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**Delaware Department of Natural Resources
and Environmental Control**

PROPOSED ORCHARD AND GOLF COURSE LEGISLATION

PROTECTING PUBLIC HEALTH AND THE ENVIRONMENT

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What does the proposed legislation mean?

There are over 40 commercial golf courses and 10 orchards located in Delaware. Currently, when a commercial orchard or golf course closes and the land use changes, there is no requirement to compel the seller or the prospective developer to investigate the property for harmful levels of herbicides, pesticides or fertilizers. Orchards and golf courses typically have high residual concentrations of these substances that, without cleanup, may make them unsuitable for non-agricultural use (e.g., homes, parks, food gardens, or daycares, schools, and playgrounds).

The majority of these properties are assumed to be excluded from Delaware's Hazardous Substance Cleanup Act (HSCA) requirements to investigate and remediate potential hazardous substance releases that could impact public health, welfare and the environment, due to a clause in the HSCA regulations that excludes properties with "the appropriate application of fertilizer and pesticide."

What will the proposed legislation do for Delaware?

The proposed legislation will remove the exclusion from HSCA requirements when a commercial orchard or golf course ceases to operate and the land use changes to anything other than agricultural use. By making these sites subject to HSCA, DNREC will have the authority to protect public health and the environment. The HSCA fund was created in 1990 for the purpose of addressing hazardous substance release sites in Delaware when a responsible party cannot be found, or is not able to remediate the contamination, or refuses to do so.

How would the legislation be implemented?

The legislation will involve a statutory change to amend Chapter 91, Title 7 of the Delaware Code relating to the Hazardous Substance Cleanup Act.

What's the likely impact to businesses and the public?

Brownfield developers and the public will want to be assured that commercial orchard and golf course sites are free of harmful contamination and liability concerns from past releases prior to redevelopment. With the proposed legislation, should harmful contaminant levels be discovered, prospective developers of Brownfields would be eligible for investigation and cleanup of the contamination under the State's HSCA fund and the Brownfields Development Program. The Voluntary Cleanup Program would be available to current owners interested in cleaning up and redeveloping their commercial orchard or golf course properties.

Please see the back of this fact sheet for more information.

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DNREC Office of Environmental Protection

Proposed Orchard and Golf Course Legislation continued....

Profile of a closed golf course site redeveloped for residential use:

The former Delaware National Golf Course is located on Hercules Road in Wilmington. A portion of the golf course was purchased by a developer who wanted to construct new homes on the site. However, preliminary soil sampling indicated potential widespread contamination.

Although assumed to not have been subject to HSCA requirements, the developer volunteered to perform an investigation and cleanup that would meet HSCA standards and protocol to ensure the highest level of cleanup for the property. The developer followed the substantial requirements of DNREC's Voluntary Cleanup Program to investigate the presence of pesticides, fertilizers and other hazardous substances on the first portion of the property targeted for new homes.

Following the investigation, DNREC helped prepare the proposed plan of remediation, which included excavation and removal of contaminated soil from tees, greens and maintenance areas. Some areas were also identified for treatment by soil blending. Remediation of the initial portion of the property has been completed and the developer has begun building the housing development. All of the environmental contamination identified on the property was attributed to past golf course operations.

Profile of a closed orchard redeveloped for residential use:

A resident in a new development located in Sussex County contacted DNREC regarding arsenic-contaminated soils in her backyard. The property had been historically used as an apple orchard, and when purchasing the property, the resident had been asked to sign a waiver from the developer indicating that she was aware of elevated arsenic levels in her backyard. The arsenic levels were almost twice as high as the current HSCA standard for arsenic in residential soils. DNREC had not been previously contacted by the seller or purchaser of the property to disclose the elevated arsenic concentrations due to the HSCA exclusion.

Orchards historically used a variety of pesticides and fertilizers that may have contained arsenic. Even when properly applied, these chemicals may accumulate and become harmful to human health and the environment. The potential increase in concentrations over the years represents an increased risk to human health and the environment, especially in a residential setting, and are significantly harder and more expensive to remediate once the property has been redeveloped.

**For more information on the proposed orchard
and golf course legislation, please call or e-mail:**

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