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Reorganizations and Responses: The Evolution of the Philadelphia District, 1972–2008

For much of its history, the U.S. Army Corps of Engineers has had the primary missions of preserving navigability of the waterways of the United States and constructing buildings and other structures for military installations and operations. In the early twentieth century, Congress added flood control and emergency response as Corps missions, leading the Corps to become involved in the construction of levees and dams to provide flood protection, and later to branch out into water resources development and coastal engineering. Although the Corps retained these missions going into the twenty-first century, the 1970s, 1980s, and 1990s saw a drastic decline in the construction of water-related projects involving hard structures such as dams, levees, and seawalls, which were increasingly perceived as environmentally unfriendly. With the passage of the National Environmental Policy Act in 1969, the Corps received a mandate to take environmental and social considerations into account in its projects. Under the Clean Water Act of 1972, Corps projects and activities involving deposition of dredged material had to account for environmental impacts on wetlands and surface waters. The rise of environmentalism in the United States, along with concerns of the Carter and Reagan administrations about, respectively, impacts on local communities and costs to federal taxpayers, led to a decline in dam building and similar large-scale structural solutions.

Facing page: Center City Philadelphia, with the District's Wanamaker Building headquarters situated directly behind City Hall as seen from the steps of the Philadelphia Museum of Art

To offset the loss of this work, the Corps turned to supporting other federal and state agencies in engineering and construction services, particularly environmental cleanup and ecosystem restoration. As these changes occurred, the Corps undertook several reorganizations from the late 1970s into the twenty-first century to enhance efficiencies. These reorganizations included implementing initiatives such as centralization, matrix project management, and regionalization.

The changes trickled down to the Philadelphia District. It, too, saw a decrease in large-scale construction jobs, especially with the demise of the Tocks Island Dam and Trexler Lake projects in the late 1970s. The loss of this work followed the reassignment of other projects and programs to sister districts, eventually leading to the removal of various responsibilities from the district. By the mid-1980s, the number of employees had declined by half and the district's command had been downgraded from colonel to lieutenant colonel. By 1992, the Corps was proposing to eliminate the Philadelphia District entirely. Although the district survived, it had to reinvent itself. Accordingly, the district developed a robust support program for other agencies—particularly the Environmental Protection Agency (EPA) and its Superfund program—and became more involved in military construction.

By the twenty-first century, the Philadelphia District's workload looked quite different than it had in 1972, and the district itself had changed substantially. Some of these changes reflected two major trends that affected almost every aspect of American life over the past generation: computerization and workforce diversity.

The Philadelphia District's transition into the computer age included the first timekeeping program to interface with the Corps-wide management information system; one of the earliest GIS (geographic information system) implementations, for Federal Emergency Management Agency (FEMA) flood plain mapping under a 10-district Corps project known as the National Pilot Study

program; and the inception of several major in-house automated information systems covering a wide range of applications, such as the Schedule of Expenditures and Obligations program (finance), the Time Schedule for Design and Construction program (engineering), and the C&D Canal Ship Traffic Monitoring program (operations). Gradually but steadily, drafting boards were supplanted by AutoCAD, office typing pools gave way to a PC in every cubicle, email surpassed letters, and the Internet made physical distance less and less of an issue.

With computerization came the need for more employees with expertise in computers and information technology. Although many persons with qualifications in those areas also held engineering degrees, the net effect was to add to the growing percentage of nonengineers in the district's workforce. The biggest contributor to this change was the influx of biologists and other natural scientists that began in the 1970s (detailed in the next section); there was also an increased demand for contracting specialists as the district relied on the private sector for a variety of technical services. While civil engineers still constituted the largest single degree group heading into the twenty-first century, the district's professional makeup had become much more diverse. The same was true of its gender makeup. By the early 1970s, women had branched out beyond traditional clerical roles into other support functions, and by the first decade of the new century, they occupied a significant number of the district's scientific, engineering, and managerial positions as well.

The advent of Geographic Information Systems began revolutionizing flood plains mapping in the 1990s

Effects of the Environmental Movement and NEPA

In January 1974, Frank E. Snyder and Brian H. Guss completed a history of the Philadelphia District from its inception to 1971. They noted that, in 1971, the district dealt mainly with "the water-related problems of the Philadelphia area." Activities included conducting studies on "the Delaware River channel,

the development of new dredging systems, and the feasibility of deepwater unloading terminals." The district also had responsibility for implementing a comprehensive water plan for the Delaware River Basin, including constructing reservoirs at Blue Marsh, Trexler, Beltzville, and Tocks Island, and it conducted beach nourishment programs for the Delaware and New Jersey shores.[1]

Looking to the future, Snyder and Guss noted that environmental issues—especially how to balance "the basic conflict between man, the consumer and land, the supplier"—would be "the pivotal mandate for a nation at the crossroads in its choice of lifestyles." As the 1970s unfolded, Snyder and Guss were proved correct. Environmental issues became more important than ever in the United States as a whole, and legislative mandates to protect and restore the environment had significant effects on the Corps of Engineers in general and the Philadelphia District specifically.[2]

Testing at the District's Soils Lab at Fort Mifflin, Pa.

In 1969, Congress passed the National Environmental Policy Act (NEPA), which drastically changed how the Corps did business. This act was the result of the burgeoning environmental movement in the United States. In 1962, Rachel Carson, a marine biologist, published *Silent Spring*, a condemnation of environmental pollution and the use of pesticides. In the eyes of many, the publication of *Silent Spring* ushered in the environmental movement, and it grew exponentially thereafter. According to one historian, the movement had three guiding principles: the necessity of "harmonizing . . . nature's world with man's needs,"

Multipurpose flood control project at Blue Marsh Lake, Pa.

the belief that "progress is not necessarily good, especially if it leads to the dehumanization of life," and the concern that the federal government had had a large hand in upending "the proper ecological balance" in its management of natural resources. As more people became convinced of these ideas, organizations that espoused the promotion of environmental quality, such as the Sierra Club and the National Audubon Society, saw large increases in membership. For example, in 1960 the Sierra Club had 15,000 members; ten years later it had 113,000 members. The National Audubon Society saw its membership go from 32,000 in 1960 to 148,000 in 1970.[3]

Riding the wave of the environmental movement—and with many of its supporters clamoring for laws to promote environmental health—President Richard Nixon signed NEPA into law on 1 January 1970. The law declared the government's intent to ensure the coexistence

of man and nature "in productive harmony" by mandating that federal agencies prepare environmental impact statements (EISs) whenever they conducted activities "significantly affecting the quality of the human environment." These EISs evaluated a project's effects on the environment through both scientific and social-scientific analyses, and through hearings at which members of the general public could voice their concerns. NEPA essentially mandated more public participation in decisions about undertakings that affected the environment and required federal agencies to take environmental health into consideration when planning and funding projects.[4] On the heels of this law came a redefinition of the national interest as applied to economic analysis. Project justifications were being challenged as regionally or locally based rather than reflecting a national need or purpose.[5]

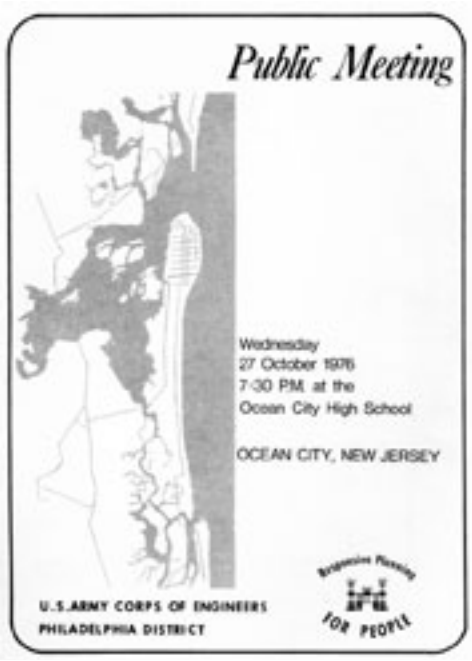
Not long after NEPA became law, the Philadelphia District felt its effects. At the dawn of the 1970s, construction of the Tocks Island Dam was the largest project on the district's horizon. It encompassed building a 3,200-foot-long, 160-foot-high dam that would impound a thirty-seven-mile-long reservoir on the Delaware River close to Stroudsburg, Pa. Designed to provide flood control, water supply, hydropower, and recreation, this multipurpose project was the linchpin of a comprehensive water resources plan approved in 1962 for the Delaware River Basin. But some people had concerns about its environmental effects, charging that it would inundate one of the most scenic parts of the Delaware River (known as the Delaware Water Gap) and create a reservoir with the potential for eutrophication (an overload of nutrients in a water body).[6]

The district prepared an EIS in 1970 as required by NEPA, but the Council on Environmental Quality (established within the Executive Branch by NEPA) deemed it inadequate and required the district to conduct additional studies. This set off a chain reaction of events that eventually led to a withdrawal of support for the project from the governors of New York,

