Revenue Options for a Risk-Based Assessment of Developed Property in Hurricane Hazard Zones

Robert E. Deyle
The Florida State University

Mary Kay Falconer
The Florida State University

Follow this and additional works at: https://ir.law.fsu.edu/jluel
Part of the Environmental Law Commons

Recommended Citation
Available at: https://ir.law.fsu.edu/jluel/vol18/iss2/3

This Article is brought to you for free and open access by Scholarship Repository. It has been accepted for inclusion in Florida State University Journal of Land Use and Environmental Law by an authorized editor of Scholarship Repository. For more information, please contact bkaplan@law.fsu.edu.
Revenue Options for a Risk-Based Assessment of Developed Property in Hurricane Hazard Zones

Cover Page Footnote
This article was supported by the National Sea Grant Program of the United States Department of Commerce's National Oceanic and Atmospheric Administration under Grant # R/C-P-21. The views expressed herein do not necessarily reflect the views of any of these organizations. The authors wish to thank Dawn Jordan for her research assistance for this article.
REVENUE OPTIONS FOR A RISK-BASED ASSESSMENT OF DEVELOPED PROPERTY IN HURRICANE HAZARD ZONES

ROBERT E. DEYLE* AND MARY KAY FALCONER**

Table of Contents

I. INTRODUCTION .................................................. 300
II. LOCAL COSTS OF EMERGENCY MANAGEMENT SERVICES FOR HURRICANES .......................... 302
   A. Local Emergency Management Services for Hurricanes ............................................ 302
   B. Estimating the Costs of Local Emergency Management Services ................................. 303
III. RELATIVE-RISK-BASED ASSESSMENT OF PROPERTY DEVELOPMENT IN HURRICANE HAZARD ZONES ................................................................. 305
    A. Relative Risk Indices ................................................................................................. 305
    B. Annual Property Assessments ..................................................................................... 307
IV. LOCAL GOVERNMENT REVENUE OPTIONS FOR FINANCING EMERGENCY MANAGEMENT SERVICES FOR HURRICANES ......................................................... 308
    A. Overview of Local Government Revenue Services ...................................................... 308
    B. Evaluation Criteria ....................................................................................................... 310
    C. Leading Options for a Risk-Based Assessment for Hurricane Emergency Management Services ................................................................. 313
V. THE FEASIBILITY OF A RISK-BASED SPECIAL ASSESSMENT FOR HURRICANE EMERGENCY MANAGEMENT SERVICES IN FLORIDA .................. 313
    A. Special Assessment Revenue Authority in Florida ....................................................... 314
    B. Jurisdictional Issues ..................................................................................................... 316
    C. Expenditure Limitations ............................................................................................... 317
    D. Authorized Purposes ...................................................................................................... 317
    E. Assessment Rates and Methods .................................................................................... 325
VI. CONCLUSION ............................................................ 329

* Associate Professor of Urban and Regional Planning, The Florida State University.
** Research Associate, Institute for Science and Public Affairs, The Florida State University.
I. INTRODUCTION

Development of land in areas exposed to hurricanes places individuals, private property, and public facilities and infrastructure at risk from the potentially damaging forces of wind, waves, and storm surge.\(^1\) In response to this risk, governments at the local, state, and federal levels have assumed responsibility for planning and preparedness for disasters that result from hurricanes that strike human settlements and for response actions such as evacuation, provision of public shelters, and search and rescue. Governments also assume much of the cost of recovery and reconstruction after disasters through direct payments for repairs to damaged public facilities and infrastructure, and through disaster assistance to individuals and businesses whose property has been damaged or destroyed. Governments also have increasingly assumed the costs of mitigation initiatives designed to reduce the vulnerability of both the public and private sectors to hurricane losses.

The public costs engendered by private decisions to develop land in hurricane hazard zones are substantial. Federal expenditures for individual assistance, public assistance, and hazard mitigation associated with hurricanes totaled approximately $3.7 billion between 1988 and 1996.\(^2\) Local government losses from hurricanes in Florida between 1979 and 1995 exceeded $650 million.\(^3\)

In recent years, planning scholars have advocated applying the principle of tax benefit equity to the financing of local government emergency management services consumed by property owners who choose to develop lands in hazardous areas.\(^4\) They have argued that

---

**\(^{***}\) This article was supported by the National Sea Grant Program of the United States Department of Commerce's National Oceanic and Atmospheric Administration under Grant # R/C-P-21. The views expressed herein do not necessarily reflect the views of any of these organizations. The authors wish to thank Dawn Jordan for her research assistance for this article.

1. Storm surges are increases in sea level associated with tropical cyclones that result from low barometric pressure and strong on-shore winds. Storm Surge, at http://www.windows.ucar.edu/cgi-bin/redirect.cgi/earth/Atmosphere/hurricane/surge.html (last visited Jan. 29, 2003).


3. This figure represents the local share of disaster response and recovery costs that were eligible for federal disaster assistance. See Michael R. Boswell et al., A Quantitative Method for Estimating Public Costs of Hurricanes, 23 ENV'T. MGMT. 359 (1999). No data is available for the additional local government costs that were not eligible for federal aid. It has been estimated, however, that those costs may be as much as four times greater. See William J. Petak & Arthur A. Atkinson, NATURAL HAZARD RISK ASSESSMENT AND PUBLIC POLICY: ANTICIPATING THE UNEXPECTED 246 (1982).

4. See Raymond J. Bubby, COOPERATING WITH NATURE: CONFRONTING NATURAL HAZARDS WITH LAND-USE PLANNING FOR SUSTAINABLE COMMUNITIES 278 (1998); Godschalk
it is inequitable and economically inefficient for taxpayers to subsidize private property owners who choose to build vulnerable structures in areas exposed to natural hazards. Under the normative principle of tax benefit equity, consumers of government services pay in proportion to their use of those services. Applied to local emergency management services, such a principle would dictate a shift from funding such services with general revenues to an alternative method of revenue generation based on differential consumption of those services by private property owners.

Such a proposal poses several public policy and legal challenges. Can the costs of emergency management services associated with hurricanes be accurately estimated? Are there practical methods for measuring the differential consumption of such services by property owners in the community? Do local governments have the authority to employ such a method to raise the revenues to finance such services?

Others have answered the first two questions in the affirmative.\(^5\) The results of those analyses are briefly summarized in the next two sections. Section II identifies the major local emergency management services associated with hurricanes and methods for estimating the costs of those services. Section III summarizes a method for apportioning those costs based on the relative risk associated with individual developed properties. A detailed examination of alternative revenue options follows. Section IV assesses the potential for financing local emergency management services associated with hurricanes using alternative revenue sources that local governments may be authorized to employ. That assessment identifies special assessments as the most promising revenue source for a risk-based assessment. Section V then examines the feasibility of such an assessment in the context of state constitutional and legislative authorities in Florida and their interpretation by the state courts. Recent case law suggests that a risk-based special assessment may be feasible in Florida, but it may be necessary to modify the approach as originally proposed and summarized in the opening sections of this article.

---

5. RObERT E. DEYLe Et aL., THE CoSTs OF HURRICANE EMERGENCY MANAGEMENT SERVICES: A RISK-BASED METHOD FOR CALCULATING PROpERTY OWNERS’ FAIR SHARE 5-31 (2003); Boswell et al., supra note 3; DEyle & SMith, supra note 4.
II. LOCAL COSTS OF EMERGENCY MANAGEMENT SERVICES FOR HURRICANES

A. Local Emergency Management Services for Hurricanes

Local emergency management services primarily benefit the owners and occupants of developed property but have little value for undeveloped land. The services provided can be divided into two major categories: (1) ongoing services; and (2) event services. Ongoing services for hurricanes include planning, preparedness, and mitigation activities that occur independently from specific storms. Event services include responses to anticipated or actual hurricane strikes and recovery and reconstruction activities after a hurricane strikes within the jurisdiction.

