



United States Department of the Interior

OFFICE OF THE SECRETARY

Washington, D.C. 20240

October 28, 1998

Honorable Joseph W. Westphal
Assistant Secretary of the Army (Civil Works)
Department of the Army
108 Pentagon
Washington, D.C. 20310-0108

Dear Dr. Westphal:

In accordance with the provisions of the Section 404(q) Memorandum of Agreement (MOA) between the Department of the Interior and the Department of the Army (pursuant to the Clean Water Act at 33 U.S.C. 1344 *et seq.* and as revised on December 21, 1992) I am requesting your review of the U.S. Army Corps of Engineers, New York District Engineer's decision to issue a Section 404 permit to F.D. & P. Enterprises, Incorporated, for the expansion of an intermodal transfer facility (Public Notice No. 93-00080-RS) within the Penhorn Creek watershed, Hackensack Meadowlands (Meadowlands), City of Jersey City, Hudson County, New Jersey. The proposed project would result in the permanent loss through filling of approximately 53.5 acres of palustrine wetlands and the severe fragmentation and reduction in size of the remaining (34.8 acres) on-site wetlands.

As mitigation, the applicant proposals to: enhance approximately 25.3 acres of existing wetlands; create approximately 3.5 acres of wetlands from uplands; and, enhance 1.9 acres of ditch on site. Revenue generated by the applicant from the disposal of clean fill material on site (estimated to be approximately \$5 million) would be used by the Hackensack Meadowlands Development Commission (HMDC) to conduct additional compensatory mitigation in the form of enhancement off-site in the 311-acre Kearny Marsh, which is located within the Meadowlands and adjacent to the, inoperable but not properly closed, Keegan Landfill in the City of Kearny, Hudson County, New Jersey.

On September 25, 1998, the U.S. Fish and Wildlife Service's Northeast Regional Office received a Notice of Intent to issue the above-referenced permit. After a thorough review of background information on the project, I have determined that this case warrants elevation in accordance with the criteria found in Part IV of the revised Section 404(q) MOA (Elevation of Individual Permit Decisions). Specifically, I have concluded that the proposed project will have substantial and unacceptable adverse effects on aquatic resources of national importance.

The District Engineer's proposed permit decision will allow filling of wetlands within the Meadowlands that would lead to substantial direct and cumulative adverse impacts on nationally significant waterfowl, wading bird, and shorebird populations. The Department of the Interior, acting through the Service, is vested with the authority and obligation to protect, conserve and enhance the Nation's fish and wildlife resources. These matters fall within our jurisdiction under the Fish and Wildlife Coordination Act (48 Stat. 401; 16 U.S.C. 661 *et seq.*), Section 404(m) of the Clean Water Act, the Fish and Wildlife Act of 1956 (70 Stat. 1119; 16 U.S.C. 742), and the Migratory Bird Treaty Act (40 Stat. 755; 16 U.S.C. 703-712) as amended, to implement international treaties regarding the conservation of migratory bird populations. Significant

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among these international agreements is the North American Waterfowl Management Plan, a joint agreement between the United States and Canada to protect and enhance waterfowl habitat

While primarily a coastal wetland and aquatic ecosystem, the Meadowlands also provides essential habitat for many non-wetland dependent species because it represents one of the few remaining contiguous blocks of fish and wildlife habitat in the New York / New Jersey metropolitan area. In evaluating the effects of the proposed project, we must recognize the Meadowlands as an island of wildlife habitat within this highly urbanized area, and consider the ecological functions and values of this wetlands complex as it relates to the integrity of the broader New York Bight ecosystem.

The Meadowlands functions as an important corridor along the "Atlantic Flyway" for migratory birds. The New Jersey Audubon Society designated the Meadowlands as one of New Jersey's "Key Migratory Bird Corridors" due to its significance in terms of geographic location and the quality of wetland habitats. Migratory birds are a federal trust resource responsibility and the Department of the Interior has concurred with the New Jersey Audubon Society designation. Migratory birds are protected under the auspices of the Migratory Bird Treaty Act.

The proposed project would contribute to the continuing loss of wetlands in the Meadowlands due to human encroachment, which has already claimed approximately 12,000 acres of valuable fish and wildlife habitat (approximately 60 percent of the historic wetland resources of the Meadowlands). In the foreseeable future, the proposed Special Area Management Plan for the Meadowlands would facilitate over 500 acres of additional wetlands fill for non-water dependent purposes.

In addition to the substantial loss of wetlands within the Meadowlands, the remaining wetlands have been adversely affected by alterations to water quality and hydrologic regime. These hydrologic alterations have resulted in significant changes in the plant communities; one of the most significant being the spread of common reed (*Phragmites australis*). Considering the historic loss of wetlands and the degradation of remaining wetlands, cumulative impacts to the Meadowlands are obviously excessive. Although severely impacted by filling and hydrologic alterations, the Meadowlands remains an aquatic resource of national importance due to its overall size, location along the Atlantic Flyway, and scarce fish and wildlife habitats within an highly urbanized environment.