New Jersey, and Delaware, and the halting of any further work on the dam (which had a final design but was not yet in the construction stages) in the early 1970s. In 1978, Congress passed a measure requiring the Corps to transfer all project lands and money to the National Park Service for the establishment of the Delaware Water Gap National Recreation Area. Although the Tocks Island Project was not officially deauthorized until 1992, this transfer effectively killed it.[7]

The National Environmental Policy Act's effects were not confined to the Tocks Island Project. Another impoundment proposed as part of the comprehensive Delaware River Basin planning was Trexler Lake, which the Philadelphia District would construct on Jordan Creek, approximately eight miles northwest of Allentown, Pa. The Corps would use an earth and rockfill embankment for the dam, and the lake would serve flood control, water supply, and recreational purposes. The district completed a general design memorandum in 1971, but construction was delayed for several years because of federal priorities in funding the construction of the Tocks Island and Blue Marsh dams. Congress finally made money available in its fiscal year 1977 appropriations bill, but questions arose over the dam's environmental effects and the contention that only utility and industrial companies would benefit from its construction. As a result of widespread opposition in Lehigh County, the project lost political support from the Lehigh County Commission and from Congressman Fred Rooney (D-Pa.). The Corps placed Trexler Lake on its inactive list in January 1979; in 1986, Congress officially deauthorized the project.[8]

Other Corps districts besides Philadelphia had trouble in the 1970s with large-scale dam construction. The St. Paul District, for example, saw its construction of La Farge Dam on the Kickapoo River in Wisconsin halted because of environmental concerns. In this case, the Corps had completed 40 percent of the actual construction, but worries about the dam's effects



Public meetings on Corps projects such as this one in 1976 were a part of the Environmental Impact Statement process mandated by the National Environmental Policy Act of 1969

on the scenic Kickapoo led to a cessation of construction in 1975 and deauthorization in the 1990s.[9] Using tools such as NEPA, project opponents—not only environmentalists, but also a broad range of other interest groups that seized upon new environmental regulations as a means of achieving their own goals—had the ability to stop large-scale water projects, which happened on a regular basis in the 1970s.

The Corps was also being accused of using faulty economic arguments to justify dam construction and other projects. In making these charges, environmentalists focused on the benefit-cost analyses the Corps used to determine whether a project was economically justified. Under this system, the Corps went through a series of calculations to determine both benefits and costs in annualized terms, then divided the former by the latter to produce a ratio. If a project had a ratio of 1.0 or greater (meaning that for every dollar spent, benefits greater than a dollar resulted), it was economically justified. However, as Daniel Mazmanian and Jeanne Nienaber wrote in 1979, the process had significant issues. For one, the Corps' benefit calculations dealt in financially quantifiable terms such as how a project encouraged development, increased water supply or flood protection, or produced recreational benefits. Environmentalists, on the other hand, saw benefits mainly as "maintaining free-flowing streams, allowing the natural cycle of the ebb and flow of rivers over their banks, and curtailing residential or commercial development in the floodplain." Despite subsequent attempts by the Corps to factor in nonmonetary benefits and costs, disparate cultural values prevented the two sides from reaching consensus.[10]

Benefit-cost ratios were not the only economic feature of Corps projects subject to criticism. Another was the perception of Corps work as largely high-cost, inefficient pork barrel projects that were authorized only because of the Corps' "symbiotic relationship" with Congress. For projects to go forward, the Corps needed congressional approval and funding.

Philadelphia's Delaware River waterfront at Penn's Landing

Members of Congress tended to support Corps projects in their states and districts because they provided visible, tangible benefits to constituent communities. "A congressman will not speak out against a project proposed for a colleague's district, regardless of the project's merits," one observer said, "in order to be rewarded in kind in the future." Thus, Corps projects generally had strong support and little opposition in Congress.[11]

When Jimmy Carter ran for President of the United States in 1976, he pledged to "get the Army Corps of Engineers out of the dam-building business" and to take on Congress's pork barrel politics.[12] Although Carter had an engineering background, he had become distrustful of the Corps of Engineers during his term as governor of Georgia, believing that the Corps manipulated numbers to support projects, regardless of their benefit or the environmental harm they might cause. After becoming president, Carter made good on his pledge by insisting in 1977 that Congress delete eighteen water projects from its public works appropriations bill that, in his words, "would cost billions of dollars and often do more harm than good." His actions outraged

Congress, and he eventually had to compromise on a bill that cut only nine projects. The next year, he vetoed the annual public works bill, which included some of the nine projects. Because "almost every Democratic leader lined up against me," Carter remembered, this "battle left deep scars."[13] However, it indicated to Congress that some people, including presidents, were becoming less comfortable with the legislative branch's close relationship with the Corps, and with projects that they viewed as not in the nation's best interest.[14]

Corps Reorganization in the 1970s and 1980s

Facing opposition from both environmentalists and President Carter, the Corps found it increasingly difficult to get new water projects approved. Indeed, between 1976 and 1986, Congress passed no water resources development acts, the legislation that authorized new Corps projects. Efforts on already authorized projects continued, but the Corps could generate no new work. As the authors of one publication saw it, "By the early 1980s, the era of large-scale water resources development projects had passed, the victim of environmental and budgetary concerns."[15] Accordingly, the Corps examined ways to restructure itself in line with changing national needs and interests, while striving to become more efficient in dealing with its declining workload.

In 1978, the Corps undertook its first reorganization since the Second World War. One of the goals of this restructuring was to realign districts to correspond with major river basins. As early as the 1930s, some organizations had advocated the need for multipurpose river basin planning, and in the 1960s, both John F. Kennedy and Lyndon B. Johnson called for comprehensive plans for river basins. The Philadelphia District had led the way by completing such a plan for the Delaware River Basin in 1962 and by building a close working relationship with the Delaware River Basin Commission, the four-state agency formed "to oversee a unified approach to

managing a river system without regard to political boundaries."[16]

With the idea that it made more sense for water resource planning to revolve around basins, the Corps expressed the intent to facilitate such planning through its 1978 realignment. Ironically, however, what was proposed for the Philadelphia District had nothing to do with aligning it more closely with the Delaware River watershed (whose boundaries it had shared since the district's 1866 founding) and everything to do with aligning the district more closely with its shrinking workload, now that the Tocks Island and Trexler projects had been placed indefinitely on hold.[17]

In 1979, the Marine Design Division, which had been part of the Philadelphia District since 1938, was renamed the Marine Design Center and placed under the jurisdiction of the Corps' Water Resources Support Center at Fort Belvoir (although it remained housed in the Philadelphia District's offices). In 1980, the Corps moved the district's real estate function to the Baltimore District and eliminated Philadelphia's engineering, design, and construction missions for new projects. Finally, in 1983, the Corps reduced the number of hopper dredges under the district's command from three to one. Because of the loss of these functions, the number of district employees fell from nearly 800 in 1978 to fewer than 600 in 1981, to only 400 in 1984. With its drastically reduced size, the district's command was downgraded in 1981 from colonel to lieutenant colonel, making it one of nine Corps districts (out of 40) that did not have full colonels at the helm. As one district publication declared, this period was "one of the more difficult chapters in the Philadelphia District's history."[18]

Facing the diminishment of the district's responsibilities, its leadership set about rebuilding for the future, launching major planning initiatives and exploring alternative sources of work.[19] In this sense, NEPA and other environmental legislation, which had created some problems for the Corps, actually proved to be an opportunity,

especially as Corps leadership tried to embrace the spirit of the laws and comply with their provisions. In 1970, the chief of engineers issued procedures for developing EISs in Corps projects. That same year, the Corps established the Environmental Advisory Board to provide guidance on improving relations with environmentalists and to "examine existing and proposed policies, programs, and activities from an environmental point of view to define problems and weaknesses and suggest remedies." The board served this function until 1980.[20]

Each Corps district was responsible for implementing the new EIS procedures and making itself more responsive to environmental concerns. To achieve these goals, the Philadelphia District established the Environmental Resources Branch in the Planning Division in 1972. The branch provided environmental planning and EIS preparation to the other divisions and branches in the district, functioning, in effect, as in-house consultants while also working externally with states and other federal agencies to resolve any issues they had with the environmental effects of Philadelphia District projects.[21]

To staff the Environmental Resources Branch, the district recruited ecologists, biologists, and archeologists, in addition to engineers. This enabled the branch to effectively prepare EISs, which required input from a variety of disciplines. The hiring of personnel from disciplines other than engineering was a trend in the Corps as a whole in the 1970s and 1980s, especially "staff with expertise in fisheries biology, wildlife biology, archeology, history, economics and sociology." It took some time for the agency to make the transition to a more interdisciplinary culture, but by the 1980s, the Corps could rightly say that it was a "Corps of multidisciplined people."[22]

In addition to the Environmental Resources Branch, the Philadelphia District established a Regulatory Branch in its Operations Division in the 1970s. This branch was responsible for another of the Corps' new roles: wetlands permitting. Under the

Rivers and Harbors Act of 1899, the Corps had received authority to issue permits for activities that affected navigable waters in the United States, ensuring that such activities did not affect navigability and anchorage. In 1972, Congress passed the Clean Water Act. Section 404 of that legislation gave the Corps the responsibility of regulating "the discharge of dredged or fill material into the navigable waters" of the United States. The law specifically charged the Corps with rejecting permit applications if "the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas." In the late 1970s, the definition of navigable waters was expanded to include virtually all wetlands and waters in the United States. Although the Corps resisted this permitting function at first, it had embraced the program by the 1980s.[23]

The Regulatory Branch was charged with both processing permit applications and ensuring that permittees' work was in compliance with the terms of their permits and with the regulatory authorities. While the branch was composed mostly of engineers at the outset, by the twenty-first century the vast majority of its thirty-two employees were biologists or physical scientists.[24]

Monitoring by the District's Regulatory Branch at a wetlands mitigation site in Ocean City, N.J.