Ongoing services are performed by an array of local government agencies. In agencies such as planning, building inspection, and public works, whose primary missions are not focused on emergency management, ongoing services primarily consist of planning and preparedness. Associated activities include participation in annual disaster response training exercises and the procurement and maintenance of specialized equipment used in fulfilling the agency’s assigned duties in disaster response and recovery. Typically, the local emergency management department performs the majority of planning and preparedness activities and may have responsibility for administering programs for hazard mitigation as well.

Event services are those associated with responding to an anticipated or actual hurricane. They can be differentiated based on whether or not a given storm physically affects the jurisdiction. Where a hurricane approaches but does not strike an area, the jurisdiction may provide evacuation services for at-risk populations and take other measures to protect life and property such as supplemental police and fire protection, sandbagging or other flood protection for low-lying areas, and barricading of dangerous locations. These are anticipated event services. Where a hurricane does strike within the jurisdiction, the local government will take response and recovery actions in addition to pre-disaster protective measures. These actual event services typically include public shelter provision, search and rescue, emergency medical services, abatement of hazards such as downed power lines and broken gas lines, assessment of damage to private property, preparation of federal disaster assistance documentation, debris collection and disposal, repair and reconstruction of damaged or destroyed public facilities and infrastructure, assistance to private individuals seeking state and federal disaster assistance, administration of permitting systems for repair and reconstruction of private
property, and application for and administration of federal and state aid for post-disaster repair, reconstruction, and mitigation.

Response services are provided primarily by local emergency management agencies, emergency medical services agencies, and police and fire agencies. Recovery and reconstruction services are provided by a wider array of agencies involved in the repair and reconstruction of public facilities and infrastructure, restoration of public services, and managing the process of procuring and administering federal and state disaster assistance to both local governments as well as individuals and private organizations.  

B. Estimating the Costs of Local Emergency Management Services

The costs of providing ongoing emergency management services are not easily documented for local agencies other than those directly involved in emergency management. Most such agencies do not have individual personnel dedicated to emergency planning and preparedness tasks, and most do not have separate budget line items for equipment and materials used in such activities. Documenting such costs therefore requires a special effort by budget managers and personnel directors. Equipment costs must be annualized based on appropriate assumptions about depreciation, and employee time devoted to such activities must be estimated.

Separating the costs associated with hurricanes from those associated with other disasters is even more difficult. At best, local emergency management officials may be able to estimate the proportion of services, and their associated costs, that can be attributed to hurricane risks as opposed to other natural and technological hazards. The public safety director for Lee County, Florida, for example, has estimated that natural hazards account for two-thirds (67 percent) of the emergency management services provided in the county, and that risks associated with hurricanes and flooding account for 90 percent of all natural hazard risks.

The magnitude of annual ongoing emergency management costs attributable to hurricanes is not great. For example, estimates for

---

6. See DEYLE ET AL., supra note 5, for a detailed analysis of local agency roles in Lee County, Florida.
7. Id.
8. See Interview with John Wilson, Director, Division of Public Safety, Lee County, Florida, (Jun. 12, 1995) (on file with author Robert E. Deyle) [hereinafter Interview with Wilson].
Lee County, Florida, based on 1995 budget figures, are approximately $700,000.\textsuperscript{9}

Assessment of property owners for hurricane event services requires estimation of the annual expected value of such services. This is a function of two parameters: (1) the joint probability of initiating anticipated event or actual event actions for all possible hurricanes that might threaten or strike the jurisdiction; and (2) the costs of taking such actions. Local emergency management officials have access to the information needed to estimate the joint probabilities of hurricane strikes and, therefore, the joint probabilities of taking actual event actions.\textsuperscript{10} Such data are not available, however, for estimating the joint probabilities of taking anticipated event actions, although a method has recently been devised for doing so.\textsuperscript{11}

Local officials typically are unable to estimate the costs of providing event services because most jurisdictions have had no more than one hurricane within the past 10 or 20 years. Estimates of such costs can be derived, however, in a manner similar to that employed by insurance companies to set actuarial rates. Cost functions based on local conditions and different hurricane intensities can be estimated from federal public assistance claims submitted by local governments for hurricanes that qualify for presidential disaster declarations.\textsuperscript{12}

As an example, the total (anticipated plus actual) event costs for Lee County, Florida, have been estimated to range from $5 million for a Category 1 hurricane (maximum sustained winds of 74 to 95 miles per hour and storm surge elevations of 4 to 5 feet) to greater than $200 million for a Category 5 hurricane (maximum sustained winds in excess of 155 miles per hour and storm surge elevations in excess of 18 feet).\textsuperscript{13} When these costs are annualized based on probability estimates for the occurrence of anticipated events and actual events, the annual expected value of total event costs ranges from $496,000 to $978,000.\textsuperscript{14} These result in total annualized costs for ongoing and event services that range from $1.2 to $1.7 million based on 1995 budget figures.\textsuperscript{15} This represented less than one percent of Lee County’s general revenue budget in 1995.\textsuperscript{16}

\textsuperscript{9} Deyle & Smith, supra note 4, at 425.
\textsuperscript{10} Hurricane probability estimates can be obtained for local jurisdictions from the National Hurricane Center’s HURDAT data base.
\textsuperscript{11} DEYLE ET AL., supra note 5, at 38.
\textsuperscript{12} Boswell et al., supra note 3, at 362-66.
\textsuperscript{13} Deyle & Smith, supra note 4, at 424.
\textsuperscript{14} Id. at 425.
\textsuperscript{15} Id.
\textsuperscript{16} Id. at 432.
III. RELATIVE-RISK-BASED ASSESSMENT OF PROPERTY DEVELOPMENT IN HURRICANE HAZARD ZONES

The principle of tax benefit equity requires that the costs of local emergency management services necessitated by development of land exposed to hurricanes be allocated among property owners in proportion to the demand they create for such services. Relative risk can be used as the basis for allocating these costs where service consumption can be linked to the exposure and vulnerability of structural improvements on private property and the exposure and vulnerability of public facilities and infrastructure that are provided to serve that property. The location of a private structure or public facility, defined by distance from the open coast and topographic elevation, determines exposure to the damaging forces of wind, waves, and storm surge. Vulnerability is the potential to be damaged. It is a function of the design and construction of the structure, including its elevation, building materials, and construction methods.

A. Relative Risk Indices

The relative risk approach for apportioning the local costs of emergency management services for hurricanes is based on calculating the ratio between the risk associated with an individual developed property parcel and the total risk represented by all developed parcels in the jurisdiction. In practice, however, the risks vary for different emergency management services. Thus, applying this approach requires partitioning the costs of those services and calculating separate risk ratios or indexes for each cost component. An assessment formula based on four risk indexes can accommodate this necessity: (1) anticipatory protective measures index; (2) damage risk index; (3) public facility risk index; and (4) ongoing services risk index.17

Properties that benefit from evacuations and other protective actions when a hurricane threatens are primarily determined by their exposure to flooding by storm surges. Some jurisdictions also evacuate all mobile homes regardless of location when a hurricane threatens. For structures other than mobile homes, therefore, a relative risk index approximating consumption of protective measures taken in anticipation of a hurricane strike can be based on the cumulative probability of evacuation for the evacuation zone within which a parcel is located. If, for example, a developed

17. The description here is a summary of a complex set of steps and formulas detailed in DEYLE ET AL., supra note 5, at 45-61.
property parcel is located in the Category 2 evacuation zone, it will be evacuated for Category 2 storms plus all storms of greater magnitude (Categories 3-5). Its risk index value is the sum of the annual probabilities of all storms of Category 2 or greater threatening the jurisdiction and stimulating evacuations and other protective actions. For mobile homes, the anticipatory protective measures risk index would be the sum of the probabilities of initiating evacuations and other measures for all five hurricane categories.

