

## Montesano Groundwater Investigation Continues

In 2004, The Department of Ecology (Ecology) began an area-wide investigation to examine known and suspected areas of contamination in downtown Montesano. The investigation led to the discovery of soil and groundwater contamination caused by historical and current activities. Underground storage tanks used by former and current gas stations have leaked petroleum products and created a large area of contamination. Ecology also detected chlorinated solvents in the groundwater at some locations downtown.

Ecology continued investigating the site in 2005. As a result, several contaminated properties were identified and entered into legal agreements with Ecology to begin the formal cleanup process. Find out more about these cleanups by visiting;

- **Tony's Short Stop (Grays Harbor Grange)**  
[http://www.ecy.wa.gov/programs/tcp/sites/tonys\\_shortstop/tonys\\_shortstop\\_hp.htm](http://www.ecy.wa.gov/programs/tcp/sites/tonys_shortstop/tonys_shortstop_hp.htm)
- **Whitney's Inc. (Key Bank)**  
[http://www.ecy.wa.gov/programs/tcp/sites/whitneys/whitneys\\_hp.htm](http://www.ecy.wa.gov/programs/tcp/sites/whitneys/whitneys_hp.htm)
- **Brumfield Twidwell**  
[http://www.ecy.wa.gov/programs/tcp/sites/brumfield/brumfield\\_hp.htm](http://www.ecy.wa.gov/programs/tcp/sites/brumfield/brumfield_hp.htm)

While cleanup work on these sites is underway, Ecology continues to investigate the larger area of contamination. Once the extent of contamination has been determined, Ecology will decide what cleanup actions should be taken to reduce and eventually eliminate contamination in both soil and groundwater.

Ecology is partnering with the State Department of Health to determine if any of the contamination presents a health risk to the community. Ecology will continue to keep the community informed as this investigation moves forward.

The purpose of this document is to provide a background on the investigation and summary of findings to date and to describe the next steps. If you need more information about this investigation, please contact an Ecology staff member listed to the right in the purple box.

### FOR MORE INFORMATION

#### Site Investigation

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**Ecology's Web Site**  
[http://www.ecy.wa.gov/programs/tcp/sites/montesano/montesano\\_hp.htm](http://www.ecy.wa.gov/programs/tcp/sites/montesano/montesano_hp.htm)

**Q: Why is the Department of Ecology studying contaminated soil and groundwater in downtown Montesano?**

**A:** Ecology has been working in Montesano for several years, investigating multiple sites contaminated with petroleum, particularly gasoline. Some solvents have also been found. Ecology wants to find out if pollution from the individual sites has combined and ensure that human health and the environment are protected. It is important to continue this investigation to determine the full extent of contamination and which areas need to be cleaned up.

**Q: What is the goal of the investigation?**

**A:** The overall goal of the project is to determine the full nature and extent of contamination. Gasoline is the primary contaminant found in groundwater below Montesano. Some diesel and solvents have also been discovered.

Results of the investigation will help Ecology determine how far the pollution extends and how much is present in groundwater and soil. The agency will then determine where cleanup action is needed and what steps need to be taken next. Ecology will work with the Montesano community to determine the best way to implement the cleanup actions in the downtown area.

**Q: Where did the contamination come from?**

**A:** Gasoline is the primary contaminant found in groundwater below Montesano. Some diesel and solvents have also been discovered. Montesano was once a major stop-over for motorists traveling to ocean beaches, and as a result, the city had a lot of gas stations. Many of these stations have closed down but some may have closed without properly removing fuel from their underground storage tanks. Some of these old tanks, along with others that belong to stations currently operating in downtown, may have leaked, contaminating the soil and groundwater. There could be other sources of contamination as well.

This investigation will help to identify where the contamination came from, and where it is going and determine if there are current sources. Montesano's situation is not unique. Ecology has worked in many other cities with similar histories and problems with gasoline-contaminated ground water.

