The Northwest Environmental Training Center presents:

**The MTCA 101 Workshop**

*Introduction to the Model Toxics Control Act (WAC 173-340)*

Course ID: WAPOL-401

April 16, 2008, 8:30 A.M. to 5 P.M.

Heritage Hall
Thurston County Fairgrounds
3054 Carpenter Rd SE
Lacey, WA 98503

**Instructors:** Pete Kmet, P.E., Washington State Department of Ecology
Priscilla Zieber, M.S., Integral Consulting, Inc.

**Course Description:** The objective of this one day workshop is to introduce environmental consultants, federal, state and local government staff, and members of the general public to Washington’s Model Toxics Control Act (WAC 173-340). This workshop will provide an overview of the MTCA administrative requirements and the associated cleanup standards. Participants will also learn the MTCA remedy selection process and public involvement requirements. Both instructors have a deep and thorough understanding of MTCA and will set aside time to answer questions at the end of each topic.

*This course is immediately followed by the two-day WAPOL-402: Establishing MTCA Cleanup Levels Workshop.*

**About the Instructors:** Pete Kmet is a senior environmental engineer in Washington State Department of Ecology’s Toxics Cleanup Program—Policy and Technical Support Unit. Mr. Kmet has extensive experience with site remediation and has been a key participant in the development of numerous MTCA legislation amendments, and related rules, policies and technical guidance. He has presented at numerous MTCA workshops throughout the state. Mr. Kmet also serves on the City Council of Tumwater.

Priscilla Zieber is an expert in the fields of risk assessment, risk management, and risk communication. She has over 20 years of experience in the fields of risk assessment, toxicology, and hazardous waste. She has taught classes on the 2001 MTCA revisions and has applied the MTCA rule at numerous cleanup sites.

**COURSE TOPICS**

| Overview of MTCA and the 2001 Rule Amendments | Proposed MTCA Amendments for Contaminant Mixtures |
| Rule Authority | Points of Compliance |
| Reporting Requirements | Overview of Terrestrial Ecological Evaluations (TEE) |
| Public Involvement Requirements | Protection of Groundwater - Soil Leaching Models |
| Remedy Selection Process | Residual Saturation Concentrations |
| Cleanup Standards, Cleanup Levels, and Remediation Levels | Vapor Pathway Evaluation |
| Overview of Method A, B, and C Cleanup Levels for Soil, Surface Water, and Groundwater | Special Requirements for Petroleum Sites |
| | Compliance Monitoring |
Intended Audience: This course is intended for environmental professionals and other professionals seeking an improved understanding of the Model Toxics Control Act.

Course Materials: Attendees will receive a binder containing the workshop proceedings and reference material.

Course Credit: 0.7 Continuing Education Units (CEU's)

Registration:
WAPOL-401: $235, *$195  
WAPOL-402: $450, *$375  
This course has a prerequisite: Introduction to MTCA (WAPOL-401) listed above.  
WAPOL 401 & 402 with an additional $90 discount reflected: $595, *$480

(*Discount for Native American Tribes; nonprofits; government; students; teachers; and NAEP, NWAEP, and NEBC members). You may register via the link below or by calling the Northwest Environmental Training Center at (206) 762-1976.

Cancellation Policy: Registration fees are fully refundable up to 30 days prior to the event and 50 percent refundable (or 100% credit) thereafter up to the day prior to the event. Registration may occur up to the day prior to the event provided that space is available.
The Northwest Environmental Training Center presents:

**The MTCA Cleanup Levels Workshop**

**Establishing Soil, Groundwater, and Surface Water Cleanup Levels Under the Model Toxics Control Act**

Course ID: WAPOL - 402

April 17 - 18, 2008, 8:30 A.M. to 5 P.M.

