

****ABSTRACT NOT FOR CITATION WITHOUT AUTHOR PERMISSION.** The title, authors, and abstract for this completion report are provided below. For a copy of the full completion report, please contact the authors via e-mail at adam.cottrill@ontario.ca or ted_treska@fws.gov. Questions? Contact the GLFC via email at stp@glfc.org or via telephone at 734-669-3006. ******

INTERACTIVE TOOL FOR VISUALIZING FISH STOCKING EVENTS AND RECOVERIES IN THE GREAT LAKES

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September 2022

ABSTRACT:

Fish stocking is an important tool used by resource management agencies for fishery rehabilitation and supplementation in support of the Fish Community Objectives (FCOs). Over 400 million fish have been stocked into the Great Lakes and their tributaries in the past 10 years alone. While these stocking events are reported to the GLFC and were available in a fish stocking database (Great Lakes Fish Stocking Database, GLFSD) maintained by the U.S. Fish and Wildlife Service, the database had a limited interface and no interactivity. This often led to cumbersome requests to database managers to query data or check records and very limited use for the public. This project leverages existing tools and data to produce an interactive, web-based visualization of stocking events in the Great Lake that is useful to managers, agency staff, and the public. Along the way to developing the new website, issues were identified with the data that required attention to standardize information into a format that allowed for clear visualization. Through many conversations with agency stocking coordinators, many of these issues were addressed and errors remedied. The new site now offers a variety of ways to look at and interact with data, with useful “How To” documents to guide users through common activities and a Ticket Tracker system that allows registered users to file trouble or suggestion tickets to make the site even more useful. The data is now secure and reproducible as the site code and data are backed up at an offsite location.

APPENDICES:

GLFSD Website: <http://fsis.glfc.org>

Reference Materials including “How To” documents: http://fsis.glfc.org/resource_library/

Database entry values look-up tables: http://fsis.glfc.org/shared/lookup_tables/

GLFishStockR – R package for interacting with the Great Lakes Fish stocking database, available here and within the Utilities Tab of the website: <https://github.com/AdamCottrill/GLFishStockR>

Complete Source code the GLFSD site: <https://github.com/AdamCottrill/fsdviz>