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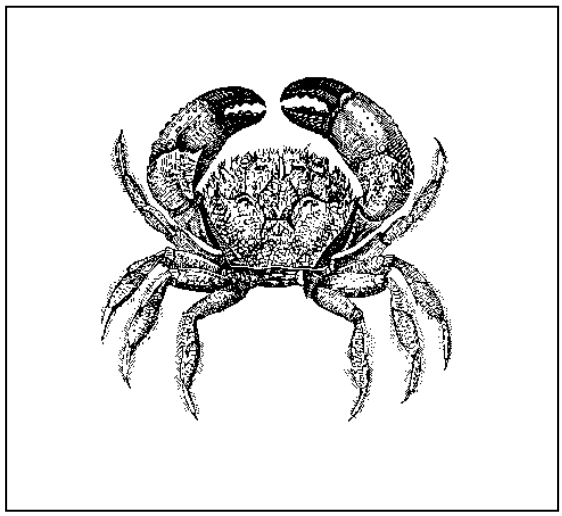

Final Report 2:
Wetland Assessment for Regulatory Purposes

WETLAND ASSESSMENT IN THE COURTS

By
Jon Kusler, Esq., Ph.D.

September 1, 2004

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The views expressed in this report are those of the author and do not represent those of the sponsoring agencies, organizations or reviewers.

ACKNOWLEDGMENTS

Principle financial support for this report has been provided by the U.S. Environmental Protection Agency, Wetlands Division. Additional funding was provided by the U.S. Environmental Protection Agency, Region 2, the USDA Natural Resources Conservation Service and The McKnight Foundation. This support is gratefully acknowledged.

The report draws on a number of sources, including:

- A review of legal literature on the regulation of wetlands, floodplains, coastal areas, and other lands and waters
- A legal search of federal and state wetland, floodplain and other natural resource court cases that address mapping, delineation and other aspects of regulatory information gathering and analysis
- The Association of State Wetland Managers workshops and symposia over the last decade, addressing wetland assessment, hydrology, restoration, classification and delineation
- The author's legal experience and science/policy research on wetland, floodplain, and other regulations. See particularly the following works:

Kusler, J. The Lucas Decision, Avoiding "Taking" Problems With Wetland and Floodplain Regulations, 4 Md. J. Contemp. Legal Issues 73 (1993).

Kusler, J. Public Liability and Natural Hazards, Technical Report funded by the National Science Foundation (1993).

Kusler, J. Regulating Sensitive Lands, Ballinger Publishers (1985).

Kusler, J., et. al. Regulation of Flood Hazard Areas to Reduce Flood Losses, U.S. Water Resources Council, U.S. Government Printing Office (Vol. 1, 2, 3) (1972, 1973, 1985);

Kusler, J. et al. Our National Wetland Heritage, The Environmental Law Institute (1985).

Kusler, J. and Platt, R. The Law of Floodplains and Wetlands: Cases and Materials, American Bar Association, Special Committee on Housing and Urban Development Law (1982).

Kusler, J. Open Space Zoning: Valid Regulation or Invalid Taking?, 57 Minn. L. Rev. 1 (1972).

Kusler, J. Water Quality Protection for Inland Lakes in Wisconsin: A Comprehensive Approach to Water Pollution, Wis. L. Rev. 35 (1970).

This report also draws on the insights of many wetland regulators and scientists whose comments and suggestions were invaluable in the preparation and review of the report.

Finally, it draws on the comments and suggestions of lawyers who reviewed the draft, including John Banta, Rutherford Platt, Robert Meltz, Doug Thompson and Eric Meyers.

Todd Mathews provided able research assistance for the report. Bethania Stewart and Sharon Weaver provided editing.

Thank you all for making this report possible.

PREFACE

This report addresses legal issues in wetland assessment for regulatory purposes at all levels of government. It has been written to serve two goals: (1) to help regulators, lawyers, local, state and governmental officials, planners, landowners and scientists understand wetland regulatory information needs and the response of the courts to various types and accuracy of data gathering and analysis in regulatory contexts; and, (2) to help scientists design wetland, floodplain, riparian and other assessment approaches that better meet legal needs and the needs of regulators.

As indicated, the report has been written for both nonlawyers and lawyers. For lawyers, many case law citations with brief annotations are included. Nonlawyers may wish to skip over the citations.

The report is one of three final reports on wetland assessment for regulatory purposes, prepared by me for the Association of State Wetland Managers (ASWM) as part of a four-year project. These reports include the present report, Final Report 1: Assessment of Wetland Functions and Values, and Final Report 3: Integrating Wetland Assessment Into Regulatory Permitting.

The following report was prepared in 2000 and updated in late 2003 and 2004 with additional legal research.

Chapter 1 provides an overview of regulatory needs and judicial reactions to regulations. Chapters 2 – 4 address specific legal questions. Chapter 5 addresses the "taking" issue. Chapter 6 addresses legal liability for permitting. Chapter 7 provides recommendations to help scientists and regulators design wetland assessment approaches to better meet legal needs.

Hopefully, the report will be useful.

Sincerely,

Jon Kusler, Esq.

EXECUTIVE SUMMARY

The following report has been prepared to address legal issues in wetland assessment raised by wetland managers such as: Should legal requirements be a concern to scientists and regulators who design wetland assessment techniques for regulatory purposes? How have models such as HGM and WET fared in the courts? From a legal perspective, what sorts of data needs to be gathered, at what levels of accuracy, to meet specific regulatory purposes? Does an agency need to use the best possible scientific assessment techniques? Must wetlands be rated and ranked? Can a portion of the research burden be shifted to permit applicants? What information can help an agency avoid and meet takings challenges? Box 1 provides summary answers to these and other questions.

The report is based on an extensive examination of case law dealing with research and analysis for wetland, floodplain, riparian, coastal area, water resources and other regulatory programs.

Some major conclusions are:

1. **A Concern but Not a Straight Jacket.** Legal requirements for assessment should be a concern but not a straight jacket for those designing and selecting assessment techniques for regulatory purposes. Courts afford regulatory agencies broad discretion in their research and analysis techniques, as long as agencies gather the types of information that statutes and regulations require. However, wetland regulations are also subject to more intense legal scrutiny than other wetland management techniques because the regulations often tightly control the use of private lands.

To meet legal requirements in controlling private property, regulations must comply with the mapping, research and analysis procedures called for in regulatory statutes, administrative regulations, and ordinances. This is needed to provide "due process" to private landowners. Regulators must also obtain the information needed to apply regulatory criteria and procedures. Regulators must provide sufficient information to sustain regulations against constitutional challenges by private landowners and to avoid liability problems in regulatory permitting (e.g., avoiding issuance of permits that increase flood or erosion problems on other properties). Regulators need documented, time-series information for monitoring and enforcement.

2. **Data Gathering to Support Regulations and Sustain Them in Court.** To meet legal requirements, regulatory agencies must gather the right types of data at the appropriate scales and levels of accuracy to support regulations and sustain regulatory decisions if those regulations or decisions are challenged. Agencies need to keep records of their research and analyses including permit by permit decision-making.

3. **Assessment Needs Are Determined, in Part, by Definitions, Goals, Permit Criteria, Etc.** Few state, federal or local wetland regulations mandate specific types, scales or degrees of accuracy for research and analysis, except wetland mapping at the state level in some states. However, statutes typically establish wetland definitions and regulatory goals and criteria for permits, which have data gathering and analysis implications. Regulations contain permit analysis procedures and many establish special procedures that address mitigation banks,

administrative appeals and enforcement. These provisions and procedures determine wetland assessment needs for regulatory purposes and the length of time that regulatory agencies have to meet such needs.

4. Some Types of Information Are Needed by Almost All Programs. Almost all regulatory programs need information about jurisdiction, boundaries, ownership, natural hazards and impact on wetland functions/values, to carry out tasks called for in the regulations. However, the information needed to meet legal requirements varies from one regulatory program to the next, and within a program, depending on the specifics of the regulation or multiple regulatory acts which apply to permitting. The Corps of Engineers and other regulatory agencies that administer the Section 404 program must comply with the legal requirements of the Clean Water Act, the National Environmental Policy Act, the Endangered Species Act, the Fish and Wildlife Coordination Act and other environmental legislation. State and local regulatory agencies must also comply with similar state environmental acts, in addition to state wetland statutes. This adds requirements to wetland assessment, such as the need for field surveys to determine whether there may be an impact on endangered species at a wetland site. Federal agencies or permit applicants must typically prepare an environmental assessment to determine whether a proposed Section 404 permit will have a significant impact on the environment. If a significant impact appears likely, an environmental impact statement will have to be prepared. Many regulations require the regulatory agency to apply specific criteria as part of permit processing. Permits will be subject to legal challenge if they fail to include such required analyses.

5. **Agencies Have Broad Discretion.** Only a few court cases have addressed specific wetland assessment methods, although many cases address natural resource information gathering and analysis procedures. Courts have held that agencies have broad discretion in selecting assessment approaches. However, in several cases, courts have held that ecological models were insufficient to evaluate potential impacts of forest management plans on endangered species and population surveys were required. These cases suggest that ecological models may not meet legal needs if the models fail to provide specific enough information to meet regulatory criteria.

6. **General Presumption of Validity.** Regulatory agencies are supported in their information gathering and analyses by a general legal presumption of the validity of regulations and fact-finding activities. Landowners who challenge regulations must show that the regulations are invalid, either in general or as applied to their properties. On individual permits, landowners must show that the actions of regulatory agencies were not supported by "substantial" evidence. Courts give great weight to the factual determinations of expert agencies. However, courts also carefully examine the basis for regulations when permit denial or attached conditions have severe economic impact on permit applicants. This is particularly true when regulations may prevent economic use of entire parcels of private land.

7. **Best Possible Technique Not Required.** Courts do not require that agencies use the best possible assessment techniques or develop the best possible data, but agencies need a rational basis for regulatory decision-making. No court has held that wetlands must be rated or ranked. Agencies may use professional judgment in assessment. Courts have sustained wetland maps with some inaccuracies, particularly if maps are combined with field verification procedures to correct those inaccuracies and define wetland boundaries on a case-by-case basis.

8. **Shifted Burdens Acceptable.** Regulators can shift some of the research burden to permit applicants. The amount of information gathering can vary, depending on the types and degree of the anticipated project impacts and the proposed impact reduction and compensation techniques.

9. **Some Concern with Takings.** Regulators need to be somewhat concerned about possible takings challenges due to a series of conservative U.S. Supreme Court decisions on this issue in the last decade and an increased number of successful takings challenges in federal and state courts. However, there have been relatively few successful takings challenges as long as regulations permit some reasonable use of lands. Regulators should, early in the evaluation of a permit application, determine whether permit denial would deny all economic use of an entire property, which may pose a takings challenge. Detailed and accurate research and analysis may then be justified, with an emphasis on the possible nuisance impact of the proposed activity, since courts hold that landowners have no right to make a nuisance of themselves.

Box 1 addresses these and other common legal questions in greater depth.

Box 1
Report Summary:
Common Legal Questions About Wetland Information Gathering

- **What sort of information is needed to support the validity of wetland regulations?** Courts have upheld the general validity of federal, state and local wetland regulations, based on the information about wetland characteristics found in scientific books, reports, articles and expert testimony. General validity is important because it also establishes a strong presumption of validity for case-by-case information gathering and regulatory decision-making on individual permits.

- **Does general validity mean that regulations are valid for all properties?** No. Landowners may attack the constitutionality of regulations as applied to their properties, even when regulations are valid in general. Regulatory agencies must be able support the validity of the regulations against claims of uncompensated taking, denial of due process or other challenges. However, as noted above, the presumption of validity of regulations and correctness of agency research and decision-making helps meet this challenge. A court decision of constitutionality or unconstitutionality, as applied to a specific property, will not determine the outcome of challenges at other sites.

- **How closely must regulatory standards be tailored to regulatory goals?** Courts have broadly upheld wetland regulations against challenges that regulations are not connected to regulatory goals. However, courts are now requiring a stronger showing of nexus than a decade ago, particularly when regulations have severe economic impact on property owners. Courts are also in some instances requiring that regulatory agencies show that conditions attached to regulatory permits are roughly proportional to the impacts of the proposed activity. The detail and accuracy of assessment should increase as the severity of impacts increases, and there should be a proportional relationship between conditions attached to regulatory permits and achievement of regulatory goals.

- **Have the courts endorsed a particular wetland assessment approach?** No. Courts have, in only three reported cases, addressed the adequacy of specific wetland assessment techniques. They held that the techniques used by the regulatory agency were sufficient in two out of the three.. The outcome of every legal challenge to wetland regulations depends on the adequacy of the regulatory agency's information gathering and analysis, and the strength of the facts. Courts require that regulatory agencies follow procedures established in the enabling statute or regulations.

- **Must a regulatory agency accept one scientific opinion over another?** No. Courts have afforded regulatory agencies considerable discretion in deciding which scientific opinion to accept, as long as the final decision is supported by substantial evidence. Courts have also held that agencies do not need to eliminate all uncertainties.

- **Does an agency need to quantitatively prove that each wetland is characterized by certain functions and values?** No. Courts have upheld conservancy zoning for wetlands based on a range of factors relevant to the suitability of wetland sites for particular purposes, without determination of the functions and values of individual wetlands. Courts have also sustained agency adoption of case-by-case permitting approaches, without determination of the functions and values of individual wetlands. No court has invalidated regulations for failing to distinguish the ecological values of individual wetlands. However, courts have required that regulatory agencies demonstrate the rationality of individual permit decisions, which has required in some instances the documentation of functions, values, hazards and other factors.

- **Under what circumstances are quantitative assessments vulnerable to legal attack?** Quantification of wetland functions may be vulnerable to legal attack if it is conceptually flawed or the regulatory agency cannot undertake the assessment as stipulated in the regulations. For example, when asked to defend a specific calculation, an agency may be vulnerable if the calculation is based on limited data or incorporates assumptions that are not valid in the specific context. In addition, agencies must be careful when adopting any assessment method that requires quantitative evaluation, as agencies are held to their own standards by courts, including standards that may be unrealistic.

- **What sorts of information may agencies use in regulatory assessment?** Agencies may use many types of information in mapping, planning and permit evaluation, including observations, aerial photos, wetland maps, reports and information prepared by other agencies, expert opinions and even non-expert information provided by landowners. The strict legal rules of evidence do not apply to most public hearings or information gathering and analyses.

- **May an agency be subject to successful judicial attack for failure to consider some critical factors in assessment?** Yes, in some circumstances. For example, courts have often held that some agency environmental impact statements are invalid for failing to consider the full range of factors relevant to environmental impact. Courts have also invalidated regulatory decisions for failing to consider impacts of proposed activities on pollution, habitat or other factors listed in regulatory criteria.

- **Do assessments need to be updated if conditions change?** Yes. In some instances courts have held that maps and other assessments, such as environmental impact statements, need to be updated if conditions substantially change and new information becomes available.

- **May a regulatory agency regulate wetlands other than those specified in an enabling statute?** No. Agencies can only regulate the types of wetlands specified in the enabling statute.

- **Must wetlands be mapped?** No, only if a statute or regulation says they must be mapped.

- **Are wetland maps invalid if they contain some inaccuracies?** No. Courts have upheld maps with some inaccuracies, particularly if there are regulatory procedures available for refining map information on a case-by-case basis.

- **Can landowners be required to carry out wetland delineations? Provide other types of wetland assessment data?** Yes. Courts have held that regulatory agencies can shift a considerable portion of the assessment burden to landowners, and that the amount of required information may vary, depending on the issues and the severity of impact posed by a specific permit. Agencies can also charge permittees "reasonable" fees for permitting.

- **Can some landowners be required to provide more information than others?** Yes. Regulatory agencies can vary information requirements, depending on the types and magnitude of issues raised by a permit application. For example, regulatory agencies can require detailed habitat information where a rare or endangered species may be present. Agencies can require more detailed flood hazard information for a proposed activity near a stream or soil borings for possible toxics in a wetland that was used as a dump.

- **Have courts endorsed one wetland definition over another?** No. Courts have held that it is up to legislative bodies and administrative agencies define wetlands.

- **How important is land ownership information in regulatory permitting?** At state or local levels, land ownership often determines who has jurisdiction over specific activities. Land ownership also affects takings determinations. No landowner has the right to place fill or alter a wetland on public or private land, although the landowner may have a riparian right to certain uses of public waters. Also, only landowners have the right to challenge regulations as an uncompensated taking.

- **What types of wetland data is most important in meeting takings challenges?** Land ownership, type of water (navigable or not), natural hazards, threats to public safety and nuisance impacts are particularly important in meeting takings challenges.

- **Can an agency rely upon best professional judgment in fact-finding?** Yes. This is the way most assessment decisions are made and courts have given agencies leeway in use of professional judgment.

- **Is economic impact on landowners considered in wetland regulatory permitting?** Yes. Courts often examine the factual basis for regulations more carefully when the regulations have severe economic impact on private property owners. Also, under regulations (e.g., Section 404) that require a public interest review, a balance must occur between the public need for the regulation and the impact, including economic impact, on private property owners. Under other regulations, economic impact may not be relevant during initial phases of permitting, but it becomes relevant if a permit is denied and the applicant applies for a variance. At the local level, variances are typically only issued if a landowner can show that absent the variance, there are no economic uses for the land.

- **Are highly restrictive wetland regulations, including buffers and large lot sizes, valid?** Courts have upheld highly restrictive wetland regulations in many contexts, particularly where a proposed activity may have nuisance impacts on other properties. However, courts have also held wetland regulations to be a taking, without payment of compensation, in a few cases where the regulations denied all economic use of entire parcels of land.

- **Do all wetlands need to be assessed and regulated at once?** No, provided there are rational reasons for distinctions.

- **Does comprehensive planning for a town or region as whole, prior to regulation, help meet legal challenges?** Yes, courts have endorsed comprehensive planning and regulatory approaches as improving the rationality of regulations, although they have also upheld regulations not preceded by such planning in many instances.

- **Under what circumstances is a court most likely to hold that wetland regulations take private property?** Courts are likely to find a taking when regulations deny all reasonable economic uses of entire properties, and when proposed activities will not have offsite nuisance impacts. Landowners are more likely to succeed when they purchased the property prior to the adoption of the regulations although subsequent purchase does not prevent a suit.

- **May a regulatory agency be liable for issuing a permit for an activity that damages private property?** In some instances, yes, if the permitted activity results in flood, erosion or other physical damage to other private property owners. This is usually not a major concern, except in wetland flood and erosion hazard areas.

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Legal Challenges

Why should wetland regulatory agencies be legally concerned about the wetland information available to them including scale and accuracy?

Increasingly, landowners who are dissatisfied with wetland regulations challenge them in court. More than 1,000 state and federal wetland cases have been reported to date – a considerable body of law – and many other cases are now in litigation.

In the last decade, the U.S. Supreme Court, federal courts, and state and local governments have begun to scrutinize wetland and other regulations more carefully in terms of the relationship between regulatory goals and restrictions, including the imposition of conditions. Courts also examine regulations more thoroughly in terms of the possible taking of private property with payment of just compensation. The U.S. Supreme Court in Lucas v. South Carolina Coastal Council, 505 U.S. 1003 (1992) adopted a rule for taking that holds that regulations which deny all economic use of property are a taking, unless proposed activities would not be allowed under the principles of state property law. (See Chapter 5.) Relevant principles of state property law include public rights, such as public trust and common law limitations on private activities.

Courts at various levels of the judicial system have applied relatively consistent approaches in determining the constitutionality of wetland and other regulations. The remedies are also similar. If a court decides that a landowner has a valid case (e.g., violation of due process rights, taking without payment of just compensation), the court may rule that:

- **Regulations are null and void, if the court holds that regulations are, overall, unconstitutional.** This is rare, but may occur if a government unit adopts regulations with invalid objectives, regulations totally lacking in factual support, or regulations that on their face pose a taking.

- **Regulations are unconstitutional and unenforceable as applied to a particular property, if the court holds that regulations violate the rights of a property owner, although the regulations may be valid in general.** This is the most common, successful challenge to wetland regulations although still relatively rare.

- **The landowner is entitled to monetary damages (fair market of property, interest) assessed against a regulatory agency or unit of government for a taking of private property.** Damages have only been awarded in a few instances in wetland contexts where a takings is found, but the potential exists for more successful suits if regulations too severely restrict private property or lack a factual basis.

Court cases that challenge regulations place a variety of administrative and financial burdens on regulatory agencies. Even when the agencies win, it is costly to defend suits. Regulatory agencies, particularly federal and state, process thousands of permits each year. Agency budgets and staff are limited. Most agencies could not function if they had to face expensive and time-consuming litigation on many permit decisions. And, if an agency loses, it may need to pay the

landowner's costs and expert fees, as well as purchase the land. In addition, landowners who believe that regulations violate their constitutional rights may not only sue an agency in court, but also lobby Congress, a state legislature, or a local legislative body to repeal or amend a regulatory law or to "de-fund" a regulatory agency. Legal and political considerations are particularly entwined when property rights and allegations of uncompensated takings are involved.

The aim of a regulatory agency must be to stay out of court on all but the exceptional permit decisions. To do this, the regulators must provide an information base which will not only satisfy legal requirements. Landowners must be at least partially satisfied with the data gathering burdens that have been shifted to them. They must be willing to accept regulatory fact-finding and permit decisions or they will challenge those decisions. For these reasons, equitable burdens, consistency, and research credibility are important.

Much of the pressure for regulatory reform comes from dissatisfaction with the information gathering requirements that regulatory agencies impose on landowners. Landowners often claim they are required to provide too much irrelevant information; that assessment procedures do not provide sufficient predictability; that procedures are not systematic and fair (one landowner is treated differently from others); and that assessments take too long and shift too great a financial burden to them.

Although agencies need to stay out of court on routine permits, they must design their wetland information gathering and analysis efforts to help them win, if regulations are challenged as arbitrary, capricious, discriminatory, as a taking or on other grounds. Successfully defending actions requires not only adequate information gathering and analysis, but also storage of this information in a form suitable for presentation in court in a convincing manner.