A damage risk index can be calculated based on the annualized magnitude of damage likely to be experienced by a private structure. This, in turn, can serve as a proxy for the amount of debris likely to be generated when that structure is damaged. The resulting index value can be applied to the costs of debris collection and disposal, which are often the single largest cost of hurricane disaster recovery. Annualized damage levels are a function of the type of structure and its elevation, and the magnitude and probabilities of the wind, breaking waves, and flooding to which it may be exposed. Levels of damage based on these characteristics can be approximated from damage functions developed by the National Flood Insurance Program and the United States Army Corps of Engineers, plus property appraiser data on the assessed value of the structure.

Ideally a public facility risk index would capture the proportion of damage to public facilities and infrastructure that can be attributed to each parcel of developed property. This would be a function of where the parcel is located, the public facilities provided by local governments to serve that parcel, and the annualized risk of damage to those facilities. In practice, it is not feasible to make all of these distinctions. Aggregate data on recovery costs associated with damage to public facilities and property cannot be easily broken down to estimate probable damage costs for different facilities of different types with different levels of vulnerability, e.g. parks, roads, sewage treatment plants, police stations, libraries, etc. In addition, there is no easy way to estimate proportional usage of these facilities by individual property owners. Two options are apparent: (1) exclude these costs from a risk-based assessment; or (2) use a proxy measure for the index. One approach under the second option is to approximate relative usage of all vulnerable

18. Id. at 46.
public facilities based on the size of the structure and/or the assessed value of the property.\textsuperscript{21}

An appropriate risk index for consumption of ongoing services should reflect the local government's approach to providing such services. A simple rationale is that greater effort is or should be devoted to planning, preparedness, and mitigation for those properties perceived to be at the greatest risk.\textsuperscript{22} One approach, therefore, might be to construct the ongoing services risk index as the average of the other three indices.\textsuperscript{23}

\textbf{B. Annual Property Assessments}

The annual property assessment that would be levied on a developed property parcel can be calculated by multiplying the individual risk index values by the annual costs of each of the four corresponding components of local emergency management services: (1) anticipatory protective measures; (2) debris collection and disposal; (3) public facility repair and reconstruction; and (4) ongoing services concerned with planning, preparedness, and mitigation.

There is, then, a feasible method to estimate the costs of emergency management services associated with hurricanes, although it depends on information not readily available in most agency budgets and rough approximations of the proportion of emergency management costs that can be legitimately attributed to hurricanes as opposed to other hazards to which a community may be exposed. Practical methods also can be devised for measuring the differential consumption of emergency management services by property owners in a community. However, these methods are fairly data-intensive, would require the development of new computer programs to make the calculations,\textsuperscript{24} and must rely on a number of simplifications and assumptions.

The next two sections address the other major question critical to the feasibility of applying a risk-based assessment method to achieve tax benefit equity in the financing of local emergency management services associated with hurricanes. Section IV examines the alternative revenue options available to local governments and their relative merits for achieving the objectives.

\textsuperscript{21} Deyle & Smith, supra note 4, at 427 (using the product of the square footage and assessed value of a structure to create such a proxy measure).

\textsuperscript{22} This is the approach taken in Lee County, Florida. Interview with Wilson, supra note 8.

\textsuperscript{23} Deyle & Smith, supra note 4, at 427.

\textsuperscript{24} Deyle ET AL., supra note 5, at D-1, D-38 (describing the design of MicrSoft ACCESS program to calculate annual assessments using the risk-based method summarized here).
of a risk-based assessment. Section V then examines the question of whether or not a risk-based special assessment, which appears to be the most appropriate non-tax revenue option for funding emergency management services, is feasible under the revenue authority granted to local governments in Florida under the state’s constitution and statutes.

IV. LOCAL GOVERNMENT REVENUE OPTIONS FOR FINANCING EMERGENCY MANAGEMENT SERVICES FOR HURRICANES

A. Overview of Local Government Revenue Sources

The power to levy revenues for the purpose of financing local services and infrastructure is delegated to local governments through state constitutions, statutory laws, and special laws. This authority varies from state to state and can span a wide range. At one end of the revenue spectrum are taxes, which are typically compulsory and used to cover general services and expenditures. At the other end are fees or charges, based on the cost of the service, that are paid voluntarily by the resident or unit served.

Local government authority may be narrow or broad. Typically broader local revenue authority corresponds with the granting of “home rule” powers through the state constitution or statutes. Forty-eight states currently grant home rule authority to municipalities, and thirty-seven grant it to counties. Principal revenue categories are described in the following sections. Local governments in home-rule states are likely to have the authority to use most of these revenue sources.

1. Taxes

Most taxes serve as sources of “general revenues” that are used to fund basic government functions and services, the benefits of which are consumed community wide. There typically is no direct connection between the amount of revenue collected and the level of consumption of services consumed by the individual paying the tax. Examples include property or ad valorem taxes and sales taxes. Narrow-based taxes are levied on specific activities or purchases. Revenues from these taxes are usually earmarked for particular expenditure categories and are sometimes, but often

indirectly, related to the use of public facilities. Examples include fuel taxes and motor vehicle taxes used to finance highway infrastructure and tourist "bed" taxes, which are often used to finance economic development.

2. Utility Fees

Utility fees are analogous to private market prices. They are used primarily to cover the operation and maintenance costs of a wide range of municipal utility services for which benefits accrue to identifiable individuals. Examples include charges for sewage disposal, water supply, and publicly-provided electricity. Payment varies with consumption, and rates are typically based on easily measured units of consumption, e.g. gallons of water per month.

3. User Fees and Service Charges

These are similar to private market prices, but they may involve a subsidy to specific users. They are usually voluntary, and payments are normally based on consumption. Examples include fees for public swimming pools, health services, and public museums, and service charges for trash collection. They are often flat fees for all users (pool entrance fee), or there may be a simple rate structure for different categories of users, for example residential versus commercial trash collection charges.

4. Impact Fees

Impact fees have specific characteristics that distinguish them from other fees or charges. They are used to finance the capital costs of public facilities and infrastructure needed to serve new development (operating costs are excluded). Examples include roads, water and sewer facilities, parks and recreation facilities, and schools. Generally, an impact fee is a direct payment from a developer or builder to the local government, as opposed to an individual payment from each property owner or resident. They are one-time charges, although they may be collected over an extended period of time. State case law has established that impact fees must be based on a clear nexus between the fee and the demands created by new development, and that the level of the fee must be proportional to the cost of the needed facilities.27

---

27. See, e.g., St. John's County v. N.E. Fla. Builders Ass'n, 583 So. 2d 635, 637 (Fla. 1991); see also Banberry Dev. Corp. v. S. Jordan City, 631 P.2d 899, 905 (Utah 1981).
5. Special Assessments

The special assessment has attributes of both a tax and a fee. Special assessments are similar to taxes in that they are compulsory. They are similar to fees in that they are based on some measure of service consumption. They are limited, however, to services that directly benefit real property rather than individuals. Typically they are levied in a limited geographic area within a jurisdiction where special services or facilities are provided. As with impact fees, state courts have held that there must be a clear nexus between the level of the fee and the benefits that accrue to individual properties.28 Improvements that are typically financed using special assessments are street paving, sidewalk and gutter construction, and street lighting. Public services funded using special assessments have included, among others, fire protection, solid waste collection and disposal, and stormwater management.

