# THE CLEAN WATER ACT'S APPLICATION TO CRANBERRY GROWERS: THE BURDENED STEWARDS OF THE ENVIRONMENT

## I. INTRODUCTION

"It is a strange and sad irony that of all people, we probably have done as much to preserve and enhance wetlands as any other group. We have personally spent thousands of hours appreciating the natural beauty of the wetlands as they change through the four seasons."[1] This quotation expresses the general feelings of cranberry growers. They dedicate their lives to cultivating and caring for wetlands, yet are treated as though they destroy the environment.

The Clean Water Act ("CWA") has had a drastic and unfortunate impact on cranberry growers by unnecessarily forcing them to obtain expensive and time-consuming permits.[2] The 404 permit, to be described below, forces the grower to submit to a confusing determination of whether his marsh is in a wetland before he can even begin the lengthy application process, which ultimately results in the payment of expensive mitigation costs.[3] This Comment will stress that ideally growers should not be required to obtain 404 permits because the creation and operation of a cranberry marsh comply with the policy considerations for including wetlands in the CWA. Unfortunately, that solution is not pragmatic, therefore an appropriate alternative is to allow all growers the ability to utilize a nationwide permit which would allow for expansion of forty acres every five years. Discussion will begin with an overview of the CWA and the purpose for its enactment in 1977. This Comment will then discuss the CWA's application to wetlands and the regulatory actions taken through 404 permits. Next, there will be a brief overview of cranberry production and cultural practices. This Comment will show

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[1] Beleaguered Cranberry Growers Face Prospect of Zealous Environmental Scrutiny in 2003, http://www.cranberrystressline.com/editorial_010203.html (last visited Aug. 8, 2005).

[2] *See* 33 U.S.C. § 1344 (2006).

[3] *See* AFBF: Wetland Regulations Confusing and Controversial, Mar. 30, 2004, http://www.fb.org/news/nr/nr2004/nr0330a.html.

that cranberry marshes do not destroy any of the valuable ecologic functions of natural wetlands and therefore do not need the protection of the CWA. This Comment does not argue against the protection of wetlands under the CWA, rather it argues that cranberry marshes are protecting and preserving wetlands.

## II. OVERVIEW OF THE CWA

During the 1960s, the American public became aware of the pollution affecting our waterways.[4] This awareness and concern led Congress to enact the Federal Water Pollution Control Act Amendments of 1972.[5] The Act was later amended in 1977 and became known as the CWA.[6] The main objective of the CWA "is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."[7] The statute further states, "it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983."[8] To obtain these goals, Congress believed that "broad federal authority" was required.[9] Furthermore, because water moves in cycles, pollution needed to be controlled at its source.[10] As a result, the CWA prohibits the direct discharge of pollutants into United States waterways[11] except when in compliance with certain specified sections of the CWA.[12] The section that falls within the scope of this Comment is section 404. It regulates the discharge of dredge or fill materials into waters of the United States, including wetlands.[13]

## III. THE CWA'S APPLICATION TO WETLANDS

The CWA states the purpose of the 404 permit is to "restore and maintain the chemical, physical, and biological integrity of waters of the

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[4] Environmental Protection Agency, Clean Water Act, http://www.epa.gov/r5water/cwa.htm (last visited Oct. 16, 2006).

[5] *Id.*

[6] *Id.*

[7] 33 U.S.C. § 1251(a) (2006).

[8] *Id. at* § 1251(a)(2).

[9] United States v. Riverside Bayview Home, Inc., 474 U.S. 121, 132-133 (1985).

[10] *Id.*

[11] THE CLEAN WATER ACT HANDBOOK 8 (Parthenia B. Evans ed., ABA 1994).

[12] 33 U.S.C. § 1311(a) (2006).

[13] *Id.* § 1344.

United States."[14] It is based on the precept that dredged or fill material should not be discharged into the water unless it can be shown that it will not cause an adverse impact on the ecosystem.[15] Congress granted the Environmental Protection Agency ("EPA") regulatory power over the CWA.[16] In turn, the EPA gave the Army Corps of Engineers ("Corps") authority to regulate the discharge of dredged and fill material into United States waters.[17]

### *A. 404 Permits*

The CWA deems wetlands to be special aquatic sites[18] because they hold the "special ecological characteristic of productivity, habitat, [and] wildlife protection" which help to maintain the overall health of the regional ecosystem.[19] As a result, the CWA states the destruction of a wetland has a detrimental impact on the environment.[20] The Corps regards this destruction as having such an impact that it must regulate the activity in wetlands through section 404 of the CWA.

