States Geological Survey: Book
33 4, Chapter D1");

34 (ii) A computer program or ground water model that is based on such
35 or similar equations or techniques.

36 (5) Any wells, other than those covered in subsection (4) of this
37 section, that produce water from an aquifer that is determined to be
38 hydraulically continuous to the surface water source may be determined
39 by the department to cause substantial interference with the surface

1 water source. In making this determination, the department shall
2 consider at least the following factors:

3 (a) A reduction in streamflow or surface water supply;

4 (b) An impairment or detrimental effect on a surface water
5 appropriation, minimum perennial streamflow, or instream water right
6 with a senior priority date;

7 (c) The percentage of the ground water appropriation that was, or
8 would have become, surface water;

9 (d) There is interference and such interference would be immediate
10 or delayed; and

11 (e) Demonstrable cumulative adverse impacts on streamflow or
12 surface water supply.

13 (6) All wells that produce water from an aquifer that is not
14 hydraulically continuous to a surface water source shall be assumed not
15 to interfere with the surface water source.

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