Commonwealth of the Northern Mariana Islands (CNMI) wetlands report

State of the wetlands and recommendations for new wetland policy

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Prepared for the CNMI Coastal Resources Management Office and the CNMI Wetlands Task Force

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1. WETLANDS

Wetlands are important features found in a variety of landscapes throughout the world, including the Commonwealth of the Northern Mariana Islands (CNMI). Despite their name, wetlands are not necessarily always wet. However, water is the essential component to making any place a wetland. Three site properties are used to define wetlands: water (hydrology), vegetation type, and soil characteristics. According to the widely used U.S. federal definition of wetlands (33 C.F.R. §328.3(b)(1992) and 40 C.F.R. §§230.3(t), 232.2(r) (1992)), a wetland area exhibits the following characteristics:

- 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 adapted for life in
- saturated soil conditions.

1.1 Functions and values

1.1.1 Functions

Wetlands are ecosystems with unique functions. An ecological function can be considered as "a service performed to the environment." The services that wetlands perform can be divided into three categories: hydrological, biogeochemical, and habitat.

Hydrology: wetlands

- maintain the characteristic hydrologic regime of the landscape, which involves the storage and movement of water among ground water, surface water, and the atmosphere,
- store surface water, and
- recharge ground water.

Biogeochemical: wetlands

- remove and cycle nutrients,
- remove pollutants, and
- retain particulates.

Habitat: wetlands

- stabilize the shoreline,
- support fish and wildlife,
- support the food chain and fix energy,
- support biodiversity, and
- maintain plant communities.

1.1.2 Values

The functions that wetland ecosystems perform can be considered valuable, important, and essential to people. Values of wetlands to people can be categorized the same way as functions and include:

Hydrology: wetlands
- reduce damage from floods and
- prolong the availability of ground water.

Biogeochemical: wetlands
- improve water quality and
- prevent damage from sedimentation to coral reefs and other ecosystems important to people.

Habitat: wetlands
- reduce coastal erosion,
- support fish and wildlife appreciated by people,
- support biodiversity,
- are aesthetically pleasing (have scenic value), and
- provide recreational and educational opportunities, such as bird watching and fishing.

The one of the better known functions of many CNMI wetlands is to provide habitat for endangered birds, including the Mariana common moorhen or pulatat (*Gallinula chloropus guami*) and nightingale reed-warbler or gaga kariso (*Acrocephalus luscina*) (USFWS, 1991 and USFWS, 1998). However, the CNMI's wetlands perform <u>all</u> of the functions listed above, and even though these functions may not be well recognized, they are valuable to everyday life. These functions are not easily replicated by artificial structures and the values are often not fully realized until they are lost.

As the population of the islands continues to increase (Office of Insular Affairs, 2000), the value of all of the functions of the CNMI's wetlands will become more apparent, especially if wetlands are destroyed. The greatest threats to the CNMI's wetlands appear to be development, groundwater withdrawal (ERCE, 1990 and Stinson, 1993), habitat loss (USFWS, 1991 and USFWS, 1998), pollution, and water diversion (Wetlands Task Force, pers. comm., 2004). The effects of wetlands lost will be felt by everyone and may include:

- significant flooding
- road washouts
- degradation of the freshwater lens used for drinking water
- increase in volume and decrease in quality of storm water runoff that will negatively affect the nearshore environment and may kill coral reefs
- tropical storms may cause more coastal erosion in areas that used to be protected by wetlands
- birds, other animals, and plants maybe become extinct or disappear from the islands, and
- natural, open space that could be used for recreational trails or education may be lost.

1.2 History of wetlands and wetland regulation in the CNMI

Wetlands are a valuable and extremely scarce resource in the CNMI. Presently, wetlands comprise less than two percent of the Commonwealth's land area. There are continuing pressures that threaten to degrade or completely destroy these wetland habitats.

1.2.1 Before human settlement

Lake Susupe and the associated marsh is the only wetland in the CNMI that has been studied extensively (US Army Engineer District, 1986; USACE, 1985; Tenorio and Associates, 1979; Shallenberger and Ford, 1978; and Moore, et. al., 1977). Investigations suggest that Lake Susupe was an estuary or lagoon in prehistoric times that became separated from the open ocean by the build-up of sand deposits on the outer part of a reef. Continued migration of the beach seaward and sedimentation into the lagoon has caused the lake and its marsh to be located as much as one mile inland (US Army Engineer District, 1986). It is anecdotally reported that there used to be three times as many wetlands in the Commonwealth as there are now, although the timeline of this baseline is unknown.

1.2.2 Early Chamorro, Spanish, and German periods

Not much is known about the status of the wetlands during the early-Chamorro era and the impact that the ancestral island settlers had on the wetlands. Saipan was originally inhabited by Chamorros who migrated from southeast Asia approximately 4,000 years ago (Russell, 1998). The discovery of pottery shards and other artifacts uncovered in several archaeological sites date human occupation of Chalan Kanoa and Susupe, near Lake Susupe, to the prehistoric era (US Army Engineer District, 1986). Archaeological evidence suggests that Early Chamorros in Rota cultivated rice fields with water from the Talakhaya region (Dixon, 2000). This indicates that other wetlands throughout the islands may also have been utilized similarly.

Spanish rule of the islands lasted from 1521-1898. All of the Northern Mariana Islands, except Rota, were depopulated during the Spanish *reduccion* of 1695-1898. During the brief German period (1899-1914) rice continued to be grown in Talakhaya, while the colonial administration in Saipan encouraged Chamorro inhabitants to grow coconuts for the copra trade (Dixon, 2000 and ERCE, 1990).

1.2.3 Japanese era

The landscape of the islands, particularly Saipan, was altered significantly during the Japanese occupation (1914-1944). According to ERCE (1990), the islands' wetlands were cultivated with sugar and rice and were used extensively for irrigation and drainage. Much of Saipan's coastal plain was used for

agriculture. Dikes and irrigation canals were constructed throughout Lake Susupe wetland and a drainage ditch connected it to the ocean (Stinson, 1993). A sugar mill was located near Lake Susupe and discharged effluent containing soil, cane wastes, and perhaps pesticides into the lake (NICO, 2001). Over 90 percent of Tinian was cleared and used for sugar cane production (Baldwin, 1995). The majority of relatively recent wetland losses in the CNMI are attributed to this period (ERCE, 1990).

1.2.4 World War II and American occupation

World War II and the subsequent American occupation brought additional change to the islands' wetlands and set the stage for today's landscape. Road construction, including Beach Road and Chalan Monsignor Guerrero, altered the hydrology of many of the wetlands (US Army Engineer District, 1986), including blocking the drainage ditch that connected Lake Susupe to the lagoon (Stinson, 1993). Saipan and Tinian were extensively seeded with tangan tangan (*Leucaena leucocephala*) for erosion control. Lake Susupe was used for flushing, fire-fighting, and other non-consumptive uses (US Army Engineer District, 1986). The American Memorial Park wetland was transformed from a lake between Garapan and Tanapag to a much smaller wetland dissected by Beach Road, other roadways, concrete slabs, Quonset huts, bunkers, and a sewer line (USACE, 1986). Mosquitofish (*Gambusia affins*) and tilapia (*Sarotheradon mossambicus*) were introduced during this period. *G. affins* was brought in by the US military during the war years for mosquito control (Eldredge, 1988, and Maciolek, 1984 as cited in Stinson, 1993) and *S. mossambicus* was introduced in the 1950s for aquaculture purposes (Stinson, 1993).

1.2.5 1978 - present

More modern times have brought an increased recognition of the values of wetlands in the CNMI, but also an increase in the pressure to construct developments in and around them. The major planning document of the new Commonwealth government, the Physical Development Master Plan, proposed extensive conservation measures for Lake Susupe and other wetlands to a lesser extent, including them within proposed conservation districts (Pacific Planning and Design Consultants, 1978).

The recent increase in population, including non-resident businesses, has resulted in many of the wetlands being legally and illegally filled for infrastructure and residential and commercial development. Many of the fringes of the wetlands are still used for small-scale agriculture, and others are used illegally as places to dump trash. Although resource agencies have long recognized wetlands as valuable endangered species habitat, other functions such as flood storage and ground water recharge have often been overlooked. However, these functions are increasingly recognized as important. Some

wetlands are being enhanced for recreational and educational opportunities, such as at the Kagman Mitigation Pond and Lake Susupe.

1.2.6 Resources

Less than two percent of the total land area in the Commonwealth is wetlands. According to the National Wetland Inventory (NWI) maps for the CNMI, there are approximately 300 hectares (740 acres) and 12,190 linear meters (40,000 linear feet) of wetlands on the islands of Saipan, Tinian, Rota, and Pagan (NICO, 2001). Lake Susupe and its contiguous reed marsh account for about 60 percent of this total (Stinson, 1993). The southern two-thirds of Saipan's western coast is a low-lying coastal plain adjacent to the lagoon and many depressional wetlands can be found along this coastal plain. Tinian's major wetland resources are Hagoi wetland, which consists of a lake and surrounding marsh, and the Marpo swamp. The only identified wetlands on Rota are those associated with the island's streams. Pagan is the only northern island with wetlands; the island has two geologically young lakes with limited adjacent marsh vegetation (Stinson, 1993). A survey done by the CNMI Division of Fish and Wildlife in 2000 found the wetlands dominated by *Casuarina equisetifolia* and no wetland grasses - a change since the 1981 eruption of the volcano on Pagan and the subsequent increase in the population of feral animals (L. Williams, Div. Fish and Wildlife, personal communication).

While the wetlands mentioned above are the largest and most prominent wetlands, there are numerous small slope and depressional wetlands scattered throughout the islands that are not mapped on the US Fish and Wildlife Service's NWI maps and thus not included in most assessment reports. These small depressional wetlands are the most abundant class of inland wetlands in the CNMI and are the class of wetlands subject most to development pressures (Davis and Gilman, 1998). Many of these depressional wetlands are likely to also be considered as isolated.

"Depressional" refers to a class of wetland that is located within closed elevation contours and accumulates surface water. Wetlands in this class can occur as isolated upland depressions with or without outlets and inlets. Water sources to these wetlands are precipitation, overland flow, and ground water. The predominant flow direction is from higher elevations towards the bottom of the depression. The predominant hydrodynamics are vertical fluctuations that range from diurnal to seasonal and these wetlands may lose water through evapotranspiration, intermittent or perennial outlets, or recharge to ground water (Whited and Ainslie, 2000).

1.2.7 Regulations

Because the functions and values of wetlands are recognized as essential to the public good, numerous Federal and Commonwealth laws have been enacted to protect them.

Pursuant to the Covenant Agreement that established the political relationship between the US and the CNMI, all US Federal environmental laws are applicable in the Commonwealth. Wetlands in the CNMI are protected primarily through two sections of the federal Clean Water Act (CWA), Section 404 and Section 401. Section 404 of the CWA gives the federal government regulatory permitting authority over waters of the US; Section 401 requires that applicants for a federal permit also receive a CNMI water quality certification (WQC) that indicates that the proposed project will not violate CNMI water quality standards. The WQC can be denied (resulting in the denial of the §404 permit as well), conditioned, or unconditioned.

Section 10 of the Rivers and Harbors Act authorizes the federal government to regulate dredging of navigable waters, which may include wetlands, particularly those that are tidal. The Clean Water Act requires WQCs for all Section 10 permits.

The federal Coastal Zone Management Act (CZMA) requires certification or waiver from the CNMI coastal zone management program to indicate that a proposed federal action (i.e., §404 or §10 permit) is consistent with the CNMI coastal zone management plan.

There is no single, comprehensive wetlands legislation in the CNMI, but there are several Commonwealth laws and accompanying regulations that address development in wetlands. The CNMI's primary wetlands protection program is currently through the Environmental Protection Act, which enables the Division of Environmental Quality (DEQ) to promulgate regulations for water quality certification, wastewater discharge, and earthmoving. However, the water quality certification regulations are strictly tied to the federal program, as described above.

Through the Coastal Resources Management Act, the Coastal Resources Management Office (CRMO) has written regulations for activities in Wetland and Shoreline Areas of Particular Concern (APCs), as defined by the published APC maps.

The Fish, Game, and Endangered Species Act authorizes the Division of Fish and Wildlife (DFW) to designate endangered species and critical habitat for these endangered species. DFW has designated the Marianas moorhen and

nightingale reed-warbler, two bird species known to use wetlands, as endangered species, but has not yet developed regulations that allow for the designation of critical habitat.

The Public Land Exchange Act includes framework for the Marianas Public Lands Authority (MPLA) to acquire land through exchange for wetland protection. The Saipan Zoning Law permits limited uses in wetlands and defines mitigation standards. The Department of Public Works, Flood Damage Prevention Rules and Regulations regulate development in wetlands.

2. *SWANCC v. USACE*

On January 9, 2001 the U.S. Supreme Court issued a decision, *Solid Waste Agency of Northern Cook County (SWANCC) v. United States Army Corps of Engineers* (Slip Opinion, No. 99-1178, October Term, 2000), herein referred to as *SWANCC*, that limits the scope of the US Army Corps of Engineers' (USACE) Clean Water Act (CWA) regulatory permitting program (Section 404) as applied to isolated waters.