The adverse impacts to aquatic resource of national importance and nationally significant fish and wildlife resources that would result from this proposed project are also unacceptable in light of the applicant's failure to demonstrate that less environmentally damaging practicable alternatives are not available for this non-water dependent project. Additionally, the applicant has not demonstrated an effort or presented an analysis of alternatives to minimize impacts on-site (e.g., fewer rail lines).

The proposed compensatory mitigation is inadequate as it does not compensate for the net loss of 50.0 acres of an Aquatic Resource of National Importance and is not based on a rigorous examination of wetland functions and values on site. On-site mitigation provides only 3.5 acres of wetland creation, and also includes 9.3 acres of stormwater detention basins as mitigation, which is inappropriate. The off-site Kearny Marsh wetland enhancement proposal is also inadequate to compensate for the net loss of 50.0 acres of wetlands because Kearny Marsh already provides high quality wetland habitats. The Department of the Interior is also concerned about the use of a potentially contaminated site as compensatory mitigation, especially without

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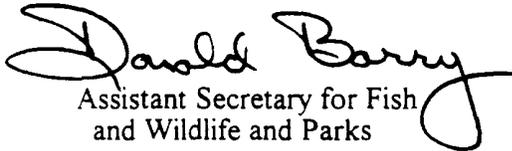
adequate information to determine the levels of contaminants and the potential for disturbance to fish and wildlife.

The 5-page proposal to enhance the Kearny Marsh provides inadequate information to allow the Department of the Interior to fully evaluate the likelihood of success. The restoration plan did not: (1) contain an analysis of why the quality of Kearny Marsh has recently decreased (as claimed by the HMDC); (2) contain a quantitative assessment of the current Kearny Marsh functions and values; (3) contain any maps depicting or written description of where wetland enhancement activities would occur; (4) describe what levels of environmental contaminants are present in the marsh; (5) contain an analysis of the effects of particular contaminants on fish and wildlife resources; and, (6) contain a time line for completion of the compensatory mitigation project. On September 21, 1998 the Department of the Interior requested, via telephone, the opportunity to comment on the newly proposed conceptual compensatory mitigation plan; however, the New York District did not grant this request.

We are particularly concerned with the issuance of this "conditional" permit, which allows for the approval by the New York District of an off-site compensatory mitigation plan after issuance of a Department of the Army permit for the proposed project. It is unclear how the Corps can determine that adverse impacts on fish and wildlife from the proposed project impacts will be adequately compensated absent a complete and detailed compensatory mitigation plan.

Enclosed is additional information addressing these and other issues relating to the proposed permit decision. Please do not hesitate to contact me if you have any questions.

Sincerely,


Assistant Secretary for Fish
and Wildlife and Parks

Enclosure

**ATTACHMENT
F.D. & P. ENTERPRISES, INCORPORATED**

PROJECT DESCRIPTION

The applicant, F.D. & P. Enterprises, Incorporated, proposes to expand an intermodal transfer facility. The proposed project would result in the permanent loss through filling of 53.5 acres of wetlands, and severe fragmentation and reduction in size of the remaining wetlands (34.8 acres) on the project site. These wetlands are associated with Penhorn Creek, a tributary to the Hackensack River, in the Hackensack Meadowlands, Jersey City, Hudson County, New Jersey.

The applicant proposes to enhance 25.3 acres of existing wetlands, create 3.5 acres of wetlands from uplands, and enhance 1.9 acres of ditch on site. Revenue generated by the applicant from the disposal of clean fill material on site (estimated to be approximately \$5 million) would be used by the Hackensack Meadowlands Development Commission (HMDC) to conduct additional compensatory mitigation off-site in a wetland known as Kearny Marsh, located within the Meadowlands in Kearny, New Jersey. The 311-acre Kearny Marsh, located adjacent to the Keegan Landfill, which is no longer accepting waste, would be enhanced via activities such as: installation of water control structures; grading; construction of a dike(s); and the construction of a landfill leachate cutoff wall. Details of the compensatory mitigation proposal are not yet available; the New York District, Corps of Engineers (Corps) believes that such details are unnecessary to make a permit decision as long as the permit contains a condition stipulating that no fill may be placed in wetlands until mitigation plan details have been approved by the Corps and coordinated with the resource agencies.

AQUATIC RESOURCES OF NATIONAL IMPORTANCE

Regional Fish and Wildlife Resource Value

While primarily a wetland and aquatic ecosystem, the Meadowlands also provides essential habitat for many non-wetland dependent species. Specifically, the Meadowlands provides one of the few remaining contiguous blocks of fish and wildlife habitat in the New York / New Jersey metropolitan area. In evaluating the effects of the proposed project, it is important to recognize the Meadowlands as an island of wildlife habitat within this highly urbanized area, and to consider the ecological functions and values of this wetlands complex as it relates to the integrity of the broader New York Bight ecosystem.

While the southern portion of New Jersey supports extensive areas of estuarine wetlands, the Meadowlands represents the only significant area of remaining estuarine wetlands in New Jersey north of the Raritan Bay. Approximately 8,500 acres of estuarine and palustrine wetlands remain in the Meadowlands, making it the largest remaining brackish wetland complex in northern New Jersey. The National Wetlands Inventory (Tiner, 1985) estimates that the Meadowlands comprises 91.9 percent of the remaining estuarine wetlands in the four counties of northeastern New Jersey.

