

Work Plan

for the

Hegeler Zinc Facility, Hegeler IL
NRDA Bankruptcy Settlement

March, 2013

Prepared by

IDNR, Contaminant Assessment Section Staff

This plan was developed by Illinois Department of Natural Resources Contaminant Assessment Section (CAS) Staff who administer the NRDA program for Illinois.

Natural Resources Damage Assessment

Introduction

Releases of hazardous substances and oil into our environment can pose a threat to human health and natural resources. Natural resources are plants, animals, land, air, water, groundwater, drinking water supplies, and other similar resources. When the public's natural resources are injured by a release of hazardous substances or oil, federal law provides a mechanism, Natural Resource Damage Assessment (NRDA) that authorizes Natural Resource Trustees to seek compensation for the public for injuries to natural resources.

In 2009, Millennium Petrochemicals¹ filed bankruptcy. In an effort to seek compensation for the injuries described within, the Illinois Natural Resource Trustees (State Trustees), Illinois Department of Natural Resources (IDNR) and Illinois Environmental Protection Agency (IEPA), and the Illinois Attorney General's Office (IAGO), filed a bankruptcy claim for natural resource damages. Lyondell Chemical Company, et al., provided compensation to the public based on determination that natural resources were injured resulting from releases into the environment of hazardous substances, including but not limited to, metals, such as zinc, arsenic, cadmium, and lead from a former zinc smelting facility at Hegeler, Illinois, that was originally known as Hegeler Zinc. The settlement, entered in the US District Court on March 12, 2010, provided approximately \$1.5 million to be used for natural resource restoration.

This Work Plan (WP) describes for the general public and interested parties the terms of the settlement and the State Trustees approach to restoration with focus on initial monitoring activities.

In an effort to keep the public informed of the progress of site activities, IDNR will issue updates in the form of factsheets and progress reports. Additional information regarding the Site including future updates can be found at the following website:

<http://www.dnr.illinois.gov/programs/NRDA/Pages/HegelerZincDanville.aspx>.

NRDA Bankruptcy Claim of Facility

The Former Hegeler Zinc Facility (the Site) in Hegeler, Illinois, operated from 1906 to 1954. This ~100-acre facility (Figure 1) produced zinc slab and rolled zinc products, as well as sulfuric acid, resulting in slag waste. The large amounts of slag containing unburned residues and metals were stored in piles onsite. Based on the work of the United States Environmental Protection Agency (USEPA), the site was listed on the National Priorities List (NPL), or Superfund, in 2005. After which time, USEPA took the lead of a remedial investigation (RI) which consisted of soil, sediment, and groundwater sampling on and off site. Results showed that contaminants (mostly from various metals) not only affected the smelting site but nearby residences and streams, notably Grape Creek, which is hydraulically connected to the Vermilion River. In 2009 one of the site's responsible parties, Millennium Petrochemicals¹, filed bankruptcy along with other Lyondell entities. In response, IDNR and IEPA with legal representation by IAGO prepared an NRDA bankruptcy claim based on injuries to groundwater, surface water (including an Unnamed Tributary and Grape Creek), aquatic resources, and terrestrial resources (including grassland habitat). As a result of this claim, the State Trustees became parties to a Consent Decree approved by the bankruptcy court between the Lyondell entities, the United States of America, and a number of other

¹ Millennium Petrochemicals is the final corporate successor to the historical chain of operations, and is owned by Lyondell Bassel Companies.

states and received a settlement of its claim. To make the public whole for injuries to natural resources as a result of releases of hazardous substance, the State Trustees will identify and fund efforts to preserve and enhance ecological features in the region.

Vision

The overall goal of the Natural Resource Damage Assessment and Restoration (NRDAR) effort is to restore, enhance, and/or preserve similar resources as to those injured. Target community types include but are not limited to, grassland and stream habitat. At this time funds will likely be spent somewhere off site as USEPA continues to lead the remedial investigation of the Superfund site. Preference will be given to projects in the same general area/watershed of the injury (HUC 8 Watershed = Vermilion (Wabash Basin)).