A 404 permit is required before dredged or fill material may be discharged into the waters of the United States.[21] Dredged and fill material includes any traditional contaminant or pollutant, however it also includes natural elements like, "soil, . . . rock, sand, and cellar dirt."[22] The discharge of fill material means placing materials into the nation's water.[23] This includes activities such as placing natural sand and soil in a wetland to build dams, levees, or roads.[24] The term "discharge of dredged material" means any addition of dredged material into, including redeposit of dredged material other than incidental fallback the waters of the United States.[25]

An applicant must first comply with section 401, which requires the acquisition of a certification from the applicable state.[26] The applicable state is the state from which "the discharge originates or will originate"

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[14] 40 C.F.R. § 230.1(a) (2006).
[15] *Id.* § 230.1(c).
[16] *Id.* § 230.2(a).
[17] *Id.*
[18] *Id.* § 230.3(c).
[19] *Id.* § 230.3(q-1).
[20] *Id.* § 230.1(d).
[21] *See generally* 33 U.S.C. § 1344 (2006).
[22] 33 U.S.C. §1362(6) (2006).
[23] 40 C.F.R. § 232.2(6) (2006).
[24] *Id.*
[25] 33 C.F.R. § 323.2(c)-(d) (2006).
[26] 33 U.S.C. § 1341(a)(1) (2006).

or an interstate agency that has control over the waters where the discharge originates.[27] To obtain certification from a state, the applicant must meet the requirements outlined in the state's standards.[28] Each state must establish its standards by considering the purpose of the CWA and the Administrator of the EPA must approve the standards.[29] The state can create more stringent requirements than those found in the CWA.[30] If a state determines that certain activities will create discharge that is not permitted under its standards, then the federal government is prohibited from granting a 404 permit for that activity.[31]

Once a state certification is obtained, the Corps undertakes an extensive number of steps in determining whether a permit should be granted for a particular discharge site.[32] There are two different types of permits under section 404: individual and general permits.[33] General permits are separated into categories of activities.[34] Certain activities will form a category if they are similar in nature and have only minimal adverse effect on the aquatic environment.[35] To obtain a general permit, the applicant must only comply with the specified terms.[36] Usually, the general permit does not require an individual review and is therefore much more time efficient.[37] However, because there is not an individual evaluation, the general permit is very restrictive as to what is allowed. For example, it can limit the types of activity and the total number of acres allowed for that activity.[38] Furthermore, general permits are only active for a limited amount of time.[39] Once it has expired, the Corps seeks public comment before reissuing the general permit.[40]

General permits can be issued on a nationwide, regional, or state basis.[41] The Corps is divided into districts, with each district having the

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[27] *Id.*

[28] *Id.* § 1313(b)(1).

[29] *Id.* § 1313(e)(1).

[30] United States v. Marathon Dev. Corp., 867 F.2d 96, 99 (1989).

[31] *Id.*

[32] *See generally* 40 C.F.R. § 230.5 (2006).

[33] *See generally* 33 U.S.C. § 1344 and § 1344(e) (2006).

[34] *Id.* § 1344(e).

[35] *Id.* § 1344(e)(1).

[36] 40 C.F.R. § 230.5(b) (2006).

[37] Environmental Protection Agency, Wetland Regulatory Authority, http://www.epa.gov/owow/wetlands/pdf/reg_authority_pr.pdf (last visited Oct. 13, 2006).

[38] Nationwide Permit 34, Cranberry Production Activities.

[39] 33 U.S.C. § 1344(e)(2) (2006).

[40] United States Army Corps of Engineers, Corps of Engineers Seeks Public Comments About Proposal to Renew and Revise Nationwide Permits, Sept. 25, 2006, *available at* http://www.usace.army.mil/cepa/releases/nationwide2006.htm.

[41] Environmental Protection Agency, *supra* note 37.

authority to utilize the nationwide permits or develop a different permitting process.[42] Certain districts have developed a regional general permit and use letters of permission.[43] The general permits are available for activities that use minimal acreage, while the letters of permission are commonly available for projects that exceed the general permit acreage limit, but that do not exceed two acres.[44] With letters of permission, there is often a thirty day public hearing period for those who wish to share their opinion on the applicants' proposed project.[45] Overall, the general permit and letters of permission process takes at least ninety days.[46]

Individual permits are required if the proposed activity could significantly impact the nation's waters.[47] The Corps will not consent to a permit if there is a practicable alternative that is less damaging[48] or if the activity would significantly degrade the water.[49] The first step in obtaining an individual permit is the public interest review.[50] The Corps will issue a public notice within fifteen days of receiving the application.[51] There is then a comment period of fifteen to thirty days and a public hearing.[52] During the public review, there is a balancing process between the foreseeable detriments to the public and the possible benefits that may arise from the activity.[53] Some of the factors considered are the impact on the public interest, the impact on wetland functions, economic value, and alternatives to the activity.[54] The Corps will also complete a study to determine the chemical, biological, and physical impact of the proposed activity.[55] If the Corps finds a feasible alternative to the proposed activity, it will not issue a permit.[56] The individual applicant has a

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[42] Telephone Interview with William Metcalf, Senior Partner, Metcalf & Quinn, S.C., in Wisconsin Rapids, Wis. (Oct. 27, 2006).

[43] Telephone Interview with Jerry Smith, Regulatory Division, Army Corps of Engineers, in Green Bay, Wis. (Oct. 26, 2006).

[44] *Id.*

[45] *Id.*

[46] *Id.*

[47] Environmental Protection Agency, *supra* note 37.

[48] 40 C.F.R. § 230.5(c) (2006).

[49] *See id.* § 230.5.

[50] 33 C.F.R. § 320.4(a) (2006).

[51] Environmental Protection Agency, Section 404 of the Clean Water Act: An Overview, http://www.epa.gov/owow/wetlands/facts/fact10.html (last visited Sept. 26, 2005).

[52] *Id.*

[53] 33 C.F.R. § 320.4(a) (2006).