**Q: What is Ecology going to do about the contamination?**

**A:** Once the full extent of contamination is established, Ecology will work to determine the best way to clean up the contamination and who will be responsible for paying for the cleanup. Some interim actions (partial cleanup actions) have already been taken to stop any additional releases of gasoline.

In addition to the groundwater investigation, Ecology is working with the potentially liable persons (also called PLPs) to determine if the soil and groundwater contamination presents a possible indoor air health threat to people using the buildings. When soil and groundwater contain volatile chemicals, like gasoline and solvents, some of those chemicals will evaporate and move as a gas through spaces in the soil. The gas

can then enter buildings that overlie the contaminated soil and groundwater through cracks or other openings in the foundation. This is called vapor intrusion.

The property owners, under Ecology oversight, will be conducting soil gas and indoor air testing in the near future to determine if overlying buildings are being affected. The specifics about that testing are being worked on. If contamination is found inside any building at levels of health concern, Ecology will work with the PLPs to make sure that the building is protected from further contamination. This might involve sealing up cracks in the foundation and crawlspaces or use of an air treatment system that will remove any contamination present in indoor air.

### **Q: Where is Ecology going to test indoor air?**

**A:** Ecology will select which buildings need testing based on data from the soil and groundwater investigation, as well as information gathered through a building survey. The buildings that are determined to be the most vulnerable to vapor intrusion will be the ones tested. Other buildings might be tested in the future if testing results suggest they might be at some risk. However, a decision cannot be made until the first samples are collected and evaluated.

### **Q: Will downtown businesses be impacted by the testing?**

**A:** Ecology will work with local business owners to minimize the impact of air testing on daily business. Air testing is not expected to interrupt normal business activities. The air sampling canisters only occupy about one cubic foot of space so testing is not expected to interrupt normal business activities. At businesses, testing will take eight hours and involve the placement of a small testing device in the crawlspace or basement and the first floor.

### **Q: What will happen during the sampling?**

**A:** Sampling will involve the placement of an air collection device (called a Summa canister) in the crawlspace or basement and on the first floor of each building tested. Sampling at businesses is typically done for 8 hours. In residential buildings (e.g., apartments, homes), sampling is done for 24 hours. After air is collected, the canisters will be removed and sent to the laboratory to be analyzed.

### **Q: When will the sampling occur?**

**A:** Ecology will require the Potentially Liable Parties to finalize and carry out the sampling plan. Ecology will work with them to get the sampling done as soon as possible.

**Q: What is the role of the state Department of Health (DOH) in this investigation?**

**A:** Ecology has asked the Washington State Department of Health (DOH) to assist them with the planning and evaluation of the vapor intrusion portion of the investigation. A DOH staff is also available to answer community health questions. Please contact Barbara Trejo if you have health questions at 1-877-485-7316 or email at [Barbara.trejo@doh.wa.gov](mailto:Barbara.trejo@doh.wa.gov).

**Q: What is the role of the Department of Ecology in this investigation?**

**A:** Ecology is the lead agency for the Montesano Groundwater investigation and cleanup. Ecology staff are working with the Montesano community and potentially liable persons (PLPs) to determine and implement the investigation and cleanup actions. Ecology will also keep the community informed about the progress of the investigation through regular updates (fact sheets), a Web page and public meetings. Visit the Montesano Groundwater Investigation Web site here: [http://www.ecy.wa.gov/programs/tcp/sites/montesano/montesano\\_hp.htm](http://www.ecy.wa.gov/programs/tcp/sites/montesano/montesano_hp.htm)

**Q: Is the city's drinking water safe?**

**A:** Yes. The city receives its drinking water from sources located outside of downtown, away from the contaminated groundwater. Local health officials say these sources of drinking water are safe.

**Q: Are private drinking water wells safe?**

**A:** Ecology is not aware of any private drinking water wells in or near the area of downtown Montesano where contamination of groundwater has occurred. Please contact Ecology if you are aware of remnant drinking water wells in or near downtown. Dom Reale (360/407-6266 or email at [drea461@ecy.wa.gov](mailto:drea461@ecy.wa.gov)) and Marv Coleman (360/407-6259 or email at [mcol461@ecy.wa.gov](mailto:mcol461@ecy.wa.gov)) are the Ecology staff contacts for this investigation.