This ruling has put many wetlands throughout the nation in jeopardy. As a result, many states are now examining their regulatory programs to determine if they should be revised to continue to offer protection to this class of wetlands. The CNMI Coastal Resources Management Office (CRMO) and the Wetlands Task Force has contracted *AECOS* to review the status of the CNMI's wetlands and propose regulatory solutions to offer continued or enhanced protection and ensure no net loss of wetlands, including isolated wetlands.

The Solid Waste Agency of Northern Cook County (SWANCC) is a consortium of suburban Chicago cities and villages that desired to develop a disposal site for solid waste. SWANCC chose a 533-acre parcel that was a gravel-mining pit until around 1960. The pit had reverted into a successional stage forest with seasonal and permanent ponds. *SWANCC* purchased the site and applied for a Section 404 permit under the CWA. It also sought Section 401 water quality certification from the State of Illinois.

The CWA regulates "waters of the United States." In the past, the agencies responsible for implementing the Clean Water Act interpreted the term "waters of the United States" broadly. They determined that it reflected the intention of Congress to regulate all waters that the Congress could constitutionally regulate under its commerce powers of the US Constitution, generally known as the Commerce Clause. Specifically, if the water had any possible connection to interstate commerce, it fell within the scope of the CWA. Since 1986, USACE regulations reflected this determination. The regulations stated that "waters of the United States" includes, among other things, intrastate waters:

(a) that are or would be used as habitat by birds protected by migratory bird treaties; or
(b) that are or would be used as habitat by other migratory birds that cross state lines; or
(c) that are or would be used as habitat for endangered species; or
(d) that are or would be used to irrigate crops sold in interstate commerce.

This has been commonly known as "The Migratory Bird Rule."

Although the SWANCC site was not a "wetland" according to the definition and methodology in the USACE wetland delineation manual (USACE, 1987), the USACE found that approximately 121 bird species, to some extent dependent on aquatic environments, were recorded from the site, and thus found the site to be a water of the United States. Accordingly, the USACE asserted jurisdiction over the site. Although the State of Illinois granted a Section 401 Water Quality Certification, the USACE denied the Section 404 permit.

SWANCC sued to challenge the USACE's jurisdiction over the site, claiming that the USACE could not regulate non-navigable, isolated, intrastate waters based only on the presence of migratory birds, and that Congress lacked authority under the Commerce Clause to grant the USACE such jurisdiction. Although the USACE prevailed in the trial and appellate courts, ultimately, the US Supreme Court reversed and invalidated the Migratory Bird Rule.

The Supreme Court held that the Migratory Bird Rule is not a fairly supported interpretation of the term "waters of the United States," and the USACE exceeded its jurisdiction by interpreting the CWA's reach to include isolated, inland, non-navigable waters. The Court held or implied that the CWA may be applied to:

(a) "[t]hose waters of the United States which are subject to the ebb and flow of the tide, and/or are presently, or have been in the past, or may be in the future susceptible for use for purposes of interstate or foreign commerce;
(b) waters that were or had been navigable in fact or which could reasonably be so made;
(c) non-navigable wetlands adjacent to open waters;
(d) wetlands [that are] inseparably bound up with the waters of the United States; and
(e) water bodies [capable] of use by the public for purposes of transportation or commerce."

2.1 What does the *SWANCC* decision mean for the protection of wetlands?

Section 404 is one of the cornerstones of the Clean Water Act (CWA), and requires that persons obtain a permit from the USACE prior to discharging dredged or fill material into jurisdictional waters of the United States. The USACE regulations implementing the CWA define "waters of the United States" to include traditionally navigable waters, tributaries to those waters, and adjacent wetlands, even when seasonal.

Although *SWANCC* specifically focused on whether Congress intended Section 404 to grant federal authority over isolated waters, and if so, whether Congress

could prescribe such authority consistent with the Commerce Clause, it represented a major reinterpretation of the CWA by re-emphasizing the importance of navigability in the definition of waters of the United States protected by the statute. However, the decision also implied that isolated waters might be waters of the United States where they had a "significant nexus" to navigable waters.

SWANCC potentially removes much of the CWA protection for an estimated 30 to 60 percent of the nation's wetlands. However, the amount removed will depend upon the definitions used by the USACE and USEPA and ultimately supported by the courts for, "adjacent," "tributary," and "significant nexus." The decision affirms the primary responsibilities and rights of the states over land and waters. But, by narrowing the federal Section 404 program, the decision also shifts more of the economic burden for regulating wetlands to states and local governments.

2.2 How do federal agencies interpret the *SWANCC* decision?

On January 19, 2001, the General Counsel and Chief Counsel of USEPA and USACE, respectively, issued a joint legal memorandum intended to explain to their field offices that most CWA jurisdiction remains basically intact after the *SWANCC* decision. Specifically, the memorandum states that the decision:

(a) Means, that if the only basis for federal jurisdiction is the migratory bird rule, USACE and USEPA do not have regulatory jurisdiction;
(b) Only relates to waters that are "non-navigable, isolated, and intrastate;"
(c) Upheld the regulation of all "traditionally navigable waters, interstate waters, their tributaries, and wetlands adjacent to each;"
(d) Did not specifically address what other connections with interstate commerce might support the assertion of CWA jurisdiction over "non-navigable, isolated, intrastate waters." The memorandum suggests that other connections with interstate commerce, either by themselves or in conjunction with the presence of migratory birds, might present a sufficient nexus for regulation;
(e) Reserved the issue of what "other waters" were intended to be available for state administration of the Section 404 program by Congress when it adopted Section 404(g)(1). The memorandum suggests that these other waters could include waters whose destruction could affect other waters of the United States, or whose destruction could affect interstate or foreign commerce.
(f) All waters that are used for or may be used for interstate or foreign commerce and all waters subject to the ebb and flow of tide remain subject to full federal regulatory jurisdiction.

In January 2003, in an effort to further clarify questions concerning jurisdiction as a result of *SWANCC*, the USACE and USEPA published in the Federal Register an "Advance Notice for Proposed Rulemaking (ANPRM) on Clean Water Act (CWA) Definition of Waters of the United States." The ANPRM sought information on factors related to the jurisdictional status of isolated, intrastate, non-navigable waters under the CWA, invited comments as to whether any other clarifications were needed to the existing jurisdictional regulations, and sought information on the potential aquatic resource impacts of *SWANCC* as well as information on state water resource protection programs for isolated waters. The ANPRM was issued with a 45-day comment period closing on March 3, 2003.

More than 130,000 comments were submitted to the USACE and USEPA in response to this ANPRM. The majority of the comments supported a narrow interpretation of the *SWANCC* decision, which would maintain a broad federal Section 404 jurisdiction over wetlands.

Comments were submitted by 43 states. Of these, 41 were favorable for a narrow interpretation. Only two, Alaska and Idaho, argued for broad interpretation of *SWANCC*. States largely reported that a broad interpretation of *SWANCC* would substantially undermine their state Section 401 water quality certification and wetland protection efforts. States were also concerned with the effect that a broad interpretation would have on tributaries to navigable waters. Many states estimated that omission of non-navigable tributaries would reduce the number of regulated waters in their state by more than one half.

As a result of rumors that the USACE and USEPA were about to issue proposed rules broadly excluding some waters from Section 404 regulation, in November 2003 more than 200 members of Congress signed a letter requesting the USACE and USEPA not to issue new rules. On December 16, 2003, USEPA announced that no new rules would be issued at this point in time.

Notwithstanding these federal actions, subsequent federal interpretations of the scope of the *SWANCC* decision have varied dramatically as are discussed below.

2.3 How have US Army Corps of Engineers and US Environmental Protection Agency policies and actions changed as a result of *SWANCC*?

To date, no new federal rules with respect to *SWANCC* have been issued, but there is some clear evidence that the *SWANCC* ruling has had a noticeable adverse impact on the protection afforded wetlands in many of the USACE districts (Clean Water Network, 2004). In the absence of federal guidance, the sixteen USACE districts throughout the country have made case-by-case

determinations based on relevant case law and past practice. In current regulatory practice, "isolated" waters are generally intrastate, not navigable, and not part of a stream system in “normal” rain years.

According to a General Accounting Office (GAO) report (2004), USACE districts differ in how they interpret and apply the federal regulations when determining what wetlands and other waters fall within the jurisdiction of the federal government. Districts apply different approaches to identify wetlands that are adjacent to other waters of the United States and are therefore subject to federal regulation. For example, one district generally regulates wetlands located within 60 m (200 ft) of other waters of the United States, while other districts consider the proximity of the wetland to other waters of the United States on a case-by-case basis without any reference to a specific linear distance. Districts also differ in how they regulate wetlands connected to other waters of the United States by ditches, pipes, storm sewers, and other man-made conveyances. For example, one district generally regulates a wetland connected to another water of the United States by a ditch, only if the ditch modifies or replaces a natural stream. Other districts generally regulate the wetland, regardless of whether the ditch modifies or replaces a natural stream. Other differences in identifying the jurisdictional limits of rivers and streams stemmed from the diverse environmental factors present in various districts. For example, districts in the arid western states developed a method for identifying the jurisdictional boundaries of dry channels that flood occasionally, expanding several times their normal size. Whether or to what degree the individual differences in USACE district office practices would result in different jurisdictional determinations in similar situations is unclear, in part, because USACE staff considers many factors when making jurisdictional determinations.

With regards to how the Honolulu District of the USACE (of which the CNMI is part) is administering the Section 404 program post-*SWANCC*, the Honolulu District has asserted in at least one case that an isolated wetland at the coast, and therefore evidencing some tidal action through a groundwater connection, is a jurisdictional wetland although not otherwise ever connected to the ocean shore (*AECOS* Consultants, 2003). The Honolulu District maintains jurisdiction over functionally important *anchialine* environments: aquatic features that are both isolated and tidal by definition. In Hawaii, most anchialine ponds are located in relatively recent lava flows near the ocean, but are also common features on limestone islands throughout the Pacific (Guinther, personal communication). The CNMI has not yet been faced with the situation where jurisdiction is questionable. The migratory bird rule has never been used as the only basis for federal jurisdiction in the CNMI (F. Dayton, personal communication, 2004). Additionally, no one has applied for a USACE permit

post-2001 to do work in an isolated wetland in the CNMI (F. Dayton, personal communication, 2004).

2.4 Implications on a nationwide basis

Prior to *SWANCC*, virtually all wetlands throughout the nation were (at least theoretically) subject to regulation under Section 404. Some wetlands were also covered by state, territory, tribal, and local regulatory programs, but the broad federal jurisdiction backed up and filled many of the geographical gaps of these local regulatory programs.

When the *SWANCC* decision was first issued there was rejoicing by some advocates of state's rights. That rejoicing became muted as the states faced the political and financial realities of developing wetland programs to address the gaps created by *SWANCC*. The *SWANCC* decision affirmed the primary responsibilities and rights of the states and limited federal jurisdiction over their land and waters. But, by limiting the federal Section 404 program, the *SWANCC* decision also limited existing state wetland programs built upon Section 404 permitting and as a result essentially eliminated much of the states' jurisdiction. The decision also shifted more of the economic burden for regulating wetlands to states, tribes, territories, and local governments.

State Section 401 Water Quality Certifications are not required for projects that affect wetlands but do not come under Section 404 jurisdiction. As a result, by narrowing the Section 404 program, the *SWANCC* decision has had the simultaneous effect of reducing the scope of state Section 401 programs. The impact upon wetland protection has been particularly great in those states and jurisdictions like the CNMI that lack independent freshwater wetland regulatory programs for isolated wetlands. In these states, prior to *SWANCC*, state wetland regulatory protection had been primarily achieved through Section 401 water quality certification procedures. Pursuant to Section 401 of the CWA, applicants for a federal permit must also receive state or commonwealth water quality certification. The state has "veto" power on the federal permit and quite often places conditions on the certification. These conditions become part of the permit. Section 401 water quality certification programs have also been important in states with explicit tidal and freshwater wetland regulatory statutes.

State water quality certification for federal permits has allowed many states to exercise a significant measure of regulatory control over wetlands without the expense of establishing independent permitting, monitoring, and enforcement programs. This has been particularly important in states with limited wetlands and limited budgets, such as the CNMI. However, with the USACE's Section 404 jurisdiction reduced, states will need to adopt their own independent programs

if they wish to continue to regulate activities in isolated wetlands, maintain a pre-*SWANCC* level of wetland protection, and meet the federal goal of "no net loss" of wetlands.

SWANCC also affects state and USACE programmatic permitting agreements. Agreements may need to be revised (at least in their scope of application) because the USACE will no longer oversee state regulation of isolated waters and wetlands. The CNMI does not have a programmatic permitting agreement with the USACE.

The *SWANCC* decision also affects the scope of regulatory jurisdiction under other provisions of the CWA "in which federal agencies have jurisdiction over waters of the United States." In addition to Section 404, this consists of Section 402 or the National Pollution Discharge Elimination System ("NPDES") and the Section 311 oil spill program.

Finally, the scope of state Coastal Zone Management consistency review has been reduced in coastal states, including the CNMI, because activities in isolated wetlands in coastal zones are no longer subject to Section 404 permitting and therefore do not require a federal consistency determination from the state.