The Meadowlands functions as an important corridor along the "Atlantic Flyway" for migratory birds. The New Jersey Audubon Society designated the Meadowlands as one of New Jersey's "Key Migratory Bird Corridors" due to its significance in terms of geographic location and the quality of wetland habitats (Dunne *et al.*, 1989). Migratory birds are a federal trust resource responsibility and the Department of the Interior has concurred with the New Jersey Audubon Society designation. Migratory birds are protected under the auspices of the Migratory Bird Treaty Act (16 U.S.C. 703-712).

The Meadowlands currently provides important migratory and wintering habitat for over 20 species of waterfowl, 40 species of shorebirds, and 10 species of raptors. Overall, the U.S. Environmental Protection Agency (EPA) (1989) lists over 250 species of birds as occurring in the Meadowlands, including over 60 species that are known to nest in these wetlands. State-listed threatened and endangered migratory bird species that satisfy some or all of their life requisites in the Meadowlands include pied-billed grebe (*Podilymbus podiceps*), northern harrier (*Circus cyaneus*), yellow-crowned night heron (*Nycticorax violaceus*), American bittern (*Botaurus lentiginosus*), savannah sparrow (*Passerculus sandwichensis*), grasshopper sparrow (*Ammodramus savannarum*), sedge wren (*Cistothorus platensis*), and bobolink (*Dolichonyx oryzivorus*).

The value of the Meadowlands to the broader New York Bight ecosystem and the Atlantic Flyway is widely recognized. For example, the Environmental Improvement Program, which is included as Appendix C of the draft Environmental Impact Statement (EIS) for the Special Area Management Plan (SAMP) (U.S. Environmental Protection Agency, 1995) contains the statement:

"This rare urban estuary is important not only on the local level, but also from a regional, national and global perspective. It contains vital breeding and migration habitat for hundreds of species of birds, fish, and other forms of wildlife. The health of this environment depends upon the countless numbers of plants, invertebrates, and micro-organisms which form the foundation of the ecosystem."

In recognition of the value of the natural resources of the Meadowlands to the Nation, the EPA designated the Meadowlands as a "National Priority Wetland Site." The EPA Priority Wetland list identifies the most important and vulnerable wetlands in the Nation, and is intended to focus attention on critical wetland resources requiring protection. The Department of the Interior concurs with this EPA designation.

Additionally, the New York-New Jersey Harbor Estuary Program (HEP) was formed within the EPA to preserve, protect, and enhance the New York Bight ecosystem, including the Meadowlands. The HEP recognizes that the New York Bight ecosystem contains abundant natural resources that are imperiled due to continuing human-induced pressures.

Based on the wetland habitat values of the Meadowlands for fish and wildlife, particularly migratory birds, and its recognized importance at the regional, national, and international levels, the Department of the Interior has concluded that the Meadowlands is an aquatic resource of national importance. The EPA and the National Marine Fisheries Service have concurred with this determination in previous letters regarding the proposed F.D. & P. project. The Department of the Army also concurred with this designation in a letter dated November 7, 1994 from the Office of the Assistant Secretary, Civil Works to the Assistant Secretary for Fish and Wildlife and Parks, Department of the Interior regarding the Hartz Mountain Development Corporation's proposed project within the Meadowlands.

Maintenance of Biodiversity

The Meadowlands plays a critical role in maintaining the overall biodiversity of the New York Bight ecosystem. Therefore, one main wildlife management objective for the Meadowlands must be the maintenance of regional biodiversity. Maintenance of regional biodiversity should be focused on protecting and enhancing the indigenous regional flora and fauna, particularly rare species and habitats. Additionally, because of the crucial role that the Meadowlands plays in supporting migratory bird movements along the Atlantic Flyway, another key wildlife management objective must be the maintenance of suitable habitat for the full range of migratory birds that use the area.

In managing to maintain regional biodiversity, we must recognize that the size of a "habitat island" plays a critical role in determining the number of species a given island can support (Harris, 1984). As habitat size decreases, the population sizes of resident species dependent on that habitat also decrease. Smaller populations mean decreased genetic diversity and increased risks of local extinctions. Additionally, certain species such as the northern harrier (*Circus cyaneus*) require large blocks of contiguous habitat to satisfy the species life requisites, and such species are disproportionately affected by habitat fragmentation and loss of habitat area. Moreover, as the amount of open space decreases, conflicts between competing land uses (e.g., fish and wildlife habitat versus recreation) increase. Furthermore, attempting to maintain biodiversity in an ever decreasing amount of habitat forces wildlife managers to depend increasingly on artificial means (e.g., artificial manipulation of hydrology, artificial nest structures, planting of wildlife food crops) to adequately maintain wildlife populations.

The suitability of a habitat complex to fish and wildlife is also affected by connectivity between habitat patches within the complex. The species groups that utilize the Hackensack Meadowlands (aquatic birds, fish, terrapins, insects) are able to move among suitable habitat patches by flying or swimming. Connectivity is increasingly important for maintaining genetic diversity in less mobile species.

