



CH2MHILL

Applied Sciences Laboratory

Toxicity Testing Services and Biomonitoring Services



In addition to a full range of chemical analytical services, CH2M HILL's Applied Sciences Laboratory group also provides toxicological (bioassay) testing. CH2M HILL's toxicology laboratory has routinely conducted tests for industrial, municipal, and government agents for more than 20 years. The Laboratory is certified by both the National Environmental Laboratory Accreditation Conference (NELAC) and the State of Washington.



We offer the following bioassay services:

- Whole Effluent Toxicity (WET) testing on both marine and freshwater samples
- Both Acute and Chronic WET testing
- Sediment testing
- Soil testing
- Bioaccumulation studies
- Microtox testing (surface waters, pore waters, and whole sediment elutriates)
- Hazardous Waste designation bioassays
- "Pure Product" testing to evaluate potential toxicity concerns before they occur
- Toxicity Identification Evaluations (TIE's) and Toxicity Reduction Evaluations (TRE's)
- Water-effect ratio/site specific water quality criteria studies
- Routine NPDES permit testing

Testing Information

Whole Effluent Toxicity Acute tests:

<i>Pimephales promelas</i> (fathead minnow)	USEPA Method # 2000.0
<i>Ceriodaphnia dubia</i> (water flea)	USEPA Method # 2002.0
<i>Cyprinodon variegatus</i> (sheepshead minnow)	USEPA Method # 2004.0
<i>Menidia beryllina</i> (inland silverside)	USEPA Method # 2006.0
<i>Atherinops affinis</i> (topsmelt), West Coast species	USEPA Method # 2006.0
<i>Mysidopsis bahia</i> (mysid shrimp)	USEPA Method # 2007.0
<i>Oncorhynchus mykiss</i> (rainbow trout)	USEPA Method # 2019.0
<i>Daphnia pulex</i> (daphnid)	USEPA Method # 2021.0

Whole Effluent Toxicity Chronic tests:

<i>Pimephales promelas</i> (fathead minnow)	USEPA Methods # 1000.0 and #1001.0
<i>Ceriodaphnia dubia</i> (water flea)	USEPA Method # 1002.0
<i>Selenastrum capricornutum</i> (green algae)	USEPA Method # 1003.0
<i>Cyprinodon variegatus</i> (sheepshead minnow)	USEPA Method # 1004.0
<i>Menidia beryllina</i> (inland silverside)	USEPA Method # 1006.0
<i>Atherinops affinis</i> (topsmelt), West Coast species	USEPA Method # 1006.0
<i>Mysidopsis bahia</i> (mysid shrimp)	USEPA Method # 1007.0

Sediment/Soil

<i>Hyalella azteca</i> (amphipod)	USEPA Methods # 100.1 and # 100.4, ASTM E 1706
<i>Chironomus tentans</i> (midge)	USEPA Methods # 100.2 and # 100.5, ASTM E 1706
<i>Caenorhabditis elegans</i> (nematode)	ASTM E 2172, WDOE Pub. No. 04-09-044
<i>Eisenia foetida</i> (earthworm)	ASTM E 1676
<i>Lactuca sativa</i> (lettuce seed)	ASTM E 1963
<i>Poa sandbergii</i> (bluegrass seed)	ASTM E 1963

Hazardous waste designation tests

- State of Washington — WDOE 80-12
Oncorhynchus mykiss (rainbow trout)
- State of Oregon — ODEQ *Ceriodaphnia dubia*/or *Daphnia magna*

Other Services

- Mixing Zone studies
- Microcystin testing
- Continuous in-stream temperature monitoring
- Over 60 years of combined experience
- Custom reports
- Reports delivered within 2 weeks after testing ends
- Pre-scheduled test dates for your convenience

Contacts

For more information on this and other services CH2M HILL's ASL can provide, please contact:

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