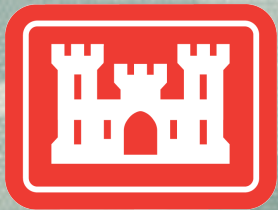


# ENS Assistance Options

Jeremy Crossland  
Program Manager for Land Use  
HQUSACE



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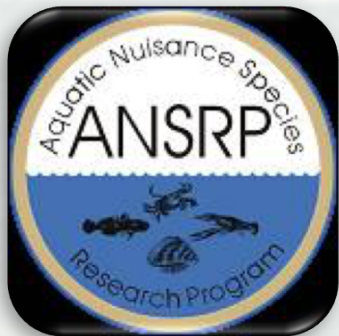
# USACE Aquatic Invasive Species Research Programs

## Aquatic Plant Control Research Program



HQ Program Manager: Mr. Jeremy Crossland  
EL Technical Director: Dr. Al Cofrancesco  
EL Program Manager: Dr. Linda Nelson

## Aquatic Nuisance Species Research Program



HQ Program Manager: Mr. Joe Wilson  
EL Technical Director: Dr. Al Cofrancesco  
EL Program Manager: Dr. Linda Nelson



# Research Program Goals

- Provide science-based guidance on the use of new technologies for detecting, managing, preventing, and monitoring aquatic invasive species that impact Corps projects
- Reduce impact of aquatic nuisance species on Corps operations and infrastructure
- Reduce impact of aquatic nuisance species on T&E species
- Reduce O&M expenditures associated with aquatic invasive species management
- Develop solutions regarding aquatic nuisance species based on field needs





# Aquatic Nuisance Species Research Program

- Authorization:
  - ▶ Non-indigenous Aquatic Nuisance Prevention & Control Act, 1990
    - Zebra Mussel Research Program (1990-1995)
  - ▶ National Invasive Species Act, 1996
- Primary R&D program to address aquatic invasive species that impact navigable waters, infrastructure and associated water resource projects
- Funding Source: O&M
- Research Requirements: Generated by USACE-HQ, Corps' Invasive Species Leadership Team, Environmental SONs
- Current Focus Areas: invasive fish and mussels





# Aquatic Plant Control Research Program

- Authorization:
  - ▶ River and Harbor Act (Section 104), 1958, as amended
  - ▶ Only federally authorized R&D program for aquatic plant management
- Develops effective, economical, and environmentally compatible strategies for assessing and managing invasive aquatic plant problems
- Funding Source: CG
- Research Requirements: Generated by USACE-HQ, Corps' Invasive Species Leadership Team, Environmental SONs
- Current Focus Areas:
  - ▶ Biological Control
  - ▶ Chemical Control
  - ▶ Ecological Assessment
  - ▶ Management Strategies & Applications
  - ▶ Harmful Algae



# Aquatic Plant Control Research Program

- Authorization:
  - ▶ River and Harbor Act (Section 104), 1958, as amended
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- Funding Source: CG
- Research Requirements: Generated by USACE-HQ, Corps' Invasive Species Leadership Team, Environmental SONs
- Current Focus Areas:
  - ▶ Biological Control
  - ▶ Chemical Control
  - ▶ Ecological Assessment
  - ▶ Management Strategies & Applications
  - ▶ Harmful Algae







## Ecosystem Management & Restoration Research Program

- **Authorization:**
  - ▶ ERDC R&D Authority (10 U.S.C. 2358)
- **Provides tools and technologies to meet R&D needs for functional assessment, restoration, environmental benefits assessment and stewardship of high-priority ecosystems**
- **Funding Source: GI**
- **Research Requirements: Generated by USACE-HQ, SONs submitted by Dist/Div, Environmental Research Area Review Group (eRARG), and Environmental Community of Practice (eCoP)**
- **Current Focus Areas:**
  - ▶ Value/valuation of ecosystem restoration projects
  - ▶ Ecological integrity and sustainability
  - ▶ Resilience of inland and coastal aquatic systems
  - ▶ Management of T&E and Invasive Species in Ecosystem Restoration Projects
  - ▶ Assessing multi-purpose role, function and design of ecological infrastructure



# Get involved...

## Submit a “Statement of Need” for R&D

### -NRM Gateway – Invasive Species Page

http://cw-environment.usace.army.mil/needs.cfm?CoP=Env

Civil Works Environment Gateway

US Army Corps of Engineers

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**Communities of Practice**

- USACE CoPs
  - Planning CoP
  - Civil Works Environment
  - Ecosystem Restoration
  - Environmental Benefits Assessment
  - Environmental Stewardship
  - Regulatory

**Key Environmental Links**

- Budget
- Research & Development
- Ecosystem Restoration PCX
- Institute for Water Resources
- Environmental Laboratory

### Statements of Need

The Corps of Engineers Research Directorate, a part of Corps Headquarters, has initiated a new process for developing R&D programs. That process starts with statements of need (SONs) prepared by Corps field offices. Those needs become requirements for research and development. The needs are ultimately prioritized by headquarters and given to the Research Directorate to tackle.