The resource management goals for EPA's HEP include the following: (1) restore and maintain an ecosystem which supports an optimum diversity of living resources on a sustained basis; (2) preserve and restore ecologically important habitat and open space; and, (3) restore and enhance the aesthetic quality of the estuary (U.S. Environmental Protection Agency, 1996). Additionally,

the Department of the Interior has identified five actions that must be taken to achieve the objective of maintaining regional biodiversity in the New York Bight and the Meadowlands: (1) maintain the overall size of the Meadowlands and other significant habitat areas; (2) establish and maintaining corridors of habitat between the Meadowlands and other habitat islands in the New York Bight ecosystem; (3) maintain large blocks of contiguous habitat within the Meadowlands; (4) maintain habitat corridors between large blocks of habitat within the Meadowlands; and, (5) manage for habitat diversity at the ecosystem scale, not at a site-specific scale, with emphasis on restoring and protecting rare and unique habitats.

Site Specific Fish and Wildlife Resources

In a letter dated November 7, 1996 to the Corps, the Department of the Interior requested that the applicant be required to conduct a thorough, scientifically sound, assessment of the value of the site to fish and wildlife resources. Such a study would include fish and wildlife surveys. The applicant has conducted only a cursory wildlife survey on the project site.

The applicant maintains that the proposed project site provides few habitats for fish and wildlife resources and that the site should not be considered an aquatic resource of national importance. However, in order to conclude that a specific wetland parcel within the Meadowlands is not an aquatic resource of national importance, site-specific evidence is required to demonstrate that the wetland parcel in question is markedly inferior in terms of habitat quality to other wetlands of the Meadowlands. The applicant has provided no evidence to support such a determination.

To the contrary, an inspection of the proposed project site by the Department of the Interior, including site-specific evaluations of wetlands within the Penhorn Creek watershed in the vicinity of the F.D.& P. project site, as well as the applicant's limited survey data, have documented the importance of the area to fish and wildlife resources. Representatives of the Department of the Interior inspected the project site on October 8, 1998 for approximately 1.5 hours during the midday. Despite rain and the time of day, the following species were observed on or immediately adjacent to the project site: mallard (*Anas platyrhynchos*); belted kingfisher (*Ceryle alcyon*); mourning dove (*Zenaida macroura*); red-winged blackbird (*Agelaius phoeniceus*); and gray catbird (*Dumetella carolinensis*). The applicant identified the following species as using the site on November 20, 1996: yellow-rumped warbler (*Dendroica coronata*); sharp-shinned hawk (*Accipiter striatus*); white-throated sparrow (*Zonotrichia albicollis*); American crow (*Corvus brachyrhynchos*); European starling (*Sturnus vulgaris*); herring gull (*Larus argentatus*); and, muskrat (*Ondatra zibethicus*).

Additionally, an avian survey of the wetlands on the Allied Junction property, located adjacent to Penhorn Creek immediately downstream of the F.D.& P. property, identified 57 species of migratory birds. Among the species observed were many wetland-dependent species including great blue heron (*Ardea herodias*), great egret (*Casmerodius albus*), snowy egret (*Egretta thula*), green heron (*Butorides striatus*), Canada goose (*Branta canadensis*), American black duck (*Anas rubripes*), mallard, blue-winged teal (*Anas discors*), common moorhen (*Gallinula chloropus*), greater yellowlegs (*Tringa melanoleuca*), belted kingfisher, red-winged blackbird, marsh wren (*Cistothorus palustris*), and swamp sparrow (*Melospiza georgiana*). These field observations

confirm the importance of the wetlands of Penhorn Creek to fish and wildlife. Given the proximity of the Allied Junction site to the F.D.& P. site and the similarities in the vegetative cover and hydrology of the two sites, the wetlands on the F.D.& P. property are most likely of similarly high value to fish and wildlife.

SUBSTANTIAL AND UNACCEPTABLE ADVERSE IMPACTS

Direct Habitat Loss

Project implementation would result in the net loss of 50.0 acres of wetlands that provide important nesting, feeding, and resting habitat for fish and wildlife resources. The proposed project would eliminate all fish and wildlife values on 53.5 acres of wetlands, while creating only 3.5 acres of wetlands as compensation. The net loss of 50.0 acres of wetlands constitutes a substantial, unmitigated, adverse impact given the scarcity of large blocks of contiguous wetland habitat in the northeastern New Jersey area. Additionally, the proposed project would result in the severe fragmentation and reduction in size of the remaining wetlands (34.8 acres) on the project site, thereby diminishing their value.

Additionally, in a letter dated August 10, 1998 from the applicant's attorney to the Corps, the applicant agreed to reduce the amount of wetlands impacts on the project site by 6 acres to the currently proposed 53.5 acres. However, the applicant states "as discussed at the meeting with Corps representative, it is understood that this reduction is without prejudice to the right of the applicant to seek to fill the additional 6 acres at some time in the future." Therefore, it would appear that additional impacts to wetlands on the project site are likely to occur in the near future. Filling an additional 6 acres of wetlands on the project site would represent piecemealing of the proposed project. Such piecemealing would result in additional direct and indirect impacts to wetlands and associated fish and wildlife resources, which are not addressed in the current permit application.