Although still somewhat unclear, the immediate implication of *SWANCC* is to limit the federal authority to regulate non-navigable, isolated, intrastate waters. *SWANCC* does not affect "traditionally navigable waters, interstate waters, their tributaries, and wetlands adjacent to each," which were affirmed in the US Supreme Court decision for *United States v. Riverside Bayview Homes, Inc.*

Notably, aside from Section 401 of the CWA, the *SWANCC* decision has no effect on the States' ability to enforce their own laws regulating surface and ground water (LGEAN, 2001). In fact, in the decision, the majority based a significant amount of their decision on traditional states' rights. The majority wrote, "… permitting federal jurisdiction over ponds and mudflats falling within the "Migratory Bird Rule" would result in a significant impingement of States' traditional and primary power over land and water use." Additionally the majority wrote, "regulation of land use is a function traditionally performed by local governments." According to the Association of State Wetland Managers (ASWM), narrowing the Section 404 program shifts more of the economic burden for regulating wetlands to states and local governments, many of which do not formally regulate such wetlands, while others may lack the resources to do so. For better or worse, property owners may have more flexibility in their ability to dredge or fill wetlands. ASWM has estimated that 30 to 79 percent of our nation's wetlands may be potentially affected (i.e., not federally regulated), by the Court's decision. Others feel that creative use of state laws and

regulations and local ordinances may effectively fill the gap opened by the *SWANCC* decision.

At this point it is unclear what the long-term implications of *SWANCC* are, but they appear to fall into several categories:

(a) How USEPA and the USACE interpret *SWANCC* through final guidance and revised regulations;
(b) How states and local governments respond to the Courts' reliance on them to regulate or not to regulate wetlands; and
(c) How lower courts interpret *SWANCC* in future law suits.

In regard to category (a), USEPA and USACE have already released their analysis of the holding, which interprets the decision narrowly and only somewhat limits the federal Section 404 jurisdiction, specifically, the use of the Migratory Bird Rule to assume jurisdiction. It remains to be seen how this interpretation may translate into revised rules, if USEPA and USACE choose to take such action. With respect to category (b), thus far, only California has responded with an interpretation of *SWANCC*. ASWM has responded generally with an explanation of how it may affect the states (see below). In regard to category (c), only time will tell. It is likely that parties may try to "fit" waters now removed from federal authority into definitions of ones still regulated by the CWA. For example, parties may try to show that a "significant nexus" exists between waters in question and interstate and navigable waters, their tributaries, and wetlands adjacent to each. It is possible that others may try to use state laws and regulations and local ordinances to protect wetlands and waters left vulnerable in light of the Court's decision. Clearly, there are still many unanswered questions surrounding the *SWANCC* decision, and thus it will be important to evaluate each situation on a case-by-case basis.

2.5 How is *SWANCC* being interpreted by the courts?

Federal and local court interpretations of the scope of the *SWANCC* decision have varied dramatically as is discussed below. While each federal court district may issue a ruling as it sees fit, they often look to other districts for guidance when making a ruling. The 9th Circuit district, the one in which the CNMI is part, has made several interpretations related to *SWANCC*, including the notable ruling in *Headwaters, Inc v. Talent Irrigation District* discussed below.

The case of *United States v. Riverside Bayview Homes, Inc.* (1997), a pre-*SWANCC* decision, was mentioned above as affirming that *SWANCC* does not affect "traditionally navigable waters, interstate waters, their tributaries, and wetlands adjacent to each." As of February 2004, there were eleven appellate cases. A brief review of several of these cases provides some guidance on how *SWANCC* is now being interpreted in the court systems.

In an Oregon case, *Headwaters, Inc. v. Talent Irrigation District* (2001) 243 F. 3d 526, the 9th Circuit held that non-navigable irrigation canals that could be closed off from exchanging waters with navigable rivers and lakes were not isolated and were connected as tributaries to other "waters of the United States," because they "receive water from natural streams and lakes, and divert water to streams and creeks." The Court concluded that even tributaries that flow intermittently are "waters of the United States." The Court's holding was based in part upon the rationale that it was not necessary for a discharge to be immediate or continuous to cause environmental damage. "The Clean Water Act is concerned with the pollution of tributaries as well as with the pollution of navigable streams, and it is incontestable that substantial pollution of one not only may but very probably will affect the other."

Additionally, the United States Supreme Court has been called upon repeatedly in the last five years to define the limits of federal regulatory jurisdiction over wetlands, isolated waters, and other non-navigable water bodies. Recently, under the CWA, the Supreme Court declined to review three federal appeals court decisions that uphold broad authority for the USACE to regulate activities affecting tributaries and wetlands located far from, but nevertheless hydrologically connected to, traditionally navigable waters. These decisions—and the Supreme Court's willingness to let them stand—signify a continuing judicial trend in recognizing expansive federal jurisdiction over wetlands and other non-navigable waters.

Although the Supreme Court ruled in *SWANCC* that activities affecting isolated wetlands with no hydrologic connection to navigable waters did not require a Section 404 permit, federal courts have since struggled to delineate the authority of the USACE to require dredge and fill permits for waters that are far removed from traditional navigable waters, but which are nevertheless hydrologically connected to those waters.

In one of the three cases the Supreme Court recently declined to review, *U.S. v. Deaton*, 332 F.3d 698 (4th Cir. 2003), owners of an upland property in Virginia that contained wetlands were charged with violating the CWA for failing to obtain a Section 404 permit from the USACE when they excavated a ditch and deposited the fill into the wetlands. This is of interest because the wetlands were not adjacent to any navigable water. However, water from the wetlands drained into a roadside ditch, which flowed into a culvert and a second roadside ditch before flowing into a series of creeks connected with a navigable waterway.

The Fourth Circuit deferred to the USACE's interpretation that the CWA gave it the authority to regulate the placement of fill material into these wetlands

because such regulation represented a rational approach to addressing the "aggregate effect" that discharges into tributaries such as roadside or other man-made ditches could have on downstream navigable waters. The Court also found that the USACE's exercise of regulatory authority was proper in light of *SWANCC* because there was a "significant nexus between the wetlands and navigable waters" by virtue of the roadside ditch connecting the wetland to a navigable water body. A subsequent Fourth Circuit decision, *Newdunn Associates v. Army Corps of Engineers*, 344 F.3d 407 (4th Cir. 2003), echoed this decision and is among the cases that the Supreme Court declined to review.

In a third case, *U.S. v. Rapanos*, 339 F.3d 447 (6th Cir. 2003), a Michigan property owner filled wetlands located between 18 and 32 km (11 and 20 miles) from a navigable waterway despite warnings not to do so from a state agency and the USEPA. The property owner was convicted of criminal violations of the CWA and sentenced to three years probation and $185,000 in fines. The Sixth Circuit upheld the conviction, adopting the reasoning of the Fourth Circuit in *Deaton*, and rejecting the property owners' argument that *SWANCC* limited the USACE jurisdiction to wetlands directly abutting traditional navigable waters of the United States. The Sixth Circuit concluded that, because the wetlands were adjacent to a drainage, and that drainage itself provided a hydrologic connection to the navigable waterway, a sufficient nexus existed for the USACE to require a Section 404 permit.

In declining to review these federal appellate court decisions, the Supreme Court has let stand opinions that broadly construe the USACE jurisdiction to regulate wetlands. As a result, the USACE is likely to continue to aggressively assert jurisdiction over wetlands and other non-navigable water bodies that are geographically remote from navigable surface waters, but which have some hydrologic connection—through man-made ditches, culverts, and various types of seasonal or intermittent drainages—to those waters.

2.6 What implications does the *SWANCC* decision have for the CNMI?

There are many wetlands in the CNMI, particularly on Saipan and Tinian, that may be considered isolated because they are neither navigable nor a tributary. There are also many intermittent streams that may be dry much of the year. Therefore, the *SWANCC* decision has potential implications for the CNMI, and in particular the Section 401 water quality certification process that is administered by the Division of Environmental Quality (DEQ).

However, as elsewhere, most isolated waters in the CNMI have some type of hydrologic connection via the ebb and flow of tides, ground water, or intermittent surface water flows to other water bodies. Additionally, all CNMI wetlands are ecologically connected to the ecosystem in which they are

imbedded, especially those that are located above karst soil layers and raised limestone bedrock that is fissured and porous. "Isolated" wetlands generally perform some or all of the same functions and have the same values as do other wetlands. Flood control, ground water recharge, and especially habitat for aquatic biota including endangered species, are just three of the values that "isolated" wetlands in the CNMI have that make them equally important as "connected" wetlands.

As a result of *SWANCC*, there are potential gaps in the protection of the CNMI's wetlands. Although the *SWANCC* decision specifically involved a jurisdictional question under the Migratory Bird Rule, the USACE has never asserted its jurisdiction in the CNMI solely based on migratory species (F. Dayton, USACE, personal communication). It has, however, according to the majority of responses to a survey conducted in conjunction with this report, maintained an active role in taking jurisdiction in wetland activities, particularly as it relates to jurisdiction under the Endangered Species Act. As noted by one respondent, most wetlands in the CNMI provide good habitat for endangered species, particularly the Marianas moorhen and nightingale reed-warbler.

It is possible that the position of the USACE Pacific Ocean Division representative in the Marianas will be vacated soon and will not be filled (F. Dayton, 2005, personal communication). According to many of the Wetlands Task Force representatives, the CNMI is highly dependent upon this federal presence to prevent and enforce violations of wetlands regulations. They feel that wetlands protection in the CNMI will be severely compromised without a strong federal presence. A reduction in federal enforcement, coupled with the implications of the *SWANCC* decision, makes it important for the CNMI to assume a more active role in protecting and restoring the Commonwealth's wetlands.

Until such time as the USACE refuses to take jurisdiction over a proposal to undertake work in one of the CNMI's wetlands, the impact of the *SWANCC* decision in the CNMI may be unknown. Ultimately, as has been seen elsewhere, it may be up to the Commonwealth and Federal courts to determine how the *SWANCC* decision affects the CNMI. Until such time as someone, some group, or some public agency challenges the USACE for either taking or not taking jurisdiction (i.e., requiring or not requiring a permit) in the CNMI, it will remain unclear as to how *SWANCC* will affect protection of at least some of CNMI wetlands.

2.7 How many CNMI wetlands are isolated?

The 1990 Saipan Wetlands Comprehensive Plan addressed the degree of isolation of Saipan's wetlands (ERCE, 1990). Although it is unclear what criteria were used to determine isolation, the plan classified the degree of isolation as either "high," "medium," or "low." Therefore, this information may be somewhat indicative of which wetlands on Saipan have the most apparent degree of isolation. A review of CNMI GIS data show shows that "isolated" wetlands appear to represent approximately 10% of the total number of wetlands in the Commonwealth, but a much smaller percentage of overall wetland area. Most of these isolated wetlands are on Saipan and in the Kagman and Isley areas.

2.8 Impacts of *SWANCC* on state jurisdiction of wetlands

A number of states have made estimates of the impact of *SWANCC* in response to the Advance Notice for Proposed Rule Making. These responses are summarized below (the summaries were prepared by American Rivers and other organizations (J. Kusler, personal communication, 2005). Note, particularly, the estimated impact of omitting non-navigable streams from jurisdiction.

- Arizona. Over 95% of its waters are intermittent or ephemeral streams and redefinition of regulated water to omit intermittent and ephemeral streams would place 95% of its waters outside the CWA.
- Delaware. If only navigable and directly adjacent wetlands were regulated, 50% of all wetlands would be omitted from CWA jurisdiction and 92.4% of freshwater wetlands.
- Florida. 34 to 66% of total wetlands in Florida's Panhandle would be at risk.
- Indiana. Between 9% and 33% by area and 32% and 89% by number of waters would be excluded from CWA jurisdiction depending upon the definitions used for tributary and adjacency.
- Iowa. Between 11% and 72% of streams and wetlands would not be regulated, depending upon the definitions used for adjacency and tributary.
- Kentucky. If only streams that have perennial flow or are navigable were to be regulated, the CWA would not apply to the majority of stream miles.
- Michigan. 16.7% of wetlands would be removed from CWA jurisdiction.
- Minnesota. 12% to 23% would be omitted from CWA jurisdiction with a much higher percentage (up to 92%) in the Northern Glaciated Plains ecoregion.
- Missouri. If intermittent and ephemeral stream miles were omitted, 69% to 76% of all stream miles would be affected; 33% of the wetlands would be outside of CWA jurisdiction if an isolation threshold of 50 feet were used to determine isolation.
- Montana. If intermittent and ephemeral steam miles were omitted, 71% of all stream miles would be omitted.

- Nebraska. 40% of wetlands would be outside of CWA jurisdiction; 76% loss of coverage of stream miles if intermittent streams were omitted from coverage.
- New Mexico. Approximately 80% of the drainages in New Mexico are not perennial.
- Rhode Island. Non-navigable tributary streams constitute 85% of the total stream miles in the state.
- South Carolina. More than 20% of all wetlands in two coastal counties could be delineated as isolated. Approximately 16% of total wetlands would be removed from regulation if intermittent streams were not used to determine jurisdiction.
- South Dakota. 95% of wetland basins in Clark County and 98% of wetland acreage could be considered isolated.
- Tennessee. 57% of the rivers are non-navigable waters.
- Texas. Approximately 75% to79 % of the stream miles are intermittent; approximately 48% of Texas Pollution Discharge Elimination Systems permitted wastewater discharges into intermittent streams; 8% of the wetlands in the coastal zone are isolated.
- Virginia. Up to 43% of Virginia's wetlands could become unregulated by the CWA.
- Wisconsin. 25% to 90% of Wisconsin wetlands could become unregulated by the CWA.