B. Criteria

Several criteria are useful in comparing revenue options for financing local emergency management services for hurricanes based on relative risk.

1. Nexus

The existence of a "nexus" or connection between the service provided, a benefit to the consumer, and the level of payment is at the crux of the tax benefit equity principle that underlies the argument for imposing a risk-based assessment for local emergency management services associated with natural hazards such as hurricanes. The connection between revenues collected and services provided by a local government also allows for greater accountability in the provision of those services and for easier monitoring of the demand, cost efficiency, and quality. Such a nexus is typically a feature of a fee, charge, or special assessment, but it is usually absent from most taxes.

2. Extant Authority

This criterion concerns whether the authority to levy the revenue is sufficient under existing constitutional or statutory powers without the enactment of a general law or special law. This will vary from state to state, but it is most likely to be the case in home-rule states, where local governments have broad authority to

levy an array of revenues. A revenue option for which authority already exists can be more easily implemented than one that requires new legislation.

3. Mandatory/Voluntary

This criterion indicates whether reliance upon services or infrastructure, and payment for those services or infrastructure, are mandatory or voluntary. An assessment for emergency management services must be mandatory because it would be impractical, and arguably undesirable, to deny services to those who elect not to pay. Taxes and certain types of non-tax revenues, such as special assessments, are mandatory. Fees and charges are typically voluntary.

4. Geographic Area

This criterion addresses whether the area that will be receiving the services must be clearly identified and any limitations on what that area should or can encompass. In Florida and many other states, counties provide emergency management services to all residents and property, within both incorporated areas (municipalities) and unincorporated areas. A county must be authorized, therefore, to levy the assessment throughout the jurisdiction. Some emergency management services may also be provided by municipal governments within their boundaries. In counties where emergency management services are provided to properties in incorporated areas by both county governments and municipal governments, separate assessment systems would be required to fully implement the tax benefit equity principle.

5. Consent Requirements

State law may require a local government to secure the consent of the affected property owners for taxes or special assessments for financing services within limited geographic areas. Where a county initiates an assessment for services provided in an incorporated municipality, formal consent by the governing body of the affected municipality also may be required before the assessment can be levied. Revenue sources that do not require such agreements will be easier to implement than those that do.

6. Expenditure Limitations

This criterion addresses the extent to which limits are imposed on the categories of expenditures for which the revenue proceeds
may be used. With the exception of narrowly based taxes, taxes are considered general revenue and may fund all requirements related to services or infrastructure. Non-tax revenues may be limited to only capital costs (e.g., impact fees) or the costs of operation and maintenance (e.g., sewer and water user fees). It is important for local governments to be authorized to levy an assessment for emergency management services that covers both operational and capital costs.

7. Authorized Purposes

Specific purposes for which an assessment may be levied are often detailed in authorizing legislation. Because emergency management services have historically been funded from general revenues, it is unlikely that such services are explicitly listed in the legal authorities of state law. An important question, therefore, will be whether or not such services are likely to be viewed by the courts as consistent with the revenue authority granted under specific state constitutional provisions or statutes.

8. Assessment Rates and Methods

This criterion concerns whether there is a maximum assessment rate for the revenue, whether that level or rate must be uniform for all assessed units, and what methods of calculating the rate are authorized under state law. The extent to which these may serve as constraints to using different revenues for a risk-based assessment for emergency management services also will vary from state to state.

The presence of a maximum assessment rate might constrain the ability to impose a risk-based assessment that could be used to raise sufficient revenues to cover the full costs of hurricane emergency management services. Typically, state laws impose ceilings on ad valorem tax millage rates, the assessment rates for sales taxes, and narrowly based taxes such as motor fuel and tourist taxes. Absolute caps are generally not imposed on non-tax revenues that are linked to consumption of specific services or the financing of specific capital facilities through such revenue sources as utility fees, user fees, service charges, impact fees, or special assessments. However, the assessment rates generally must be proportional to levels of service consumption or facility use.

Requirements for uniform rates should not pose a problem for a risk-based assessment where such requirements allow for the use of a common formula for calculating the rate. Such formulas are a feature of most of the revenue options described in the preceding section. For example, ad valorem taxes are assessed as a
percentage of the market value of the property. That percentage must be uniform throughout the area subject to the tax. Utility fees impose a charge per unit of the service or commodity consumed. User fees may vary with different classes of users if the rates are equitable, reasonable, and fair. For impact fees, the rate must be proportional to the cost incurred by the municipality in providing the service. For special assessments, the rate must be proportional to the benefit received by the assessed property unit.

An assessment based on relative risk is unlike most assessment methods used for both tax and non-tax revenues. The viability of such an approach will likely depend upon the judicial interpretation of authorizing statutory law.

C. Leading Options for a Risk-Based Assessment For Hurricane Emergency Management Services

While many of these criteria depend upon the particulars of state law, the scope of options for a risk-based assessment local emergency management services associated with hurricanes can be narrowed considerably. Taxes generally do not meet the nexus criterion, which is central to the tax benefit equity principle upon which the concept of the risk-based tax is based. Utility fees and impact fees are designed for purposes that differ from the provision of emergency management services, that is, the provision of municipal utility services and the recouping of capital costs for facilities and infrastructure necessitated by new developments. Voluntary user fees and service charges do not meet the requirement that payment of the assessment be mandatory. The optimal revenue source appears, therefore, to be the special assessment. Special assessments are mandatory, and they are based on the tax benefit equity principal. Evaluation of the remaining criteria depends on the particulars of state law. This is the focus of the next section, which examines the feasibility of a risk-based special assessment for hurricane emergency management services by local governments in Florida.

V. The Feasibility of a Risk-Based Special Assessment for Hurricane Emergency Management Services in Florida

The following sections address the feasibility of a risk-based special assessment for local hurricane emergency management services based on evaluation criteria that are dependent on state constitutional and statutory law and judicial interpretation thereof. The threshold question, addressed in the first section, concerns the nature of extant authority for local governments to levy special assessments in Florida. The next sections address the issue of
whether or not local governments are authorized to levy a special assessment throughout the appropriate geographic area and the extent to which state law sets consent requirements or expenditure limitations that may constrain the ability to levy such an assessment. The final sections address the questions of whether or not the purpose of a special assessment for hurricane emergency management services is consistent with state law, and if the rules governing assessment rates and methods might constrain the use of a risk-based method for apportioning the costs of such services.

A. Special Assessment Revenue Authority in Florida

Expediency favors a revenue for which local government has extant authority and therefore does not require new state legislation. Compared to other states, local government revenue authority in Florida is relatively generous and flexible. Specific revenue authority is granted through several constitutional and statutory provisions. Florida law also grants home rule authority to municipalities and counties. The following sections summarize the granting and practice of home rule in Florida, the specific grants of authority to local governments for levying special assessments for municipal services, and judicial interpretation of that authority.

