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FY2008 Region 10 Tribal Solid and Hazardous Waste Team Report

Office of Air, Waste & Toxics, EPA Region 10
Tribal Solid and Hazardous Waste Program

Description of the problem:

Tribes in Region 10 are acutely aware of the problems of illegal dumping, open waste burning, and unsafe waste management. There are at minimum 500 open dumps in Indian country in the Pacific Northwest and Alaska. Dumping from off-reservation sources is a serious problem for tribes throughout the region. Waste burning on the ground is regularly used in many Alaskan villages to reduce waste volume and deter scavenging wildlife.

Dump Site at Colville Reservation. Photo by EPA.

Burning Waste at Nunapitchuk, Alaska. Photo by EPA.

Tribal members are concerned about the harm wastes pose to the health of community members and the environment they rely on for subsistence food and drinking water. Hazards in many of these open dumps include household cleaners, paints and solvents, toxic metals from batteries, electronics and appliances, waste oils, medical waste, and sewage. Contaminants from waste can pose a threat to subsistence fish, game, and plants. Burning wastes can impact clean air and leaching waste can threaten drinking water. Tribes in Region 10 recognize that waste is also linked to global climate change. Waste reduction, reuse, recycling, and composting are efforts that can reduce greenhouse gas emissions and help mitigate climate change.

There are great needs, and at the same time, resources for solid waste work are often extremely limited, leaving tribes to struggle from year to year to maintain the staff and infrastructure needed to manage waste safely. Even more daunting are the costs of building transfer stations and landfills, and purchasing vital equipment.

Strategy to address the problem:

Dump Management Training in Ambler, Alaska. Photo by EPA.

FY2008 Region 10 Tribal Solid and Hazardous Waste Team Report

In FY2008, the EPA Region 10 Tribal Solid and Hazardous Waste Team continued to play a national role as RCRA Tribal Sub-lead Region to raise awareness of the threats that open dumps and solid waste play in Indian country. On the home front, the team built and leveraged an ever-growing capacity to provide technical, financial, and coordinating assistance to tribes to solve solid waste problems.

The team has taken a fresh look at waste efforts as they relate to global climate change – and is pursuing opportunities at the intersection of waste and climate work.

This work helps further the Region 10 Office of Air, Waste and Toxics priorities, 2007 - 2011 Region 10 Tribal Strategy: Enhancing Tribal Environments, and EPA Strategic Plan. Our work is guided by the Office of Solid Waste and Regional Tribal Integrated Waste Management Strategy. The outputs and outcomes of our efforts are measured through the EPA Tribal Solid Waste Strategic Targets.

The assistance we provide comes in many forms. For example, it can be providing grant funding to develop a much needed planning tool for sustainable waste management or to close unsafe open dumps. It can be training equipment operators how to move, compact and manage waste with heavy equipment. At other times, our assistance can take the form of facilitating partnerships among federal, tribal, state and local governments to solve specific environmental issues. Routinely, we offer Pacific Northwest and Alaska Tribes ongoing, direct on-site solid waste technical assistance.

Lapwai Solid Waste Container Site at Nez Perce. Photo by EPA.

FY2008 highlights:

Open Dumps and Integrated Waste Management Plans:

Region 10 Exceeds Tribal Solid Waste Strategic Targets:

In FY2008, Tribes cleaned up and closed 10 major open dumps impacting tribal lands, exceeding the strategic target of 2 for the year. In addition, Tribes logged 12 tribal integrated waste management plans, far exceeding the regional target of 4 for the year.

8 Open Dumps Cleaned Up at Yakama Nation:

This year Yakama Nation, with technical assistance from the Tribal Solid and Hazardous Waste Team and funding from EPA IGAP and Washington State Department of Ecology, cleaned up and closed 8 illegal open dumps, including the tire pile pictured below. 3,625 tons of waste, including 360,000 tires, were removed for proper disposal. The tire project at Yakama Nation has paved the way for other tribes to partner with the state. Confederated Tribes of the Colville Reservation are consolidating waste tires for removal by the State Scrap Tire Cleanup Program in fall/winter 2008.

Pumphouse Road Tire Pile. Photo by EPA.

EPA Tribal Solid Waste Liason Jump Starts Dump Improvements:

In September of 2008, Ted Jacobson, Tribal Solid Waste Liason, visited Buckland, Alaska to jump start solid waste changes. Ted met with city and tribal employees to discuss best practices for managing waste. He demonstrated how to safely and effectively operate heavy equipment to move, consolidate, and compact waste. Ted showed how best to take control of their problem dump site by moving most of the waste out to the edges of the site against the berm surrounding the site, and compacting to the height of the berm. In addition, Ted created a spot for dumping ash from the burn unit.

Ted tracked the effort and reported that the project took 36 man hours and 150 gallons of fuel to clean up 2/3 of the Buckland dump site. Work still remains for the community to compact and cover the garbage with 6 inches of compacted soil,

cleanup the area at the entrance to the site, create a dead animal pit as far from entrance as possible, and consolidate and compact the last third of the site.

Buckland Dump Before. Photo by EPA.

Buckland Dump After. Photo by EPA.

EPA Gets Feedback on the Value of Tribal Solid Waste Plans:

Indian Health Service got feedback from Alaska tribes on solid waste plans and the value of the planning process. Tribes reported that plans are useful -- 90% of tribes with plans or in the process of writing them reported their plans to be somewhat or very useful. The results also showed that villages with a written plan were 8.6 times more likely to have made solid waste improvements than those who were not sure or still in the process of writing a plan. these findings are helpful to Region 10 and can help inform the national tribal program.

