The Environmental Law Institute, the Association of the Bar of the City of New York Environmental Law, Land Use Planning & Zoning, Housing & Urban Development, and Energy Committees, and the New York State Bar Association Environmental Law Section

Lessons from 9/11: Environmental and Land Use Issues Raised in Response to Catastrophe

October 27, 2005

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Present

Lessons from 9/11: Environmental and Land Use Issues Raised in Response to Catastrophe

WHEN: October 27, 2005, 9:30 AM to 12:30 PM
WHERE: 42 West 44th Street, New York
Association of the Bar of the City of New York

To RSVP, call (202) 939-3858, or e-mail mcmurrin@eli.org. **-- there is no fee to attend.**

Major disasters like Hurricane Katrina, particularly in urban areas, raise a host of environmental and land use issues throughout the response and rebuilding process. Many environmental, land use and historic preservation laws, at the federal, state and local level, allow legal requirements to be bypassed in the emergency response to such disasters. This program will consider the environmental, land use and historic preservation issues raised in response to the destruction caused on 9/11 in Lower Manhattan as a case study that can inform future response and future policy. Issues to be addressed include what "emergency" exemptions to environmental laws exist, how these exceptions operate and when they expire, whether an expedited approach to rebuilding is desirable, and the proper role of environmental and land use laws in responding to such widespread disasters.

Moderator-Stephen L. Kass, Carter Ledyard & Milburn LLP

I. Environmental, Historic Preservation and Land Use Laws and Regulations--Provisions for First Response to Emergencies and the Redevelopment of Disaster Areas Thereafter

- A. Overview of NEPA and other Environmental and Land Use Laws- Michael Gerrard, Partner, Arnold & Porter LLP
- B. Overview of National Historic Preservation Act - Ruth Pierpont, Director, New York State Historic Preservation Office
- C. Status of Proposed Legislation on Environmental Responses to Emergencies, Gulf Coast Update, James Tripp, General Counsel, New York Office, Environmental Defense

II. Perspectives on Redevelopment in Response to Disaster

- A. The Federal Emergency Management Agency and its response to disasters - Ernest Abbott, Disaster Relief Law Specialist, FEMA Law Associates, PLLC
- B. The Planning, NEPA Environmental Review and Public Process for Redevelopment of Lower Manhattan - Alexander Garvin, President & CEO, Alex Garvin & Associates
- C. Environmental Justice Issues related to Redevelopment after Catastrophes - Veronica Eady, Senior Staff Attorney, New York Lawyers for the Public Interest

III. How Should Local Agencies Rebuild After Catastrophes such as Hurricane Katrina -- Should full environmental processes be utilized, should government rely on emergency exceptions or should an expedited process be created?

Debra Allee, AICP, Planning and Environmental Consultant
Alex Garvin
Michael Gerrard
James Tripp
Ernest Abbott
Ruth Pierpont
Veronica Eady

IV. Are Current Environmental, Historic Preservation and Land Use Laws and Regulations adequate to Address Redevelopment. If Not, How Should They Be Modified? Should a Streamlined Approach to NEPA and the National Historic Preservation Act be created to address redevelopment in disaster areas? What should be the role of environmental and land use laws and how should that role change over time?

Questions from Moderator

V. Audience Q & A

Speaker Biographical Information

Stephen Kass

Stephen Kass is a partner and co-director of the Environmental Practice Group at Carter Ledyard and Milburn. He has, since 1972, represented a wide range of corporate, governmental and non-profit clients in environmental matters encompassing all aspects of environmental and land-use law, including litigation, corporate transactions, project permitting, administrative proceedings, hazardous substances claims and regulations, environmental impact statements, landmarking, real property transfers, and international environmental claims and regulation. Most recently, he has served as environmental counsel for the Lower Manhattan Development Corporation in connection with the rebuilding of the World Trade Center site and as counsel for the MTA in connection with redevelopment of Manhattan's Far West Side. He has written numerous articles dealing with environmental law, including a regular column in the New York Law Journal since 1986.

Mr. Kass received his B.A. from Yale University and his J.D. from Harvard University School of Law.

Michael B. Gerrard

Michael B. Gerrard heads the environmental practice in the New York office of Arnold & Porter LLP, where he is involved in environmental litigation (civil, criminal and administrative), project development, regulatory compliance counseling, and transactions. He has practiced environmental law in New York City since 1979 and has tried numerous cases and argued numerous appeals in federal and state courts and administrative tribunals. He was the 2004-2005 chair of the American Bar Association's 10,000-member Section of Environment, Energy and Resources. He has also chaired the Executive Committee of the Association of the Bar of the Bar of the City of New York, and the Environmental Law Section of the New York State Bar Association.

Since 1986, Mr. Gerrard has written an environmental law column for the New York Law Journal, and since 1989 he has been the editor of a monthly newsletter, Environmental Law in New York. He has also authored five books, two of which were named Best Law Book of the Year by the Association of American Publishers.

Mr. Gerrard received his B.A. from Columbia University and his J.D. from New York University Law School.

Ruth L. Pierpont

Ruth L. Pierpont is the director of the Field Services Bureau of the York State Office of Parks Recreation and Historic Preservation, the agency that serves as the New York State Historic Preservation Office. Ruth serves as the Deputy State Historic Preservation Officer and is on the executive committee of the board of the National Conference of State Historic Preservation Officers. She is also an adjunct professor at Rensselaer Polytechnic Institute in the Building Conservation Program. Prior to joining the SHPO staff in 1993, Ruth worked for the City of Troy Department of Planning and Community Development for sixteen years, serving as Commissioner of that department from 1991-1993. In over 30 years of public services she has had experience in a broad range of activities and initiatives involving urban planning, historic preservation and redevelopment.

James T.B. Tripp

Mr. James Tripp is the General Counsel for Environmental Defense. His career at Environmental Defense began in 1973 and he was appointed to General Counsel in 1983. He is responsible for the review of all Environmental Defense legal action initiatives, as well as helping to coordinate its transportation project and its strategy on international efforts to reduce fossil fuel emissions and control global warming.

Mr. Tripp serves as chair for the non-profit Tri-State (New York, New Jersey, & Connecticut) Transportation Campaign and is a member of the Board of the Environmental Planning Lobby, New York League of Conservation Voters, Suffolk County Water Authority, New York City Water Board, Pinelands Preservation Alliance, and Coalition to Restore Coastal Louisiana.

He has authored numerous articles on wetland preservation, groundwater quality, solid waste, and ozone protection. In 1986, Mr. Tripp received the Robert C. Stover Environmental Advocate Award, given by New York State Bar Association.

Mr. Tripp received his B.A., L.L.B., and M.A. in Philosophy from Yale University.

Veronica Eady

Veronica Eady is a Senior Attorney for New York Lawyers for the Public Interest, working in the Environmental Justice and Community Development Project. She is also an Associate Professor at Fordham University School of Law. Ms. Eady worked for the Massachusetts Secretary for Environmental Affairs as the Director of the Environmental Justice and Brownfields Program and was the principle author of that state's environmental justice policy. She also served as Executive Director of Alternatives for Community and Environment, a community-based environmental justice advocacy center in Boston. She has held full-time faculty positions at Tufts University in the Department of Urban and Environmental Policy and Planning at Stanford Law School. While living in Russia Siberia, Ms. Eady worked with local communities on acute environmental law issues stemming from Soviet era policies and helped establish the first environmental clinic in the Russian Federation at Irkutsk State University. She is the former chair of the U.S. EPA's federal advisory committee on environmental justice, the National Environmental Justice Advisory Council, where she also served as Chair of the Waste and Facility Siting Subcommittee. She currently serves on the board of Earth Island Institute in San Francisco and Community Rights Council in Washington, DC.

Alexander Garvin

Alexander Garvin has combined a career in urban planning and real estate with teaching, architecture, and public service. He is currently President and CEO of Alex Garvin & Associates, Inc. and Managing Director of Planning for NYC2012, New York City's committee for the 2012 Olympic bid. During 2002-2003, he was the Vice-President for Planning, Design and Development at the Lower Manhattan Development Corporation, the agency charged with the redevelopment of the Word Trade Center following 9/11. Over the last 35 years he has held prominent positions in five New York City administrations, including Deputy Commissioner of Housing (1974-1978) and City Planning Commissioner (1995-2004).

Garvin is Adjunct Professor of Urban Planning and Management at Yale University, where he has taught a wide range of courses. In addition, he teaches two courses in the School of Architecture. Mr. Garvin has also authored several books.

He is a member of the National Advisory Council of the Trust for Public Land and the board of directors of the Society of American City and Regional Planning History. Between 1996 and 2004, he was a fellow of the Urban Land Institute for whom he has organized and taught workshops on basic real estate development, the residential development process, and the role of design in real estate. Garvin is also a member of the Board of Directors of the Ed Bacon Foundation and the Institute for Urban Design, of which he is also Treasurer.

Mr. Garvin earned his B.A., M.Arch, and M.U.S. from Yale University.

Debra C. Allee

Debra Allee, a native New Yorker, began her planning career in 1965 at Parsons Brinckerhoff in NYC. By the time she left with three others in late 1981 to start her own firm—AKRF, Inc.—she was Vice President and Technical Director worldwide for Environmental Services and a member of the firm's Board of Directors. Over the past 22 years, she has presided over the strong growth of AKRF (it now has a staff of 170) and has been the driving force behind the company's extraordinary reputation for quality, responsiveness, and a clear problem-solving approach. Last year, she stepped down as President and CEO and she now devotes more of her time to the company's key assignments, which include some of the most important projects to be addressed in New York City's history, including the World Trade Center Memorial and Redevelopment Plan, the transportation center beneath that site, the potential reconstruction of Route 9A to complement the Redevelopment Plan, the No. 7 Subway Extension and Hudson Yards Rezoning, also including a major expansion of the Javits Center and a proposed new Multi-Use Facility for the Jets and the Convention Center, the Second Avenue Subway, the East Side Access project—bringing the LIRR into Grand Central Terminal, NYC 2012, the City's bid for the 2012 Olympics, and several area-wide rezoning proposals in Brooklyn and Queens.

In the private sector, Ms. Allee is currently involved with Columbia University's planning for a new campus in Manhattanville/West Harlem and the proposed Brooklyn Arena—a new home for the Nets—and associated major redevelopment along Atlantic Avenue. In addition, she has been ongoing consultant to such major public/private projects as the 42nd Street Development Project, Queens West, and Battery Park City for many years. Also, she was the organizer and a major author of the City's CEQR Technical Manual. Ms. Allee was Adjunct Associate Professor and taught for ten years in Columbia University's Graduate School of Architecture, Planning and Historic Preservation.

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Major Disaster Declarations

Year	Date	Disaster Types	Active	Disaster Number
2005	04/19	Severe Storms and Flooding	☐	1589
2004	10/01	Tropical Depression Ivan	☐	1565
2004	10/01	Severe Storms and Flooding	☐	1564
2004	08/03	Severe Storms and Flooding	☐	1534
2003	08/29	Severe Storms, Tornadoes and Flooding	☐	1486
2003	05/12	Ice Storm	☐	1467
2002	05/16	Earthquake	☐	1415
2002	03/01	Snowstorm	☐	1404
2001	09/11	Terrorist Attack	☐	1391
2000	07/21	Severe Storms	☐	1335
1999	09/19	Hurricane Floyd	☐	1296
1998	09/11	Severe Storms	☐	1244
1998	07/07	Severe Storms and Flooding	☐	1233
1998	06/16	New York Severe Thunderstorms and Tornadoes	☐	1222
1998	01/10	Severe Winter Storms	☐	1196
1996	12/09	Severe Storms/Flooding	☐	1148
1996	11/19	Severe Storms/Flooding	☐	1146
1996	01/24	Severe Storms/Flooding	☐	1095
1996	01/12	Blizzard	☐	1083
1993	04/02	World Trade Center Explosion	☐	984
1992	12/21	Coastal Storm, High Tides, Heavy Rain, Flooding	☐	974
1991	09/16	Hurricane Bob	☐	918
1991	03/21	Severe Storm, Winter Storm	☐	898
1987	11/10	SEVERE WINTER STORM	☐	801
1987	05/15	FLOODING	☐	792
1985	10/18	HURRICANE GLORIA	☐	750
1985	03/22	Snow Melt, Ice Jams	☐	734
1985	03/20	FLOODING	☐	733
1984	09/25	SEVERE STORMS, FLOODING	☐	725
1984	04/17	COASTAL STORMS, FLOODING	☐	702
1977	02/05	Snowstorms	☐	527

1976	09/03	HURRICANE BELLE	☐	520
1976	07/21	SEVERE STORMS, FLOODING	☐	515
1976	06/29	FLASH FLOODING	☐	512
1976	03/19	Ice Storm,Severe Storms, Flooding	☐	494
1975	10/02	Severe Storms, Heavy Rain, Landslides, Flooding	☐	487
1974	07/23	SEVERE STORMS, FLOODING	☐	447
1973	07/20	SEVERE STORMS, FLOODING	☐	401
1973	03/21	High Winds, Wave Action, Flooding	☐	367
1972	06/23	Tropical Storm Agnes	☐	338
1971	09/13	SEVERE STORMS, FLOODING	☐	311
1970	07/22	Heavy Rains, Flooding	☐	290
1969	08/26	Heavy Rains, Flooding	☐	275
1967	10/30	SEVERE STORMS, FLOODING	☐	233
1965	08/18	Water Shortage	☐	204
1963	08/23	Heavy Rains, Flooding	☐	158
1962	03/16	Severe Storm, High Tides, Flooding	☐	129
1956	03/29	FLOOD	☐	52
1955	08/22	HURRICANE, FLOODS	☐	45
1954	10/07	HURRICANES	☐	26

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Emergency Declarations

Year	Date	Disaster Types	Active	Disaster Number
2005	09/30	Hurricane Katrina Evacuation	■	3262
2004	03/03	Snow	☐	3195
2003	08/23	Power Outage	☐	3186
2003	03/27	Snowstorm	☐	3184
2003	02/26	Snowstorm	☐	3173
2002	01/01	Snowstorm	☐	3170
2000	12/04	Snow Storm	☐	3157
2000	10/11	Virus Threat	☐	3155
1999	09/18	Hurricane Floyd	☐	3149
1999	03/10	Winter Storm	☐	3138
1999	01/15	Winter Storm	☐	3136

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Fire Management Assistance Declarations

Year	Date	Incident	Disaster Number
1999	08/09	West Point Fire Complex	2269
1995	08/25	Sunrise Complex	2115

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LEXSEE 66 FR 48199

FEDERAL REGISTER

Vol. 66, No. 181

Presidential Documents

PRESIDENT OF THE UNITED STATES

Proclamation 7463 of September 14, 2001

Title 3 -

The President

Declaration of National Emergency by Reason of Certain Terrorist Attacks

By the President of the United States of America

Part III

66 FR 48199

DATE: Tuesday, September 18, 2001

A Proclamation

A national emergency exists by reason of the terrorist attacks at the World Trade Center, New York, New York, and the Pentagon, and the continuing and immediate threat of further attacks on the United States.