Heritage Hall

Thurston County Fairgrounds

3054 Carpenter Rd SE

Lacey, WA 98503

**Instructors:** Priscilla Zieber, M.S., Integral Consulting, Inc.
Pete Kmet, P.E., Washington State Department of Ecology

**Course Description:** This course provides attendees with an in-depth understanding of the procedures for establishing cleanup levels and points of compliance under the Model Toxics Control Act (WAC 173-340). The course covers procedures for establishing cleanup levels using Methods A, B, and C for groundwater, surface water, and soil, including a discussion of recent rule revisions related to dioxins/furans, PCBs, and carcinogenic PAHs. Included is discussion of applying the terrestrial ecological evaluation process to soils at sites. The course will also include an overview of Washington State Department of Ecology's three - and four-phase partitioning models and use of leaching test methods for determining soil concentrations that are protective of groundwater. Attendees will have an opportunity to walk through the process of establishing cleanup standards using case studies. Both instructors have a deep and thorough understanding of MTCA and will set aside time to answer questions at the end of each topic.

*This course has a prerequisite - WAPOL-401: Introduction to the Model Toxics Control Act.*

**About the Instructors:** Pete Kmet is a senior environmental engineer in Washington State Department of Ecology's Toxics Cleanup Program—Policy and Technical Support Unit. Mr. Kmet has extensive experience with site remediation and has been a key participant in the development of numerous MTCA legislation amendments, and related rules, policies and technical guidance. He has presented at numerous MTCA workshops throughout the state. Mr. Kmet also serves on the City Council of Tumwater.

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**COURSE TOPICS**

<table>
<thead>
<tr>
<th>Hands-On Case Studies and Questions (integrated throughout workshop)</th>
<th>Direct Contact Soil CULs</th>
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<tbody>
<tr>
<td>Process for Reaching No Further Action</td>
<td>Modeling the Leaching Pathway (3- and 4-phase models)</td>
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<tr>
<td>Conceptual Site Model Development for MTCA</td>
<td>Vapor Pathway and Dermal Contact (applicability, how to evaluate)</td>
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<tr>
<td>Land Use and Beneficial Uses of Groundwater and Surface Water</td>
<td>Determining Residual Saturation Concentrations</td>
</tr>
<tr>
<td>Applicability of Methods A, B, and C</td>
<td>Terrestrial Ecological Evaluations (TEE) - Simplified, Site-Specific, and Exclusions</td>
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</tbody>
</table>
Identifying Indicator Hazardous Substances (screening levels, frequency of detection, natural background concentrations)

Surface Water CULs (ARARs, Equations) and Points of Compliance (POCs)

Groundwater CULs (ARARs, Equations, Protection of Surface Water) and POCs

Determine POCs for Soil

Evaluating Compliance with CULs (direct comparison, 3 part statistical rule)

Determining Whether Institutional Controls are Required

Overview of Proposed Amendments: clarifying cleanup levels for mixtures of dioxins/furans; carcinogenic PAHs, and PCBs

Intended Audience: This course is intended for environmental professionals seeking an improved understanding of the establishment of cleanup levels under MTCA.

Course Materials: Attendees will receive a copy of the course proceedings, reference materials, and a certificate of completion.

Course Credit: 1.3 Continuing Education Units (CEU's)

Registration:
WAPOL-401: $235, *$195
WAPOL-402: $450, *$375 This course has a prerequisite: Introduction to MTCA (WAPOL-401) listed above.
WAPOL 401 & 402 with an additional $90 discount reflected: $595, *$480

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Northwest Environmental Training Center
A nonprofit 501(c)(3) program of the Northwest Environmental Education Council
650 S. Orcas Street, Suite 220 | Seattle, Washington 98108
Phone: (206)762-1976 | Fax: (206)762-1979
www.nwetc.org
## Accommodations near:

### Thurston County Fairgrounds
**Heritage Hall**
3054 Carpenter Road SE
Lacey, WA 98503
(360) 786-5453

<table>
<thead>
<tr>
<th>Hotel Name</th>
<th>Address</th>
<th>Phone</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Inn &amp; Suites</td>
<td>120 College Street SE Lacey, WA</td>
<td>(360) 493-1991</td>
<td><a href="http://www.qualityinn.com">www.qualityinn.com</a></td>
</tr>
<tr>
<td><strong>Lighthouse Bungalow</strong></td>
<td>1215 E Bay Dr NE Olympia, WA</td>
<td>(360) 754-0389</td>
<td><a href="http://www.lighthousebungalow.com">www.lighthousebungalow.com</a></td>
</tr>
<tr>
<td>Ameritel Inn - Olympia</td>
<td>4520 Martin Way E Olympia, WA</td>
<td>(360) 459-8866</td>
<td><a href="http://www.ameritelinns.com">www.ameritelinns.com</a></td>
</tr>
<tr>
<td>Phoenix Inn Suites - Olympia</td>
<td>415 Capitol Way N Olympia, WA</td>
<td>(360) 570-0555</td>
<td><a href="http://www.phoenixinnsuites.com">www.phoenixinnsuites.com</a></td>
</tr>
<tr>
<td>Red Lion Hotel - Olympia</td>
<td>2300 Evergreen Park Dr SW Olympia, WA</td>
<td>(360) 943-4000</td>
<td><a href="http://redlion.rdln.com">http://redlion.rdln.com</a></td>
</tr>
<tr>
<td>Comfort Inn of Lacey</td>
<td>4700 Park Center Ave NE Lacey, WA</td>
<td>(360) 456-6300</td>
<td><a href="http://www.comfortinn.choicehotels.com">www.comfortinn.choicehotels.com</a></td>
</tr>
<tr>
<td>Quality Inn</td>
<td>1211 Quince Street SE Olympia, WA</td>
<td>(360) 943-4710</td>
<td><a href="http://www.qualityinn.choicehotels.com">www.qualityinn.choicehotels.com</a></td>
</tr>
<tr>
<td>Super 8 Motel</td>
<td>112 College Street SE Lacey, WA</td>
<td>(360) 459-8888</td>
<td><a href="http://www.super8.com">www.super8.com</a></td>
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Phone: (206)762-1976 | Fax: (206)762-1979
[www.nwetc.org](http://www.nwetc.org)
Lacey Community Center
Located in the Woodland Creek Community Park
6729 Pacific Ave SE | Lacey, Washington 98503 | 360.491.0857

From I-5:
Take Exit 109 to Martin Way
Go east on Martin Way one mile to Carpenter Road
Turn right on Carpenter Road
Proceed one mile to Pacific Avenue
Turn left at Pacific Avenue
Proceed 0.3 mi to the Woodland Creek Community Park

MAPS:
REGISTRATION FORM

Name: ____________________________  Today’s Date: ______________________

Agency/Organization: ______________________________________________________

Street Address: ____________________________________________________________  Mail Code: ________________

Street Address (cont.): ______________________________________________________

City: ____________________________  State: ________________  Zip: ________________

Phone: __________________________  Fax: ________________________________

Email: ____________________________  Title: ________________________________

Indicate Course(s):

The MTCA 101 Workshop $ __________________
  Course ID: WAPOL-401, April 16, 2008
  Thurston County Fairgrounds, 3054 Carpenter Rd. SE, Lacey, WA 98503
  Registration: $235 ($195*)

The MTCA Cleanup Levels Workshop $ __________________
  Course ID: WAPOL-402, April 17-18, 2008
  Thurston County Fairgrounds, 3054 Carpenter Rd. SE, Lacey, WA 98503
  Registration: $450 ($375*)

*Reduced rates for Native American Tribes; nonprofits; government; students; and NEBC, NAEP, and NWAEP members. An additional $50 discount applies to all registrants when registering for both classes.

Payment Method: Check [ ] PO [ ] Credit Card (Visa or Mastercard) [ ]  Total: $ __________

Credit Card or PO #: ________________________________  Exp: ________________

Notes: Please make checks payable to Northwest Environmental Training Center.
Cancellation Policy: Registration fees are fully refundable up to 30 days prior to the event and 50 percent refundable (or 100% credit) thereafter up to the day prior to the event. Registration may occur up to the day prior to the event provided that space is available.