A More Detailed Look at the Legal Grounds for Challenges

Landowners may legally challenge regulations in court on one or more of the following grounds:

1. A legislative body or agency failures to follow statutory and administrative regulatory criteria and procedures. Most wetland regulations do not require regulatory agencies to carry out specified types of wetland assessment (fact-finding and analyses activities) although some state statutes do require wetland mapping. However, statutes and regulations do establish wetland definitions, regulatory goals and criteria, which must be applied by regulatory agencies. The agencies must gather and analyze the information needed to carry out these tasks (e.g., prepare an environmental impact statement). In this way statutes and regulations indirectly require specific types of fact-finding and analyses.

For example, certain wetland information is needed for a regulatory agency to legally assert jurisdiction over a permit application. A regulatory agency must typically determine whether a wetland is "regulated" consistent with the wetland definition, whether the type of proposed activity is designated "regulated" by the regulations, and whether it lies within wetland boundaries. Fact-finding to apply wetland definitions and to gather other jurisdictional information is critical; without it, the agency cannot regulate an activity. See, for example, Coto v. Renfrow, 616 So.2d 467 (Fla. App. 1993) in which the court held that a regulator agency

could not require permits for inland mangroves because the county code regulated only coastal wetlands and these mangroves were found at an inland location.

> Regulatory agencies need other types of information in order to apply regulatory criteria to specific permit applications. This may include information about functions/values, natural hazards, potential threats to health and safety from onsite toxics, nuisance impacts on adjacent properties and compliance with water quality standards, among other impacts of the proposed activity. This information must be available, through case-by-case or general information gathering, at sufficient scale and accuracy to analyze permit applications in terms of regulatory goals and criteria and evaluate the sufficiency of proposed impact reduction and compensation measures.

Agency failure to follow regulatory procedures/criteria has quite often been a successful ground for challenge to wetland regulations. Landowners usually win if regulatory agencies have clearly failed to comply with legally established procedural requirements. For example, see Free State Recycling Systems Corp. v. Board of County Comm'rs for Frederick County, 885 F. Supp. 798 (D. Md. 1994). See also Hirsch v. Maryland Dep't of Natural Resources, 416 A.2d 10 (Md. 1980) in which the Maryland Court of Appeals held that state wetland regulations were invalid as applied to specific landowners because wetland "orders and maps" had not been filed "among the land records in the county" as required by statute. Instead, the maps had been placed in a file cabinet drawer in an area inaccessible to the public or to the title searchers.

In State v. McCarthy, 379 A.2d 1251 (N.H. 1977), the New Hampshire Supreme Court held that land was not subject to a wetland permit, although it was adjacent to tidal water and within 3.5 feet of a mean high tide because wetland vegetation did not grow there. The statute defined wetlands in terms of vegetation and the court held that the state had not proved an "essential element of jurisdiction" by proving that some of the specified vegetation grew or was capable of growing there.

Courts may also hold invalid regulations adopted by regulatory agencies and individual permit reviews for omitting to consider critical factors listed in a statute or regulations. For example, a Florida Court of Appeals in Booker Creek Preservation, Inc. v. Southwest Florida Water Mgmt. Dist., 534 So.2d 419 (Fla. App. 1988) held a regulation that failed to regulate stormwater discharges into wetland was invalid:

> (R)ule making powers of administrative agencies are necessarily limited to the parameters of the statute which confers on the agency its rule-making authority….A rule cannot substantially modify or amend the empowering statute by adding additional requirements…Nor can the agency, without sufficient statutory criteria expressed in the statute, vary the impact of a statute by restricting or limiting its operation, through creating waivers or exemptions…

Id. at 423.

From a wetland assessment perspective, the need to follow regulatory procedures means that an agency must comply with any statutory or other formal administrative requirements for mapping, hearings, etc. An agency cannot simply decide not to map, if the statute requires maps. An agency cannot decide not to conduct an environmental impact analysis, if the statute requires

such analysis. Conversely, if an agency formally adopts an assessment method, it may be legally required to apply this method.

2. A legislative body or agency adopts regulations for invalid regulatory goals. Landowners may also claim that wetland regulations have been adopted to serve invalid goals and, therefore, deny due process. Landowners are rarely successful on this claim in wetland contexts because state and federal courts have endorsed a broad range of wetland protection goals.

The U.S. Supreme Court in Berman v. Parker, 348 U.S. 26 (1954) and other courts have held that courts have a small role in deciding the validity of legislative goals for exercise of police powers. Courts have broadly endorsed wetland regulations as serving valid goals, such as flood reduction and pollution control. See, for example, Moskow v. Comm'r of Dept. of Envtl. Mgmt., 427 N.E.2d 750 (Mass. 1981). However, courts have held that wetland and other regulations cannot be used to depress property values prior to purchase or to force public access on private lands. For example, see San Antonio River Auth. v. Garrett Bros., 528 S.W.2d 266 (Tex. 1975).

Courts have given different weights to wetland objectives in deciding whether regulations take property. See discussion of "takings" in Chapter 5. Courts give great weight to prevention of nuisances and prevention of threats to public safety. Therefore, documentation of these objectives is important in wetland assessment for a permit application when a takings claim is possible.

3. The regulations are subject to vagueness, ambiguities and inaccuracies. While landowners have not succeeded on vagueness or uncertainty claims alone, vagueness or ambiguity may contribute to a court holding regulations invalid in a particular situation on another ground (e.g., arbitrariness).

Landowners may claim that wetland maps or other sources of data are too vague, ambiguous or contain inaccuracies and, therefore, deny due process. For example, arguments have been made (unsuccessfully) that the Section 404 wetland definition is too vague. See United States v. Tull, 769 F.2d 182 (4th Cir. 1985).

Landowners have also argued (unsuccessfully) that the Swampbuster program is unconstitutionally vague. See Downer v. United States Dep't of Agric. and Soil Conservation Serv., 894 F. Supp. 1348 (D.S.D. 1995). In New Hampshire Wetlands Bd. v. Marshall, 500 A.2d 685 (N.H. 1985), the New Hampshire Supreme Court upheld the New Hampshire tidal wetland statute's wetland definition against claims of vagueness. The court noted that:

> We see nothing vague or overbroad about the definitions in this statute… The experts at trial appeared to have little difficulty determining whether defendant's property met the statutory definitions. The actual point which the defendants seem to make with this argument is that the definitions should be changed... Whether definitions other than those now contained in the statute would be more appropriate is, of course, an issue the defendants should raise with their legislators, not with this court.

Id. at 692.

Landowners may also argue that wetland regulatory maps are not at adequate scale or contain inaccuracies.

From an assessment perspective, regulatory agencies can have confidence that wetland definitions and large-scale regulatory maps that contain some inaccuracies will hold up in court, particularly if there are procedures for refinement of the maps on a case-by-case basis. This is discussed in greater depth in the chapters which follow. On the other hand, agencies should realize that vagueness and ambiguity may contribute to an overall determination of unconstitutionality on other grounds.

5. The regulation discriminates. Landowners may claim that wetland regulations do not treat similarly situated landowners in a similar manner and, therefore, discriminate against them and deny due process. For example, landowners may argue that some landowners are regulated, while others in similar situations are not. They may argue that detailed assessment is required for some wetlands, but not others.

Landowners have rarely been successful on discrimination claims in a wetland or floodplain context. For example, in Sands Point Harbor, Inc. v. Sullivan, 346 A.2d 612 (N.J. Super. Ct. 1975), the New Jersey Superior Court sustained wetland regulations adopted for one coastal area, but not another, against a challenge that such selective regulation was a taking. The court noted, "The Legislature is granted a wide range of discretion to treat the subject matter of legislation differently as long as classification is reasonable and related to the basic object of the legislation." Id. at 613, 614.

See also Potomac Sand and Gravel Co. v. Governor of Maryland, 293 A.2d 241 (Md. 1972), cert. denied, 409 U.S. 1040; J.M. Mills, Inc. v. Murphy, 352 A.2d 661 (R.I. 1976).

In Re Central Baptist Theological Seminary, 370 N.W.2d 642 (Minn. App. 1985), a Minnesota court upheld a statute that set forth different standards for protection of urban and rural wetlands:

> Wetlands provide a unique natural ecosystem because they are capable of supporting a greater diversity of life than other habitats…The legislature's definition of wetlands includes type 4 wetlands which are two and one-half acre or more acres in incorporated areas but ten or more acres in unincorporated areas. The legislature has clearly expressed an intent to protect urban wetlands and it is our duty to support that goal…We have no hesitation in doing so in this case.

Id. at 649.

However, courts often consider discrimination as part of their broader taking or "arbitrary or capricious" analysis. A regulation that is somewhat discriminatory has greater probability of being held invalid as a taking. See Joseph Sax, Takings, Private Property and Public Rights, 81 Yale L.J. 149 (1971); Jon Kusler, Open Space Zoning: Valid Regulation or Invalid Taking, 57 Minn. L. Rev. 1 (1972).

From a wetland assessment perspective, agencies can feel confident that they will not be successfully challenged with a discrimination claim if they apply different assessment approaches to different properties or regulate some wetlands and not others, if there are sound

reasons for doing so. But, agencies should also be aware that a court's perception of discrimination may increase the likelihood of a successful taking or arbitrariness claim.

6. The regulation is unreasonableness, arbitrary or capricious. Landowners may claim that the regulations are unreasonable, arbitrary, capricious or otherwise lack a rational basis because the regulatory standards or conditions are not sufficiently related to regulatory goals. For example, they may argue that the factual basis for a regulatory decision, including delineation of boundaries, application of regulatory criteria (e.g., alternatives analysis in a particular circumstance) and the attachment of specific conditions, are unreasonable.

As will be discussed in greater depth below, landowners have rarely challenged wetland or floodplain regulations successfully, based on claims of unreasonableness, due to the technical basis for most wetland regulations and the strong deference of courts to expert agency fact-finding.. Courts broadly defer to agency "professional judgment" in fact-finding as long as an agency has some reasonable factual basis for rules or decisions. However, courts are now scrutinizing regulations more carefully than in the past, particularly when regulations severely restrict the use of private property. In addition, courts are more likely to hold that regulations take private property if courts think that regulations may be somewhat arbitrary or capricious.

7. The regulations "take" private property without payment of just compensation. Landowners quite often challenge highly restrictive wetland regulations as a taking of private property. Although rarely successful, this is the most common legal challenge to regulations. See Chapter 5. A takings challenge is more of a problem for conservation zone regulations, which prohibit all or nearly all fills and other private activities.

The 5th Amendment to the U.S. Constitution and similar provisions in state constitutions provide that governments must not take private property without payment of just compensation. However, federal and state courts, including the U.S. Supreme Court, have broadly upheld wetland regulations, in general, as constitutional and not a taking, and have rejected blanket taking claims. If the regulations deny landowners all economic use of entire properties and proposed uses do not have nuisance impacts, courts have sometimes held that wetland regulations are a taking.

From a wetland assessment perspective, agencies need to consider potential takings challenges in their assessment efforts, particularly when regulations may deny all economic use of individual properties. Regulatory agencies should identify such situations early in permitting and tailor information gathering to the needs of the situation.

General Constitutionality and Case-by-Case Determination of Constitutionality

Courts approach determination of the constitutionality of wetland regulations in two stages that have assessment implications.

1. Determination of overall constitutionality. Courts first examine the overall constitutionality of wetland, floodplain, zoning, subdivision control and other place-based regulations. They determine whether the regulation is constitutional, in a general sense, in terms of adoption in compliance with specified regulatory procedures, adequacy of regulatory goals, due process, and taking. See, e.g., Euclid v. Ambler Realty Co., 272 U.S. 365 (1926); Nectow v. Cambridge, 277

U.S. 183 (1928). The U.S. Supreme Court and lower federal, state and local courts have broadly upheld wetland regulations, except in a relatively small number of cases where regulations were not adopted consistent with regulatory procedures or where regulations prevented all economic uses of the area.

To support regulations against such blanket challenges, regulatory agencies have successfully introduced articles, textbooks, maps and expert testimony on the functions and values of wetlands, the presence of natural hazards and other features. Courts have broadly sustained regulations, based on these types of information, against blanket challenges.

Once a court determines that regulations are, in general, constitutional, there is a strong presumption that the regulations, as applied to individual properties, are also constitutional. But, landowners may rebut this presumption.

2. Determination of constitutionality as applied to specific property. Courts typically need to determine whether regulations are constitutional as applied to a specific property even if the regulations are valid in general sense. To determine this, courts take into account many factors, such as goals of regulation, factual basis for the regulation, impact on the landowner, expectations of the landowner at the time of purchase, and whether economic uses for the land remain. Regulations may be constitutional, in general, but unconstitutional as applied to a particular property because the regulations are arbitrary, discriminatory or a taking in a site-specific sense. For example, see Nectow v. Cambridge, 277 U.S. 183 (1928). With this pin-point approach to constitutionality, the burden is on landowners to show, in court, that the regulations are unconstitutional as applied to their property.

This case-by-case approach to determination of constitutionality has important implications for wetland assessment. The assessment methods that an agency adopts must support regulations in general but also be sufficiently accurate and detailed to sustain the regulations against specific, parcel-level challenges of arbitrariness, discrimination, unreasonableness or taking. This does not mean that regulatory agencies needs detailed information for all wetlands. Information is required only for wetlands subject to permit applications. And the information is usually gathered on a permit by permit basis.

How Does a Court Decide?

A landowner who challenges a wetland regulation as unconstitutional typically focuses on the impact of the regulation on his or her property, since blanket challenges to regulations are rarely successful. The landowner usually simultaneously argues that the regulation is unconstitutional from a variety of perspectives – agency failure to follow procedures, arbitrariness, discrimination, taking, etc.

A court or jury must then decide whether any of the landowner's arguments are valid. Theoretically, the court applies separate legal theories, case law precedents and makes separate findings with regard to the validity of each of the landowner's arguments. However, courts also look at the overall reasonableness and equity of the regulation.

Courts are more likely to find that a regulation is arbitrary, capricious or a taking if they think the regulation is not factually supported, the benefit of the regulation to society does not justify

the burden imposed on the landowner, or that the landowner is being unfairly treated. See Jon Kusler, Open Space Zoning: Valid Regulation or Invalid Taking? 57 Minn. L. Rev. 1 (1972).

When deciding whether regulations are constitutional as applied to a particular property, courts examine the need for and goals of the regulation, and the regulation's overall fairness. Courts balance the impacts of the regulation on the landowner, including landowner expectations at the time regulations were adopted, the cost of the land, taxes, and whether economic uses as still possible for the land.

This balancing process is important from an assessment perspective. More detailed data gathering, with greater emphasis on health, safety and nuisance impacts, is needed for regulatory permits when a landowner has few economic uses for the land and denial of a permit may result in denial of all economic use of land. In contrast, ecological information alone may be sufficient for a rural permit where property values are low, lots are large and a variety of economic uses exist.

Regulatory agencies need to use flexible assessment approaches that allow them to tailor the precision and accuracy of research and the types of data gathered to the impacts on property owners.

Special Features of Wetland Regulations

Courts approach wetland regulations as they do to other regulations, but wetland regulations have some special features which are outlined in Boxes 2, 3 and 4. These features have data gathering and analysis implications:

- Wetland regulations involve many scientific issues and wetland permits at federal and state levels are typically issued by experts. This is important because courts are likely to defer to federal and state agency scientific research. There is a strong presumption of technical correctness and the burden is on the landowner to show the inadequacy of the fact-finding. See discussion below.

- Courts are particularly concerned about takings in wetland contexts because wetland regulations often impose tougher restrictions on private property than other regulations. Most other regulations allow economic uses. Some state and local wetland regulations essentially prohibit all but open-space uses for wetlands. This means that courts examine wetland regulations, including case-by-case permitting decisions, with particular care in regard to the taking issue, as well as arbitrariness, discrimination and other due process challenges.

- Regulatory agencies may be subject to not only judicial challenges for refusing to issue permits, but also common law lawsuits if they issue permits that damage adjacent property by increasing flooding, erosion, etc. Agencies (particularly local governments), therefore, need to assess the impact of a proposed activity on wetland functions and other characteristics, and the resulting impacts on other property owners. (See discussion in Chapter 6.)

Not all of the information needed by regulators has to be available up-front. It may be gathered at various times and at different stages in a regulatory program or in processing a permit. For example, when mapping is a prerequisite to regulation, certain information must be available up-front for wetland mapping. Other information is needed only as landowners submit permits. Still other types of information are only needed for monitoring and enforcement.

Certain types of information may only be needed when or if a permit decision is challenged in court. For example, once a landowner threatens or files a lawsuit, a regulatory agency often undertakes more detailed data gathering and re-examines the permit decision from several perspectives: Can we win this one in court? How does our written record look for the permit? Are we vulnerable to challenge? What additional information do we need? If the regulatory agency thinks it can win the case, it undertakes additional research is undertaken to support the decision and meet the landowner's legal challenges. If the agency thinks it will lose, negotiations often take place with the landowner to issue the permit, with or without conditions.

Box 2
What Is Special About Regulations In Terms of Information Gathering and Analysis Needs?

1. **Private lands and landowner rights are involved.** This has legal, political and "who carries out the assessment" implications, and affects the type of information and the scale and accuracy needed when regulations may be challenged in court.

2. **Private landowners and consultants typically carry out much of the assessment on mid–large projects due to the workloads of regulatory agencies.** Assessment techniques must, therefore, be easy to understand and use.

3. **Landowners typically propose changes to wetlands (e.g., fills, drainage) rather than open-space uses (common for wetlands on public lands, wetland acquisition).** Wetland conditions need to be evaluated before and after the changes to determine impacts on processes and people, and the adequacy of impact reduction and compensation measures.

4. **Regulators need information to answer legal (jurisdictional) questions, such as:**
   - Is it a regulated wetland?
   - Is it a regulated activity?
   - Where are the boundaries of the wetland?
   - Is the wetland or portion of the wetland in public/private ownership?

5. Regulatory agencies must apply multi-objective goals and permitting criteria to permit applications. Regulators need to generate detailed, site-specific information for these sites, but not necessarily for all wetlands in the region**.** State and local regulators often need to determine the appropriateness of placing a proposed activity in a wetland versus an upland or aquatic area. For example, the Section 404 public interest review provides broad regulatory goals and criteria for determining the public interest, including consideration of both functions and values.

6. Regulatory agencies must comply with legal procedural requirements. This affects the amount of time regulators have to gather information and, to some extent, the procedures for gathering information.

7. Regulatory agencies must be able to defend regulations against constitutional challenges. Information gathering and analysis procedures must provide wetland boundary information, ownership, nuisance impacts of proposed activities and other types of information needed for such defenses.

8. Information gathering must be tailored to the specifics of the regulatory context, which often involves:

- Urban or urbanizing area
- Altered wetland and altered hydrology
- Changing hydrology
- Small fill or drainage proposed
- Only a portion of a wetland affected

9. Some regulations require that the regulatory agency undertake up-front mapping and characterization on a geographical or area-wide basis. This means that state and local regulatory agencies must often allocate scarce funds to mapping.

10. Regulatory agencies need time series monitoring information on permitted activities to determine compliance and for enforcement. Few techniques emphasize monitoring.

Box 3
Similarities Between Federal, State and Local Regulations From an Assessment Perspective

Similarities between federal, state and local regulations with regard to assessment include:

1. Broad, multi-objective goals and regulatory criteria must be applied such as:

- Protect various functions/values – recreation, fisheries, pollution control, rare or endangered species habitat, etc.,
- Reduce losses from flood and other natural hazards
- Protect health/safety
- Prevent nuisances
- Achieve no net loss of functions/value
- Protect or serve the public interest
- Restore and maintain the chemical, physical and biological integrity of waters

2. Agencies must evaluate:

- Wetlands in an existing condition and wetlands in an altered condition (with project, with restoration, etc.)
- Whether practical alternatives exist to the proposed activity
- The adequacy of proposed impact reduction and compensation measures

3. **Agencies must apply a "public interest" or a comparable standard in permitting including a no net loss standard in many programs.** This may include consideration of wetland capacity, opportunity and social significance.

4. Agencies must follow permit application procedures, notice and hearing requirements and administrative and/or appeal procedures wed.

5. Short time frames for permitting must be complied with, although times may be extended due to insufficient information or other reasons.

Box 4
Some Differences in Assessment Needs and Capabilities of Federal, State and Local Regulations

1. **Many state statutes require state and local regulatory mapping. There is no regulatory mapping required at the federal level (Federal Section 404).**
2. **State and local wetland regulations are often part of geographically comprehensive planning which requires up front gathering of many types of data. Regulations of the Federal Section 404 program only apply to wetlands and waters on a case-by-case basis and typically focus only on wetlands.**
3. **Conservancy zone approaches are often applied at the local level. The Federal Section 404 program and most states use a case-by-case permitting approach.**
4. **A high level of expertise is common at federal and state levels; local expertise can be more limited.**

CHAPTER 2: AGENCY DISCRETION AND JUDICIAL REVIEW

Chapter Two considers judicial reactions to agency discretion in rule making, information gathering and decision making; it also considers the use of various types of information to support regulations. The issues are stated as questions with legal analysis following. Case law citations are included.

Do Wetland Regulatory Agencies Have Discretion In Selecting Among Various Assessment Methods and Procedures?

In general, courts have held that regulatory agencies have wide discretion in choosing among wetland assessment methods, as long as the statutes or regulations do not require the use of a particular technique. If a specific technique were required, an agency would need to use it. However, even then it would have some discretion with regard to scale and accuracy of information gathering. See Matter of Stone Creek Channel Improvements, 424 N.W.2d 894 (N.D. 1988) in which the court observed: "While an administrative agency is certainly bound by its own duly issued regulations…an agency nevertheless has a reasonable range of informed discretion in the interpretation and application of its own rules." Id. at 900. See also United States v. Deaton, 332 F.3d 698 (4th Cir. Md. 2003).