NOW, THEREFORE, I, GEORGE W. BUSH, President of the United States of America, by virtue of the authority vested in me as President by the Constitution and the laws of the United States, I hereby declare that the national emergency has existed since September 11, 2001, and, pursuant to the National Emergencies Act *(50 U.S.C. 1601* et seq.), I intend to utilize the following statutes: sections 123, 123a, 527, 2201(c), 12006, and 12302 of title *10, United States Code, and sections 331,* 359, and 367 of title 14, United States Code.

This proclamation immediately shall be published in the Federal Register or disseminated through the Emergency Federal Register, and transmitted to the Congress.

This proclamation is not intended to create any right or benefit, substantive or procedural, enforceable at law by a party against the United States, its agencies, its officers, or any person.

IN WITNESS WHEREOF, I have hereunto set my hand this fourteenth day of September, in the year of our Lord two thousand one, and of the Independence of the United States of America the two hundred and twenty-sixth.

S George W. Bush

[FR Doc. 01-23358 Filed 09-17-01; 8:45 am]

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Extension of Emergency Provisions under 36 CFR Part 800.12

PLEASE NOTE:

As of March 29, 2004, the following extension is no longer in effect.

Any agency wanting an extension must individually request it per 36 C.F.R. 800.12(d).

On September 14, 2001, President Bush proclaimed a Declaration of National Emergency by Reason of Certain Terrorist Attacks (*Federal Register,* Vol. 66, No. 181, p. 48199). As a result of this declaration, Federal agencies may use the emergency provisions of ACHP's regulations as outlined in 36 CFR Part 800.12, for those undertakings that are an essential and immediate response to the President's declaration.

Under ACHP's regulations, these provisions apply "only to those undertakings that will be implemented within 30 days after the disaster or emergency has been formally declared...." However, because of the nature of the emergency and the ongoing need to provide for national security, ACHP is, until further notice, extending the period of applicability for using ACHP's emergency provisions, provided that agency undertakings are directly associated with "the continuing and immediate threat of further attacks" as stated in the presidential declaration.

While ACHP's regulations provide an opportunity for individual agencies to request an extension of the emergency provisions, in light of the fact that numerous agencies may be implementing emergency undertakings in the coming months, ACHP is granting extensions without the need for agencies to make an official request.

ACHP urges those agencies that may have a need to implement emergency provisions for multiple undertakings to develop agency-wide procedures for taking historic properties into account during their emergency operations.

Questions concerning ACHP's decision to extend its emergency provisions can be directed by e-mail to achp@achp.gov.

Emergency Exemptions, Suspensions, Modifications, and Waivers Under Federal and New York Environmental Laws

Michael B. Gerrard
Arnold & Porter LLP

and

Katrina Task Force
Section of Environment, Energy and Resources
American Bar Association

October 2005

I. Federal Law

Clean Air Act (CAA)

The Clean Air Act has at least eight waivers, six of which were invoked during Katrina. CAA exemptions include those for stationary sources that burn fossil fuel, any stationary sources emitting hazardous air pollutants, fuel additives, federal actions from transportation emission standards, federal facilities for virtually any standard, and manufacturers of banned ozone depleting gases. For example, EPA has exempted ten Katrina-affected states from requirements to sell fuel with emission-reducing fuel additives.

1. From Emission Restrictions For Fuel Burning Stationary Sources When President Specifies a National or Regional Energy: 42 U.S.C. § 7410(f) (reportedly invoked for Katrina).

> National or regional energy emergencies; determination by President (1) Upon application by the owner or operator of a fuel burning stationary source, and after notice and opportunity for public hearing, the Governor of the State in which such source is located may petition the President to determine that a national or regional energy emergency exists of such severity that – (A) a temporary suspension of any part of the applicable implementation plan or of any requirement under section 7651j of this title (concerning excess emissions penalties or offsets) may be necessary, and (B) other means of responding to the energy emergency may be inadequate."
>
> (1) Such determination shall not be delegable by the President to any other person. If the President determines that a national or regional energy emergency of such severity exists, a temporary emergency suspension of any part of an applicable implementation plan adopted by the State may be

issued by the Governor of any State covered by the President's determination under the conditions specified in paragraph (2) and may take effect immediately.

(2) A temporary emergency suspension under this subsection shall be issued to a source only if the Governor of such State finds that—

(A) there exists in the vicinity of such source a temporary energy emergency involving high levels of unemployment or loss of necessary energy supplies for residential dwellings; and

(B) such unemployment or loss can be totally or partially alleviated by such emergency suspension. Not more than one such suspension may be issued for any source on the basis of the same set of circumstances or on the basis of the same emergency.

(3) A temporary emergency suspension issued by a Governor under this subsection shall remain in effect for a maximum of four months or such lesser period as may be specified in a disapproval order of the Administrator, if any. The Administrator may disapprove such suspension if he determines that it does not meet the requirements of paragraph (2).

(4) This subsection shall not apply in the case of a plan provision or requirement promulgated by the Administrator under subsection (c) of this section, but in any such case the President may grant a temporary emergency suspension for a four month period of any such provision or requirement if he makes the determinations and findings specified in paragraphs (1) and (2).

(5) The Governor may include in any temporary emergency suspension issued under this subsection a provision delaying for a period identical to the period of such suspension any compliance schedule (or increment of progress) to which such source is subject under section 119, as in effect before the date of the enactment of this paragraph or section 113(d) of this Act, upon a finding that such source is unable to comply with such schedule (or increment) solely because of the conditions on the basis of which a suspension was issued under this subsection.

2. From National Emission Standards for Hazardous Air Pollutants For Any Stationary Source When President Determines in the Interests of National Security: 42 U.S.C. § 7412(i)(4).

Presidential Exemption. — The President may exempt any stationary source from compliance with any standard or limitation under this section for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the

United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years. The President shall report to Congress with respect to each exemption (or extension thereof) made under this paragraph.

3. EPA exemptions from fuel additive requirements during emergencies (EPA has issued one national waiver (expired 9/12/05), and ten for states affected by Katrina and Rita (including MS, LA, FL, AL, AZ, TX, CA, TN, GA (2), and VA (2)).

4. From CAA transportation conformity requirements for federal actions:

a. Contemporaneous responses during exigencies: 40 C.F.R. § 51.853 (d): "Notwithstanding the other requirements of this subpart, a conformity determination is not required for the following Federal actions (or portion thereof):

(2) Actions in response to emergencies or natural disasters such as hurricanes, earthquakes, etc., which are commenced on the order of hours or days after the emergency or disaster and, if applicable, which meet the requirements of paragraph (e) of this section.

b. Ongoing responses during exigencies: 40 C.F.R. § 51.853 (e):

Federal actions which are part of a continuing response to an emergency or disaster under paragraph (d)(2) of this section and which are to be taken more than 6 months after the commencement of the response to the emergency or disaster under paragraph (d)(2) of this section are exempt from the requirements of this subpart only if:

(1) The Federal agency taking the actions makes a written determination that, for a specified period not to exceed an additional 6 months, it is impractical to prepare the conformity analyses which would otherwise be required and the actions cannot be delayed due to the overriding concerns for public health and welfare, national security interests and foreign policy commitments; or

(2) For actions which are to be taken after those actions covered by paragraph (e)(1) of this section, the Federal agency makes a new determination as provided in paragraph (e)(1) of this section."

5. For Any Federal Emission Source When President Determines it to be "in the Paramount Interest of the United States.": 42 USC § 7418.

(b) The President may exempt any emission source of any department, agency, or instrumentality in the executive branch from compliance with such a requirement if he determines it to be in the paramount interest of the United States to do so, except that no exemption may be granted from section 111, and an exemption from section 112 may be granted only in accordance with section 112(i)(4) . No such exemption shall be granted due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation. Any exemption shall be for a period not in excess of one year, but additional exemptions may be granted for periods of not to exceed one year upon the President's making a new determination. In addition to any such exemption of a particular emission source, the President may, if he determines it to be in the paramount interest of the United States to do so, issue regulations exempting from compliance with the requirements of this section any weaponry, equipment, aircraft, vehicles, or other classes or categories of property which are owned or operated by the Armed Forces of the United States (including the Coast Guard) or by the National Guard of any State and which are uniquely military in nature. The President shall reconsider the need for such regulations at three-year intervals. The President shall report each January to the Congress all exemptions from the requirements of this section granted during the preceding calendar year, together with his reason for granting each such exemption.

6. For Defense Department Vehicles due to National Security: 42 U.S.C. § 7588(e).

Exemptions.—The requirements of this part shall not apply to vehicles with respect to which the Secretary of Defense has certified to the Administrator that an exemption is needed based on national security consideration.

7. For Federal Procurement When President Determines Paramount Interest: 42 USC § 7606(d).

The President may exempt any contract, loan, or grant from all or part of the provisions of this section where he determines such exemption is necessary in the paramount interest of the United States and he shall notify the Congress of such exemption.

8. From CFC Class I Phase-Out to Protect "National Security Interests": 42 USC § 7671c(f).

National Security.—The President may, to the extent such action is consistent with the Montreal Protocol, issue such orders regarding production and use of CFC-114 (chlorofluorocarbon-114), halon-1211, halon-1301, and halon-2402, at any specified site or facility or on any vessel as may be necessary to protect the national security interests of the United States if the President finds that adequate substitutes are not available and that the production and use of such substance are necessary to protect such national security interest. Such orders may include,

where necessary to protect such interests, an exemption from any prohibition or requirement contained in this title. The President shall notify the Congress within 30 days of the issuance of an order under this paragraph providing for any such exemption. Such notification shall include a statement of the reasons for the granting of the exemption. An exemption under this paragraph shall be for a specified period which may not exceed one year. Additional exemptions may be granted, each upon the President's issuance of a new order under this paragraph. Each such additional exemption shall be for a specified period which may not exceed one year. No exemption shall be granted under this paragraph due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation.

Clean Water Act (CWA)

The Clean Water Act has at least five exemptions, including Act of God and War, emergency situations, and other exigencies for oil and hazardous substances, which EPA invoked to authorize the pumping of New Orleans floodwater into Lake Pontchartrain after Katrina.

1. Act of God or War: 33 U.S.C. § 1321 (a)(12) "Act of God" means "an act occasioned by an unanticipated grave natural disaster."

2. During Upset: 40 C.F.R. § 122.41 (n) (1) ("an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee....")

3. Other Emergencies: *See e.g.*, 33 C.F.R. § 337.7 ("After obtaining approval from the division engineer, the district engineer [for the Corps] will respond to emergency situations on an expedited basis, complying with the procedures of this regulation to the maximum degree practicable.")

4. Exigent discharges of oil and hazardous substances:
   a. Oil and hazardous substances: § 1321(c)
   b. Hazardous substances under direction of on-scene coordinator pursuant to NCP: 40 CRR 122.3(d). *Cf.* 40 C.F.R. 121(e) (waivers only available for remedies conducted "entirely onsite").

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

CERCLA has at least five exemptions, including those for act of God or war, for public health, and for DOD and DOE facilities in the interests of national security.

1. Act of God or War: 42 U.S.C. § 9607 (b) (1) .

> There shall be no liability under subsection (a) of this section for a person otherwise liable who can establish by a preponderance of the evidence that the release or threat of release of a hazardous substance and the damages resulting therefrom were caused solely by – (1) an act of God; (2) an act of war . . .

2. Emergency removal actions: 40 C.F.R. § 300.440.

> In cases of emergency removal actions under CERCLA, emergency actions taken during remedial actions, or response actions under section 311 of the Clean Water Act where the release poses an immediate and significant threat to human health and the environment, the On-Scene Coordinator (OSC) may determine that it is necessary to transfer CERCLA waste off-site without following the requirements of this section.

3. From Remedial Standards: 42 U.S.C. § 9621 (d)(4) (authorizing President to choose remedial action cleanup levels not meeting required standards when compliance "would result in greater risk to human health.")