1. Local Government Home Rule

Local government home rule was granted to Florida municipalities and counties by the state and its electorate in the 1968 amendments to the Florida Constitution and in subsequent amendments to statutory law. The legal sources granting the authority differ for counties and municipalities. Article VIII, Section 1 of the Florida Constitution grants clear home rule power to charter counties. With the adoption of a county charter, a county has "all the powers of local self-government not inconsistent with general law," with the authority to enact local ordinances without specific state legislative authority to do so. The provisions of Article VIII, section 1 of the State Constitution concerning non-charter county government are supplemented by statutory provisions granting broad powers of self-government limited only by required consistency with general or special law. Municipal

29. Fla. Const. art. VIII § 1, cl. G.
30. See id.
31. Id. § 1, cl. f.
government powers are also addressed in the 1968 amendments to the State Constitution supplemented by state statute.\textsuperscript{33} Decisions issued by the Florida Supreme Court soon after the relevant home rule provisions were added to the State Constitution affirmed the granting of the power of local self-government to charter counties.\textsuperscript{35} \textit{Volusia County v. Dickinson}\textsuperscript{36} clarified that charter counties had the powers of municipal government.\textsuperscript{37} However, in \textit{Broward County v. City of Ft. Lauderdale},\textsuperscript{38} the Supreme Court of Florida stated that a charter county could not preempt a municipality’s provision of services without meeting the requirements of Article VIII, section 4 of the State Constitution.\textsuperscript{39}

2. Local Authority for Levying Special Assessments

Several means are specified in Florida statutory law for local governments to levy special assessments for a variety of purposes. This section addresses only the use of special assessments by general-purpose local governments in the funding of infrastructure and public services.

Statutory law authorizes the levy of special assessments by counties in three separate provisions. Section 125.01, \textit{Florida Statutes}, provides broad authority for counties to levy special assessments.\textsuperscript{40} It is not clear, however, whether counties have levied special assessments solely on the basis of this broad authority. Most have apparently relied on more detailed authority in the same statute for the formal creation of municipal service benefit units (MSBUs)\textsuperscript{41} in unincorporated areas and municipalities.

\begin{footnotes}
33. \textit{Fla. Const.} art. VIII § 2, cl. b.
34. \textit{Fla. Stat.} § 166.021(4).
35. See \textit{Broward County v. City of Ft. Lauderdale}, 480 So. 2d 631 (Fla. 1985); \textit{State ex rel. Volusia County v. Dickinson}, 269 So. 2d 9 (Fla. 1972).
36. 269 So. 2d 9 (Fla. 1972).
37. \textit{Id.} at 11.
38. 480 So.2d 631 (Fla. 1985).
39. \textit{Id.} at 635. Article VIII, section 4 of the Florida Constitution requires that a transfer of any function or power of a county, municipality, or special district to another county, municipality, or special district must be approved by the electorate through referendum in both jurisdictions affected or as otherwise provided by law. There are techniques available in general law for addressing and implementing the transfer without referendum. The predominant approach is by the execution of an interlocal agreement (\textit{Fla. Stat.} § 163.01) or the exercise of extraterritorial powers by a municipality (\textit{Fla. Stat.} § 180.02(2)).
40. \textit{Fla. Stat.} §125.01(1)(r). The statute provides: “The legislative and governing body of a county shall have the power to carry on county government. To the extent not inconsistent with general or special law, this power includes, but is not restricted to, the power to . . . (r) Levy and collect taxes, both for county purposes and for the providing of municipal services within any municipal service taxing unit, and special assessments. . . .” \textit{Id.}
41. \textit{Fla. Stat.} § 125.01(1)(q).
\end{footnotes}
or on authority in sections 125.01 and 189.4041, Florida Statutes, for the creation of dependent special districts.\textsuperscript{42}

For municipalities, the explicit authority for levying special assessments resides in section 170, Florida Statutes.\textsuperscript{43} Florida courts have held that cities also have the power to levy special assessments under home rule.\textsuperscript{44} As is suggested in Volusia County, the Supreme Court of Florida would appear to extend this authority to charter counties.\textsuperscript{45}

\textbf{B. Jurisdictional Issues}

Because emergency management services are provided throughout an entire local government jurisdiction, the revenue source must be authorized for application throughout the entire \textit{geographic area} to be served. Municipalities are authorized to levy special assessments throughout their jurisdiction.\textsuperscript{46} Counties may levy special assessments through the creation of municipal service benefit units (MSBUs) or special districts that encompass both unincorporated areas and incorporated municipalities.\textsuperscript{47} However, a special district may not be used to provide services only in the unincorporated areas of the county.\textsuperscript{48} No comparable restriction applies to MSBUs.\textsuperscript{49}

Florida courts have recently explicitly recognized the authority of a county to impose a jurisdiction-wide special assessment.\textsuperscript{50} Because emergency management services do not benefit unimproved properties, the tax benefit equity principle dictates that it also must be legally feasible to limit the assessment to developed property parcels. The Supreme Court of Florida has also explicitly approved of special assessments that are structured in this fashion.\textsuperscript{51}

\textit{Consent requirements} would not apply where a municipality elects to impose a special assessment for emergency management services. However, formal consent of the governing boards of

\begin{itemize}
  \item \textsuperscript{42} \textit{Id.} §§ 125.01(5) and 189.4041. Dependent special districts are those created and administered by local government. Independent special districts are separate entities chartered by special state legislation or other methods specified in section 189.404(4), \textit{Florida Statutes}.
  \item \textsuperscript{43} \textit{Id.} § 170.01; \textit{see also} § 170.201(1).
  \item \textsuperscript{44} City of Boca Raton v. State, 595 So. 2d 25, 30-31 (Fla. 1992).
  \item \textsuperscript{45} \textit{State ex rel. Volusia County v. Dickinson}, 269 So. 2d 9, 11 (Fla. 1972).
  \item \textsuperscript{46} \textit{Fla. Stat.} § 170.201 (2001).
  \item \textsuperscript{47} \textit{Id.} §§ 125.01(1)(q); 125.01(5); 189.4041.
  \item \textsuperscript{48} \textit{Id.} § 125.01(5)(c).
  \item \textsuperscript{49} \textit{Id.} § 125.01(1)(q).
  \item \textsuperscript{50} \textit{See Harris v. Wilson}, 693 So. 2d 945 (Fla. 1997); Sarasota County v. Sarasota Church of Christ, Inc., 667 So. 2d 180 (Fla. 1995).
  \item \textsuperscript{51} \textit{See Harris}, 693 So. 2d 945; Sarasota County, 667 So. 2d 180.
\end{itemize}
affected municipalities is required under Florida law where a county decides to levy such an assessment in both unincorporated and incorporated areas, through either an MSBU\textsuperscript{52} or special district.\textsuperscript{53} This requirement would, therefore, lend an element of uncertainty to a county initiative to finance hurricane emergency management services in this way.

\textbf{C. Expenditure Limitations}

There are no expenditure limitations codified in state law that would constrain the use of a special assessment to finance the capital costs or the costs of operation and maintenance associated with hurricane emergency management services.\textsuperscript{54}

\textbf{D. Authorized Purposes}

It is not entirely certain whether financing hurricane emergency management services would be judged to be a legitimate basis for a special assessment in Florida. There is no explicit authority for local governments to levy special assessments for such purposes among the public services and facilities that are listed in the authorizing statutes. However, both counties and municipalities are accorded more open-ended authority to levy special assessments for capital improvements and public services. A more difficult question concerns how a special assessment for hurricane emergency management services would fare under the Florida Supreme Court's "special benefit test." The following sections address these two issues.