Within the environmental area, we are soliciting SONs to:

- Maximize Value of the Corps' Aquatic Ecosystem Restoration Program to the Nation  
Advance the Corps' capabilities to maximize beneficial socioecological outcomes of aquatic ecosystem restoration at regional and national levels.
- Ensure Ecological Integrity and Sustainability of Aquatic Ecosystem Restoration Projects  
Develop new science and engineering tools to substantially improve and apply hydro-geomorphic and biotic components of ecosystem restoration projects and to promote ecosystem integrity and sustainability of Corps ecosystem restoration projects.
- Improve Capabilities to Design and Implement Aquatic Ecosystem Restoration in Urban Settings  
Develop ecological engineering tools and capabilities to maximize restoration benefits, including multi-purpose benefits, in urban settings.
- Enhance Resilience and Reliability of Coastal Ecosystem Restoration  
Develop tools, guidelines and capabilities to incorporate risk and uncertainties associated with climate change and sea level rise on coastal ecosystem restoration and multi-purpose projects that include restoration and coastal flood damage reduction.
- Impact and Relationship of Species (Threatened and Endangered, and invasive) on Ecosystem Restoration and Operations  
Advance the Corps' capabilities to detect, monitor and evaluate key species that significantly influence restoration activities and/or operations.

Point of Contact: Dr. Al Cofrancesco, Technical Director, Civil Works Environmental Engineering and Science

- Existing Statement of Needs [View](#) [Comment](#) [Print](#)
- Submit a Statement of Need [\[X\]](#)

Civil Works Environment Gateway - Windows Internet Explorer

Civil Works Environment Gateway

US Army Corps of Engineers

### Statements of Need

Please provide your name and e-mail address below to begin the submission process.

Please enter your name and e-mail address to begin:

Submittor's Name:

E-mail Address:



# Writing a Statement of Need (SON)

- Use the SON template
- Clearly identify the problem and impact to USACE Mission
- Identify extent of the problem; national or regional focus carries more weight
- Identify yourself – USACE POC, provide contact information
- Identify expected outcome/product if possible (e.g., report, BMP, database, model, tool, etc.)
- Review the list of “Existing/Archived SONs”

# Water Operations Technical Support WOTS

## Technical Assistance

- The program provides technology to solve water management and related environmental problems resulting from the presence of nonindigenous aquatic species and tailwater fisheries at pump-back hydropower projects.
- The program also examines water management impacts of shoreline erosion control and reservoir sedimentation, and other project operations related to environmental and water management issues.



## Procedure

- The assistance request should name the project, state the nature of the problem, and describe the type of assistance required.
- The request should identify a point of contact, telephone number, and e-mail address.
- If a technical person at the ERDC has been contacted and has knowledge of the problem, a request for that individual may be expressed in the request.
- Upon receipt, each request will be directed to the proper ERDC technical staff member for response.
- Direct technical assistance under the WOTS Program is provided at no cost to the user and is limited to 5 man-days, including travel.



**ERDC**



# Water Operations Technical Support WOTS

## Contact

- Requests for Direct Technical Assistance should be e-mailed to Patrick Deliman, Program Manager ([Patrick.N.Deliman@usace.army.mil](mailto:Patrick.N.Deliman@usace.army.mil) ).
- Website: <http://el.erdcl.usace.army.mil/wots/wots.html>



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**ERDC**

# Invasive Species Leadership Team



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# Aquatic Plant Control Operation Support Center

Located in Jacksonville District within the Operations Division  
Capabilities include assisting USACE Districts with:

- ▶ Development of management plans that include existing conditions, target species, management strategies, annual maintenance & cost estimates.
- ▶ Utilization of in-house SAJ personnel to conduct invasive species treatments (Early Detection & Rapid Response).
- ▶ Survey projects to identify target species for initial treatments and to ensure required maintenance is completed.
- ▶ Conduct QA for in-house as well as other agency contracts.
- ▶ Develop specifications & performance work statements for management of vegetation as well as for vegetation restoration.
- ▶ Utilize a state/region wide contract to conduct vegetation management & restoration activities.



# Questions?



**Thank you....**



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