4. Superfund Emergency Removals: 42 U.S.C. § 9604 (a) (removal authority to protect public health).

5. Exemptions for DOE and DOD facilities based on "national security": 42 U.S.C. § 9607(j) (authorizing President to modify or exempt requirements for response actions at Department of Energy or the Department of Defense facilities based on national security).

Coastal Zone Management Act (CZMA)

The CZMA allows the President to authorize federal actions that are inconsistent with state coastal plans if it is in the paramount interest of the country, or the Secretary determines it to be a matter of national security.

1. For Federal Agency Activity that is Inconsistent with State CZMA Plan When President Determines it to be of "Paramount Interest," or the Secretary finds it to be a matter of national security: 16 USC § 1456(c).

> (1)(B) After any final judgment, decree, or order of any Federal court that is appealable under section 1291 or 1292 of title 28, United States Code, or under any other applicable provision of Federal law, that a specific Federal agency activity is not in compliance with subparagraph (A), and certification by the Secretary that mediation under subsection (h) is not likely to result in such compliance, the President may, upon written request from the Secretary, exempt from compliance those elements of the Federal agency activity that are found by the Federal court to be inconsistent with an approved State program, if the President determines that the activity is in the paramount interest of the United States. No such exemption shall be granted on the basis of a lack of

appropriations unless the President has specifically requested such appropriations as part of the budgetary process, and the Congress has failed to make available the requested appropriations.

(3)(A) ... No license or permit shall be granted by the Federal agency until the state or its designated agency has concurred with the applicant's certification or until, by the state's failure to act, the concurrence is conclusively presumed, unless the Secretary, on his own initiative or upon appeal by the applicant, finds, after providing a reasonable opportunity for detailed comments from the Federal agency involved and from the state, that the activity is consistent with the objectives of this title or is otherwise necessary in the interest of national security.

(B) ... No Federal official or agency shall grant such person any license or permit for any activity described in detail in such plan until such state or its designated agency receives a copy of such certification and plan, together with any other necessary data and information, and until —

(iii) the Secretary finds, pursuant to subparagraph (A), that each activity which is described in detail in such plan is consistent with the objectives of this title or is otherwise necessary in the interest of national security.

.... If such state objects to such certification and if the Secretary fails to make a finding under clause (iii) with respect to such certification, or if such person fails substantially to comply with such plan as submitted, such person shall submit an amendment to such plan, or a new plan, to the Secretary of the Interior. With respect to any amendment or new plan submitted to the Secretary of the Interior pursuant to the preceding sentence, the applicable time period for purposes of concurrence by conclusive presumption under subparagraph (A) is 3 months.

2. For Other Federal Activities that are Inconsistent With CZMA Plan When Secretary Determines it "necessary in the interest of national security": 16 USC § 1456(d).

Federal agencies shall not approve proposed projects that are inconsistent with the enforceable policies of a coastal state's management program, except upon a finding by the Secretary that such project in consistent with the purposes of this title or necessary in the interest of national security.

Endangered Species Act (ESA)

In federal "disaster areas," the ESA allows otherwise prohibited "takes" of protected species, and exempts federal agencies from the Act's consultation requirements. Critical habitat determinations must consider "national security."

1. From General Prohibition Against "Taking" T&E Species: 16 U.S.C. § 1533.

2. From Consultation Requirements: 16 U.S.C. § 1536 (invoked for Katrina).

a. Streamlined or waiving consultation for repair or replacement of public facilities in "disasters areas." 16 U.S.C. § 1536(p). *See also* 50 CFR 402.05 (Deferring formal consultation until after exigency dissipates).

> In any area which has been declared by the President to be a major disaster area under the Disaster Relief and Emergency Assistance Act, . . . the President is authorized to make the determinations required by subsections (g) and (h) of this section for any project for the repair or replacement of a public facility substantially as it existed prior to the disaster under section 405 or 406 of the Disaster Relief and Emergency Assistance Act, . . . and which the President determines (1) is necessary to prevent the recurrence of such a natural disaster and to reduce the potential loss of human life, and (2) to involve an emergency situation which does not allow the ordinary procedures of this section to be followed. Notwithstanding any other provision of this section, the Committee shall accept the determinations of the President under this subsection.

3. Designation of Critical Habitat: 16 USC § 1533(b)(2).

> The Secretary shall designate critical habitat, and make revisions thereto ... on the basis of the best scientific data available and after taking into consideration ... the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat. The Secretary may exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned.

Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)

FIFRA provides for exemptions when federal or state agencies declare an emergency,

1. For Federal or State Agencies When Administrator Determines Emergency Conditions Exist, including specific conditions, quarantine, public health, or crisis: 7 U.S.C. § 136p. *See also* 40 C.F.R. § 166.2 (identifying emergency exemptions).

> The Administrator may, at the Administrator's discretion, exempt any Federal or State agency from any provision of this Act if the Administrator determines that emergency conditions exist which require such exemption. The Administrator, in determining whether or not such emergency conditions exist, shall consult with the Secretary of Agriculture and the Governor of any State concerned if they request such determination.

Marine Protection Research and Sanctuaries Act (MPRSA)

The MPRSA allows EPA to authorize the dumping of industrial wastes into ocean and other waters in times of "emergency."

1. Emergency Dumping of Industrial Waste into Waters When Administrator Determines an "Emergency": 33 USC 1412a.

> (a) Issuance of emergency permits:
>
> Notwithstanding section 104B of the Marine Protection, Research, and Sanctuaries Act of 1972 33 U.S.C. 1414b after December 31, 1981, the Administrator may issue emergency permits under title I of such Act 33 U.S.C. 1411 et seq. for the dumping of industrial waste into ocean waters, or into waters described in such section 101(b), 33 U.S.C. 1411(b) , if the Administrator determines that there has been demonstrated to exist an emergency, requiring the dumping of such waste, which poses an unacceptable risk relating to human health and admits of no other feasible solution. As used herein, "emergency" refers to situations requiring action with a marked degree of urgency.
>
> (b) "Industrial waste" defined:
>
> For purposes of this section, the term "industrial waste" means any solid, semisolid, or liquid waste generated by a manufacturing or processing plant.

EPA regulations allow vessels to scuttle cargo and waste during emergencies. 40 C.F.R. § 220.

National Environmental Policy Act (NEPA)

While NEPA does not contain any provisions for emergencies, disasters, or national security, the Council on Environmental Quality's implementing regulations provide for categorical and EIA exemptions during emergencies or disasters. The regulations also exempt military operations and federal actions overseas during emergencies.

1. Restoring facility to prior condition. 42 U.S.C. § 5159.

> An action which is taken or assistance which is provided . . . which has the effect of restoring a facility to its condition prior to the disaster or emergency, shall not be deemed a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act.

2. Exemptions for Emergencies:

a. Emergency actions not "major federal action" during emergencies and exceptional circumstances. 22 C.F.R. § 161.7 (d)

> Emergencies and other exceptional circumstances . . . Several limited classes of action which might ordinarily be subject to these regulations will not be considered major Federal actions requiring the preparation of an environmental impact statement. Among them are the following:
>
> **(1)** Actions taken in emergency circumstances and disaster and emergency relief activities as defined in section 1506.11 of the CEQ Regulations (in such circumstances the responsible action officer should consult with the Office of Environment and Health which shall consult with the Council on Environmental Quality about appropriate alternative arrangements)."

b. "Alternate arrangements" during emergencies. 40 CFR § 1506.11 (authorizing lead agencies to arrange "alternative arrangements" with CEQ in emergency situations).

> Emergencies. Where emergency circumstances make it necessary to take an action with significant environmental impact without observing the provisions of these regulations, the Federal agency taking the action should consult with the Council about alternative arrangements. Agencies and the Council will limit such arrangements to actions necessary to control the immediate impacts of the emergency. Other actions remain subject to NEPA review.

3. EIS Exemptions for Disasters and Emergencies: 42 U.S.C. § 5159.

> An action which is taken or assistance which is provided . . . which has the effect of restoring a facility to its condition prior to the disaster or emergency, shall not be deemed a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act.

See also 22 C.F.R. § 161.7 (d) (providing specifics).

4. Exemptions for military during emergencies.

> a. For discharge of oil and hazardous substances during emergency: 32 C.F.R. § 650.205(a)
> b. Allowing Emergency Response by Air Force: 32 C.F.R. § 989.34

5. For Disasters and Emergencies Abroad: Executive Order No. 12114, 2-5 (requires NEPA-like considerations for actions with environmental effects abroad). *See also* 32 C.F.R. Pt. 187 (implementing the E.O.).

> 2-5. Exemption and Considerations.
> (a) " . . . the following actions are exempt from this Order: . . .

(vii) disaster and emergency relief action.

(c) Agency procedure under Section 2-1 may provide for categorical exclusions and for such exemptions in addition to those specified in subsection (a) of this section as may be necessary to meet emergency circumstances . . .

6. Army cannot discharge oil or hazardous materials except in emergency. 32 C.F.R. § 650.205(a)

7. An emergency does not exempt the Air Force from following NEPA, but they can do an emergency response while completing NEPA. 32 C.F.R. § 989.34.

Oil Pollution Act (OPA)

OPA provides a complete defense to liability due to act of God or war. 33 U.S.C. § 2703 (a) ("A responsible party is not liable for removal costs or damages under section 2702 of this title if the responsible party establishes, by a preponderance of the evidence, that the discharge or substantial threat of a discharge of oil and the resulting damages or removal costs were caused by -- (1) an act of God; (2) an act of war . . .").

Noise Control Act (NCA)

The NCA allows EPA to provide exemptions "for reasons of national security." 42 USC § 4909(b)(1):

> For the purpose of research, investigations, studies, demonstrations, or training, or for reasons of national security, the Administrator may exempt for a specified period of time any product, or class thereof, from paragraphs (1), (2), (3), and (5) of subsection (a), upon such terms and conditions as he may find necessary to protect the public health or welfare.

Resource Conservation and Recovery Act (RCRA)

RCRA allows the President to exempt federal waste facilities and underground storage tanks, and otherwise suspend medical waste tracking requirements, when it is in the "paramount interest" of the nation. EPA regulations also allow it to suspend treatment, storage and disposal requirements during emergencies.

1. Exemption for federal solid waste management units when President determines it to be in the "paramount interest" of the nation. 42 USC § 6961(a).

> The President may exempt any solid waste management facility of any department, agency, or instrumentality in the executive branch from compliance with such requirement if he determines it to be in the paramount interest of the United States to do so. No such exemption shall be granted due to lack of appropriation unless the President shall have specifically requested such

appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation. Any exemption shall be for a period not in excess of one year, but additional exemptions may be granted for periods not to exceed one year upon the President's making a new determination. The President shall report each January to the Congress all exemptions from the requirements of this section granted during the preceding calendar year, together with his reason for granting each such exemption.

2. Exemption for federal underground storage tanks when President determines it to be in the "paramount interest" of the nation. 42 USC § 6991f(a).

> Presidential Exemption. —The President may exempt any underground storage tanks of any department, agency, or instrumentality in the executive branch from compliance with such requirement if he determines it to be in the paramount interest of the United States to do so. No such exemption shall be granted due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriations. Any exemption shall be for a period not in excess of one year, but additional exemptions may be granted for periods not to exceed one year upon the President's making a new determination. The President shall report each January to the Congress all exemptions from the requirements of this section granted during the preceding calendar year, together with his

3. Issuance of temporary emergency permits by RCRA Director to treat, store or dispose of hazardous wastes in situations of "imminent and substantial endangerment to human health or the environment." 40 C.F.R. § 270.61(a) (for otherwise "non-permitted facilities to allow treatment, storage, or disposal of hazardous waste or ... to a permitted facility to allow treatment, storage, or disposal of a hazardous waste not covered by an effective permit").

4. Exemption from standards for TSD facilities during Emergencies. 40 C.F.R. § 264.1(g)(8).

> The requirements of this part do not apply to:
> (i) Except as provided in paragraph (g)(8)(ii) of this section, a person engaged in treatment or containment activities during immediate response to any of the following situations:
> (A) A discharge of a hazardous waste;
> (B) An imminent and substantial threat of a discharge of hazardous waste;
> (C) A discharge of a material which, when discharged, becomes a hazardous waste.
> (D) An immediate threat to human health, public safety, property, or the environment, from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an

explosive or munitions emergency response specialist as defined in 40 CFR 260.10.
(ii) An owner or operator of a facility otherwise regulated by this part must comply with all applicable requirements of Subparts C and D (Preparedness and Prevention, and Contingency Plan and Emergency Procedures).

5. Exemption from standards for interim status TSDs. 40 C.F.R. § 265.1(c) (11) (same as above).

6. Presidential exemption from medical waste tracking requirements. RCRA 11006(a).

Robert T. Stafford Disaster Relief and Emergency Assistance Act

1. NEPA exemption for immediate response actions: 42 U.S.C. § 5159; 44 C.F.R. §§ 10.8(c), 10.8(d)(2)(xii).

2. Other Presidential Authority: 42 U.S.C. § 5173 (a)

"The President, whenever he determines it to be in the public interest, is authorized -- (1) through the use of Federal departments, agencies, and instrumentalities, to clear debris and wreckage resulting from a major disaster from publicly and privately owned lands and waters; and (2) to make grants to any State or local government or owner or operator of a private nonprofit facility for the purpose of removing debris or wreckage resulting from a major disaster from publicly or privately owned lands and waters."