[54] THE CLEAN WATER ACT HANDBOOK, *supra* note 11, at 146.

[55] *Id.* at 147.

[56] *Id.*

heavy burden to meet.[57] He must demonstrate that he has "taken steps to avoid wetland impacts, minimized potential impacts on wetlands, and provided compensation for any remaining unavoidable impacts."[58] Upon final review, the Corps will issue an environmental assessment and statement of finding announcing its conclusion.[59]

Once a 404 permit has been granted, the landowner may be required to provide mitigation in one of four ways.[60] The first option is the creation of a new wetland.[61] The second option is the restoration of an abandoned wetland.[62] The third option is the enhancement of a current wetland.[63] The fourth option is the purchase and preservation of an existing high-quality wetland.[64]

Mitigation is dependant upon the district and the quality of the "altered" wetland.[65] The Corps can require the amount of mitigated wetland to be up to four times the amount of the "altered" wetland.[66] This means that for every altered acre of wetland an individual uses, he might have to mitigate it with four acres of wetland. This clearly adds to the high mitigation expense. The cost of mitigation is one of the greatest disincentives for applying for a 404 permit.[67] On average an individual permit takes seven hundred and eighty-eight days and $271,596 to complete the process.[68] Over $1.7 billion is spent annually on obtaining 404 permits.[69]

### *B. How Wetlands Became "Waters of the United States"*

The CWA makes it unlawful for persons to discharge any pollutant from a point source into *navigable waters*, unless otherwise stated in the CWA.[70] A century prior to the development of the CWA, the federal government asserted control over navigable waters that were or could be

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[57] *See* Environmental Protection Agency, *supra* note 37.

[58] *Id.*

[59] Environmental Protection Agency, *supra* note 51.

[60] Wetland Protection/Dredge and Fill Permits/404, http://www.cleanwateract.org/Pages/c7.htm (last visited June 28, 2005).

[61] *Id.*

[62] *Id.*

[63] *Id.*

[64] *Id.*

[65] Metcalf, *supra* note 42.

[66] *Id.*

[67] Wetland Protection, *supra* note 60.

[68] Rapanos v. United States, 126 S. Ct. 2208, 2214 (2006).

[69] David Sunding & David Zilberman, *The Economics of Environmental Regulation by Licensing: An Assessment of Recent Changes to the Wetland Permitting Process*, 42 NATURAL RESOURCES J. 59, 81 (2002).

[70] 33 U.S.C. § 1344(a) (2006) (emphasis added).

used for interstate commerce.[71] The customary definition of navigable is "deep enough and wide enough to afford passage to ships."[72] Congress defined navigable waters to include every body of water capable of being made into a "highway for commerce."[73]

Initially, the CWA only asserted jurisdiction over waters that fit the customary definition, for instance, waters that were capable of holding boats used for commerce.[74] However, in 1973, the EPA released a policy statement discussing the need to protect our nation's wetlands.[75] It stated that wetlands are extremely important to our environment because of their unique ecosystems.[76] As such, intense protection was needed to preserve and protect them from pollution and destruction.[77] The policy statement briefly summarized the functions of a wetland that make it such an important and unique ecosystem.[78]

> They serve as habitat for important furbearing mammals, many species of fish, and waterfowl. Such areas moderate extremes in waterfowl, aid in the natural purification of water, and maintain and recharge the groundwater resource. They are the nursery areas for a great number of wildlife and aquatic species and serve at times as the source of valuable harvestable timber. They are unique recreational areas, high in aesthetic value, that contain delicate and irreplaceable specimens of fauna and flora, and support fishing, as well as wildlife fowl and other hunting.[79]

As a result of the EPA's policy statement, the Corps redefined "the waters of the United States" to also include "not only actually navigable waters but also tributaries of such waters, interstate waters and their tributaries, and non navigable intrastate waters whose use or misuse could affect interstate commerce."[80] The Corps further construed the CWA to cover "all freshwater wetlands" that were adjacent to other covered waters.[81] To be considered a freshwater wetland, an area had to be flooded with water frequently enough to support wetland vegetation.[82]

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[71] The Daniel Ball 10 Wall. 557, 563 (1871).

[72] MERRIAM-WEBSTER ONLINE DICTIONARY, http://www.m-w.com/dictionary/navigable (last visited Oct. 25, 2006).

[73] The Daniel Ball, *supra* note 71.

[74] United States v. Riverside Bayview Homes Inc., 474 U.S. 121, 123 (1985).

[75] 38 Fed. Reg. 10834 (1973).

[76] *Id.*

[77] *Id.*

[78] *Id.*

[79] *Id.*

[80] United States v. Riverside Bayview Homes Inc., 474 U.S. 121, 123 (1985).

