

# PLANNING OF Engineers ®

Fall 2020 - Issue 02

# AWARD HONORS NOEL CLAY



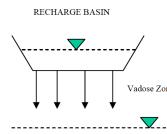


# COASTAL STORM RISH MANAGEMENT PROJECT



# PCOP Flashes

# MANAGED AQUIFER RECHARGE





Planning Ahead is a quarterly publication of the Army Corps of Engineers Planning Community of Practice. Views and opinions expressed herein are not necessarily those of the Army Corps of Engineers or the Department of Defense.

Previous issues of Planning Ahead can be found on the Planning Community Toolbox:

www.corpsplanning.us.





he Planning Champion award recognizes an individual's leadership, support, and encouragement of planners and planning teams, whether that individual sits inside or outside of a Corps planning organization. A Planning Champion is recognized for his or her personal courage, empathy, and respect for others - in short, characteristics demonstrated every day by Noel.

Noel Clay, the Planning and Policy Chief for the Great Lakes and Ohio River Division (LRD), passed away in April following a twoyear battle with pancreatic cancer. Noel was a graduate of Bemidji State University, AS ACTING CHIEF OF USACE PLANNING & POLICY DIVISION, NOEL CLAY PROVIDED AN UPDATE ON PLANNING'S EFFORTS TO INCORPORATE ENVIRONMENTAL OPERATING PRINCIPLES IN USACE PROJECTS TO THE ENVIRONMENTAL ADVISORY BOARD DURING ITS ANNUAL MEETING HELD IN JACKSONVILLE IN 2018. SOURCE: USACE HEADQUARTERS FACEBOOK.

and received Masters
degrees from Northwestern
University, Boston
University, and Harvard
University. She devoted
her professional career
to government service,
first with the Department
of Energy, and then with
the U.S. Army Corps of
Engineers.

She had an exceptional career including 25 years of federal service and many accolades along the way, culminating with the Meritorious Civilian Service

Medal. Noel's talents allowed her to assume the leadership position of Acting USACE Chief of Policy and Planning at Headquarters in Washington, DC. Before moving to LRD, Noel was the Chief of Planning and Policy for the Southwestern Division.

Noel was a shining star to those who knew her and remains an inspiration within the Planning Community of Practice and the agency as a whole.

FALL 2020 FRONT COVER — IN JULY 2018, CHICAGO DISTRICT AND CHICAGO PARK DISTRICT TEAM MEMBERS CONDUCTED A SITE TOUR OF THE HORNER PARK AQUATIC ECOSYSTEM RESTORATION PROJECT, WHICH WAS DESIGNED IN PART TO HELP REMOVE INVASIVE SPECIES. SOURCE: USACE HEADQUARTERS TWITTER.





DID YOU KNOW that the HQUSACE Planning & Policy Division has five Senior Policy Advisors working across various Planning topics and business lines? These advisors are responsible for providing expert policy and program analysis, leading new policy development and revision efforts, and coordinating the development and distribution

of legislative implementation guidance. While all the Senior Policy Advisors work across mission areas, below are the current Senior Policy Advisors, along with their respective focus mission areas:

Ms. Amy Frantz – Senior Policy Advisor focusing on Navigation and Water Supply policy. Dr. Maria Wegner – Senior Policy Advisor focusing coastal storm and flood risk, including policy related to life safety. Dr. Wegner has also recently been named as the new Senior Economics Policy Advisor and will focus on economics policy and disposition studies.

**Ms. Mindy Simmons** – Senior Policy Advisor focusing on

policy related to Ecosystem Restoration, Environmental, or Mitigation requirements. This position is temporarily being filled by Dr. Forrest Vanderbilt while Ms. Simmons is on assignment.

Ms. Ada Benavides – Senior Policy Advisor focusing on Water Resources Development Acts policy.



### Planning Community Webinars

The Planning Community of Practice (PCoP) webinar series offers planners and their colleagues an opportunity to share information and learn more about trending topics in Civil Works planning and water resources development policy, guidance, processes, and tools.