Safe Drinking Water Act (SDWA)

The SDWA allows states to exempt "any" public water system from maximum contaminant levels due to "compelling factors," like "urgent threats to public health." 42 USC § 300g-5.

(a) A State which has primary enforcement responsibility may exempt any public water system within the State's jurisdiction from any requirement respecting a maximum contaminant level or any treatment technique requirement, or from both, of an applicable national primary drinking water regulation upon a finding that —

(1) due to compelling factors (which may include economic factors, including qualification of the public water system as a system serving a disadvantaged community pursuant to section 1452(d)), the public water system is unable to comply with such contaminant level or treatment technique requirement or to implement measures to develop an alternative source of water supply,

(2) the public water system was in operation on the effective date of such contaminant level or treatment technique requirement, or, for a system that was not in operation by that date, only if no reasonable alternative source of drinking water is available to such new system,

(3) the granting of the exemption will not result in an unreasonable risk to health; and

(4) management restructuring changes (or both) cannot reasonably be made that will result in compliance with this title or, if compliance cannot be achieved, improve the quality of the drinking water.

Toxic Substances Control Act (TSCA)

TSCA has limited imminent hazard authority: 15 U.S.C. § 2606.

Wilderness Act

The Wilderness Act allows roadbuilding in Wilderness Areas during emergencies. 16 U.S.C. § 1133 (c).

> "Except as specifically provided for in this chapter, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this chapter and, except as necessary to meet minimum requirements for the administration of the area for the purpose of this chapter (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, no motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area."

II. New York State

N.Y. Exec. L. § 29-a - "Subject to the state constitution, the federal constitution and federal statutes and regulations ... the governor may be executive order temporarily suspend specific provisions of any statute, local law, ordinance, or orders, rules or regulations, or parts thereof, of any agency during a state disaster emergency, if compliance with such provisions would prevent, hinder, or delay action necessary to cope with the disaster."

N.Y. Executive Order No. 11329, "Suspension of Regulations Regarding Transportation and Handling of Certain Solid Waste Resulting From the World Trade Center Disaster" (October 9, 2001)

N.Y. Parks, Recreation & Historic Preservation Law § 14.09.1 - Emergency exemption from historic consultation process

State Environmental Quality Review Act exempts from the EIS requirement "emergency actions that are immediately necessary on a limited and temporary basis for the protection or preservation of life, health, property or natural resources, provided that such actions are directly related to the emergency and are performed to cause the least change or disturbance, practicable under the circumstances, to the environment" 6 N.Y.C.R.R. § 617.5(c)(33)

Broad judicial interpretation of SEQRA exemption: See Gerrard, Ruzow & Weinberg, *Environmental Impact Review in New York* § 2.01 [4][d]

No Spray Coalition, Inc. v. City of New York, 2000 U.S. Dist. Lexis 13919 (S.D.N.Y., Sept. 25, 2000), aff'd 252 F.3d 148 (2d Cir. 2001) - Emergency exemption from SEQRA applies to spraying for West Nile Virus

Organization of Waterfront Neighborhoods v. Carpinello, N.Y. Sup. Ct. (NYLJ, Nov. 14, 2001, 18:3) - Emergency provisions for disposal of solid waste from World Trade Center disaster site

N.Y. Environmental Conservation Law § 3-0301.1(y) - Power of DEC to respond to air pollution emergencies

N.Y. Environmental Conservation Law § 3-0301.2(aa) - Power of DEC to respond to construction emergencies (such as danger of building collapses)

N.Y. Environmental Conservation Law § 3-0309.l(c) - Power of DEC to enter into standby contracts for emergency response actions to clean up spills and abate other hazards

N.Y. Environmental Conservation Law § 11-0325 - DEC emergency response authority for diseases endangering humans, wildlife or livestock

N.Y. Environmental Conservation Law § 15-0501.6 - No permit needed for emergency work in streams

N.Y. Environmental Conservation Law § 15-0505.6 - No permit needed for emergency excavation and fill work

N. Y. Environmental Conservation Law § 19-0311.3(g) - No air pollution permit required for air emissions resulting from emergencies

N.Y. Environmental Conservation Law § 27-1313.3(b) -DEC emergency response to imminent dangers from hazardous substance sites

N.Y. Environmental Conservation Law § 33-0719 - Emergency suspension of pesticide registrations when imminent hazard presented

N.Y. Environmental Conservation Law § 70-0116 - DEC authority to waive ordinary permit requirements if necessary to respond to emergency

N.Y. Environmental Conservation Law § 71-0301- DEC summary abatement authority to respond to imminent dangers

N.Y. Environmental Conservation Law §§ 71-1129, 71-1935, 71-2109 - Certain civil liabilities not imposed where violations caused by act of God, war, strike, riot, or other catastrophe where person's negligence or willful misconduct not the proximate cause

N.Y. Environmental Conservation Law § 71-1941- Act of war exemption for liability for spills of bulk liquids

N.Y. Environmental Conservation Law § 71-2111 - Enforcement of air pollution emergency rules and regulations

Lessons from 9/11:
Environmental and Land Use Issues Raised in Response to Catastrophe

October 27, 2005

Selected Legal Authorities Addressing Emergency Exemptions for Historic Preservation Review

I. National Historic Preservation Act

A. Disaster Waivers, 16 U.S.C. § 470 h-2(j)

B. Emergency Exemptions for Section 106 Consultation and Review Process, 36 CFR § 800.12

§ 800.12, Emergency situations:

(a) Agency procedures. The agency official, in consultation with the appropriate SHPOs/THPOs, affected Indian tribes and Native Hawaiian organizations, and the Council, is encouraged to develop procedures for taking historic properties into account during operations which respond to a disaster or emergency declared by the President, a tribal government, or the Governor of a State or which respond to other immediate threats to life or property. If approved by the Council, the procedures shall govern the agency's historic preservation responsibilities during any disaster or emergency in lieu of §§ 800.3 through 800.6.

(b) Alternatives to agency procedures. In the event an agency official proposes an emergency undertaking as an essential and immediate response to a disaster or emergency declared by the President, a tribal government, or the Governor of a State or another immediate threat to life or property, and the agency has not developed procedures pursuant to paragraph (a) of this section, the agency official may comply with section 106 by:

(1) Following a programmatic agreement developed pursuant to § 800.14(b) that contains specific provisions for dealing with historic properties in emergency situations; or

(2) Notifying the Council, the appropriate SHPO/THPO and any Indian tribe or Native Hawaiian organization that may attach religious and cultural significance to historic properties likely to be affected prior to the undertaking and affording them an opportunity to comment within seven days of notification. If the agency official determines that circumstances

do not permit seven days for comment, the agency official shall notify the Council, the SHPO/THPO and the Indian tribe or Native Hawaiian organization and invite any comments within the time available.

(c) Local governments responsible for section 106 compliance. When a local government official serves as the agency official for section 106 compliance, paragraphs (a) and (b) of this section also apply to an imminent threat to public health or safety as a result of a natural disaster or emergency declared by a local government's chief executive officer or legislative body, provided that if the Council or SHPO/THPO objects to the proposed action within seven days, the agency official shall comply with §§ 800.3 through 800.6.

(d) Applicability. This section applies only to undertakings that will be implemented within 30 days after the disaster or emergency has been formally declared by the appropriate authority. An agency may request an extension of the period of applicability from the Council prior to the expiration of the 30 days. Immediate rescue and salvage operations conducted to preserve life or property are exempt from the provisions of section 106 and this part.

C. Emergency Exemption for Section 110 Review, 36 CFR §§ 78.1 et. seq.

§ 78.3, Federal Agency decision to waive responsibilities:

(a) When a Federal Agency Head determines, under extraordinary circumstances, that there is an imminent threat of a major natural disaster or an imminent threat to the national security such that an emergency action is necessary to the preservation of human life or property, and that such emergency action would be impeded if the Federal Agency were to concurrently meet its historic preservation responsibilities under section 110 of the Act, that Federal Agency Head may immediately waive all or part of those responsibilities, subject to the procedures set forth herein and provided that the agency head implements such measures or procedures as are possible in the circumstances to avoid or minimize harm to historic properties.

(b) Waiver under § 78.3(a) shall not exceed the period of time during which the emergency circumstances necessitating the waiver exist.

(c) In no event shall a Federal Agency Head delay an emergency action necessary to the preservation of human life or property for the purpose of complying with the requirements in section 110 of the Act.

II. New York State Historic Preservation Act

A. N.Y. Parks, Recreation & Historic Preservation Law § 14.09.1

B. 9 NYCRR § 428.11(b)

§ 428.11, Individual undertakings exempt from review"

When an undertaking is exempt, the agency shall have no further obligations under these procedures. The following undertakings shall be exempt... (b) an undertaking which is a State project necessary to prevent an immediate and imminent threat to life or property.

III. Selected Cases

Commonwealth of Puerto Rico v. Muski, 507 F. Supp. 1035 (D. P.R. 1981) (court found that no emergency exemptions were applicable to relocation of tens of thousands of immigrants from Cuba and Haiti and enjoined action until U.S. Department of Defense complied with National Historic Preservation Act and other environmental laws)

Hayne Blvd. Camps Preservation Assoc. v. Julich, 143 F. Supp. 2d 628 (E.D. La.2001) (court denied injunction based on FEMA's violation of several environmental laws including National Historic Preservation Act, finding that although violations probably occurred, emergency conditions following Hurricane Georges weighed against an injunction)

IV. Other

Advisory Council on Historic Preservation, 2000 Amendments to Section 106 Regulations, 65 FR 77698

ACHP Response to Comments on Amendments:

Section 800.12(a)

"It is not clear how the regulations apply during rehabilitation work, monitoring the emergency from a cultural resources perspective, or when to implement the regulations during emergency situations. The Council believes the rules are clear that the emergency provisions are triggered when an agency proposes an emergency undertaking in response to a declared disaster. The provisions require notification and a seven day review period."

Section 800.12(d)

"Implementation time for emergency procedures should be extended from 30 days for a formally declared event to 90 days in order to allow for limited agency resources to adequately address all the issues that arise from a disaster related event. The longer an implementation time is extended, the lesser the justification for emergency, abbreviated procedures. Furthermore, the rule already allows requests for extensions of time when needed. The Council has not declined any such extension requests."

APPENDIX D

COMMERCIAL SUSTAINABLE DESIGN GUIDELINES

The Lower Manhattan Development Corporation and the Port Authority of New York and New Jersey acknowledge the following organizations for their input in developing the Commercial Sustainable Design Guidelines for the World Trade Center Redevelopment Projects:

Croxton Collaborative Architects
Studio Daniel Libeskind
New York State Energy Research and Development Authority
Natural Resources Defense Council
Environmental Defense
New York League of Conservation Voters
Albanese Organization
Silverstein Properties
Tishman Construction
Flack + Kurtz, Inc.
Steven Winter Associates
Jonathan Rose & Cos.
GreenOrder, Inc.
New Civic Works

Sustainable Design Guidelines Introduction
World Trade Center Redevelopment Projects

SUSTAINABILITY POTENTIALS: An Introduction to the Guidelines

Context

The nature and scope of the redevelopment reaches beyond the traditional boundaries of "building and site" and poses significant challenges and opportunities when framing sustainable potentials.

As a "first order" observation, the entire development is shaped by the "movement infrastructure" of mass transit, roadways, rail, footpaths, escalators and elevators transporting the tens of thousands of people arriving by ferry, rail, subway, bus, car and on foot to and through this unique community of spaces in the heart of the nation's most dense urban center.

This unique urban center in combination with this infrastructure supports very high levels of development density and supporting services. By breaking out of the traditional individual building model, the development creates a wide range of opportunities for shared resources, capitalizing on the opportunities inherent in urban density and adjacency. The redevelopment, in short, has the potential to establish a leadership model of urban sustainability.

The realization of key potentials, fundamental "whole system" strategies such as district heating/cooling, river water cooling and shared service facilities creates an infrastructure and "connective tissue" that points in the direction of a true leadership project. The purpose of the Guidelines is both to establish a new level of environmental/sustainable quality for an urban center model and to identify the "pathways" to higher performance over time.

Framework

Capturing the urban scale, mixed use and whole-system attributes of the redevelopment has led to an expansion of the traditional model for green guidelines. Notably, as an interrelated list of standards, the guidelines overall exceed the objectives of NY State Executive Order 111 (EO-111), which includes meeting the US Green Building Council's (USGBC) Leadership in Energy Efficiency (LEED™) Green Building Rating System's certified level and have been reviewed by the PANYNJ and LMDC.

The challenge then from an environmental sustainable perspective, is to describe a framework of guidelines/metrics, which capture the urban scale/mixed use development, can be applied to purely infrastructure and partial projects over time and can address traditional projects. This objective, which creates a level playing field for assessment and "sustainable" quality has the added advantage of meeting the need for annual reporting and/or audit under the requirements of EO-111. The scope of this effort has allowed the development of a basic framework consisting of a stated "Purpose" and "Action" for each guideline, which will be fully supported by Reference Documentation.

Four basic qualities are unique to these guidelines;

1) Urban Environmental Quality (UEQ)
   A unique set of large-scale sustainable qualities that the projects bring to the surrounding community and urban context. There are a number of "Green Guidelines" around the United States, including the New York State Green Building Tax Credit (NYSGBTC) and the USGBC's LEED™ Green Building Rating System, which are excellent references and have been selectively incorporated herein. However, these are inherently focused on a specific building type or project. At the project site, there are issues of regional and neighborhood scale – regional transportation systems, relationships to surrounding neighborhoods, as examples – that have informed the development of these strategies and guidelines that go beyond individual buildings.

