

## ENVIRONS

### Developing Former Agricultural Land? Plan on Looking for Pesticides

An Environmental Law Update

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For real estate developers, yesterday's farms and orchards are tomorrow's industrial park, school or residential development. Redevelopment of former agricultural lands, as it turns out, is also a new focus for the Oregon Department of Environment Quality ("DEQ"). The reason for DEQ's new-found attention is that farms and orchards often contain traces of legacy pesticides that, although now banned, were legally applied to crops years ago. DDT, aldrin, chlordane and dieldrin, to name a few, are persistent organic pollutants that remain in soils just short of forever and potentially affect human health and ecological receptors. Bringing the pesticide issue front and center for Oregon developers and owners is a January 2006 DEQ guidance document entitled, "[Guidance for Evaluating Residual Pesticides on Lands Formerly Used for Agricultural Production](http://www.deq.state.or.us/lq/pubs/docs/cu/GuidanceEvalResidualPesticides.pdf)" (<http://www.deq.state.or.us/lq/pubs/docs/cu/GuidanceEvalResidualPesticides.pdf>).

#### **Pre-Guidance — Covered or Not Covered?**

Before DEQ issued the guidelines, sellers and buyers often were in the dark about how much to investigate for prior legal use of pesticides and, if they found residual pesticides, to what extent they would be required to conduct a cleanup. DEQ appeared to take the position that cleanup was necessary even if pesticides had been legally applied in the past, but it was willing to modify that approach if data showed residual pesticides did not present a risk of harm to potential receptors.

That's what happened in one transaction in which the author was involved. Our client planned to sell a large parcel of land near the Columbia River where previous users had grown row crops and apples for many years. The buyer's pre-purchase due diligence discovered that soil and groundwater samples contained pesticide residues (DDT and dieldrin). The buyer reported the findings to DEQ to determine if the residual pesticides were exempt from state cleanup requirements. DEQ concluded that its cleanup laws applied and ordered further investigation to evaluate potential risk to humans, terrestrial and aquatic biota.

The parties renegotiated the real estate deal to require the seller take over the pesticide assessment process and perform any potential remediation needed to obtain a No Further Action ("NFA") determination within one year after closing. In consultation with DEQ, the seller's consultant installed six groundwater monitoring wells on the site, and secured more soil and

water samples. Soil sampling again detected pesticides, but new water sampling had fewer pesticide detects, leading to the conclusion that earlier detects were caused by cross-contamination from surface soil being dragged down the borehole during boring operations.

The seller then proceeded with a two-stage risk assessment. First, the consultant prepared a conceptual site model of the potential exposure of humans and birds to pesticides in the site's soils. On the human exposure side, the consultant noted that maintenance or repair work could expose workers to the soil. The consultant also found an exposure pathway for terrestrial birds. Birds could be exposed to site soils containing pesticides through the food chain of bald eagles eating small soil burrowing mammals that in turn have eaten plants and earthworms that have bioaccumulated DDT from the soil.

In the second step, the consultant performed a screening evaluation. Using the EPA Region 9's Preliminary Remediation Goals ("PRGs") for Industrial Soil, the levels of pesticides in soils did not exceed the PRGs. That result ruled out any significant human health risk from exposure to soils. Because, however, the pesticide detects in soil samples exceeded DEQ screening level values for birds and mammals, the consultant performed a focused risk assessment of the potential pathway of birds exposed to pesticides in the site's soils.

Bald eagles were chosen as the species requiring protection with site-specific screening levels because of the amount of food eagles ate on the site and the potential for contaminants to build up through the consumption cycle. Applying these measures, the consultant concluded that site surface soil and groundwater pesticide concentrations did not exceed the bald eagle's protective screening level value and, therefore, did not present an unacceptable risk to bald eagles using the site. With this information, DEQ issued a NFA that resulted in closing the property sale.

