SPARROW Water Quality Model Data
Read-Me PDF

This web page contains links to three spatial data layers: SPARROW model input data (catch_poly.zip), SPARROW model output results for nitrogen loading (nitro_poly.zip), and SPARROW model output results for phosphorous loading (phos_poly.zip). A fourth file (metadata.zip) includes metadata records for each data layer and a description of the current map projection parameters for the data.

Download Instructions:
Each data layer is an ArcGIS coverage in export file format (.e00) and compressed with WinZip. To use these data layers click on the filename to download, use WinZip to unzip the files, then import the files into a GIS environment. Each coverage contains arc, polygon, label, tic, region.region, and region.reach_region features. To work with the data use the region.reach_region features for each coverage.

The Data:
The spatial features for each of the three coverages are identical however the attributes differ. The spatial features consist of one catchment, or watershed, for each of the 41,985 river reaches from the 1:100,000 scale National Hydrography Dataset (NHD) in New England. The attributes for each coverage contain 'incremental' information for each individual catchment, and 'total' information for the individual catchment plus all of the upstream catchments that drain into it. Please refer to the corresponding metadata files for a key and explanation of the attributes.

The data presented on this page consists of static catchment polygons. The polygon attributes provide information about 'incremental' and 'total' watershed characteristics, however it can be difficult to determine exactly which polygons are included in each 'total' upstream drainage area. The USGS New Hampshire / Vermont District Office has developed an interactive application based on the NHD toolkit that allows users to perform an upstream or downstream trace along the 1:100,000 NHD surface water network. A trace performed with this application highlights both the NHD river reaches and the corresponding SPARROW catchments. An upstream trace allows the user to see the exact upstream drainage area used in the 'total' calculations. This application is somewhat complex and is not presented on this page. For more information about the application please contact the USGS.

File Size:
The compressed export format files are somewhat large. These files range in size from 37 to 42 megabytes. Download for the 42 mb file on a T1 connection is estimated to be three and a half minutes. Download for a 56k dial-up connection is estimated at one hour and 38 minutes and is not recommended.

Questions:
If you have questions about downloading or using this data please contact Tom Pearson, GIS Analyst, General Dynamics Network Systems, Inc. at the U.S. EPA Region One New England office at pearson.thomas@epa.gov or at 617.918.1149. Thank you.