Collaboration:

Tribal Solid Waste Circuit Riders Reach Out:

In FY2008, the Tribal Solid and Hazardous Waste Team circuit riders provided on-site technical assistance to 22 tribes throughout the Pacific Northwest and Alaska. Circuit riders traveled over 3000 miles, visited dump sites and landfills, assessed and inventoried solid waste site conditions, and met with tribal contacts. In addition, circuit riders teamed up with the Alaska Chapter of the Solid Waste Association of North America, Alaska Department of Environmental Conservation, and regional health corps to deliver Rural Alaska Landfill Operator Training Courses. The extensive on-the-ground experience and knowledge of the circuit riders is a key factor in their success and ability to build lasting relationships.

Tundra Pond Dump. Photo by EPA.

EPA Launches Project on Alaska Climate Change, Solid Waste, and the Yukon River:

Aerial view of Charley River at Yukon. Photo by USGS.

EPA Region 10 has funded a TV documentary on the impacts of solid waste and global climate change on the Yukon River and efforts by the Alaska Tribes on the river to meet these challenges. The documentary is targeted for completion in 2009 - 2010 and is being produced by an award-winning indigenous film maker and crew.

TSWAN Puts on Highly Successful Meth Lab Waste Training:

The Tribal Solid Waste Advisory Network (TSWAN) and the University of Washington teamed up to present a new training course to teach tribal staff how to identify abandoned meth labs and properly deal with the hazardous waste products of this activity. The Team helped fund this course, which included classroom work and hands-on mock mobile methamphetamine scenes set up by the Washington State Patrol Drug Task Force. This training was extremely successful with many participants saying it was the best training course they had ever taken. The success of the training is attributed to the use of hands-on mock scenes where students visually identify and actively assess the hazards of the meth lab waste products. Tribes from across the country are contacting TSWAN seeking this training and Cherokee Nation is pursuing a training partnership to expand the effort.

EPA Works to Reduce Pollution from Waste Burning in Alaska:

Waste burning is a fact of life in rural Alaska where communities are under great pressure to reduce waste volume and eliminate wastes that attract animals to the landfill. In light of these realities, the Alaska Operations Office (AOO), Tribal Solid and Hazardous Waste Team, and the Tribal Air Team are collaborating to help reduce the health and environmental impacts of waste burning.

Burn Test, Tok, Alaska. Photo by EPA.

EPA created a Burning Index to help communities make step-wise improvements in waste burning – ultimately moving from open burning on the ground to more contained and efficient burning of waste in burn units and incinerators. Staff are providing the index to tribal communities and getting great feedback on its usefulness. The index is easy to use and helps clearly show how to make incremental change in burning practices.

In addition, Tok Welding and Fabrication in Alaska won an EPA small business innovation and research grant to improve the design of their existing burn unit. Through the grant, the company is developing and testing a new design aimed at achieving a higher temperature burn and reducing the potential pollution emitted. See picture above.

Region 10 Secures Funding to Study Open Dumps and Alaska's Tribal Drinking Water Sources:

Alaskan Dump. Photo by EPA.

The Alaska Operations Office led an effort to win funding from the EPA Office of Research and Development to study leachate from open dumps and the impacts to tribal drinking water. The effort will seek to characterize pathogens and toxins at open dumps in 5 Alaskan Native Villages and evaluate the effects of these contaminants on local drinking water sources. Members of the Tribal Solid and Hazardous Waste Team provided technical input. The project is incredibly timely since it addresses tribal concerns over climate change and waste contamination. Tribes are concerned about release of toxins from permafrost-lined open dumps through the disappearance of tundra ponds and melting of permafrost. To date, little or no work has been done in this critical area of environmental health.

EPA Sponsors 14th Annual Alaska Tribal Environmental Management Conference:

In FY2008, the team continued to fund the conference through an on-going Inter-Agency Agreement with Indian Health Service. The partnership project provides technical assistance and min-grants to tribes in Alaska for solid waste planning. Importantly, the project sponsored the 14th year of the conference, a major gathering of tribes, federal, state and local agencies, private sector and community groups convening to share information on environmental and solid waste issues impacting Alaska. Over 400 people attended the conference this year.

Grant Management:

In FY2008, the Tribal Solid and Hazardous Waste Team managed 10 grants and Inter-Agency Agreements totaling $959,000. The team's Kim Farnham served as regional representative to the national Inter-Agency Tribal Solid Waste Management Assistance Project, coordinating input and review by all EPA regions. Solid Waste funding to tribes is extremely competitive, totaling only $2 Million for all tribes nationally. Need for funding far outstrips available funds through these funding programs. These funds are critical for safe tribal waste systems and meeting solid waste strategic targets.

RCRA Tribal Sub-Lead Region:

Regions 8 and 10 share a unique role as joint RCRA Tribal Sub-lead Regions. Under their leadership, OSW and RCRA Regional Offices have developed new management tools which are essential to a modern OSW Tribal Program:

These management tools are:

- Two GPRA Strategic Targets for tribes which measure the number of open dumps which have been cleaned, closed or upgraded and the number of tribes which are covered by integrated waste management plans.
- The OSW and Regional Tribal Strategy.
- Tribal Integrated Waste Management Plan tutorials and models.
- A field survey form and data dictionary for characterizing open dumps.

2009 and Beyond:

- Continue to build Region 10 Tribal Solid and Hazardous Waste Team capabilities
- Meet or exceed National EPA Solid Waste Performance Measure targets
- Seek to develop creative funding efforts to support tribal waste projects
- Build inter-agency efforts to address solid waste problems
- Provide technical assistance and training to tribes on grant writing and solid waste planning
- Manage Solid Waste Assistance Project Grants
- Collaborate on global climate change efforts in Indian country and other tribal lands
- Field test the use of new tools to measure improvements in the operation and maintenance of Alaska's landfills
- Advance OSWER/OSW/OAWT Partnership to sponsor the Alaska Tribal SW Initiative