[81] *Id.* at 124 (Freshwater wetlands are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically

In *United States v. Riverside Bayview Homes, Inc.*, the Supreme Court extended the Corps' authority from freshwater wetlands to all wetlands that are adjacent to waters of the United States.[83] In *Riverside*, the respondent, Riverside Homes, questioned the Corps' authority over its property.[84] The respondent owned eighty acres of swampy land near Lake Michigan.[85] It placed fill material on its property for the construction of a housing project.[86] The Corps filed suit in District Court asserting that the respondent's land was a wetland, therefore falling under the authority of the CWA.[87] The District Court held in favor of the Corps.[88] The Appellate Court reversed, holding that the CWA only had jurisdiction over wetlands that were frequently subjected to flooding by adjacent navigable water.[89] The Appellate Court believed that a broader reading of the CWA's jurisdiction over wetlands would lead to unfair taking by the government.[90] The United States Supreme Court ruled in favor of the Corps.[91] The ruling held that "the evident breadth of congressional concern for protection of water quality and aquatic ecosystems suggests that it is reasonable for the Corps to interpret the term 'waters' to encompass wetlands adjacent to waters."[92] Adjacent to waters obviously means those wetlands that are bordering or next to waters of the United States.[93] Adjacent wetlands can however be separated from water by man-made dikes, natural river berms, and beach dunes.[94] Thus, there was no longer a requirement that the land be subject to frequent flooding.

The Corps tried to further extend its definition of a wetland by including those lands used by migratory birds. In *Solid Waste Agency Solid of Northern Cook County v. United States Army Corps of Engineer,* the Corps used the Migratory Bird Rule to assert federal jurisdiction over non-navigable, isolated, intrastate wetlands.[95] The Petitioner sought to

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adapted for life in saturated soil conditions Wetlands generally include swamps, marshes, bogs and similar areas.").

[82] Riverside, 474 U.S. at 124.

[83] *Id.* at 139.

[84] *Id.* at 124-126.

[85] *Id.* at 124.

[86] *Id.*

[87] *Id.*

[88] *Id.* at 125.

[89] *Id.*

[90] *Id.*

[91] *Id.* at 126.

[92] *Id.* at 133.

[93] 33 C.F.R. § 328.3(c) (2006).

[94] *Id.*

[95] Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, 531 U.S. 159, 172 (2001)[hereinafter SWANCC].

build a water disposal site on an abandoned sand pit that had become a seasonal pond.[96] When the Petitioner initially contacted the Corps, the Corps found that it did not have jurisdiction over the property because the land did not contain wetlands.[97] However, after learning that birds were using the land, the Corps asserted jurisdiction using the Migratory Bird Rule.[98] This rule states that an individual must apply for a 404 permit if his land provides habitat for migratory birds that cross state lines.[99] The Corps argued that the rule held a sufficient connection to the government's commerce power.[100] In support of its assertion, the Corps noted that the protection of migratory birds is an important national concern and that over a billion dollars is spent annually on recreational activities that relate to migratory birds.[101] The Supreme Court saw this use of the Migratory Bird Rule as a "significant constitutional question."[102] The Court found that "the term 'navigable' has at least the import of showing us what Congress had in mind as its authority for enacting the CWA: its traditional jurisdiction over waters that were or had been navigable in fact or which could reasonably be so made."[103] The court further held, that if they allowed the Corps jurisdiction over ponds that fell within the Migratory Bird Rule, it would infringe upon the State's power over land and water.[104]

There continues to be jurisdictional disputes over what classifies as adjacent waters thereby ensuring federal jurisdiction. A recent Supreme Court case titled *Rapanos v. United States*, made the issue even more confusing.[105] The court split three ways and wrote five decisions, each without majority support.[106] The court remanded the action, leaving the lower courts to make findings on a case-by-case basis.[107] This creates uncertainty for not only the Corps, but also for farmers who cultivate

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[96] *Id.* at 162-163.

[97] *Id* at 164.

[98] *Id.*

[99] *Id.*

[100] *Id. at 173,* U.S. Senate Committee on Environment and Public Works, American Farm Bureau Federation: Wetlands Regulation and the SWANCC Decision, http://epw.senate.gov/hearing_statements.cfm?id=213197 (last visited July 6, 2006).

[101] SWANCC, 531 U.S. at 173.

[102] *Id.*, U.S. Senate Committee on Environment and Public Works, American Farm Bureau Federation: Wetlands Regulation and the SWANCC Decision, http://epw.senate.gov/hearing_statements.cfm?id=213197 (last visited July 6, 2006).

[103] SWANCC, 531 U.S. at 172.

[104] *Id.* at 174.

[105] Fox News, *EPA Official Promises Guidelines to Define Wetlands*, Aug. 31, 2006 http://www.foxnews.com/story/0,2933,211528,00.html.

[106] *See* Rapanos v. United States, 126 S. Ct. 2208 (2006).

[107] *Id.*

their land believing that it is not regulated by the CWA. Punishments for violating the CWA, even minute violations, are severe. One who negligently violates the CWA can be imprisoned for up to one year and a second violation can lead to two years of imprisonment.[108] The CWA also has a felony provision that states anyone who knowingly violates the CWA is subject to no more than three years of imprisonment or a fine of at least $5,000 but no more than $50,000 *per day* of violation.[109]

## IV. CRANBERRY MARSHES

### *A. Is My Property In a Wetland?*

The first problem cranberry growers face in dealing with 404 permits is determining whether their land is in fact a wetland under the CWA's jurisdiction. The Supreme Court of the United States cannot determine if a certain piece of property is a wetland under the federal jurisdiction.[110] Yet, farmers are required to make that initial determination before using their own property. One landowner stated that the public is often in favor of strict environmental regulations, until they discover "that the little puddle in the middle of their backyard, just where they hoped to put an above-ground swimming pool, is already defined as a pool . . . a vernal one that can't be touched."[111] Furthermore, the EPA will often make a determination of whether the property is in a wetland by reviewing aerial photographs.[112] These photographs are frequently inaccurate because they are historic or they were taken during the winter when the ground is frozen and therefore unable to absorb the excess water.[113]

### *B. Cranberry Marshes Preserve Wetlands*

The American cranberry, *Vaccinium macrocarpon,* is a native wetland plant[114] that is found in five states: Massachusetts, New Jersey, Wisconsin, Washington, and Oregon.[115] The cranberry is grown on a small shrub

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[108] Hanousek v. United States, 528 U.S. 1102, 1104 (2000).