Furthermore, the State recognizes the need to implement monitoring activities in an effort to provide the best scientific knowledge for the area and to better understand regional ecological needs. Also, these activities need to occur before overall restoration plan(s) are complete. One such effort is presented in this Work Plan.

Monitoring Activities:

NRDA funds will be utilized as a match to State Wildlife Grant (SWG) funds to monitor two dam removal projects: the Danville Dam and Ellsworth Park Dam (Figure 2). Surveying will be conducted in the Vermilion River (Danville Dam) and North Fork Vermilion River (Ellsworth Park Dam). Monitoring activities will include the following surveys: fish population, mussel, macroinvertebrate, habitat quality, seasonal water quality, and sediment transport.

These dam removals have the potential to benefit an extraordinarily high number of Species in Greatest Need of Conservation². Furthermore, the Vermilion River basin is one of the most biologically significant basins in the state, identified as a Conservation Opportunity Area³. Therefore, monitoring is imperative to understand the response of the ecological environment to the dam removals. Intensive collection of biotic and abiotic baseline conditions will allow scientists to determine the current influences of these dams, guide the decision-making process for the dam removals, including potential channel modifications and habitat improvements following dam removal. Such monitoring will also allow scientists to track changes that develop following the dam removals.

² Per Federal programs and funding, Congress challenged states to develop a wildlife action plan (WAP), which focuses on Species in Greatest Need of Conservation (SGNC). Per the IL WAP, to designate a species as a SGNC there are specific criteria that has to be met such as, but not limited to: IL threatened or endangered species, including federally listed species that occur within the State; species identified with a Global Conservation Rank; rare species or species significantly declining in abundance or distribution; and species dependent upon a rare or vulnerable habitat. The IL WAP provides a foundation, which serves as a blueprint for management, protection and recovery of SGNC and their associated habitats.

³ Within the framework of the IL WAP, focusing attention on priority habitats and species, areas were ranked based upon habitat patch size, threatened and endangered species, biodiversity, and regional partners, which led to the development of Conservation Opportunity Areas (COA's). Regional partners within these COA's can work together and establish recommendations for goals and priorities to support protection and management of habitat for SGNC.