1. \textit{Statutory Constraints on Authorized Purposes of Special Assessments}

Public improvements and services for which counties are explicitly authorized to create MSBUs include the following:

[F]ire protection; law enforcement, beach erosion control; recreation service and facilities; water, ... streets; sidewalks; street lighting; garbage and trash collection and disposal; waste and sewage collection and disposal; drainage; transportation; indigent

\textsuperscript{52} \textit{Fla. Stat.} § 125.01(1)(q).
\textsuperscript{53} \textit{Id.} §§ 125.01(5)(a); 189.4041(2).
\textsuperscript{54} See \textit{id} §§ 125.01(1)(q); 125.01(5)(c); 170.01(2); 170.201(1).
health care services; mental health care services; and other essential facilities and municipal services.55

These services must be financed exclusively from the special assessment revenues collected within the MSBU.

Special districts may be created by counties to provide “capital infrastructure, facilities, and services,”56 but no comprehensive list of specific municipal services and facilities is included in this statutory authorization beyond a definition of “public facilities”:

major capital improvements, including, but not limited to, transportation facilities, sanitary sewer facilities, solid waste facilities, water management and control facilities, potable water facilities, alternative water systems, educational facilities, parks and recreational facilities, health systems and facilities, and, except for spoil disposal by those ports listed in s. 311.09(1), spoil disposal sites for maintenance dredging in waters of the state.57

Under section 170, Florida Statues, municipalities may only levy special assessments for a specific set of enumerated local municipal improvements.58 These include the following:

(a) construction, reconstruction, repair, and other improvements to streets and sidewalks;

(b) construction, reconstruction, repair, and upgrading of stormwater sewers and other drainage structures, sanitary sewers, water bodies, marshlands, and natural areas, and all or part of a comprehensive stormwater management system;

(c) construction or reconstruction of water mains and other water distribution facilities;

(d) relocation of utilities including electrical, telephone, and cable television services;

55. Id. § 125.01(1)(q).
56. Id. § 189.402(3)(a).
57. Id. § 189.403(7).
58. Id. § 170.01(2).
(e) construction or reconstruction of parks and other recreational facilities and improvements;

(f) construction and reconstruction of seawalls;

(g) drainage and reclamation of wet, low, or overflowed lands;

(h) off-street parking facilities, parking garages or similar facilities;

(i) mass transportation systems;

(j) improvements for watercraft passage and navigation; and

(k) payment of all or any part of the costs of any such improvements by levying and collecting special assessments on the abutting adjoining contiguous, or other specially benefitted property.\(^{59}\)

Additionally, more open-ended authority, provided elsewhere in section 170, permits municipalities to levy special assessments for funding "capital improvements and municipal services, including, but not limited to fire protection, emergency medical services, garbage disposal, sewer improvement, street improvement, and parking facilities."\(^{60}\)

The Supreme Court's holding in *City of Boca Raton*\(^ {61}\) that municipalities also have the power to levy special assessments under home rule, appears to have further broadened the purposes for which municipalities may collect special assessments: "[A] municipality may now exercise any governmental, corporate, or proprietary power for a municipal purpose except when expressly prohibited by law, and a municipality may legislate on any subject matter on which the legislature may act, except those subjects described in paragraphs (a), (b), (c), and (d) of section 166.021(3)."\(^ {62}\)

\(^{59}\) Id. § 170.01(1).

\(^{60}\) Id. § 170.201(1).

\(^{61}\) 595 So. 2d 25, 30 (Fla. 1992).

\(^{62}\) Id. at 28. The exceptions listed in section 166.021(3), Florida Statutes, are "(a) [t]he subjects of annexation, merger, and exercise of extraterritorial power, which require general or special law pursuant to ... the state constitution; (b) [a]ny subject expressly prohibited by the constitution; (c) [a]ny subject expressly preempted to state or county government by the constitution or by general law; and (d) any subject preempted to a county pursuant to a county charter."
As noted above, the court's extension of municipal powers to charter counties may also be interpreted as extending this broad power for levying special assessments. 63

The most common public purposes funded using special assessments in Florida have been solid waste, street lighting, fire protection, road paving, and ambulance/emergency medical services (EMS) in counties, and road paving, sidewalks, road improvements, and streets/curbs in municipalities. 64 The public services or facilities for which special assessment levies have been upheld in recent case law include fire protection, 65 solid waste disposal services, 66 stormwater management, 67 and specifically enumerated improvements to the infrastructure of a downtown area. 68

2. Application of the Supreme Court's Special Benefit Test

The Florida Supreme Court articulated a two-part test for special assessments in City of Boca Raton. 69 The court held that special assessments must (1) confer a special benefit to the burdened property, and (2) be fairly apportioned:

A legally imposed special assessment is not a tax. Taxes and special assessments are distinguishable in that, while both are mandatory, there is no requirement that taxes provide any specific benefit to the property; instead, they may be levied throughout the particular taxing unit for the general benefit of residents and property. On the other hand, special assessments must confer a specific benefit upon the land burdened by the assessment.... 70

It is imposed upon the theory that that portion of the community which is required to bear it receives some special or peculiar benefit in the enhancement of value of the property against which it is imposed as

63. See State ex rel. Volusia County v. Dickinson, 269 So. 2d 9, 11 (Fla. 1972).
64. FLORIDA ADVISORY COUNCIL ON INTERGOVERNMENTAL RELATIONS, SPECIAL ASSESSMENTS: CURRENT STATUS IN LAW AND APPLICATION 14 (1992).
65. S. Trail Fire Control Dist., Sarasota County v. State, 273 So. 2d 380 (Fla. 1973); Fire Dist. No. 1 of Polk County v. Jenkins, 221 So. 2d 740 (Fla. 1969).
66. Harris v. Wilson, 693 So. 2d 945 (Fla. 1997); Charlotte County v. Fiske, 350 So. 2d 578 (Fla. 2d DCA 1977).
67. See Sarasota County, 667 So. 2d 180; see also City of Gainesville v. State of Florida, 778 So. 2d 519 (Fla. 1st DCA 2001).
69. Id. at 29.
70. Id.
a result of the improvement made with the proceeds of the special assessment. It is limited to property benefited. 71

There are two requirements for the imposition of a valid special assessment. First, the property assessed must derive a special benefit from the service provided. 72 Second, the assessment must be fairly and reasonably apportioned among the properties that receive the special benefit. 73

The first condition has proved to be problematic. In 1994, the Second District Court of Appeal (DCA) upheld a special assessment in Sarasota County for fire and rescue services but declared a special assessment for funding stormwater management services invalid. 74 The appellate court held that stormwater management services, unlike fire and rescue services, "benefit the community as a whole and provide no direct benefit, special benefit, increase in market value or proportionate benefit regarding the amount paid by any particular land owner." 75 The Florida Supreme Court subsequently reversed, and declared the special assessment for stormwater management services to be valid:

Because ... stormwater must be controlled and treated, developed properties are receiving the special benefit of control and treatment of their polluted runoff. This special benefit to developed property is similar to the special benefit received from the collection and disposal of solid waste. 76

In Water Oak Management Corporation v. Lake County Florida, 77 the Fifth DCA held that Lake County had failed to make a legislative determination as to the special benefit to the assessed properties in a county-wide fire protection district. 78 The court found that Lake County had attempted to reduce its ad valorem burden by shifting the funding for fire protection services to a special assessment. The court concluded that the special