A significant new mission that the Corps explored in the 1980s was supporting Superfund projects conducted by the EPA. Superfund arose in the early 1980s from growing concern about hazardous waste deposits in the United States. Stemming directly from the nation's

The Bridgeport Rental & Oil Services Superfund site, Bridgeport, N.J., before remediation. It was once rated the most challenging cleanup on EPA's National Priorities List

experience with Love Canal, N.Y. (in which hundreds of homeowners were forced to evacuate when it was discovered that their homes were built on a toxic waste site), the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 created the Superfund to clean up hazardous waste sites in the United States. The EPA, created in December 1970, was responsible for the Superfund program.[25]

The Philadelphia District already had a relationship with the EPA: In 1978, the Corps had concluded an interagency agreement under which the district received charge over all wastewater treatment construction projects in Pennsylvania and Delaware. In just a few short years, this program had come to constitute a significant piece of the district's construction management workload. Building on that relationship, the EPA asked the district in 1981 to supervise hazardous waste cleanup of two Superfund sites in New Jersey: Bridgeport Rental and Oil Services and Lipari Landfill. These efforts began the Philadelphia District's long association with Superfund and the EPA, an association that continued into the twenty-first century and became a significant part of the district's responsibilities.[26] The district undertook these duties as part of its Support for Others program (now known as International and Interagency Services), whereby it worked for other federal agencies, state and local governments, Indian tribes, foreign governments, and international organizations to "provide quality engineering, environmental, construction management, real estate, research and development, and related services."[27]

Another area of operations that the environmental movement made possible was ecosystem restoration. Recognizing that many locations had experienced environmental damage as a result of development—and even because of some Corps projects—Congress authorized the Corps, in the Water Resources Development Act of 1986, to participate in environmental restoration projects. Not long after that, President Bill Clinton's administration placed a priority on ecosystem restoration, paving the way for the Corps to become more involved. Given its previous work to mitigate beach erosion and storm damage on the coastlines of New Jersey and Delaware, the Philadelphia District seemed a natural fit for ecosystem restoration. In fact, the restoration work that the district undertook in the 1990s stemmed from its coastal erosion experience, as it began studying ways to mitigate damage caused by storms and beach erosion in areas such as Lower Cape May Meadows in New Jersey.[28]

In addition to environmental work, the district attempted to restore its military construction mission, which Corps headquarters had transferred to the Baltimore and New York districts in 1960. Lt. Col. Ralph Locurcio, who assumed command of the Philadelphia District in 1984, made it a goal to regain this mission. Largely through his leadership and that of Nicholas Barbieri, then chief of the Engineering Division, the district saw its oversight responsibilities restored for military construction projects at Fort Dix and McGuire Air Force Base in New Jersey. However, although the district continued to do military construction at these and other installations, its military mission was not reinstated

New Jersey's "The Meadows" and the adjacent Borough of Cape May Point, jointly benefiting from the berm-and-dune system constructed by the Philadelphia District

until early in 2009, when it was officially designated one of the Corps' military districts, with responsibility for installation support at Dover Air Force Base and Tobyhanna Army Depot; U.S. Army Reserve Command construction within the district's geographic footprint; and all electrical power contracting for overseas contingency operations. Similarly, in 1988, the district regained its engineering, design, and construction missions from the Baltimore District.[29] With these missions reinstated, the district seemed well positioned for the future.

Corps Reorganization in the 1990s

In the late 1980s and early 1990s, the Corps proposed another reorganization—a major overhaul of its structure. In response to the organization's declining civil works workload, when Lt. Gen. Henry Hatch became chief of engineers in 1988 he undertook a thorough review of the Corps, which at the time had thirty-nine districts under the jurisdiction of thirteen divisions. According to one study, Hatch thought that reorganization was necessary for several reasons, including "imbalances between the locations of the Corps' workforce and its work; the shift from a workload heavy with design and construction to one weighted toward operations, maintenance, regulatory, and environmental restoration activities; and the need to reduce Corps overhead." Congress also recognized that the Corps needed to rethink its structure, mandating in the Energy and Water Development Appropriations Act of 1990 that the Corps "initiate a broad-based conceptual study of potential field organizational structures." Hatch established a team led by Fred H. Bayley, Chief of Engineering of the Vicksburg District, to provide recommendations for reorganization. In January 1991, the team submitted its report to Congress (known as the Bayley Report), outlining a conceptual restructuring framework.[30]

At the same time, the U.S. military was downsizing in response to the end of the Cold War. To deal with these changes, Secretary of

Defense Richard Cheney created the Commission on Base Realignment and Closure (BRAC) in 1988 "to review DoD installations and to recommend some facilities to be realigned, consolidated, or closed." Hoping to keep these closures and realignments from becoming politicized (since the closure of bases would have economic effects on the communities that surrounded them), Congress mandated in the Defense Authorization Amendments and Base Realignment and Closure Act of 1988 that whatever recommendations the BRAC commission made had to be accepted by Congress as a whole, or all would be rejected. In 1990, Congress passed the Defense Base Realignment and Closure Act, mandating that an independent commission review any Department of Defense recommendations to assess their validity. Whatever recommendations the commission ratified, both Congress and the president had to accept as a whole and not in part. Soon after the passage of this act, General Hatch, in consultation with Les Edelman, chief counsel of the Corps, decided that it would be politically expedient to include Corps reorganization under BRAC, as it too had the potential of becoming politically charged and controversial.[31]

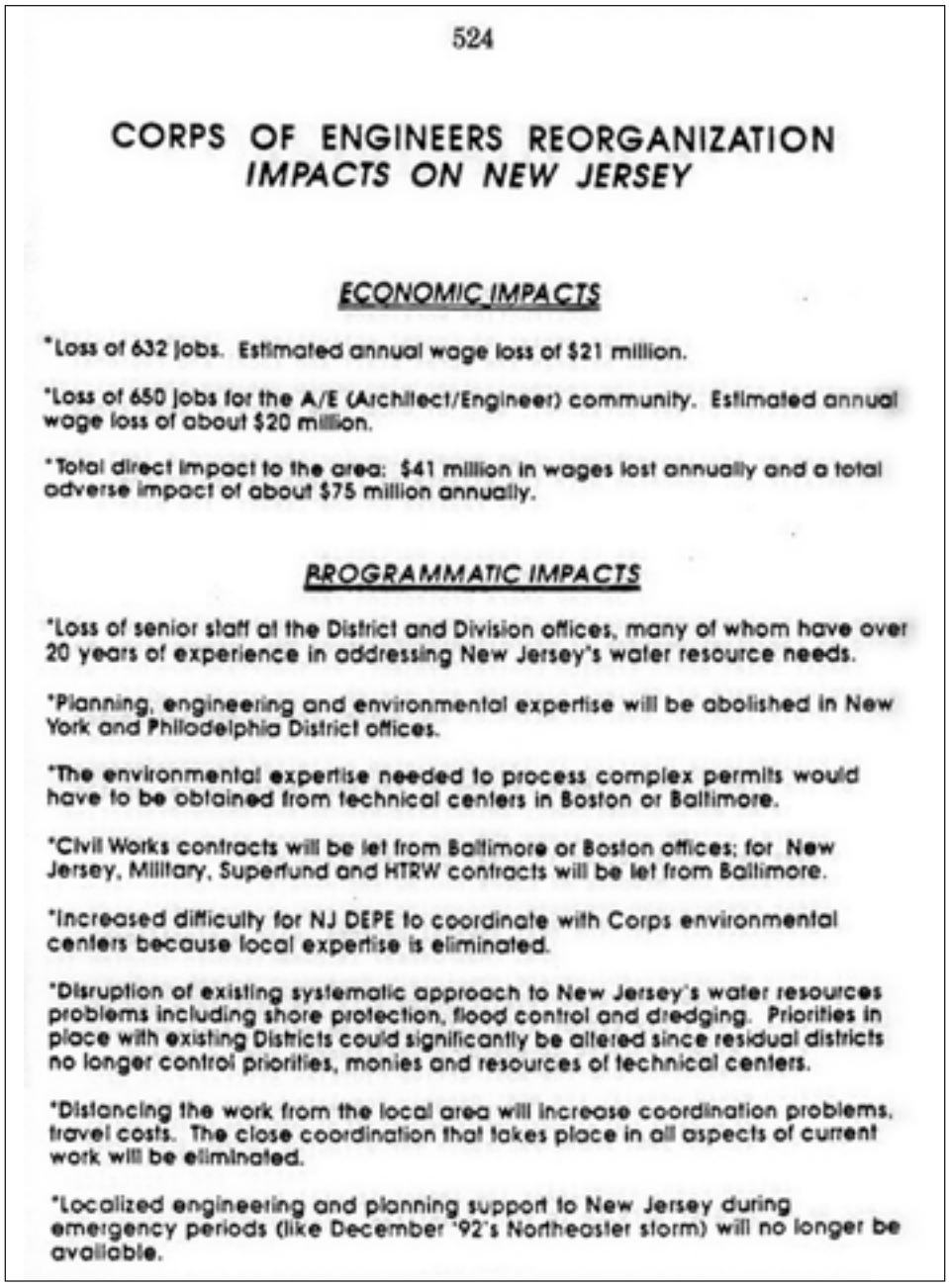
With the Corps now planning to use the BRAC Commission, Hatch appointed another team to develop a concrete reorganization plan. The eighteen-person Reorganization Study Team was led by Brig. Gen. Arthur E. Williams, commander of the Lower Mississippi Valley Division. In February 1991, the team completed its report, recommending that the Corps reduce the number of its divisions from ten to six and the number of its districts from thirty-five to twenty-two. Several districts were slated for closure under this plan on the basis of a "D-Pad" computer model developed by the BRAC Commission that measured and ranked districts according to several capabilities. Even though the Philadelphia District ranked sixth out of thirty-five districts in its D-Pad score, Corps Headquarters placed it on the closure list and planned to transfer its operations to New York.[32]