The series provides an opportunity to discuss important and timely topics for the field, with recent presentation

topics including: an introduction to communication planning; One Federal Decision (E.O. 13807) requirements for Civil Works Planning; the Planning Associates Program; a SMART Planning policy waiver case study; and the Small Boat Harbor Planning Sub-Center of Expertise.

Webinars are held every other Thursday from 2-3 pm eastern. Presentations

and the question and answer sessions from each webinar are archived on the Planning Community Toolbox, and recent webinars are always on the front page of the toolbox: www. corpsplanning.us.

If there is a webinar topic you believe the PCoP would benefit from, please email your ideas to hqplanning@usace. army.mil.

### FIND MORE WEBINARS AT:

http://planning.usace.army.mil/toolbox/resources.cfm?ld=0&Option=Planning%20Webinars





THE MIAMI-DADE COUNTY BACK BAY COASTAL STORM RISK MANAGEMENT STUDY TEAM ANALYZING THE PROJECT AREA AT THE KICKOFF MEETING WITH ASSISTANCE FROM PLANNING MENTOR ANDY MACINNES. SOURCE: ANDY MACINNES, MVN

**Andrew (Andy) MacInnes** is a Water Resources Certified Planner, MVD Regional Technical Specialist, and 2016 **Planning Associates Program** graduate. He is a member of the National Nonstructural Committee and has served as an Agency Technical Review (ATR) Lead/Plan Formulation **Reviewer for numerous studies** across all business lines. He has also served as the Acting **Deputy Director for the Flood Risk Management Planning** Center of Expertise (PCX) and as the Acting Operating Director for the Ecosystem Restoration PCX. His 10+ year USACE career has been entirely in the **New Orleans District. Andy** recently shared his experience serving as a Planning Mentor over the past several years with Planning Ahead.

In late 2017, the Planning Community of Practice put out a call soliciting experienced planners to serve as Planning Mentors for studies being carried out around the country. The impetus was to teach a core group of planners the tenets of risk-informed planning so they could help lead the cultural shift towards enterprise risk management and guide project delivery teams (PDTs) in planning for risk and uncertainty as a fundamental aspect of the SMART Planning process. With my supervisor's approval, I eagerly signed up. A three-day training workshop was held in February 2018, culminating with each Mentor signing a charter that defined their

roles and responsibilities. When the Bipartisan Budget Act of 2018 became law and the Corps received 38 new feasibility studies to be conducted at full Federal expense, we were ready and able to assist in getting these studies started and supporting this critical mission. Mentors were assigned to new studies and hit the ground running. One of the studies I was assigned was the Miami-Dade County Back Bay Coastal Storm Risk Management Study. Due to the Jacksonville District's significant Supplemental study workload, this particular study was transferred to the Norfolk District for management.

At the study kickoff and to

get everyone acquainted, the Norfolk study team held several conference calls to discuss roles and execution strategies. We realized early on that the schedule would be very challenging given the size of the study area and the complexity of flooding problems. We also knew we had to be very efficient to get to the Alternatives Milestone within three short months.

With no time to waste we

had to get familiar with the study area. We set out on comprehensive site visits to learn about the flooding issues facing the county, meet with the sponsor, get to know the community, and coordinate with stakeholders. The beginning of the study was a critical time to understand what







IMAGES OF THE MIAMI-DADE COUNTY BACK BAY COASTAL STORM RISK MANAGEMENT STUDY AREA FROM THE TEAM'S COMPREHENSIVE SITE VISITS. SOURCE: ANDY MACINNES, MVN

happens during storm and flood events and to start applying the concepts of risk-informed planning. We spent many meetings learning from locals, listening to their concerns, studying the unique characteristics of the flooding problems, and strategizing the best paths forward. As the Planning Mentor. I knew if we did not get the basics right, such as the problems, opportunities, objectives, and constraints, we could mischaracterize the issues and end up proposing ineffective solutions.