While the State of Hawai`i has many isolated wetlands and intermittent streams, state officials believe that these state waters continue to be adequately protected by state law, regulations, and permits, despite the *SWANCC* ruling (E. Chen, Hawaii Dept. of Health, personal communication). Hawai`i's Water Pollution Statute (HRS 342D) is applicable to all state waters, which include isolated wetlands. The statute requires dischargers into wetlands to comply with the applicable Water Quality Standards, including the basic water quality criteria applicable to all waters, whether or not they receive a permit. The statute specifies enforcement actions and fines, which can be applied to violators of the legislation, rules, or permits.

2.9 What have other states done to fill the gaps created by *SWANCC*?

A number of states have initiated efforts to fill the gaps created by *SWANCC* (Kusler, 2004). This action has taken several forms:

- Extend water quality programs to explicitly include isolated and other wetlands. This approach has been taken by Indiana, Ohio, South Carolina, and North Carolina. This has occurred through a variety of means including adding specific language to reflect the inclusion of isolated wetlands within the definition of "State waters." Some of these states have broad water quality

programs and not just Section 401 programs and some of these efforts, like those in North Carolina, were initiated prior to *SWANCC*. Other states, including Nebraska, Washington, and Tennessee, have attempted to close the gap created by *SWANCC* by adopting more extensive water quality policies. It should be noted, however, that looking nationally, amendment of water quality programs to address isolated wetlands is not working very well except in Wisconsin and Ohio, which had pre-existing wetland programs. The staff assigned to water quality issues in most state governments simply lack the expertise (or the motivation) to adequately protect wetland habitat and hydrology (J. Kusler, 2005, personal communication).

- Adopt limited legislation closing the gaps created by *SWANCC*. This approach has been taken by Wisconsin, Indiana, and Ohio. Virginia has also adopted legislation but this was initiated before *SWANCC*. The New York assembly adopted a wetland bill that would close the gap created by *SWANCC*, but this has not been passed by the Senate.

- Adopt new comprehensive wetland legislation. No state has, as yet, taken this approach although a comprehensive wetland bill was introduced in Illinois. One version has passed the Assembly there.

3. What can the CNMI do?

There are many options that CNMI regulatory agencies could pursue to provide further protection for the islands' wetlands, including "isolated" wetlands. These actions range from taking no action to enacting new comprehensive wetland protection legislation. The alternative that is ultimately selected should reflect a thorough analysis of many factors, including the real or perceived changes that the USACE will make with respect to its role in wetland permitting and enforcement in the CNMI, the type of wetlands present in the CNMI and their functions and values, the political will to increase the protection of wetlands, and the funding available and required to enact and enforce any new regulations. Described below are some of these alternatives, along with some of the issues that must be considered when evaluating each alternative.

3.1 Take no action

Despite *SWANCC*'s potential adverse impacts to protection of isolated wetlands, one alternative that many states are taking is to take no action at all. This alternative may be temporarily practical and may not in fact eliminate or significantly diminish protection of the Commonwealth's wetlands in the short-term, but in the long-term it will if the USACE presence and enforcement actions in the CNMI are reduced and it refuses to assert jurisdiction over isolated wetlands as it has done in many states.

The "no action" alternative would continue to give the federal government the primary burden for economic and political responsibility for regulating wetland activities in the CNMI. Despite the *SWANCC* ruling, this alternative may provide continued protection to all of the CNMI's wetlands or at least adequate protection to sustain important wetland functions and values. This alternative may be preferable if it is determined that: (1) there really are no isolated wetlands in the CNMI, (2) the isolated wetlands that are present are not faced with significant enough development pressure to warrant additional legislation or regulations and subsequent enforcement actions, (3) the functions of the isolated wetlands do not provide enough value to warrant additional legislation or regulations and subsequent enforcement actions, or (4) it is too soon after the *SWANCC* decision to understand the full ramifications of the ruling and therefore too soon to take action that may or may not be applicable further down the road.

3.1.1 Are there isolated wetlands in the CNMI?

Certainly an initial question to be answered is whether there are any isolated wetlands in the CNMI. The Migratory Bird Rule was the main aspect of the USACE's jurisdiction that was challenged by the Court in *SWANCC*; however, the case called into question the USACE's jurisdiction more broadly over waters that are not navigable, adjacent, or tributary to waters of the US. This has resulted in the USACE not asserting jurisdiction over some isolated wetlands. However, the Clean Water Act does not define "isolated" and none of the USACE districts has issued policy to

their field staff defining "isolated." This may be an issue that is decided in the courts or on an individual basis by individual USACE district offices. The factors described below should be examined when deciding if a wetland is isolated.

Navigable - Navigability is an essential part of the definition of waters of the US in the Clean Water Act. Section 322.2 defines navigable waters of the US generally "as those waters of the United States that are subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce." All coastal wetlands with a direct surface connection to the ocean, such as the American Memorial Park mangrove wetland, are considered to be navigable.

Tributary and adjacent to tributary - The definitions of tributary and adjacent to tributary are not well-defined and can be interpreted in several different ways. Streams or wetlands that discharge directly into the ocean or another navigable water can be considered obviously tributary. These water bodies include most of the streams on Saipan and Rota and coastal wetlands with direct surface connection to the ocean. There is more room for interpretation for "adjacent to tributary." For example, adjacent may mean abutting or touching a navigable waterway or tributary; within 60 m or 305 m (200 ft or 1000 ft) of a navigable waterway or tributary; or within the 100-year flood plain of a navigable water or tributary (Robb, undated). Many of the CNMI's wetlands may be considered adjacent to tributary.

Intrastate - The federal government regulates *inter*state commerce and therefore asserts jurisdiction over waters that are located in more than one state. All waters in the CNMI are *intra*state (located completely within the CNMI) and therefore are not subject to federal jurisdiction under this clause.

Tidal influence - Navigable waters of the US include those waters "that are subject to the ebb and flow of the tide shoreward to the mean high water mark" (CWA, Section 322.2). Basically, all water bodies on Earth, including a glass of water in Kansas, are influenced by the pull of the sun and the moon (and therefore tidal), so a surface water connection is not implicit in the definition to determine tidal connection. The Pacific Ocean Division of the USACE does not have a written policy to determine waters of the US with respect to tidal influence and direct surface connections, and applied policy apparently depends upon who you ask at the USACE.

Many of the Saipan coastal plain wetlands are obviously tidally influenced. The tidal influence on these wetlands is transmitted through the ground water though, not via a surface connection of any kind to the ocean. They are typically brackish, located a short distance from the ocean and at a low elevation, fed by brackish ground water, and have a water surface that rises and falls (sometimes only a little) with the tide. The CNMI should independently assess tidal connectivity of Saipan's

"isolated" coastal plain wetlands to determine the extent of surface (if ever) and subsurface connectivity of these wetlands before assuming or rejecting federal jurisdiction. The percent of tidal influence and dampening should be determined, as well as salinity regime.

Significant nexus - "Significant nexus," with respect to isolated wetlands, is a term used to indicate whether there is a reasonable functional relationship between the isolated wetland and a navigable water body. The geology of the southern CNMI islands (porous raised limestone bedrock) is such that there are relatively few perennial streams and permanent hydrological features. However, the type of rainfall that the CNMI receives, which can be brief but intense, is such that no water body or even parcel of land can be considered truly isolated from the ocean or other waters of the US. These frequent rain events have the effect of connecting otherwise isolated bodies of water to waters of the US. These hydrological connections, though intermittent and brief, can directly affect water quality and designated uses of waters of the US and therefore can be regulated by the Division of Environmental Quality through the antidegradation policy in the water quality standards (Part 3.1).

This connection may also be considered a "significant nexus" with waters of the US and therefore would be considered jurisdictional by the USACE and subject to the Clean Water Act. Recent court rulings subsequent to *SWANCC* have upheld that even if the waters are only connected infrequently and only during large events, they still constitute waters of the US and are themselves considered waters of the US and subject to USACE jurisdiction (Freeman and Rasband, 2002). A hydrological study should be conducted in the CNMI to establish the extent and frequency of this nexus to determine if it is "significant."

The number and area of isolated wetlands in the CNMI could be assessed using the GIS layers and various definitions of "isolated." For example, it could be determined how many wetlands are 60, 100, or 300 m away from a navigable water body. That analysis could be extended to determine if the wetland is upstream or downstream from a navigable water body. It could be determined if there is a physical barrier such as a basaltic ridge, between the wetland and a navigable water body. Other parameters that could be factored into the analysis include endangered species habitat, aquifers, roadways, and drainage ditches.

3.1.2 Do they require protection?

For the most part, individuals in the CNMI are aware that permits are required for work in wetlands. According to one Wetlands Task Force member, this in itself is often a deterrent to development. Nonetheless, there are others that choose to ignore the requirement for a permit or are unaware.

According to Gilman (1996), there are only approximately 8 hectares (20 acres) of privately-owned wetlands on Saipan. Therefore, it can be assumed that these 8 hectares will be subject to the greatest amount of development pressure. It can be assumed that methods other than enacting new legislation and regulations should be more cost effective in protecting the remaining publicly-owned wetlands. Therefore, it may not be cost-effective to establish a new regulatory program to protect this small amount of area that may not be imminently threatened.

However, much of the publicly-owned wetlands in the CNMI are subject to development pressure. Infrastructure, such as roads and utilities, is still being developed, and is likely to continue to negatively affect wetlands. It is important to have rules and regulations in place that require mitigation (including avoidance) of wetland impacts.

3.1.3 Are they worth protecting?

Even if it is determined that there are a significant number of isolated wetlands in the CNMI, it may be determined that the functions and values of these wetlands are not great enough to warrant developing additional regulations to ensure their protection. For example, it might be the case that no endangered species live in these isolated wetlands or the water storage capacity is so small that it will not have an appreciable effect on flood control. The economic or social benefits of filling some of these wetlands may outweigh the value of protecting them. The functions and values of the Commonwealth's isolated wetlands may need to be more thoroughly explored before undertaking an extensive legal revision to protect them.

3.1.4 Is it too soon to take action?

The *SWANCC* decision was issued in 2001. The full ramifications of the decision are still being sorted out in the lower courts. Additionally, the USACE and USEPA have not issued definitive guidance to their field offices as to how to define isolated wetlands. The CNMI may pass legislation and new regulations to protect isolated wetlands, just to find that the federal government issues guidance that allows for the federal regulation of these isolated wetlands.

3.2 Assume the Section 404 program

One option for the CNMI is to have the Division of Environmental Quality assume the administration of the CWA §404 program for all waters that are not considered to be traditionally-navigable. Only two states, Michigan and New Jersey, have assumed this permitting authority for wetlands from the federal government. Assumption of the §404 program would require the CNMI to develop a regulatory program that provides at least as much protection as the federal §404 program and would have the benefit of eliminating some overlap between the CNMI and the federal government. The CNMI could amend the Commonwealth Environmental Protection Act, 1982, 2 CMC §3101 to §3134, Public Law 3-23, to ensure that the

definition of Commonwealth waters include all waters of the US and isolated wetlands, and develop a regulatory program similar to but separate from the federal §404 program.

While this action may have the benefit of eliminating some overlap between the CNMI and the federal government, new regulations would have to be developed and the CNMI would have to assume regulatory burden for all non-navigable waters, in addition to the added protection for isolated wetlands. Post-*SWANCC* there may be no program to assume from the federal government for non-navigable waters. Furthermore, USFWS review of permit applications would still be required because all wetlands in the CNMI serve as potential habitat for endangered species.

3.3 Amend CRM or DEQ administrative regulations to more clearly address isolated wetlands

Presently, not all appropriate CNMI regulations clearly apply to isolated wetlands and intermittent streams. They do not state a clear "no net loss" of functions, values, and acreage goal. They do not establish standards for permits consistent with the USACE Section 404 regulations. They do not provide standards for compensation. They do not provide coordination mechanisms among CNMI agencies and between CNMI agencies and the USACE.

Amendment of existing regulations or adoption of new regulations to supplement those already existing could take three principal forms:

1. Amendment of administrative regulations alone;
2. Adoption of a new, free-standing statute, and administrative regulations; or
3. Adoption of a more extensive statute and administrative regulations.

With some minor revisions to existing legislation and regulations, greater protection for the CNMI's wetlands, including isolated wetlands, may be established, while maintaining the existing federal protection.

The Coastal Resources Management Program is multi-objective in scope and presently has the most extensive wetland regulations and staffing and might, therefore, be a logical choice to take the lead in wetlands management in the CNMI. However, even if the Coastal Resources Management Office (CRMO) were to take the lead, the programs administered under the Division of Environmental Quality (DEQ) Water Quality and Earthmoving and Erosion Control regulations should continue to evaluate wetland permits from the perspectives and areas of expertise of these programs. Evaluation should be a joint, coordinated effort.