Cumulative Habitat Loss

The adverse impacts of the proposed project must also be considered in the context of past wetland losses and reasonably foreseeable future losses. Approximately 60 percent (12,000 acres) of the historic wetland base of the Meadowlands has already been lost due to human encroachment. Only approximately 8,500 acres of the original approximately 20,000 acres of wetlands remain in the Meadowlands. The HMDC estimated that over 1,600 acres of wetlands have been filled for sanitary landfills; most of these prior to 1972. More recently, approximately 525 acres have been filled for various non-water dependent projects, including shopping malls, sports complexes, roads, housing developments, warehouses, and office space. In the foreseeable future, the proposed Special Area Management Plan for the Meadowlands would facilitate over 500 acres of additional wetlands fill for non-water dependent purposes (U.S. Environmental Protection Agency, 1995).

In addition to the substantial loss of wetlands within the Meadowlands, the remaining wetlands have been adversely affected by alterations to water quality and hydrologic regime. Examples of

such hydrologic changes include the construction of ditches, dikes, and tide gates in an effort to "reclaim" the Meadowlands as arable land and to control mosquito breeding. Additionally, construction of the Oradell Dam in 1922 on the Hackensack River, upstream of the Meadowlands, reduced the amount of freshwater entering the Meadowlands. These hydrologic alterations have resulted in significant changes in the plant communities of the Meadowlands. One of the most significant changes is the spread of common reed (*Phragmites australis*). In dense stands, common reed can reduce habitat quality for some species of wildlife. Considering the historic loss of wetlands that has occurred and the degradation of remaining wetlands, it is obvious that cumulative impacts to the Meadowlands are excessive.

The proposed project would contribute substantially to the already significant cumulative loss of wetlands that has and is likely to occur in the Meadowlands. The net loss of another 50.0 acres of wetlands would contribute to the continuing decline of available habitat for migratory birds and other wildlife. This loss of wetlands would not be in conformance with the five strategies for maintaining biodiversity in the New York Bight and the Meadowlands discussed above. The proposed project would: (1) reduce the overall size of the Meadowlands; (2) severely reduce the function of the site as a corridor between large blocks of habitat; and, (3) eliminate the possibility of restoring and protecting rare and unique habitats.

The filling of 53.5 acres of wetlands on the proposed project site would have significant adverse impacts on the Penhorn Creek wetlands as a whole. The project site is centrally located with regard to the wetlands of Penhorn Creek. The wetlands within the Penhorn Creek watershed total approximately 460 acres and are concentrated in three areas: north (approximately 186 acres); central (approximately 128 acres); and south (approximately 111 acres) (U.S. Environmental Protection Agency, 1989). The proposed project site is within the central portion of the Penhorn Creek watershed.

The proposed filling of wetlands on the project site would greatly reduce the overall wetlands acreage in the Penhorn Creek watershed and further fragment remaining wetlands. Such fragmentation and reduction in overall size would reduce the remaining wetland's function as a migratory pathway within the watershed for fish and wildlife. The proposed project would eliminate approximately 12 percent of the total wetlands within the watershed and approximately 43 percent of the wetlands in the central portion of the watershed.

As mentioned above, the proposed project, if implemented, would eliminate any opportunity for wetlands enhancement on the project site. Given its context within the Meadowlands ecosystem, the potential habitat values of the project site wetlands, if enhanced or restored without any development, must be considered. The project site wetlands would contribute much higher habitat values if enhanced and restored in their entirety as part of an overall plan for environmental improvement and habitat management in the Meadowlands. Filling and

developing most of the parcel with enhancement of the remaining acreage would result in several small habitat patches with increased edge habitat and disturbance, which would not be expected to support sensitive or regionally rare species.

Finally, habitats are dynamic and change over time for a variety of reasons. Factors such as sea level rise, changes in soil chemistry and nutrients, and the alteration of local hydrology may result in vegetative succession on the project site and within the Meadowlands as a whole. Large areas of wetlands within the Meadowlands must be maintained to allow for the maintenance of a diversity of cover types and habitats in light of such changes.

Relationship of the proposed F.D. & P. project and the proposed Hackensack Meadowlands Special Area Management Plan.

Since 1988, the EPA, the Corps, the HMDC, the New Jersey Department of Environmental Protection, and the National Oceanic and Atmospheric Administration (SAMP partners) have been developing a SAMP and an environmental improvement program for the Meadowlands. The EPA published draft EIS in 1995 and the Department of the Interior is on record as having serious concerns regarding the amount of wetlands fill proposed by the SAMP preferred alternative, the failure of the SAMP to adequately evaluate cumulative impacts, the failure of the SAMP to adequately consider off-site alternatives, and the reliance of the SAMP's environmental improvement program on revenue generated from fill and development without considering other restoration funding mechanisms. In addition, implementation of the SAMP, as proposed, would set a damaging precedent that could compromise the 404(b)(1) Guideline's alternatives analysis and violate the avoidance, minimization, and compensatory mitigation requirements of the 404(b)(1) Guidelines and Service's mitigation policy. Since 1997, the SAMP partners and the Department of the Interior have been working with the Council on Environmental Quality to resolve numerous concerns of the Department of the Interior and the SAMP partners.