No federal, state or local wetland statute, administrative regulation or ordinance requires that a particular assessment wetland method be used, although a notice was published in the Federal Register in 1997 indicating an intent by the federal agencies to increase use of the Hydrogeomorphic assessment method (HGM) method over time. In fact, the term "assessment" has been mentioned in only a handful of more than 1,000 federal, state and local wetland decisions to date, and most of these concern wetland delineation.

Despite the lack of specific assessment requirements, legislative bodies have indirectly created information gathering and analysis requirements by establishing wetland regulatory goals and criteria, and the general procedures for regulation and permitting. Assessment techniques must provide the information needed to implement these provisions.

Statutes that provide administrative agencies with broad discretion in mapping and assessment, including fact-finding for particular permit applications, have been challenged in some court suits as giving regulatory agencies too much policy-making power and failing to define specific standards. But, broad delegation of discretionary powers to resource agencies in regulatory contexts has been widely upheld against legal challenge. The New York Court of Appeals stated the general rule that an expert agency may be granted broad discretion in permitting in Utica v. Water Pollution Control Bd., 156 N.E. 2d 301 (N.Y. 1959):

> The Legislature may constitutionally confer discretion upon an administrative agency only if it limits the field in which that discretion is to operate and provides standards to govern its exercise…That does not, however, mean that a precise or specific formula must be furnished in a field "were flexibility and the adaptation of the (legislative) policy to infinitely variable conditions constitute the essence of the program". Lichter v. United States, 334 U.S. 742 (1948).

> It is enough if the Legislature lays down "an intelligent principle", specifying the standards or guides in as detailed a fashion as reasonably practicable in the light of the complexities of the particular area to be regulated…Obviously, the Legislature cannot "constitutionally (be) required to appraise beforehand the myriad situations to which it wishes a particular policy to be applied and to formulate specific rules for each situation. Necessity therefore fixes a point beyond which it is unreasonable and impractical to compel (the Legislature) to prescribe detailed rules." American Power & Light Co. v. Securities and Exchange Comm'n, supra, 329 U.S. 90 (1946).

Id. at 304.

In Water & Power Resources Bd. v. Green Springs Co., 145 A.2d 178 (Pa. 1958) the Pennsylvania Supreme Court, in upholding a statute that grants the Water and Power Resources Board power to regulate encroachments in rivers, observed:

> The unsupervised and unregulated placement of obstructions, such as dams, in streams and rivers carries with it extremely great potentialities of danger to the lives of persons and properties within the area; even greater is the potentiality of danger in unsupervised and unregulated maintenance of dams and obstructions… With thousands of streams and rivers within the Commonwealth, each presenting its particular problem, it would have been impossible for the legislature to provide a hard and fast rule to govern each situation…The only practical approach was that the legislature herein adopted in the exercise of its police power, to provide for the regulation of all water obstructions, existing and in the future, in the Commonwealth's streams and rivers, setting up a general standard or criterion both for the placement and maintenance of such obstruction and to vest in an administrative agency the power to effect such regulation by the determination of the facts in each particular case and the promulgation of rules, in accordance with the underlying purpose of the statute and the general standard or regulation promulgated therein.

Id. at 182.

Although agency discretionary powers are broad, they are not unlimited. Agencies must base decisions on criteria set forth in regulatory goals and statutes. For example, a Massachusetts court in Fafard v. Conservation Comm'n of Reading, 672 N.E.2d 21 (Mass. App. 1996) held that municipal denial of a permit near a wetland was arbitrary when it was not based on a violation of a specific bylaw provision.

Is Agency Fact-Finding Presumed Correct?

Presumptions are legally important in wetland regulations. Presumptions in favor of the validity of wetland regulations support agency fact-finding. Because of the highly complex and dynamic nature of wetlands and the difficulties encountered in determining wetland boundaries, natural hazards, public/private ownership boundaries and wetland processes, the presumption of correctness attached to agency decision-making becomes important and is difficult to rebut. Courts have held that legislative and agency information gathering on both general regulations and on individual permits bear a strong presumption of correctness and that the burden of proof

is on landowners to show incorrectness. See, for example, Matter of Stone Creek Channel Improvements, 424 N.W.2d 894 (N.D. 1988). FIC Homes of Blackstone, Inc. v. Conservation Comm'n of Blackstone, 673 N.E.2d 61 (Mass. App. 1996).

Courts have also usually deferred to an agency's interpretation of its own regulations. For example, in Matter of Stone Creek Channel Improvements, 424 N.W.2d 894 (N.D. 1988) the court observed: "(C)ourts generally defer to an agency's reasonable interpretation (or its own regulations) when the language is so technical that only a specialized agency has the experience and expertise to understand it or when the language is ambiguous." Id. at 900. Courts also give weight to an agency's interpretation of law when an agency applies "experience, technical competence, and specialized knowledge" to a decision. See Houslet v. State Dep't of Natural Resources, 329 N.W.2d 219, 222 (Wis. App. 1982). However, courts have also held that the burden in upon there regulatory fact-finder to articulate and substantiate requisite facts and legal conclusions and there must be reasonable relationship between development condition and impacts of development. See, e.g., Group v. Clackamas County, 922 P.2d 1227 (Or. App. 1996).

What Standard Does a Reviewing Court Apply to Agency Fact-Finding?

Agency fact-finding is afforded great weight in all jurisdictions, despite some differences in the language used to characterize the standard for judicial review. In general, courts will overturn agency regulatory fact-finding only if it lacks "substantial evidence." See, for example, Samperi v. Inland Wetland Agency, 628 A.2d 1286, 1292 (Conn. 1993) in which the court held that a court must sustain an agency's determination if "an examination of the record discloses evidence that supports any of the reasons given…The evidence, however, to support any such reason must be substantial…" See also Lovequist v. Conservation Comm'n of Town of Dennis, 393 N.E.2d 858 (Mass. 1979); City of Chula Vista v. Superior Court of San Diego County, 183 Cal. Rptr. 909 (Cal. App. 1982).

Other courts have held that they will overturn only if a decision is "arbitrary and capricious." This is the typical standard for review of Section 404 decisions and other federal actions reviewable in accordance with federal Administrative Procedures Act. See, for example, Bersani v. Robichaud, 850 F.2d 36 (2d Cir. 1988); City of Alma v. United States, 744 F.Supp. 1546 (S.D. Ga. 1990).

To satisfy their responsibilities in accordance with the National Environmental Policy Act, a federal regulatory agency must take a "hard look" at the environmental consequences of the proposed action. An environmental impact statement is needed if significant impacts are likely. See Washington Trails Ass'n v. United States Forest Serv., 935 F.Supp. 1117 (W.D. Wash. 1996). A court can reverse an agency decision not to prepare an environmental impact assessment or environmental assessment only if the agency determination was arbitrary and capricious.

Some courts apply a "fairly debatable" standard. See Moser v. Bownman Group, 686 Md. App. 694, cert. denied, 688 A.2d 446 (Md. App. 1996) in which the court held that when an issue is fairly debatable, a zoning agency's determination must be sustained, even if there is substantial evidence to the contrary.

How Closely Must Regulatory Standards, Including Conditions, Be Tailored to Regulatory Goals?

To meet due process and other constitutional requirements, the regulatory standards applied to wetlands must have a reasonable connection (nexus) to regulatory goals. Courts have, with very few exceptions, upheld wetland regulations and other resource protection regulations against challenges that they lack a reasonable nexus with goals. See, for example, Hallco Texas, Inc. v. McMullen County, 934 F.Supp. 238 (S.D.Tex. 1996) Court upheld regulations for solid waste within three miles of lake as fairly debatable. See also City of Austin v. Quick, 930 S.W.2d 678 (Tex. App. 1996). Court upheld city ordinance that regulated amount of contaminants in rainwater and amount of impervious surface in watershed area as not violating due process or equal protection.

Nevertheless, in light of two U.S. Supreme Court decisions in the last decade, courts are now examining the nexus for regulations, including conditions, with increasing care. In the first decision, Nollan v. California Coastal Comm'n, 483 U.S. 825 (1987), the Court held that requiring dedication of a beach access easement was not reasonably related to regulatory goals. In the second, Dolan v. City of Tigard, 512 U.S. 374 (1994), the court held that requiring dedication of a floodplain easement was not justified as roughly proportional to the impact of the proposed activity. More specifically, the court stated: "No precise mathematical calculation is required, but the city must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development." Id. at 391.

In general, courts have required a stronger showing of nexus and proportionality where regulations have severe economic impact on landowners. This has wetland assessment implications. In general, the detail and accuracy of information gathering, such as mapping, delineation and documentation of functions (e.g., flood conveyance), should increase as the severity of impact of the restriction on landowners increases.

Must a Regulatory Agency Accept One Scientific Opinion Over Another?

A regulatory agency need not accept one scientific opinion over another although as both have reasonable scientific basis. For example, a New York Court in Chiropractic Ass'n of New York, Inc. v. Hilleboe, 187 N.E.2d 756 (N.Y. 1962), considered the effect of possible divergences in scientific opinion on facts which form the basis for exercise of the police power. It concluded: "It is not for the courts to determine which scientific view is correct in ruling upon whether the police power has been properly exercised. The judicial function is exhausted with the discovery that the relation between means and end is not wholly vain and fanciful, an illusory pretense". Id. at 757. This was not a wetlands case but rule stated applies more generally to differences in scientific opinions.

The role of the courts is relatively limited in its review of agency fact-finding in adopting regulations. See, for example, Chemical Mfrs. Ass'n v. United States, 919 F.2d 158 (D.C. Cir. 1990), in which the court held that the EPA was entitled to considerable latitude when drawing

conclusions from scientific and technical research in passing its regulations pursuant to the Resource Conservation and Recovery Act.

The role of the courts is also limited in its review of agency fact-finding on individual permits or specific factual situations. See, for example, City of Alma v. United States, 744 F.Supp. 1546 (S.D.Ga. 1990), in which a court held that the EPA restriction on designation of a wetland as discharge site was supported by substantial evidence, despite opposing views by the Corps of Engineers and U.S. Fish and Wildlife Service.

Does an Agency Need to Eliminate Uncertainties In Fact-Finding and Analysis?

Courts have held that agencies do not need to eliminate fact-finding uncertainties. See City of Alma v. United States, 744 F.Supp. 1546 (S.D. Ga. 1990) and Northwest Envtl. Defense Ctr. v. Wood, 947 F.Supp. 1371, affirmed, 97 F.3d 1460 (D. Or. 1996), in which the court held that scientific studies supported the Corps' opinion in a wetland case, despite counter studies, and held that a reviewing agency need not eliminate all uncertainty.

However, courts may accept fewer uncertainties where regulatory decisions have severe impact on natural resources or society, or severe economic impact on landowners.

Can Landowners Be Required to Undertake Information Gathering and Analysis?

Wetland regulations typically require that landowners undertake several types of fact-finding when preparing and submitting permit applications, or to address regulatory agency concerns. Such information gathering may pertain to parcel characteristics, size and ownership, wetland and floodplain boundaries, existing regulations, wetland functions and natural hazards, among other characteristics.

Property owners have occasionally challenged information gathering requirements, but with little success. For example, in Iowa Natural Resources Council v. Van Zee, 158 N.W.2d 111 (Iowa 1968), a landowner claimed that the requirement to file an engineering report for a permit to build an obstruction in a flood area was a violation of his constitutional rights. The court rejected this, observing:

> Until it appears from a proper application relating the facts and planned alterations on one's land, the question as to its compliance with the state comprehensive plan for water resources cannot be resolved to the end that the best interest and welfare of the people be served. In flood control projects, only elevations and slope determined by a competent engineer are of real value in assessing the effects of structures on the flow in rivers, flood plains, and floodways. Reasonable requirements of an application are a part of the use restriction placed on the lands in the public interest.

Id. at 119.

Courts have upheld regulations and permit decisions that involve landowner fact-finding and assessment requirements in many regulatory contexts. See, Fitanides v. City of Saco, 648 A.2d 421 (Me. 1996) in which a Maine court held that submission requirements for conditional-use permits ensure that town board has sufficient information before judging the application. See also Board of County Comm'rs of Routt County v. O'Dell, 920 P.2d 48 (Colo. 1996) Burden is on a subdivider to propose a mitigation method (if at all) regarding fire hazards and wildlife habitat. Court cannot substitute its judgment for that of a zoning board. Midway Grading Co, Inc. v. Dep't of Env't, 473 S.E.2d 20 (N.C. App. 1996) Landowner must file erosion control plan if its actions will uncover more than one acre of soil. Friends of Crystal River v. Kuras Properties, 554 N.W.2d 328 (Mich. App. 1996) Landowner must show no feasible alternative to development in wetland.

Citizens to Protect Env't, Inc., v. Universal Disposal, Inc., 564 N.E.2d 722 (Ohio App. 1988) Applicant for permit to operate sanitary landfill failed to establish that proposed landfill was not in floodway.

Courts have held that landowner failure to provide requested information is a valid basis for denial of a permit. See, for example, Town of Newton v. Keeney, 661 A.2d 589 (Conn. 1995) Town failure to provide hydrologic study justified Commissioner of Environmental Protection denial of landfill permit. Ventures Northwest Ltd. Partnership v. State, 914 P.2d 1180 (Wash. App. 1996) Owner's failure to provide alternatives analysis information for Corps' denial of Section 404 permit and State Department of Ecology denial of water quality certification for wetland permit.

However, the information gathering burden and costs of assessment may also be relevant to the reasonableness of regulations and to taking. In addition, landowners are more likely to challenge wetland regulations (even if they don't win) if data gathering burdens and costs are great.

May Agencies Charge a Fee for Assessment?

Unless prohibited by statute, agencies can shift a portion of the cost of assessment to landowners by charging a permitting fee. See, for example, Baker v. Department of Envtl. Protection, 657 N.E.2d 480 (Mass. App. 1995) Fees required upon filing wetland permit applications were lawful regulatory fees, not unlawful taxes. See also W.S. Carnes, Inc. v. Supervisors of Chesterfield County, 478 S.E.2d 295 (Va. 1996) Fee ($25) to pay for engineering studies to determine whether new residential development was to be placed on "shrink-swell soil" valid.

CHAPTER 3: DEVELOPING AND USING VARIOUS TYPES OF INFORMATION

Chapter 3 considers the adequacy of various types, scales and degrees of accuracy of information used for wetland regulatory purposes.

What Types of Information Can Agencies Use In Assessment?

Agencies can, in general, use many types of information to assess wetlands for regulatory purposes, depending on the regulatory criteria, goals and other factors. For example, agencies can use the field observations of expert staff. Direct observations of wildlife, soils, hydrology and other wetland features are particularly persuasive evidence in court. In United States v. Weisman, 489 F. Supp. 1331 (D.Fla. 1980), the court upheld the Corps' determination that an area was wetland, based on observation and transects:

> The lowland portion of the Weisman property is correctly described as an evanaged, flat-top, flood-plain wetland forest. This description was based upon an intensive, two-day inspection by Mr. Lazor, who is familiar with the definition of wetlands. He testified, based on personal vegetation surveys, that wetland vegetation was located in abundance on the lowland portion of the property…. His survey involved nine transects in which he identified trees, shrubs, and herbaceous species at 20-foot intervals and computed the statistical frequency …

Id. at 1339.

See also State v. A. Capuano Bros., Inc., 384 A.2d 610 (R.I. 1978) in which the Rhode Island Supreme Court sustained the designation of a property as wetland based on the "uncontroverted testimony of two witnesses…." The court observed that:

> Martin Probney, a hydrologic engineer with the Soil Conservation Service of the United States Department of Agriculture, testified that the subject property was a wetland for it lay within the 50-year floodplain of the Meshanticut Brook. He testified at some length regarding how the 50-year floodplain was identified and what some its characteristics are. Goodwin, another expert, also identified both parcels as fresh water wetlands. As noted above, this evidence was not discredited either by other positive testimony or by circumstantial evidence, extrinsic or intrinsic. Evidence of this character is ordinarily conclusive upon the trier of fact.

Id. at 613.

Other sorts of information may be used as well. For example, agencies can use aerial photos to help identify, delineate and assess wetlands, and enforce regulations. See, for example, State v. A. Capuano Bros., Inc. 384 A.2d 610 (R.I. 1978) in which the Rhode Island Supreme Court generally endorsed the Department of Natural Resources' use of aerial photos to identify wetland boundaries. See also Dow Chemical Co. v. United States, 749 F.2d 307 (6th Cir. 1984) The EPA did not exceed its authority or 4th Amendment guarantees by using aerial photos for surveillance of a chemical plant. Callison v. Land Conservation and Dev. Comm'n, 929 P.2d 1061 (Or.App.

1996) City's use of aerial photos to locate watershed area was valid. Downer v. United States Dep't of Agric., Soil Conservation Serv., 894 F.Supp. 1348 (D.S.D. 1995) Soil Conservation Service reliance on aerial photos to determine area was Swampbuster wetland was reasonable.

Agencies can, under many circumstances, use reports and information prepared by other agencies. See, for example, Moore v. Illinois Pollution Control Bd., 561 N.E.2d 170 (Ill. App. 1990), in which the court held that a county board's determination that landfill was outside the 100-year floodplain, based on a Department of Transportation determination, was not against "manifest weight of evidence." Id. at 177. See also State v. City of LaCrosse, 354 N.W.2d 738 (Wis. App. 1984) State flood evidence relevant to local floodplain zoning.

Agencies can also use non-expert sources of information in permitting and in court, such as observations of fish, wildlife or other features. See, for example, Metropolitan Dade County v. Blumenthal, 675 So.2d 598 (Fla. App. 1995) in which the court held that "There are instances where lay persons are just as qualified as expert witnesses to offer their views on certain matters. For example, a lay person is just as qualified as an 'expert witness' to testify to natural beauty." Id. at 601. See also Georgia v. City of East Ridge, 949 F.Supp. 1571 (N.D.Ga. 1996) Court could rely on eyewitness observations of sewage and to determine that unnamed tributary was navigable water where it intersected the creek that flowed into another state.

Opinion evidence of experts in environmental planning or ecological sciences is a permissible basis for regulatory decision-making and in some judicial contexts. See, e.g., City of Chula Vista v. Superior Court of San Diego County, 183 Cal.Rptr. 909 (Cal.App. 1982). See also City of San Diego v. California Coastal Comm'n, 174 Cal.Rptr. 5 (Cal.App. 1981). Coastal Southwest Development Corp. v. California Coastal Zone Conservation Comm'n, 127 Cal. Rptr. 775 (Cal.App. 1976).

As one might expect, agencies and courts are likely to give particular weight to expert testimony on technical subjects. See, for example, Loesch v. United States, 645 F.2d 905 (Ct. Cl. 1981), a case involving government liability for causing erosion on private lands by construction and operation of navigational locks. The court observed:

> Erosion on rivers and streams is an extremely complex matter from the point of view of its genesis, its effects and its prevention. Why some banks erode and other similar ones do not is not fully known. A number of variables are involved in the erosion process and these variables may exert their influence individually or in a complex combination, in which case erosion becomes more difficult to understand, predict, and treat. In short, the cause(s) of erosion cannot be reduced to simple answers. As a result, these are cases where the testimony of experts is particularly appropriate since the trier of fact is presented with evidence of a highly technical nature involving geotechnical, hydrologic, hydraulic, geological, and climatic matters.

Id. at 914.

Expert testimony is needed in administrative proceedings and cases where the facts and circumstances, including the inferences to be drawn from these, exceed the understanding and average experience of the layperson.

The major difference between the way a lay witness and an expert is treated in a wetland case is that the lay witness may only attest to his or her direct observations, while an expert may give opinions or draw inferences from the facts, which an agency, court or jury would have difficulty evaluating due to its lack of specialized training. Experts may testify as to causation and "express an opinion upon the very issue before the jury." Schweiger v. Solbeck, 230 P.2d 195, 203 (Or. 1951).

May Any Agency Come Under Judicial Attack for Failing to Consider Factors?

Agencies can, in some instances, be challenged for failure to consider factors set forth in their regulations when assessing impacts of proposed projects. See Reuter v. Department of Natural Resources, 168 N.W.2d 860 (Wis. 1969). Department of Natural Resources must make a specific finding on the potential water pollution efforts of a proposed dredging project in accordance with a statute that requires a public interest review.

See also Houslet v. State Dep't of Natural Resources, 329 N.W.2d 219 (Wis. App. 1982). Town of Centerville v. Department of Natural Resources, 417 N.W.2d 901 (Wis. App. 1987) in which a Wisconsin appellate court held that a Wisconsin Department of Natural Resources had not carried out an adequate preliminary factual evaluation of the impact of a proposed landfill on wetlands.

This means that use of assessment methods that address only some of the information needed to apply regulatory criteria must be supplemented by other assessment techniques. What is not examined may be as important as what is examined. For example, a federal court of appeals in City of Carmel-by-the-Sea v. United States Dep't of Transp., 95 F.3d 892 (9th Cir. 1996) held that where an environmental impact report fails to address relevant factors, it precludes informed decision-making and public participation, and is invalid. The court held that the environmental impact statement failed to adequately consider impacts on wetland, cumulative impacts and alternatives.

See also Crema v. Dep't of Envtl. Protection, 471 A.2d 422 (N.J.Super. Ct. 1984) in which a New Jersey court held that the New Jersey Division of Coastal Resources failed to make sufficient findings when granting construction permits upstream from a national wildlife refuge as to why development should be sited in an environmentally sensitive area and as to the proposed development's likely environmental impact. The court held that administrative agencies must sufficiently account for relevant environmental factors.

See as well Town of Centerville v. Department of Natural Resources, 417 N.W.2d 901 (Wis. App. 1987) in which a Wisconsin appellate court held that a Wisconsin Department of Natural Resource's decision that an environmental impact statement was unnecessary for a proposed landfill was not based on adequate analysis, and that the department failed to consider, with specificity, the impact on nearby wetlands. The court concluded that the department had not developed a "reviewable record of sufficient depth to permit a reasonably informed preliminary judgment of the environmental consequences of the proposed action." The court concluded that:

> (D)epartment's treatment of this consideration [possible impact on wetlands] consists of a statement of the potential environmental danger, followed by an observation that

> technological ability exists to address it. This approach "leap-frogs" over any analysis of the potential problem or the solution. Moreover, it appears that the department is trivializing its own regulations regarding the protection of wetlands.