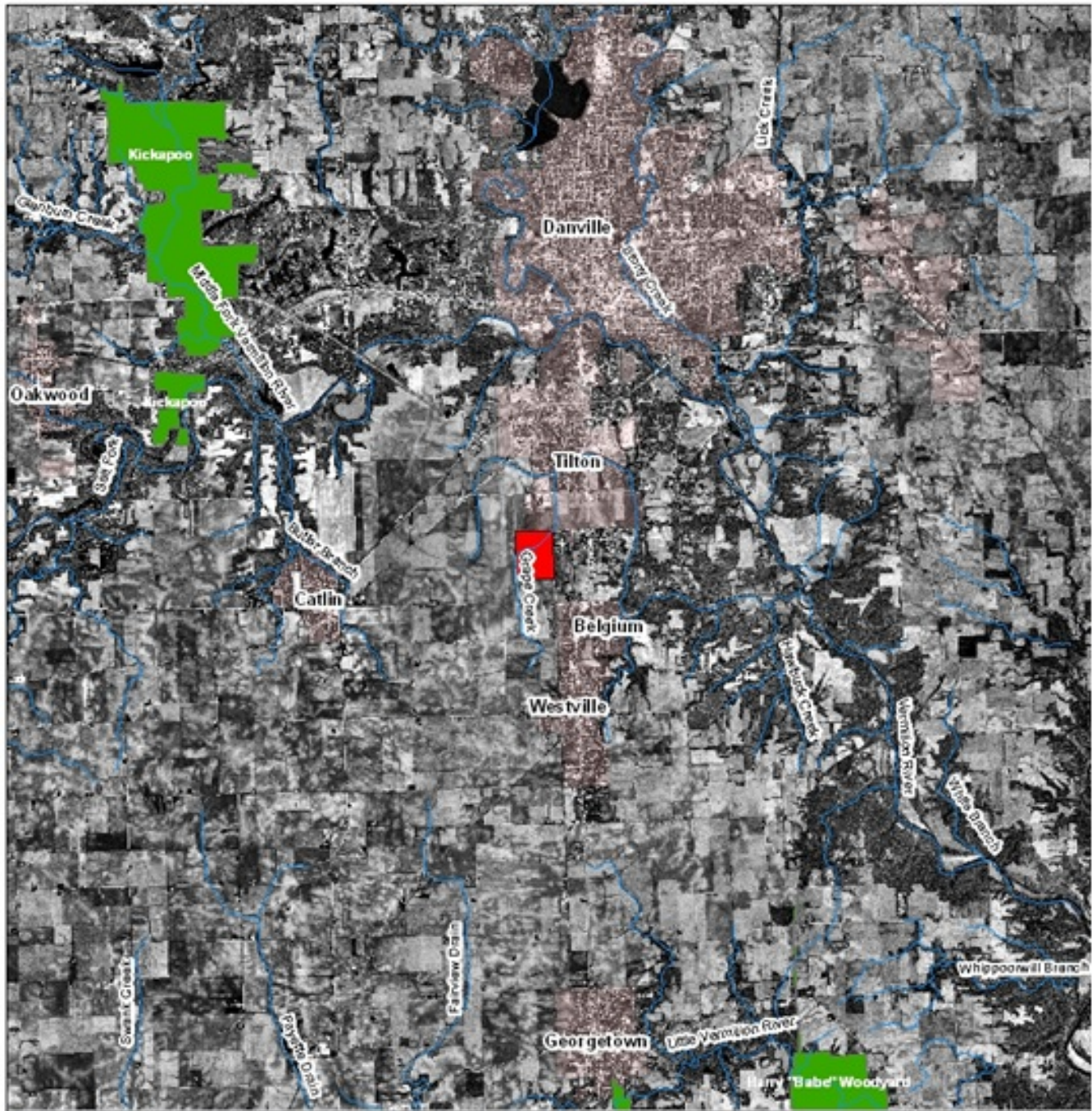
With such a critical effort taking place in the watershed it is to the Trustee's benefit to assist in the monitoring effort and learn from the activities which will most definitely be included in the Trustee's regional restoration planning efforts.

The surveys per the SWG grant will begin in the spring of 2013 and wrap up in the fall of 2015 (with dam removals anticipated for 2014).

Restoration Planning:

The restoration effort will follow the appropriate guidance found in the federal regulations and as directed by the court order.

A restoration workgroup will be formed consisting of IDNR CAS staff and field biologists within, but not limited to, IDNR's Division of Fisheries, Division of Natural Heritage, IDNR's Division of Wildlife, IDNR's Land Management, the IDNR Nature Preserves Commission, and IDNR's Watershed Protection Program. This restoration workgroup will be organized to develop a quantitative approach to restoration planning including monitoring the projects pre and post restoration to determine project success or need for adaptive management. This workgroup will also ensure efforts are consistent with regional planning (for example, providing protection for Species in Greatest Need of Conservation). A list of project alternatives will be screened against factors (such as restores habitat of injured state resources, technical feasibility, cost effectiveness etc.), which will be documented in a restoration plan subject to public comment.



Legend

-  Streams (NHD)
-  Injury
-  IDNR Properties
-  dnris.DNRGIS.cities

Hegeler Zinc Danville

Map Updated 2/25/11

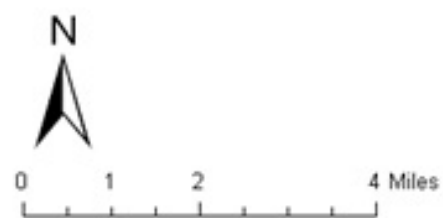


Figure 1. Hegeler Zinc Facility, Vermilion County, IL and surrounding area.