71. Id. (quoting Klemm v. Davenport, 129 So. 904, 907-08 (1930)).
72. Id. (citations omitted).
73. Sarasota County v. Sarasota Church of Christ, 641 So. 2d 900 (Fla. 2d DCA 1994), rev’d, 667 So. 2d 180 (Fla. 1995).
74. Id. at 902.
75. Sarasota County v. Sarasota Church of Christ, 667 So. 2d 180, 186 (Fla. 1995).
76. 673 So. 2d 135 (Fla. 5th DCA 1996), rev’d 695 So. 2d 667 (Fla. 1997).
77. Id.
assessment "merely funds an undifferentiated service for the county in general and is designed to reduce costs of this service that would otherwise come from general revenue funded by ad valorem taxes." 78

The Florida Supreme Court reversed in Lake County Florida v. Water Oak Management Corporation. 79 The court observed that the special benefit test "is not whether the services confer a 'unique' benefit or are different in type or degree from the benefit provided to the community as a whole ... rather, the test is whether there is a 'logical relationship' between the services provided and the benefit to real property." 80 The court reiterated its findings in Fire District No. 1 of Polk County v. Jenkins that "fire protection services do ... specially benefit real property by providing for lower insurance premiums and enhancing the value of the property." 81

An important case that has not yet been fully adjudicated is SMM Properties, Inc. v. City of North Lauderdale. 82 The Fourth DCA reversed the trial court and held that the emergency medical services component of a special assessment for an integrated fire rescue program did not provide a special benefit to the assessed properties and was, therefore, an illegal ad valorem tax. The appellate court observed that "emergency medical transportation services benefit people, not property." 83

The difficult legal issue raised in SMM Properties is whether or not a court can "dissect[] ... the services funded by [a] special assessment and then invalidate[e] the entire special assessment based on a finding that one particular element ... failed to satisfy the special benefit test." 84 In City of Pembroke Pines v. McConaghey, 85 the Fourth DCA held that it was improper for the trial court to dissect the services of an integrated fire protection program. 86 However, in SMM Properties, this same court rejected that rationale, and held that each component of a service program funded through a special assessment must survive the special benefits test. 87

78. Id. at 138.
79. 695 So. 2d 667 (Fla. 1997).
80. Id. at 669 (citations omitted).
81. 221 So. 2d 740 (Fla. 1969).
82. Lake County, 695 So. 2d at 669.
83. 760 So. 2d 998 (Fla. 4th DCA 2000).
84. Id. at 1004.
85. Id. at 1002 (quoting City of Pembroke Pines v. McConaghey, 728 So.2d 347, 351 (Fla. 4th DCA 1999)).
86. 728 So. 2d 347 (Fla. 4th DCA 1999).
87. Id. at 351.
88. SMM Properties, 760 So. 2d at 1003.
The Fourth DCA reiterated this rationale in rejecting the City of North Lauderdale's argument that a special assessment for emergency medical services must be sustained because section 170.201(1), *Florida Statutes*, lists emergency medical management services as one of several municipal services for which special assessments may be levied. The court maintained that the specific services encompassed by an emergency medical services program must confer a special benefit to the assessed property. The DCA certified the case to the Florida Supreme Court to finally resolve this question. The Supreme Court upheld the Fourth DCA ruling that emergency medical services benefit people not property. The Supreme Court of Florida did not address the issue of dissecting the services, thus affirming the Fourth DCA decision.

In *City of North Lauderdale*, the Supreme Court of Florida held that it is not sufficient for a local legislative body to declare a service to be a benefit to property. To pass the logical relationship test set forth in *Lake County*, a special assessment must be shown to have demonstrable benefits to real property such as reduced insurance premiums or enhanced assessed property value. The court further held that public services that "may provide a sense of security to individuals" do not meet the test of providing a benefit to the property itself.

These cases demonstrate that it is critical for a local government to substantiate clearly the "special benefit" to the assessed property when enacting a special assessment for public facilities or services. To augment efforts to meet the "special benefit" test, one legal reference on special assessments recommends that the following questions, among others, be addressed in the development of a special assessment for a public service or facility.

[1]Does the levy finance a system, facility, or service from which a special benefit ascertainable to each parcel of property is derived, over and above a general benefit to the community or to property, whether direct or immediate? Can the special benefit be measured by current use or possible future use of the property? Is the special benefit direct,

90. City of North Lauderdale v. SMM Properties, 825 So. 2d 343 (Fla. 2002).
91. *Id.* at 348.
92. *Id.* at 349.
93. *Id.*
approximate, and reasonably certain of computation at some point?

[2] Would the nature of the special benefit derived from the system, facility, or service include any one or more of the following: increased market value, actual or potential added use or enjoyment of the property, impact on existing and possible future uses of property, potential for decreases in insurance premium, potential for enhancement and value of business property, potential for increases in rental value of the property, and potential for enhanced protection of public safety?

The benefits to assessed property of a special assessment for local emergency management services would be numerous, including the following:

(1) planning and preparedness for, as well as actual implementation of, protective measures taken prior to the arrival of a hurricane that serve to reduce property damage, for example, sand bagging and other emergency flood protection measures;

(2) planning and preparedness for and implementation of post-disaster response actions taken to reduce fire hazards, theft and vandalism, and secondary damage from debris;

(3) planning for and implementation of recovery actions to restore damaged public facilities and infrastructure and remove and dispose of debris;

(4) planning for and implementation of mitigation measures designed to reduce damage to public facilities and infrastructure that serve assessed properties; and

(5) provision of educational information and other technical and financial assistance for mitigating the vulnerability of private property.

95. Id.
These services would not only help to reduce losses to assessed properties, some could also contribute to reduce insurance premiums, and others might enhance property values.

A potential sticking point is the fact that some of the services provided are directed at protecting public health and safety. As noted above, the Supreme Court of Florida determined that emergency medical transportation services are provided to individuals rather than property and held, therefore, that such services are not a benefit to property for which a special assessment may be levied. Given this ruling, it may be necessary to exclude from the special assessment any levy tied to emergency medical services or public safety services targeted at individuals rather than property. This might include evacuation, search and rescue, and provision of emergency shelters.

Doing so could be problematic. While it would not be difficult to exclude all evacuation services, emergency medical services, and the costs of providing emergency shelters from a special assessment for emergency management services, it would be impossible to segregate police and fire emergency response services that are targeted at public safety as opposed to property protection. However, the Supreme Court's ruling in City of North Lauderdale suggests this may not be necessary. The court draws a distinction between first response medical aid performed by fire fighters and emergency medical services, observing that first response medical aid is "one of the routine duties of a firefighter" that is inseparable from their duties of fighting fires. A comparable argument could be made for disaster response activities by police that are directed both at protecting property from looting and protecting individuals from safety hazards caused by storm hazards.

E. Assessment Rates and Methods

Because there is typically a variation in the need for emergency management services within a jurisdiction or service area, it is desirable, under a policy of tax benefit equity, for the assessment method to account for this variation. As noted in Section III.B., there are two criteria that concern the assessment method: (1) whether or not state law imposes a cap on the assessment rate; and (2) whether the method of assessing properties for the services provided passes muster under state law.

Although state statutes and the Florida Constitution impose millage rate caps on municipal service taxing units (MSTUs) and special districts where counties finance public services or

96. City of North Lauderdale, 825 So. 2d at 346.
improvements through the levy of ad valorem taxes, there are no rate limits imposed on special assessments levied by counties for municipal service benefit units (MSBU's) or special districts, or on special assessments levied by municipalities. The principal legal issue concerns whether or not the assessment method results in an allocation of costs among the properties assessed that is proportional to the benefits received. This is the second prong of the test articulated by the State Supreme Court in City of Boca Raton.