Luckily for me, the Norfolk District study team was committed to exceptional teamwork and also very supportive of my involvement. We held several stakeholder meetings, toured multiple municipalities and neighborhoods, went through planning iterations, held charettes, and brought together all of our unique experiences in a way that enabled the team to fully embrace the requisite risk and uncertainty that defines how our studies are conducted.

It is an uncomfortable feeling to make decisions knowing there is a lot of information you do not have. The beauty of risk-informed planning is that once you accept it's okay to not know everything, you feel empowered to keep pressing forward. For me, the risk-informed planning training in early 2018 proved absolutely essential to feeling confident that embracing risk works, and it enabled me to help the study team be more comfortable with the unease of accepting uncertainty. Understanding risk and uncertainty is especially important on a fast moving study in an area that can flood on a calm sunny day and is home to over 2.7

million people living amongst some of the most expensive real estate in the world. In essence, the Miami-Dade County Back Bay Study embodied just about every facet of risk we as planners can envision. Embracing riskinformed planning was made for studies like this!

Early acceptance and application of risk-informed decision making were essential to the progress and current success of the Back Bay study. The hard work of everyone involved and the commitment to persevering through the planning challenges allowed me to help guide the team through some of these unfamiliar concepts. Even more than two years

after our initial training, understanding and embracing risk and uncertainty in a study still proves challenging at all levels of the Corps.
But I am happy to report the PDT just released their draft report in June 2020, and they are well on their way to successful completion of a Chief's Report. In essence, the process works.

Becoming a Planning Mentor has been such a rewarding experience. I have made new friends and professional contacts, had the opportunity to learn about areas and issues that are well outside my District boundaries, and helped support a study team that welcomed my skills and experiences. I have since been assigned as a Mentor to two more studies and am excited to apply the lessons learned from the Miami-Dade County Back Bay Study to the next set of challenges. If your team is stuck and needs someone to bounce ideas off of, or you are just in need of an outside perspective, I encourage you to reach out for advice or guidance – that is what we are here for.

### WATER RESOURCES PLANNING MENTOR RESOURCES

Formal or informal mentoring relationships can provide encouragement and guidance for an individual or a study team. The Planning Community of Practice encourages mentoring at all levels of the organization. To explore technical mentoring opportunities – as a mentor or mentee – planners should reach out to the Planning Centers of Expertise. Additional resources include:

- Your supervisor
- Water Resources Certified Planners
- Senior District and MSC planners

# PROJECT HIGHLIGHT: NORFOLK COASTAL STORM RISK MANAGEMENT PROJECT CONTINUES TO MOVE FORWARD HURRICANE MATTHEW CAUSED DAMAGING FLOODING IN VIRGINIA BEACH IN THE HAMPTON ROADS AREA IN 2016.

Susan Layton, Norfolk
District Planning & Policy
Chief, and other members of
the Norfolk Coastal Storm
Risk Management Project
team recently spoke with
Planning Ahead to discuss
the progress of the project
as it moves forward into the
pre-construction engineering
and design phase, as well as
share best practices related
to risk-informed planning and
decision making.

SOURCE: THE VIRGINIAN-PILOT/L. TODD SPENCER.

The Norfolk (Virginia)
Coastal Storm Risk
Management (CSRM)
Study was one of the first
USACE feasibility studies to
be started and completed
under the three-year study
duration and \$3 million cost
constraints of the Water
Resources Reform and
Development Act (WRRDA)

learning process for both the Norfolk District and the City of Norfolk, the non-federal sponsor for the study. Virginia's Hampton Roads area, including the cities of Norfolk, Portsmouth, Newport News, and Hampton, was a focus area identified by the North Atlantic Coast Comprehensive Study (NACCS) Report to Congress in 2015. The Norfolk CSRM study, which started in 2016 and resulted in a \$1.4 billion recommendation, was completed within three years and \$3 million to meet the SMART Planning 3x3x3

of 2014. This study was a

Norfolk is an international city and the urban core of

requirements.