Id. at 906.

Courts have required the consideration of ecological factors in processing dredge and fill permits. See, Zabel v. Tabb, 430 F.2d 199 (5th Cir. 1970). See also Save Our Ten Acres v. Kreger, 472 F.2d 463 (5th Cir. 1970).

Failure to consider all relevant environmental factors related to impacts has been a common issue in cases dealing with the adequacy of environmental assessments or environmental impact statements pursuant to the National Environmental Policy Act and similar state acts. See Utahns v. United States DOT, 305 F.3d 1152 (10th Cir. 2002) in which the court held that the Corp's issuance of a 404(b)permit was arbitrary and capricious because the Corp failured to consider the impacts of a proposed highway on migratory birds. See also Calvert Cliffs' Coordinating Comm. v. United States Atomic Energy Comm'n, 449 F.2d 1109 (D.C. Cir. 1971). Environmental Defense Fund v. United States Army Corps of Eng'rs, 470 F.2d 289 (8th Cir. 1972). Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402 (1971).

Do Assessments Need to Be Updated as Conditions Change?

In some instances, courts have held that natural resource information must be updated as conditions change and new information becomes available. See, for example, A.H. Smith Sand & Gravel Co. v. Dep't of Water Resources, 313 A.2d 820 (Md. 1974) in which a Maryland court upheld a state statute that requires permits for activities in the 50-year floodplain, but held that maps defining the floodplain had been too broadly drawn. The court held that it was necessary to revise earlier maps in light of the flood experience of Hurricane Agnes.

See also City of Carmel-by-the-Sea v. United States Dep't of Transp., 95 F.3d 892 (9th Cir. 1996) in which the court held that agency reliance on "stale" wetland scientific information was inadequate for environmental impact analysis and a new impact statement was required. Hughes River Watershed Conservancy v. Glickman, 81 F.3d 437 (4th Cir. 1996). Agency must look at new circumstances when deciding whether to conduct supplementary environmental impact statement.

May a Regulatory Agency Anticipate Future Hydrology and Other Future Conditions?

No court has required that an agency anticipate future hydrology or other future conditions in regulatory permitting. However, courts in a number of cases have endorsed agency efforts to anticipate future conditions in other contexts. For example, a federal district court in Corsa v. Tawes, 149 F.Supp. 771 (D. Md. 1957) sustained a Maryland law prohibiting the use of certain nets for fishing in tidal waters. The court reasoned:

> We think…that the protective hand of the State may be extended before danger is unmistakably imminent. Conditions may go unnoticed so long that when the threat is

> demonstrated it is too late to avert the harm. One witness for the plaintiff testified that no matter how much a supply may be reduced by over fishing, provided that the stock is not completely annihilated, it may in time replenish itself. We need not quarrel with this statement of scientific opinion, but in the practical management of its resources, the State may conclude that the time for action is long before the destruction has gone that far. The State is interested not merely in the preservation of specimens for museums but in conserving and perpetuating a constant supply.

Id. at 774.

See also Pope v. Atlanta, 249 S.E.2d 16 (Ga. 1978) in which the Georgia Supreme Court held that the Metropolitan Council could, under the River Protection Act, take future conditions into account in regulating development; and Young Plumbing and Heating Co. v. Iowa Natural Resources Council, 276 N.W.2d 377 (Iowa 1979) in which the Iowa Supreme Court endorsed efforts of the Iowa Natural Resources Council to take into account anticipated future development when determining floodway encroachment lines.

Must a Regulatory Agency Consider Cumulative Impacts?

Section 404 and some state and local regulations require that regulatory agencies consider cumulative impacts. Courts have sustained consideration of cumulative impacts. For example, in Hixon v. Public Servs. Comm'n, 146 N.W.2d 577 (Wis. 1966), the Wisconsin Supreme Court affirmed the denial of a permit to maintain a breakwater on the grounds that the breakwater was an unnecessary obstruction to navigation, did not allow for free flow of water, and was detrimental to the public interest. The court observed:

> There are over 9,000 navigable lakes in Wisconsin covering an area of over 54,000 square miles. A little fill here and there may seem to be nothing to become excited about. But one fill, though comparatively inconsequential, may lead to another, and another, and before long a great body of water may be eaten away until it may no longer exist. Our navigable waters are a precious natural heritage; once gone, they disappear forever.

Id. at 589.

See also Candlestick Properties, Inc. v. San Francisco Bay Conservation and Development Comm'n, 89 Cal. Rptr. 897 (Cal.App. 1970). Young Plumbing and Heating Co. v. Natural Resources Council, 276 N.W.2d 377 (Iowa 1979). Pope v. City of Atlanta, 255 S.E.2d 63 (Ga. 1979).

Although such cases are rare, courts have also held that regulatory agency actions are invalid for failure to consider cumulative impacts. A federal district court held that the Corps of Engineers issuance of a Section 404 permit for filling wetlands on Galveston Island was invalid for failure to consider cumulative impacts. See Fritiofson v. Alexander, 772 F.2d 1225 (5th Cir., 1987).

Is Proposed Mitigation Relevant to Assessment of Impacts?

Courts have held that proposed mitigation is relevant to determination of possible impacts. See, for example, Northwest Envt'l Defense Ctr. v. Wood, 947 F.Supp. 1371, affirmed, 97 F.3d 1460

(D.Or. 1996). See also Preserve Endangered Areas of Cobb's History, Inc. v. United States Army Corps of Eng'rs, 87 F.3d 1242 (11th Cir. 1996). Virgin Islands Tree Boa v. Witt, 918 F.Supp. 879, affirmed, 82 F.3d 408 (D.V.I 1996). No impact statement required if mitigation eliminates all significant impacts.

A Connecticut court upheld the issuance of a local permit on the condition that mitigation would be worked out in the future. See Red Hill Coalition, Inc. v. Conservation Comm'n of Glastonbury, 563 A.2d 1339, 1341 (Conn. 1989) in which the court upheld issuance of local permit that had been issued on the condition that the applicant provide "reasonable compensation for wetland development or enhancement." More specifically, compensation was "to be determined…by a subcommittee of the wetlands agency working directly with the applicant and other parties…"

However, several courts have held that the possible failure of mitigation measures is must be considered as well. See National Audubon Soc'y v. Hoffman, 917 F.Supp. 280 (D.Vt. 1995) in which the court held that failure to prepare environmental impact statement was arbitrary and capricious and the agency needed to consider the possible failure of mitigation. In Bersani v. Robichaud, 850 F.2d 36 (2d Cir. 1988), a federal court of appeals endorsed the EPA findings, which concluded on the facts of the case that alternatives were available to the proposed project and "that the mitigation proposal did not make the project preferable to other alternatives because of the scientific uncertainty of success." Id. at 43.

Courts have demanded that regulatory agencies do more than simply consider mitigation. In Citizens for Quality Growth v. City of Mount Shasta, 243 Cal.Rptr. 727 (Cal.App. 1988), a California court held that the City of Mount Shasta had failed to comply with California Environmental Quality Act by failing to make findings that adopted or rejected mitigation measures and that properly evaluated alternatives as part of rezoning a 35-acre parcel with wetlands. See also Virgin Islands Conservation Soc'y, Inc. v. Board of Land Use Appeals, 857 F.Supp. 1112 (D.V.I. 1994), in which a Virgin Islands district court held that a coastal zone management committee could not grant a coastal zone permit by only requiring mitigation plans and impact studies as part of the permit, but that up-front studies were also needed.

Are Some Types of Wetland Information Particularly Important to Meeting Legal Needs?

Certain types of wetland assessment information may be more important in meeting legal challenges, and regulatory agencies need flexibility in deciding what information is most important in a specific context. For example, wetland jurisdictional information is essential for an agency to assert regulatory powers over a proposed activity and detailed fact-finding concerning a wetland boundary may be needed for a fresh water wetland dry much of the year.

Other types of information may be particularly important in a specific situation. For example, in addressing taking challenges, courts find information about possible nuisance or public health and safety aspects of proposed activities particularly important. (See Chapter 5.) Courts have broadly and universally upheld regulations where proposed activities threatened safety, created nuisances, or infringed on public rights (e.g., publicly owned lands). Protection of public safety is give particular weight. See, for example, New Jersey Builders Ass'n v. Department of Envtl. Protection, 404 A.2d 320 (N.J. App. 1979), in which the court upheld actions of Department of

Environmental Protection in establishing water quality standards for the Central Pine Barrens and designating such lands as a "critical area" for sewerage purposes. The court noted, "Statutes which are enacted for the protection and preservation of public health are to be construed liberally." Id. at 329.

Evidence of inadequate soils for septic tanks/soil absorption fields and possible resulting pollution has been given great weight by courts. See, for example, Saturley v. Town of Hollis, 533 A.2d 29 (N.H. 1987), in which the New Hampshire Supreme Court held that denial of a variance for a septic tank in a wetland was reasonable based on pollution concerns. See also Santini v. Lyons, 448 A.2d 124 (R.I. 1982) in which the court upheld denial of permit for fill and septic tank in salt marsh upheld, in part, due to pollution concerns. Milardo v. Coastal Resources Mgmt. Council, 434 A.2d 266 (R.I. 1981) Denial of a permit for construction of sewage disposal system in a marsh upheld. Efforts to prevent flood damage and significant changes in hydrology have also been broadly endorsed. See, for example, Michelson v. Warshavsky, 653 N.Y.S.2d 622 (A.D. 1997) Denial of permit to subdivide valid based on threat of flooding. Eastbrook Construction Co., Inc. v. Armstrong, 205 A.D.2d 971 (N.Y. 1994). Town planning boards' rejection of permit application for alteration of wetland was validly based on findings that proposed construction would lower water table and possibly eliminate wetland.

Courts consider ecological information important. See, for example, Zabel v. Tabb, 430 F.2d 199 (5th Cir. 1970). Recreational, cultural and scenic values have also been considered important. See Menomonee Falls v. Department of Natural Resources, 412 N.W.2d 505 (Wis.App. 1987) Court sustained Wisconsin Department of Natural Resources denial of four permits for village's channelization project that involved a creek, based in part on adverse aesthetic impacts. The court noted that "enjoyment of scenic beauty is one of the paramount interests appurtenant to navigable waters….") Id. at 517.

However, as will be discussed in Chapter 5, courts have not usually given ecological condition, aesthetics and cultural values as much weight as protection of public safety and prevention of nuisances. The latter go to the heart of a landowner's property rights, and courts have held that landowners have no right to threaten safety or cause nuisances.

Federal and some state and local agencies must legally satisfy the environmental impact review requirements of the National Environmental Policy Act (NEPA) and similar state laws. Courts have developed a considerable body of case law addressing the preparation and content of environmental impact statements. Environmental impact statements are required for Section 404 permits that may substantially affect the environment. See Preserve Endangered Areas v. United States Army Corps of Eng'rs, 916 F.Supp. 1557 (N.D. Ga. 1995), in which the court held that involvement of the Corps in wetland permitting rendered the project a federal action, potentially requiring an environmental impact statement. The court, however, agreed with the Corps that the proposed permit in this case was not a major federal action, taking into account mitigation measures and other factors. Environmental impact statements for significant impacts are also required by many "baby NEPAs" in states, such as Wisconsin, New York and California, among others.

To satisfy federal impact statement requirements, an agency must take a "hard" look at the environmental consequences of a proposed action. See, for example, Washington Trails Ass'n v. United States Forest Serv., 935 F.Supp. 1117 (W.D. Wash. 1996) in which the court held that an

environmental impact statement must be prepared if there will be substantial impact. It must contain a detailed statement of the expected adverse consequences of action, the resource commitments involved and alternatives. See Center for Marine Conservation v. Brown, 917 F.Supp. 1128 (S.D. Tex. 1996) in which the court held that an impact statement must be sufficient to enable a decision-making body to make an informed decision. But, courts are not to "fly speck" agency environmental impact evaluations. See Price v. Obayashi Hawaii Corp., 914 P.2d 1364 (Haw. 1996).

May a Regulatory Agency Use a Hierarchal Approach to Data Gathering and Analysis?

Courts have sanctioned preliminary wetland analysis, followed by more detailed analysis, when the preliminary analysis suggests that more information is needed. Courts have also held that a preliminary, broad approach to environmental impact analysis is appropriate when decision-makers will have a later opportunity to provide greater detail. See, for example, Organization to Preserve Agric. Lands v. Adams County, 913 P.2d 793 (Wash. 1996).

Courts have broadly sanctioned the two-step procedure that most agencies use to comply with the National Environmental Policy Act. See NEPA cases cited above. In this procedure, an agency first prepares an environmental assessment to determine whether a more detailed environmental impact statement is needed. If significant impacts are possible or probable, the agency then prepares a more detailed environmental impact statement.

Courts have also endorsed preliminary, broad-scale data gathering, with more detailed information gathering as needed in other contexts. See, for example, Thompson v. Department of Envtl. Conservation, 495 N.Y.S.2d 107 (Sup. 1985) in which a New York court upheld an administrative procedure for reviewing and amending wetland mapping as individual permit applications are received: "Budgetary or manpower restrictions, in addition to the continuous changes to which tidal wetlands are subject, may require that the statewide inventory review for which Environmental Conservation Law 25-0201(6) explicitly provides be supplemented by review prompted by specific permit applications. The Court cannot conclude that such a policy is arbitrary and capricious." Id. at 110.

See also Just v. Marinette County, 201 N.W.2d 761 (Wis. 1972) in which the Wisconsin Supreme Court upheld wetland regulations against a taking challenge, including a procedure for remedying map inaccuracies through field inspections and the application of written wetland delineation criteria.

Are Sequencing and Alternatives Analysis Requirements Valid?

Courts have upheld a sequencing approach to regulation that requires avoidance of wetland sites and impacts first, and then mitigation. See, e.g., Alameda Water & Sanitation Dist. v. Reilly, 930 F.Supp. 486 (D. Colo. 1996).

Courts have also sanctioned the requirement that alternatives be considered for regulatory permitting and environmental impact statements. Section 404 regulations (40 C.F.R. 230.10(a)) provide, in part, that "no discharge of dredged or fill material shall be permitted if there is a

practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences." An alternative is considered practical if it is "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." See Fund for Animals, Inc. v. Rice, 85 F.3d 535 (11th Cir. 1996) and Friends of the Payette v. Horseshoe Bend Hydroelectric Co., 988 F.2d 989 (9th Cir. 1993).

Executive Order 11990 also requires a "no practical alternative" finding. Federal agencies that cannot avoid construction in wetlands must: (1) make a finding that no practical alternative to construction exists, and (2) include "all practical measures to minimize harm to wetlands which may result for such use." 42 Fed. Reg. 26961 (1977). See Carmel-by-the-Sea v. U.S. Dep't of Transp, 123 F.3d 1142 (9th Cir. 1997).

Courts have held that an environmental impact statement must provide sufficient information to allow officials to make a reasoned choice among alternatives. See Kiewit Constr. Group, Inc. v. Clark County, 920 P.2d 1207 (Wash. App. 1996). A court in Sierra Club v. United States Army Corps of Eng'rs, 935 F.Supp. 1556 (S.D.Ala. 1996) held that the number of alternatives to a proposed action that need to be considered are proportional to the environmental impact of the proposed action. See also, Friends of Ompompanoosuc v. Federal Energy Regulatory Comm'n, 968 F.2d 1549, 1558 (2d Cir. 1992) and Sierra Club v. Espy, 38 F.3d 792, 796 (5th Cir. 1994).

Do the Functions/Values of Individual Wetlands Need to be Evaluated?

Many thousands of local governments have adopted conservancy zone approaches to wetlands, steep slopes, floodplains and other sensitive areas, based on generalized but not wetland by wetland evaluation of wetland functions and values, natural hazards, the costs of public services, and other factors relevant to the "suitability" and "appropriateness" of land use. Nor have state regulations or the Section 404 federal regulatory program been based on up front evaluation of functions and vaules.

No court has struck down wetland regulations for failing to distinguish between the ecological values of various types of wetlands either up front or on a case-by-case basis. This failure has been challenged in a few cases. For example, the New Hampshire Supreme Court, in Rowe v. Town of North Hampton, 553 A.2d 1331(N.H. 1989), sustained the denial of variance to construct a house and septic system in a wetland against a takings challenge and rejected arguments that regulations should distinguish wetlands that have great ecological value from those that do not. The court observed, in so holding, that:

> We find no error in the trial court's decision that no taking has occurred in this case. We hold that the wetlands ordinance is neither unreasonable by itself nor unreasonable as applied to plaintiff's land. The plaintiff's argument that the town's regulations are arbitrary, because they allegedly do not distinguish wetlands which have great ecological value from those that do not, is without merit…(T)he plaintiff's real complaint is that the town's definition of wetlands should be changed. We see nothing unreasonable or arbitrary about the town's use of the terms "poorly drained" and "very poorly drained" soils to determine what constitutes a wetland…nor does the plaintiff offer any authority

> for her proposition that the ordinance, to be constitutional, must grade wetlands according to their ecological value. Any changes in definitions contained in the town's ordinances should be sought through proper local channels, not in this court….

Id. at 1336.

When a case-by-case permitting approach is used, regulatory agencies cannot, as a practical matter, determine the adequacy of impact reduction and compensation measures without evaluating loss of specific wetland functions and values. A variety of wetland assessment models have been developed over the last several decades to help evaluate the function and values of specific wetlands, although most lack accuracy and none have been extensively used. See City Nat'l Bank of Miami v. United States, 33 Fed. Cl. 224 (1995) in which the HEP method was used.

Does General Wetland Information Support Setbacks, Buffers and Large Lot Sizes?

Courts have sustained a variety of state and local setbacks, buffers and large lot size requirements for wetland areas adopted to serve multiple goals, without case-by-case determination of the functions and values of each wetland. Typically, if setbacks prevent all economic use of land, variances or special exceptions are available under state and local regulations. Courts have broadly endorsed multi-objective setbacks and buffers and large lot sizes, including the denial of variance and exceptions against claims of taking where proposed activities may have nuisance impacts.

See, for example, Lizotte v. Conservation Comm'n of Somers, 582 A.2d 1186 (Conn. Super. 1989) Court held that town wetland regulation that contained mandatory minimum separation distances (150 feet) between wetlands, water courses, septic systems and buildings was valid. See also Strafach v. Durfee, 635 A.2d 277 (R.I. 1993) in which the court upheld denial of variance for location of septic tank system in 150-foot setback established for erosion-prone coastal areas. Olszak v. Town of New Hampton, 661 A.2d 768 (N.H. 1995) River setback of 200 feet; 125 feet for septic tank sufficiently clear. Tortorella v. Board of Health of Bourne, 655 N.E.2d 633 (Mass.App. 1995) Denial of variance for 150-foot septic tank setback valid. Save Our Dunes v. Department of Envtl. Mgmt., 473 So.2d 521 (Ala. App. 1985) 100-foot setback from mean high tide and 40-foot setback from the dune line established by DEM not wrong. Madrid Corp. v. Inland Wetlands Agency, 594 A.2d 1037 (Conn. App. 1991) Denial of permit for fill by local board for failure to comply with 150-foot setback from wetlands was supported by substantial evidence. McElwain v. County of Flathead, 811 P.2d 1267 (Mont. 1991) Court upheld 100-foot setback between septic tank field and floodplain against claim of taking, although the regulation reduced property values from $75,000 to $25,000 because the property owner was still able to use the property, although not as near the river.

Courts have also sustained large lot zoning for wetlands and related lands. Local governments often apply three- to five-acre residential zoning to mixed wetland/residential areas. Large lot zoning is designed to reduce the density of development in such areas and the impact of structures, parking lots, roads, vegetation cutting and other activities on wetlands. Large lot

zoning for wetland and related lands is also designed to ensure that each lot has a suitable site for construction.

For cases that sustain large lot zoning for environmentally sensitive areas see, for example, Gignoux v. Village of Kings Point, 99 N.Y.S. 2d 280, 285 (Sup. 1950) in which the court sustained 40,000-square-foot lot size for swampy area and observed that the "best possible use of this lowland would be in connection with its absorption into plots of larger dimensions." See also Albano v. Mayor & Township Comm. of Wash., 476 A.2d 852 (N.J. App. 1984) in which the court sustained three-acre zoning for environmentally sensitive area where four streams flowed through property and met to form sole feeder of a lake. Casperson v. Town of Lyme, 661 A.2d 759 (N.H. 1995). Court held that fifty-acre lot size for mountain and farm district not necessarily unconstitutional. Grant v. Kiefaber, 181 N.E.2d 905 (Ohio App. 1960), affirmed, 170 N.E.2d 848 (Ohio 1960) Court sustained 80,000-square-foot lot size for a flood prone area. North Shore Unitarian Universalist Soc'y, Inc. v. Village of Upper Brookville, 493 N.Y.S.2d 564 (A.D. 1985) Court held that protection of open space through multi-acre zoning was valid.

Do Regulatory Agencies Need to Determine the Impact of Proposed Activities on Specific Types of Plants and Animals?

In general, state and federal statutes and regulations do not require that agencies consider the impact of proposed permits on specific types of plants and animals. However, there are exceptions, such as statutes and regulations that protect rare and endangered species. See, for example, the Endangered Species Act, 16 U.S.C. 1531. Courts have held that agencies should "place conservation" of endangered species above "other interests." See House v. Forest Service, 974 F.Supp. 1022 (E.D. Kent. 1997) in which the court held that forest management plan failed to provide adequate protection for the Indiana Bat.

