

Thank you Chair Fagan and members of the committee.

I'm Representative Lew Frederick, House District 43, North and Northeast Portland, here to speak in support of HB 3052 regarding biodegradable lubricants.

The ideas behind this bill came from one of my constituents, Chip Shields. He works for a company that includes a product line of biodegradable lubricants, and since he has a conflict, he brought the idea to me to consider in the House. He helped me understand this issue and assemble my testimony for today.

Over the past 25 years, there have been significant advances in the technology and performance of biodegradable lubricants.

For example, Penn State University has used biodegradable hydraulic fluids in its mobile equipment and elevators since 2003. Their maintenance department has found, "The biodegradable hydraulic fluids have performed well, with no performance problems related to their use. No additional maintenance, such as filter changes, has been required. Analysis has shown a *decrease* in friction and wear compared to petroleum-based hydraulic fluids, no change in viscosity, and no oxidation."

Virtually all of the major and many minor lubricant manufacturers carry lines of biodegradable lubricants today, particularly in the hydraulic fluid product lines. I will submit my prepared remarks for the record, and include links to technical data sheets of Chevron Clarity, Mobil EAL and Shell Naturelle.

Today, construction companies are sometimes required to use biodegradable lubricants in environmentally sensitive areas. But there is much confusion among the Army Corps of Engineers, the EPA, the Coast Guard, ODOT and DEQ about what is environmentally acceptable in lubricants. Oregon law doesn't do anything to cut through it, either.

And because of that confusion, there is a lot of misinformation on construction sites about what *is* an environmentally acceptable lubricant. That's because there are different standards of biodegradability. There's a "readily" biodegradable standard. There's an "inherently" biodegradable standard. There's a "primary" biodegradation standard. There's an "ultimate" biodegradation standard. There are ASTM tests. There are OECD tests. There are EPA tests. There's a question as to whether bio-based products should be subject to the same "sheen rule" as petroleum products to determine whether spills are reportable. Companies need clarity regarding the appropriate standards for a given application or setting. There is currently no definition or standard in Oregon statute for "biodegradable" or "biodegradability" as it relates to hydraulic fluids or lubricants. That means that finding a standard to apply is convoluted and imprecise.

But if these bio-based products are good for the environment in "environmentally sensitive areas", aren't they good for all of Oregon's lands and soils?

The reason this issue is important for all of Oregon's lands is that hydraulic hoses and seals, which are common in mobile construction equipment, are notorious for leaks and blowouts. It has been estimated that up to 60 percent of all lubricants are not recycled, and that a large portion of the lubricant deployed ends up polluting our environment, often in ways that are not isolated or static.

It should be noted that for *engine* oil, the technology is not quite there. At this time, re-refined and synthetic engine oils are the most environmentally safe, not biodegradable oil.

Biodegradable lubricants do cost more up-front, but they require less expensive clean up and usually generate less in fines assessed from

environmental regulators. In other words, regulators reward construction companies for using biodegradable products when environmental clean-ups are required.

Those construction companies that do the right thing and choose to use biodegradable lubricants may be disadvantaged in the bidding process on state-sponsored projects as things stand today, due to the higher up-front cost.

- So the first part of the bill is to require biodegradable products on Oregon state-owned construction projects to better protect the environment.
- The second part is to instruct the state to bring stakeholders and scientists together to make rules about what standards construction companies should use. This will help construction companies cut through the claims of oil distributors, making them less dependent on vendors for information.

So, the technology exists. Biodegradable products perform well, meeting the specifications of the overwhelming majority of mobile construction equipment in most applications.

It will be good for ALL Oregon land and water. And it will help construction companies clarify claims made by oil distributors.

I urge your to support of HB 3052, ask you to schedule it for a work session, and ask you to forward it to the House Floor with a do pass recommendation.

Shell's biodegradable products

[http://www.shell.com/global/products-services/solutions-for-businesses/marine-products/products/lubricants/naturelle.html#textwithimage\\_0](http://www.shell.com/global/products-services/solutions-for-businesses/marine-products/products/lubricants/naturelle.html#textwithimage_0)

Chevron's biodegradable products

<https://cglapps.chevron.com/msdspds/PDSDetailPage.aspx?docDataId=407659&docFormat=PDF>

Mobil's biodegradable products

<http://www.ingelbeen.be/en/mobil-products/p/detail/mobil-eal-hydraulic-oil-32-48>

Penn State and green lubricants

[http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CC8QFjAA&url=http%3A%2F%2Fwww.research.psu.edu%2Fcapabilities%2Fdocuments%2Fbiohydraulic.pdf&ei=7h32VOCTOIagyQTs9YG4Cw&usg=AFQjCNH5FrR\\_0Y5x7dpdotm95B3wDJCAJg&bvm=bv.87519884,d.aWw](http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CC8QFjAA&url=http%3A%2F%2Fwww.research.psu.edu%2Fcapabilities%2Fdocuments%2Fbiohydraulic.pdf&ei=7h32VOCTOIagyQTs9YG4Cw&usg=AFQjCNH5FrR_0Y5x7dpdotm95B3wDJCAJg&bvm=bv.87519884,d.aWw)