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ALTERNATIVE WATER SUPPLY

One of the potential repercussions of a release of hazardous substances into the environment is contamination of surface and groundwater. If a well or other water intake device is located in the vicinity of a release of hazardous substances, there is a possibility that an existing water supply may also become contaminated. Impacts to public health may result from consumption of drinking water, dermal contact, inhalation or other exposure to contaminated water supplies -

The goals of this policy are to: 1) ensure that individuals affected by contaminated water supplies are given adequate notice of the contamination; and 2) provide a means to evaluate the need for alternative water supplies in a consistent manner, and, when necessary, make alternative water supplies available in a timely fashion.

The policy establishes conditions under which the Environmental Cleanup Program shall consider requiring or providing for alternative water supplies to parties whose normal supply has been contaminated or is threatened with contamination. It also outlines the procedures necessary for initiating and terminating these supplies, and the factors that shall be reviewed when considering the choice of alternatives -

State law provides that remedial and removal actions may be undertaken to minimize the danger of a release of a hazardous substance into the environment and that such actions may include provision of alternative water supplies.¹ Alternative water supplies shall only be considered as remedial or removal actions in cases where the current supply is contaminated or threatened with contamination as the result of a release of hazardous substances subject to the Environmental Cleanup Rules (OAR 340-122-010 through 110) or the Leaking Petroleum UST Cleanup Rules (OAR 340-122-210 through 260).

Notification Requirements

When, during the course of implementing the Environmental Cleanup Rules or the Leaking Petroleum UST Cleanup Rules, reliable data confirming the presence of contaminants in or near a water supply are obtained, the Program:

- (1) Shall notify affected state and local authorities, including the Water Quality Division, State Water Resources Department, Department of Human Services (DHS) Drinking Water Program and affected local agencies;
- (2) In cooperation with the DHS and other appropriate local and state agencies, shall notify the owner and/or operator of any potentially affected public water supply system;

¹ See OPS 465.200(15) (a) and (17).

- (3) In cooperation with the DHS and other appropriate local and state agencies, may notify or require notification of individual water users; and
- (4) In instances where notification is provided, shall also inform the owner, operator, and user of a potentially affected water supply as to whether or not the Division is providing, requiring or considering the need for a source of alternative water.

ECD's Public Affairs Specialist is available to provide assistance and advice regarding appropriate notifications.

Minimum Data Requirements

When considering the provision of alternative water supplies, all data being reviewed must conform to Quality Assurance provisions normally used in investigating hazardous substances. If, in the professional judgment of the Division, sufficient data are not available to make a decision about the water supply in question, the Division shall require re-sampling and further analysis as follows:

- (1) Samples shall be collected from the well or water intake and, if appropriate, from the water treatment plant; and
- (2) Based on the nature of the site, the Division shall consider whether or not to expand the investigation by sampling other wells, water intake sources or locations within the vicinity of a contaminated water supply.
- (3) Based on the contaminants of concern and design of the system, sampling results from the tap or other water outlet may be considered in addition to or in lieu of other water samples gathered under subsection (1) or (2).

Notwithstanding the preceding data requirements, the Division may decide to immediately require an interim alternative water supply in situations where chemical, visual or odor indicators show that harmful contamination is likely to be present. If possible, within 90 days following provision of emergency alternative water supplies based on suspected contamination, the Division shall obtain or require the development of data necessary to support continuation or cancellation of emergency water supplies.

Eligible Situations

In the event of a release of hazardous substances subject to Environmental cleanup or Leaking Petroleum UST Cleanup rules, the following criteria shall be used to determine whether alternative water supply provisions should be developed:

- (1) Except as provided in subsections 6 and 7, alternative water shall be provided for drinking water supplies which have been found to contain contaminants in excess of current or proposed primary Maximum Contaminant Levels (MCLs);
- (2) The Division may consider requiring alternative water for water supplies which have been found to contain contaminants in excess of current or proposed secondary MCLs or other appropriate standards. In these situations, the Program shall take into account the recommendations of a qualified toxicologist or health professional;

- (3) The Division may consider requiring alternative water for water supplies for cases involving multiple types of hazardous substances where the contaminants do not exceed current or proposed MCLs if, in the professional judgment of the Department, the cumulative and/or synergistic effects of the contaminants pose unacceptable public health risks. In addition, the Division may consider requiring alternative water for water supplies which have been found to contain contaminants for which no MCLs or other standards have been adopted or proposed. The Division shall take into account the recommendations of a qualified toxicologist or health professional in these situations;
- (4) The Division may consider requiring alternative water for contaminated non-drinking water supplies taking into account, at a minimum: the current use(s) of the contaminated water; the level and nature of contaminants in the water; and the extent to which the contaminants may be detrimental to the current non-drinking water use(s);
- (5) The Division may consider requiring alternative water in situations where the supply in question is currently clean, but for which:
- a) Sufficient data and professional judgment indicate that contamination of the supply from an upgradient plume is imminent; and/or
 - b) A reduction or stoppage of pumping from certain wells may be necessary to reduce the spread of contamination and possibly prevent the well from being contaminated while remedial measures are implemented
- (6) The Division shall not require alternative water in situations where:
- a) In the professional judgment of the Program, the available data do not demonstrate that the source of contamination is a result of a leaking underground storage tank or a release of hazardous substances subject to ORS 465.200 - 465.900; or
 - b) The background water quality is such that, even prior to being contaminated from anthropogenic sources, the water supply in question was not suitable for its intended use;
 - c) The potential recipient of the alternative water is responsible in part for the contamination due to improper well installation, illegal activities or imprudent practices.
- (7) In instances where responsible parties are unknown, unwilling or unable to finance the alternative supply and other potential sources for financing including a public water supply system are not available, and therefore state funds are required for development of alternative water supplies, the Program shall not require alternative water if adequate funds are not available, or if other remedial actions are determined to have higher priority for use of limited state funds.