A number of court decisions have addressed compliance with the Endangered Species Act. See, for example, Mountain Lion Found. v. Fish and Game Comm'n, 51 Cal. Rptr. 2d 408 (Cal. App. 1996) in which the court held that delisting of Mojave ground squirrel as threatened species is significant action that requires environmental impact statement. See also City of Chula Vista v. California Coastal Comm'n, 183 Cal. Rptr. 909 (Cal. App. 1982) in which the court sustained a decision of the California Coastal Commission to disapprove Chula Vista's local coastal program based, in part, on the commission's determination that partly impacted urban wetlands were, nonetheless, ecologically valuable and in need of protection. Endangered species were potentially involved.

To what extent must agencies carry out population inventories, rather than determine the habitat capability of wetlands to produce certain species based on vegetation type, visible hydrology or other factors? This is an important question because many of the recent wetland assessment approaches do not involve field observation of species, but rather evaluation of overall habitat capability based on satellite imagery or air photos.

In one case, Sierra Club v. Glickman, 974 F.Supp. 905 (E.D. Tex. 1997), a federal district court held that the Forest Service had not adequately carried out its responsibilities in accordance with the National Forest Management Act in "inventorying and monitoring" wildlife. The court held that the Forest Service's use of a computer-generated model that used forest management and

condition to assess the capability of the forest habitat to support certain species was not adequate:

> With respect to the Forest Service's inventorying and monitoring obligations, the Forest Service is not collecting population data on wildlife to ensure viable populations. The Forest Service instead is relying on hypothetical models to assess habitat capability and then assuming that viable populations of species are in existence and well-distributed on the forest land. The Forest Service's failure to collect population data forecloses its ability to evaluate forest diversity in terms of wildlife and to adequately determine the effects of its management practices.

Id. at 911, 912.

See also House v. Forest Service, 974 F. Supp. 1022 (E.D. Ky. 1997).

Wetland assessment methods that do not consider specific species or groups of species (e.g., the Hydrogeomorphic Assessment Method) must be supplemented by other research in order to comply with these requirements. See Utahns v. United States DOT, 305 F.3d 1152 (10th Cir. 2002) in which the court held that the Corp's issuance of a 404(b)permit was arbitrary and capricious because the Corp failed to consider the impacts of a proposed highway on migratory birds.

May an Agency Attach Conditions To Development Permits?

Agencies may attach conditions to development permission to reduce and compensate for project impacts, but these conditions must be reasonable. See Lund v. Town of Yorktown, 641 N.Y.S.2d 438 (A.D. 1996) in which the court held that the planning board may impose reasonable conditions on site plan approval. Red Hill Coalition, Inc. v. Conservation Comm'n of Glastonbury, 563 A.2d 1339 (Conn. 1989). Connecticut Supreme Court held that town conservation commission could require offsite mitigation as reasonable compensation for wetland development or enhancement as a condition to approval of a wetlands permit. T.D.J. Development Corp. v. Conservation Comm'n of North Andover, 629 N.E.2d 328 (Mass. App. 1994). Conservation commission's approval of highway project subject to 46 conditions to protect wetlands was reasonable. San Mateo County Coastal Landowners' Ass'n v. County of San Mateo, 45 Cal. Rptr. 117 (Cal. App. 1995). Agricultural open-space easements requirements as a condition to development not invalid. Grogan v. Zoning Bd. of Appeals Town of East Hampton, 633 N.Y.S.2d 809 (A.D. 1995), Zoning board of appeals conditioning permit for construction of a home on grant of scenic and conservation easements that barred development on wetland part of lot not arbitrary and capricious, rough proportionality found. Jefferson County v. Washington Dep't of Ecology, 511 U.S. 700 (1994). U.S. Supreme Court held that state could impose minimum stream flow requirements as part of Section 401 certification requirements under the Clean Water Act for permitting hydroelectric power plant. F.L.D. Construction Corp., v. Williams, 504 N.Y.S.2d 726 (A.D. 1986). Issuance of tidal wetland permit subject to conditions, including creation of a 50- to 75-foot buffer zone and ultimate removal of sewage treatment plant from wetland adjacent area was proper.

However, courts have also held that conditions must be reasonable. Courts examine with particular care requirements that landowners or subdividers donate lands for public use. In Dolan

v. City of Tigard, 512 U.S. 374 (1994), the U.S. Supreme Court held that a city's attempt to require a landowner to dedicate a portion of her property in a floodplain to use as a greenway and bike path was not reasonably related to regulatory goals and was not reasonably related to the additional vehicle and bicycle traffic that the development would generate. See also Goss v. City of Little Rock, 90 F.3d 306 (8th Cir. 1996) in which the court held that the burden is on zoning board to show reasonableness and rough proportionately, although burden is typically on landowner. Group v. Clackamas County, 922 P.2d 1227 (Or. App. 1996) Rough proportionality needed between impacts and conditions.

Does Prior Community-Wide Information Gathering and Comprehensive Planning Help Meet Legal Challenges?

Neither federal, state nor local wetland regulatory statutes nor administrative regulations require prior, area-wide comprehensive information gathering or planning. However, many local zoning enabling statutes require that zoning regulations be in accordance with a comprehensive plan. Local wetland conservation zoning is often adopted in accordance with such broader statutes. Courts have traditionally found such a comprehensive plan contained within the zoning regulations, but this is changing as state legislatures mandate independent planning. No court has held local wetland zoning regulations to be invalid for failure to be in accordance with a comprehensive plan.

Courts have held that comprehensive land and water information gathering and planning can help support regulations in court. See, for example, Wilson v. County of McHenry, 416 N.E.2d 426 (Ill. 1981) in which the court held that "(t)he adoption of a comprehensive plan which incorporates valid zoning goals increases the likelihood that the zoning of a particular parcel in conformity therewith is not arbitrary or unrelated to the public interest." Id. at 431. See also Harvard State Bank v. County of McHenry, 620 N.E.2d 1360 (Ill. App. 1993) and McCarthy v. City of Manhattan Beach, 264 P.2d 932 (Cal. 1954):

> (A) zoning ordinance enacted pursuant to a comprehensive plan of community development, when reasonable in object and not arbitrary in operation, will be sustained as a proper exercise of the policy power, every intendment is in favor of its validity; and a court will not, except in a clear case of oppressive and arbitrary limitation, interfere with legislative discretion.

Id. at 935.

See also, Harvard State Bank v. County of McHenry, 620 N.E.2d 1360, 1362 (Ill. App. 1993) in which the court held that factors relevant to reasonableness of regulations included "the care with which the community has undertaken the planning of its development…" Consolidated Rock Products Co. v. City of Los Angeles, 370 P.2d 342, appeal dismissed, 371 U.S. 36 (1962). Court upheld very tight regulations based on overall planning. Reahard v. Lee County, 30 F.3d 1412 (llth Cir. 1994). Resource conservation district upheld. City of Key West v. Berg, 655 So.2d 196 (Fla. App. 1995). Court held that comprehensive plan that limited wetland development not ripe for taking claim. City of Riveria Beach v. Shillingburg, 659 So.2d 1174 (Fla. App. 1995). Court held that comprehensive plan with wetland provisions not a regulatory taking of submerged lands. City Nat'l Bank of Miami v. United States, 33 Fed. Cl. 224 (1995). Court held that local comprehensive planning relevant to value of property in deciding whether

taking has occurred. Krahl v. Nine Mile Creek Watershed Dist., 283 N.W.2d 538 (Minn. 1979). Court held that watershed district's floodplain encroachment regulations based on watershed district plan and tightly controlled development on 2/3 of 11-acre tract were not an unconstitutional taking.

Over a period of years, courts have also provided strong support for state resource management regulatory approaches, based on regional land and water assessments and planning approaches. See North Shore Unitarian Soc'y, Inc. v. Village of Upper Brookville, 493 N.Y.S.2d 564 (A.D. 1985), Island Properties, Inc., v. Martha's Vineyard Comm'n, 361 N.E.2d 385 (Mass. 1977). Court upheld Regional planning and regulation for Martha's Vineyard. New Jersey Builders v. Department of Envtl. Protection, 404 A.2d 320 (N.J. App. 1979) Court upheld regionally-based actions of Department of Environmental Protection in establishing water quality standards for the Central Pine Barrens and designating such lands as critical area for sewerage.

CHAPTER 4: DEFINITION, MAPPING AND DELINEATION

Chapter 4 examines legal issues concerning wetland definition, mapping and delineation.

Do Courts Favor One Wetland Definition Over Another?

Federal agencies apply a number of wetland definitions in their programs. For example, the Corps of Engineers applies one definition for regulatory permitting, the Fish and Wildlife Service uses another for the National Wetland Inventory (NWI), and the White House yet a different definition for the Wetland Executive Order (11990, May 1977), which closely resembles the NWI definition.

Statutes that authorize state and local wetland regulations also contain a variety of wetland definitions. Wetlands are defined in state programs with reference to water levels, plant species, soils and size.

No court has ruled that a particular wetland definition is invalid. Courts have afforded legislative bodies and administrative agencies broad discretion in formulating definition criteria, as long as the criteria are consistent with statutory requirements.

For example, in United States v. Weisman, 489 F.Supp. 1331 (M.D. Fla. 1980), a U.S. district court upheld the Corps' wetland definition against claims by landowners "that the regulatory definition of wetlands is not susceptible of any reasonable lay interpretation in the absence of an official guide or listing of wetland species." The court concluded:

> The Court has previously rejected defendant Weisman's contentions concerning the regulatory definition of wetlands. The definition contains sufficient guidance for implementation even in the absence of a published list of wetland species. The defendants offer no evidence of any significant difference of opinion among botanists concerning which species of herbs, shrubs, and trees are "typically adapted for life in saturated soil conditions." The Court agrees that a layman untrained in botany might have difficulty in determining whether his property constituted wetland under the regulatory definition, especially if the property were located on transitional terrain where both wetland and upland species might be found. But defendant Weisman has the benefit of the opinions of Corps experts on this matter before he commenced construction.

Id. at 1341.

In Avoyelles Sportsmen's League, Inc. v. Alexander, 511 F.Supp. 278 (W.D.La. 1981), a U.S. district court accepted the federal government's methodology for determining whether a wetlands tract was "water of the U.S." under the Clean Water Act, and stressed the policy aspects of wetland definition:

> It is quite obvious from this history that the terms "waters of the United States" and "wetlands" are not terms of pure science. They are not meant to be. "Wetlands" is a jurisdictional term, the product of a legislative process, of political pressure

> groups...Thus, the "wetlands" definition does not answer a scientific need, it satisfies a practical, a social, a political need, the need to define the scope of Section 404 jurisdiction. It should be interpreted with this purpose in mind. The definition may be scientifically incorrect, but that should not affect its validity as a jurisdictional definition. A "wetland" is what Congress (as reflected by regulations) says it is.

Id. at 288.

This does not mean that regulatory agencies can chose whatever definitions they want. All regulatory agencies must apply the wetland definitions established by their enabling statutes or regulations. Once a regulatory agency formally adopts a definition, it must apply this definition.

May an Agency Control Other Wetlands or Waters than Those Specified in a Regulatory Statute or Regulation?

Typically, regulatory agencies can only control the territory specified in enabling legislation. See, for example, Coto v. Renfrow, 616 So.2d 467 (Fla. App. 1993) the court held that inland mangroves could not be regulated pursuant to a county code, which regulated only coastal wetlands. See also Lykes Bros. Inc. v. United States Army Corps of Eng'rs, 821 F.Supp. 1457 (M.D. Fla. 1993) in which a court held that Fisheating Creek was not a navigable waterway of the U.S. and, therefore, not regulated by the Section 10 program.

However, the federal Section 404 program regulates both wetlands and other waters of the United States. Similarly, many state statutes also regulate wetlands and other waters. See, for example, Houslet v. State Dep't of Natural Resources, 329 N.W.2d 219 (Wis. App. 1982).

In addition, wetland statutes are often broad and courts have allowed state agencies and local governments some discretion in what they include and exclude as "wetland" when drafting more specific rules and carrying out delineations on the ground. See, for example, Aaron v. Conservation Comm'n of the Town of Redding, 441 A.2d 30 (Conn. 1981).

Must Wetlands Be Mapped?

The Section 404 program statute, and federal regulations adopted to implement this statute, do not require mapping of wetlands. However, many state and local wetland regulatory statutes require mapping as part of regulatory processes.

If a statute or regulation requires mapping, wetlands must be mapped and the mapping procedures must be followed. See, for example, Wedinger v. Goldberger, 499 N.Y.S.2d 600 (Sup. 1986) in which the court held that land not on a freshwater wetlands maps was not regulatory freshwater wetland and not subject to regulation under the New York act; additions to freshwater wetlands maps can be made only after public hearings with notice. See also Goldhirsch v. Flacke, 495 N.Y.S.2d 436 (A.D. 1985) in which the court held that final wetland maps were necessary before final regulations apply. Jorling v. Freshwater Wetlands Appeals Bd., 556 N.Y.S.2d 1017 (Sup. 1990). DEC was not entitled to designate parcel of land as wetlands when parcel was not identified as wetland on applicable map.

However, wetlands may be regulated without maps where mapping is not specifically required. Local regulation of wetlands without mapping has been upheld. See, for example, Fogelman v. Town of Chatham, 446 N.E.2d 1112 (Mass. App. 1983). See also Drexler v. Town of New Castle, 465 N.E.2d 836 (N.Y. 1984) Local governments could regulate wetlands less than 12.4 acres without wetland maps.

Even if mapping is not required, mapping can help provide notice to landowners and increase the predictability of regulations. See Olszak v. Town of New Hampton, 661 A.2d 768 (N.H. 1995). Inclusion of map was sufficiently clear to alert average person that inlet was considered part of river.

How Accurate Must Wetland Maps Be?

The type and accuracy of data used in wetland and other types of resource maps has been litigated in some wetland and floodplain cases. As one would expect, regulations based on maps that have no relationship to wetlands or flooding have been held invalid. See, for example, Sturdy Homes, Inc. v. Town of Redford, 186 N.W.2d 43 (Mich. 1971).

Total inaccuracy would invalidate regulations, but some inaccuracy is tolerable. For example, in Turnpike Realty Co. v. Town of Dedham, 284 N.E.2d 891 (Mass. 1972), cert. denied, 409 U.S. 1108 (1973), the Massachusetts Supreme Court upheld the sufficiency of the Town of Dedham's floodplain zoning map, which incorrectly included two knolls of 3.2 acres and .2 acres in the floodplain. However, there was substantial evidence of flooding for other areas, including photographs and exhibits of flooding from 1954 and 1967, and testimony of an expert hydrologist. Flood levels had been reached in 1936, 1938, 1955 and 1968. The court held that although inclusion of the knolls was "inadvertent," the ordinance was valid and the owner might seek a special permit for such areas under provisions of the ordinance that allowed a landowner to demonstrate that a particular area is not subject to flooding.

Courts have sustained wetland maps and case-by-case assessments in other contexts as well, despite some uncertainties and inaccuracies. For example, in Fogelman v. Town of Chatham, 446 N.E.2d 1112 (Mass. App. 1983), a Massachusetts court upheld a setback requirement for a wetland not included on the local government's conservancy zone ordinance against claims of "vagueness." The court observed, "A law is not unconstitutionally vague simply because it presents some questions as to its application in particular circumstances. Courts and administrative boards draw lines and resolve ambiguities every day." Id. at 1114, 1115.

In City of Newark v. Natural Resource Council, 414 A.2d 1304 (N.J. 1980) a New Jersey court upheld public land ownership maps for Hackensack Meadowlands based on "analysis of color infrared photographs of the meadows." Responding to testimony that contested the validity of the maps, the Court observed, "the evidence adduced indicates only a difference of opinion between …experts." Id. at 1309. The court concluded that "(w)here a subject is debatable, the agency determination must be upheld because a court would usurp the legislative body if it attempted to determine the results of the debate." Id. at 1310.

Although courts have broadly sustained mapping efforts against claims of unreasonableness, at least one floodplain case suggests that maps may need to be updated as new data becomes available. In A.H. Smith Sand & Gravel Co. v. Department of Water Resources, 313 A.2d 820

(Md. 1974), a Maryland court upheld a state statute that required permits for activities in the 50-year floodplain, but held that maps that defined the floodplain had been too broadly drawn. The court held that it was necessary to revise earlier maps in light of the flood from Hurricane Agnes.

The quality of data used as the initial basis for wetland mapping, assessment and regulation may be less important if procedures are available during administrative phases of a regulatory program to refine data as individual permit applications are received.

In a wetland case, Just v. Marinette County, 201 N.W.2d 761 (Wis. 1972), the Wisconsin Supreme Court also upheld a procedure for remedying map inaccuracies through field inspections and the application of written criteria. Relatively inaccurate U.S. Geological Survey maps had been used for wetland mapping, combined with a written definition for wetland areas: "(A)reas where groundwater is at or near the surface most the year or where any segment of plant cover is deemed an aquatic according to N.C. Fassett's 'Manual of Aquatic Plants'." Id. at 766. A landowner who contested the regulations argued, in part, that the wetland maps were not sufficiently specific and that his land was not a wetland. The court did not discuss the validity of the maps, but sustained the regulations, noting that the land was clearly wetland by the written test.

May an Agency Decide What Criteria and Procedures to Apply When Delineating Wetlands?

As noted above, the Section 404 program does not map wetlands. Wetland delineations are therefore carried out on a case-by-case basis, using the l987 Corps of Engineers Manual for the Delineation of Jurisdictional Wetlands and there have been no successful challenges to this procedure. Most states also have their own procedures for delineating wetlands on the ground, even when regulatory maps have been adopted, because maps are often drawn at too small a scale to indicate precise boundaries. In general, wetland statutes and regulations are silent about the specific criteria and procedures that agencies should apply when delineating wetlands, although state statutes typically establish very specific wetland definitions which must be applied on the ground. Agencies must use any specific criteria and procedures required by statute or regulations in delineation. See, for example, Goldring v. State Dep't of Envtl. Regulation, 452 So.2d 968 (Fla. App. 1984) in which the court held that indicator species 4.5 miles inland was not enough to designate area as wetland under statute referring to Florida Bay and inundation.

Courts have held that delineation of wetlands combines scientific findings and policy. See, for example, Houslet v. State Dep't. of Natural Resources, 329 N.W.2d 219 (Wis. App. 1982) in which a Wisconsin court observed, "The question whether a project area is a wetland…presents a mixed question of fact and law. Ecologically salient characteristics of the site are factual matters. Whether factual findings fulfill the applicable definition of 'wetlands,' however, is a question of law." Id. at 223. However, as this court also observed, a reviewing court will give "due weight" to an agency's interpretation on a question of law when the agency applies its "experience, technical competence, and specialized knowledge" to the decision. Id. at 222.

Federal courts have afforded the Corps of Engineers broad discretion in defining wetlands and developing delineation criteria for wetlands under the Section 404 program. See, for example, United States v. Lambert, 589 F.Supp. 366 (M.D. Fla. 1984), in which the court sustained a Corps of Engineers designation of certain lands as wetlands in accordance with the Section 404

program. The court endorsed the Corps' discretionary use of facultative plant species to make this determination. The court observed:

> Dr. Cornwell's main objection to the characterization of the eastern finger as wetland was to the use of plants' tolerance to life in saturated soil as indicators of wetland. He testified that such vegetation was not "typically adapted" to life in saturated soil. He testified that if a plant lives in wetlands, but also lives in dry areas, it is "a lousy indicator" of wetlands. Regardless of the logic of this conclusion, it has been held that the Corps regulations may encompass plants which in fact are tolerant to life in saturated soil even though they many not live out an entire life cycle in such soil….

Id. at 370, 371.

See also Harris v. United States, 820 F.Supp. 1026 (N.D. Miss. 1993) Court upheld FWS biologist delineation of wetland without taking on-site soil samples, resulting in conservation easements placed on property while property had been in government inventory after acquisition. Farmer's Home Administration had validly relied on delineation in placing restriction on property.

Federal courts have refused to allow landowners to challenge wetland delineations or even federal guidance on delineation, in accordance with the federal Administrative Procedures Act, until a decision is made on a permit because courts do not consider a wetland delineation a final decision. See, for example, Child v. United States, 851 F.Supp. 1527 (D.Utah 1994) in which the court held that assertion of jurisdiction by Corps of Engineers was unreviewable because it was not a final agency action under the Administrative Procedures Act; owners were not denied due process. Rueth v. United States Envtl. Protection Agency, 13 F.3d 227 (7th Cir. 1993) Court held that district court lacked subject matter jurisdiction in accordance with an action to restrain government from asserting jurisdiction under the Clean Water Act, where the EPA was not yet seeking judicial enforcement of compliance order or administrative penalties. Mulberry Hills Development Corp. v. United States, 772 F.Supp. 1553 (D. Md. 1991) Developer required to exhaust administrative remedies before challenging Federal wetland delineation manual.

Nevertheless, federal designation of wetlands as subject to Section 404 regulation and wetland delineations have also been subject to many court challenges (See cases cited in Box 5.)

Box 5
Section 404 Federal Regulation of Isolated Wetlands

Most of the litigation concerning wetland identification and delineation in the Section 404 program has focused on whether particular wetlands are subject to Corps jurisdiction. In United States v. Riverside Bayview Homes, Inc., 474 U.S.121 (1985), the U.S. Supreme Court broadly upheld Section 404 regulations against claims of taking and held that the Corp could decide that

"adjacent" wetlands fed by ground water, but not subject to periodic flooding by navigable waters, were validly subject to Section 404 jurisdiction in accordance with the Commerce Clause. The court did not make clear what sorts of wetlands would not be subject to jurisdiction.

Sixteen years later, in Solid Waste Agency, Inc. v. United States Army Corps of Eng'rs, 531 U.S. 159 (2001) the U.S. Supreme Court recognized that limits exist as to how far the Corps can extend the Clean Water Act's coverage beyond navigable-in-fact waters. In this case, the United States claimed federal jurisdiction over some ponds in Northern Illinois through the "Migratory Bird Rule." The Court ruled that the Migratory Bird Rule "exceeded the intent of Congress the authority granted to the Corps under the Clean Water Act." The U.S. Supreme Court in the cases suggested that wetlands with a "significant nexus" to navigable waters could be considered jurisdictional but failed to provide further guidance.