The easiest and most politically most acceptable route to strengthen wetland protection for isolated wetlands may be to amend the administrative regulations. Administrative regulations could be amended to include various provisions. This

option could be adopted without new legislation, although the CNMI legislature could provide funding. Funding would not only provide necessary financial support for implementation, but send an important message that wetlands are valuable to the people of the CNMI and therefore should be protected.

A discussion of potential revisions to the CRM and DEQ regulations follows.

3.3.1 Revise and expand Coastal Resources Management Office jurisdiction

One option is for the Coastal Resources Management Office (CRMO) to implement separate comprehensive wetlands protection regulations. However, the existing legislation and regulations appear to be comprehensive enough that, with some minor revisions, should be effective to affording adequate protection to the CNMI's wetlands, including isolated wetlands, while maintaining the existing federal protection.

The Coastal Resources Management Office's enabling legislation, the Coastal Resources Management Act of 1983, 2 CMC §1501 to §2112, Public Law 3-47, gives it authority to manage coastal resources of the CNMI, including wetlands. All lands and waters of the CNMI are within the jurisdiction of the Coastal Resources Management Program.

The Coastal Resources Management Rules and Regulations (Title 15, Chapter 10) outlines a permit process for proposed projects that have the potential to directly and significantly impact coastal resources, including mangroves and wetlands (§15-10-020(jj)(4)), as well as in Areas of Particular Concern (APCs), including wetland and mangrove APCs (§15-10-020(f)(2)). In addition, CRMO can take jurisdiction over projects outside of the wetland and mangrove APC, if they determine it to be a "major siting."

The wetland and mangrove APC is defined as:

> "any geographic area of particular concern which includes areas inundated by surface or ground water with a frequency sufficient to support a prevalence of plant or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands include swamps, marshes, mangroves, lakes, natural ponds, surface springs, streams, estuaries and similar areas in the Northern Mariana Islands chain (§15-10-020(hh))."

Permit applications for proposed projects located within the wetland and mangrove APC are evaluated by CRMO to determine compatibility with the following standards:

> "(1) significant adverse impact on natural drainage patterns, the destruction of important habitat and the discharge of toxic substances shall be prohibited; adequate water flow, nutrients and oxygen levels shall be ensured;
> (2) the natural ecological and hydrological processes and mangrove areas shall be preserved;
> (3) critical wetland habitat shall be maintained and, where possible, enhanced so as to increase the potential for survival of rare and endangered flora and fauna;
> (4) public landholding in and adjacent to the wetland and mangrove APC shall be maintained and, to the extent possible, increased, for the purpose of access and/or hazard mitigation, through land trades with the Marianas Public Land Corporation, land purchasers, creation of easement or through taking by eminent domain; and
> (5) wetland resources shall be utilized for appropriate agriculture, recreation, education, public open space and other compatible uses which would not degrade productivity" (§15-10-310(c)).

With respect to wetlands, the CRMO requirements for both major sitings and APCs is comprehensive, does not limit a wetland to that defined as waters of the US, and therefore is not affected by the *SWANCC* decision.

The federal consistency provision of the federal Coastal Zone Management Act (CZMA) as implemented by the CNMI CRM program is another potentially strong tool in wetland policy implementation. Section 307 of the CZMA, federal regulations (15 CFR, Part 930), and §15-10-1501 of the CRM rules and regulations require CRMO to make a determination that all allowable federal projects, including federally permitted activities, in the CNMI coastal zone (which includes all wetlands) are consistent with the CRM program. If a federal permit is not required, such as for post-*SWANCC* development in an isolated wetland, a consistency determination by CRM would not be required, unless the project was located on federal land (e.g., American Memorial Park). However, as stated above, a major siting application for development in the APC would still be required.

There are several minor revisions that can be made to the Coastal Resources Management Rules and Regulations to enhance protection of all CNMI wetlands, including isolated wetlands. Although wetlands are defined in the regulations and not limited to what is shown on the maps, the Wetland and Mangrove APC maps are based upon the USFWS National Wetlands Inventory (NWI) maps, which do not necessarily include all isolated wetlands. These maps could be revised to show all wetlands, including isolated wetlands.

The wetland and mangrove APC management standards can be revised to reflect additional protection measures for these wetlands. This would include a revision of what are considered "allowable uses." Another possible revision is to include buffers. Buffers are an important management tool that can be used to protect wetland functions and values. It is important to regulate specific activities within the boundaries of wetlands, but it is equally important to regulate activities adjacent to wetlands to offer complete protection to the wetlands. A buffer could be required to be a fixed width from the wetland boundary, a fixed area, or a floating buffer based on soil type or slope, leaving flexibility to protect sensitive areas and accommodate proposed land use.

Buffers are not a new concept. The Saipan comprehensive wetlands management plan recommends a minimum buffer of 15 m (50 ft) and a much larger minimum buffer of 30 m (100 ft) for High Value wetlands (ERCE, 1990). The Magpo watershed and wetland protection plan also recommends establishing a suitable buffer zone around Magpo wetland (Baldwin, 1995). The proposed Wetlands Protection Act of 1995 for Guam establishes an 8 m (25 ft) buffer around wetlands. The New Jersey Freshwater Wetlands Protection Act (1987) protects buffers up to 46 m (150 ft) from wetland boundaries. The Maryland Non-tidal Wetlands Protection Act (1989) regulates activities in a buffer zone.

The Coastal Resources Management rules can also be amended to establish wetland function, value, and acreage goals, such as the goal of no net loss for all wetlands, including isolated wetlands. A "no net loss" policy will acknowledge there is a problem with respect to wetland loss and will provide an overarching mandate within which subsequent wetland decisions can be made. Such a policy goal is necessary to halt and eventually reverse the trend of continued wetland destruction.

The management standards can also be revised to require sequencing and mitigation, such as is required by the USACE for §404 permits. Current mitigation requirements are not consistent, they are geared primarily towards enhancement of moorhen habitat, and they are neither uniformly enforced nor monitored. The CNMI should develop a sequential mitigation policy, such as: (a) consider avoidance of adverse impacts first; (b) next, determine ways to minimize the impacts, and (c) finally, require appropriate and practicable compensation for unavoidable impacts.

3.3.2 Revise the regulations of the Division of Environmental Quality

Minor revisions to DEQ's regulations could clarify that DEQ jurisdiction is intended to apply to all wetlands, including isolated wetlands.

The jurisdiction asserted by the Commonwealth Environmental Protection Act, 1982, 2 CMC §3101 to §3134, Public Law 3-23, extends to "air, land, water, wetlands, and submerged lands of or which appertain to the Commonwealth" (§3113). The

CNMI Water Quality Standards, which were recently amended, define Commonwealth waters as "all waters, fresh, brackish, or marine, including wetlands, surrounding or within the Commonwealth, as provided for by Federal and Commonwealth law." (Part 4, CNMI DEQ, 2004).

The antidegradation policy of the CNMI Water Quality Standards (Part 5.3) states

> "Wetlands are waters of the Commonwealth and are subject to the provisions of this rule. Point or non-point sources of pollution shall not cause destruction or impairment of wetlands. All wetlands are to remain in as near their natural state as possible and shall be protected to support to (*sic*) propagation of aquatic and terrestrial life. All provisions of these regulations apply to all wetlands unless replaced by site specific standards adopted by the Commonwealth and approved by EPA."

This means that the antidegradation policy applies to all wetlands in the CNMI. DEQ intends to conduct antidegradation reviews for Section 401 water quality certifications and for Major Siting permits issued by CRM (DEQ, 2004). To clarify that DEQ's antidegradation policy applies to all wetlands, including isolated wetlands, Part 5.3 could be revised to state, "wetlands, including isolated wetlands, are waters of the Commonwealth …"

DEQ's primary permitting authority stems from Part 10 of the Water Quality Standards, the Water Quality Certification Program. The Water Quality Certification program is directly tied to the CWA § 404 program and therefore is only applicable to waters of the US. Part 10 states,

> "A water quality certification is required by the CWA, Section 401 of any applicant for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, that may result in any discharge into waters of the United States."

Therefore, DEQ currently does not have permitting authority over isolated waters that are not deemed waters of the US. If it was determined that their enabling legislation is broad enough, DEQ regulations could be revised to require a water quality certification, independent of the §404 program, for certain activities in Commonwealth waters even if a federal permit is not required. North Carolina and Indiana water quality agencies did this, but their water quality statutes are very broad (J. Kusler, personal communication).

Another important regulatory program of the Division of Environmental Quality is the Earthmoving and Erosion Control program. The Earthmoving and Erosion

Control program is designed to protect all waters of the Commonwealth, including isolated wetlands, and does not need to be modified to ensure that isolated wetlands are protected. Water of the Commonwealth is defined as "all waters, either fresh, brackish, or marine, including …. (3) Lakes, springs, and wetlands …" (CR, Vol. 15, No. 10, 1993). To enhance the protection of wetlands, including isolated wetlands, special provisions could be added to require delineation of a wetland if on the same lot as the permitted earthmoving activity and to require a buffer to be maintained around a wetland.

The definitions section of the Water Quality Standards and Earthmoving and Erosion Control Program should include a definition of wetlands. The USACE and USEPA definition of wetlands should be used and should also be included in the regulations for other agencies responsible for wetlands management. This definition is as follows:

> "Wetlands" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and other similar areas.

Other definitions that should be considered include those for riparian areas, flood plains, and buffer areas.

3.4 Expand control of the Division of Fish and Wildlife

The CNMI Division of Fish and Wildlife (DFW) also has jurisdiction with regards to the CNMI's wetlands, particularly where endangered or threatened species are concerned. The Division of Fish and Wildlife regulations could be revised to offer increased protection to the CNMI's wetlands, including isolated wetlands. However, the mission of DFW is endangered species-focused and may not be broad enough to fully protect all functions and values of the wetlands.

The Fish, Game, and Endangered Species Act (2 CMC Div. 5, Chapter 1) enables the Division of Fish and Wildlife (DFW) to create regulations that designate endangered and threatened species (§5108(a)(1)) and §5018(a)(2) allows DFW to designate critical habitat for these species. Critical habitat is defined as a specific area "occupied and essential to the conservation of an endangered species or threatened species, which may require special management considerations or protection" (§5101(g)). DFW has established regulations that designate endangered and threatened species; however, they have not established regulations to designate critical habitat.

Wetlands are essential for the conservation of two designated endangered species, the Marianas moorhen and the nightingale reed-warbler. Therefore, DFW could create regulations that allow for the designation of critical habitat and then designate wetlands, including isolated wetlands, as critical habitat for these two species.

Other possible actions that DFW could take to provide additional protection for isolated wetlands include creating a permitting program for wetlands. This would require amending the Fish, Game, and Endangered Species Act and the DFW regulations. DFW could also work closely with the Marianas Public Lands Authority (MPLA) to acquire wetlands and establish them as sanctuaries. Additionally, DFW could conduct surveys to determine if there are other species that are endangered for which wetlands are essential to the conservation of.

3.5 Revise the Saipan zoning regulations

A zoning law for Saipan was passed in 1993 and then illegally suspended in 1995. The zoning board has recently been re-established and there is interest in modifying the zoning law and changing the boundaries, uses, and the requirements for the uses in all the areas (J. Moots, 2005, personal communication). The zoning law includes environmental standards and requires a 2:1 wetland mitigation ratio, among other mitigation requirements when wetland protection is not a reasonable alternative. Because of the required review process to modify the law and the lack of a budget to hire personnel to conduct enforcement actions, the board is currently not enforcing the existing 1993 zoning law (J. Moots, 2005, personal communication).

Enforcing the zoning regulations after such a long dormant period should provide an increased level of protection to Saipan's wetlands, including isolated wetlands; however, they would not address wetlands on other islands of the Commonwealth. The regulations could be modified to require a no net loss of wetlands, mitigation of functions and values, buffers, and various other wetland protection measures.

3.6 Revise DPW Flood Damage rules

Pursuant to PL 8-7, in 1993, the Department of Public Works established Flood Damage Prevention Rules and Regulations. These regulations regulate development in wetlands.

3.7 Enhance or restrict the authority of the Marianas Public Lands Authority

The Marianas Public Lands Authority (MPLA) has the ability to exchange public land for private land with wetlands or land that may otherwise have limited development potential. However, due to the limited potential of using exchanged wetlands for economic gain, this is placed as the lowest priority for MPLA (K. Yuknavage, 2005,

personal communication). MPLA could acquire wetlands remaining on private property through land exchanges. MPLA also issues agricultural permits. This has created problems, in that permit holders may undertake activities that impact wetlands. In order to correct this problem, the agency could stop issuing agricultural permits on wetlands or ensure that permittees coordinate activities with CRMO and DEQ. Additionally, MPLC could acquire high quality wetlands or wetlands threatened by development to convey to the Department of Lands and Natural Resources (DLNR) for appropriate uses, protection, mitigation banks, and sanctuaries for endangered species.