**Q: How is this contamination affecting the environment?**

**A:** Ecology has not yet determined the full extent and impact the contamination is having on the environment. It is possible the contamination may be traveling from downtown to nearby wetlands and possibly into the Chehalis River. Results of the investigation to date have shown that the contamination may also be traveling through an abandoned underground sanitary sewer and the city's underground storm water system which lead to wetlands and the river.

Results of testing both the sanitary and sewer systems revealed some low levels of gasoline range chemicals and solvents in the base flow of the two systems. Baseflow is water that runs through both of the sys-

tems when there has been no rainfall. The water is just groundwater and does not contain any runoff from the streets. It is important to test the baseflow of the systems to make sure that only the contamination in the groundwater is measured and not any chemicals that might be coming from other sources.

**Q: Who is responsible for cleaning up the contamination? Who will pay for cleanup?**

**A:** Under state law (Model Toxics Control Act , Chapter 173-340 WAC), current and past property owners and operators are responsible for the cleanup of contamination on their property and any other properties impacted by the contamination. As a result of investigations completed to date, Ecology has identified three potentially liable persons (PLPs) that are responsible for cleaning up contamination on their individual properties and some areas beyond their property boundaries. Because the investigation is still underway, it's not clear yet what additional areas may be in need of cleanup. Ecology may identify additional PLPs after more data are analyzed.

**Q: What will happen if air in my building is found to be contaminated?**

**A:** If indoor air is found to contain the same chemicals found in soil and groundwater, the levels of those chemicals will first be compared to outdoor air levels. The reason we compare indoor air levels to outdoor air levels is because outdoor air, particularly in cities and towns, often contains low levels of volatile chemicals associated with everyday activities. These outdoor air levels can affect indoor air quality.

If indoor air levels are the same or similar to outdoor air levels, this tells us the chemicals are likely unrelated to the soil and groundwater contamination. If chemicals are found above outdoor air levels, and there is no indoor air source like solvent or paints stored in the building, the contaminated soil and groundwater is the likely source. In such a case, we will determine the level of health risk associated with those levels and decide if some steps need to be taken to reduce or eliminate the chemicals from indoor air.

There are several methods that could be used (some in combination) to reduce or eliminate contamination in indoor air. A device called a vapor vacuum system is one way to capture and prevent contaminants moving from the soil or groundwater into indoor air. In addition, steps could also be taken to reduce or eliminate the amount of contamination that is entering the building by sealing up crawlspaces, basements or any cracks found in the building's foundation.

**Q: Why do air testing now?**

**A:** The widespread soil and groundwater contamination was discovered in 2005. Since that time, Ecology has been working to determine the full extent and type of contamination. Because the con-

tamination is so widespread, the investigation has taken a couple of years. Information from this investigation was evaluated by Ecology and DOH who determined that there was a potential for vapor intrusion in several buildings in the downtown area.

In 1991, Ecology investigated reports of odors in indoor air at Key Bank (now Sterling Savings Bank) . Air testing confirmed the presence of benzene vapors in indoor air. Staff at the Bank did not file any additional complaints about the indoor odor.

In August 2006, a second investigation of indoor air at Kay Bank showed that there were low levels of gasoline and solvent contamination in indoor air. Ecology determined that more comprehensive testing should be done in this building, and possibly others. Ecology has not heard of any other indoor air quality complaints regarding this or other buildings since that time. Ecology has not, until recently, had enough information about the contamination to determine which buildings might need testing.

Cleanup has started on several properties while the investigation has been underway. After identifying three potentially liable parties, Ecology entered into legal agreements to begin cleanup on these properties. Although these cleanup sites are still under investigation, several interim actions (partial cleanup actions) have been taken to stop additional releases of gasoline.

