

HYDROLOGY / HYDRAULICS MODELING

The HSW Hydrology and Hydraulics Modeling Group specializes in development of innovative solutions supported by high-level numerical modeling. Highlights of our modeling capabilities include:

- Groundwater/Surface Water Modeling To Support Permit Applications
- Watershed Modeling and Flood Area Delineation
- Safe Aquifer Yield Determination
- Establishment of Minimum Flows and Levels
- Water Distribution System Design and Optimization
- Storm Water Conveyance and System Design
- Environmental Groundwater Modeling of Impacted Aquifers
- Environmental Remediation Evaluation, Design & Optimization
- Environmental Forensics
- Nutrient and Sediment Transport
- Estuarine Systems

Our engineers and scientists have applied our modeling expertise to almost every kind of hydrology and hydraulics problem. HSW completed numerous projects across the country. Corporate projects include:

- Certerline Homes (Florida)
Groundwater Modeling To Support Permit Application and Assess Aquifer Impacts
- Town of Belleair (Florida)
Permit Applications and Groundwater Modeling
- CF Industries (Florida)
Surface Water Modeling for Wetland Re-hydration Design
- St. Johns River Water Management District (Florida)
HEC-RAS Modeling to Support Determination of Minimum Flows and Levels (MFLs)
- AFCEE, Wurtsmith Air Force Base (Michigan)
Groundwater Flow and Multi-constituent Contaminant Transport Modeling
- Elsinore Valley Municipal Water District (California)
Elsinore Basin Water Management Plan/Aquifer Yield and Groundwater Basin Recharge Numerical Modeling
- Northrop Grumman (Georgia)
Bioaugmentation Design Modeling
- Southwest Florida Water Management District (Florida)
Calculated residence and flushing times for estuarine portions of rivers and co-authored two estuarine mixing models (MERT and MMRT)