Virginia's Hampton Roads area is considered one of the most vulnerable communities in the Nation to future sea level change due to a combination of sea level rise and land subsidence.

the Hampton Roads region. Established in August 1682 at the mouth of the Chesapeake Bay, Norfolk has a long and proud history as a national maritime trading, shipbuilding, and military center. Today, a city of approximately 250,000, Norfolk is the commercial center of the region with a population of 1.7 million residents, producing over \$93 billion worth of product annually.

Norfolk is increasingly at risk of flooding and damage from coastal storms. The

city is a highly urbanized, relatively flat community and its low elevation and tidal connections to the Elizabeth River and Chesapeake Bay place a significant percentage of the city at risk of flooding from high tides, nor'easters, hurricanes, and other storms. Exacerbating the flooding is the phenomenon of relative sea level rise, which is the combination of water level rise and land subsidence. Norfolk is documented as having one of the highest rates



of relative sea level rise among Atlantic coastal communities.

In such a complex planning environment, the project delivery team needed to make risk-informed decisions to stay on schedule and within budget. For example, in order to reach the tentatively selected plan (TSP) on time, the team:

- Used parametric structural costs documented in the NACCS Report;
- Calculated rough order of magnitude real estate costs using assumptions;
- Formulated to the intermediate sea level change curve (not all three) and later did sensitivity runs using the other curves;
- Deferred incorporation of natural and nature based features until after the TSP was selected; and
- Included some nonjustified measures in the TSP and then completed further analysis before screening later, as needed.

As the study moved along towards the Agency Decision Milestone and final report, additional risk-informed decisions included:

 Reporting environmental impact statement impacts in ranges and maximum values;

- Minimizing initial water quality modeling (i.e., extrapolated to smaller tributaries);
- Compiling depthdamage functions from existing studies and other USACE Districts;
- Moving forward with a feasibility-level of design of ~10%; and
- Deferring elements
  that would not impact
  the recommended plan
  in the Chief's Report
  to pre-construction
  engineering and design
  (PED), including: indepth cultural resource
  surveys; full geotechnical
  investigations; and
  further water quality
  modeling based on the
  final operational plan.

The Chief's Report was signed in February 2019 and includes a recommendation for four storm surge barriers, nearly eight miles of floodwall, one mile of levee, 11 tide gates, and seven pump and power stations. The plan also includes nonstructural elevations, acquisitions, and floodproofing, as well as a limited amount of natural and nature based features that contribute to the CSRM project.

The Norfolk CSRM project moved directly from the Chief's Report into the PED phase with the execution of the Design Agreement in June 2019, with the project receiving approximately \$3 million in design funds to

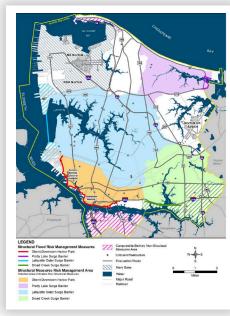
date. The scope of the PED phase is to complete remaining analyses and the first set of plans and specifications for the first construction feature.

This first construction feature, a small portion of the recommended plan, is a 1.3 mile stretch of floodwall and berm extending from the existing downtown

Norfolk floodwall past Harbor Park along the Elizabeth River. The project will need to be authorized and receive a new start funding allocation before construction can begin.

The partnership and engagement of the City of Norfolk was critical to this study's successful completion. In addition to advocating for benefit-cost ratio calculations to more effectively include noneconomic considerations and emphasize inclusion of low-income neighborhoods, the city advocated for the use of additional methods to quantify and justify the incorporation of natural and nature based features within the recommended plan.

The study team also came away with lessons learned for executing comprehensive, urban



A MAP OF THE NORFOLK CSRM PROJECT RECOMMENDED PLAN. SOURCE: NORFOLK DISTRICT.