[109] *Id.*

[110] *See generally* Rapanos, 126 S. Ct. 2008.

[111] Beleaguered Cranberry Growers, *supra* note 1.

[112] U.S. House Committee on Transportation and Infrastructure, Unfairness in Wetlands Permitting Process Recounted by Witnesses at Congressional Hearing Wetlands, Oct. 3, 2001, *available at* http://www.house.gov.transportation/press/press/2001/release126.html.

[113] *Id.*

[114] Weweantic River Background Information, http://www.wetmaap.org/Weweantic_River/Supplement/wr_background.html (last visited July 5, 2005).

[115] *Id.* (The cranberry is native to Wisconsin).

that requires acidic, nutrient-poor soils.[116] Cranberry beds are made by removing the exposed soil to form a rectangular bed that is approximately 150 feet wide by 1250 feet long.[117] The removed dirt is stockpiled on site or sold.[118] A laser is then used to level the beds making sure that water does not collect in low spots.[119] Water is essential for proper cranberry growth.[120] During the colder months the beds are flooded to protect the vines from damage.[121] In the growing season sprinklers apply water to the cranberries to protect them from the heat.[122] At the end of the growing season, the beds are flooded to harvest the cranberries.[123] Because water is an essential part of growing cranberries, growers have developed water systems that recycle and reuse the water.[124]

In Wisconsin, cranberry marshes consist of over 110,000 acres, however only 10,000 of those acres are actually planted with cranberries.[125] The other 100,000 acres are called "support land."[126] The support land consists of wooded areas surrounding the cranberry marsh as well as a reservoir that provides water for the cranberry marsh.[127] As part of the freeforming reservoir perimeter, the naturally existing back end of the reservoir consists of swamp and wooded areas.[128] The extent of the reservoir into these areas is dependent upon the amount of rainfall and the season.[129] Dikes constructed to traverse a cranberry marsh do act as fill

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[116] *Id.*

[117] Telephone Interview with John Villars, General Manager, Cranmoor Cranberry Company, in Port Edwards, Wis. (Oct. 27, 2006).

[118] Cranberry Production in Wisconsin, http://www.hort.wisc.edu/cran/mgt_articles/articles_gen_info/cranProdinWisc/productn.html (last visited Oct. 25, 2006). (This article was written by the Department of Horticulture at University of Wisconsin, Madison.).

[119] *Id.*

[120] *Id.*

[121] PAUL ECK, THE AMERICAN CRANBERRY, 82 (Rutgers University Press 1990).

[122] *Id.* at 81, Growing Cranberries in New Jersey, http://www.rce.rutgers.edu/burlington/cranberr.htm (last visited July 25, 2005).

[123] Growing Cranberries in New Jersey, http://www.rce.rutgers.edu/burlington/cranberr.htm (last visited July 25, 2005).

[124] Wisconsin State Cranberry Growers Association, http://www.wiscran.org/crangrow.htm (last visited Nov. 10, 2006) (This was written for the Wisconsin State Cranberry Growers Association by an educational committee that consisted of cranberry growers and professors from the University of Wisconsin, Madison.).

[125] Wisconsin State Cranberry Growers Association, http://www.wiscran.org/wetlands.htm (last visited Nov. 10, 2006) (This was written for the Wisconsin State Cranberry Growers Association by an educational committee that consisted of cranberry growers and professors from the University of Wisconsin, Madison.).

[126] *Id.*

[127] *Id.*

[128] Villars, *supra* note 117.

[129] *Id.*

in the wetland area.[130] However, the actual acreage of these roads is minimal compared to the wetland cranberry beds they service and because the roads are left naturally grassy, they are also a home to birds and muskrats.[131]

Cranberry marshes are developed in swampy low lying areas because cranberries are wetland plants.[132] In order to thrive a cranberry marsh must have a good supply of water, proper drainage, and organic soil that is able to hold the water essential to growing, harvesting, and winter protection.[133] Since cranberry marshes are in wetlands, the growers must obtain 404 permits for both the construction and expansion of a cranberry marsh.[134] There is a Nationwide Permit 34 available to cranberry growers.[135] However, this permit is very restrictive. It only allows for ten acres of expansion on a previously existing marsh every five years.[136] This obviously does not work for those who want to start a marsh or those who want to expand their marsh beyond ten acres. A cranberry bed is generally two to four acres,[137] and requires an investment in the costs of grading, pipelines, pumps, and labor.[138] The ten acre requirement makes the expansion economically infeasible.