These two cases have resulted in a fair number of somewhat conflicting court decisions. For recent cases with a narrow reading of SWANCC and holding that wetlands are subject to Corps jurisdiction see United States v. Deaton, 332 F.3d 698 (4th Cir. 2003) in which the court found jurisdictional wetlands that drain into a ditch which must pass through other waterways to get to navigable-in-fact water. See also United States v. Rapanos, 339 F.3d 447 (6th Cir. Mich. 2003). Wetlands adjacent to a drain which flows into navigable waters are jurisdictional. Carabell v. United States Army Corps of Engineers, 257 F. Supp. 2d 917 (E.D. Mich. 2003) Adjacent waters are jurisdictional.

For cases with broader reading of SWANCC and holding that specific wetlands and waters are not jurisdictional see FD&P Enters v. United States Corps of Engineers, 239 F. Supp. 2d 509 (D.N.J. 2003) in which the court held that more than a simple hydrologic connection must exist for waters to be jurisdictional.). See also United States v. RGM Corp., 222 F. Sup. 2d 780 (E.D. Va. 2002).

Prior to SWANCC, courts broadly endorsed the Corp's exercise of jurisdiction for adjacent wetlands and these cases are (apparently) still good law. See United States v. Banks, 873 F. Supp. 650 (S.D. Fla. 1995) in which the court held that lots were adjacent rather than isolated wetlands, and therefore owner had to apply for individual permits, despite claim that lots were all at least .5 mile from navigable water channels and that paved, elevated street blocked any flow of water between lots and navigable waters of one channel. See also, United States v. Tilton, 705 F.2d 429 (11 Cir. l983) in which the court held that wetlands based upon hydrologic and ecological links to a nearby river were jurisdictional. See United States v. Pozsgai, 999 F.2d 719 (3d Cir. 1993) in which the court upheld district court findings that wetlands on landowners property were adjacent to tributaries of waters susceptible to use in interstate commerce.

Courts also broadly upheld regulation of activities in tributaries to navigable waters. See, for example, United States v. Strandquist, 993 F.2d 395 (4th Cir. 1993) Government proved that discharge for which defendant was charged reached navigable waters of boat basin. United States v. Zonger, 767 F.Supp. 1030 (N.D. Cal. 1991) Intermittent stream a "water of the U.S." where it was or could be used for recreation purposes, and had been used for commercial fishing, and was a tributary. Friends of Santa Fe County v. LAC Minerals, Inc., 892 F.Supp. 1333 (D.N.M. 1995) Arroyo was "water of the U.S." United States v. Sinclair Oil Co., 767 F.Supp. 200 (D. Mont. 1990) Rearrangement of indigenous materials in riverbed requires Section 404 permit.

Courts have held that artificial wetlands created by irrigation and other activities may be subject to Section 404 regulation. See, for example, United States v. Akers, 651 F.Supp. 320 (E.D. Cal. 1987) Wetlands that depend on man-made irrigation and flood control structures are, nevertheless, subject to Section 404 regulation. The issue is whether an area is a wetland and not how it became a wetland. Track 12, Inc. v. U.S. Army Corps of Eng'rs, 618 F.Supp. 448 (D. Minn. 1985) Federal jurisdiction is determined by whether a site is currently wetlands and not by how it became wetlands. See also United States v. Ciampitti, 583 F.Supp. 483 (D.N.J. 1984).

A number of courts prior to SWANCC held that certain isolated wetlands were not subject to Section 404 regulation. See Village of Oconomowoc Lake v. Dayton Hudson Corp., 24 F.3d 962 (7th Cir. 1994) in which the court held that an artificial retention pond, which drained into ground waters, built in conjunction with warehouse was not part of "waters of the U.S.". See Friends of the Payette v. Horsewhoe Bend Hydroelectric Co., 988 F.2d 989 (9th Cir. 1993) in which the court held that Corps did not abuse its discretion in deciding that wetlands maintained by irrigation canal were beyond its jurisdiction. Leslie Salt Co. v. United States, 700 F.Supp. 476 (N.D. Cal. 1988) Property not subject to Corps jurisdiction – not below mean high water mark. Flooding due to the Corps own actions.

Courts have afforded the Corps and the EPA broad discretion in expert fact-finding to define wetlands and delineate wetland boundaries. See, for example, United States v. Banks, 873 F.Supp. 650 (S.D.Fla. l995) and Avoyelles Sportsmen's League, Inc. v. Alexander, 511 F.Supp. 278 (W.D. La. 1981) in which the court held that wetlands vegetation need not spend all of its life in inundated or saturated soils.

State and local delineation of wetland has also been challenged in a small number of decisions and have been sustained as long as they are based on substantial evidence. See Drexler v. Town of New Castle, 465 N.E.2d 836 (N.Y. 1984) in which the court held that local government could regulate wetlands less than 12 acres without formal wetland maps. Craftech Industries, Inc. v. Jorling, 630 N.Y.S.2d 425 (A.D. 1995). Adding .23-acre parcel to mapped 650-acre wetland area was a minor adjustment for which public hearing was not required, and was not arbitrary or capricious. Ellis v. Marsh, 623 N.Y.S.2d 482 (Sup. 1995) Activities conducted during mapping could not change wetland's status.

But, see Warcewicz v. Department of Envtl. Protection, 574 N.E.2d 364 (Mass. 1991). Wetland act did not apply to man-made excavation. Forsell v. Conservation Comm'n of Town of Redding, 682 A.2d 595 (Conn. App. 1996). Substantial evidence must exist for agency decision regarding presence of wetlands or watercourses.

CHAPTER 5: INFORMATION GATHERING AND THE "TAKING" ISSUE

This chapter examines the relationship between information gathering and a legal challenge that wetland regulations "take" private property without payment of just compensation. Taking is the most common challenge to wetland regulations, although relatively few challenges have been successful. The chapter is intended to help the reader understand the factors that courts consider relevant in deciding whether regulations take property, and some of the information needed to help to meet taking challenges.

Taking Challenges and Assessment Needs

As discussed in Chapter 1, governmental units must not only be able to win takings suits if they arise, but also avoid large numbers of costly takings challenges. To do this, agencies need to collect the information that will help support regulations and regulatory decisions. They also need to identify early in permit processing the permits that may be subject to a taking challenge. If such a challenge is likely or possible, the regulatory agency can then gather in greater detail the information necessary to meet the challenge. This information gathering may include:

- Evaluation of current and potential uses for the whole parcel and landowner expectations including the status of regulations at the time the property was acquired.
- Identification of practical alternatives for a proposed activity to give a landowner who has few economic uses for an entire parcel some choices since courts rarely hold that regulations are a taking if a reasonable economic use remain for lands.
- Evaluation of public versus private land ownership boundaries at the site because landowners cannot claim a taking of private property for denial of private activities on public lands.
- Determination of the high water mark and navigability of adjacent waters because landowners cannot, in general, successfully claim a taking where private property interests are subject to public trust or navigable servitude.
- Documentation of health and safety and nuisance threats posed by proposed activities (e.g., water pollution and health threats from a potentially inoperative septic/soil absorption field) because landowners have no right to threaten public safety or cause nuisances.
- Documentation of other land features related to state common law restrictions on the use of private lands (e.g., nuisance, trespass, negligence, nuisance, implied warranty of suitability) because tight regulation of private lands is not a taking if state property law already limits private rights.

The relevancy of these types of information will be explored below.

Constitutional Prohibitions Against Taking Without Payment of Just Compensation

The Fifth Amendment to the U.S. Constitution states:

> …(N)or shall private property be taken for public use without just compensation.

The Fourteenth Amendment provides:

> …(N)or shall any state deprive any person of life, liberty, or property, without due process of law…

Similar provisions are contained in most state constitutions.

Courts have long held that taking for public use without payment of just compensation does not require that legal title be divested from the owner for a compensable taking to arise. The classic statement on the subject is by Justice Holmes in Pennsylvania Coal Co. v. Mahon, 260 U.S. 393 (1922): "The general rule, at least, is that while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking." Id. at 415.

However, courts have rarely found wetland regulations and other types of water and land use regulations to be a taking, except where regulations deny economic use of entire parcels and the proposed activities have no nuisance impacts.

Trends in the Courts

In recent years, the U.S. Supreme Court has issued a series of natural resource and land use taking decisions that have significant implications for wetland regulations. See generally First Lutheran Church v. Los Angeles County, 482 U.S. 304 (1987); Nollan v. California Coastal Comm'n, 483 U.S. 825 (1987); Lucas v. South Carolina Coastal Council, 505 U.S. 1003 (1992); Dolan v. City of Tigard, 512 U.S. 374 (1994); City of Monterey v. Del Monte Dunes at Monterey, Ltd, 119 S.Ct. 1624 (1999); Palazzolo v. Rhode Island, 121 S.Ct. 2448 (2001); Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency, 122 S.Ct. 1465 (2002); Solid Waste Agency, Inc. v. United States Army Corps of Eng'rs, 531 U.S. 159 (2001).

These Supreme Court decisions apply to all courts and have resulted in an increase in lower court challenges to wetland regulations on takings grounds in recent years, although the number of lawsuits appears to be tapering off as courts continue to support wetland, floodplain and similar resource protection regulations. See, for example, K&K Constr. Inc. v. Department of Natural Resources, 551 N.W.2d 413 (Mich. App. 1996) overturned on appeal. Bowles v. United States, 31 Fed. Cl. 37 (1994).

Although successful suits are uncommon, regulatory agencies must do more now to support their decision making and meet potential takings challenges than a decade ago.

Factors Considered by Courts In Deciding Whether a Taking Has Occurred

As discussed in Chapter 1, landowners may challenge wetland regulations as a taking in two ways: (1) a general challenge to regulations, claiming that regulations are, in their entirety, a taking; and (2) a site-specific challenge, claiming that regulations may be valid in general, but invalid and a taking as applied to specific property.

Courts have broadly upheld wetland regulations against general challenges of taking. For example, the U.S. Supreme Court unanimously held that the permitting requirements of the Section 404 program were not a taking in United States v. Riverside Bayview Homes, Inc., 474

U.S. 121 (1985). General challenges to wetland regulations have succeeded in a few early wetland and floodplain cases, where regulations have prevented all economic use of entire properties. See, e.g., Morris County Land Imp. Co. v. Township of Parsippany-Troy Hills, 193 A.2d 232 (N.J. 1963).

However, courts have more often held wetland regulations a taking as applied to particular wetland properties in more suits, particularly in the lower courts. See, for example, K&K Constr., Inc. v. Department of Natural Resources, 551 N.W.2d 413 (Mich. App. 1996) overturned. Bowles v. United States, 31 Fed. Cl. 37 (1994).

In deciding whether a taking has occurred, a court typically examines two sets of factors. First, it ascertains whether the property owner's interests are constitutionally protected. The court then determines whether the governmental action, in interfering with these interests, violates constitutional guarantees. The court decides the latter by examining the character of the government action and the impact of the regulation on the landowner, including interference with investment-backed expectations. See, e.g., Outdoor Graphics, Inc. v. City of Burlington, 103 F.3d 690 (8th Cir. 1996).

Does a Constitutionally Protected Interest Exist?

In conducting a wetlands takings analysis, a court first begins by determining whether the landowner has a protected property interest. See Outdoor Graphics, Inc. v. City of Burlington, 103 F.3d 690 (8th Cir. 1996). Wisconsin Retired Teachers Ass'n v. Employee Trust Funds Bd., 558 N.W.2d 83 (Wis. 1997). Washington Legal Foundation v. Texas Equal Access to Justice Foundation, 94 F.3d 996 (5th Cir. 1996).

Courts determine whether a constitutionally protected property interest exists by examining more specific factors:

1. Does the individual who challenges the regulations own the wetland? If so, what is the nature of this ownership? Many wetlands are partially in public ownership, particularly wetlands below the mean high water mark. (See Box 6.) Sometimes landowners do not own wetlands even if they think they do. See, e.g., Phillips Petroleum Co. v. Mississippi, 484 U.S. 469 (1988) Supreme Court held that private landowners, who believed they owned estuarine wetlands in Mississippi subject to the ebb and flow of the tide, and who had paid taxes on these lands for more than 100 years, did not in fact own the lands and could not claim a taking when the state leased the lands to someone else.

If a wetland is publicly owned, taking of private property does not occur by denial of a private permit. Determination of public/private land boundaries is, therefore, important in addressing and avoiding taking problems since most wetlands adjacent to major lakes, estuaries and the oceans, and many wetlands along major rivers are at least partially owned by the public

2. Is the property subject to public trust and/or navigable servitude? Public trust is a state doctrine and applies to most wetlands adjacent to public waters. The navigable servitude is a federal doctrine and applies to lands adjacent to federally navigable waters. Like the trust doctrine, it applies to the high water mark. Even if a wetland is privately owned, it may be subject to public trust or navigable servitude, particularly if the wetland, or a section of it, lies

below the high water mark and is adjacent to a body of water. In general, courts hold that private property rights are subject to public trust and navigable servitude. Therefore, courts are less likely to hold that a restrictive regulation for lands subject to public trust is a taking when the regulations further this trust. See, e.g., Just v. Marinette County, 201 N.W.2d 761 (Wis. 1972); Marks v. United States, 34 Fed. Cl. 387 (1995). Slade, D. et al., Putting the Public Trust Doctrine to Work, Coastal States Organization Washington D.C. (1990) cites many cases.

The Wisconsin Supreme Court in Just v. Marinette County, 201 N.W. 761 (Wis. 1972) in one leading case endorsed the trust doctrine in holding that wetland regulations were not a taking. The court concluded: "An owner of land has no absolute and unlimited right to change the essential character of his land so as to use it for a purpose for which it was unsuited in it natural state and which injures the rights of others." Id. at 768. See also Sibson v. State, 336 A.2d 239 (N.H. 1975). Courts have held that the federal government is not required to pay for economic loss resulting from exercise of navigable servitude in accordance with its power to regulate navigable waters. United States v. 30.54 Acres of Land Situated in Green County, 90 F.3d 790 (3d Cir. 1996).

Documentation of lands subject to public trust and navigable servitude (usually below the high water mark) is, therefore, also a priority in avoiding and addressing taking challenges.

Box 6
Public vs. Private Ownership of Wetlands

In the United States, the public originally owned most lands up to the high water mark on navigable waters, including adjacent wetlands. At the time of statehood, public ownership of lands up to the high water mark passed from the federal government to the states. States retained title to these lands, unless the lands were sold or transferred to private individuals. Consequently, the beds of most navigable lakes and coastal and estuarine waters are owned by states to the high water mark, if the title has not been transferred. The beds of some navigable rivers are also owned by the states.

For an excellent discussion of ownership issues, including the public trust doctrine and thousands of case law citations, see Slade, D. et. al., Putting the Public Trust Doctrine to Work, Coastal States Organization, Washington, D.C. (1990). Even if the beds of navigable waters have been transferred to private ownership, beds and waters are typically subject to state public trust and, in some instances, federal navigable servitude to the high water mark. See, e.g., Hall v. Nascimento, 594 A.2d 874 (R.I. 1991); Marks v. United States, 34 Fed. Cl. 387 (1995).

Most wetlands adjacent to navigable waters are wholly or to some extent publicly owned, up to the ordinary high water mark, even where the upland portion of a wetland is privately owned. See, e.g., State v. Superior Court of Placer County, 172 Cal. Rptr. 713 (Sup. 1981); 101 Ranch v. United States, 905 F.2d 180 (8th Cir. 1990). The beds of depressional, slope and flats wetlands are not similarly owned by the public or subject to state public trust or federal navigable servitude.

Determination of ownership boundaries may be difficult. First, it is necessary to apply the appropriate concept of navigability to the water body and then determine the high water mark.

Navigability, for the purpose of determining whether the beds of lakes or tidal waters are in state ownership or whether state public trust applies to privately owned lake, tidal or riverine beds and waters, is an issue of state law. Navigable servitude is an issue of federal law, and the federal test for navigability must be applied.

Determination of public/private boundaries is also complicated by the common practice of describing private parcels in deeds by metes and bounds or angles (degrees) and distances for upland boundaries, and to designate "to the waters edge" or to the "thread" of a stream for the remaining boundary, without being more specific. These boundaries may change over time as erosion and deposition occurs in rivers, streams, lakes and along the coasts. In such circumstances, legal boundaries migrate along with natural changes. See, e.g., Beach Colony II v. Coastal Comm'n of State of California, 199 Cal.Rptr. 195 (Cal. App. 1984).

In general, property boundaries do not change if erosion or deposition occurs due to large and severe flood and erosion events, such as coastal storms.

3. Does the proposed activity threaten public safety? Courts have broadly held that landowners have no right to threaten public safety and have afforded what amounts to a special presumption in favor of regulations to protect health and safety, even when regulations have severe impact on private landowners. Courts also give legislative bodies and administrative agencies broad discretion in protecting public safety. For example, the Supreme Court in Queenside Hills Realty Co. v. Saxl, 328 U.S. 80 (1946) observed that "(t)he legislature may choose not to take the chance that human life will be lost in lodging house fires and adopt the most conservative course which science and engineering offer." Id. at 83. See also Hamel v. Board of Health of Edgartown, 664 N.E.2d 1199 (Mass. App. 1996). Strong presumption of validity for Board of Health regulations. Erb v. Maryland Dep't of Env't, 676 A.2d 1017 (Md. App. 1996). Regulation of sewage consistent with the state law of nuisance even if no economic use remains for lands. Christianson v. Snohomish Health Dist., 917 P.2d 1093 (Wash. App. 1996). Public health resolution for substandard septic tank systems valid.

Therefore, documentation of pollution, toxic waste, adequate onsite waste disposal and other hazards that a proposed activity poses is important in meeting potential takings challenge.

4. Does the proposed activity have potential flood, erosion, subsidence or other nuisance impacts to other lands? At common law, landowners have both rights and duties. They have a duty to use their lands in a manner that does not threaten adjacent landowners and society, for example, cause "nuisances." Courts do not hold prevention of activities that may constitute a nuisance a taking because no landowner has a right to make a nuisance. See, for example, Goldblatt v. Hempstead, 369 U.S. 590 (1962); Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470 (1987).

It is therefore important for regulators to document possible offsite impacts of proposed activities in wetlands, including the role of wetlands in flood conveyance, flood storage, erosion control wave attenuation, water pollution control and the impact of activities on these functions and other properties.

What Is the Nature of the Government Action?

In deciding whether a taking has occurred, once the court determines that a permit applicant has a valid property interest, the court will then focus on the nature of the government action. In examining the nature of the action, the court often asks additional questions. Agencies must have adequate information gathering and analysis to address these questions.

1. Have the regulations been adopted to serve valid goals? Courts have afforded legislative bodies broad discretion in determining regulatory goals. See Berman v. Parker, 348 U.S. 26 (1954). The U.S. Supreme Court in United States v. Riverside Bayview Homes, Inc., 474 U.S. 121 (1985) strongly endorsed federal Section 404 wetland regulatory goals. State courts have similarly endorsed wetland/water protection goals.

However, courts have held invalid or failed to provide much weight to some goals. For example, efforts to hold down land costs prior to acquisition have been held a taking. See, e.g., Burrows v. City of Keene, 432 A.2d 15 (N.H. 1981) in which the court held that attempts to lower land values prior to acquisition through adoption of a conservation zone was a taking. Hermanson v. Board of County Comm'rs, 595 P.2d 694 (Colo.App. 1979). Court held that county regulations to hold down property values for a dam were a taking. But, see Ramsey v. Stevens, 283 N.W.2d 918 (Minn. 1979) in which the court held that floodway restrictions, which incidentally reduced land values prior to acquisition of a floodplain for park use, were not a taking.

Courts have afforded regulatory objectives different degrees of importance in balancing public and private interests. Courts have particularly sustained regulations designed to protect public health and safety, in part, because landowners have no right to threaten public health and safety. For example, an Illinois court in Cleaners Guild v. Chicago, 37 N.E.2d 857 (Ill. 1941) stated (quoting an earlier case):

> When the city council considers some occupation or thing dangerous to the health of the community, and in the exercise of its discretion passes an ordinance to prevent such a danger, it is the policy of law to favor such legislation. Municipalities are allowed a greater degree of liberty of legislation in this direction than any other…The most important of the police powers is that of caring for the safety and health of the community.

Id. at 865.

Courts have consistently sustained regulations to protect safety or prevent nuisances. See generally, Lindquist v. Omaha Realty, Inc. 247 N.W.2d 684 (S.D. 1976). Court held that the resolution of Rapid City South Dakota Council that prohibited issuance of building permits for one block on each side of Rapid Creek after a devastating flood, until a planning commission completed a study, was a valid exercise of police powers and not a taking. Foreman v. State Dep't of Natural Resources, 387 N.E.2d 455 (Ind. App. 1979) Court sustained an injunction that prohibited defendants from making deposits on a floodway as not a taking of property and required removal of deposits previously made.