CSRM studies. Team members are now applying those lessons learned to several studies in South Florida funded by the FY18 Supplemental that the Norfolk District is currently executing for South Atlantic Division, and are sharing those lessons with other study teams inside and outside of the Norfolk District.

The Norfolk District team is still pushing forward with the Norfolk CSRM project, as well. Just as the project moved quickly through the study phase thanks to the effective application of risk-informed planning, the team continues to press forward towards implementation of this important project by relying on risk-informed decision making in PED.



# MANAGED AQUIFER RECHARGE & USACE: Water Security through Resilience

The USACE Institute for Water Resources (IWR) recently published a report on managed aquifer recharge, Managed Aquifer Recharge and the U.S. Army Corps of **Engineers: Water Security** through Resilience (2020-WP-01, April 2020). The report provides numerous examples of **USACE** activities incorporating managed aquifer recharge, reviews the experience of other U.S. government agencies, and considers how managed aquifer recharge can be integrated into the USACE civil works planning process. Will Logan recently provided an overview of this topic to Planning Ahead. Will is Director of the Corps' International Center for **Integrated Water Resources** Management, and Technical Secretary of UNESCO's drylands water program "G-WADI."

he water needs of society are becoming more diverse, as evidenced by the large number of reallocation studies currently among USACE projects. Water resources management and planning are more challenging than ever in the United States with water security in all its forms seeming difficult to achieve and solving water issues by building major new surface infrastructure is generally no longer an option. However, in the midst of these

challenges lie opportunities

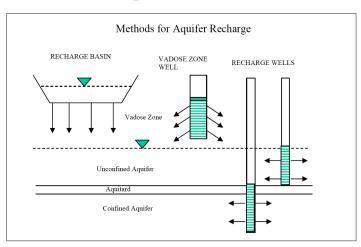
as well. Temporarily storing

water underground for later release for a variety of water management purposes has become widely used in the U.S. and globally. This storage, referred to as "managed aquifer recharge," or MAR, may be accomplished through recharge wells, spreading basins, dry river courses, or other techniques.

MAR is increasingly being used by USACE and by its state and local partners to bring additional flexibility to infrastructure project life-cycle management. MAR can help meet USACE's primary missions of flood risk management and aquatic ecosystem restoration, and support secondary purposes such as drought resilience, water supply, and reducing saltwater intrusion. For secondary mission areas, the agency's role is typically to support its partners' efforts to meet their water resources needs.

In some districts, managed aquifer recharge is well known. For example, in Florida, the Jacksonville District has been researching and testing the potential use of aquifer storage and recovery as part of the Everglades restoration plan for several decades. Overall, USACE and its partners are using or have considered using MAR activities in at least 17 states in six of the eight USACE Civil Works MSCs.

MAR is a potential water management measure consistent with general



VARIOUS TYPES OF MAR SOURCE: NATIONAL RESEARCH COUNCIL. 2008. PROSPECTS FOR MANAGED UNDERGROUND STORAGE OF RECOVERABLE WATER. HTTPS://DOI. ORG/10.17226/12057. REPRODUCED WITH PERMISSION FROM THE NATIONAL ACADEMY OF SCIENCES, COURTESY OF THE NATIONAL ACADEMIES PRESS, WASHINGTON, D.C.

Congressional authorities that govern USACE activities. More recently, the Water Resources Development Act of 2016, added new authorities for USACE to incorporate MAR measures into existing authorized projects for conservation, drought, and water-supply purposes. Project-specific authorizations that include groundwater recharge, such as for the Grand Prairie Region and Bayou Meto Basin in Arkansas, are increasingly common as well. MAR, where appropriate, increases the resilience of water

resources infrastructure to stressors such as population growth, changing land use, and increasing climate variability. The additional management flexibility may also help address allocation conflicts triggered by new water demands or changing conditions, This, in turn, allows the Nation to better prepare, absorb, recover. and adapt to future adverse events or conditions, while extending the functional utility and life of existing infrastructure.