Furthermore, most Corps' districts where cranberries are grown do not utilize Nationwide Permit 34.[139] It is still available, but most districts choose not to use it. For example the Saint Paul District, which covers Minnesota and Wisconsin, replaced Nationwide Permit 34 with General Permit 14 and Letters of Permission.[140] However, General Permit 14 has expired and the Corps has yet to reissue it.[141] Therefore, an individual who wants to use this permit cannot and has to be evaluated under other general permits. General permits and letters of permission can be as confusing, if not more confusing, than nationwide permits. The letters of

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[130] Memorandum from the Army Corps of Engineers to the Field (June 26, 1992), *available at* http://www.usace.army.mil/cw/cecwo/reg/rgls/rgl92-02.htm.

[131] Wisconsin State Cranberry Growers Association, *supra* note 125.

[132] Minnesota Department of Natural Resources, Technical Definitions of Wetland Types in Minnesota, http://www.dnr.state.mn.us/wetlands/types_technical.html (last visited Nov. 10, 2006).

[133] Weweantic River Background Information, *supra* note 114.

[134] *See* 33 U.S.C. § 1344(f)(2) (2006).

[135] Nationwide Permit 34, *supra* note 38.

[136] 33 U.S.C. § 1344(e)(2) (2006).

[137] Malcom Dana & George Klingbeil, *Cranberry Growing in Wisconsin*, 654, COLLEGE OF AGRICULTURE UNIVERSITY OF WISCONSIN, 5, 10 (1966).

[138] BILL ZWEIGBAUM, CRANBERRY GROWER'S PLANNING HANDBOOK, 12 (2000).

[139] Telephone Interview with Marita Valencia, Regulatory Branch, Army Corps of Engineers, in St. Paul, Minn. (Oct. 26, 2006).

[140] *Id.*

[141] *Id.*

permission are required for projects that require over .23 acres of land, but less than two acres.[142] If the proposed project is over ten thousand square feet then there is a thirty-day public hearing process.[143] These restraints make the general permit and letters of permission process very similar to the individual permit.

The policy considerations behind the enactment of the CWA and the interpretation that wetlands should also be protected are found in various EPA federal regulations. One such regulation states that the discharge of fill material could result in the loss of habitat for animals.[144] The EPA states that the fill material would adversely impact the breeding and nesting areas for animals.[145]

These possible loss of values found in the EPA's policy considerations do not occur on a cranberry marsh. A study completed in 1989 by IEP, Inc. found that cranberry wetlands perform the same functions as natural wetlands.[146] The study also found that cranberry wetlands had more wildlife than natural wetlands.[147] The support land often goes undisturbed for a long period of time, thus creating a wonderful and ideal habitat for fish and wildlife. Also, because a cranberry marsh is private property, the public cannot enter onto the land and interfere with the wildlife.

The EPA states, "these adverse impacts upon wildlife habitat may result from changes in water levels, water flow and circulation . . . and substrate characteristics and elevation."[148] However, cranberry marshes protect animals by providing a stable and permanent home. Unlike unmanaged wetlands that are often affected by drought or flooding, cranberry marshes stabilize the water supply.[149] The land is therefore fertile all year, providing a permanent home for plants and animals. Natural wetlands lose nearly 500 acres a year.[150] "For the plants and animal living on those wetlands, the results can be devastating."[151]

Not only are cranberry wetlands home to great numbers of wildlife, but they are also home to a wide variety of wildlife species.[152] Almost

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[142] Smith, *supra* note 43.
[143] *Id.*
[144] 40 C.F.R § 230.32(b) (2006).
[145] *Id.*
[146] Wisconsin State Cranberry Growers Association, *supra* note 124.
[147] *Id.*
[148] 40 C.F.R. § 230.32(b) (2006).
[149] Wisconsin State Cranberry Growers Association, *supra* note 124.
[150] *Id.*
[151] *Id.*
[152] G.C. KLINGBELL & J.M. RAWSON, WISCONSIN CRANBERRY LORE 12 (University of Wisconsin- Extension 1975).

every species of wildlife native to Wisconsin has been found on a cranberry wetland.[153] Mammals found on cranberry wetlands include but are not limited to beavers, river otters, mice, white-tailed deer, fox, coyotes, opossums, chipmunks, and meadow voles.[154] There are over sixty types of birds found on cranberry wetlands. [155] Some of the more prominent species include duck, geese, cranes, herons, hawks, and owls.[156] While walking along the reservoir or ditches it is nearly impossible not to see a turtle, frog or snake. There are also a wide variety of fresh water fish.[157] Rice, watercress, and lilies are among the hundreds of plants that thrive in the support lands.[158]

An employee of the Wisconsin Department of Natural Resources ("DNR") wrote that reservoirs used on cranberry marshes may create and enhance wetlands.[159] He further stated the importance of reservoirs because of their ability to provide a habitat for aquatic wildlife.[160] "Many cranberry growers encourage wildlife use of property by erecting wood duck nesting boxes and eagle, goose and cormorant nest platforms, installing fish aerators, planting food plots and harvesting timber to enhance wildlife."[161]

The EPA also feared that endangered species would die because of fill material being discharged into their habitat.[162] But cranberry marshes are in fact home to certain endangered species. Cranberry growers were credited by top researchers with saving the sand hill crane from extinction in Wisconsin.[163] The bald eagle has also found refuge on cranberry wetlands; nesting bald eagles were found on eighteen cranberry wetlands.[164]