For those who worked in the Philadelphia District, the news that it was slated for elimination came as a cruel blow. As Richard Maraldo, who was serving as deputy district engineer for programs and project management, later explained, "The district was very proud of its history and execution." Even with the problems with Tocks Island and the decline in the amount of work, Philadelphia District personnel believed that the district had "an above average performance history" and that it did its job well.[33]

Others agreed, including members of Congress who did not want to see Philadelphia or other districts closed. Although Congress had not offered any resistance when the Corps first proposed that reorganization be included in the BRAC program, several members of Congress now vehemently disagreed with the proposal, stating that they would reject any BRAC recommendations that included the closure of Corps offices. Fearful that the whole BRAC process was in danger, Secretary of Defense Cheney refused to include the Corps' plan in BRAC, although he did announce in May 1991 that Corps reorganization would go forward separately. However, the BRAC Commission itself recommended to Congress that the BRAC program include the Corps' plan, unless Congress could develop another proposal by 1 July 1992.[34]

Congress, however, took swift action to ensure that Corps reorganization would not survive. First, it prohibited the Corps from using any funds appropriated in either the public works or armed services appropriations bills to close any district or division office. Second, it deleted the Corps' plan from the BRAC Commission's recommendations. In the words of Nancy P. Dorn, who became assistant secretary of the Army for civil works in fall 1991, these actions told Corps leaders that "while there may be a need to reorganize the Corps to meet the challenges of the 21st century, the proposed plan was unacceptable." The actions also convinced Dorn that "there should be an opportunity for congressional involvement in any future plan."[35]

In March 1992, the House Subcommittee on Water Resources of the Committee on Public Works and Transportation held hearings on reorganization of the Corps. Those hearings gave supporters of the Philadelphia District the opportunity to express their opinions about the proposal to close the district. Congressman Wayne "Curt" Weldon (R-Pa.), for example, opposed the closure, stating that the district was a "perfect example of an operation that provides military services and vital civil works assistance." If the Corps closed the district, he said the states of Pennsylvania, New Jersey, and Delaware "would lose the regular delivery of flood control and beach restoration services which support the fishing, boating and tourism industry." Likewise, Congressman Thomas Carper (D-Del.) said that the Philadelphia District was "centrally located for the five states which it serves," giving state and local officials ready access to the Corps. The district "also provides critical services, which I believe are vital to state and local economies within the Delaware River," Carper said, including "shoreline protection, . . . safe and efficient navigation and . . . wetland regulation." He concluded, "This is an example of a case in which government works best when it is closest to the



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CORPS OF ENGINEERS REORGANIZATION
IMPACTS ON NEW JERSEY

ECONOMIC IMPACTS

*Loss of 632 jobs. Estimated annual wage loss of $21 million.

*Loss of 650 jobs for the A/E (Architect/Engineer) community. Estimated annual wage loss of about $20 million.

*Total direct impact to the area: $41 million in wages lost annually and a total adverse impact of about $75 million annually.

PROGRAMMATIC IMPACTS

*Loss of senior staff at the District and Division offices, many of whom have over 20 years of experience in addressing New Jersey's water resource needs.

*Planning, engineering and environmental expertise will be abolished in New York and Philadelphia District offices.

*The environmental expertise needed to process complex permits would have to be obtained from technical centers in Boston or Baltimore.

*Civil Works contracts will be let from Baltimore or Boston offices; for New Jersey, Military, Superfund and HTRW contracts will be let from Baltimore.

*Increased difficulty for NJ DEPE to coordinate with Corps environmental centers because local expertise is eliminated.

*Disruption of existing systematic approach to New Jersey's water resources problems including shore protection, flood control and dredging. Priorities in place with existing Districts could significantly be altered since residual districts no longer control priorities, monies and resources of technical centers.

*Distancing the work from the local area will increase coordination problems, travel costs. The close coordination that takes place in all aspects of current work will be eliminated.

*Localized engineering and planning support to New Jersey during emergency periods (like December '92's Northeaster storm) will no longer be available.

A statement to Congress concerning impacts on the State of New Jersey if the Philadelphia District is closed

people that it serves." Congressman Thomas Foglietta (D-Pa.), a Philadelphia native, flatly declared that the Corps' decision to close Philadelphia was "wrong" because of the district's dredging activities, as well as the fact that "the loss of almost 500 jobs would have a serious negative impact" on the city of Philadelphia. He said that the Philadelphia District was "critical to the safe, efficient, and competitive operation of the ports in the Delaware Valley and to the regional economy."[36]

Members of Congress were not the only ones voicing support for the Philadelphia District. John LaRue of the Philadelphia Regional Port Authority and Don Rainear of the Delaware River Port Authority lauded the district for its timely responses to emergencies at those ports, as well as the fact that "the Corps employees are local people who are intimately familiar with the area."[37] The hearings showed that many people in the states the Philadelphia District served considered its shoreline protection and navigation work essential to their economic well-being.

However, Assistant Secretary Dorn emphasized the need for some kind of reorganization, citing the fact that the Corps' civil works workload—mainly in design and construction—had declined by 25 percent since 1965 and that its military construction mission had experienced a "much more severe" decline. Dorn pointed out that workload was distributed unevenly throughout the districts, so that in some, "the planning, design, and construction workload changes by as much as 50 percent from one year to the next." With such fluctuations, she said, "It is impossible to staff full service districts efficiently." Small districts especially suffered, Dorn continued, because their overhead was an average of 20 percent higher than the overhead at a large district. "When a district starts to run out of work," she said, "the costs go up" and a "project in a smaller district may end up costing more than the same project in a medium-sized or a large…district." In essence, Dorn was arguing that the closure of some small districts might be unavoidable. However, she

acknowledged that the Corps had "no plan B" at that moment, even though she hoped to implement a plan in fiscal year 1993.[38]

In the midst of these closure discussions and hearings, the Philadelphia District, under the leadership of Lt. Col. Kenneth H. Clow, made plans to move its headquarters office for the first time in more than thirty years. Located in the Customs House since 1961, the district moved to the Wanamaker Building over the course of six weeks in March and April 1992. This was the twelfth move in its history for the district; district personnel hoped that the Wanamaker Building would provide it with a home for many years to come.[39]

However, whether the district would remain in the Wanamaker Building was contingent on whether it would remain a viable district. By November 1992, the Corps—under the leadership of new Chief of Engineers Lt. Gen. Arthur E. Williams, who had chaired the 1991 reorganization study—produced another reorganization plan. Bowing to the congressional firestorm produced by the proposal to close districts, the new plan recommended that all districts be retained (although it proposed a realignment of duties) and that the number of divisions be consolidated from eleven to six. The Corps would establish fifteen civil works technical centers, which could "provid[e] greater concentrations of planning, design, and review." Under this new plan, the Philadelphia District would be retained, although it would undergo significant restructuring. The Corps proposed moving all military construction from Philadelphia to the Baltimore District and transferring the only recently regained engineering and planning missions to the proposed Baltimore District civil works technical center. The Philadelphia District would keep its project management, civil construction, operations, and regulatory missions, but the Marine Design Center would be transferred to the Norfolk District. Overall, the number of Philadelphia District employees would fall from 510 to 348, and the district would be placed under the new North East Division, which would replace