Managed aquifer recharge is a term that covers artificial recharge, aquifer storage and recovery, riverbank and riverbed filtration, groundwater banking, and other mechanisms of purposeful water recharge to aquifers for later recovery. MAR use has grown rapidly over the last two decades, progressing from an often-experimental concept to a management tool used in over 1,000 sites around the world.



## **PCOP NEWS FLASHES**

### PLANNING COMMUNITY NEWS

### 2020 Water Resources **Certified Planners**

Congratulations to the recently named 2020 Water Resources Certified Planners! This is the fourth round of USACE certified planners selected to be part of the program, which sets a standard of excellence for the USACE planning profession and supports the continuing development of a highly capable planning workforce. Water Resources Certified Planners are utilized to tackle the Nation's most complex water resources challenges. They lead and serve on project delivery teams; support planning development by mentoring individuals; make critical decisions and advise Senior Leadership; conduct technical and quality reviews; and provide invaluable input on policy and process. Please help us in congratulating Thomas Jester (SWD), Lauren

Kruse (SWD), Caroline McCabe (SWF), Arnold (Rob) Newman (SWF), Mark Shafer (SWD), Stuart Strum (SPL), Saji Varghese (SWD), and Nathanael Wales (NAN).

### **Revised National Environmental Policy Act Regulations**

On July 16, the Council on Environmental (CEQ) published a final rule titled "Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act." The final rule modernizes and clarifies the CEQ regulations to facilitate more efficient, effective, and timely NEPA reviews by Federal departments and agencies in connection with proposals for agency action. These revised regulations apply to any NEPA process begun after September 14, 2020, and may be applied to ongoing

activities and environmental documents begun before that date. Be on the lookout for USACE guidance related to these important changes in the near future!

### **Planning Associates Classes** of 2020 and 2021 Stay the

COVID-19 may be keeping current Planning Associates (PAs) from gathering in person, but the classes of 2020 and 2021 are maintaining a packed summer thanks to course owners and Program leadership. PAs have already engaged in topical webinars on Water Supply, the Endangered Species Act, and Recreation. Additionally, PAs will participate in two in-depth, virtual courses on Ecosystem Restoration and Integrated Water Resources Management later this summer. The PA Program may look different these days, but course owners

and Program leadership are stepping up to ensure the curriculum remains rigorous.

The PA Program is an advanced training opportunity in water resources planning offered by the Corps, with the goals of broadening planners' competencies and strengthening their leadership talents. For more information on the PA Program, contact Joy Muncy.

### **PCoP Hot Topics**

Can't wait for the next edition of Planning Ahead? Get the scoop on key initiatives and information from Headquarters on guidance, execution, and training in the monthly PCoP hot topics. Find the latest in your email inbox or on the Planning CoP SharePoint. To be added to the newsletter email distribution list, email us at hoplanning@ usace.army.mil.

### What's New on the Planning Community Toolbox

The Planning Community Toolbox is the "go to" website for current planning policy and guidance, and links to the tools that can support planners and planning decision

Looking for guidance on how to shape your career goals based on the knowledge, skills, and abilities needed to excel in USACE water resources planning? The Planning Workforce Development Guide (June 2020 version) is now posted on the Toolbox front page, and can also be found under the "People"

Recent national policy changes and new guidance applicable to planning are always available on the front page under policy and guidance updates. New additions to the toolbox include guidance memos from the ASA(CW) and **USACE** Commanding General on delegation of approval and execution authority for water

supply storage reallocation reports, water supply storage agreements, and surplus water determinations and reports; Economic Guidance Memorandum 20-04 on deep draft vessel operating costs; Director's Policy Memorandum 2020-04 on riskinformed decision making; a new **USACE** National Nonstructural Committee best practice guides (2020-06, Structure Aggregation Methods Used in the Formulation

and Evaluation of Nonstructural Alternatives); a guidance memo on the comprehensive documentation of benefits in feasibility studies; and more.