3.8 Rely upon the US Fish and Wildlife Service to protect isolated wetlands

Under the Endangered Species Act, the US Fish and Wildlife Service (USFWS) is charged with designating critical habitat for threatened and endangered species whenever it is determined to be prudent and determinable. Critical habitat is habitat determined essential to the conservation of the species and that requires special management protection. It is likely that many wetlands in the CNMI provide critical habitat for the Marianas moorhen and it is possible that some or all of the isolated wetlands provide critical habitat for the nightingale reed-warbler.

If critical habitat is designated for a species, all federal agencies must consult with the USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of the critical habitat. The designation has no impact on individual or Commonwealth actions if there is no federal involvement, nor does it signal any intent of the federal government to acquire or control the land. However, designation of isolated wetlands, or any other wetland in the CNMI, as critical habitat is not likely to increase the protection offered to wetlands because USFWS consultation does not occur unless a federal action is initiated.

Other actions USFWS could take to potentially increase the protection of isolated wetlands in the CNMI include conducting more extensive moorhen and reed-warbler surveys and conducting surveys for, and, if appropriate, listing additional endangered plants and insects found in wetlands.

3.9 Rely upon other federal agencies and other organizations

The U.S. Department of Agriculture (USDA) presence in the CNMI currently includes the Natural Resources Conservation Service (NRCS) and the Rural Development Agency. USDA also provides funding for a Resource Conservation and Development (RCD) Coordinator position, which oversees the Marianas Resources Conservation and Development Council (MRCDC), a non-profit organization with representatives from Saipan, the Northern Islands, Tinian, Rota, and Guam. USDA also provides funding for the CNMI Department of Lands and Natural Resources for Agriculture

and Forestry programs, and the Cooperative Research Education and Extension Service (CREES) within Northern Marianas College. Although not regulatory, NRCS and CREES develop and disseminate valuable resource information and technical assistance that could be accessed to assist with development of a wetlands program or suitable practices for use in and near wetlands. Locally, the MRCDC could also work to support such extension programs and assist with disseminating the information.

In general USDA funding cannot be used for projects that are located within wetlands under its "Swampbuster" program, which would affect lending and grants for home construction, agriculture, conservation projects, and rural development, such as new homes and community facilities.

The Wetland Program Development Grants offered by the US Environmental Protection Agency (USEPA) is an opportunity to conduct projects that promote the coordination and acceleration of research, investigations, experiments, training, demonstrations, surveys, and studies relating to the causes, effects, extent, prevention, reduction, and elimination of water pollution. Funds are intended to build and refine any element of a comprehensive wetland program in line with priority areas identified by the USEPA.

The Federal Emergency Management Agency (FEMA) provides support to local governments to plan for major disasters and to mitigate or eliminate hazards, including flooding associated with presidentially-declared disasters such as tropical storms and typhoons. FEMA also prepares floodplain maps that are intended to delineate areas subject to flooding. Projects that are located or proposed to be located within designated floodplains that will be funded by federal grants and loans, and loans backed by federal mortgage insurance, are subject to restrictions designed to minimize flood risk.

There are US and International organizations that purchase or otherwise acquire lands and waters for conservation purposes. These include such well known non-governmental organizations, as the Trust for Public Lands and the Nature Conservancy. Were these agencies, or a network of these agencies, able to purchase leasehold interests in privately owned, or even public land wetlands in the CNMI, the need for government regulations would largely be eliminated. However, a recent Commonwealth requirement allows title to private land holdings to be held by an organization's board only if it is comprised 100 percent by indigenous peoples, thus making leasehold agreements by large non-government agencies a complex undertaking.

The Susupe Wetlands are considered part of the Great Pacific Flyway, which also includes Russia, China, Korea, and Japan. Migratory species, including a local

wetland bird species, the yellow bittern, are protected by international treaties as well as federal law. Developing high level contacts and networking with interested organizations in other parts of the Great Pacific Flyway would help build local support and potential funding for optimum local wetland conservation programs.

3.10 Increase educational opportunities and public information

Local agency staff responsible for wetlands protection should acquire additional technical skills with respect to wetland science, delineation, and management. The agencies should form a "wetlands team" to share expertise, evaluate permits, educate the public, and enforce regulations.

There are a variety of local wetland projects with educational value that could be better developed and used to increase appreciation of wetland resources. Public education will build support for taking better care of wetlands or at least to tolerate heavy-handed regulations. Current educational projects that can be supported and enhanced include the Kagman Education Island, viewing towers at Susupe Wetland (near Price Costco), the proposed Susupe Lake boardwalk, and other smaller mitigation sites.

3.11 Develop comprehensive wetland protection legislation

The least ambiguous way to provide protection for the Commonwealth's wetlands is to develop comprehensive wetland protection legislation that develops an integrated wetlands protection "program." Such statutes have been adopted in Minnesota, New York, Massachusetts, New Hampshire, Maine, and other states to protect isolated and other wetlands. Such statutes could include not only goals but legislative findings of fact, definitions, wetland mapping and delineation requirements, permitting procedures, penalty and enforcement provisions and other provisions such as mitigation bank provisions.

Under this option, the CNMI legislature could adopt a new, abbreviated wetland statute to supplement ongoing regulatory efforts to establish no net loss goals, set forth more specific regulatory and compensation criteria, and better coordinate agency permitting. This legislation could simultaneously apply to the CRM Program and DEQ's Water Quality Program and Earthmoving and Erosion Control Program. However, one agency should be placed in the lead to improve coordination and reduce duplication. The goals of the statute could include achievement of "no net loss of wetland functions, values, and acreage." The legislature should also provide funding for the regulatory agencies to issue, monitor, and enforce wetland permits.

4. SUMMARY

The Commonwealth's "isolated wetlands" represent only a small portion of the total wetland acreage. In general, wetland protection is fairly good in the CNMI and there appear to be no egregious violations to wetland regulations. Support from the USACE has been an essential factor in ensuring compliance with wetland regulations. However, the strong local presence of a USACE representative in the Marianas is not guaranteed and thus the CNMI should explore an independent wetlands protection program to ensure the continued protection of these resources.

It is unknown whether or not the *SWANCC* decision has, or will have, any noticeable impact on the actual regulation of the CNMI's wetlands. Generally, the level of compliance is fairly good, although violations occur because there is a lack of knowledge of permitting requirements, unfamiliarity with what is or is not a wetland and, in some cases, intentional defiance of the law. Where violations have been identified and supported by USACE assessment, compliance has been undertaken in the majority of cases. However, there are a number of opportunities for the CNMI to provide further protection for the CNMI's wetlands and take the lead, rather than relying on the USACE. This can be accomplished with a minimum of effort.

5. CONCLUSIONS AND RECOMMENDATIONS

The CNMI has a number of options available to it which can strengthen the protection for its wetlands. In order to do this, it is suggested that the CNMI consider undertaking the following actions:

- Conduct a GIS analysis using alternative criteria of isolation to determine the potential number and area of isolated wetlands in the CNMI. Verify the analysis through ground-truthing.
- Conduct a hydrological study to determine if a significant nexus exists between isolated wetlands in the Commonwealth and waters of the US.
- Investigate the tidal connectivity of coastal plain wetlands.
- Analyze the vulnerability of isolated wetlands to development and other destructive forces.
- Study the functions and values specific to the Commonwealth's isolated wetlands.
- Revise the Coastal Resources Management Areas of Particular Concern maps to include isolated wetlands.
- Adopt an abbreviated wetland statute and amend existing CRM and DEQ regulations.
- Designate a "lead agency" by administrative policy, administrative regulation or statute on permits to coordinate agency responses on all permits.
- Provide funding support for staffing, mapping, public education, regulation, and technical assistance.

Inasmuch, as it is recognized that additional Commonwealth funding for a more comprehensive wetland protection program may be unavailable at this time, it is suggested that both CRM and DEQ work closely with their federal funding counterparts to seek the additional support necessary to implement these recommendations.

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APPENDICIES

APPENDIX A

Summary of comments from Task Force Questionnaire

In order to help establish a baseline and assess the need for additional wetland regulatory efforts, an electronic survey was sent to Wetland Task Force members and a number of interested parties representing either the regulatory or regulated sector. This included several Federal government agencies. In total, 21 surveys were sent and 9 surveys were returned.

The e-letter, questions and responses (in general) are provided below:

November 16, 2004

Dear CNMI Wetland Task Force Member,

In order to support the CNMI's commitment to the goal of no net loss of wetlands, and in light of the U.S. Supreme Court's *SWANCC* decision affecting isolated wetlands, a team composed of scientists, legal professionals, and planners/policy analysts has begun working on a six month project to:

- fully investigate the level of protection provided to the CNMI's wetlands and identify gaps in current wetland protection; and
- develop policy recommendations and draft legislation/amended regulations to address these gaps.

This analysis and draft legislation will be used as the basis for you, as members of the Wetland Task Force, to establish a coordinated management policy to preserve and enhance existing wetlands through appropriate management measures.

Through this project, we intend to help CRMO and the CRM Agencies enhance and simplify local protection of wetlands and to compensate for potential losses of their federal protection, by providing a uniform level of protection and permit requirements for all CNMI waters.

As one of the first steps, and in order to establish a baseline and help guide progress on this project, we have developed a number of questions below which we would appreciate it if you would answer. For your convenience, you can just provide your responses in a reply to this e-mail. Should you have any questions or wish to discuss your comments in greater detail, please feel free to contact me by e-mail and/or let me know of a phone number and time when it would be convenient to contact you.

We would appreciate your responses by November 30, 2004. Thank you for your cooperation.

Questions and Aggregated Responses

1. What are the primary threats to wetlands in the CNMI?

Responses to this question included:

- Filling or development by landowners
- Lack of awareness or enforcement
- Habitat clearing and backfilling
- Farming permits in public wetlands
- Stormwater pollution
- Garbage
- Encroaching development/lack of buffer zones
- Fragmentation
- Diversion of water from wetlands
- "Upstream" pollution
- Lack of knowledge of importance
- Land exchanges
- No real threats
- Indirect threat-lack of coordinated enforcement between Federal agencies and CNMI agencies

2. Are there some wetlands that are more threatened than others and if so which ones and why?

Responses to this question included:

- I don't think so
- Susupe Lake system
- Private property wetlands
- Wetlands off Fina Sisu Road
- Wetlands on margins of uplands
- Wetlands in commercial areas
- All, but especially "isolated"
- Wetlands in Tanapag and San Roque
- Talakhaya watershed streams on Rota
- Makpo watershed on Tinian
- Eastern wetlands, because little attention is given to them
- Those located near highways/roadways suited for business purposes

3. Is sufficient professional expertise readily available in the CNMI to delineate wetland boundaries and assess impacts (including hydrological and ecological functions)?

Responses to this question included:

- Not within DEQ or DFW
- CRM probably most knwlegeable
- Additional training would be useful
- Local expertise is improving
- Should not be difficult to build capacity, but would require a multi-agency approach
- Yes, it is available
- Only two people. No one person can assess both hydrologic and ecological functions. CNMI would benefit from having an evaluation team.
- Not at all. Much expertise is needed.

4. Have the wetland systems subject to regulatory jurisdiction in the CNMI been clearly identified?

Responses to this question included:

- Main and more obvious wetlands have been in one form or other
- Some not readily apparent (i.e., intermittent streams)
- New DEQ regulations too broad
- CRM updated Wetland APC-conservative estimate, needs ground-truthing
- No
- There are maps, but completeness is a question
- "Regulatory jurisdiction" is another issue-unclear which are now subject to Corps jurisdiction
- Yes
- Not wholly. Need more fine-tuning
- Relatively well, but actual boundaries are difficult

5. Is there adequate public information available on the CNMI's wetlands, their value, and their regulation, or are wetlands being intentionally filled, altered, etc. knowingly and willingly?

Responses to this question included:

- There is, but this doesn't stop people from intentionally filling/trying to get away with it
- Wetlands are being filled, sometimes knowingly and sometimes unknowingly
- Not enough by a long shot
- Public information is lacking-pamphlets don't educate. Wetlands are not as "sexy" as coral reefs
- Enforcement by Corps has been responsible for knowledge that there is a law
- Public education on other "waters", particularly intermittent streams is needed
- Yes, but given the many languages in the CNMI, it is possible that many "violators" are unaware of the rules and regulations

- Insufficient recent information on wetland values
- Public information and awareness is slight
- More scientific studies needed
- Not enough on value, regulation, but not an extraordinary problem. Good enforcement.

6. In making decisions regarding whether to allow development in or near a wetland is adequate consideration given to the wetlands functional value? Does such information exist?

Responses to this question included:

- Information not known. Delineation available and some knowledge of system guides process
- Not good information geared towards the development sector
- Absolutely not-but information exists. However, it exists among different people at different agencies. Technical panel should review wetland permits.
- No and no
- Not considered
- Not typically, however no gross development near wetland that justifies not allowing development. Better analysis by developers of impacts and benefits, more proactive and cooperative approach to use wetlands as filters. Updated maps could include this information
- Functional values play minor role in decision-making process.
- Functional values have not been scientifically explored

7. Do you feel that existing CNMI and federal laws and regulations provide an adequate level of protection for CNMI wetlands or is additional protection required? What gaps do you believe exist in wetland protection mechanisms?