2) "Whole system" compliance
This organizing principle of the guidelines assures that integrated and overlapping qualities of all project elements (and the spaces in between) are accounted for by having a project-wide "basket" of guidelines from which each individual project is custom tailored. Therefore each individual development, by type, will have only the relevant guidelines assigned, and even a small project or renovation will be assigned a short list of relevant guidelines. (Note: See the attached Matrix for examples).

3) Individual projects can draw from a basket of measures with flexible range of scale.

As an interrelated list of standards, in addition to 1 and 2 above, the guidelines overall exceed the objectives of EO-111, have been reviewed by the PANYNJ and LMDC and offer flexibility to design teams. Guidelines indicated as **"Required"** are mandatory and flow directly from the objectives of EO-111, LEED™ certified level requirements and the larger requirements of the PANYNJ and LMDC. Required items are to be implemented. The LEED™ "Roadmap for Silver" creates a pathway for even higher performance. Flexibility is provided through an **"Equivalency Option"** which allows designers to propose an "equivalent option" for a guideline which is part of the LEED™ Calculation, as long as the number of LEED™ points remains the same or better. Guidelines indicated as **"Recommended"** are provided to support efforts by teams seeking additional opportunities to improve environmental performance. Guidelines, which include the **"Exemplar"** as described in item 4 below will also be indicated as part of tenant recommendations. Some of the guidelines include extended considerations and larger scale impacts, important to the realization of the guideline. These **"Universal"** impacts, for instance the requirement for water management plans, which also benefit the municipal water infrastructure, are indicated. The Implementation Matrix indicates **"Required"**, **"Equivalency Option"**, **"Recommended", "Exemplar" and "Universal"** designations with a distinct set of symbols.

4) Integrated Building Design and Tenant Spaces

There is seldom an integration between the construction of cores and shells, which is the responsibility of the developer, and the fit-out of tenant spaces. This has traditionally been an impediment to achieving an integrated high performance design, particularly in commercial office projects.

In order to create an integrated project design and capture the maximum performance potentials of such preferred tenant fit-outs, each major office and retail segment will design and build an "exemplar" or model of a typical high performance tenant fit out. The performance attributes (energy savings, daylight, air quality, etc.) of the space will be fully quantified and described in the reference standard: the WTC High Performance Prototype and advocated as the landlord "preferred" standard. Tenants will be encouraged to apply to federal, state, municipal and utility incentive programs for assistance in offsetting initial investment costs.

Specific Plans

A specific way in which these guidelines are unique is in the requirement for development and implementation of Resource Management Plans and the development of "exemplars", models for integration of commercial and retail, "shell and core" with high performance tenant fit-outs. The 11 Resource Management Plans, required as part of this set of guidelines, go beyond the framework of existing Green Building Rating Systems (LEED™ for instance, only requires 3 of the 11 incorporated here) and clearly demonstrate the broader consideration of sustainability potentials inherent to the development. These plans will be assured through an approval process requiring the submission of compliance templates, calculations and field verification. The exemplars will also be required to meet performance criteria established in a WTC High Performance Prototype.

The following Plans and Studies are required as part of these guidelines. Each plan will require the submission of appropriate documentation such as letter templates, calculations and documentation in the sequence of "Implementation Reviews" running from Conceptual/Schematic to Construction Administration/Signoff (see Implementation Authority)

SEQ-1	Comprehensive Resource Management Plan
SEQ-5	Construction Environment Plan
SEQ-6	Construction Storm Water Pollution Prevention Plan
WEQ-1	Water Management Plan
EEQ-1	Energy Management Plan
EEQ-3	Building Energy Model
EEQ-5	Renewable Energy Transition Plan
MEQ-1	Materials Management Plan
MEQ-2	Construction Waste Management Plan
IEQ-1	Indoor Air Quality Management Plan
IEQ-5	Construction IAQ Management Plan
IEQ-9	Integrated Pest Management Plan

Structure of Guidelines

The Guidelines will be organized in three basic parts:

I. **Master Plan Objectives:** A summary of sustainable design objectives organized by general subject headings.

II. **Master Plan Sustainable Design Guidelines:** A specific listing of Purpose and Action for each guideline organized by subject to facilitate exceeding EO-111 and its related cross-reference to LEED™ Certified level. (Note: Currently being completed are the supporting reference documents, standards and case studies for all non-LEED requirements.

III. **Guideline Implementation Matrix:** A matrix is provided to describe how each purpose and action would be applied to selected project types.

Implementation

The Sustainable Guidelines have been developed as an integral part of the Commercial Design Guidelines for WTC Redevelopment Projects. These guidelines reference the current LEED™ 2.1 Building Rating System for new construction. As new versions of LEED™ are adopted by the USGBC in the future, these guidelines will be updated to maintain conformance with EO-111. The projects will exceed the New York State Energy Conservation Construction Code by at least 20%.

The guidelines that are cross-referenced to the USGBC's LEED™ Guidelines, must meet USGBC's requirements, which are supported by a context or background statement. The USGBC has also developed a detailed Reference Manual for these LEED™ Guidelines, which provides specific guidance and case studies to assure clarity and full implementation. As with all codes and reference standards, this supports and facilitates the efficiency/currency of the design team's work. The remaining guidelines herein, that currently consist of only Purpose and Action Statements, will be supported by their own detailed Reference Manuals. The Reference Documentation of USGBC's LEED™, will also be supplemented by some location-specific New York City and World Trade Center Site comments and/or elaboration.

Consistent with the Commercial Design Guidelines process, the implementation of these Guidelines will be accomplished by the review process administered as described in Chapter 10 of the Commercial Design Guidelines. This process will require each project to be reviewed for compatibility and conformance with these Sustainable Design Guidelines, as well as, the Commercial Design

Guidelines. The attached "Implementation Matrix" provides clarification of the process by way of a listing of some general building types and their relevant guidelines.

Sustainable Design Objectives

DAYLIGHT/SOLAR RESOURCE MANAGEMENT

Maximize Available Outdoor Daylight Resources to Public Spaces
Design buildings and site structures to optimize available daylight for public open spaces and green areas. Utilize shadow studies to track path of sun and assist in final design of outdoor public spaces. Organize site structures, materials and landscape to improve environmental comfort of outdoor spaces and mitigate the effects of heat islands. Consider site environmental wind conditions. Select and locate materials and landscape features so that thermal properties and shading effects will extend outdoor comfort levels further into the shoulder seasons.

Daylight Harvesting & Views for Tower Interiors
Maximize daylight harvesting. Design exterior building envelope to facilitate daylight penetration to regularly occupied tenant spaces. A demonstration model of a tenant fit out will be provided to demonstrate these daylighting strategies. This model will provide building occupants with direct line of sight views to the outdoors from the majority of regularly occupied spaces and control glare.

Daylight Harvesting & Views Below Grade
Maximize daylight penetration to concourse areas and below grade retail areas. Provide views to the outdoors from concourse areas to assist users in wayfinding and orientation.

Heat Island Effect Mitigation
Reduce site development contributions to "heat island" effects in Lower Manhattan. Provide landscape planting (green infrastructure) coupled with high albedo surfaces at other areas to mitigate thermal gains of site surfaces and building roofs.

WATER QUALITY AND CONSERVATION MANAGEMENT

Comprehensive Water Management Plan
Implement a Water Management Plan to optimize use of storm water, waste water and potable water and provide a coordinated management plan in conjunction with full site development. Study on-site reclamation of wastewater.

Storm Water Capture and Reuse
Capture and utilize storm water flows. Consider towers with ledges, roofs and setbacks, which will assist in capturing water sheeting off buildings at high elevations to reduce water pump energy requirements. Use reclaimed storm water and/or site water for toilet flushing, cooling tower makeup, vehicle maintenance and irrigation needs.

Water Use Efficiency
Seek highest water efficiency within buildings and reduce the burden on municipal water supply. Design landscape to minimize potable water requirements. Endeavor to utilize waterless urinals and high efficiency fixtures.

AIR QUALITY MANAGEMENT

Site Air Quality
Work to improve site outdoor and neighborhood air quality. Support and expand pedestrian accessibility and increase bicycle access. Reduce site generated vehicular emissions.

IAQ Performance and Monitoring
Optimize the indoor environment for the comfort, well-being and enhanced productivity of the buildings' occupants by establishing minimum indoor air quality (IAQ) performance and standards. Provide indoor air quality monitoring so that a standard of quality in the overall indoor environment and resulting well-being of the occupants is maintained.

100% Outside Air
Provide capability for 100% outside air where practicable and balanced with energy conservation to support the comfort and well-being of building occupants.

Low Emitting Materials
Minimize indoor air contaminants originating in materials, that are harmful to the comfort and well-being of building occupants and users. Specify materials with no or low volatile organic compounds (VOC's) and other toxic characteristics which affect IAQ.

Chemical & Particulate Control
Minimize sources of chemical and particulate air contamination. Design all major entrances with permanent walk-off grilles. Mitigate health concerns caused by unwanted pests, their excrement and the typical, toxic chemicals used to control them through the development of an integrated pest management plan. Provide high efficiency filtration of all air to occupied areas.

ENERGY CONSERVATION

Comprehensive Energy Management Plan
Conserve and optimize energy use and minimize air emissions, associated with energy use, through the implementation of a Site/Building Energy Management Plan.

Provide for ongoing verification of optimal operation and energy utilization of building energy systems by providing a computerized, fully-integrated Building Management System (BMS). Provide for full building commissioning with ongoing verification, maintenance and energy systems management.

Opportunities for Energy Conservation and Efficiency
Review large and small scale opportunities for energy conservation and enhanced reliability and capacity. Include exploration of the feasibility and potential benefits and reliability of co-generation, central heating/cooling, river water cooling and recovery of resources.

Renewable Energy
Utilize on-site or purchased renewables for at least 20% of site energy requirements (by 2010 per EO-111) and prepare a plan for further transition to renewable technologies as these become more cost-effective. To the extent practicable, provide pathways, access and space allocation for "near threshold" renewable and clean energy technologies such as solar and fuel cells.

Optimize Energy Performance
Optimize the performance of building energy systems through the utilization of a full DOE-2.1E or Energy Plus building energy model to compare energy conservation, in alternative strategies. Integrate with Site Energy Management Plan and implement strategies for moderating peak power loads. This is to include the full analysis of architectural and mechanical decisions in relationship to building energy expenditures to achieve a minimum 20% decrease in energy consumption from

ASHRAE 90.1-1999. This savings reflects both tower and office tenant build-out potentials. Tenant build-out potential (as demonstrated in a typical tenant build-out) will be modeled in the same integrated exercise and the economic results provided to potential tenants in support of the preferred buildout. Information will be provided to tenants.

Metering at Point of Use
Implement end-user metering of electricity to maximize tenant incentive for resource conservation.

Ozone Layer Protection
Reduce emission of ozone depleting chemicals. Specify building HVAC systems and materials with zero levels of CFC refrigerants.

Thermal Comfort & Personal Control
Provide building users with a high level of thermal, ventilation and lighting system control to promote comfort, well-being and enhanced productivity.

Light Pollution Reduction
Reduce light pollution to surrounding sites and night sky. Satisfy Illuminating Engineering Society of North America (IESNA) recommended practice per manual (RP-33-99) for exterior illumination. Tower tops to be exempt from these requirements.

MATERIAL CONSERVATION

Comprehensive Material Management Plan
The Material Management Plan provides a tool for an optimized utilization of all site material resources. This integrated resource management tool is designed to reduce waste generated by building occupants that would otherwise be hauled to and disposed of in landfills and/or incinerators. Consider potential of "design for disassembly" strategies on IAQ and site material resourcefulness. Encourage the re-use of existing site structures, utilities and foundations. Incorporate previously used building materials and products into new construction where practicable.

Construction Waste Management
Reduce the amount of construction and demolition (C&D) waste going to landfills and/or incinerators and conserve resources through reuse and recycling.

Recovery of Resources
Study small and large-scale opportunities for recovery of resources along with Energy Conservation measures. Provide space or means for recycling of resources on site during operations.

Materials with Recycled Content
Increase markets for building materials and products that incorporate recycled content.

Material Proximity
Encourage the use of building materials and products that are extracted and manufactured or assembled within a 500-mile radius of the site.

Agricultural Materials
Encourage the specification of materials, which are renewable and are grown in such a way as to support biological diversity and the health of the ecosystem.

Specify lumber, wood and wood products, which have been harvested according to sustainable forest management principles, and have been certified under the Forest Stewardship Council (FSC) guidelines, in conjunction with the Materials Management Plan.

CONSTRUCTION ENVIRONMENT

Construction Environment Pollution Prevention
Reduce pollution and noise from construction activities and vehicles. Implement a Construction Environment Plan designed to reduce pollution and noise from construction activities and vehicles to adjoining neighborhoods. Develop a materials staging and construction access plan prior to start of construction. Control site erosion, collect and utilize storm water as appropriate, and reduce negative impacts on hydrological and atmospheric systems produced by construction activities, through use of ultra low sulfur fuels as appropriate.

Construction IAQ Management Plan
Implement a Construction Indoor Air Quality Management Plan consistent with EO-111.

