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## Transportation Committee

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### HB 1403

**Brief Description:** Addressing the detection of motorcycles and bicycles at vehicle-activated traffic control signals.

**Sponsors:** Representatives Williams, DeBolt, Rolfes, Hinkle, Upthegrove, Blake, Moeller, Newhouse, Takko, Green, Walsh, Short, Haler, Kelley, Hurst, Van De Wege, McCune, Kristiansen, Condotta, Warnick, Hunt, Goodman, Johnson, Simpson and Sullivan.

<p style="text-align: center;"><b>Brief Summary of Bill</b></p> <ul style="list-style-type: none"><li>• Requires vehicle-activated traffic control devices to routinely and reliably detect motorcycles and bicycles.</li></ul>
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**Hearing Date:** 2/5/09

**Staff:** Christie Parker (786-7322)

**Background:**

Vehicle-activated traffic control devices cause signals to change when a vehicle is present. Most vehicle detectors are copper wires ("loops") embedded just below the pavement of intersection approaches. The signal controller has electronic equipment that creates a magnetic field above the loop detector. When a vehicle passes over the loop, the change in magnetic field is detected and processed by the signal controller. This allows the traffic signal to be operated based on vehicle demand.

These detectors can be adjusted for different vehicle types, including trucks, passenger automobiles, motorcycles, and bicycles. Modifying the sensitivity of the detector adjusts the amount of change in magnetic field necessary for the detector to identify a vehicle. While lower sensitivity can mean that sensors do not detect motorcycles and bicycles, higher sensitivity has the potential to increase false vehicle detection. City, county, and state transportation agencies are responsible for ensuring the loop detectors work.

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*This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not a part of the legislation nor does it constitute a statement of legislative intent.*

The Washington State Department of Transportation (WSDOT) owns about 1,040 vehicle-activated traffic control signals, all of which can be adjusted to detect motorcycles and bicycles. The WSDOT does not currently evaluate whether signals reliably detect motorcycles and bicycles as part of its routine maintenance and monitoring of traffic signals. Washington cities are responsible for about 3,734 intersections with vehicle-activated traffic control signals; counties are responsible for about 1,643.

**Summary of Bill:**

The bill states the following:

- existing vehicle-activated traffic control signals must be adjusted to detect motorcycles and bicycles within four years of enactment;
- vehicle detection areas must be clearly marked on the pavement if the detector is anywhere but in the center of a lane and immediately before the stop bar or crosswalk;
- vehicle-activated traffic control signals that are design-complete and placed in operation after enactment must be designed and operated to reliably detect motorcycles and bicycles;
- replaced and substantially upgraded vehicle-activated traffic control devices must reliably detect motorcycles and bicycles. On arterials and bicycle routes, "substantially" upgraded means that the cost of the upgrade is more than 15 percent of what the cost would be to completely replace the equipment or provide updated equipment that detects bicycles and motorcycles. On other routes, "substantially" upgraded means that the cost is more than 50 percent of what the cost would be to completely replace the equipment or provide updated equipment that detects bicycles and motorcycles.

"Bicycles" are defined as human-powered vehicles with metallic wheels at least 16 inches in diameter or with metallic braking strips and components. "Motorcycles" are defined as motor vehicles with no more than three wheels ridden by a driver astride the motor or power train and designed to be steered with a handle bar.

**Appropriation:** None.

**Fiscal Note:** Available.

**Effective Date:** The bill takes effect 90 days after adjournment of the session in which the bill is passed.