Customs House

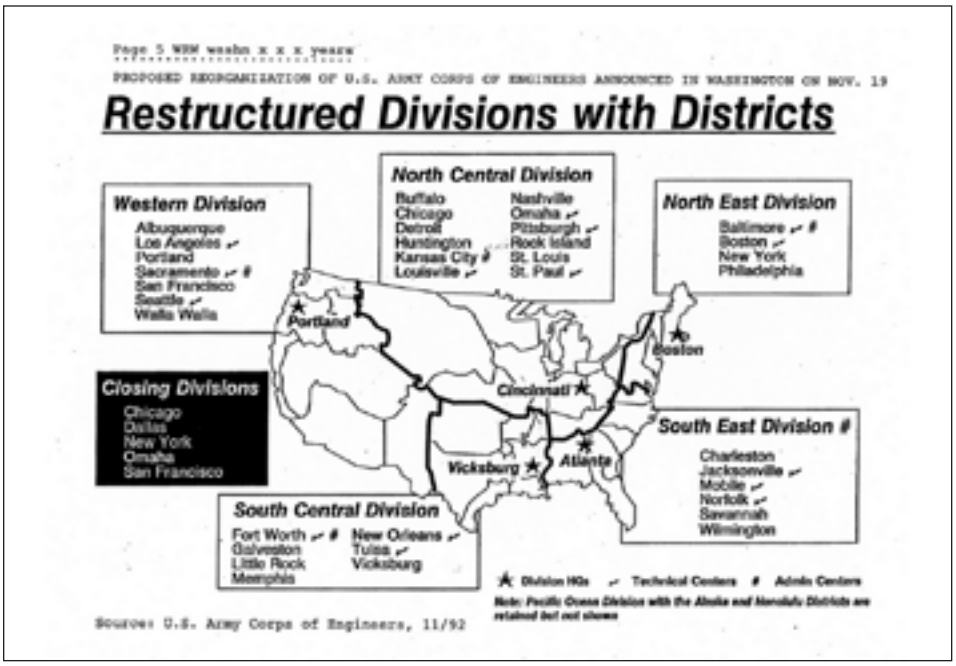
the North Atlantic Division. This restructuring was to occur in fiscal year 1994.[40]

Before the Corps could proceed with its proposal, it had to clear it with the incoming Clinton administration. Clinton was elected in November 1992, just days before Williams unveiled the Corps' new plan, and took office in January 1993. The day after inauguration, Les Aspin, the new secretary of defense, tabled the reorganization plan; according to one history, Aspin refused to act on the plan in 1993, "effectively killing it." Aspin's objections to the plan are unclear; but, faced with this situation, Williams ended the Corps' reorganization efforts. The Clinton administration, under the leadership of Vice President Albert Gore, conducted its own study in 1993 of how to reinvent government, called the National Performance Review. On the basis of recommendations from that study, Clinton proposed legislation to make the federal government more efficient, which Congress passed in 1994 as the Federal Workforce Restructuring Act. Under Section 3201 of that act, the administration proposed "reorganizing the [Corps'] Headquarters offices, reducing the number of Division offices, and restructuring the district functions so as to increase the efficiency." This meant that

proposals to restructure the Corps would continue, and the Clinton administration began planning for reorganization in 1994.[41]

Unlike previous plans, the proposal developed by the Clinton administration did not adversely affect the Philadelphia District, as most of the restructuring occurred at the headquarters and division levels. For example, the administration reduced the number of divisions from eleven to eight, with two becoming "regional centers." Few changes were made in the Philadelphia District. According to Lt. Col. Robert P. Magnifico, District Engineer at the time, the district's size "will be driven by our workload," which he characterized as "healthy." Magnifico told district personnel that "the future looks pretty good as we move our planning studies into the engineering and design areas." The district's workload at the time consisted of a proposed deepening of the Delaware River Main Channel from 40 to 45 feet, its support of EPA Superfund projects, its regulatory program, its shoreline protection and maintenance dredging activities, and military construction at Fort Dix, McGuire Air Force Base, and Dover Air Force Base (where the district had begun working in 1994).[42] Magnifico

Wanamaker Building



The Corps' restructuring proposal, November 1992

estimated that the district did $240 million worth of work in 1994, and he noted that it had a "top 10 district ranking in the Corps of Engineers, nationwide."[43] However, the uncertainty surrounding the status of the Philadelphia District for much of the 1990s was difficult for personnel. "It was very tense having that sword hanging over our heads," Richard Maraldo said, but "we just continued to do our jobs to the best of our ability."[44]

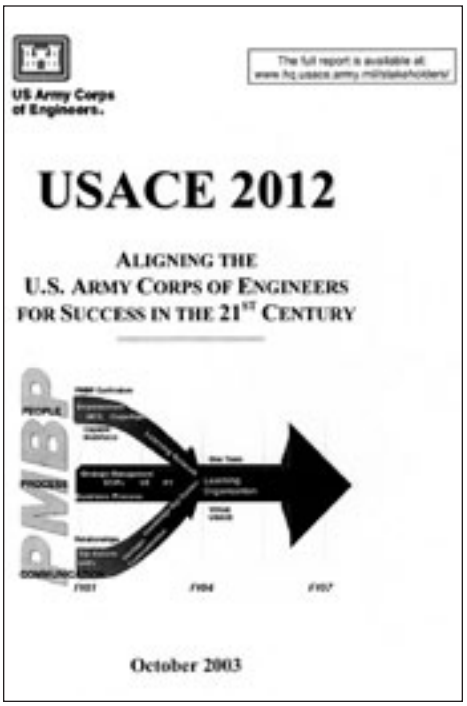
Regionalization and USACE 2012

The creation of regional centers under the Clinton administration's restructuring highlighted a direction that the Corps increasingly traveled in the late 1990s and into the twenty-first century—that of regionalization.[45] For example, Chief of Engineers Lt. Gen. Joe Ballard explored the concept of using Corps personnel and resources across district boundaries in his Door to the Corps initiative in 1996. This concept envisioned the Corps as a place for one-stop shopping for a variety of federal, state, and local agencies. As part of this initiative, the Corps designated the district as the one "door" for EPA Region III's Superfund program, which covered eight districts and three divisions. The Philadelphia District was chosen in large part because of its existing strong relationship with Region III and because the two offices are in close geographic proximity. This new arrangement quickly proved beneficial to the Corps. "Our own Superfund workload is up," observed project manager John Bartholomeo in 1998, "but most of the projects we have brought in have gone to other districts, or in some cases even outside the North

Atlantic Division." He saw his work as an example of the Corps "function[ing] more as a seamless organization."[46]

In 1998, expanding on the Door to the Corps idea, Corps Headquarters developed the concept of regional business centers, whereby "a division headquarters office manages itself and all of its subordinate districts as a single business center, balancing the types and quantities of workload against resources throughout the division's areas of responsibility." The business center goal was to more fully use the resources in a division and provide districts with "the flexibility necessary to meet customer needs, obtain efficiencies, adjust to resource constraints, and optimize good business practices."[47]

Although the Corps made it policy to create regional business centers, the process was a slow one. It gained momentum in the first part of the twenty-first century after Lt. Gen. Robert Flowers became chief of engineers. Flowers emphasized changing the hierarchical, stovepipe nature of the Corps into a more team-based organization. He discussed his ideas with other Corps personnel, soliciting input and comments about what he wanted to implement. In October 2003, Flowers issued USACE 2012, a reorganization plan that aimed, according to one news release, "to increase efficiency and foster teamwork" among Corps personnel.[48] Under USACE 2012, Corps personnel were to think beyond their own district boundaries and embrace the concept of the Corps as one big team. The plan reiterated the policy of establishing regional business centers that would allow districts to draw on the expertise of other districts within their division for specific work. As defined in a January 2008 regulation, the business centers were "the division headquarters, its subordinate districts, and USACE centers, where needed, acting together as a regional business entity."[49] To accomplish specific missions, the centers—governed by a Regional Management Board—would assign work to the districts according to their expertise. Under this new organizational structure,



The USACE 2012 proposal

the districts would "focus more directly on actual mission execution without the burden of managing support activities," while "regional use of district technical expertise allows people to further hone their technical skills and knowledge."[50] Another Corps publication characterized USACE 2012 as "a new project-focused design."[51]