Phased Development
Address both the "active" portions of the site under development, as well as, the "inactive" areas of the site, which have a supporting role. These inactive areas will have a smaller, focused list of guidelines to address storm water, heat island mitigation and other site issues applicable to temporary sites with PANYNJ oversight.

Sustainable Design Guidelines

URBAN ENVIRONMENTAL QUALITIES

UEQ-1: Support Urban Development

Purpose: Support development in existing urban areas and fully utilize and support existing infrastructure.

Action: Channel development to urban areas. Provide development that supports and maximizes the use of existing infrastructure and exceeds a minimum development density of 60,000SF/acre.

UEQ-2: Expanded Public Transit and Bicycle Access

Purpose: Encourage the development of public transportation, address opportunities to connect/cross-connect systems and support and increase bicycle access.

Action: Integrate and encourage utilization of public transportation. Follow the recommendations of the NYC Department of City Planning (DCP) 1999 Bicycle Parking Needs Study and the 1997 NYC Bicycle Master Plan. Reduce parking from pre 9/11 levels and implement Parking Management Plan to reduce future parking demands. Site parking for commercial uses is not to exceed 1300 cars..

Towers: Support bicycle use by providing bicycle racks or secure and convenient storage.
Site: Support bicycle use by providing bicycle racks near transportation, retail and cultural centers.

UEQ-3: Regional Mass Transit

Purpose: To promote regional mass transit systems.

Action: Provide inter-modal connection facilities for regional transportation system, ferries, subways and buses with clear connections between the various transportation systems. Allow for future integration of other regional transportation systems.

UEQ-4: Pedestrian Movement

Purpose: Support neighborhood, community, visitor and commuter pedestrian pathways and facilitate pedestrian access to and through the site.

Action: Diagram anticipated pedestrian pathways that are coordinated with plans for WTC Redevelopment Projects. Enhance pedestrian pathways, both above and below ground, to facilitate and support pedestrian traffic. Describe enhancements including and illustrating connections to buildings, additional pathways and transportation nodes, path size, adjacent area uses, public art, vegetation, access to daylight and direct sun, furnishings, wayfinding, paving materials and patterns and view corridors.

UEQ-5: Green Infrastructure

Purpose: Support the development of green infrastructure by developing and linking vegetated site areas with existing neighborhood green spaces.

Action: Diagram "green" infrastructure within 1000' of site boundary. Create site vegetated areas to enhance site contributions to natural ecological processes, sustain air and water resources, promote biodiversity and reduce heat island effects. Facilitate creation of green infrastructure linkages in conjunction with adjacent neighborhood green spaces.

UEQ-6: Outdoor Environmental Comfort

Purpose: To facilitate site development that supports outdoor environmental comfort.

Action: Design site structures, materials and landscape to enhance comfort and functionality of outdoor spaces and mitigate the effects of heat islands. Extend outdoor comfort levels further into the Spring and Fall seasons with passive strategies that maximize natural assets. Design structures with consideration for site environmental wind conditions where pedestrians would be affected and seek to moderate any such effects.

UEQ-7: Wayfinding

Purpose: To facilitate both neighborhood and site-user orientation and site readability.

Action: Integrate wayfinding as an integral design quality when developing green corridors, visual corridors and memorable place markers in conjunction with surrounding neighborhoods.

UEQ-8: Vehicular Emissions

Purpose: Reduce back-up of traffic into neighboring streets in order to minimize vehicle emissions and improve neighborhood air quality from pre 9/11 base. Minimize potential idling time for all vehicles.

Action: Optimize traffic flow of all vehicles coming to site to reduce the amount of time that vehicles must idle. Seek to reduce traffic backups through scheduling and onsite accommodation. Design bus stops to minimize traffic backups and potential vehicle idling times.

To the extent that there is NY State Agency and/or other governmental presence on site, at least 50% of light duty fleet vehicles will be alternative fuel or hybrid vehicles by 2005 and 100% by 2010.

SITE / PARCEL ENVIRONMENTAL QUALITIES

SEQ-1: Comprehensive Resource Management Plan

Purpose: Draft and implement the requirements of the Comprehensive Resource Management Plan.

Action: The Comprehensive Resource Management Plan provides a tool for an integrated consideration of water, material and energy resources with the goal of identifying, evaluating and optimizing utilization of all resources on the site. The plan overlays information from the individual water, material and energy management plans and identifies integrated opportunities for resource conservation (i.e. high capture and utilization of stormwater at upper levels of tower reduces pump energy required for lifting equivalent amount of water).

SEQ-2: Storm Water Use

Purpose: To capture and utilize site storm water flows, thereby reducing storm water volume and surges through the system.

Action: Implement a plan for stormwater management as part of the Water Management Plan that reduces the post-development flow of stormwater from the site (9/11 base). Construct treatment systems to remove 80% of total suspended solids (TSS) and 40% of total phosphorous (TP) per EPA Document (840-B-93-001c) Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters (based on the average annual loadings from all storms less than or equal to the 2 year/24 hour storm).

Site/Parcel: Design site surfaces to allow collection of site storm water flows from other than street surfaces. Provide storage and filtration infrastructure. Fully use captured water as appropriate and in conjunction with Water Management Plan.
Towers: Consider towers with ledges, roofs and setbacks, which will assist in capturing water sheeting off buildings at high elevations to capture potential energy of water and reduce water pump energy requirements. Provide storage and filtration infrastructure near point of capture. Use water, as appropriate for toilet flushing and as part of building water systems.

SEQ-3: Heat Island Effect Mitigation

Purpose: Reduce site development contributions to "heat island" effects in Lower Manhattan. Seek to maximize areas of landscape planting (green infrastructure) coupled with high albedo surfaces at other areas to mitigate thermal loading of site surfaces and building roofs.

Action: Provide green infrastructure coupled with high albedo surfaces to mitigate thermal loading of site surfaces and building roofs.
Site/Parcel: Provide shade and/or use light-colored/high-albedo materials (reflectance of at least .3) or open reinforced grid pavement for at least 30% of the site's walkways, plazas and open spaces.
Tower: Use ENERGY STAR® compliant AND high emissivity roofing (emissivity of at least 0.9 when tested in accordance with ASTM 408) for a minimum of 75% of the roof surface; OR install a "green" (vegetated) roof for at least 50% of the roof area. Combinations of high albedo and vegetated roof can be used providing they collectively cover 75% of the roof area.

SEQ-4: Light Pollution Reduction

Purpose: To reduce light pollution and glare to surrounding sites and night sky.

Action: Satisfy Illuminating Engineering Society of North America (IESNA) recommended practice per manual (RP-33-99) for exterior illumination. Design exterior lighting such that all exterior luminaires with more than 1000 initial lamp lumens are shielded and all luminaires with more than 3500 initial lamp lumens meet the Full Cutoff IESNA Classification. The maximum candela value of all interior lighting shall fall within the building (not out through windows) and the maximum candela value of all exterior lighting shall fall within the property. Tower tops will not be constrained by these requirements. Minimize glare from reflected sunlight by minimizing use of highly reflective materials on building facades. Incorporate lighting controls to minimize energy use during unnecessary periods.

SEQ-5: Construction Environment

Purpose: To reduce pollution, noise and vibration from construction activities and vehicles.

Action: Implement a Construction Environment Plan, which reduces pollution, noise and vibration from construction activities and vehicles to adjoining neighborhoods.

Develop a materials staging and construction access plan prior to start of construction. Truck staging zones are to be placed for minimum disruption and impact. Limit unnecessary idling times on diesel powered engines to 3 minutes. Consider bio-diesel fuel as an alternative to pure diesel.

Non-road construction equipment of 50hp or greater to include diesel emissions control technology according to EPA diesel retrofit recommendations, unless not technically feasible. All non-road diesel equipment to utilize ultra low sulfur diesel fuel (limit sulfur levels to 15ppm). Explore accelerated implementation of proposed EPA emission standards for non-road diesel equipment. Locate fixed diesel powered exhausts away from fresh air intakes.

Reduce noise and vibration impacts through scheduling and coordination with adjacent construction activities. Consider noise barriers where practicable.

Consider condition of surrounding buildings, structures, infrastructure and utilities where appropriate. Coordinate construction activities in adjacent and nearby locations to avoid or minimize impacts and communicate plans with the public.

Prepare contingency measures in the event established limits are exceeded.

SEQ-6: Construction Storm Water Runoff and Pollution Prevention

Purpose: Control site erosion and reduce negative impacts on hydrological and atmospheric systems produced by construction activities.

Action: Provide Construction Storm Water Pollution Prevention Plan conforming to US EPA document 832/R-92-005. Prevent air pollution from dust and particulate matter during the course of construction. Utilize sprayed suppressing agents (nonhazardous, biodegradable) for containment of fugitive dust and adjust strategies per meteorological conditions. Coordinate with SEQ-5 Construction Environment Plan.

SEQ-7: Use Existing Site Structures

Purpose: Encourage the re-use of existing site structures to conserve resources.

Action: Incorporate existing slurry wall, bathtub excavation, elements of Temporary PATH Station and utilities (such as the River Water Pump Station) for re-use in new site development to the extent possible.

SEQ-8: Plant/Vegetation Selection

Purpose: Use indigenous or acclimatized plants to reduce irrigation and maintenance requirements.

Action: Specify naturalized or indigenous plant materials, which will promote biodiversity and support site ecological systems, as well as, reduce maintenance requirements. Use plantings that can be sustained by natural rainfall levels to reduce irrigation requirements.

SEQ-9: Daylight/Exterior Public Spaces

Purpose: Design buildings and site structures to consider available daylight for public open spaces and green areas (within the context of the established massing guidelines).

Action: Determine critical open spaces and green areas. Utilize shadow studies to determine available sunlight. Consider available sunlight in planning outdoor public spaces and site plantings.

SEQ-10: Solar Access/Harvesting

Purpose: To optimize solar access for utilization of solar energy.

Action: Determine maximum available photovoltaic potentials for all building surfaces. Develop strategy for possible future transition to capture this potential. Quantify and document this strategy and any other "near threshold" renewable technologies in the Renewable Energy Transition Plan.

SEQ-11: Recovery of Resources

Purpose: To optimize utilization of site material resources and to facilitate the reduction of waste generated by building occupants that would otherwise be hauled to and disposed of in landfills and/or incinerators.

Action: Study large-scale and small-scale opportunities for on-site recovery of waste. Consider opportunities to recover food, paper, plastic, metal and construction waste. Consider composting, biomethanization and other viable "waste to reuse" strategies. Consider in conjunction with Renewable Energy Transition Plan and Co-generation study.

SEQ-12: Use of Undeveloped Parcels

Purpose: Utilize inactive and undeveloped site parcels to provide a positive contribution to site environmental qualities.

Action: Address both the "active" portions of the site under development, as well as, the "inactive" areas of the site, which have a supporting role. Apply guidelines Storm Water Use (SEQ-2) and Heat Island Effect Mitigation (SEQ-3) to "inactive" site areas.

WATER ENVIRONMENTAL QUALITIES

WEQ-1: Comprehensive Water Management Plan

Purpose: To optimize utilization of site water resources.

Action: Implement a Water Management Plan to evaluate use of storm water, waste water and potable water resources, study potentials for onsite reclamation of wastewater and provide a coordinated management plan for full site water resources.

Use EPA recommendations per EO 12123 (June 1999) and Federal Energy Management Program (FEMP) Best Management Practices to develop Plan. The Plan must include, at a minimum, information on operation & maintenance, utility information, facility information, emergency response information and planning considerations.

WEQ-2: Wastewater Reuse

Purpose: To minimize site wastewater outflows.

Action: Implement wastewater strategies as required by Water Management Plan. Use reclaimed storm water and/or site water for toilet flushing, cooling tower makeup, vehicle maintenance and irrigation needs. Study additional opportunities to reduce the amount of potable water used in the building for conveying sewage.

WEQ-3: Water Use Efficiency

Purpose: To maximize water efficiency within buildings and reduce the burden on municipal water systems.

Action: Reduce consumption of potable water as required by Water Management Plan. Use 30% less potable water than a baseline building (utilize 1992 Energy Policy Act fixture requirements to determine baseline) would by utilizing efficient water fixtures, automatic controls and/or waterless urinals.

WEQ-4: Landscape Hydrology

Purpose: To maximize utilization of site water for landscape requirements.

Action: Use storm water for landscape irrigation requirements in conjunction with Water Management Plan. Specify plantings requiring low amounts of watering. Use indigenous or acclimatized plants suitable for the current nature of the site. Employ high-efficiency irrigation systems with slow-drip, sub-soil irrigation and computer operation with linkages to meteorological data to optimize water resources.

ENERGY ENVIRONMENTAL QUALITIES

EEQ-1: Comprehensive Energy Management Plan

Purpose: To conserve and optimize building energy use and minimize air emissions, including greenhouse gases, associated with energy consumption at the site.

Action: Prepare an Energy Management Plan to conserve and optimize building energy use, minimize air emissions and coordinate and maximize the utilization of any site generated energy resources. The Plan shall include an energy use budget for the project for the first year of operation (building shall be a minimum of 50% occupied with unoccupied areas and building systems normalized for full occupancy) and broken down by major energy consumption category (i.e., heating, cooling, lighting, fan energy, pump energy, etc.). Consider base building systems apart from occupancy with allowances for interconnections. After each year of operation, the actual utilization of energy shall be recorded and compared to this baseline energy use budget with appropriate adjustments for deviations in occupancy, base building conditions and climate norms. Significant deviations shall be evaluated and a detailed explanation for the probable cause of the deviation recorded in the updated plan. Strategies for reducing energy consumption below the first year of operation, as defined above, shall be identified and described.