A wetland acts as a "giant sponge" soaking up floodwater and then slowly releasing it.[165] The slow release prevents a sudden burst of flood-

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[153] Wisconsin State Cranberry Growers Association, *supra* note 125.
[154] Klingbell & Rawson, *supra* note 152, at 12.
[155] Wisconsin State Cranberry Growers Association, *supra* note 125.
[156] Klingbell & Rawson, *supra* note 152, at 12.
[157] *Id.*
[158] Wisconsin State Cranberry Growers Association, *supra* note 125.
[159] Environmental Issues Related to Cranberry Production, *available at* http://www.library.wisc.edu/guides/agnic/cranberry/dnrpaper.html (last visited July 9, 2005).
[160] *Id.*
[161] *Id.*
[162] *See* 40 C.F.R. § 230.30 (2006).
[163] Wisconsin State Cranberry Growers Association, *supra* note 125.
[164] *Id.*
[165] Why Protect Our Wetlands, http://site.efg.cs.umb.conne/marsha/protection.html (last visited Nov. 10, 2006), 33 CFR § 320.4 (b)(iv)-(v) (2006).

water, which could otherwise damage neighboring land.[166] As a result, it shields other areas from flooding, storm damage, and wave action.[167] It can also lower the flood height and volume.[168]

A cranberry marsh also holds the same flood control benefits. An established cranberry bed has a thick covering of cranberry vines.[169] This thick covering also acts like a giant sponge by filtering water and slowing rain discharge from rushing floodwater.[170]

In finding that a wetland should be protected under the CWA through section 404, the EPA also considered a wetland's ability to act as a filter for groundwater.[171] A federal regulation recognized that wetlands serve "water purification functions."[172] As water seeps through the ground, it "traps sediments, absorbs and removes excess nutrients, and processes chemical and organic waste."[173] A cranberry marsh also acts as natural water filter as the beds are established in alternating layers of organic soil and sand.[174]

Cranberry marshes recycle and reuse water.[175] Some even have self-contained water systems, which means that the water never leaves the cranberry marsh and instead is continuously recycled.[176] The support land of a cranberry marsh contains a reservoir that is connected to a main water source, which is usually a lake or river.[177] When a bed needs to be flooded the water comes from the one water system.[178] "The government considers cranberry growers' use of water to be predominantly 'non-consumptive' because the water does not degrade in quality or quantity."[179]

Many wetland plants can absorb excess fertilizers, pesticides, and heavy metals.[180] Also, because of the soil's acidity, many pollutants are broken down into less harmful substances.[181] Cranberry growers further

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[166] Why Protect Our Wetlands, http://site.efg.cs.umb.conne/marsha/protection.html (last visited Nov. 10, 2006).
[167] 33 C.F.R. § 320.4(b)(iv)-(v) (2006).
[168] Why Protect Our Wetlands, *supra* note 166.
[169] Villars, *supra* note 117.
[170] Wisconsin State Cranberry Growers Association, *supra* note 124.
[171] 33 C.F.R. § 320.4(b)(vi)-(vii) (2006).
[172] *See id.* § 320.4(b)(vii).
[173] Why Protect Our Wetlands, *supra* note 166.
[174] ECK, *supra* note 121, at 167.
[175] Metcalf, *supra* note 42.
[176] *Id.*
[177] Villars, *supra* note 117.
[178] *Id.*
[179] Wisconsin State Cranberry Growers Association, *supra* note 124.
[180] Why Protect Our Wetlands, *supra* note 166.
[181] *Id.*

help prevent pollution by restricting their pesticide use.[182] Cranberry growers were the first to stop using *dichloro-diphenyl-trichloroethane* ("DDT") in the 1970s, when its harmful effects became known.[183] Now growers use pesticides that are biodegradable and that have been proven to not harm the environment or consumers.[184]

Aesthetics and water-related recreation were two other values that the EPA stated would be lost by the discharge of dredge or fill material.[185] The code of federal regulations states that fill material would tarnish the natural beauty of this aquatic ecosystem by "destroying vital elements that contribute to the compositional harmony and unity, visual distinctiveness, or diversity of an area."[186] The amount of land used for dikes that service the cranberry beds is minimal compared to the amount of land left as a wetland.[187] Therefore, the same beauty found on a natural wetland can still be seen on a cranberry marsh. Furthermore, cranberry beds have a natural beauty because they hold a native wetland plant.[188] The EPA also states that the natural resources that support water-related activities could be impaired or destroyed by fill material.[189] A cranberry marsh's reservoir still allows for activities like fishing, swimming, and boating.

