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## **Sylvania Task Force Report to the Waldoboro Select Board**

### **Brief Timeline**

1951 GTE purchased the facility and property, which was formerly a shoe factory. GTE began releasing contaminants (spent solvents) before the Clean Water Act and other laws were in place.

1988 - The Maine Department of Environmental Protection (DEP) issued a consent order to GTE requiring it to investigate and remediate hazardous waste contamination at the site. The property was transferred to OSRAM/SYLVANIA after 1990.

2006 - Manufacturing ceased.

2009 - Buildings taken down.

2017 - Site transferred from OSRAM Sylvania to LEDVANCE.

March, 2017 - Sylvania Task Force formed.

February, 2018 - Environmental Covenant placed on property (still needs to be finalized).

Summer, 2018 - Two new monitoring wells installed on former Hoffses property.

### **Background**

The former Sylvania site, now owned by LEDVANCE, is classified by the US Environmental Protection Agency as a RCRA Corrective Action site. These are facilities which treated, stored or disposed of hazardous wastes. The owner is required to clean up environmental contaminants released into soil, ground water, surface water and air under the Resource Conservation and Recovery Act (RCRA). In this case, it is the Maine Department of Environmental Protection that develops a remedy and reviews periodic engineering reports to make sure the remedy is adequate and is being complied with. In summary, the remedy for the LEDVANCE site requires that the source to groundwater and soil be controlled such that further migration will not occur, and for the impacts that remain on soil and groundwater, and human and ecological health are addressed through an Environmental Covenant, which is a land use restriction that runs with the land (e.g., no residential use, no ground water use, no digging without a soil management plan).

There are two types of known contaminants on the LEDVANCE site. The first contaminant type, one that has been of most concern to Maine Department of Environmental Protection, is chlorinated solvents. DEP has required a certain level of remediation for many years, consisting of soil vapor extraction and air stripping of groundwater, both of which continue to this day. Analyses of samples extracted from recently installed monitoring wells indicate that contaminated waters flow west, toward

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the Medomak River and not toward drinking water wells. The analyses also indicate that overall contaminant levels fluctuate from year to year, with no significant downward trend evident in the extraction wells or in all bedrock monitoring wells for which there is sufficient trend data. The trends in the bedrock wells indicate that the source of contaminants is not being reduced by the remediation process over time. In addition to the temporal trends, the horizontal and vertical boundaries of the plume defined by an exceedance of one or more regulatory standards are not known. It is not possible to determine whether or not contaminants are migrating off site because there are no clean sentinel wells. In short, the Task Force is not convinced that the current remedy is sufficient.

The second contaminant type includes several inorganic elements, notably molybdenum, which was used in Sylvania's manufacturing process. Molybdenum is not considered toxic to humans, plants or animals, but its concentrations at certain locations are relatively high. Other elements of potential concern are present, but at concentrations similar to those often found naturally.

The current remedy is "risk-based," which means appropriate engineering and institutional controls have been put in place so that there is no adverse human and ecological exposure. There are three ways humans could potentially be exposed to contaminants at this site. First is exposure to groundwater through direct contact and ingestion. Second is exposure to solvent vapors emanating from groundwater and soil contamination. Third is exposure to soils impacted with natural or introduced metals in and around the former manufacturing buildings and former landfills. All of these pathways are voided by imposing an appropriate Environmental Covenant on the property that maintains the engineering controls and prohibits future residential use, use of groundwater except for the purposes of remediation and monitoring, soil disturbance, and other uses.

One type of potential ecological exposure pathway on the site is from inorganic contamination via direct uptake of molybdenum in benthic aquatic and marine organisms (e.g. clams). While this pathway has been discounted by the DEP, there is no confirmatory soil or sediment data, in particular along upland drainage courses (former and current) and at their marine discharge points (delta deposits).

