



The Proposal to Deepen the Delaware River Summary of Concerns and Issues

The Delaware River deepening, a proposal to deepen the River's main navigation channel from a depth of 40 to 45 feet for a distance of over 102 miles, puts in jeopardy all who rely upon the River. What's more, it will waste hundreds of millions of tax dollars in the process.¹

The cost of constructing this project currently is projected at \$332,464,000. The Federal taxpayer would be responsible for 2/3 of this cost: \$221,642,660. Pennsylvania will supposedly pick up the rest.

While a self-interested few continue to claim that the deepening is of vital economic importance, expert analysis demonstrates that this is simply not true. After an in-depth review of the proposal in 2002, the Government Accountability Office (the investigative arm of Congress) determined that the U.S. Army Corps of Engineers' analysis of project benefits was based on "miscalculations, invalid assumptions, and outdated information." Correcting the Corps' flawed analysis resulted in a reduced estimate of the project's annual benefits from \$40.1 million² to only \$13.3 million.

Using the GAO's corrected figures demonstrates that the benefit-cost ratio of the deepening project was only 49 cents of benefit for every dollar spent. In other words, the deepening project would **waste** 51 cents of every tax dollar spent on it.

In 2009 even the Army Corps reduced its benefit claims for the project – now they claim only \$30,091,000 a year in benefits – benefits that come in the form of increased efficiencies as opposed to more goods or services. The GAO is already questioning even this reduced level of benefit claimed by the Army Corps. And, that being said, even this level of economic return to our

¹ An Army Corps 2009 document asserts project construction and associated costs to currently be at \$332,464,000. The Federal taxpayer would be responsible for 2/3 of this cost, \$221,642,660. Added to all of this must be the additional \$289,900,000 (\$5,798,000 a year) required to maintain the project for 50 years. And of course we all know that maintenance will extend far beyond 50 years once it starts.

² The Army Corps in 2009 reduced even its economic benefits claims for the project down to only \$30,091,000 a year, further reducing the regional benefit possibilities. As a result of its previous economic analysis, the GAO determined that the Corps had overstated project benefits by 3 to 1, if that past finding were applied to the \$30,091,000 figure, benefits would be even lower than the \$13 million figure from the GAO reducing even further the cents on the dollar return that would apply.

region can't compare to the hundreds of millions a year that could be lost in river jobs and economic returns associated with the environmental resources put at risk from the project. (Details provided further on in this document.)

In 2010 the GAO released yet another review of the deepening project. The GAO's 2010 report confirmed that the Army Corps still is not providing an accurate picture of the Delaware deepening and its ramifications for the River, for communities or to the decisionmakers being asked to decide upon and/or fund the project. For example, among a myriad of concerns documented, the GAO determined that based on the Army Corps documents "Because of [] omissions, decision makers do not have sufficient updated information to judge the extent to which market and industry changes would affect the project's net benefits." After 20 years of review and no less than 8 economic reviews of the project by the Army Corps there is no reasonable explanation for such unwarranted and obvious oversights, except incompetence or to deliberately mislead.

Other reviews have also found claims of economic benefit to be far exaggerated. Even the Corps admitted in one of its economic reviews that under one scenario – a scenario that has in fact come to pass -- the project would generate only 82 cents for every dollar spent. No report, when viewed critically, has been able to justify the deepening economically.

According to the Army Corps of Engineers, the few economic benefits claimed for the deepening would be enjoyed largely by six oil facilities — one of which shut down in the Fall of 2009. None of these facilities has invested in the project, some have gone on record stating it would provide them with little or no benefit, and none have committed to investing the tens of millions needed to deepen their private channels to hook into a deepened main channel (without such hook up there can be no value for them). Why should taxpayers fund a project to which the primary beneficiary, a multi-billion-dollar industry, won't contribute a dime or even commit to take advantage of?

The Army Corps and project supporters admit that resulting shipping benefits from deepening are in the form of increased efficiencies – the same volume of goods will come up the River just in fewer ships. In fact, the way the Army Corps says it:

- ✓ **“the mix and volume of cargoes** coming to the benefiting terminals **will be the same for either the current 40 foot or proposed 45 foot channel** depths. The project's navigation benefits from the channel deepening are based upon transportation cost savings from more efficiently managing vessel operating costs. There is **no induced tonnage as a result of the deepening** project” (2009 EA)
- ✓ “The future volume of cargo passing through the Delaware River port system is determined by macroeconomic factors that are not affected in any measurable way by the channel depth. **With the deeper channel, fewer total vessel calls will be required** because it will be possible to handle more cargo per ship.” (2009 letter from Army Corps to NMFS)

A deepened channel is not needed to support port economic growth. In the past five years alone, record port growth has taken place along the Delaware without a deepened channel, or the prospect of one. For the year ending December 31, 2007, the Port of Camden recorded its third-highest volume in its history. Summer 2008, the Philadelphia Regional Port Authority reported that containership traffic in the region was up 12% over 2006 levels.