A 404 permit will not be granted for the discharge of fill material, unless it can be shown, "that such a discharge will not have an unacceptable adverse impact either individually or in combinations with known and probable impacts of other activities affecting the ecosystems of concern."[190] As discussed, a cranberry marsh does not have an adverse impact on the wetland. Instead it preserves and protects the unique aquatic ecosystem by providing a safe and stable habitat for animals, and acting as a flood control and a water filter.[191] The owner of a cranberry marsh, who does so much to preserve the environment, and an individual wanting to build a parking lot in a wetland, should not be treated equally. Yet they are treated the same within the rules and regulations of the CWA. The process and cost of obtaining a 404 permit to build a parking lot on wetlands is exactly the same as it is to build or expand a cranberry

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[182] Villars, *supra* note 117.
[183] Wisconsin State Cranberry Growers Association, *supra* note 124.
[184] *Id.*
[185] 40 C.F.R. § 230.52, § 230.53 (2006).
[186] *Id.* § 230.53(b).
[187] Villars, *supra* note 117.
[188] Weweantic River Background Information, *supra* note 114.
[189] 40 C.F.R. § 230.52(b) (2006).
[190] *Id.* § 230.1(d).
[191] Wisconsin State Cranberry Growers Association, *supra* note 124.

marsh. For many farmers the cost of obtaining a permit is too expensive and prevents them from being able to use their land. The cost of wetland mitigation can be between $65,000 and $200,000 per acre.[192]

## V. RECOMMENDATIONS

An ideal solution to resolve the cranberry growers' problems in expanding their properties would be exclusion from the 404 permit. Cranberry marshes preserve wetlands by providing a stable and permanent home for all types of wildlife and plant life. Furthermore, according to the Massachusetts Wetlands Protection Act, cranberry marshes, including the reservoirs, "contribute significantly to flood control, prevention of pollution and storm damage, and ground water recharge–all functions of wetlands."[193]

This Comment has demonstrated that cranberry marshes should be excluded from the 404 permit process. However, the regulatory agencies are unlikely to adopt this position. Therefore a balanced approach needs to be implemented.

The current oversight has too much red tape. The process needs to be streamlined, less costly, and involve fewer agencies. An appropriate alternative is to allow all cranberry growers the use of a nationwide permit. It is less confusing and less time consuming then the general permit and letters of permission process. Furthermore it would also create uniformity in cranberry growing districts. Currently, there are too many agencies involved in the regulatory process. There are often conflicts between the agencies, thus creating an even more complex system for applicants. For example, the Wisconsin DNR refused to allow Nationwide Permit 34 because it wanted complete control over the regulatory process.[194] Requiring all districts to use a nationwide permit, would reduce this fight for control.

Currently, Nationwide Permit 34 is very restrictive; it only allows for ten acres of expansion every five years on a preexisting cranberry marsh.[195] A reasonable acreage limitation would be forty acres every five years. This would allow a grower to expand his marsh approximately two beds every year, as one bed is generally three to five acres.[196] Two

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[192] WSDOT & Mitigation Banking, May 26, 2005, http://www.wsdot.wa.gov/Environment/biology/docs/QA_Banking.pdf.

[193] Cranberry Water Use, An Information Fact Sheet, http://www.umass.edu/cranberry/downloads/wateruse.pdf (last visited Oct. 27, 2006).

[194] Metcalf, *supra* note 42.

[195] Nationwide Permit 34, *supra* note 38.

[196] Dana & Klingbeil, *supra* note 137, at 10.

beds every year is a realistic expansion that serves the needs of a growing cranberry marsh. A person who wanted to create a new marsh would still have to initially apply for an individual permit.

Mitigation is presently dependent upon the district in which the marsh falls and the quality of the "altered" wetlands. Yet cranberry marshes do not alter wetlands in a negative or adverse way. They hold a native wetland plant, in a wetland. They create an ecosystem that provides a stable habitat for a multitude of wildlife. As such, cranberry marshes should not have to mitigate the land they are permitted to cultivate under a nationwide permit. In eliminating the exorbitant mitigation costs, a grower can afford to cultivate his own land.

## VI. CONCLUSION

The CWA was developed to prevent future pollution in our nation's waterways and to protect aquatic wildlife.[197] Section 404 of the CWA regulates the "discharge of dredged or fill material into navigable waters,"[198] by only issuing permits for projects that would not adversely effect the aquatic environment. It can be argued that the Corps and other regulatory agencies have misused the CWA and regulated beyond congressional intent. The Corps uses questionable rules to assert jurisdiction over wetlands that do not fit under the original jurisdictional definition of our nations water. Furthermore its restrictive control over cranberry marshes is at odds with the original goal of the CWA, which is to prevent pollution and protect aquatic life. Cranberry marshes do not pollute the water as there has never been a study proving such an assertion.[199] The fill material used to create the cranberry beds does not destroy the wetland. Additionally, cranberry marshes do protect the aquatic plant and wildlife by providing a stable and permanent habitat.[200]

As it stands, the CWA has an unjust impact on cranberry growers. The current regulatory process has caused growers to throw their hands up in frustration and stop trying to cultivate their land. In essence, the Corps and DNR have won the battle. If the regulatory process is not changed, cranberry growers will not be able to afford to farm their own land; essentially, the United States government has taken their land.

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[197] 33 U.S.C. § 1251 (2006).

[198] *Id.* § 1344(a).

[199] Metcalf, *supra* note 42, Environmental Issues Related to Cranberry Production, *supra* at note 159.

[200] Mass Agriculture in the Classroom, Autumn 1997 Newsletter, *available at* http://www.umass.edu/umext/mac/Newsletters/Autumn%201997.htm (last visited Nov. 11, 2006).

Cranberry plants are wetland plants.[201] The area supporting cranberry beds are wetlands.[202] The creation of a cranberry marsh does not destroy wetlands, but instead enhances and preserves them. These stewards of the environment deserve better.

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[201] Klingbeil & Rawson, *supra* note 152, at 1.
[202] Cranberry Water Use, *supra* note 193.