

# Puget Sound Clean Cars Stormwater Partnership Working Group Meeting

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Ken Zarker, Washington State Department of Ecology  
Tom Lewandowski, Gradient  
Keith Wilson, SAE International

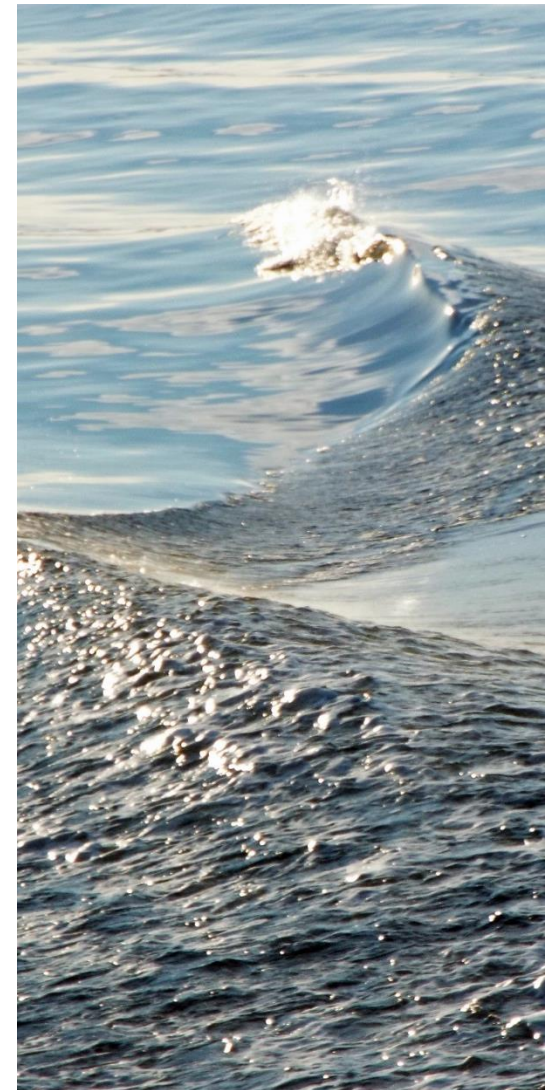
Wednesday September 6, 2017

# Working Group Organization Chart

Area of Expertise	Contact Name	Affiliation
Academic/Research	Ed Kolodziej	University of Washington - Tacoma
	Michael Smith	Clover Park Technical College
	Sagi Hemi	Advanced Test Concepts
	Jen McIntyre	Washington State University
Automotive design, manufacturing, maintenance and repair	Sheila Andrews/Tom Tucker	Auto Care Association
	Marcel Halberstadt	Independent consultant; SAE
	Laurie Holmes	Motor & Equipment Manufacturers Association (MEMA)
	Dan Selke	Mercedes-Benz USA, LLC
Government	Ken Zarker	Dept. of Ecology
	Bill Malatinsky	Seattle Public Utilities
	Elsa Pond	WS DOT
NGO	Andy Gregory	Puget Soundkeeper
	Tere Carral	Bridge Latino
Operations Team	Tom Lewandowski	Gradient
	Keith Wilson	SAE

# Web Meeting Agenda

- Progress Update – web site, project materials, literature searches
- Meeting Focus: Research & Information Gathering
- Draft Report Outline
  - Discuss opportunities for Working Group member contributions
- Questions & Open Comments
- Next Steps and Follow Up



# Progress Update: Project Materials

- Second Working Group Meeting held June 20
- Project materials available for download from Ecology's website: <https://fixcarleaks.org/clean-cars-partnership/>
  - Working group meeting minutes, slides, and video
  - Newsletters #1 and #2
  - Project organization chart
- Newsletter #3 issued September 2017
  - Will be posted to Ecology's website

# Draft Report Outline

## Section 1.0: Introduction

1. Background
2. Scope
3. Vehicle Leak Data – sources of leaks, frequency and volume of leaks
  - What's been detected, what fluid types and chemicals are of concern, *etc.*
    - Halberstadt, Hemi, Gregory, Pond, Ecology
4. Potential environmental and human health impacts of automobile leaks
  - Includes qualitative discussion of other potential stormwater impact sources
    - Kolodziej, McIntyre, Gradient, Ecology

# Draft Report Outline

## Section 2.0: Current Automotive Design and Maintenance Practices Related to Leaks

1. Current automotive designs relevant to automobile fluids (gasket and seal technologies)
  1. Design features to prevent fluid leaks
  2. Design features to provide warning of fluid leaks
    - Selke, Halberstadt, Holmes, Hemi, outside interviews
2. Current maintenance efforts related to automobile leaks
  1. Practices carried out by professional repair facilities
  2. Differences between professional and DIY repair
    - Smith, Hemi, Andrews, Tucker

# Draft Report Outline

## Section 3.0: Approaches to Reduce Vehicle Leaks

### 1. Innovative technologies and onboard diagnostics

- Gaskets, seals, leak detectors, *etc.*
  - Halberstadt, Hemi, Holmes, Selke, Andrews

### 2. Approaches to reduce impacts of vehicle leaks

- Stormwater management systems, filtration systems, *etc.*
  - Pond, Gregory, McIntyre, Kolodziej, Ecology

# Draft Report Outline

## Section 4.0: Safer Chemical Alternatives

### 1. Chemical composition of vehicle fluids

- Halberstadt, Hemi, Holmes, Selke, Andrews, Tucker, Ecology

### 2. Review of GADSL for chemicals related to lubricants, gaskets, seals, adhesives, or other products released from vehicles to stormwater

- Comparing hazards of various lubricants and solvents
- Evaluating new lubricant products
  - Selke, Halberstadt, Hemi, Holmes Andrews, Tucker



# Draft Report Outline

## Section 5.0: Drivers and Barriers to Preventing Vehicle Leaks Using Automotive Technologies

1. Institutional drivers/barriers (adaptability of design and manufacturing processes)
  - Halberstadt, Hemi, Holmes, Selke, Andrews, Tucker
2. Regulatory drivers/barriers
  - Ecology, Malatinsky, Pond
3. Market drivers/barriers
  - Halberstadt, Hemi, Holmes, Selke, Andrews, Tucker, Carral

# Draft Report Outline

## Section 6.0: Case Studies of Successful Efforts

### 1. Incentives to accelerate efforts to reduce vehicle leaks using automotive technologies

- Halberstadt, Hemi, Holmes, Selke, Carral, Andrews Malatinsky, Pond, Ecology

### 2. Case studies of successful efforts

- Local efforts (*e.g.* municipal policies, Don't Drip and Drive, *etc.*)
- State level initiatives (*e.g.* California, Missouri, Tennessee, *etc.*)
  - Ecology, Malatinsky, Smith, Pond

# Next Steps

- Confirm technical data gathering assignments and proposed timeline for completion
- Gradient/SAE to obtain already identified references (where possible)
- Working group members – send in references/contacts for key sources of information
- Gradient/SAE to develop draft text for each report section to provide to WG members
- WG members conduct initial review
- Poll for next web meeting date (~December)