See also Zisk v. City of Roseville, 127 Cal. Rptr. 896 (Cal.App. 1976). Court held that no taking occurred when Roseville adopted a "park and streambed element" to its general plan that

recommended acquisition of selected floodplain areas and subsequently adopted a flood ordinance controlling this area. Spiegle v. Beach Haven, 218 A.2d 129 (N.J. 1966). Court upheld building setbacks and fence ordinances for a coastal area, which had been badly damaged by the Ash Wednesday storm of March 1962, against claims that the regulations were a taking of private property. McCarthy v. City of Manhattan Beach, 264 P.2d 932 (Cal. 1953). Court upheld beach zoning district, which limited the beach to open space recreational uses, based in part on potential for storm damage to structures if constructed in the beach area. Fallen Leaf Protection Ass'n. v. South Tahoe Public Util. Dist., 120 Cal. Rptr. 538 (Cal.App. 1975). Court held that sections of Water Code that provided that the use of cesspools or septic tanks in Lake Tahoe watershed is a public nuisance are valid. Town of Indialantic v. McNulty, 400 So.2d 1227 (Fla. App. 1981). Court held that beach setback line designed, in part, to reduce flooding and erosion damage, was constitutional. Hall v. Board of Envtl. Protection, 498 A.2d 260 (Me. 1985) Court upheld regulations that prohibited construction in sand dune area, but remanded for evidence on taking claim. Kopetzke v. County of San Mateo, 396 F.Supp 1004 (N.D. Cal. 1975) Court held that county regulations that require a geologic report about soil stability was not a taking. Usdin v. State Dep't of Envtl. Protection, 414 A.2d 280 (N.J. 1980). Court upheld state floodway regulations that prohibit structures for human occupancy, storage of materials, and depositing solid wastes because of threats to occupants of floodway lands and to occupants of other lands. Young Plumbing and Heating Co. v. Iowa Natural Resources Council, 276 N.W.2d 377 (Iowa 1979). Court sustained denial of a state permit for a condominium in a floodway, where such a structure would have raised the level of flood waters on property on other side of the creek. The concept of "equal degree of encroachment" was endorsed as well as efforts to anticipate watershed conditions. Maple Leaf Investors, Inc. v. State Dep't of Ecology, 565 P.2d 1162 (Wash. 1977). Court upheld denial of a permit for houses in floodway of the Cedar River because there was danger to persons living in a floodway and to property down steam. Beverly Bank v. Illinois Dep't of Transp., 579 N.E.2d 815 (Ill. 1991). Court upheld statute that prohibited residences in 100-year floodway in part to protect flood storage.

Courts have also endorsed protection of ecological values, but have traditionally afforded them less weight than protection of safety and prevention of nuisances, which go the heart of the property right. Pollution prevention has been afforded substantial weight. See, for example, Biggs v. Town of Sandwich, 470 A.2d 928 (N.H. 1984) in which the Supreme Court of New Hampshire upheld zoning board of adjustment's denial of a variance for a septic tank permit because the proposed septic tank would have been within a 125-foot setback area from a wetland. The court observed:

> The members of the ZBA (Zoning Board of Appeals) walked the land and examined the pertinent topographical features. They also heard the testimony of the plaintiff's expert. Based on this evidence, and their own knowledge, experience, and observations…they concluded that the septic system's proximity to the wetlands created an unacceptable potential for contamination and ecological damage.

Id. at 932.
See also Claridge v. New Hampshire Wetlands Bd., 485 A.2d 287 (N.H. 1984).
Saturley v. Hollis Zoning Bd. of Adjustment, 533 A.2d 29 (N.H. 1987).

However courts have, in a number of cases, held that severe restrictions, which deny all economic use of lands based primarily on ecological considerations, are a taking. See Annicelli v. Town of South Kingston, 463 A.2d 133 (R.I. 1983). Court held regulations that prevented

building on barrier island were a taking. Morris County Land Improvement Co. v. Parsipanny Troy Hills Township, 193 A.2d 232 (N.J. 1963). Court invalidated a wetland conservancy district that permitted no economic uses, where the district was primarily designed to preserve wildlife and flood storage.

An exception is to be found in the cases following Just v. Marinette County, 201 N.W.2d 761 (Wis. 1972), in which the Wisconsin Supreme Court held that private property was subject to public trust values. See discussion above.

2. Are the regulatory standards and conditions reasonably related to the goals? To meet due process challenges, regulatory standards must help meet the goals of the regulation. See Nollan v. California Coastal Comm'n, 483 U.S. 825 (1987). As the U.S. Supreme Court in Lucas v. South Carolina Coastal Council, 505 U.S. 1003 (1992) observed, "(T)he Fifth Amendment is violated when land-use regulation does not substantially advance legitimate state interests…." Id. at 1016.

A landowner must overcome the presumption of validity it he or she claims that regulations lack a relationship to regulatory goals. Courts have held that with regard to local zoning adopted by a legislative body "(I)n order to support his constitutional claims the plaintiff is required to prove that the defendant's actions were clearly arbitrary, unreasonable, and discriminatory and bore no substantial relation to the health, safety, convenience and welfare of the community." Burns v. City of Des Peres, 534 F.2d 103, 108 (8th Cir. 1976), cert. denied, 429 U.S. 861 (1976). Courts have held that if the issue is "fairly debatable" a legislative act must be upheld. See Shelton v. City of College Station, 780 F.2d 475 (5th Cir. 1986), cert. denied, 477 U.S. 905 (1986).

Despite overall support for legislative and agency actions, the Supreme Court in the last decade has examined with increasing care the nexus between regulatory standards, goals and objectives in more traditional regulatory contexts, particularly when agencies attach conditions to development. See Nollan v. California Coastal Comm'n, 483 U.S. 825 (1987); Dolan v. City of Tigard, 512 U.S. 374 (1994). In Dolan the Supreme Court held that city regulations for the 100-year floodplain which required a property owner to donate a 15-foot bike path along the stream were not reasonably related to the goals of the regulation and were therefore a taking. The Court stated that the municipality had to establish that the dedication requirement had "rough proportionality" to the burden on the public created by the proposed development. The Court later in City of Monterey v. Del Monte Dunes at Monterey, Ltd, 119 S.Ct. 1624 (1999) held that rough proportionality test was limited to exactions of interests in land for public use.

As far as the author of this report could determine, no court has invalidated a wetland regulation as having inadequate relationship between regulatory standards and goals or objectives, and courts have sustained a broad variety of conditions, including mitigation requirements. See, e.g., Plantation Landing Resort, Inc. v. United States, 30 Fed. Cl. 63 (1993).

3. Does the gain to the public outweigh the detriment to private landowners? Courts typically attempt to balance public and private interests in deciding whether regulations take private property. As the Illinois court in Miller Bros. Lumber Co., v. City of Chicago, 111 N.E.2d 149 (Ill. 1953) observed, "If the gain to the public is small…when compared with the hardship imposed upon individual property owners, no valid basis for an exercise of police power exists. The cases announcing these principles are legion…" Id. at 153. See also Tahoe-

Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency, 122 S.Ct. 1465 (2002); Palazzolo v. Rhode Island, 121 S.Ct. 2448 (2001).

For other cases that balance public and private interests in wetland and floodplain contexts, see Beverly Bank v. Illinois Dep't of Transp., 579 N.E.2d 15 (Ill. 1991) in which the court upheld statute that prohibits residences in 100-year floodway, in part to protect flood storage. Bickerstaff Clay Products Co., Inc. v. Harris County, 89 F.3d 1481 (11th Cir. 1996).

Relevant factors in this balancing process include the need for the regulation and the regulatory goals, the best use of the land, amount of financial loss, suitability of land for permitted uses, comparable adjacent uses and classifications, path of development, demand for land and self-created hardship, among other factors.

In balancing public and private interests, courts give great weight to protection of public safety and prevention of nuisances as discussed above. A regulatory agency therefore needs to document possible project impacts on public safety, and other nuisance impacts, in situations where regulations may take private property.

What Is the Impact on the Landowner?

Having determined that a permit applicant has a valid property interest, and that the government action is valid, courts then examine more closely the impact of the regulation on the landowner and balance the public need for the regulation with the impacts. See Bickerstaff Clay Products Co., Inc. v. Harris County, 89 F.3d 1481 (11th Cir. 1996).

As one might expect, courts more closely examine regulations that impose severe burdens on private property. As the Connecticut Supreme Court observed in Strain v. Mims, 193 A. 754 (Conn. 1937) "(W)here the value of property of an individual is seriously affected by a zoning regulation especially applicable to it, this fact imposes an obligation carefully to consider the questions whether the regulation does in fact tend to serve the public welfare and the recognized purposes of zoning". Id. at 759.
This means that a regulatory agency must undertake detailed and accurate information gathering where regulations or denial of a permit may have severe impact on property owners, and particularly where regulations may prevent all economic use of an entire property.

In examining the impact of regulations on private property owners, courts ask several more specific questions:

1. Is any economic use possible for the entire property? Denial of all economic use of land is the bottom line for the taking inquiry in most instances. The burden is on the landowner to establish that property has been deprived of any use to which it is reasonably adapted. Courts have almost invariably upheld wetland and other resource protection regulations against claims of taking, except where regulations deny all economic use of entire properties. See generally Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470 (1987). Zealy v. City of Waukesha, 548 N.W.2d 528 (Wis. 1996). Kusler, Jon. The Lucas Decision, Avoiding "Taking" Problems With Wetland and Floodplain Regulations, 4 Md. J. Contemp. Legal Issues 73 (1993). Kusler, Jon. Open Space Zoning: Valid Regulation or Invalid Taking? 57 Minn. L. Rev. 1 (1972). This will be discussed more below.

2. What were the landowner's expectations at time the property was purchased? Courts also examine the landowner's expectations to determine whether a taking has occurred. See Penn Central Transp. Co. v. City of New York, 438 U.S. 104 (1978) in which the Supreme Court indicated that factors relevant to determination of a taking included, "the character of the government action", "the economic impact of the regulation on the claimant," and "the extent to which the regulation has interfered with distinct investment-backed expectations." Id. at 124. Documentation of the regulations in effect at the time the property was purchased is also important.

Area-wide mapping and regulation of wetlands help reduce takings claims. Once purchasers have notice of restrictive regulations, courts generally hold that purchasers can no longer claim they have reasonable expectations for development.

See, for example, Zealy v. City of Waukesha, 534 N.W. 2d 917 (Wis. App. 1995). Gazza v. New York State Dep't. of Envtl. Conservation, 679 N.E.2d 1035 (NY 1997). Alegria v. Keeney, 687 A.2d 1249 (R.I. 1997). Harvard State Bank v. County of McHenry, 620 N.E.2d 1360 (Ill. App. 1993).

Although regulations in effect at the time of purchase are relevant to the landowner's expectations they do not bar a legal challenge on taking grounds. In Palazzolo v. Rhode Island, 121 S.Ct. 2448 (2001) the U.S. Supreme Court held that purchase of wetland subject to restrictions was not bar to a suit for taking of private property. The test for taking was the value of the entire parcel and not simply the wetland portion. See also Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency, 122 S.Ct. 1465 (2002) in which the Supreme Court upheld temporary ordinances which had applied for 32 months to "high hazard" (steep slope) zones near Lake Tahoe against a claim that they were a taking of private property. The Court applied a "whole parcel" analysis to duration of regulation to decide that no taking had occurred.

The Denial of All Economic Use Test

As indicated above, the "bottom line" test for taking has increasingly been "does the regulation deny all economic use of land". State courts have applied the "denial of all economic use" test for taking for many years. See Kusler, Jon. Open Space Zoning: Valid Regulation or Invalid Taking? 57 Minn. L. Rev. 1 (1972). Broadscale federal application of this rule is more recent. In Lucas v. South Carolina Coastal Council, 505 U.S. 1003, 1027 (1992), Justice Scalia stated the test as a "categorical" rule (with an exception) for taking. Scalia observed, "(w)here the State seeks to sustain regulation that deprives land of all economically beneficial use, we think it may resist compensation only if the logically antecedent inquiry into the nature of the owner's estate shows that the proscribed use interests were not part of this title to begin with…." He offered the following guidance in applying this exception:

> Any limitation (upon the owner's estate) so severe cannot be newly legislated or decreed (without compensation), but must inhere in the title itself, in the restrictions that background principles of the State's law of property and nuisance already place upon land ownership. A law or decree with such an effect must, in other words, do no more than duplicate the result that could have been achieved in the courts by adjacent landowners (or other uniquely affected persons) under the State' law of private nuisance,

> or by the State under its complementary power to abate nuisances that affect the public generally, or otherwise. On this analysis, the owner of a lake bed, for example, would not be entitled to compensation when he is denied the requisite permit to engage in a landfill operation that would have the effect of flooding other's land. Nor the corporate owner of a nuclear generating plant, when its directed to remove to remove all improvements for its land upon discovery that the plant sits astride an earthquake fault.

Id. at 1029.

See, for example, Lopes v. City of Peabody, 629 N.E.2d 1312 (Mass. 1994) in which the Court applied the Lucas categorical rule.

Under the Lucas categorical rule and more traditional takings analyses, mere diminution in value of an entire parcel is not enough to constitute a taking. See, for example, McElwain v. County of Flathead, 811 P.2d 1267 (Mont. 1991) in which the court upheld 100-foot setback between septic tank field and floodplain against claim of taking, although the regulation reduced property values from $75,000 to $25,000, because the property owner was still able to use land, although not as near the river. See also Mock v. Department of Envtl. Resources, 623 A.2d 940 (Penn. 1993) in which the court held that denial of permit to fill wetland to construct an auto repair shop was not a taking, under Lucas analysis.

However, the degree of diminution in value is relevant in deciding whether there has been a denial of all economic use or a broader taking. Other relevant factors include the size and shape of the parcel, existing uses, whether there are areas suitable for building on the parcel, taxes, purchase price, costs of public improvements and costs of reclamation. Justice Scalia in Lucas v. South Carolina Coastal Council, 505 U.S. 1003 (1992), stated that:

> [T]he total taking inquiry we require…will ordinarily entail…analysis of, among other things, the degree of harm to public and land resources, or adjacent private property…, the social value of the claimant's activities and their suitability to the locality in question…, and the relative ease with which the alleged harm can be avoided through measures taken by the claimant and the government (or adjacent landowners) alike…

Id. at 1030, 1031.

What does the categorical rule and relevant factors mean to common wetland regulatory approaches and the information needed to support these regulations in court? Let's examine several groups of decisions.

Conservancy Zoning, Setbacks, Buffers and Large Lot Zoning

Thousands of local governments have adopted conservancy zones that prohibit structures, drainage and most other activities unless the local government issues a "special exception" variance for wetlands. Other local governments and some states have adopted highly restrictive wetland setbacks and buffers. Still others have adopted large lot residential zoning for wetlands and related lands (e.g., 3-5 acres) to ensure that a suitable site for building exists on each lot.

Conservancy zoning, setbacks, buffers and large lot zoning regulations are designed to serve multiple goals, such as reduce losses from natural hazards, protect wetland functions/values,

reduce costs of infrastructure and ensure compatibility among adjacent uses. Wetland functions and values are not typically assessed on a wetland-by-wetland basis.

Courts have broadly sustained multi-objective conservancy regulations, such as wetland conservancy zones, floodplain and floodway zones, agricultural and forestry zones and other zones as long as some economic use remains for whole parcels of land. Economic uses may include agriculture, forestry and recreation. See Zealy v. City of Waukesha, 534 N.W.2d 917 (Wis. App. 1995) in which the court held that change from residential to "nature conservancy" zoning valid. Zerbetz v. Municipality of Anchorage, 856 P.2d 777 (Alaska 1993). Municipal designation of property as "conservation wetlands" was not a compensable taking. Smith v. City of Clearwater, 383 So.2d 681 (Fla. App. 1980). Wetland aquatic zone not invalid as a taking. Steel v. Cape Corp., 677 A.2d 634 (Md. App. 1996). Open-space zoning classification not invalid. County of Adams v. Romeo, 528 N.W.2d 418 (Wis. 1995). In shoreland conservancy zone, landowner cannot use building to sell fish. Department of Community Affairs v. Moorman, 664 So.2d 930 (Fla. 1995). Fencing ban valid within area of "critical state concern." Vanderburgh County v. Rittenhouse, 575 N.E.2d 663 (Ind. App. 1991). Agricultural zoning not a taking for 20-acre parcel due, in part, because owner of adjacent property was interested in leasing property for farming. Harvard State Bank v. County of McHenry, 620 N.E.2d 1360 (Ill.App. 1993). Agricultural zoning not unconstitutional.

Courts have also broadly sustained wetland setbacks and buffers and large lot zoning for wetlands and related lands. (See cases cited in Chapter 4.)

In sustaining these approaches, courts have often considered the possibility that variances and special exceptions may be issued when regulations deny all economic use of land. See, for example, Turnpike Reality Co. v. Town of Dedham, 284 N.E.2d 891 (Mass. 1972), cert. denied, 409 U.S. 1108 (1973) in which the court upheld floodplain zoning regulations essentially limiting floodplain to open-space uses, which included prohibition of residences or other uses that may endanger safety or health of occupants. The land was worth $431,000 before regulations and $53,000 after regulations. Special exceptions were potentially available for the zone. See also Zerbetz v. Municipality of Anchorage, 856 P.2d 777 (Alaska 1993).
Judicial support for conservancy zoning (subject to variance and special exceptions), setbacks, buffers and large lots suggests that wetland regulators do not need to determine the functions and values for each wetland for certain types of regulations, as long as there is a rational basis for overall regulation. Consideration of natural hazards and other health, safety and nuisance impacts, as well as wetland functions and values, strengthens such regulations against possible takings challenges.

Denial of Permits Where Activities Threaten Other Lands

Often regulatory agencies are faced with the prospect of denying all economic uses if they deny permits for industrial, commercial, sand and gravel operations or other activities that offer a rate of return in urban areas with high land values, high taxes, small lots and few economic open-space uses, such as agriculture or forestry.

However, courts have sustained regulations that prohibit activities that threaten public safety or cause nuisances, even if such activities are the only economic uses for lands, if the impacts of the proposed activities fall within Justice Scalia's nuisance exception in Lucas. For these reasons,

documenting potential nuisance impacts for proposed activities is very important, particularly when denial of a permit may result in no or few economic uses for entire lands.

For cases that sustain regulations that prohibit specific activities with nuisance impacts, where no or few economic uses remain for lands, see, for example, Goldblatt v. Town of Hempstead, 369 U.S. 590 (1962) in which the Supreme Court upheld ordinance which prohibited extraction of gravel below the groundwater level against taking claim due, in part, to the possible safety hazards posed by such open water pits. The ordinance prevented economic use of land. See also Foreman v. State Department of Natural Resources, 387 N.E.2d 455 (Ind. App. 1979) in which the court sustained an injunction that prohibited defendants from making deposits on a floodway and required removal of previous deposits as not a taking of property. Young Plumbing and Heating Co., v. Iowa Natural Resources Council, 276 N.W.2d 377 (Iowa 1979). Court sustained denial of a state permit for a condominium in a floodway where structure would have raised the level of flood waters on property on other side of the creek. The concept of "equal degree of encroachment" was strongly endorsed, as well as efforts to anticipate watershed conditions. Usdin v. State Dep't of Envtl. Protection, 414 A.2d 280 (N.J. Super. 1980), Court upheld state floodway regulations that prohibited structures for human occupancy, storage of materials, and depositing solid wastes because of threats to occupants of floodway and other lands. Consolidated Rock Products Co. v. City of Los Angeles, 370 P.2d 342, appeal dismissed, 371 U.S. 36 (1962). Court held that regulations which prevented the extraction of sand and gravel in floodplain were not a taking, despite extraction being the only economic use for the land, because there would have been nuisance impacts on sufferers of respiratory ailments who lived nearby.

In some instances, courts have sustained regulations where few economic uses remain for lands and there were few nuisance impacts, if the only practical uses were subject to natural hazards. See, for example, McCarthy v. City of Manhattan Beach, 264 P.2d 932 (Cal. 1953) in which the court upheld beach zoning district, which limited the beach to open-space recreational uses, based in part on potential for storm damage to structures.

In Spiegle v. Beach Haven, 218 A.2d 129 (N.J. 1966), a New Jersey court upheld against challenge that building setbacks and fence ordinances for a coastal area, which had been badly damaged by the Ash Wednesday storm of March 1962, against claims that the regulations were a taking of private property. The court went beyond evaluating the impact of the activity on other lands and held that the proposed activities were not reasonable in the circumstances, given the severe storm hazard. The court concluded:

> Plaintiffs failed to adduce proof of any economic use to which the property could be put. The borough, on the other hand, adduced unrebutted proof that it would be unsafe to construct houses oceanward of the building line (apparently the only use to which lands similarly located in defendant municipality had been put) because of the possibility that they would be destroyed by a severe storm, a result which occurred during the storm of March, 1962. Additionally, defendant submitted proof that there was great peril to life and health arising through the likely destruction of streets, sewer, water and gas mains, and electric power lines in the proscribed area in an ordinary storm. The gist of this testimony was that such regulation prescribed only such conduct as good husbandry would dictate that plaintiffs should themselves impose on the use of their own lands.

> Consequently, we find that plaintiffs did not sustain the burden of proving that the ordinance resulted in a taking of any beneficial use of their lands.

Id. at 137.

See also Filister v. City of Minneapolis, 133 N.W.2d 500 (Minn. 1964), cert. denied, 382 U.S. 14 (1965) in which the Minnesota Supreme Court refused to invalidate as a taking a residential classification for a wetland area because proposed apartment buildings would have been incompatible with residences in the residential zone. In holding there was no taking, the court observed that "(I)t was not only incumbent on the plaintiffs to show that the ordinance was not confiscatory, but they have the burden of proving by clear and convincing evidence that the relief they sought would not result in detriment to neighboring property improved in reliance on the validity of the ordinance". Id. at 505. See also Hamer v. Town of Ross, 382 P.2d 375 (Cal. 1963). Hodge v. Luckett, 357 S.W.2d 303 (Ky. 1962).

Impact on the Entire Parcel

Courts have, with few exceptions, looked at entire private parcels in deciding whether regulations deny all economic use of lands. See Gorieb v. Fox, 274 U.S. 603 (1927) in which the Supreme Court sustained street setback of approximately 35feet against taking claim. Penn Central Transp. Co. v. City of New York, 438 U.S. 104 (1978). Supreme Court upheld denial of air rights over Grand Central Station as not a taking and looked at the impact of the regulations on the entire property. Keystone Bituminous Coal Association v. De Benedictis, 480 U.S. 470 (1987). Supreme Court considered the impact of regulations restricting coal mining on the entire property, not just a section. MacLeod v. County of Santa Clara, 749 F.2d 541 (9th Cir. 1984), cert. denied, 472 U.S. 1009 (1985). Court held that denial of a permit for a timber operation on a parcel not a taking.