The goal of the SAMP is to improve the predictability of the regulatory process by reconciling differences among local land-use ordinances and state and federal environmental laws in a single advance-planning document. The Department of the Interior supports implementation of the environmental improvement program; directing development toward available uplands and re-development of closed landfills in the Meadowlands; and, directing other development to areas outside the Meadowlands, especially towards urban brownfields. However, the proposed acreage of wetland fill for non-water dependent activities (e.g., malls, industrial use) in the SAMP is not acceptable.

The F.D. & P. project site is proposed as a development node under the SAMP. However, the Department of the Interior and SAMP partners are not in complete agreement regarding the location of development nodes. Many development nodes, including the F.D. & P. project site, are located in wetlands that were identified by the EPA's Advanced Identification Study as unsuitable for future fill. Even if agreement were achieved regarding the location of development nodes, and wetlands on the F.D. & P. site were considered suitable for fill under the SAMP, the rebuttal of the regulatory presumption that upland alternatives exist for non-water dependent projects must still be achieved on a case by case basis. This test must be applied to

individual projects unless the SAMP EIS were fully as rigorous in its examination of all practicable off-site alternatives, which it clearly is not.

Adequacy of Proposed Mitigation

The proposed compensatory mitigation is inadequate to compensate for filling 53.5 acres of wetlands within the Meadowlands. A significant net loss of 50.0 acres of wetlands would result from the project, which cannot be compensated for by enhancing remaining wetlands. Approximately 9.3 acres of stormwater detention basins would be constructed to improve the quality of water draining from the 74.5 acres of impervious coverage that would be created by the proposed project. The applicant has included these stormwater detention basins as part of the 25.3 acres of the proposed on-site enhancement. Construction of stormwater detention basins cannot be considered compensation for wetlands fill, as they are constructed to treat stormwater and will have limited value to wildlife because they will require periodic maintenance in the form of sediment removal. In addition to the wetlands enhancement, 1.9 acres of drainage ditch improvements and 3.5 acres of wetlands creation are proposed on site. The 1.9 acres of ditch improvements would include: widening; installation of rip-rap check dams to create pools; and, planting of overstory vegetation. The enhancement of a ditch cannot be considered compensation for wetlands fill as little, if any, significant gain in wetland functions and values would result.

In addition to on-site compensatory mitigation, the HMDC proposes to assist the applicant in producing additional mitigation by purchasing and enhancing 311 acres of wetlands within the Meadowlands known as the Kearny Marsh. This off-site wetland enhancement would be conducted by the HMDC using \$5 million from the applicant. Under this scenario, the applicant would generate the \$5 million through collection of a tipping fee for the disposal of clean fill on site. The goals of the Kearny Marsh compensatory mitigation proposal appear to be: protect Kearny Marsh from development; prevent unspecified and undocumented further deterioration of the marsh; reduce the amount of landfill leachate (estimated by the HMDC in the off-site compensatory mitigation plan to be 400,000 gallons / day) entering the Kearny Marsh from the adjacent Keegan Landfill; and enhance the Kearny Marsh for fish and wildlife resources. A 5-page restoration plan, which provides a brief sketch of potential enhancement methods at the Kearny Marsh, was developed by the HMDC and obtained by the Department of the Interior from the NMFS on September 14, 1998.

According to the HMDC, the Kearny Marsh would be restored by installing water control structures along the northern boundary of the site, grading and drainage improvements, and dividing the marsh hydrologically. Presumably, dividing the marsh hydrologically would involve construction of dikes within the Kearny Marsh. The purpose of the alterations is to allow dewatering of the site to stimulate germination of emergent vegetation. It has been our experience that such dewatering would actually stimulate the growth of common reed and could decrease habitat values on site. Additionally, the HMDC proposes to construct a leachate cut-off wall to prevent the migration of landfill leachate from the adjacent Keegan Landfill from entering the Kearny Marsh. However, the HMDC notes that the leachate cut-off wall is only a preliminary step in eventual closure of the Keegan Landfill and that the associated leachate

pumping and treatment systems are not funded by the proposed \$5 million.

The Department of the Interior has several additional concerns regarding the proposed off-site compensatory mitigation. First, the Kearny Marsh, in its present condition provides high quality habitats for fish and wildlife resources despite the HMDC's claim that it has recently degraded. A Department of the Interior representative visited the site on September 29, 1998 and observed the following species of wildlife in a one-hour, mid-day site visit: great blue heron; great egret (*Casmerodius albus*); northern flicker (*Colaptes auratus*); red-winged blackbird; sora rail (*Porzana carolina*); belted kingfisher; double-crested cormorant (*Phalacrocorax auritus*); osprey (*Pandion haliaetus*); muskrat; painted turtle (*Chrysemys picta*); numerous "minnows," presumably *Fundulus spp.*; and, blue crab (*Callinectes sapidus*). Attempted "restoration" of such a wetland system does not appear necessary and may not prove beneficial.

