



Black Butte Mine Superfund Project Update #3

August 2013

EPA and its contractor, CDM Smith, began field work at the former Black Butte Mine in late October 2012. The initial field investigations (Phase 1) focus on an area adjacent to and including the former mine site (see map below). The primary objective for Phase 1 is to assess mercury movement from mercury sources at the former mine site into Garoutte Creek, which eventually becomes the Coast Fork Willamette River. Work began with the establishment of stream sampling stations and an on-site rainfall collection station that will allow for continuous monitoring of stream flow and surface water quality and allow for collection of rainfall samples, respectively. Surface water, sediment, and rainfall sampling was conducted during a storm the week of March 4th, 2013. Phase 1 work continued with the installation of ground-water monitoring wells in late June; subsurface soils were collected during well drilling for mercury analyses. Monitoring wells will be sampled to determine whether mercury is moving from the mine site via ground water into surface water. Sampling of surface water at the stream sampling stations and ground water from monitoring wells is planned for the week of August 12th, 2013.

EPA and the Battelle National Laboratory continue their evaluation of mercury in water and sediments in Cottage Grove Lake. From other studies we have come to understand that the vast majority of the mercury that accumulates in fish is an organic form of mercury, termed methylmercury. However, most of mercury transported over time from the Black Butte Mine to the lake is believed to be inorganic mercury. It is not clear what processes control the rate of conversion of inorganic mercury in sediments to methylmercury in water within the lake. Addressing this question is the objective of this study, being funded by the EPA Office of Research and Development. The research team collected water and sediment samples from locations within Cottage Grove Lake in February and May and have a third sampling event planned for the week of August 19th, 2013.

EPA has established an Information Repository at the Cottage Grove Library at 700 Gibbs Avenue in Cottage Grove. We will routinely add materials, including copies of these Project Updates, as they become available. For more information, contact EPA project manager, Rich Muza at 503-326-6554, muza.richard@epa.gov or Alanna Conley, EPA community involvement coordinator, at 503-326-6831, conley.alanna@epa.gov.