State statutes are silent on this issue in those sections that detail the authority of counties to levy special assessments. However, explicit rules are articulated that govern the apportionment of costs for municipal special assessments. The apportionment may be based on "(a) [t]he front or square footage of each parcel of land; or (b) [a]n alternative methodology, so long as the amount of the assessment for each parcel of land is not in excess of the proportional benefits as compared to other assessments on other parcels of land." The state courts have interpreted this broad language liberally. In City of Boca Raton, the special assessment for a downtown development district was apportioned on the basis of the property value of the benefited tracts. The assessment for a particular tract corresponded to the ratio of its assessed value divided by the total assessed value of all land in the district. The methodology was also "self-correcting" in that if "over ten years the assessed value of that particular property, if it did not benefit to the same degree as the rest of the downtown, their percentage of the total assessment would go down proportionally." A small number of residential properties in the downtown area and the churches in the area were exempted from the assessment because they would receive less benefit from the project than the business properties.

The stormwater management special assessment in Sarasota County was based on the type of land use on a developed tax parcel, and assumptions about the amount of impervious surface associated with different land uses and the resulting volumes of stormwater that would require management.

97. Fla. Stat. §§ 125.01(1)(q); 125.01(5)(c) (2001); Fla. Const. art. VII § 9, cl. b (2001).
98. See Fla. Stat. §§ 125.01(1)(q); 125.01(5)(c); 170.01(2); 170.20(1).
100. Fla. Stat. §§ 125.01(1)(q); 125.01(5)(c); 189.4041.
101. Id. § 170.20(1)(1).
102. 595 So. 2d at 30.
103. Id. at 30-31.
104. Sarasota County v. Sarasota Church of Christ, 667 So. 2d 180, 186 (Fla. 1995).
Special assessments for street and road improvements typically use the residence/lot or the front footage in the apportionment methodology. Examples of variations on this approach include the following:

The City of St. Petersburg divides 100% of the cost of paving roads up to 24 feet in width into the total front footage of property adjacent to the road paving project. However, corner lots receive a sixty percent rate break on side footage. If a road is wider than 24 feet then the municipality pays the cost of paving the additional width including any other costs, such as a thicker asphalt layer, associated with the wider street. The assumption is that roads wider than 24 feet benefit other-than-local property owners.

The City of Vero Beach pays one-third of the costs of special assessment paving projects. Landowners[ sic] on both sides of the roadway pay the remaining costs on a modified front footage basis. [T]he modification spreads costs more equitably among properties that generate identifiable differences in vehicular traffic such as high rise condominiums. If the roadway paving project extends through -City-owned property then the -City typically bills itself at an increased front footage rate modified to reflect high vehicular traffic.

Pompano Beach divides 100% of the footage of adjacent land. Payment of the assessment is typically due over a three-year period with other installment options available to the landowner. 105

These examples demonstrate that the connection between the assessment and benefit to property can depend on a complex interaction of property attributes, project complexity, and community standards. This complexity opens the door to legal challenge. These examples show, however, that the Florida courts have accorded local governments considerable flexibility in devising apportionment methods where reasonable efforts have been made to achieve an equitable distribution of the costs among benefited

105. FLORIDA ADVISORY COUNCIL ON INTERGOVERNMENTAL RELATIONS, supra note 64, at 15.
properties. In *City of Ft. Myers v. State*, the State Supreme Court articulated the principles for evaluating the equitability and reasonableness of special assessment apportionment methods:

No system of appraising benefits or assessing costs has yet been devised that is not open to some criticism. None have attained the ideal position of exact equality, but, if assessing boards would bear in mind that benefits actually accruing to the property improved in addition to those received by the community at large must control both as to benefits prorated and the limit of assessments for cost of improvement, the system employed would be as near the ideal as it is humanly possible to make it.

A special assessment for local emergency management services associated with hurricanes that is based on relative risk, as proposed here, appears likely to satisfy the *City of Ft. Myers* criteria, and can be shown to have some parallels with specific apportionment methods sanctioned by the Florida Supreme Court. As shown in Section II, response and recovery costs can be clearly linked to the level of damage likely to be sustained by improved property parcels. There also is evidence that local governments may focus planning, preparedness, and mitigation measures and services on areas and types of property thought to be at greater risk by local officials. The approach of apportioning those costs based on risk can be construed as analogous to the apportionment approach taken for the Sarasota County special assessment for stormwater improvements, where assessments are based on the amount of stormwater likely to be generated. The use of proportional risk ratios is analogous to the apportionment method based on property value used for the Boca Raton downtown redevelopment special assessment described above.

One weakness may be the imprecision in differentiating emergency management services associated with hurricanes from those necessitated by other natural and technologic hazards, some of which, such as lightning, tornadoes, droughts, blizzards, freezes, earthquakes, and civil disturbances, pose essentially equal risks to all developed property. As noted in Section I, local emergency management officials may be able to estimate only a rough proportional basis for making such a distinction. One might argue,

---

106. 117 So. 97 (Fla. 1928).
107. *Id.* at 104.
however, that such an approach is no more imprecise than the methods used in St. Petersburg or Vero Beach to allocate the costs of highway improvements between local property owners and the general public.\textsuperscript{108}

A related issue may concern the fact that local government agencies, other than emergency management agencies, do not routinely specify budget lines for emergency management activities, and no local agencies are likely to separately budget expenses for individual types of hazards. This may make it difficult to unambiguously delineate the costs that should be covered by a risk-based special assessment.

VI. CONCLUSION

It is likely that a risk-based special assessment for hurricane emergency management services would be challenged in the courts, because it would result in some redistribution of the total tax burdens of different properties.\textsuperscript{109} The outcome would depend on the details of statutory law, and judicial interpretation thereof, in the state in which a local government elected to initiate such a means of attaining greater tax benefit equity for such services.

The assessment method is novel and, therefore, may be one focus of attack. Florida law gives local governments considerable latitude in apportioning costs under a special assessment, and it appears that a method based on relative risk has parallels to at least two special assessment methods that have been validated by the State Supreme Court.\textsuperscript{110}

The difficulty of precisely differentiating the proportion of emergency management services attributable to hurricanes from those attributable to other natural and technological hazards might prove to be an additional weakness, although the Florida courts also appear to have tolerated a range of good-faith approaches taken by local governments to apportion the costs of services and improvements that cannot be neatly differentiated. The challenge of clearly detailing the costs attributable to emergency management services in agencies other than the local emergency management department, might also be problematic and require a narrowing of the scope of the assessment from that described in section I.

The principal weakness in the concept of a risk-based special assessment for emergency management services due to hurricanes

\textsuperscript{108} \textit{Florida Advisory Council on Intergovernmental Relations}, \textit{supra} note 64.
\textsuperscript{109} Deyle & Smith, \textit{supra} note 4, at 429.
\textsuperscript{110} \textit{See} Lake County v. Water Oak Mgmt. Corp., 695 So.2d 667 (Fla. 1997); City of Boca Raton v. State, 595 So.2d 25 (Fla. 1992).
appears to lie in the details of meeting the "special benefit" criterion as it has been interpreted by the Florida courts. Given the Supreme Court's ruling that services that benefit individuals rather than property are not the appropriate domain of special assessments,\textsuperscript{111} it will likely be necessary to narrow the scope of the services that are encompassed by a risk-based special assessment for emergency management services to include only those that clearly benefit property as opposed to individuals. The argument will be strongest where it is possible to show a linkage between the provision of emergency management services and reductions in insurance premiums or enhancements in property values.

\textsuperscript{111} City of North Lauderdale v. SMM Properties, 825 So. 2d 343 (Fla. 2002).