Quinn (1997) describes Kearny Marsh as follows:

"A three-hundred acre freshwater wetland habitat filled with life, Kearny marsh has long been a favorite of waterfowl hunters, birders and ecologists. It is divided into two sections: Kearny Marsh East and West. Isolated from the tidal influence of the Hackensack River by old dikes, tide gates and roadways, the marsh is alive with nesting waterfowl, rails, grebes, bitterns, coots and gallinules during the warmer months and has a large muskrat population. Kearny Marsh West is the site of a black-crowned night heron rookery and has a large population of American Bitterns... The HMDC offers warm-weather canoe cruises in Kearny marsh West, guided by staff naturalists who explain the ecology of the marsh and its history." (Page 309).

Second, for enhancement activities in an existing functioning wetland to provide adequate compensation for the permanent loss of wetlands, the enhancement activities must produce significant increases in wetlands functions and values. Considering the relatively high quality of the Kearny Marsh, it seems unlikely that compensatory mitigation at this site would offset wetlands impacts associated with the proposed project.

Third, despite its physical habitat values, the levels of chemical contamination in the Kearny Marsh are unknown and any future landfill cleanup would most likely include remediation and environmental enhancement of the marsh - thus the future without the proposed off-site compensatory mitigation may include improvements to the Kearny Marsh. The HMDC notes that "...mercury, lead, chromium, PCBs and various other semivolatile compounds" have been found in surface water and sediment samples from the Kearny Marsh. The Department of the Interior is concerned that disturbance and dewatering of the Kearny Marsh may make environmental contaminants more available for uptake and incorporation into the biota. If contaminants at Kearny Marsh could become more readily available to fish and wildlife resources, it would not be appropriate to attract additional wildlife to the site. Also, if contaminants currently pose a risk to fish and wildlife resources, it may be more appropriate to require the excavation of the marsh, removal of the contaminated sediments, and restoration.

Compensatory mitigation for the permanent loss of 50.0 acres of wetlands should be accomplished elsewhere, in an area without such future prospects for enhancement and remediation.

If the Kearny Marsh is not considered in the scope of a future landfill cleanup (an unlikely scenario) it is likely that it would still be impacted by certain of the contaminated site cleanup operations, such as installation of a landfill leachate cut-off wall and groundwater pumping and treatment. Thus until the landfill, and potentially the adjacent marsh, has been remediated, and new baseline conditions established, Kearny Marsh is inappropriate for compensatory mitigation for the proposed project.

Fourth, the Kearny Marsh wetland enhancement proposal that was received by the Department of the Interior provides inadequate information to allow the Department of the Interior to fully evaluate the likelihood of success. The 5-page restoration plan did not: (1) contain an analysis of how or why the quality of Kearny Marsh has decreased; (2) contain a quantitative assessment of the current wetland functions and values; (3) contain any maps depicting or narrative describing where wetland enhancement activities would occur; (4) describe what levels of contaminants are present in the marsh; (5) contain an analysis of the effects of particular contaminants on fish and wildlife resources; and, (6) contain a timeline for completion of the compensatory mitigation project. On September 21, 1998, the Department of the Interior requested, via telephone, the opportunity to comment on the newly proposed conceptual compensatory mitigation plan; however, the Corps did not grant this request.

Fifth, as proposed in the Corps' draft permit for the proposed project, the applicant would transfer funds to the HMDC for restoration work in increments commensurate with the volume of fill discharged into wetlands. It seems highly unlikely that this payment schedule will allow completion of the compensatory mitigation prior to the completion of the wetlands fill. Therefore, there will be a net loss of wetlands functions and values over time associated with the proposed project.

Unfortunately, the proposed mitigation plan and the Corps' decision document do not discuss how funding necessary to conduct compensatory mitigation was determined. The cost of compensatory mitigation should be calculated by first determining the amount of mitigation necessary to compensate for unavoidable adverse impacts. From the information provided by the Corps, it appears that the cost of compensatory mitigation was determined by calculating the funds that could be generated through the disposal of treated dredged material on the project site.

Finally, the HMDC contends that the Kearny Marsh wetlands are in threat of development and that the proposed wetlands enhancement would eliminate that threat. However, the HMDC does not identify the current owner of the site or any development that has been or may be proposed for the Kearny Marsh. It is the Department of the Interior's understanding that the Kearny Marsh is owned, at least in part, by the City of Kearny and that the site is not under any reasonably foreseeable threat of development. Therefore, the proposal to purchase and restore the Kearny Marsh would not appear to satisfy a major goal of the compensatory mitigation.

RELATED CONCERNS

Compliance with the Section 404(b)(1) Guidelines

The proposed project is "non-water dependent" because the project does not require access to, proximity to, or siting within a wetland to fulfill its basic purpose. For non-water dependent projects, the Section 404(b)(1) Guidelines state that practicable alternatives that do not involve wetlands are presumed to be available, unless clearly demonstrated otherwise. Additionally, the Section 404(b)(1) Guidelines contain specific conditions that must be satisfied before a permit can be issued. Two of these conditions state that there must be no practicable alternative to the proposed project that would be less damaging to the aquatic environment, and that all reasonable and practicable steps must be taken to minimize adverse effects on the aquatic environment.

The documented need for an action and clear purpose must be established as a basis for defining and evaluating potential alternatives. Without a clearly defined need, it is not possible to conclude that alternatives, including the no-action alternative, are not viable.