For wetland and floodplain cases in which the court looked at the entire parcel, see Palazzolo v. Rhode Island, 121 S.Ct. 2448 (2001) in which the U.S. Supreme Court held that purchase of wetland subject to restrictions was not bar to a suit for taking of private property but the test for taking was the value of the entire parcel and not simply the wetland portion. See also Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency, 122 S.Ct. 1465 (2002) in which the Supreme Court upheld temporary ordinances which had applied for 32 months to "high hazard" (steep slope) zones near Lake Tahoe against a claim that they were a taking of private property. The Court applied a "whole parcel" analysis to duration of regulation to decide that no taking had occurred.
For state cases see Moskow v. Department of Envtl. Mgmt., 427 N.E.2d 750 (Mass. 1981). Court must look at the effect of a restriction on an entire parcel, not just the wetland portion, in determining whether a taking has occurred. Zealy v. City of Waukesha, 548 N.W.2d 528 (Wis. 1996). Court held that contiguous parcels of undeveloped property had to be considered as a whole, rather than as discrete segments, in determining whether taking arose from wetland conservancy rezoning. Krahl v. Nine Mile Creek Watershed Dist., 283 N.W.2d 538 (Minn. 1979). Court held that watershed district's floodplain encroachment regulations, which tightly controlled development on two-thirds of 11-acre tract, were not an unconstitutional taking.

See also Ciampitti v. United States, 22 Fed. Cl. 310 (1991) Wetlands and uplands must be viewed together; decline in value alone is insufficient to constitute a taking. Tabb Lakes, Ltd., v.

United States, 10 F.3d 796 (Fed. Cir. 1993). Court focused on impact of Section 404 regulation on whole parcel in deciding that cease and desist order was not a taking. Volkema v. Department of Natural Resources, 542 N.W.2d 282 (Mich. App. 1995). Entire parcel available for development must be considered in determining extent of loss of 6-acre portion as protected wetlands. Manor Development Corp. v. Conservation Comm'n of Town of Simsbury, 433 A.2d 999 (Conn. 1980). Entire parcel and not impact on seven lots in wetland should be considered. American Dredging Co. v. State Dep't of Envtl. Protection, 404 A.2d 42 (N.J. App. 1979). 2,500-acre tract must be considered in its entirety in determining whether restriction on 80 acres prevented all practical use of property. Smith v. Williams, 560 N.Y.S.2d 816 (A.D. 1990). No taking, landowner failed to produce any evidence of value of entire property and department produced evidence showing that if property were subdivided its market value would exceed $230,000. Deltona Corp. v. United States, 657 F.2d 1184 (Cl. Ct. 1984). U.S. Court of Claims held that Corps of Engineers denial of a permit to dredge and fill a mangrove wetland in Florida did not take property because denial of the permit would affect the usefulness of only a section of the property.

Not all courts have applied a whole parcel analysis but these courts have been in the minority and decisions precede Palazzolo. See Allingham v. City of Seattle, 749 P.2d 160 (Wash. 1988) in which the court held that greenbelt ordinance requiring 70 percent of a lot to be held as open space was a taking. Nollan v. California Coastal Comm'n, 483 U.S. 825 (1987). Dedication requirements for a portion of a property a taking; however, dedication requirements were also held not reasonably related to regulatory goals.

Because state and federal courts have, with limited exceptions, examined the impact of regulations on entire parcels in deciding whether regulations deny all economic use of land, lot size becomes important. A regulatory agency that carries out a wetland assessment should therefore consider lot size in evaluating the potential for a possible takings challenge.

Anticipating a Possible Taking Challenge

Regulatory agencies need to gather the right types of information and at adequate scales to defend regulations, permit denials and conditions against taking challenges, although this need not be a concern on all permits. A successful taking challenge is unlikely when a regulatory agency applies a "performance standard" approach to permitting to achieve a "no net loss of function" goal, with conditions attached to individual permits that are reasonably related to achieving that goal. Restrictive, multi-objective approaches (e.g., conservancy zoning) have also been broadly upheld, providing that variances or special exceptions are available in situations where the regulations may deny all economic use of lands as indicated above.

A successful taking challenge is also unlikely where:

- A landowner has an existing residence or business on part of a lot that includes all or a portion of a wetland.
- Land values are low and the wetland or adjacent portions of a parcel provide economic returns from forestry, agriculture or recreational activities.
- A permit applicant is proposing an activity on public lands, where lands/waters are below the mean high water mark on navigable water subject to public trust or navigable servitude.

- The regulatory agency has adopted regulations prior to the purchase of land by a permit applicant, and the applicant is claiming that denial of the speculative value is a taking, although prior purchase does not bar a suit.
- The landowner can sell the wetland for a profit.
- A proposed activity will threaten public safety (e.g., inadequate onsite waste disposal) or have nuisance impact on public or private property (e.g., block flood flows).

When a successful taking challenge is possible or probable, the regulatory agency may focus data gathering on public health and nuisance aspects of the proposed activities, and public trust and navigable servitude implications. The agency may also take positive actions with the landowner to avoid a taking challenge, such as suggesting alternative economic uses for the property. In some instances, the agency may be able to provide transferable development rights to the landowner (this depends on the overall regulations). The agency may suggest that the landowner reduce income and property taxes by donating the wetland or easement to a nonprofit organization, such as the Nature Conservancy or enrolling in open space -space tax abatement programs available in the state. Financial burdens may also be lessened by enrolling the wetland in the Wetland Reserve program.

CHAPTER 6: AGENCY LIABILITY FOR PERMITTING ACTIVITIES THAT DAMAGE OTHER LANDS

The major concern of regulatory agencies has been takings or other infirmities with regulations. However, governmental units may also be held liable to adjacent landowners not only for denying permits, but also for issuing them, where issuance causes flooding, erosion or other damage to properties. (See Box 6 for various theories of liability for creating a permitting activities which may damage other lands. For example, in Hurst v. United States, 739 F.Supp. 1377 (D.S.D. 1990) private landowners successfully sued the Corps of Engineers for flood and erosion damage that resulted from the Corps issuance of a Section 10 and 404 permit for construction of jetties in a river. The court held that the Corps had negligently supervised the project and failed to issue a prohibitory order to prevent the activities that caused the flood and erosion damage.

Traditionally, government units could not be sued for issuing permits. Courts have held that governments were immune from liability for issuance or denial of all sorts of regulatory permits because issuance or denial was considered a "discretionary function" and these functions are often protected by sovereign immunity. See Wilcox Assocs. v. Fairbanks North Star Borough, 603 P.2d 903 (Alaska 1979) and cases cited therein.

To some extent, this is changing. Courts have recognized qualifications on the rule, particularly where the issuance of a permit results in flood, erosion or other damage to other lands. See Annot., "Liability of Government Entity for Issuance of Permit for Construction Which Caused or Accelerated Flooding", 62 A.L.R.3d 514 (1975) which cites many cases. Cootey v. Sun Inv., Inc., 690 P.2d 1324 (Haw.App. 1984) in which a Hawaii court held that a county may be liable for approving a subdivision with inadequate drainage: "(I)n controlling the actions of a subdivider of land, a municipality has a duty not to require or approve installation of drainage facilities which create an unreasonable risk of foreseeable harm to a neighboring landowner, and where a breach of that duty is established, a municipality may be held liable for consequential damages". Id. at 1332. City of Columbus v. Smith, 316 S.E.2d 761 (Ga.App. 1984). City may be held liable for approving construction project resulting in flooding. Pickle v. Board of County Comm'rs of Platte, 764 P.2d 262 (Wyo. 1988). County had duty of exercising reasonable care in reviewing subdivision plan.

Courts have also held governmental units responsible for damages that result from incorrectly designed storm sewers, roads or other facilities installed in subdivisions by developers who are approved by and dedicated to the government unit. See, for example, City of Columbus v. Myszka, 272 S.E.2d 302 (Ga. 1980). City liable for subdivision that caused flooding. Powell v. Village of Mt. Zion, 410 N.E.2d 525 (Ill.App. 1980). Once village approves and adopts sewer system constructed by developer, village may be held liable for damage it causes. County of Clark v. Powers, 611 P.2d 1072 (Nev. 1980) County liable for flood damage caused by county approved subdivision. Myotte v. Village of Mayfield, 375 N.E.2d 816 (Ohio App. 1977). Village liable for flood damage caused by issuance of a building permit for industrial park.

Finally, courts have held governmental units responsible for inadequate permit enforcement in some instances, but this is rare. See Hurst v. United States, 739 F. Supp. 1377 (D.S.D. 1990). Radach v. Gunderson, 695 P.2d 128 (Wash. App. 1985). City liable for expense of moving ocean front house that did not meet zoning setback, that had been constructed in accordance with a permit issued by the city, when the city was aware of violation before construction.

These cases suggest that regulatory agencies should evaluate, or require that the permit applicant evaluate the impact of proposed activities on flooding, erosion and other natural hazards on adjacent lands. Agencies should avoid issuing permits where damages will occur.

Box 7
Common Law Limitations on Private Property Rights

Common law property rights and duties are relevant to regulatory permitting in two ways:

(1) Common law limitations on property use are relevant to constitutional taking because landowners have no right to undertake activities that would not be permitted at common law
(2) Agencies may be liable under various common law duties for issuing permits that damage other landowners than the permit applicant.

At common law, landowners have both rights and duties with regard to use of lands and waters. In general, landowners have no right to use private land or waters in a manner that will cause or increase damage to other private or public lands. For example, at common law landowners may not legally block flood flows in a river or stream, causing flood damage to upstream or other properties. There are thousands of cases in which one landowner has successfully sued another for flood or erosion damage caused by fills, grading, drainage or other activities.

In many states, statutes partially codify common law rights and duties. For example, Texas Water Code, section 11.086 makes it unlawful for any person to divert the natural flow of waters or to impound surface waters in a manner that damages the property of others. See Miller v. Letzerich, 49 S.W.2d 404 (Tex. 1932).

In addition, lower courts and the Supreme Court have upheld state laws that change "common enemy" water law concepts. See, e.g., Chicago & Alton R.R. Co. v. Tranbarger, 238 U.S. 67 (1915); Peterson v. Northern Pac. Ry. Co., l56 N.W. 121 (Minn. 1916); Tranbarger v. Chicago & Alton R.R. Co., 156 S.W. 694 (Miss. 1913).

Landowner rights and duties are governed by many specific, common law doctrines. For a brief description of these doctrines, with citations, see Kusler, Jon. The Lucas Decision, Avoiding "Taking" Problems With Wetland and Floodplain Regulations, 4 Md. J. Contemp. Legal Issues 73 (1993).

These doctrines include, but are not limited to:

Nuisance. Landowners may sue other landowners for physically interfering with land use. The concept of nuisance reflects the fundamental reciprocal rights of adjacent landowners to make reasonable use of their lands, as along as uses do not substantially interfere with the use of adjacent lands. Traditionally, courts have followed the maxim "so use your own property that you do not injure another's property." See Keystone Bituminous Coal Association v. DeBenedictus, 480 U.S. 470 (1987) which cites many cases.

Trespass. Private landowners may also sue other landowners for activities that increase flood, erosion, pollution and other physical damages to adjacent lands under the theory of trespass. See, generally, Docheff v. City of Broomfield, 623 P.2d 69 (Colo.App. 1980); Hadfield v. Oakland County Drain Comm'r, 422 N.W.2d 205 (Mich. 1988).

Negligence. At common law, all individuals have a duty to other members of society to act "reasonably" in a manner that does not damage other members of society. Private landowners may sue other landowners, including governmental entities, for acting "unreasonably" with resulting flood, erosion, pollution, subsidence or other damages to individuals or property. See, e.g., Kunz v. Utah Power and Light Co., 526 F.2d 500 (9th Cir. 1975).

Strict liability. In many states, landowners may sue other landowners for damages that result from a "hazardous" activity, whether or not the action is "reasonable." For example, maintenance of a dam has been considered a hazardous or ultrahazardous activity in many states. Landowners are liable for damages from breach of the dam, whether or not they acted reasonably in maintaining the dam. See, e.g., Rylands v. Fletcher, L.R. 3 H.L. 330 (1868); Annot., "Applicability of Rule of Strict or Absolute Liability to Overflow or Escape of Water Caused by Dam Failure", 51 A.L.R.3d 965 (1973).

The law of surface water. In general, landowners can sue other landowners for diverting, channelizing or otherwise manipulating surface water not in a channel or defined water body in a manner that increases damages on other lands. However, the law differs from jurisdiction to jurisdiction. See, e.g., Butler v. Bruno, 341 A.2d 735 (R.I. 1975); Wilson v. Ramacher, 352 N.W.2d 389 (Minn. 1984).

Surface water appropriation rights. Landowners in the West with prior appropriation rights to the flow of a river or stream can sue other landowners for interfering with these rights, such as damning or diverting flows. In accordance with this doctrine, landowners enjoy "first come, first serve" rights to the use of streams and other waters that are actually appropriated to particular uses. See United States v. State of Or. Water Resources Dep't, 774 F.Supp. 1568 (D.Or. 1991); Diack v. City of Portland, 759 P.2d 1070 (Or. 1988).

Riparian rights. Riparian landowners (landowners abutting a lake, river, estuary) in areas that apply riparian law can sue others for "unreasonably" interfering with riparian rights by polluting waters, diverting waters, blocking flood flows or causing other damages. See, e.g., Lowden v. Bosler, 163 P.2d 957 (Okla. 1945). Many cases cited in Annot., "Right of Riparian Owner to Construct Dikes, Embankments, or Other Structures Necessary to Maintain or Restore Bank of Stream or to Prevent Flood", 23 A.L.R. 2d 750 (1952).

Implied warranty of suitability or habitability. In most states, the buyer of a new residential structure may sue the seller if the structure is not usable for its intended purpose due to flooding, subsidence, cracking walls, etc. See, e.g., Richards v. Powercraft Homes, Inc., 678 P.2d 427 (Ariz. 1984). This doctrine has been extended to existing dwellings and even undeveloped lots in some instances. See, e.g., Beri, Inc. v. Salishan Properties, Inc. 580 P.2d 173 (Or. 1978) which held that a real estate developer of ocean front lots subject to erosion was potentially liable for failing to evaluate the degree or erosion at a site.

CHAPTER 7: MEETING LEGAL NEEDS BETTER

Recommendations for Scientists

How can scientists design wetland assessment methods that better meet the legal needs of regulators?

For a start, scientists need a more comprehensive understanding of regulatory programs, including goals, criteria, and procedures. They need to know that regulators must determine the impact of proposed activities on wildlife and other functions and values listed in regulatory criteria, and whether a proposed permit application will, with proposed mitigation, provide no net loss of functions and values. They need to understand (at least in a preliminary way) judicial issues of the sort outlined in this report.

Scientists who design assessment methods often seem to assume they can use whatever criteria and procedures they choose (e.g., processes, condition, etc.) to measure impacts or determine compensation needs. While agencies have discretion in selecting assessment methods, the methods must provide the information needed to apply wetland definitions, mapping requirements, regulatory criteria, and other features of wetland statutes and regulations as discussed above.

Scientists need to develop techniques that relate wetland assessment to broader natural resource assessment and planning processes, and evaluate entire projects, not just a wetland component. Regulatory agencies often control more than wetlands and many projects affect not only wetlands, but also adjacent aquatic ecosystems, riparian areas, floodplains and uplands. Broader techniques are needed to help local planning and zoning agencies allocate lands throughout a community to their most suitable uses, and to help agencies analyze alternatives.

Apart from strict legal requirements, scientists need to provide regulators with assessment techniques that make sense in typical regulatory permitting situations (e.g., urban, altered wetlands where only a portion of a wetland will be affected by a permit). These approaches must be understood by landowner/consultants, as well as regulatory agencies, since consultants often carry out much of the assessment and help agencies avoid legal challenges. These assessment techniques need to sequence the information gathered in a manner that permits rapid sorting and prioritization.

Courts are particularly likely to support wetland regulations that have been developed and implemented as part of an overall inventory and planning process, which treats all private landowners fairly. The rationality of the overall regulatory scheme is important. Linking wetland assessment and management to broader land and water use management can help provide a broader context.

Scientists should also be careful about recommending any assessment approach that is time consuming, expensive and provides only a portion of the information regulators need.

Recommendations for Regulators

How can regulators help scientists design assessment approaches that meet their needs? How can they select among various assessment methods? How can they best avoid legal problems?

Regulators should make their needs known to scientists who design wetland assessment methods, and regulators should participate in the development of new techniques.

Once regulators have selected an assessment method for a specific permit application, they should keep records of the assessment, including: "Who carried out the assessment? When? Where? How?" Documentation of conditions through field notes and photos are particularly helpful in making findings, writing permit conditions, and for enforcing and defending regulations.

In deciding what information is needed for a particular permit, including scale and accuracy, regulators may best assess not only assess ecological impacts but impacts on landowners. This need not include a detailed investigation, but regulators should at least consider: Will landowners have economic uses for their lands if the permits are denied? Will the proposed activities threaten adjacent properties? What were the landowner's reasonable expectations when s/he acquired the property?

Early consideration of the impact of possible permit denial on landowners can focus assessment. Data gathering related to public/private ownership, hazards and possible nuisance impacts of proposed uses should be emphasized in factual contexts where takings or other court challenges are likely.

Regulators may legally continue to shift much of the data-gathering burden to landowners by requiring the submission of relevant information with permit applications, and more detailed information with regard to specific issues after preliminary analysis. However, regulatory agencies should define information needs in a timely manner so landowners are not subject to late surprises, which may result in takings claims or other challenges.

Regulators can help avoid legal challenges by encouraging pre-permit meetings with landowners to explain information needs. Regulators can reduce landowner costs and frustrations by adopting joint permit processing procedures, compatible wetland assessment requirements at various levels of government, and memoranda of understanding by regulators at various levels of government to reduce duplication and improve consistency.

In conclusion, regulators need to gather and analyze the types and scales of information needed to provide the basis for fair regulatory decisions consistent with regulatory goals, criteria, and procedures. Courts do not demand the impossible, but government actions must be reasonable.

APPENDIX A: DEFINITIONS AND ACRONYMS

Definitions and Acronyms

Definitions: In this report, terms are used in the following ways:

- *Assessment:* includes wetland-related data gathering and analysis, and the presentation of resulting information to regulatory decision-makers. It includes, but is not limited to, mapping, delineation, determination of ownership, natural hazards analysis, project impact analysis, analysis of functions and values, alternatives analysis, determination of mitigation needs, the design of mitigation measures, the determination of compensation needs, including compensation ratios, and monitoring and enforcement of regulations.
- *Capacity:* the ability of a wetland and related water and floodplain/riparian resources to produce goods and services of use to society. Capacity primarily depends on natural hydrologic, biological and chemical processes, as well as on other characteristics, such as soils, topography and size.
- *Data:* raw information, such as aerial photos, vegetation and soils information, topography, etc. not yet analyzed for a specific purpose.
- *Function:* refers to natural processes that contribute to the capacity of a wetland and related ecosystems to provide goods and services.
- *Functions/values:* refers to the goods and services that wetlands provide and their value to society.
- *Information:* data analyzed for a specific purpose; the results of such analysis.
- *Natural:* in an unaltered or relatively unaltered condition.
- *Opportunity:* the present or potential ability of a wetland with certain capacities to actually deliver goods or services to society. Opportunity depends on overall context. For example, a wetland may have the capacity to intercept pollution, but may not do so because there is no pollution. The presence of existing or anticipated pollution sources provides the opportunity for intercepting it.
- *Red flag*: an issue or problem sufficiently serious to warrant denial of a regulatory permit. (Also see, yellow flag.)
- *Social significance:* the existing and reasonably foreseen benefits and costs to people and their attitudes toward these benefits and costs. Social significance in a wetland function/value context depends not only on capacity and opportunity, but also on who benefits and suffers adverse impacts, how many benefit and suffer adverse impacts, how they benefit or suffer costs, to what extent they benefit and suffer costs, and how strongly segments of society feel about the benefits and costs.
- *Value:* describes the attitudes of society toward various wetland goods and services.
- *Yellow flag*: an issue or problem that requires more detailed investigation. A yellow flag issue may become a red flag after additional research (e.g., confirmation of an endangered species).

Acronyms. This report uses the following acronyms.

***EPA*.** The U.S. Environmental Protection Agency.
***GIS*.** Geoinformation System. A geo-referenced information storage and analytical system, usually computerized.
HGM. Hydrogeomorphic Assessment Method. This method is being developed by the U.S. Army Corps of Engineers in cooperation with other agencies.
***IBI*.** Index of Biological Integrity. This is a biological reference standard of biological health and condition developed pursuant to various biological indicator assessment approaches (collectively referred to in this report as IBI assessment approaches).
***NRCS*.** The Natural Resources Conservation Service, United States Department of Agriculture.
HEP. Habitat Evaluation Procedure. This is a wildlife assessment procedure developed by the U.S. Fish and Wildlife Service.
***HEC*.** Hydrologic Engineering Center. A series of hydrologic and hydraulic assessment techniques developed by the Hydrologic Engineering Center, U.S. Army Corps of Engineers.
***WET*.** Wetland Evaluation Technique. This is a rapid assessment approach which was developed by the Federal Highway Administration in cooperation with the U.S. Army Corps of Engineers and other agencies.

APPENDIX B: SELECTED READING

Annot., "Liability of Governmental Entity for Issuance of Permit for Construction Which Caused or Accelerated Flooding", 62 A.L.R.3d 514 (1975)

Annot., "Liability of Municipal Corporation for Negligent Performance of Building Inspector's Duties", 41 A.L.R.3d 567 (1972)

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Annot., "Municipal Immunity form Liability for Torts", 60 A.L.R.2d 1198 (1958)

Annot., "Damage to Private Property Caused by Negligence of Governmental Agents as 'Taking', 'Damage' or 'Use for Public Purposes in Constitutional Sense'," 2 A.L.R.2d 677 (1948)

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