### **Future Uses**

An Environmental Covenant was placed on the property on February 21, 2018. It maps three restricted areas and, pending additional investigation, a fourth restricted area in the southwestern quarter of the property (the two new monitoring wells are located in this fourth area). The Covenant specifically prohibits residential use, long term care facilities, schools or educational institutions, and child care facilities anywhere on the property. Extraction of groundwater for any purpose is also prohibited without advance written permission from Maine DEP. In "restricted areas," the following key provisions are prohibited without advance written permission of the DEP and the Grantor (currently

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LEDVANCE): 1) excavation, drilling, digging, or cutting of surface soils or subsurface soils, 2) disturbing the cap or cover of the landfills, area of former surface impoundments, disturbing or removing the slab, and activities that may interfere with groundwater extraction and treatment, and 3) temporarily or permanently placing any buildings, structures, or equipment on the property. *Note that the Covenant language goes into more detail.*

Because contamination will continue to exist for the foreseeable future, only low intensity uses of the site are recommended by the Sylvania Task Force, and indeed will only be permitted by DEP. In our view, the leading contender for productive use of the site is a solar farm. This option would create beneficial environmental impacts by generating clean electric power which could be sold to the Town, Medomak Valley High School, or other entities at favorable rates.

If the energy were used to supply the school system, low cost electricity would ultimately reduce the Town's annual payments to the school. The Task Force assumes that the property would be leased by a private enterprise and recommends that the town not take part in any activities directly on site to eliminate the risk of assumed liability. The Town and the High School would need to research whether purchase of power brings any assumption of risk.

If a private enterprise leases the site from LEDVANCE for a solar array, we ask that it work to screen the array with vegetation to reduce visual impacts, particularly to abutters.

The Hoffses house, which is historically significant, is falling into disrepair. LEDVANCE told us last year that they were considering selling the house. We don't know if the property can be sold with the house, given the restrictions in the Environmental Covenant.

#### **Recommended Board/Town Actions Going Forward**

We recommend that the Select Board and Town request that the DEP take the following actions:

1. Amend the Environmental Covenant to allow installation of a properly engineered solar array (or other similar use) in restricted and unrestricted areas.
2. Specify whether some form of surface cap intended to limit water infiltration through the former source area is a formal component of the current remedy, and if so require LEDVANCE to properly design and maintain such a cap, including a surface water management plan. *We do not know if the existing infrastructure is part of the remedy, e.g., is the cap considered a preventative measure for preventing infiltration through the former source area?*
3. Require LEDVANCE to install additional bedrock sentinel wells to determine the outer limit of the solvent plume. *(Is it moving onto abutting land?)*
4. Require LEDVANCE to continue monitoring the existing and new sentinel wells on a more frequent basis until such time as known contamination has been reduced to all relevant State and Federal regulatory standards.

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5. Require LEDVANCE to conduct shallow soil samples along upland drainage courses (former and current) and at their marine discharge points (delta deposits) to determine presence/absence of contaminants.
6. Require LEDVANCE to conduct a baseline benthic study of aquatic and marine sediments adjacent to surface water discharge points, focusing on known site contaminants.

We recommend that the Select Board and Town request that LEDVANCE take the following action:

Sell the historically significant Hoffses house (assuming it can include a small lot) or remove it and allow the land to reforest. We don't know if it is too damaged to restore at this point. As far as we know, LEDVANCE has no legal obligation to do this, but it would demonstrate civic responsibility as a Waldoboro landowner/taxpayer and a good working relationship with the town. *(Are there steps the town can take to enforce productive reuse of the property?).*

#### **Next Steps for the Task Force**

Determine whether any financial risks will be assumed by the Town or the school by agreeing to purchase power from a solar project located on the site.

Regularly review all Sanborn Head monitoring reports (with guidance of remediation expert, Joseph Guarnaccia).

The Task Force agreed that town representatives should meet with the new DEP commissioner to discuss 1) the paramount importance of the water and sediment quality of the Medomak River to Waldoboro's economy and our concerns that the LEDVANCE site is a potential threat to the estuary, and 2) how to expedite conversion of the site to a productive use and eliminate the visual blight so close to the town center.

Julie Keizer and Bob Butler will schedule a meeting with DEP staff in May.