Looking to spread your wings? Job openings across Planning are frequently posted on the Toolbox's home page under Notices.

Visit the toolbox online at www. corpsplanning.us.



### **DID YOU KNOW?** THE INVASIVE SPECIES LEADERSHIP TEAM IS READY TO HELP PLANNERS

he interplay of elements influencing water resources planning and project development is complex, and information on specific topics such as invasive species may not always be systematically coordinated, accessible, or clear.

To help address this issue across the agency, the USACE **Invasive Species Leadership** Team (ISLT) serves as a resource to provide strategic recommendations on a range of invasive species issues relevant to planners, including assisting planners in identifying their roles and responsibilities related to the prevention or reduction of the establishment of invasive non-native species. In particular, ISLT members are tasked with coordinating and assisting all business lines with implementing best management practices where invasive species prevention, early detection, reduction, and control are required.

**USACE** invasive species policy applies to all Civil Works business programs, including: flood and coastal storm damage reduction; hydropower; navigation; environmental protection and restoration; real



ERDC RESEARCHER NATHAN HARMS RELEASING NEOCHETINA SPP. (OR WATER HYACINTH WEEVIL) FOR WATER HYACINTH BIO-CONTROL ON THE LOWER MCCLELLAN-KERR ARKANSAS RIVER NAVIGATION SYSTEM. THE BEETLES ARE TYPICALLY RELEASED IN THE SUMMER. AND SURVEYS ARE CONDUCTED LATE SPRING OF THE FOLLOWING YEAR TO SEE IF THE BEETLES SURVIVED THE WINTER AND IF THE INVASIVE WATER HYACINTH HAS BEEN REDUCED. SOURCE: INVASIVE SPECIES LEADERSHIP TEAM

estate; and water supply and reallocation. There are numerous Executive Orders, laws, and policies dealing with invasive species that USACE planners should be aware of:

**Executive Order 13112. Invasive Species.** This executive order requires federal agencies including USACE to meet the National Invasive Species Management Plan (NISMP) goals and established the **National Invasive Species** Council (NISC) to oversee implementation of the order. It encourages proactive planning and action, develops recommendations for international cooperation,

and takes other steps to improve the Federal response to invasive species.

**Executive Order 13751, Safeguarding the Nation** from the Impacts of **Invasive Species.** This order amends Executive Order 13112 and directs actions to continue coordinated Federal prevention and control efforts related to invasive species.

John D. Dingell, Jr. Conservation, Management, and Recreation Act of **2019.** This act calls for a substantive annual net reduction of invasive species populations or infested acreage on land or water managed by USACE.

**USACE Invasive Species** Policy Memorandum, **2 June 2009.** This policy memorandum requires all USACE Civil Works projects and programs to address invasive species in accordance with the NISMP.

### **Engineer Regulation 1130-**2-540, Environmental **Stewardship Operations** and Maintenance Policies.

This regulation establishes land management policy for USACE-administered project lands and water,



based on various authorizing legislation and the principles of good environmental stewardship.

In addition to requirements related to invasive species under the Endangered Species Act, National **Environmental Policy** Act, and National Historic Preservation Act, planners who are responsible for planning, writing, or implementing USACE master plans, operational management plans, partnership agreements, regulatory permits, or real estate outgrants should make sure to consider the following factors when working on these types of efforts:

# Integrated Pest Management Plans. The USACE Natural Resources Management Gateway

# WHAT IS A REAL ESTATE OUTGRANT?

An outgrant is a real estate instrument that authorizes a private or public entity, that is not the USACE, to access Federally controlled property for nonmission related purposes.

contains integrated pest management plans by MSC. State invasive species or weed coordinators are helpful resources to contact if your MSC or District or project does not have an integrated pest management plan. All 50 states have noxious weed or pest lists that are ranked by risk, prevention, and early detection.

# Integrated and Adaptive Management. Best management practices (BMPs) for chemical, mechanical, and biological control of invasive species should be included where appropriate. State and county weed and pest coordinators typically maintain lists of BMPs and can share them.