### **More Oversight and More Investigations**

The DEQ guidance document, for the first time, clarifies many of the steps that our client took in the example above. In drafting this guidance, DEQ borrowed heavily from California's similar guidance, according to drafter Mary Camarata of the DEQ. With the issuance of the guidance, DEQ has set the stage for new levels of agency oversight and environmental due diligence. Phase I and II site assessments, as well as other DEQ-required site assessments, will need to investigate potential pesticides in the soil and groundwater of lands with an agricultural history. Once DEQ becomes involved in a site, which usually happens in the land development context when a party seeks a NFA determination from the agency, it is likely that DEQ will require sampling and, in some cases, focused risk assessment of residual pesticides.

- **DEQ Authority.** At the outset of the guidance, DEQ explains the legal basis for its power to require investigation and cleanup of sites containing legally applied pesticides. This authority, DEQ asserts, stems from OAR 240-122-003(2)'s provision that the state's hazardous waste rules apply to the "...deposition, accumulation, or migration [of hazardous substances] resulting from otherwise permitted or authorized releases." In other words, although a permitted pesticide application is otherwise exempt from state regulation under OAR 340-122-0073(d), once the pesticide accumulates in the soil or migrates, the state has authority to step in and impose its cleanup rules. Importantly, the

guidance makes clear that DEQ will only exercise this authority when a landowner proposes converting former agricultural land to non-agricultural development.

- **Limited Investigation of Adjacent Properties.** Parties will not need to investigate whether pesticide contamination extends beyond the property proposed for non-agricultural use if two conditions exist: (1) the to-be-developed property and its surrounding properties grew the same crops or likely used the same pesticides; and (2) the pesticide contamination on the to-be-developed property is due to deposition or accumulation of a legally applied pesticide, rather than an accidental release. If these two conditions are satisfied, DEQ will only require a party to evaluate pesticide contamination on the tax lots that will be used for the non-agricultural use. But DEQ may require a party to evaluate both on-site and off-site pesticide contamination if data shows the likelihood of an accidental spill; unusually high concentrations of pesticides; or other site-specific factors that support an off-site investigation.
- **Assessment Guidelines.** The guidance offers specific instructions on how parties should investigate sites for historical pesticide usage, namely: interview people with knowledge about the site's agricultural operation and pesticides uses; identify areas where pesticides were stored and application equipment cleaned; search for evidence of spills or releases; and contact local agricultural extension agents for information about crops grown and pesticides used in the area.

If Phase I evidence suggests the likely presence of persistent pesticides, then the party will need to conduct Phase II sampling of soils and groundwater if pesticides are likely present in groundwater. The number of soil samples required will vary with the history of the site and the nature of the proposed new use, with more sampling required for residential or school developments, and less for industrial/commercial reuse. The guidance provides tables of default sampling schemes, based on the size of the property and the nature of the proposed reuse. Parties will also have to collect samples from any ditch, stream, swale or other surface water body where evidence suggests pesticides may have accumulated.

- **Risk-Based Cleanups.** DEQ will use risk-based decision making to determine if pesticides need to be cleaned up or managed to reduce risk. If contaminant levels are above background, DEQ will compare the pesticide levels to EPA Region 9's preliminary remediation goals ("PRGs") and DEQ's risk-based concentrations ("RBCs") to evaluate whether the contaminants pose unacceptable risks to humans.
- **Ecological Evaluation.** According to the guidance, evaluation of ecological risk — potential risk to other species — will not be required unless the site includes wetlands, ponds or other significant natural habitat. In those circumstances, DEQ will require a Level I Scoping Assessment to assess whether ecological receptors or exposure pathways are present at the site. Further ecological assessment may be required if receptors are found on the site and exposure pathways exist between the receptors and contaminants.

- The new pesticides guidance undoubtedly will shed more light on the often murky history and legacy of pesticide use in Oregon. While the guidance is helpful in outlining the steps DEQ will require parties to take when preparing assessments of former agricultural lands for non-agricultural development, it necessarily means that developers and owners of former farms and orchards will have to evaluate the historical pesticide usage as a new element of their due diligence, at greater expense.

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