

Patterson Lake Winterkill Composting Project

Dakota West RC&D, Dickinson, ND

North Dakota experienced an unusually long, cold and snowy winter. Among the seemingly unending lists of property destruction across the state were several lakes that experienced total or near total winter kill of fish. This is the saga that played out in Patterson Lake, a man-made reservoir on the Heart River just west of Dickinson, ND. When the ice-covered lake melted this spring, thousands of dead fish floated to the surface and lined the shores.

Enter lake residents, who initiated a community clean-up of the lake on April 26 with the help of the media, dozens of area businesses and hundreds of community volunteers. The initial strategy was to collect the fish in plastic trash bags and transport them to City landfill. Conversation between Dakota West RC&D and area NRCS staff led them to approach the City of Dickinson, asking them to consider composting the fish. Staff agreed to the strategy but emphasized the plastic would need to be eliminated. Further conversations with organizers convinced them this would be a positive outcome from an otherwise unpleasant event and the wheels were set in motion.

On Sunday, April 26, volunteers awoke to temperatures in the mid-30's with mixed snow and rain. Nevertheless and in the true spirit of volunteerism, an estimated 300 individuals arrived on the scene to begin the arduous task. Volunteers used boats, pails, plastic totes, loaders, pitchforks, rakes and their hands to clear the lake. By 5:00 p.m., an estimated 75% of the lake was cleared. That evening and into the next day, sanitation staff hauled an estimated 150,000 fish (about 100 cubic yards) to the compost site. By 6:00 p.m. on April 27, the fish were sandwiched between a layer of wood chips and yard waste. As the smallest creatures on Earth actively fed on the former waste throughout the summer, it was processed into a valuable commodity.

Jared Andrist, Dakota West RC&D Coordinator and Jon Stika, ND NRCS Area III Soil Scientist collected a sample of the completed compost in September and submitted it for a soil food web analysis. The analysis proved the compost to be a superior product with a diverse and healthy population of microorganisms.

The City of Dickinson has several hundred tons of the compost available, which sells for \$30 per ton. Area residents have expressed interest in obtaining the compost several tons have already been sold for various applications.

The success of this project prompted J.R. Flores, ND NRCS State Conservationist, to award the City of Dickinson Public Works Department a Cooperative Conservation Award. Jared Andrist, Dakota West RC&D Coordinator, presented the award on behalf of Mr. Flores at the May 18, 2009 Dickinson City Commission meeting.



Collecting fish at Patterson Lake



Stockpiled fish ready for composting



Placing fish for compost