For the Philadelphia District, USACE 2012 was not a great change, as the North Atlantic Division had already formed a regional business center in 1998 "as a tool to balance workload, staffing and funding."[52] The Regional Management Board—consisting of each district's deputy district engineer for programs and project management—governed the business center, which North Atlantic Division Commander Brig. Gen. Merdith "Bo" Temple described as "one team of some 3,500 Corps of Engineers professionals located in six districts under one regional office." Temple explained that this model would allow districts to focus on their core expertise rather than trying to develop expertise in all of the Corps' missions. As an example of how regionalization worked, Temple pointed to the Baltimore District's demolition of Tacony Warehouse, an Army facility in Philadelphia. Although Baltimore was responsible for the demolition, it relied on the Philadelphia District "for construction management and quality assurance." Likewise, the Philadelphia District, as part of the Global War on Terror, awarded a $500 million contract in Iraq to a private developer for construction and renovation of schools, health facilities, and other buildings. Administering such a large contract required much time and resources, so the district "drew upon New England and the North Atlantic Division Office for contracting support."[53]

With projects already transcending district boundaries, Lt. Col. Robert Ruch, District Engineer of the Philadelphia District from 2004 to 2006, told district employees in 2004, "We've been operating regionally for years and should recognize how successful we have been." He used the district's Superfund work as an example of

"work that has been accomplished with the help of others" and echoed Temple's sentiments about the Tacony Warehouse demolition.[54] However, Ruch emphasized that "*regionalization does not necessarily mean centralization.*" Rather, Ruch said, it was "all about *delivering the customer's needs in a more efficient manner*, . . . at whatever level that is best accomplished." In short, USACE 2012 forced the Corps to think outside district boundaries to provide better service and better products to its customers.[55]

Project Management Initiatives

In many ways, USACE 2012 merely furthered initiatives that the Corps had undertaken as early as the 1980s in terms of how it managed projects, largely in response to direction from Congress in the Water Resources Development Act of 1986 (WRDA-1986), the first omnibus water resources act to pass in ten years. As noted earlier, President Carter had targeted Corps projects as economically wasteful and environmentally damaging. When Ronald Reagan took over the presidency in 1981, his goal of reducing the federal government's footprint and trimming the federal budget meant that the Corps would remain under attack. Although both James Watt, Reagan's secretary of the interior, and William Gianelli, the assistant secretary of the Army for civil works, favored water resource development, they, together with other administration officials, wanted to find ways to reduce government costs on those projects. They looked to cost-sharing arrangements, under which local communities would bear more financial responsibility for projects, thus relieving the federal government of part of the financial burden while also reducing the number of unnecessary projects (since local interests would theoretically be inclined to pay only for projects that would be of substantial benefit to them).[56]

Traditionally, the federal government had funded every aspect of the construction of flood control projects and river and harbor navigation projects, but

Construction of a streambank erosion control project along Basket Creek in Sullivan County, N.Y.

Gianelli proposed that the federal government only fully fund reconnaissance studies to determine whether a project was feasible. If it was, local interests would share 50-50 with the federal government in the costs of feasibility studies and construction of flood control projects. Although the administration met with initial resistance in Congress, it was successful in getting cost-sharing measures included in WRDA-1986. According to that law, local sponsors would contribute 25 to 50 percent of the construction, operation, and maintenance costs of flood control projects, as well as 50 percent of the cost of feasibility studies. In addition, local sponsors would have to pay up to 60 percent of coastal harbor deepening projects. According to one history, these measures had two effects: they "significantly reduced the number of feasibility studies that were undertaken" and they "encouraged the local sponsor

to take a much larger role in the project through its design and construction phases." Essentially, cost-sharing provisions not only reduced federal government expenditures; they made local sponsors virtual partners with the Corps on many of its projects.[57]

Not everyone was enthusiastic about these changes. According to Locurcio, who was district engineer of the Philadelphia District when WRDA-1986 passed, the cost-sharing provisions were "very detrimental to the locals," because "they couldn't afford it." Locurcio feared that legitimate projects that would benefit communities would fall by the wayside because local sponsors would be unable to fund them.[58] This meant that not only would the Corps be unable to help local communities, but its workload would decrease. Since the Philadelphia District was already struggling with a declining civil works workload in the mid-1980s, this was problematic.

In another sense, cost-sharing forced the Corps to revisit the way it managed projects. As one account explained, before WRDA-1986, the Corps had generally looked at "project needs for the coming fiscal year or for a particular phase (e.g., planning, design, or construction) with less concern for the overall (life cycle) schedule or cost estimate for the full duration of a project." Under WRDA, this approach was no longer possible, because local sponsors would have to "know their share of the cost with a high degree of precision." In terms of military programs (which were not subject to cost-sharing arrangements), the Corps also needed new management techniques, because such projects were generally funded by "federal appropriations [to] other agencies and provided to the Corps."[59]

When Lt. Gen. Henry Hatch became chief of engineers in the late 1980s, he focused on improving the Corps' project management. He worked with Robert Page, the assistant secretary of the Army for civil works, who had experience in private industry and who believed the Corps had a long way to go in terms of project management. At that time, districts had no central way of managing

a project. Districts typically were organized around four functional divisions—planning, engineering, construction, and operations—each with its own programs and projects. The larger civil works projects were often transferred from one functional area to another as they progressed but with no single long-term project manager to ensure that budgets and deadlines were met. This led to cost overruns, delays, and little accountability—and to projects that lasted decades.[60]

Page, with Hatch's full support, made a concerted effort to promote a centralized form of matrix project management, and the two worked with Corps leaders in 1988 to develop the process, which became known as "life-cycle project management." Under this process, a specific project management division in a district would take charge of a project from beginning to end. The project managers in this division would be responsible for ensuring that budgets and timelines were met and that effective communication was occurring with local sponsors and other interested parties. They would shepherd the project through the different stovepipes to ensure a successful outcome.[61]

The Corps had many goals for this centralized process, including a reduction in time spent on planning and design, better communication and collaboration with local sponsors, and more accurate estimates of project costs and deadlines.[62] On 1 July 1988, the Corps directed that project management be implemented at each district through four main steps: creating the position of deputy district engineer for project management; assigning a project manager to every project; creating a Program Management Office for technical support; and establishing a project management board to review every project on a monthly basis.[63]

However, no clear deadline was given for filling the deputy district engineer for project management position, and the implementation of project management proceeded haphazardly for the next several years. Some Corps employees resisted the idea of having a manager outside their stovepipe supervising their

This "sand-throwing" ceremony marked the start of beach nourishment at Rehoboth Beach and Dewey Beach, Del., under a Corps project cost-shared with the Delaware Department of Natural Resources and Environmental Control

projects, while others saw it as just one more layer of bureaucracy.[64] In light of the many previous initiatives that had never fully materialized, the Philadelphia District's leadership decided to take a wait-and-see attitude—to determine how serious Corps leadership was about the project management program before filling the deputy district engineer position.[65]

In 1988, the district appointed the chief of planning to serve as acting deputy district engineer, but as Corps Headquarters continued to emphasize the importance of project management, the district finally created and filled the position of deputy district engineer for programs and project management (DPM) in 1989. Since then, this has been the senior civilian position in each Corps district.[66]

This deputy was dual-hatted as chief of the newly created Programs and Project Management Division (PPMD), which at first incorporated only civil works design and construction. Military construction, the Support for

Others program, planning, and operations and maintenance were not included, although they would be added later. By 1998, PPMD consisted of two branches—the Project Management Branch and the Programs Branch—the latter of which focused primarily on project budgeting. According to Richard Maraldo, the district's first DPM, "The senior leadership of the district" was "very supportive [of] and cooperative" with the project management program, setting it on a path to full integration in the Philadelphia District.[67]

The Corps' increased emphasis on project management was extended to the district's military and interagency missions in the late 1980s under the leadership of Lieutenant Colonel Locurcio, who combined the Engineering and Construction divisions. According to Locurcio, the goal was to provide "continuous management from the cradle to the grave of a project." Because these two types of projects (unlike those in civil works) came to the Corps already fully defined, the "cradle" starting point in the district was not planning but engineering. Despite a push in 1993 to reestablish Construction as a separate division, the single Engineering and Construction Division remained intact.[68]

Similarly, the Philadelphia District reexamined its Operations Division in the 1990s as part of a Corps initiative to assess the operations and maintenance program in all its districts. This division, with 265 personnel, was responsible for operations and maintenance of civil works projects, the dredging fleet, the management of flood control projects and the Chesapeake and Delaware Canal, the district's regulatory mission, and emergency management. In 1995, the district reorganized the division, combining some branches and ensuring that each civil works operations and maintenance project had a designated project manager. For example, elements of the Navigation and Maintenance Branch were combined with part of the Plant Branch to form the Management Support Branch, while the Surveys Branch and Operation and Maintenance Contracts Branch became the Operations

Technical Support Branch. The reorganization eliminated eight full-time positions (which were unfilled vacancies) and streamlined supervisor-to-employee ratios.[69]