Consideration of Alternatives

The Division shall seek the opinion and technical assistance of the DHS, particularly for cases affecting public water supply systems. The opinion and technical assistance of other state and local agencies may also be solicited.

If an alternative water supply is deemed necessary, water treatment methods as well as true alternative

water supplies shall be considered, and alternatives reviewed may include both temporary and permanent measures. Alternatives which will be considered shall include, but are not limited to:

- (1) Delivery of bottled water;
- (2) Installation of individual user water purification system(s);
- (3) Installation of treatment facilities or technologies;
- (4) Connection to a public drinking water supply system;
- (5) Construction of a new water intake or well, potentially in a different aquifer or in an uncontaminated area of the same aquifer; and
- (6) Blending of contaminated and uncontaminated water.

The decision about the most appropriate alternative shall be based on the nature and extent of the contamination, the likelihood that the contaminated water supply can be cleaned up to acceptable standards within a reasonable amount of time, the availability of various alternatives, the expense and cost-effectiveness of each alternative, and the impact that the alternatives will have on public health, safety and welfare and the environment -

In some cases, it may be necessary to provide a temporary alternative until such time as sufficient information is available to decide on the need for a permanent alternative. In these circumstances:

- (1) The contaminated supply shall be sampled and analyzed on a regular basis to determine when it is again suitable for use;
- (2) Temporary supplies shall be terminated when it has been demonstrated to the Program's satisfaction that the regular water supply is again suitable for use; and
- (3) After the temporary supply has been discontinued, the Division shall require regular monitoring for one year or other appropriate time period to ensure that contaminant levels do not increase and again exceed acceptable standards -

In cases where a permanent alternative water supply is to be provided in place of water supplied by a contaminated well, the Program may require that the contaminated well be permanently abandoned consistent with applicable state well abandonment standards.

Approval of Alternative Water Supplies

- (1) Private water supplies:

The Land Quality or Regional Division Administrator will make the decision to authorize or require the provision of alternative water supplies in all cases where parties have individual private water supply wells that are contaminated or threatened by contamination. The decision of the Administrator will be based upon a recommendation by Program staff using the criteria set forth in this policy.

- (2) Public water supplies:

In cases where a party legally liable for the contamination or threatened contamination of a

public water supply is to be required to provide or pay for alternative water supplies, the Land Quality or Regional Division Administrator will make the decision based upon a recommendation of Department staff.

The Department will recommend that Department funds be used to provide alternative water supplies only where the public agency responsible for the water supply system can demonstrate to the Department's satisfaction that it is unable to finance the alternative water supply.

In no case will the Department pay more than the incremental cost increase of providing alternative water. The public agency responsible for the water system will be responsible for paying the normal base costs of supplying water to its customers.

(3) Emergency water supplies:

Notwithstanding Section 2 above, a decision to provide emergency and temporary supplies of public water may be approved by the Land Quality Division Administrator based upon a recommendation by Department staff.

Financial Responsibility

For water supplies contaminated by a hazardous substance release from a Potentially Responsible Party (PRP) -lead site, the State shall require the PRP to assume all alternative water supply costs covered by this policy. Consent Orders, Unilateral Orders or other appropriate enforcement measures may be utilized by the Program to achieve this goal.

In the case of contaminated water supplies serving a public water system, if PRPs are unknown, unwilling or unable to finance alternative water supplies, the owner or operator of the public water system may be required to provide corrective action. In these cases, the Program will work with the DHS and affected public water system owners and operators in order to promote the development and implementation of an alternative water source.

The Environmental Cleanup Program will consider partial or full financing for provision of alternative water supplies for an affected public water system only in cases where the owners and operators are able to demonstrate to the Program's satisfaction that they are unable to finance the required improvements.

For water supplies contaminated by a release from a state-lead site, the State may elect to pay for all alternative water supply costs covered by this policy. However, the State shall include all costs of providing this water in any cost-recovery measures that it initiates against a PRP.

Costs covered by this policy shall include all DEQ expenses related to evaluation of alternatives, installation of the alternative system, all oversight costs. Coverage of operation and maintenance costs shall be negotiated on a case-by-case basis. In the event the selected alternative involves provision of bottled water, the costs of providing bottled water are covered under this policy. Costs not covered by this policy include other long term expenses such as monthly water utility bills, increased electrical costs or increased tax assessments.

Coordination

Decisions concerning the provision of alternative water shall be made in consultation with appropriate state and local authorities.



In cases where the Program has determined that alternative water supplies should be provided to user(s) of private wells, the Program shall inform the user (s) of this determination and give them the opportunity to accept or refuse the offer for the alternative water.

Disclaimer

This policy statement is intended solely as guidance for employees of the Department of Environmental Quality. It does not constitute rulemaking by the Environmental Quality Commission and may not be relied upon to create a right or a benefit, substantive or procedural, enforceable at law or in equity, by any person. DEQ may take action at variance with this policy statement.

References

“Oregon Administrative Rules for Public Drinking Water Systems”, OAR 333-61-005 to 333-61-100, adopted December 1989.

“Guidance Document for Providing Alternative Water Supplies”, OSWER Directive 9355.3, U.S. Environmental Protection Agency, February 1988.

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