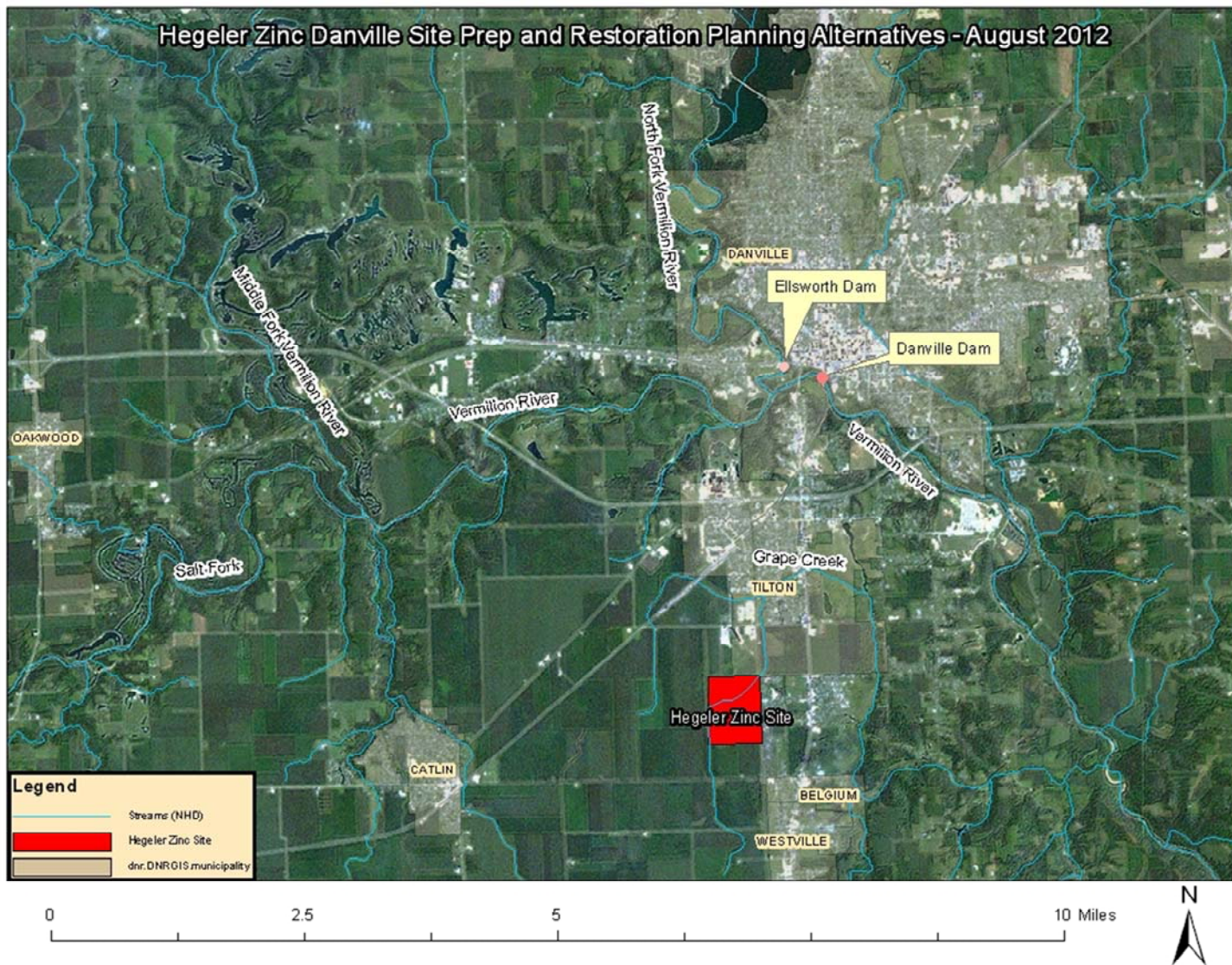


Figure 2. Approximate locations of proposed monitoring study (Ellsworth and Danville Dams) in relation to the Hegeler Zinc injury site.