As the Corps moved into the twenty-first century, project management continued to evolve. Regionalization progressed, and the Corps formalized and expanded the practice (which had long existed to some extent) of working across district lines to deliver quality products. Corps Headquarters incorporated this practice into project management, calling it the project management business process. Under this process of "one project, one team, one project manager," each project would have a project delivery team that was "responsible for project success." (Previously, such teams were formed only for the larger civil works projects and included specialized consultants, usually from elsewhere in the Corps.) Members of the project delivery team could come from other districts and might include "specialists, consultants/contractors, stakeholders, or representatives from other federal and state agencies." As a 2006 Engineer Regulation stated, "Led by the Project Manager, [the project delivery team is] empowered to act in unison across organizational boundaries focusing on consistent service to customers." To increase its level of partnering, the Corps mandated that the project manager and the project delivery team work with the customer to develop a project management plan and stay in close contact over the course of the project.[70]

Although the project management business process seemed like a natural evolution, given the focus on regionalization in the twenty-first century, the concept met with some resistance in the Corps as a whole and in the Philadelphia District specifically. In 2000, Lt. Col. Timothy Brown, District Engineer for the Philadelphia District, commented that anyone who believed that the project management business process would "pass like past ideas" was "wrong."[71]

And yet, when Lt. Col. Thomas C. Chapman took over as district engineer in 2002, one

interviewer informed him that "District personnel are looking for guidance from you about the project management business process." Chapman responded that he understood "why there may have been negative feelings" but that implementing the principles of the process would "lead . . . to bigger and better things."[72] He said that although the concepts of the process were not new, "the total immersion of all our projects into the PMBP is a new way of doing business for many of us." He characterized the process as "a very positive change" and encouraged district personnel to "learn the process and thoroughly understand it."[73] Eventually, district personnel became more comfortable with the process, especially with increased pressure from Corps Headquarters for full implementation.

Perceptions of the Philadelphia District

Between 1972 and 2008, the Philadelphia District faced changing missions, threatened reorganizations and eliminations, and new policies mandated by Corps Headquarters. In dealing with these issues, the District for the most part responded positively, even though it was handicapped by its status as a small district, which partially explained how it was treated in the reorganization proposals. Former District Engineer Locurcio said that in his interactions with district engineers from the Baltimore and New York Districts, he felt like a "second-class citizen," in part because he was a lieutenant colonel and the other commanders were colonels. Also, the Philadelphia District was sandwiched between two other districts that had perceived advantages in terms of visibility and influence—the New York District was essentially collocated with the parent North Atlantic Division in Manhattan, and the Baltimore District was only an hour from Corps Headquarters in Washington, D.C. Locurcio found it "a little difficult" to work with other districts and believed that the Philadelphia District's interests took a backseat to those of larger districts.[74]

Despite Locurcio's experience, the Philadelphia District seemed to

have earned respect in the Corps for efficiency and effectiveness in the execution of its duties, even if (or because) it was smaller than other districts. At the working level, the district's project teams collaborated well with their counterparts in neighboring districts, and their performance was exceptional. Lt. Col. Robert Keyser, District Engineer from 1996 to 1998, said that the Philadelphia District ranked third among all Corps districts in its cost-effectiveness.[75] Lt. Col. Robert Magnifico, who preceded Keyser, said that other districts recognized the Philadelphia District's efficiency. He had previously worked for the Baltimore District, and he said that in Baltimore, "The Philadelphia District had an outstanding reputation."[76] To Lt. Col. Gwen Baker, District Engineer from 2006 to 2008, proof of this sterling reputation came in the work that the Philadelphia District performed. "Ask anyone at the Engineer Research and Development Center in Vicksburg which districts they work with most closely on groundwater modeling," she said. "Which district does EPA Region 2 keep name-requesting time and time again for Superfund remediation? Who is co-lead for the North Atlantic Division as the USACE Coastal Planning Center of Expertise?" In all cases, it was the Philadelphia District.[77]

The positive attitude toward the district was apparent outside the Corps. As noted earlier, when the Philadelphia District was slated for closure, several members of the community testified about its strong work and good reputation. Congressional representatives from Pennsylvania were effusive. Congressman Foglietta, for example, said that in 1991, the Philadelphia District ranked sixth out of thirty-five in a reorganization study classifying districts "on the basis of five measures of merit." He added that the Philadelphia District "possesses the unique mixture of expertise, proximity, and experience that allows it to successfully meet the varied challenges of the tri-state area it serves."[78] As Lieutenant Colonel Ruch, District Engineer from 2004 to 2006, said, "Hundreds of folks

Placement of stone mat foundation for upgrading the Hereford Inlet Seawall, North Wildwood, N.J.

external to the District" believed that the district was "the friendliest and most proactive government agency they work with." Ruch believed that the small size of the district worked in its favor in this area, as Corps personnel were able to get to know those they served and "personalize our service."[79]

* * * * * * *

Between 1972 and 2008, the Philadelphia District faced some trying times amid changes to what defined the national interest guiding the Corps' missions. The growing environmental movement, the passage of NEPA, and concerns of both the Carter and Reagan administrations about the costs of projects increased scrutiny of the Corps and decreased the number of large construction projects the Corps undertook. This situation led to the demise of the Tocks Island Dam and Trexler Lake projects, and the loss of these projects sent the district into a tailspin that did not improve until the mid-1980s. And just as the district was regaining missions and branching into new areas, the Corps issued plans for reorganization that included closing the Philadelphia District. The district survived this proposal and subsequent proposed reorganizations, and worked hard to embrace the regionalization concept promoted by the Corps in the late 1990s and early twenty-first century. In addition, the district established a project management program in accordance with Headquarters directives.

The district looked different in 2008 than it had in 1972. It continued to handle civil works projects, such as flood control, although on a much smaller scale, and it continued to execute its

dredging, navigation, and shore protection missions. However, environmental programs such as wetlands regulation and ecosystem restoration were more prominent in the district's workload, as was its support of the EPA's Superfund program—along with a number of other federal, state, and local agencies—and its work on military installations. Instead of consisting mainly of engineers, personnel now included significant numbers from the natural sciences, such as biologists and ecologists. There was a new Programs and Project Management Division, and the Engineering and Construction divisions had been combined. The district even had a new home—the Wanamaker Building—after moving from the Customs House in 1992. It worked more closely with other districts in the North Atlantic Division and focused its work on the areas in which it had the most expertise.

Throughout all these changes and challenges, the district continued to provide responsive and reliable service to its customers, and maintained its reputation as one of the most efficient and cost-effective districts in the Corps. In that sense, little had changed since 1972.

[1] Snyder and Guss, *The District*, 207–219, 224–225.

[2] Snyder and Guss, *The District*, 224.

[3] Quotation in Martin Reuss, *Shaping Environmental Awareness: The United States Army Corps of Engineers Environmental Advisory Board*, 1970-1980 (Washington, D.C.: Historical Division, Office of Administrative Services, Office of the Chief of Engineers, 1983) , 3; see also Adam Rome, "'Give Earth a Chance': The Environmental Movement and the Sixties," *Journal of American History* 90 (September 2003): 527; J. Brooks Flippen, *Nixon and the Environment* (Albuquerque: University of New Mexico Press, 2000), 5; Michael E. Kraft, "U.S. Environmental Policy and Politics: From the 1960s to the 1990s," *Journal of Policy History* 12, no. 1 (2000): 23; Kirkpatrick Sale, *The Green Revolution: The American Environmental Movement*, 1962-1992 (New York: Hill and Wang, 1993), 1–3, 20–22.

[4] The National Environmental Policy Act of 1969 (83 Stat. 852).

[5] Edward Voigt, Chief, Public & Legislative Affairs, Philadelphia District, personal communication with Joshua Pollarine, 4 April 2011.

[6] For a summary of the Tocks Island Project, see Unpublished Morgan Draft District History, 29–48; Voigt personal communication. The Tocks Island Project is discussed in greater detail in Chapter Two.

[7] Unpublished Morgan Draft District History, 29–48.

[8] Unpublished Morgan Draft District History, 51–57. The Trexler Lake Project is discussed in more detail in Chapter Two.

[9] See Theodore Catton and Matthew C. Godfrey, *Steward of Headwaters: U.S. Army Corps of Engineers, St. Paul District, 1975-2000* (St. Paul, Minn.: U.S. Army Corps of Engineers St. Paul District, 2004), 70–77.

[10] Quotations in Daniel A. Mazmanian and Jeanne Nienaber, *Can Organizations Change? Environmental Protection, Citizen Participation, and the Corps of Engineers* (Washington, D.C.: The Brookings Institution, 1979), 15–16; see also "Cost-Benefit Trips Up the Corps," Business Week (19 February 1979): 96.

[11] Mazmanian and Nienaber, *Can Organizations Change?*, 12.

[12] As cited in Martin A. Reuss, *Reshaping National Water Politics: The Emergence of the Water Resources Development Act of 1986* (Fort Belvoir, Va.: U.S. Army Corps of Engineers Institute of Water Resources, 1991), 49.