### **Q: What happens next ?**

**A:** The next steps in this investigation include:

- Completing indoor air testing.
- Analyzing soil and groundwater data from individual cleanup sites and the nearby affected areas.
- Identifying any additional PLPs
- Determining which areas of the site will need cleanup.
- Evaluating which cleanup methods will be most appropriate.
- Requiring PLPs to design and begin appropriate cleanup measures.
- Continuing to monitor groundwater to ensure that the cleanup has been effective.

### **Q: How will the community be informed?**

**A:** Ecology will use several methods to keep the community involved and informed as the investigation and cleanups move forward. A Web site has been developed and contains up-to-date investigation information, [http://www.ecy.wa.gov/programs/tcp/sites/montesano/montesano\\_hp.htm](http://www.ecy.wa.gov/programs/tcp/sites/montesano/montesano_hp.htm). In addition, Ecology will mail updates periodically and hold public meetings when it is appropriate.

For the individual cleanup sites already established, public comment periods will be held for the Remedial Investigation and Feasibility Study Reports and the draft Cleanup Action Plans when they are available.

Ecology will also post legal ads in the local newspaper (Aberdeen Daily World) to announce public comment periods.

If you wish to be added to the mailing list, please send your name and address or email to Meg Bommarito, Public Involvement Coordinator at [mbom461@ecy.wa.gov](mailto:mbom461@ecy.wa.gov) or mail to Toxics Cleanup Program P.O. Box 47775, Olympia, WA 98504-7775.

**Q: Who can I contact for more information?**

**A:** Please see page 1 (inside the purple box) for a list of who to contact if you need more information or have questions.

**Q: What else can I do, in general, to improve the quality of my indoor air?**

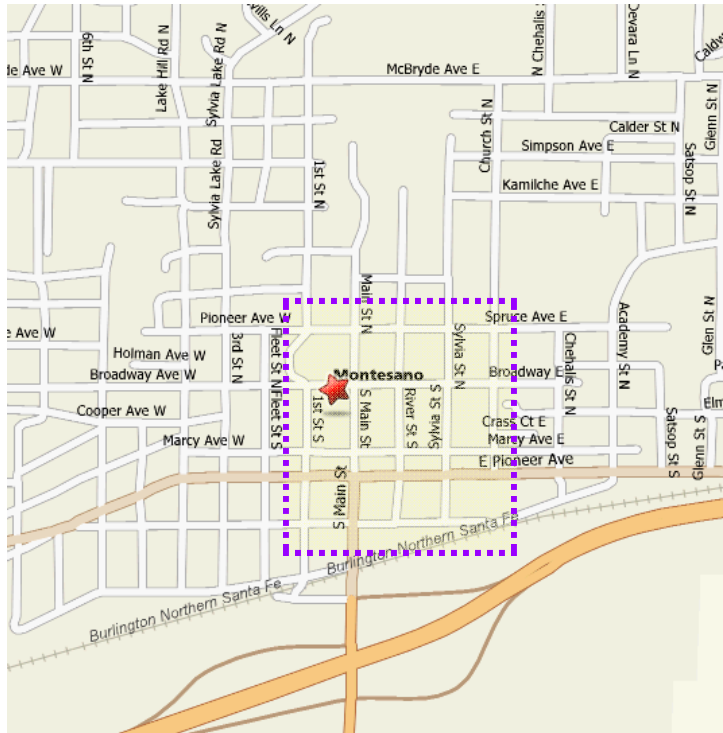
**A:** Occupants of buildings should ensure that indoor sources of volatile chemicals like paints, solvents, glues, and other chemical products are stored in sealed containers, preferably outside in a shed or other unoccupied building. The U.S. Environmental Protection Agency has a number of publications available to help businesses and residents improve their indoor air quality. Those publications can be found at <http://www.epa.gov/iaq/pubs/index.html>.



# Montesano Groundwater Investigation Montesano, WA

## Groundwater Investigation Update

If you need this publication in an alternative format, call (360) 407-6300. Persons with hearing loss, call 711 for Washington Relay Service. Persons with speech disability call 877-833-6341.



*Approximate investigation area*