### Regulatory requirements.

Actions related to aquatic environments or that occur below the ordinary high water mark may require a National Pollutant Discharge Elimination System (NPDES) general pesticide permits for pesticide point source discharges.

For more information on how to best incorporate



INVASIVE SPECIES IMPACT USACE PROJECTS AROUND THE COUNTRY. SOURCE: INVASIVE SPECIES LEADERSHIP TEAM

consideration of invasive terrestrial and aquatic species into your planning work or to share best practices or lessons learned, contact your MSC's ISLT point of contact listed on the Natural Resources Management Gateway, or visit the Gateway's Invasive Species page to explore specific species information, training tools, invasive species cost estimates, and more useful resources.

### **MORE RESOURCES**

See the following resources for more information on invasive species considerations:

- National Invasive Species Council 2016-2018 Management Plan
- Invasive Species Leadership Team Members by MSC
- Natural Resources Management Gateway Invasive Species Page (for training, tools, plans, references, and more)

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# What happens after you submit a final feasibility report?

while most of the work on a feasibility study has been completed with the submission of the final report, the work is not quite done. Between the submission of the final report and the signing of the Chief's Report, there are still many steps that must be completed. The process is slightly different between study reports that are approved at HQUSACE and those that are delegated to the MSC Commanders for approval.

For non-delegated studies, the final report, signed by the District Commander, is sent directly to the Regional Integration Team (RIT). The RIT will provide the report to the Policy and Legal Compliance Review (P&LCR) team. For delegated studies, the district will provide the District Commander's signed final report to the MSC, and the MSC will coordinate with the P&LCR team for review of the final report.

The P&LCR team will back-check the comments from the draft report Project Guidance Memorandum (PGM) and review the final report for any additional policy or legal concerns. The PGM will be provided back to the district to address any unresolved issues.

As issues are resolved, the review manager and the P&LCR team suggest when a meeting should be held with the HQUSACE Chief of Planning and Policy to gain permission to release the proposed Chief's Report for State and Agency (S&A) and final National Environmental Policy Act (NEPA) reviews. Per the 1944 Flood Control Act, the S&A review lasts for 30 calendar days. The S&A review is separate from the review requirements of the final Environmental Impact Statement under NEPA, but these reviews are usually concurrent.

For delegated studies, once the review by the P&LCR team has been completed, the MSC Commander will approve the report and send it to the RIT. If the S&A review is initiated prior to MSC Commander report

approval, it is expected that the approval will occur prior to the end of the S&A review period.

The P&LCR review manager, environmental reviewer, and Office of Counsel reviewer will evaluate response letters from the S&A and NEPA reviews to determine if responses or document revisions are required by the Corps. The district may be asked to provide draft response letters in support of these reviews.

The P&LCR review manager and the RIT, with the support of the P&LCR team, will finalize the Chief's Report package for staffing and ultimately, for the Chief of Engineer's signature. During this time, the review manager or RIT may reach back to the district for additional information or needed revisions. The District Commander will provide the brief to the Chief of Engineers.

Upon signature, the Chief's Report is sent to our Congressional authorizing committees, and the signed Chief's Report and accompanying package are provided to the Assistant Secretary of the Army for Civil Works (ASA(CW)) for review and approval. During the review by the ASA(CW), the report is sent to the Office of Management and Budget (OMB) to determine if the recommendations are consistent with the policies and programs of the President. The district may be asked to provide answers to or brief either the ASA(CW) or OMB staffs during these reviews.

For reports that result in a Director's Report, the tasks are similar except that there is no S&A review for Director's Reports.

### WE WANT TO HEAR FROM YOU

QUESTIONS, COMMENTS,
CONCERNS, ANXIETIES —
IF YOUR QUESTION CAN HELP
FELLOW PLANNERS, EMAIL US AT
HOPLANNING@USACE.ARMY.MIL
AND MAYBE YOU'LL SEE IT HERE.