Although the applicant has supplied information documenting recent growth in the intermodal transportation industry, the applicant has not discussed the need to expand. While there may be an opportunity to expand, the existence of a market opportunity does not necessarily constitute a need. For example, the applicant has not discussed the existing intermodal transfer facility and how lack of expansion would adversely affect this facility. Similarly, the applicant did not justify the originally stated need to service three trains per day on the project site. The applicant more recently stated (letter dated March 14, 1997) the need to service one inbound and one outbound train per day. However, the applicant has only evaluated alternative project locations based upon the previously stated need to service three trains per day.

The applicant identified criteria for evaluating alternative project locations including: proximity to New York Susquehanna and Western (NYS&W) rail lines; proximity to Meadowlands warehousing facilities; size of parcel; and, geometry of parcel. With regard to size of parcels and geometry of parcels, these criteria cannot be firmly established without a thorough justification of need. With regard to proximity to NYS&W rail lines, the applicant has not specified a minimum distance for alternative project sites to NYS&W rail lines. Additionally, the applicant states the following in the September 1993 document entitled "F. D. & P. Enterprises, Clean Water Act Section 404 Permit Application: Request for Public Notice," that the intermodal rail facility must be located within a maximum of 10 to 15 miles of the New Jersey / New York metropolitan area. However, the applicant has provided no additional information (e.g., a map) to clarify what areas would be included within 15 miles of the New Jersey / New York metropolitan area or information to support the contention that an intermodal rail facility must be sited within this area. With regard to proximity to Meadowlands warehousing facilities, the applicant states that the proposed intermodal rail facility must be located "...close to the Meadowlands Area" (Section Three Environmental Report), but does not specify a measurable distance.

Since the applicant has provided scant information regarding alternatives, and considering the above-documented flaws, the alternatives analysis is obviously incomplete. Without an adequate

analysis of alternatives, the subject permit application does not comply with the Section 404(b)(1) Guidelines.

Complete Project

The Corps has not addressed potential wetlands impacts associated with the proposed off-site (Kearny Marsh) compensatory mitigation. Presumably, the installation of water control structures, grading, drainage improvements, construction of dikes, and construction of a leachate cutoff wall would require Corps authorization. The wetland impacts should be evaluated by the Corps during the permit review process. The Corps' regulations (33 CFR 325.1(d)(2)) state that all activities that the applicant plans to undertake, which are reasonably related to the same project and for which a permit would be required, should be included in the permit application. The proposed off-site compensatory mitigation is a component of the proposed project; therefore, it is inappropriate to issue a permit for the project without evaluating potential wetland impacts of the off-site mitigation. Additionally, because of the size, complexity, and controversies associated with work in contaminated sites, the environmental effects of the proposed off-site mitigation and alternative enhancement strategies should be evaluated under the National Environmental Policy Act (83 Stat. 852; 42 U.S.C. 4321 *et seq.*).

CONCLUSIONS

The Meadowlands, including the proposed project site constitutes an aquatic resource of national importance. The proposed project, which would cause the net loss of 50.0 acres of wetlands, would result in substantial and unacceptable impacts to wetlands within the Meadowlands.

The proposed on-site compensatory mitigation is inadequate to compensate for adverse impacts to wetlands. The proposed off-site compensatory mitigation, in the form of wetlands enhancement, would not compensate for the net loss of 50.0 acres of wetlands. Additionally, the success of off-site mitigation is uncertain because: (1) the selected site already provides relatively high-quality habitats for fish and wildlife resources; (2) the cause of any loss of habitat values at the site has not been thoroughly evaluated; (3) no acceptable mitigation plan has been submitted by the applicant; and, (4) the site has not been adequately evaluated for the source and extent of environmental contaminants.

The proposed project would not be consistent with the goals of EPA's (1996) HEP. The proposed project would not work toward the goals of: (1) restoration and maintenance of an ecosystem that supports an optimum diversity of living resources on a sustained basis; (2) preservation and restoration of ecologically important habitats and open space; and, (3) restoration and enhancement of the aesthetic quality of the estuary.

Finally, in order to maintain regional biodiversity in the New York Bight and the Meadowlands the following steps must be taken: (1) maintain the overall size of the Meadowlands and other significant habitat areas; (2) establish and maintain corridors of habitat between the Meadowlands and other habitat islands in the New York Bight ecosystem; (3) maintain large blocks of contiguous habitat within the Meadowlands; (4) maintain corridors of habitat between large blocks of habitat within the Meadowlands; and, (5) manage for habitat diversity at the

ecosystem scale. not at a site-specific scale. with emphasis on restoring and protecting rare and unique habitats. The proposed project does not work towards attainment of these regional goals.

RECOMMENDATIONS

Based upon the above review of the proposed adverse impacts to aquatic resources of national importance, the Department of the Interior recommends that a Department of the Army permit for the proposed project be denied. Should the applicant continue to pursue a Department of the Army permit for the proposed project, the Department of the Interior recommends that the applicant be directed to fully evaluate:

- o Alternative project sites.
- o Minimization of on-site impacts.
- o Impacts to wetlands functions and values at the project site.
- o Compensatory mitigation options.

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