The Energy Management Plan shall include a similar itemization of any site generated energy resources, including a budget for each component, and annual updates of actual performance. The Plan shall identify measures and strategies for increasing utilization of clean on-site energy above the first year of operation, as defined above.

Review opportunities for coordinated site strategies to conserve energy. Provide matrix outlining additional costs and savings, available incentives, benefits and impacts from, for instance, a co-generation plant, river water cooling, building integrated PV, fuel cells and other strategies.

EEQ-2: Building Systems Commissioning

Purpose: To implement a Building Commissioning Plan.

Action: Engage an independent commissioning authority to prepare and execute a commissioning plan. Implement fundamental, best practice building commissioning procedures. Include design phase reviews, contractor submittal reviews, pre-functional and functional testing(including seasonal testing), training, Operations & Maintenance manuals and post occupancy review. Provide Building Commissioning Plan consistent with the requirements of NY State Green Building Tax Credit (NYSGBTC) 638.8.

EEQ-3: Optimize Energy Performance

Purpose: To optimize the performance of building energy systems.

Action: Optimize the performance of building energy systems through the utilization of a full DOE-2.1E or Energy Plus building energy model to compare alternative strategies for energy efficiency (kwh) peak load reduction (kW) and reduced use of fossil fuels. Integrate with Energy Management Plan. This is to include the full analysis of architectural and mechanical decisions in relationship to building energy expenditures. Achieve a minimum of 20% decrease in energy cost above ASHRAE 90.1-1999. This savings reflects both tower and office tenant build-out potentials. Tenant build-out potential (as demonstrated in a typical tenant build-out) will be modeled in the same integrated exercise and the economic results provided to potential tenants in support of the preferred buildout. Include full list of energy conserving opportunities available to tenants.

Provide daylight dimming and occupancy sensors on light fixtures where appropriate. All light fixtures to use high efficiency ballasts and low mercury/low lead, long life lamps. Specify recyclable lamps. Utilize energy efficient equipment such as variable speed systems for fans, pumps and motors; motors that meet or exceed NEMA premium efficiency ratings and equipment that meets or exceeds ENERGY STAR® ratings. Comply with FEMP levels for commercial products not rated by ENERGY STAR®. Provide a high performance building envelope, including minimized thermal bridging, superior insulation, air infiltration barrier and insulated wavelength selective glazing (to improve daylight transmission). Provide envelope construction details consistent with NYSGBTC 638.7(d)(2). Use air-side and water-side economizers, as appropriate.

EEQ-4: Ozone Layer Protection

Purpose: To reduce emission of ozone depleting chemicals.

Action: Specify building HVAC systems with zero levels of CFC refrigerants, and provide plan for future elimination of HCFC's and halon in HVAC and refrigeration equipment and fire suppression systems. Avoid insulation materials that utilize chlorine based gases

EEQ-5: Renewable Energy Plan

Purpose: To meet a portion of site energy requirements with on site and/or purchased renewable energy sources and institute a plan for transition as renewables become more cost-effective.

Action: Utilize site generated and/or purchased renewable energy for a percentage of total building energy use. Provide transition plan for future conversion to renewables. Purchase or generate on-site a minimum of 20% of overall annual electric energy requirements with renewables by 2010 consistent with NY State EO-111's evolving requirements and capabilities. Provide infrastructure to integrate technology into building systems, when possible.

EEQ-6: Energy Systems Control and Maintenance

Purpose: To provide for ongoing verification of initial operation and energy utilization of building energy systems.

Action: Provide a computerized, fully-integrated Building Management System (BMS) with energy and fluid flow measurement capabilities for all major energy consuming systems. Institute a maintenance plan for ongoing measurement, verification and maintenance of equipment efficiencies and resource utilization. Provide programmable controls. Install permanent monitoring systems to track energy performance. Provide for maintenance and operational continuity through manuals and education. Install continuous metering equipment for a representative sample of lighting systems, motors, drives, chiller efficiencies, and trending of economizer and heat recovery equipment cycles, air distribution pressures and volumes and boiler efficiencies. Integrate the above systems into the Building Commissioning Plan.

EEQ-7: End User Metering

Purpose: Maximize tenant incentives to conserve energy.

Action: Include electrical distribution infrastructure required to allow end-user metering of tenants, including electricity use (kWh) and demand (kW) metering. Provide examples of existing incentive programs to tenants.

MATERIAL ENVIRONMENTAL QUALITIES

MEQ-1: Comprehensive Material Management Plan

Purpose: To optimize utilization of site material resources and to facilitate the reduction of waste generated by building occupants that would otherwise be hauled to and disposed of in landfills and/or incinerators.

Action: Implement a Materials Management Plan, which coordinates and implements material guideline requirements within the Sustainable Design Guidelines. Describe materials utilized, recycled content, location of manufacture/harvest, agricultural content, sustainable harvest certification, expected lifetime, maintenance requirements and recyclable/reuse potential at end of useful life. Minimize travel distance for building products and systems and locate sinks for highest recycled use for 'waste' materials in conjunction with MEQ-2 and MEQ-5. Provide infrastructure necessary to implement the recycling requirements of the plan. A central location for appropriately-sized recycling facilities must be provided for all buildings. Facilities must include, at a minimum, space for the separation, collection and storage for recycling of paper, corrugated cardboard, glass, plastics and metals, and each of these areas should be clearly identified. Provide easy truck access for the pick-up and removal of recyclables.

MEQ-2: Construction Waste Management

Purpose: To reduce the amount of construction and demolition (C&D) waste going to landfills and/or incinerators and to conserve resources through reuse and recycling.

Action: Implement a Construction Waste Management Plan to divert construction, demolition and land clearing debris from landfill disposal to redirect recyclable and/or recovered resources back to the manufacturing process and to redirect salvageable materials to appropriate sites. Recycle and/or salvage a minimum of 50% of construction, demolition and land clearing waste, calculated by weight. Divert a minimum of 50% of construction waste by weight from landfill.

MEQ-3: Resource Reuse

Purpose: To incorporate previously used building materials and products into new construction.

Action: In coordination with the Materials Management Plan consider the use of salvaged, refurbished or reused materials and products in the building. Materials for reuse typically include reclaimed lumber and wood such as salvaged wood flooring and wood doors and cabinets, structural metal work such as beams, and miscellaneous metal such as doors, door hardware, etc. Decorative and specialized items such as salvaged wood and glass panels, banquettes, front and back bars and decorative or period lighting fixtures may be used in special public locations such as cafeterias or restaurants, and can contribute to this credit.

MEQ-4: Materials with Recycled Content

Purpose: To incorporate materials with recycled content and increase market demand for building materials and products that incorporate recycled content.

Action: Specify materials with recycled-content in conjunction with the Materials Management Plan. The value of the recycled content portion of materials is to be at least 10% of the total project materials value (mechanical and electrical components are not to be included in these calculations).

Determine recycled content value according to the following formula. For post-consumer recycled content determine percentage of recycled content in the material and multiply by value of material. For post-industrial recycled content determine percentage of recycled content in the material, multiply by ½ and multiply by value of the material.

MEQ-5: Material Proximity

Purpose: To reduce environmental degradation resulting from transportation impacts by increasing the demand for building materials and products that are extracted and/or manufactured in close proximity to the building site.

Action: Utilize local/regional materials in conjunction with the Materials Management Plan. Use a minimum of 20% of all building materials (based on cost) that are manufactured within a 500 mile radius of the site. Manufactured in this context means the location where 'final assembly' takes place.

MEQ-6: Wood Certification

Purpose: To specify wood which has been harvested according to sustainable forest management principles.

Action: Utilize wood materials certified under the Forest Stewardship Council's Principles and Criteria (FSC) in conjunction with the Materials Management Plan. These materials may include dimensional framing components, flooring, doors, paneling, millwork and furnishings, handrails and trim, etc., as well as, temporary lumber and wood construction materials. Request vendor's chain-of-custody certificate number to verify certification.

MEQ-7: Agricultural Materials

Purpose: To encourage the specification of materials which are renewable and that grow in such a way as to support biological diversity and the health of the ecosystem.

Action: In coordination with the Materials Management Plan use renewable and rapidly renewable building materials and products.. Materials with annual growing cycles or which regenerate naturally within a 10-year-cycle are considered to be rapidly renewable materials. These materials include bamboo, poplar, cork, wool, cotton, jute, sisal, and soy-based products. Agricultural 'waste' materials such as wheatgrass, sunflower seed husks, and straw also qualify under this category. Release agents for concrete forms, which are made from plant oils such as corn oil are included. Use agricultural compost for site applications, including, but not limited to, turf, plantings and erosion control.

INDOOR ENVIRONMENTAL QUALITIES

IEQ-1: IAQ Performance

Purpose: Establish high indoor air quality (IAQ) for the comfort and well-being of the building's occupants by minimizing the potential for poor air quality, and by establishing minimum IAQ performance and standards.

Action: Provide an Indoor Air Quality Management Plan which employs architectural and HVAC design strategies to establish minimum outdoor air quantities, chemical, biological and particulate source control and on-going air quality monitoring to achieve a positive impact on the overall indoor environment and well being of the occupants. Meet the requirements of ASHRAE Standard 62-2001: "Ventilation for Acceptable Indoor Air Quality", utilizing the Ventilation Rate Procedure.

Prepare plan in accordance with the requirements of NYSGBTC 638.7(d)(1,2 and 3). Draft the plan in accordance with the EPA "Building Air Quality: A Guide for Building Owners and Facility Managers", 1991 and EPA and National Institute for Occupational Safety and Health, Building Air Quality Action Plan, 1998.

IEQ-2: Daylight & Views

Purpose: Provide building occupants with connections to the outdoors through the introduction of daylight into habitually occupied areas of the building. Provide building occupants with views via direct line of sight to the outdoors from regularly occupied spaces when possible.

Action: Towers: Provide a 2% minimum daylighting factor to 75% of regularly occupied tenant spaces. Build a tenant office fit-out (5,000 SF) to demonstrate optimum daylight access, louvers and glare controls, and ceiling geometries intended to optimize daylighting strategies. Quantify performance of integrated curtain wall and tenant fit-out with proposed savings

Retail: Seek to maximize daylight penetration to concourse areas and below grade retail areas. Provide views to the outdoors from concourse areas to assist users in wayfinding and orientation.

IEQ-3: Air Quality Monitoring

Purpose: To retain high indoor air quality standards by establishing monitoring protocols to assist in maintaining appropriate ventilation rates for the comfort and well-being of building occupants.

Action: Indoor air quality must be tested annually and must meet minimum criteria for five years in accordance with minimum requirements of NY State EO-111reference to NYSGBTC 638.7(d)(1). Once radon measurements are found to be satisfactory, subsequent testing for this contaminant is not required. Where concentration levels of noted contaminants exceed the established parameters in any specific area during this 5 year period, seek to locate and remediate/eliminate contaminants, then flush out area with 100% outside air for a minimum of one week and retest until a satisfactory result is achieved.

Consideration should be given to a permanent indoor air quality monitoring system with centralized controls that provides feedback on ventilation performance and contaminant concentrations based on a combined carbon monoxide, carbon dioxide and volatile organic compound monitor.

IEQ-4: Ventilation Air Quality

Purpose: To provide outside air to all occupied spaces in the building to support the comfort and well-being of building occupants and as an energy conservation measure.

Action: Demonstrate that the requirements of Section 5, 'Best Practices for Maintaining IEQ' of the International Performance Measurement & Verification Protocol, Volume II 'Concepts and Practices for Improved Indoor Environmental Quality', March 2002 have been met. Provide capability for system default to 100% outside air at all times where practicable and in balance with energy conservation.

IEQ-5: Construction IAQ Management Plan

Purpose: To provide minimum standards for the air quality of building areas upon occupancy.

Action: Implement a Construction Indoor Air Quality Management Plan in conformance with NY State EO-111reference to NYSGBTC 638.7(d)(2) and the USGBC LEED 2.1 Rating System. During construction, meet or exceed the recommended Design Approach of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guideline for Occupied Buildings under Construction, Chapter 3. Use high efficiency filtration media at all HVAC return air grilles during construction and replace all base building mechanical system filtration media with Minimum Efficiency Reporting Value of 13 (MERV 13) filters in accordance with ASHRAE 52.2 – 1999 immediately prior to occupancy.

On completion of construction and prior to occupancy, conduct a two-week flush out with new filtration media using 100% outside air, in accordance with NYSGBTC 638.7(d)2. Replace all filtration media used with new MERV 13 filters. Alternatively, test indoor air quality at random sampling points for every 20,000 sf, or by each floor if smaller, in accordance with recognized national standards, to achieve an air quality profile at time of occupancy which satisfies the specific minimums for carbon dioxide, carbon monoxide, formaldehyde, volatile organic compounds, particulates and radon as per NY State EO-111reference to NYSGBTC 638.7(d)(2) and include one additional testing procedure for 4-PCh to satisfy all of the Alternate Procedure Requirements for LEED 2.1. Where concentration levels of contaminants exceed the established parameters in any specific area, flush out area with 100% outside air for a minimum of two weeks and retest until a satisfactory result is achieved.

IEQ-6: Reduce Contaminants from Materials

Purpose: To reduce the density of contaminants that are emitted by common building materials and which affect the comfort and well-being of building occupants.