Since 1990 the Port of Philadelphia has seen its container port traffic grow by nearly 300%, an increase exceeded by only three ports on the east coast. This growth has come despite the lack of a deepened channel and the recognition by all that deepening may never come to pass because of

the stiff opposition it faces. Similarly, the Port of Wilmington has grown nearly 200% in container port traffic since 1990 without the “benefit” of a main channel deeper than 40 feet. By contrast, in 1990 the Port of Baltimore was deepened to 50 feet. Since that time, Baltimore has experienced growth of only 29% in container port traffic, a fraction of the growth experienced in our region.

Even according to Philadelphia Regional Port Authority commissioned experts: at 45 feet the Delaware does not become more attractive because 45 feet is not enough depth, the future of our region is as a feeder port which is well served by a 40 foot channel, specifically they said: “The growing importance of feeder ports is a role that is emerging for the Ports of Philadelphia and Camden. The vessels that are becoming available for the feeder trade require less than 40’ draft.” This is the true future of ports of our region. Continued focus on the deepening proposal is preventing exploration of new ideas that truly could benefit the future of our ports and our region.

For over a decade, supporters have tried to convince the public that this proposal is in the public interest, that it does not threaten the Delaware River, and that it has cleared all environmental protection hurdles. Nothing could be further from the truth.

According to experts deepening and associated spoil disposal will introduce heavy metals, pesticides, and other toxins into the River, reintroducing them into the environment and food chain, and putting at risk drinking water aquifers important to communities in New Jersey and Delaware.

Deepening the channel changes the movement and balance of fresh and salt water in a way that will move the salt line up river, threatening Philadelphia and South Jersey drinking water supplies with salt water intrusion. A multitude of species rely on the Delaware River for spawning; a changing salt line could diminish available freshwater spawning grounds that puts at risk species like the Atlantic and Shortnose sturgeon already in jeopardy of extinction. A changing salt line also risks the transformation of freshwater marshes, damaging the food and habitat they provide to a variety of fish and wildlife species important both ecologically and economically to the region.

A moving salt line is a major threat to the oyster populations of the Delaware Estuary. The shifting salt line threatens significant changes including the reintroduction of parasites and disease to the River’s oysters which in the past decimated their populations. Oysters are vital to the ecology of the Delaware. Oysters act as a vital food source for many of the River’s critters and are important filters for pollution found in Estuary waters. Not only are the oysters of the Estuary ecologically important, but they are economically important generating up to \$80 million of economic benefit for our region.

The Delaware Bay is home to the largest spawning population of horseshoe crabs in the world. Every season, migratory shorebirds descend on Delaware Bay to feast on the eggs of the horseshoe crabs, bringing with them a \$34 million boost to the region’s ecotourism industry. Nationally, horseshoe crabs represent a substantial benefit to the biomedical industry that uses the Horseshoe Crab blood (drawn non-lethally) for required safety testing of medical devices, vaccines and intravenous drugs used by all. The deepening project directly threatens the horseshoe crabs and as a result is also a threat to dependent migratory birds and associated ecotourism; and is an unacceptable risk to the biomedical industry.

Deepening changes water patterns in such a way that it will exacerbate erosion of wetlands. Wetlands are important ecologically, aesthetically and provide important protection during catastrophic storm events.

With regard to oil spills – the only study that has looked at that issue as it relates to deepening has found that deepening increases the threat of harm from catastrophic oil spill events.

Apparently as a cost savings, the Army Corps has reduced the number of bends that will be widened as part of the project from 16 to 11. If deepening is to attract larger vessels, this reduction in widenings becomes a safety risk that has not been justified and cannot be excused.

And the level of air polluting NO_x emissions the project will generate in its peak year are equivalent to having another power plant or petroleum refinery in the region; in fact its peak air emissions will make it the 11th largest source of NO_x emissions in New Jersey.

Deepening the Delaware River to 45 feet is not at all the same as maintenance dredging at 40 feet. The threats to fish, wildlife, wetlands, drinking water, and communities identified by the many agencies and experts that have been reviewing this issue are associated with the deepening project. Deepening an additional 5 feet changes water patterns in such a way that it will exacerbate erosion of wetlands which are important ecologically, aesthetically and for storm protection. The deepening includes widening reaches of the channel into areas that are not now currently dredged – a number of which have been characterized as toxic hot spots. Deepening brings with it the need to dispose of more spoils — spoils laden with toxins which are going to be disposed of in areas and in ways that bring harm. Deepening the channel changes the movement and balance of fresh and salt water in a way that will move the salt line up river presenting threats to the oyster populations and drinking water supplies that have been so heavily invested in for our region and are so vitally important. Changing salt also threatens salt marshes of the estuary that provide important food and habitat.

Contrary to the public claims of Governor Rendell, all of the spoils are going to NJ and DE communities, none of it is planned for Pennsylvania.