[13] Quotations in Jimmy Carter, *Keeping Faith: Memoirs of a President* (Toronto: Bantam Books, 1982), 79; see also Reuss, *Reshaping National Water Politics*, 48–52.

[14] Mazmanian and Nienaber, *Can Organizations Change?*, 12.

[15] Lisa Mighetto and William F. Willingham, *Service-Tradition-Change: A History of the Fort Worth District, U.S. Army Corps of Engineers, 1975-1999* (Fort Worth, Tex.: U.S. Army Corps of Engineers Fort Worth District, 2000), 97.

[16] Quotation in Delaware River Basin Commission, "DRBC Overview" <http://www.state.nj.us/drbc/over.htm> (7 May 2009); see also Catton and Godfrey, *Steward of Headwaters*, 11; Martin Reuss, "Coping with Uncertainty: Social Scientists, Engineers, and Federal Water Resources Planning," *Natural Resources Journal* 32 (Winter 1992): 111–115.

[17] Catton and Godfrey, *Steward of Headwaters*, 11; Martin Reuss, "Coping with Uncertainty": 111–115.

[18] Quotation in "Where Are They Now? 1978-1981: Col. James G. Ton," *The Observer* 17 (November/December 1999): 13; see also Unpublished Morgan Draft District History, 66; "Where Are They Now? 1981-1984: Lt. Col. Roger L. Baldwin," *The Observer* 18 (January/February 2000): 13. Other Corps districts with lieutenant colonels as district engineers are Charleston, Nashville, Albuquerque, Walla Walla, San Francisco, Honolulu, Buffalo, and Detroit. Matthew T. Pearcy email to Matthew Godfrey, 22 July 2009, copy in possession of the authors.

[19] The district's planning program included many flood damage reduction, coastal protection, and navigation studies. During this period, the district was also successful in proffering its services to other federal, state, and local government organizations in need of the experience and expertise the U.S. Army Corps of Engineers could provide. Voigt personal communication.

[20] Reuss, *Shaping Environmental Awareness*, 1, 4–5, 7.

[21] "Getting to Know Environmental Resources Branch," *The Observer* 14 (October 1996): 10–11.

[22] "Exit Interview with Mr. Robert L. Lindner, Chief, Planning Division, Baltimore District, 6 April 2004," 6, document provided by Scott Watson, U.S. Army Corps of Engineers, Baltimore District, Baltimore, Maryland.

[23] Quotations in Clean Water Act, Section 404 <http://www.epa.gov/OWOW/wetlands/regs/sec404.html> (11 May 2009); see also Jeffrey K. Stine, "Regulating Wetlands in the 1970s: U.S. Army Corps of Engineers and the Environmental Organizations," *Journal of Forest History* 27 (April 1983): 60–64.

[24] Frank Cianfrani interview by Paul Sadin and Joshua Pollarine, 12 January 2009, Philadelphia, Pennsylvania, transcript, 1–4.

[25] United States Environmental Protection Agency, Office of Solid Waste and Emergency Response, *Superfund: 20 Years of Protecting Human Health and the Environment*, EPA Report 540-R-00-007, digital copy available at <http://www.epa.gov/superfund/20years/index.htm> (12 May 2009).

[26] "Where Are They Now? 1978-1981: Col. James G. Ton," 13; "Where Are They Now? 1981-1984: Lt. Col. Roger L. Baldwin," 13.

[27] Department of the Army, Corps of Engineers, Support for Others (SFO) Program, Annual Report for FY 96, 1, Box 2, SFO Files in temporary holdings, U.S. Army Corps of Engineers, Office of History, Alexandria, Virginia (hereafter referred to as Office of History).

[28] Act of 17 November 1986 (100 Stat. 4082, 4251); "Lower Cape May-Cape May Point Ecosystem Restoration Project, Volume 1, Feasibility Report, Integrated Environmental Impact Statement (EIS), Appendix A: Pertinent Correspondence, August 1998," ES-1, Programs and Project Management Division materials, Dwight Pakan's Office, 6th Floor, Philadelphia District.

[29] Ch, CEPhiladelphia District-EN-MC to Files, 25 August 1988, File 1110-2-1150a Planning & Development Correspondence, FE Walter, Internal Coord., Box 6 of 9, Accession No. 077-97-0001, Record Group (RG) 77, Records of the Office of Chief of Engineers, Federal Records Center, Philadelphia, Pennsylvania (hereafter referred to as FRC); Unpublished Morgan Draft District History, 67; "Where Are They Now? 1984-1987: Lt. Col. Ralph V. Locurcio," *The Observer* 18 (May/June 2000): 13; Brig. Gen. Todd T. Semonite, Commander, North Atlantic Division, Memorandum for Record, 17 April 2009, document provided by Edward Voigt, Philadelphia District.

[30] As cited in Donita M. Moorhus and Gregory Graves, "The Limits of Vision: A History of the U.S. Army Corps of Engineers, 1988-1992," January 1999, 28–30, unpublished manuscript, copy provided by Office of History; see also Mighetto and Willingham, *Service-Tradition-Change*, 97; Catton and Godfrey, *Steward of Headwaters*, 13.

[31] Moorhus and Graves, "The Limits of Vision," 31–32; Catton and Godfrey, *Steward of Headwaters*, 13-14.

[32] Moorhus and Graves, "The Limits of Vision," 32–33; Catton and Godfrey, *Steward of Headwaters*, 14; Quotations in House Subcommittee on Water Resources of the Committee on Public Works and Transportation, *Water Resources Development Act of 1992 and the Reorganization of the U.S. Army Corps of Engineers: Hearings Before the Subcommittee on Water Resources of the Committee on Public Works and Transportation, House of Representatives*, 102d Cong., 2d sess., 1992, 695 (hereafter referred to as WRDA 1992 and Reorganization Hearings).

[33] Richard Maraldo, personal communication with Matthew Godfrey, 27 April 2009.

[34] Catton and Godfrey, *Steward of Headwaters*, 15.

[35] Quotations in WRDA 1992 and Reorganization Hearings, 173; see also Catton and Godfrey, *Steward of Headwaters*, 17.

[36] WRDA 1992 and Reorganization Hearings, 609, 613, 691–692.

[37] WRDA 1992 and Reorganization Hearings, 638–639.

[38] WRDA 1992 and Reorganization Hearings, 173–175, 194.

[39] "1992: The Year in Review," *The Observer* 12 (April 1993): 6; Philadelphia District Timeline, document provided by Edward Voigt, Philadelphia District.

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[52] Lipsky, "USACE 2012 and the North Atlantic Division Regional Management Board," 3.

[53] "Regional News: Think as a Region . . . Act as a Region," *The Observer* (Winter 2004/2005): 3, 14–15.

[54] "Q&A with the New D.E.," *The Observer* (Autumn 2004): 22.

[55] Lt. Col. Robert J. Ruch, "As I See It: What Does Regionalization Really Mean?" *The Observer* (Winter 2004/2005): 10 (emphasis in the original).

[56] Reuss, *Reshaping National Water Politics*, 64–67, 81.

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[58] Ralph Locurcio telephone interview by Paul Sadin, 16 and 20 March 2009, transcript, 4.

[59] "Project Management System, Mission Execution-Implementation, Gains and Costs, Information Paper for District Commanders Conference, Ft. Leonard Wood, MO 19–22 April 1994," 1–2, General Files, Box 108-G-12, Research Collections, Office of History.

[60] Moorhus and Graves, "The Limits of Vision," 16–17.

[61] "Project Management System, Mission Execution-Implementation, Gains and Costs," 3–4. As Hatch's initiatives were taking shape, the Philadelphia District was already headed toward life-cycle project management. Its combined Planning and Engineering Division included a Project Management Branch that was actively managing civil works projects from "concept to contract"—right up to the start of construction and all the way through to completion for the larger civil projects. Voigt personal communication.

[62] "Project Management System, Mission Execution-Implementation, Gains and Costs," 3–4.

[63] Moorhus and Graves, "The Limits of Vision," 18–19.

[64] Moorhus and Graves, "The Limits of Vision," 19–20.

[65] "Veteran District Leader Retires, Ends 36-Year Career," *The Observer* 26 (Winter 2007/2008): 4; Maraldo personal communication.

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[67] Quotations in Maraldo personal communication; see also "Getting to Know The Customer's Door to the Corps: Programs and Project Management Division," *The Observer* 17 (March/April 1998): 8–9.

[68] Quotation in Locurcio interview, 7; see also "Organization Day '93," The Observer 12 (July 1993): 1; U.S. Army Corps of Engineers, Philadelphia District, "Organization Charts," September 2008, copy provided by Edward Voigt, Philadelphia District; Voigt personal communication.

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[77] Lt. Col. Gwen E. Baker, "Highlighting the District's Technical Expertise," *The Observer 25* (Spring 2007): 2.

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