

CORMIX

Model Uses CORMIX allows users to assess the mixing zones associated with continuous point-source discharges.

Major Categories Water Quality; Decision Support

Subject Knowledge Level
Intermediate

Minor Categories Point Source; Pollution; Environmental Impact Analysis

Technical Difficulty Level
Intermediate

Model Type Physical Model

Geographic in Nature?
Semi

Abstract

CORMIX is a USEPA-approved simulation and decision support system for environmental impact assessment of mixing zones resulting from continuous point source discharges. The system emphasizes the role of boundary interaction to predict steady-state mixing behavior and plume geometry.

The CORMIX methodology contains systems to model submerged single-port and multi-port diffuser discharges as well as surface discharge sources. Effluents considered may be conservative, non-conservative, heated, or contain suspended sediments. Advanced information systems provide documented water quality modeling, National Pollutant Discharge Elimination System (NPDES) regulatory decision support, visualization of regulatory mixing zones, and tools for outfall specification and design.

Future Developments

Unknown

Model Limitations

Unknown

Model Features

- Documented water-quality monitoring
- NPDES regulatory support
- Visualization of regulatory mixing zones
- Updated hydrodynamic models
- Advanced mixing zone decision support tools

Required Data Types

CORMIX prompts the user through a series of questions for the following categories of information:

- Site/case descriptions
- Ambient conditions
- Discharge characteristics
- Regulatory mixing zone definitions

Model Outputs

Outputs from CORMIX come in 3 formats:

- (1) CORMIX Session Report that is a narrative summary, mostly for regulatory evaluation, of all discharge input data and global plume features, including compliance with mixing zone regulations;
- (2) CORMIX1, 2 or 3 Prediction File that is a detailed listing of all plume properties as predicted by the Fortran program;
- (3) CMXGRAPH Plots representing plan, side, and trajectory views and concentration distribution of the predicted plume.

Hardware Requirements

- Microsoft Windows 95/98/ME/NT/2000/XP
- Local install only for Win 95/98/ME
- Local/network install for Win NT/2000/XP
- Active Internet connection with access to <http://www.mixzon.com>
- Pentium 100mHz processor

| | | Supported Platforms | |
|---------|-------------------------------------|---------------------|--------------------------|
| DOS | <input type="checkbox"/> | UNIX | <input type="checkbox"/> |
| Windows | <input checked="" type="checkbox"/> | Macintosh | <input type="checkbox"/> |

Software Requirements

None

Cost, Licensing and Availability

CORMIX is licensed and distributed by MixZon, Inc.

Source

MixZon, Inc.

Source (URL)

<http://www.cormix.info/>