And the Army Corps assertion that the spoils are going to existing confined disposal facilities (CDFs) does not reduce the level of concern associated with them – all of the environmental harms discussed with regards to spoil disposal includes disposal at these existing facilities. In addition, dumping these spoils in the existing disposal facilities requires increasing the size of the majority of those facilities. According to Army Corps documents, in order to accommodate all spoil disposal in existing Army Corps CDFs the dikes on most of the federally owned facilities would need to be raised significantly higher than they are today; as well as significantly higher than the height was originally anticipated or planned for. Disposing of all of the spoils in existing federal CDFs requires the raising of dikes in New Jersey as follows:

- National Park facility from 35 ft currently to 60 ft (25 ft higher and 71% bigger than it is today; 10 ft higher than the 50 ft previously anticipated for the current channel),
- Pedricktown North from 42 ft currently to 76 ft (34 ft higher and 80% bigger than it is today; 26 ft higher than the 50 ft previously anticipated),
- Oldmans from 36 ft currently to 66 ft (30 ft higher and 83% bigger than it is today; 16 ft higher than the 50 ft previously anticipated),
- Pedricktown South from 45 ft currently to 75 ft (30 ft higher and 67% bigger than it is today; 25 ft higher than the 50 ft previously anticipated),
- Penns Neck from 30 ft currently to 60 ft (30 ft higher and 100% bigger than it is today; 10 feet higher than the 50 ft previously anticipated),
- Artificial Island from 20 ft to 50 ft (30 ft higher and 150% bigger than it is today)

and in DE as follows:

- Killcohook 1 from 35 ft currently to 65 ft (30 ft higher and 86% bigger than it is today; 15 ft higher than the 50 ft previously anticipated),
(Reedy Point in Delaware will also receive spoils from the project but the height of the CDF is not being expanded as those mentioned above.)

The community, engineering and environmental ramifications of these dike raisings have not been subject to Army Corps, State, other Agency, expert or public review and comment. The environmental, engineering, community and economic ramifications of raising the dikes are likely to be substantial and yet the host communities have not formally been made aware, by the Army Corps, of the plan to raise the dikes and been given the opportunity to understand the ramifications of, or to comment upon, a spoil disposal facility with a dike 10 to 26 feet higher than ever expected – a spoil disposal site that is twice as high tomorrow as it is today --could have significant ramifications for a community, and they should be given the opportunity to review, understand and comment. In 2008 the Salem County Board of Chosen Freeholders passed resolution 2008-336 stating its belief that the original disposal plan will be “detrimental” to their farmland and open space preservation and their tourism initiatives, the ramifications of any new plan should be subject to their consideration and review – clearly they have a significant interest and level of concern. March 2, 2010 Oldmans Township, NJ passed resolution 2010-53 opposing deepening because of concerns the project and its spoil disposal plan has on their community and on the Delaware River.

For years, agencies and environmental experts relying on sound scientific principles have documented the depth and breadth of the threats that deepening the River poses. The Corps’ data and its findings are often at odds with that of other scientists.

The environmental, health, and safety concerns that have been raised are not those of an uneducated few, as project supporters suggest. Those questioning the project include: the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the Delaware River Basin Commission, the Delaware Department of Natural Resources and Environmental Control, the New Jersey Department of Environmental Protection, the University of Delaware’s Sea Grant Program, and more.

The undocumented claims of jobs being made by Governor Rendell for the project have never been demonstrated by him or anyone.

By contrast, Deepening the Delaware puts at risk the fish, shellfish, and wildlife that are critical for providing hundreds of millions of dollars of income and jobs. For instance:

- ✓ The annual harvest of oysters from the Delaware Estuary generates up to \$80 million of annual economic benefit for the region, much of this in some of New Jersey’s poorest communities who could not tolerate the loss of associated jobs, revenue and benefit. In recognition of the economic, job and cultural importance of the Delaware Estuary’s oysters they have been the recipient of over \$6.5 million of public restoration funds and resources.
- ✓ The \$34 million ecotourism industry dependent upon the horseshoe crabs and migratory shorebird phenomenon of the Delaware Bay, providing crucial support to local economies in the “off-season, including the related jobs such as the documented 120 to 180 associated jobs in Cape May, NJ alone. And the additional \$34 million of ecotourism generated by other shorebirds dependent upon a healthy Bay.

- ✓ The \$150 million of annual revenue and social welfare value from the horseshoe crab-dependent biomedical industry to whom one pint of Horseshoe Crab blood is worth \$15,000 for required testing on medical devices, vaccines and intravenous drugs used by all.
- ✓ Spending in the estuary region by recreational anglers valued at an average of \$62 to \$100 per day, and the almost \$60 million of spending from fishing in Delaware's waters resulting in \$29 million in earnings, and supporting 1,605 jobs.

These jobs, this revenue, and the community economies dependent upon them are important to our region – and they are all put at risk by deepening the Delaware.

Deepening threatens the health of the River and the ecosystems that are vitally important to the economies, communities, culture and beauty of our region.

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Stay informed on the threat posed by deepening.

Sign up to be an e-activist for the Delaware Riverkeeper Network and learn when and how to act on this issue. www.delawariverkeeper.org.

Check out the video on the Delaware Riverkeeper's YouTube channel.

Check in regularly with the Delaware Riverkeeper's blog at delawarivervoiced.blogspot.com.

Sign up on Twitter and Facebook to stay connected with the Delaware Riverkeeper.

And become a Delaware Riverkeeper Network member to support this vital work to protect our River and region.