Responses to this question included:

- Adequate level of regulatory protection exists
- We do not need more regulations
- Weak link in protection is related to non-participation of local agencies in Federal permitting program, lack of knowledge in regulatory program, and general lack of interest
- Gaps exist, and unclear whether regulations will solve them
- More enforcement of current regulations and more public and administrative awareness are bigger concerns
- A wetland corridor from As Perdido through potholes, Chalan Kiya, Chalan Laulau, into Garapan should be marked as wetlands and extra layer of protection put on them
- This is what we hoped the consultant would evaluate

- There is fear that *SWANCC* has removed much from Corps jurisdiction
- No to adequate level especially isolated wetlands that may have important functions such as groundwater recharge and storage of stormwater runoff. Need to consider functions and ensure that those are replaced if wetland filled
- Given that only 3%-5% of Saipan is wetlands, no wetland should have to be filled
- We need additional protection.
- Need to define jurisdiction with CNMI if it falls outside of USACE jurisdiction
- Need wetland quality standards
- Laws are adequate-enforcement and public education need attention
- Yes. Gap is a form of compensation needed
- Yes. Lack of public knowledge and understanding as to why wetlands need protection is needed

8. Is enforcement of existing wetland laws and regulations a significant problem?

Responses to this question included:

- An occasional problem, but not significant
- Yes, difficulty in enforcement a primary concern
- What enforcement?
- Corps has been good, but must rely on CRM and DEQ. Inefficient system at best. CRM and DEQ rely too heavily on Corps. Concern when Corp personnel leaves Guam.
- Enforcement is acceptable
- Not significant, but exists, especially when illegal fills go unnoticed
- Political pressure can be problem
- Need to value wetlands to keep pressure off
- Not really
- No. DEQ and USACE seem to be on top of

9. Is there adequate federal support for enforcement of wetland violations in the CNMI?

Responses to this question included:

- Not lack of federal support, logistics are problem, particularly on small wetlands on private lands
- Not adequate federal support for any enforcement
- USFWS enforcement arm is inadequate and meaningless
- Not sure USACE has authority
- At present, yes. When Guam USACE person leaves, may be problem
- Yes
- I don’t believe so

- Yes, USACE do great job of balancing needs of public and protection of environment. Some over zealous actions on part of USEPA staff, but it creates an adequate balance between extremes
- Federal Government has many guidelines to follow when prosecuting wetland violators, but reluctant to accept cases in all but most blatant cases

10. Are CNMI regulatory agencies consistent in their policies and practices in evaluating impacts to wetlands?

Responses to this question included:

- No, very inconsistent in participation in Section 404 process
- CNMI would benefit by working more closely with Federal counterparts
- Don't know
- I'm not sure
- Yes-consistently hands-off. Too much reliance on Corps.
- Yes at CRMO. No at DEQ.
- I don't think so
- Not really. Wetlands not accurately delineated may be a problem.
- Not always

11. Has the *SWANCC* decision of January 2001 had any noticeable impact on the regulatory oversight or review of new or existing wetland projects and their permit conditions in the CNMI? If so, which agency or agencies have changed their oversight/review procedures?

Responses to this question included:

- Not a single change noticed
- Repercussions of *SWANCC* not clearly understood.
- Investigation needed new regulations
- I don't know
- I'm not sure
- Yes. Heard Corps took hands off of project on Saipan. Seems to be affecting regulatory oversight.
- No
- I don't think so
- No idea

12. How effective has wetland mitigation in the CNMI been?

Responses to this question included:

- Little mitigation has taken place

- There are some horrible wetland mitigation ponds that are completely inappropriate
- Extremely poor, from hydrologic perspective
- Increased flooding along some roadways because of mitigation for wildlife habitat and not considering other values
- CNMI mitigations are not maintained, private mitigations are not maintained without constant reminders
- Has provided habitat only
- Mitigation has been slight
- Acceptable, needs improvements
- Hard to measure. No established priorities to weigh between conflicts.
- Room for improvement, but getting better. Perpetual maintenance a problem

13. Do you feel that a wetland mitigation bank be an appropriate tool for protecting the CNMI's wetland resources or that it would be better to concentrate protection efforts on the individual wetlands?

Responses to this question included:

- Protection of existing is better way to go
- Little support for bank
- Mitigation bank for endangered species may be good idea
- Individual wetlands deserve consideration.
- Would not address all of lost functions-some are tied to location
- Might work if someone would maintain
- No organization capable of running and managing wetland bank
- Not a good idea in a small place
- Yes, unequivocally
- Bank would minimize importance of avoidance mitigation first

14. What local policies put CNMI wetlands at risk?

Responses to this question included:

- Not fully participating with and coordinating with Feds
- Lack of understanding of federal wetland regulatory program
- MPLA's issuance of homesteads
- Ease of development
- Lack of solid wetland regulations
- CRM's list of acceptable uses of wetlands
- General policy that an development is good
- Allowing project in very important wetlands
- Development at all costs. Shortsightedness
- Interagency communication continues to be problem
- Government actions-mayor's coral road work, CUC uncontrolled clearing

- No regional drainage plans

15. Is there any additional information you would like to provide at this time about the CNMI's wetlands and their regulation or how they could be better protected?

Responses to this question included:

- Don't need more regulations
- Need to work together better-understand Federal process
- Gap caused by *SWANCC* needs to be filled with CNMI wetland permitting system that requires permits for filling in wetlands of all types
- Extend existing CNMI permits, especially DEQ water quality certification process
- Eliminate pro-development "acceptable uses" clauses in CRM APC regulations
- Replace with functional assessment procedure and mitigation requirements
- Few wetlands left, so we should make it near impossible to alter any in future.
- Work to restore wetlands that provide valuable hydrologic functions
- Buy up wetlands to take out of MPLA and private citizen hands for conservation areas
- Once all wetlands clearly delineated, stricter enforcement and penalties
- Regional drainage improvements needed, not piece meal project by project

APPENDIX B

Documented wetland projects in the CNMI
Sources: USACE files, CRM files, Gilman (1996), and Aldan (1993)

USACE Permit number, date, and status:
200300431, February 10, 2004
Wetland name, location, type, owner:
Tanapag Heights subdivision, Tanapag-Lower Base wetland complex
Project:
Fill
Area:
.1295 ha (0.32 ac)
Mitigation:
.1214 ha (0.30 ac) required
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
200000400, April 24, 2001
Wetland name, location, type, owner:
Lower Base tidal wetlands
Project:
Construct a transfer station.
Area:
0.06 ha (0.16 acres)
Mitigation:
USFWS requires predator control at fill location; radio transmitter to track reed-warblers; fence transfer station & landfill; follow mitigation outlined in December 13, 2001 plan. The transfer station wetland sometimes overflows to the PSS parking area north of the station.
CRM permit:
SMS-00-X-129 issued on April 7, 2000
DEQ permit:
401 WQC waived on August 16, 2000
HPO permit:

USACE Permit number, date, and status:
January 14, 1997 Violation
Wetland name, location, type, owner:
Jose Tudela fence, Susupe
Project:
Fill - fence
Area:

Excavated 79.7 meters^3 (104.2 yd^3)
Mitigation:
N/A
CRM permit:
SWm-96-X-380
DEQ permit:
Condition in the CRM permit that they must get a 401 WQC but CRM does not have a copy in files
HPO permit:
Condition in the CRM permit that they must get a HPO permit but CRM does not have a copy in files

USACE Permit number, date, and status:
9601000153, January 29, 1997, Violation
Wetland name, location, type, owner:
Lot 005 H 26, Lake Susupe wetlands
Project:
Fill - apartments
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
930110038, After the fact, January 16, 1997
Wetland name, location, type, owner:
Mr. Ameriz, Tanapag, Lot 030-B-0
Project:
Fill - road for garment factory
Area:
0.06 ha (0.16 ac)
Mitigation:
N/A
CRM permit:
SWm-96-X-323
DEQ permit:
Condition in the CRM permit that they must get a 401 WQC but CRM does not have a copy in files
HPO permit:
Condition in the CRM permit that they must get a HPO permit but CRM does not have a copy in files

USACE Permit number, date, and status:

January 30, 1997, Violation, CRM lead
Wetland name, location, type, owner:
Antonio Taitano, Chalan Kanoa
Project:
Fill
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE permit or file number, date, and status:
96010008, December 24, 1996, NWP 26
Wetland name, location, type, owner:
Waterloo substation along Chalan Monsignor Guerrero in Chalan Kiya. *Phragmites karka*-dominated wetland. No moorhen habitat, but might be used by nightingale reed-warbler.
Project:
Fill
Area:
.1394 ha + 7.65 m^3 (0.34 ac + 10 yd^3)
Mitigation:
Required 2:1 ratio to restore previously filled wetlands in Lower Base. Lower Base wetland was filled after WWII & is now tangan-tangan and short grasses & weeds. Mitigation is to excavate old fill and create open water area and leave 10 ft wide undisturbed buffer. Main purpose is to create reed-warbler habitat, but other benefits include flood water storage and sediment removal. Monitor until there is 80% obligate and fac-wet coverage. Applicant requested to change ratio to 1:1 on April 21, 1998). Mitigation partially constructed, still need to construct second site.
CRM permit:
SWm-96-X-128, April 15, 1996
DEQ permit:
August 26, 1997
HPO permit:
Yes

USACE Permit number, date, and status:
August 13, 1996, Provisional NWP
Wetland name, location, type, owner:
Juan C. Diaz, Chalan Kiya, Lot 1727-6
Project:
Farm wetland crops
Area:

.1766 ha (.44 ac)
Mitigation:

CRM permit:
Not applied for
DEQ permit:
Not applied for
HPO permit:

USACE Permit number, date, and status:
November 8, 1996
Wetland name, location, type, owner:
Maria Celis Aarom, barracks on piles, Lake Susupe
Project:
Fill - barracks on piles
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
960100075, August 12, 1996, NWP 26
Wetland name, location, type, owner:
Lot 2003-1-New-2
Project:
Fill - construct shopping center
Area:
.3003 ha (.74 ac)
Mitigation:
Required 4500 m^2 of open water and wetlands on Lot 2003-1-New-1.
CRM permit:

DEQ permit:
Applied for on March 15, 1996
HPO permit:

USACE Permit number, date, and status:
March 5, 1996, Violation
Wetland name, location, type, owner:
Unicorn Corp, Lower Base, Lot 057 E 19
Project:

Fill - Office building
Area:

Mitigation:
Fill was removed
CRM permit:
SSm-96-X-225
DEQ permit:
Condition in the CRM permit that they must get a 401 WQC but CRM does not have a copy in files
HPO permit:
Condition in the CRM permit that they must get a HPO permit but CRM does not have a copy in files

USACE Permit number, date, and status:
950170018, February 23, 1996, NWP 26
Wetland name, location, type, owner:
Juan T. Guerrero, Lot EA A, Isolated wetlands near Lake Susupe, palustrine forested, isolated
Project:
Fill
Area:
.1527 or .2470 or 0.31 ha (0.38 or 0.61 or 0.77 ac)
Mitigation:
.3163 ha (0.78 ac) required. Create lacustrine habitat for moorhen.
CRM permit:
SWm-96-X-92 Warehouse Permit Condition B
DEQ permit:
Condition in the CRM permit that they must get a 401 WQC but CRM does not have a copy in files
HPO permit:
Condition in the CRM permit that they must get a HPO permit but CRM does not have a copy in files

USACE Permit number, date, and status:
March 21, 1996
Wetland name, location, type, owner:
Gyu-Sup
Project:
Fill
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
950120023, Sept 6, 1995, NWP 26, GNWP95-023
Wetland name, location, type, owner:
Chalan Monsignor Guerrero (Phase II) between NMC and intersection with Middle Road. *P. karka* and *Hibiscus tiliaceus* wetland. Does not serve as groundwater recharge because at low elevation. No recreational use, no fish. Serves as zone of flood storage, storm water channelization, sediment filtering, and catchment areas. Discharges storm water in Lake Susupe ½ mile SW.
Project:
Fill + excavation
Area:
0.61 ha + 0.04 ha (1.50 + 0.10 ac)
Mitigation:
1:1 ratio required at Sadog Tasi. Goals: provide habitat to endangered Mariana common moorhen (*Gallinula chloropus guami*) and endangered nightingale reed-warbler (*Acrocephalus luscinia*). Create three shallow ponds and vegetation buffer of wetland plant species. Fence. Monitor quarterly, yearly, then 1 in 5 years in perpetuity. Ponds are not being maintained.
CRM permit:
SMS-93X-152
DEQ permit:
401 WQC waived, October 23, 1995
HPO permit:
Yes

USACE Permit number, date, and status:
November 16, 1995, Violation
Wetland name, location, type, owner:
Juan Pan Guerrero
Project:
Fill - trees
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
GV95-018, April 24, 1995, Potential violation
Wetland name, location, type, owner:
Lots EA 888 B and C, Lake Susupe
Project:

Fill
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
GNW-95-008, NWP 26, March 3, 1995
Wetland name, location, type, owner:
Saipan Power Center, Chalan Laulau. *P. karka*, *H. tiliaceus.* Palustrine emergent and forested wetlands.
Project:
Construct commercial buildings
Area:
0.88 ha (2.17 ac)
Mitigation:
0.88 ha (2.17 ac) creation and 1.49 ha (3.68 ac) enhancement required. Include a 1.8 m (6 ft) buffer & 3.0 m (10 ft) moat. On-site. Monitor quarterly, yearly, then 1/5 years in perpetuity. Inspected for compliance on March 1, 1996 and March 21, 1996.
CRM permit:
SMS-94-X-36
DEQ permit:
401 WQC waived on February 15, 1995
HPO permit:
Yes

USACE Permit number, date, and status:
1994
Wetland name, location, type, owner:
Kagman I or II homestead, DNR pond, palustrine emergent
Project:
Unpermitted fill, cleared vegetation
Area:
0.18 ha (0.44 ac) (4 wetlands)
Mitigation:
0.72 ha (1.78 ac) (2 wetlands) required: 0.04 ha- (0.10 ac) enhanced, 0.68 ha- (1.68 ac) created. Palustrine and lacustrine
CRM permit:
SMS-89-X-56
DEQ permit:
Condition in the CRM permit that they must get a 401 WQC but CRM does not have a copy in files

HPO permit:
Condition in the CRM permit that they must get a HPO permit but CRM does not have a copy in files

USACE Permit number, date, and status:
January 4, 1994, NWP 90-68, Violation then incomplete permit application
Wetland name, location, type, owner:
Ray L.G. Diaz, Isley, Airport Road
Project:
Fill
Area:

Mitigation:

CRM permit:
Not applied for
DEQ permit:
Not applied for
HPO permit:

USACE Permit number, date, and status:
GNWP94-022, December 28, 1994, NWP 14 and 26
Wetland name, location, type, owner:
Chalan Pale Arnold, Phase 5, Tanapag to Marpi. Several isolated wetlands (emergent) & two "riverines." Saddok As Agatan (P6 & P7) and between Aqua Resort & Hotel Nikko (P4). (Mitigation plan says isolated wetlands are fed by streams). *P. karka*, *H. tiliaceus*, *Ipomea aquatica*, and *Fimbristyllis* sp. dominant. Tidally influenced.
Project:
Road widening
Area:
0.57 ha (1.4 ac)
Mitigation:
1:1 ratio required. Enhance an existing wetland. Create open water and emergent wetland habitat (pond was "rough graded" on September 18, 1998). Monitor quarterly, yearly, then 1/5 years in perpetuity.
CRM permit:
SMS-94-X-53
DEQ permit:
401 WQC waived on January 30, 1995
Earthmoving 98-COM-207G issued on May 29, 1998
HPO permit:
Yes

USACE Permit number, date, and status:
PO91-141 February 9, 1993 Violation then permit denied because of USFWS Biological Opinion (farming okayed)
Wetland name, location, type, owner:

Jesus Pua Tanapag wetland
Project:
Fill for commercial building, farm wetland, control flooding, control overflow of neighbor's overflowing septic system
Area:
~ 0.08 ha (0.21 ac) filled, then applied for additional 0.04 ha (0.09 ac)
Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
930120003 & 980100136, 1993
Wetland name, location, type, owner:
Mariano Falig property, Tanapag, palustrine forested, isolated
Project:
Fill, construct private home
Area:
0.90 ha (2.22 ac)
Mitigation:
0.40 ha (1.0 ac) required. Palustrine emergent with open water. Not all mitigation provided.
CRM permit:
SWm-93-X-12 for wetland fill
DEQ permit:
401 WQC waived on January 26, 1993
HPO permit:
Yes

USACE Permit number, date, and status:
February 25, 1992, Violation
Wetland name, location, type, owner:
Waterloo, Chalan Kiya
Project:
Fill
Area:
61 m x 46 m (200 ft x 150 ft)
Mitigation:
Required on March 31, 1998 on N side of Lower Base site E of DFW (Lot No. H 160 A-R1).
CRM permit:
SWm-96-X-128
DEQ permit:
401 WQC issued on August 26, 1997
HPO permit:

Yes

USACE Permit number, date, and status:
February 25, 1992, Violation
Wetland name, location, type, owner:
Lower Base, CUC
Project:
Emergency fill
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
February 25, 1992, Violation
Wetland name, location, type, owner:
Under power distribution lines, Lower Base, CUC
Project:
Fill
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
May 14, 1992, Violation
Wetland name, location, type, owner:
Marianas Repairs Co.
Project:

Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
July 15, 1991, Violation
Wetland name, location, type, owner:
As Perdido Road, DPW
Project:
Fill -road
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
File 19920013
October 8, 1991
Wetland name, location, type, owner:
Lot 1755-4 (south), Chalan Kiya
Project:
Proposed fill.
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
1991
Wetland name, location, type, owner:
Fina Sisu, palustrine emergent, isolated
Project:
Fill, road construction
Area:
0.06 ha (0.15 ac)
Mitigation:

1:1 ratio required. 0.06 ha (0.14 ac). 1st project requiring compensatory mitigation. Enhanced mitigation - failed.
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
950020032, April 5, 1991
Wetland name, location, type, owner:
JG Sablan Rock Quarry, Lower Base. Palustrine emergent.
Project:
Unauthorized fill for commercial and government buildings.
Area:
0.04 ha (0.10 ac) or 257 m^3 (336 yd^3)
Mitigation:
Required to construct a 0.09 ha (0.22 ac) pond in the adjacent lot. The mitigation is at the NW corner of Lower Base wetlands near PSS building. Designed for use by moorhen. Located on public land.
CRM permit:
SPI-90-X-47
DEQ permit:
Condition in the CRM permit that they must get a 401 WQC but CRM does not have a copy in files.
HPO permit:
Condition in the CRM permit that they must get a HPO permit but CRM does not have a copy in files.

USACE Permit number, date, and status:
VIO 90-042, March 5, 1991
Wetland name, location, type, owner:
Mrs. Faisao, Airport Road, Lot 355, Chalan Kiya
Project:
Unpermitted fill for lot clearing.
Area:

Mitigation:
Fill was removed.
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
VIO 90-024 August 14, 1990, Violation

Wetland name, location, type, owner:
Lower Base pago
Project:
Fill for pig shed
Area:

Mitigation:
Agreed to remove fill.
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
File 89002036, Application denied
Wetland name, location, type, owner:
Young Oh – Chalan Kiya
Project:
Fill behind retaining wall Permit denied on June 18, 1990
Area:
0.01 ha (0.02 ac)
Mitigation:
None
CRM permit:
None
DEQ permit:
None
HPO permit:
None

USACE Permit number, date, and status:
NW 89-036, June 18, 1990, Denied
Wetland name, location, type, owner:
Chalan Kiya commercial store, Chalan Laulau
Project:
Fill, retaining wall
Area:
0.01 ha (0.02 ac)
Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
February 27, 1990, Violation
Wetland name, location, type, owner:
MTC Middle Road, between Tanapag & San Roque
Project:
Fill for base & trenching
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
File 199300093, April 10, 1990
Wetland name, location, type, owner:
Korea Town Restaurant, Chalan Laulau
Project:
Potential fill.
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
April 10, 1990
Wetland name, location, type, owner:
North of Kim Enterprises, Lower Base
Project:
Potential fill
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
March 12, 1990
Wetland name, location, type, owner:
Isley
Project:
Potential fill to widen road.
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
Violation, August 1, 1990
Wetland name, location, type, owner:
Airport Road residence, adjacent to wetlands adjacent to Lake Susupe
Project:
Unpermitted fill in residence
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
May 21, 1990
Wetland name, location, type, owner:
Airport Road Mobil gas station, near Whispering Palms Golf Course
Project:
Unpermitted fill stockpile
Area:
Determined not to be in a wetland, but adjacent to one. Permit to replace the existing underground storage tank only.
Mitigation:

CRM permit:
SMS-94-X-31

DEQ permit:
N/A
HPO permit:
N/A

USACE Permit number, date, and status:
1990
Wetland name, location, type, owner:
Jiro Endo, Achugao Resort
Project:
Unpermitted fill.
Area:

Mitigation:
USACE ordered fill to be removed. Fill was removed.
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
880020045, July 10, 1989
Wetland name, location, type, owner:
Nansay Resort in San Roque
Project:
Fill
Area:
0.89 hectares (2.2 ac)
Mitigation:
2.48 ha (6.12 ac) required. Not completed.
CRM permit:
SMS-88-X-103
DEQ permit:
Condition in the CRM permit that they must get a 401 WQC but CRM does not have a copy in files
HPO permit:
Condition in the CRM permit that they must get a HPO permit but CRM does not have a copy in files

USACE Permit number, date, and status:
File # 199300108
Wetland name, location, type, owner:
Ray Diaz - Chalan Kiya
Project:
Illegal fill next to house. Removed
Area:

Mitigation:
USACE and USEPA order to remove fill.
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:

Wetland name, location, type, owner:
Delfin Ebeteur - Chalan Kanoa
Project:
Unpermitted fill.
Area:

Mitigation:
USACE ordered fill to be removed. Fill was removed.
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:

Wetland name, location, type, owner:
Maria Faisao
Project:
Unpermitted clearing.
Area:

Mitigation:
CRM ordered project stopped. Wetland vegetation returned, no further enforcement action.
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
File 200100557
Wetland name, location, type, owner:
Antonio Guerrero – Lot 359, Chalan Kiya

Project:
Unpermitted fill
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:

Wetland name, location, type, owner:
Gold Baron Saipan, Inc. - San Antonio
Project:
Unpermitted fill
Area:

Mitigation:
Voluntarily removed and restored area
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:

Wetland name, location, type, owner:
Jae H. Kim, Chalan Laulau
Project:
Unpermitted fill
Area:
9.1 m wide x 2.4 m deep (30 ft wide x 8 ft deep)
Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:

Wetland name, location, type, owner:
Min Soo Kim, Chalan Laulau
Project:
Unpermitted fill
Area:

Mitigation:
Fill was removed
CRM permit:
SWm-95-X-5 SWm-95-X-38
DEQ permit:
Condition in the CRM permit that they must get a 401 WQC but CRM does not have a copy in files
HPO permit:
Condition in the CRM permit that they must get a HPO permit but CRM does not have a copy in files

USACE Permit number, date, and status:
Application denied
Wetland name, location, type, owner:
Song Lim Kim
Project:
Fill, construct parking lot
Area:

Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:

Wetland name, location, type, owner:
MCS Communication Service – Several locations
Project:

Area:

Mitigation:
$5000 fine by CRM and ordered site to be returned to pre-condition
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
File 90070041
Wetland name, location, type, owner:
Maria Maddox - Lake Susupe
Project:
Unpermitted fill.
Area:

Mitigation:
USACE and USEPA order to remove fill. Fill removed
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:

Wetland name, location, type, owner:
Cheong Pui Ng
Project:
Unpermitted fill for road expansion.
Area:

Mitigation:
USACE order to remove fill.
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:

Wetland name, location, type, owner:
Young Oh
Project:

Area:
0.005 ha (0.01 ac)
Mitigation:
USACE order to remove fill.
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
910070012
Wetland name, location, type, owner:
Quezada Construction – Lake Susupe, Susupe
Project:
Unpermitted fill
Area:

Mitigation:
$2000 fine by CRM and ordered site to be returned to pre-condition
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
890060057
Wetland name, location, type, owner:
Henry Sablan – north side of Lake Susupe
Project:
Unpermitted fill
Area:

Mitigation:
USACE order to remove fill
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:

Wetland name, location, type, owner:
Rick Santos - San Roque
Project:
Unpermitted farming
Area:

Mitigation:
USACE & CRM told to apply for permit. Abandoned site.
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:

Wetland name, location, type, owner:
Ed Taimanao - Susupe
Project:
Unpermitted fill
Area:

Mitigation:
USACE and USEPA order to remove fill. Restoration plan required.
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:

Wetland name, location, type, owner:
Young Chae Youn - Chalan Kiya
Project:
Fill
Area:
0.09 ha (0.23 ac)
Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:

Wetland name, location, type, owner:
Black Micro, Tanapag
Project:

Area:

Mitigation:

0.40 ha (1.0 ac) required.
CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:
#90001200127, No permit issued.
Wetland name, location, type, owner:
Dino Jones, Achugao Road
Project:

Area:
Fill
Mitigation:

CRM permit:

DEQ permit:

HPO permit:

USACE Permit number, date, and status:

Wetland name, location, type, owner:
CUC - Lower Base
Project:
Land clearing near stream bed.
Area:

Mitigation:
USACE ordered fill to be removed. Fill was removed.
CRM permit:

DEQ permit:

HPO permit:

APPENDIX C

Bibliography

The following materials pertaining to *SWANCC* and state responses to SWANNC draw upon the following sources of information:

- A review of the Association of State Wetland Managers' *SWANCC* files including bibliographies and lists of web sites,
- A state-by-state review of state efforts to close the gaps created by *SWANCC*,
- An independent review of *SWANCC* related web sites,
- Discussions during the week of December 16, 2004 with a variety of individuals working with *SWANCC* and state and local responses to *SWANCC* including Jeanne Christie, Executive Director, Association of State Wetland Managers, Donna Downing, Council, U.S. Environmental Protection Agency, Clay Miller, Council, U.S. Environmental Protection Agency, and James Payne, U.S. Department of Justice.

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