Action: Develop and implement a Materials Management Plan to minimize utilization of materials with high levels of volatile organic compounds (VOC's) and other toxic characteristics which adversely affect Indoor Air Quality (IAQ). VOC's must meet or be lower than those in the following standards:

- Adhesives and sealants: South Coast Air Quality Management District Rule #1168
- Paints and coatings: Green Seal Standard GS-11
- Carpet and carpet adhesives: Carpet and Rug Institute Green Label Indoor Air Quality Test Program

Where possible use non-urea-formaldehyde-based bonding agents in composite wood and typical millwork applications such as veneer and plastic laminate applications, etc.

Minimize unprotected insulation in ducts, supply plenums and return plenums per NYSGBTC 638.7(j).

IEQ-7: Chemical & Particulate Control

Purpose: To minimize sources of chemical and particulate air contamination.

Action: Design all major entrances with permanent walk-off grilles to minimize particulate transfer. Provide MERV 13 air filters for removal of 90% of particulates at air supply systems and provide building owner with a maintenance schedule for filter replacement. Build slab-to-slab partitions and provide negative air pressure of at least 7PA with isolated exhaust systems of at least .5cfm/sf at work rooms with printing and copying equipment, janitorial closets and all chemical use areas. Locate exhausts to ensure that there is no potential for re-entrainment of exhaust air to other supply in-takes. Provide drains for appropriate disposal of liquid waste in spaces where water and chemical concentrate mixing occurs.

IEQ-8: Thermal Comfort

Purpose: To provide building users with a high level of thermal comfort to promote comfort, well-being and enhanced productivity.

Action: Design the building envelope in accordance with ASHRAE Standard 55-2004 to manage the flow of air, moisture and thermal energy in the building. Include capability for adjustments to thermal conditions to address seasonal changes and associated modifications in typical levels of clothing. Design an integrated system (thermal shell and HVAC) that allows building operators to monitor and control air temperature in each zone. To avoid condensation problems, mechanical systems must be designed to deal with part-load cooling conditions so that they are able to maintain appropriate dehumidification levels.

IEQ-9: Pest Control

Purpose: To mitigate health concerns caused by any unwanted pests, their excrement and the chemicals used to control them.

Action: Develop an Integrated Pest Management Plan based on USEPA Best Management Practices, which promotes physical controls and non-pesticide measures over pesticide application. Physical controls include building sealing strategies, improved sanitation, pest-resistant plantings and improved maintenance of wet areas. When necessary, use boric acid or other nontoxic alternatives in lieu of more toxic chemicals to control and eliminate rodent populations from building.

IEQ-10: Occupant Control

Purpose: To provide building occupants with a high level of thermal, ventilation and lighting system control to promote productivity, comfort and well-being.

Action: Provide building occupants with controls over airflow, temperature and lighting systems including individual controls where practicable or feasible. Provide operable windows where practicable and feasible.

IEQ-11: Acoustics

Purpose: Minimize vibration and noise levels in indoor spaces and at exterior environments to achieve appropriate physical comfort and sound isolation for tasks and speech intelligibility, while contributing to human well-being and productivity.

Action: Where practical program locations of mechanical equipment and other sources of noise away from areas of building and exterior spaces designed for use by building tenants and the public. Design separations to minimize transfer of noise. Consider strategies to reduce the transmission of exterior ambient noise. Comply with the recommendations of ASHRAE Applications Chapter 46 Design Guidelines to reduce potential noise and vibration from mechanical equipment, and the Architectural Graphic Standards 8th Edition: Sound Isolation Criteria Table, page 44 to address acoustic criteria for enclosed office space such as offices, meeting rooms and other occupied areas.

IEQ-12: Lighting Quality

Purpose: Employ advanced lighting design to maximize comfort and productivity of building occupants and enhance the quality and efficiency of electric lighting. Fully coordinate ambient electrical lighting design with daylighting strategies.

Action: Design an ambient electrical lighting system that is coordinated with daylighting strategies to provide flexible illumination. Endeavor to meet the recommendations of the Illuminating Engineering Society of North America's (IESNA) 9th Edition Handbook, Chapter 10 Quality of the Visual Environment, and the Lighting Design Guide. Provide high frequency electronic ballasts, recyclable lamps and low mercury/low lead lamps as defined by the US Environmental Protection Agency's Toxicity Characteristic Leaching Procedure (TCLP) testing procedure. Supplement ambient lighting system with multi-level task lighting to maintain a minimum of 35 footcandles (in typical office area) at desk level throughout hours of occupancy.

SUSTAINABLE DESIGN GUIDELINES IMPLEMENTATION MATRIX
WORLD TRADE CENTER REDEVELOPMENT PROJECTS

As an interrelated list of standards, the guidelines overall exceed the objectives of EO-111, which includes meeting the USGBC's LEED™ Green Building Rating System's certified level and have been reviewed by the PANYNJ and LMDC. Guidelines indicated as "Required" are mandatory and flow directly from the objectives of EO-111, LEED™ certified level requirements and the larger requirements of the PANYNJ and LMDC. Required items are to be implemented. The LEED™ "Silver Roadmap" creates a pathway for even higher performance. Flexibility is provided through an "Equivalency Option" which allows designers to propose an "equivalent option" for a guideline which is part of the LEED™ Calculation, as long as the number of LEED™ points remains the same or better. Guidelines indicated as "Recommended" are provided to support efforts by teams seeking additional opportunities to improve environmental performance. Guidelines, which include the "Exemplar" as described in item 4 below will also be indicated as part of tenant recommendations. Some of the guidelines include extended considerations and larger scale impacts, important to th realization of the guideline. These "Universal" impacts, for instance the requirement for water management plans, which also benefit the municipal water infrastructure, are indicated. The Implemen

(Note: The Implementation Authority utilizing these Guidelines will make the final determination as to which of the guidelines are applicable to any given project. This "Implementation Matrix" is designed to provide a general guide by building type. Projects of lesser scope or of a mixed use will require the final determination of the Implementation Authority as to which Guidelines apply.)

KEY

- ● Action on Guideline **Required**
- ◉ LEED™ **Equivalency Option** allowed
- ○ Action on Guideline **Recommended**
- ⟁ **Universal** Relationship
- Ⓔ **Exemplar** model Encouraged for Tenant Implementation
- **Prq** **Prerequisite** (under LEED™) required to meet EO-111 LEED™ Certification objectives

URBAN ENVIRONMENTAL QUALITY										LEED™	
No.	Quality	WTC Guideline Purpose	WTC Guideline Action	Urban	Site Parcel	Commercial - Retail	Commercial - Office	Tenant	Base Points	Silver Roadmap
UEQ-1	Support Urban Development	Support development in existing urban areas and fully utilize and support existing infrastructure.	Channel development to urban areas. Provide development that supports and maximizes the use of existing infrastructure and exceeds a minimum development density of 60,000SF/acre.	⟁	●	●	●		1	1
UEQ-2	Expanded Public Transit and Bicycle Access	Encourage the development of public transportation, address opportunities to connect/cross-connect systems and support and increase bicycle access.	Integrate and encourage utilization of public transportation. Follow the recommendations of the NYC Department of City Planning (DCP) 1999 Bicycle Parking Needs Study and the 1997 NYC Bicycle Master Plan. Reduce parking from pre 9/11 levels and implement Parking Management Plan to reduce future parking demands. Site parking for commercial uses is not to exceed 1300 cars. Towers: Support bicycle use by providing bicycle racks or secure and convenient storage. Site/Parcel: Support bicycle use by providing bicycle racks near transportation, retail and cultural centers.	⟁	●	●	●		1	1
UEQ-3	Regional Mass Transit	To promote regional mass transit systems.	Provide inter-modal connection facilities for regional transportation system, ferries, subways and buses with clear connections between the various transportation systems. Allow for future integration of other regional transportation systems.	⟁	●	○	○			
UEQ-4	Pedestrian Movement	Support neighborhood, community, visitor and commuter pedestrian pathways and facilitate pedestrian access to and through the site.	Diagram anticipated pedestrian pathways that are coordinated with plans for WTC Redevelopment Projects. Enhance pedestrian pathways, both above and below ground, to facilitate and support pedestrian traffic. Describe enhancements including and illustrating connections to buildings, additional pathways and transportation nodes, path size, adjacent area uses, public art, vegetation, access to daylight and direct sun, furnishings, wayfinding, paving materials and patterns and view corridors.	⟁	●	●	●			
UEQ-5	Green Infrastructure	Support the development of green infrastructure by developing and linking vegetated site areas with existing neighborhood green spaces.	Diagram "green" infrastructure within 1000' of site boundary. Create site vegetated areas to enhance site contributions to natural ecological processes, sustain air and water resources, promote biodiversity and reduce heat island effects. Facilitate creation of green infrastructure linkages in conjunction with adjacent neighborhood green spaces.	⟁	●	●	●			
UEQ-6	Outdoor Environmental Comfort	To facilitate site development that supports outdoor environmental comfort.	Design site structures, materials and landscape to enhance comfort and functionality of outdoor spaces and mitigate the effects of heat islands. Extend outdoor comfort levels further into the Spring and Fall seasons with passive strategies that maximize natural assets. Design structures with consideration for site environmental wind conditions where pedestrians would be affected and seek to moderate any such effects.	⟁	●	●	●			
UEQ-7	Wayfinding	To facilitate both neighborhood and site-user orientation and site readability.	Integrate wayfinding as an integral design quality when developing green corridors, visual corridors and memorable place markers in conjunction with surrounding neighborhoods.	⟁	●	●	●			
UEQ-8	Vehicular Emissions	Reduce back-up of traffic into neighboring streets in order to minimize vehicle emissions and improve neighborhood air quality from pre 9/11 base. Minimize potential idling time for all vehicles.	Optimize traffic flow of all vehicles coming to site to reduce the amount of time that vehicles must idle. Seek to reduce traffic backups through scheduling and onsite accommodation. Design bus stops to minimize traffic backups and potential vehicle idling times. To the extent that there is NY State Agency and/or other governmental presence on site, at least 50% of light duty fleet vehicles will be alternative fuel or hybrid vehicles by 2005 and 100% by 2010	⟁	●	●	●	Ⓔ		

SITE ENVIRONMENTAL QUALITY

No.	Quality	WTC Guideline Purpose	WTC Guideline Action	Urban	Site Parcel	Commercial - Retail	Commercial - Office	Tenant	LEED™ Base Points	LEED™ 2.2 Roadmap*
SEQ-1	Comprehensive Resource Management Plan	Draft and implement the requirements of the Comprehensive Resource Management Plan.	The Comprehensive Resource Management Plan provides a tool for an integrated consideration of water, material and energy resources with the goal of identifying, evaluating and optimizing utilization of all resources on the site. The plan overlays information from the individual water, material and energy resource plans and identifies integrated opportunities for resource conservation (ie. high capture and utilization of stormwater at upper levels of tower reduces pump energy required for lifting equivalent amount of water).	▲	●	●	●	○		
SEQ-2	Storm Water Use	To capture and utilize site storm water flows, thereby reducing storm water volume and surges through the system.	Implement a plan for stormwater management as part of the Water Management Plan that reduces the post-development flow of stormwater from the site (9/11 base). Construct treatment systems to remove 80% of total suspended solids (TSS) and 40% of total phosphorous (TP) per EPA Document (840-B-93-001c) Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters (based on the average annual loadings from all storms less than or equal to the 2 year/24 hour storm). Site/Parcel: Design site surfaces to allow collection of site storm water flows from other than street surfaces. Provide storage and filtration infrastructure. Fully use captured water as appropriate and in conjunction with Water Management Plan. Towers: Consider towers with ledges, roofs and setbacks, which will assist in capturing water sheeting off buildings at high elevations to capture potential energy of water and reduce water pump energy requirements. Provide storage and filtration infrastructure near point of capture. Use water, as appropriate for toilet flushing and as part of building water systems.		◉	◉	◉	Ⓔ	2	2
SEQ-3	Heat Island Effect Mitigation	Reduce site development contributions to "heat island" effects in Lower Manhattan. Seek to maximize areas of landscape planting (green infrastructure) coupled with high albedo surfaces at other areas to mitigate thermal loading of site surfaces and building roofs.	Provide green infrastructure coupled with high albedo surfaces to mitigate thermal loading of site surfaces and building roofs. Site/Parcel: Provide shade and/or use light-colored/high-albedo materials (reflectance of at least .3) or open reinforced grid pavement for at least 30% of the site's walkways, plazas and open spaces. Tower: Use ENERGY STAR® compliant AND high emissivity roofing (emissivity of at least 0.9 when tested in accordance with ASTM 408) for a minimum of 75% of the roof surface; OR install a "green" (vegetated) roof for at least 50% of the roof area. Combinations of high albedo and vegetated roof can be used providing they collectively cover 75% of the roof area.		◉	◉	◉	Ⓔ	2	2
SEQ-4	Light Pollution Reduction	To reduce light pollution and glare to surrounding sites and night sky.	Satisfy Illuminating Engineering Society of North America (IESNA) recommended practice per manual (RP-33-99) for exterior illumination. Design exterior lighting such that all exterior luminaires with more than 1000 initial lamp lumens are shielded and all luminaires with more than 3500 initial lamp lumens meet the Full Cutoff IESNA Classification. The maximum candela value of all interior lighting shall fall within the building (not out through windows) and the maximum candela value of all exterior lighting shall fall within the property. Tower tops will not be constrained by these requirements. Minimize glare from reflected sunlight by minimizing use of highly reflective materials on building facades. Incorporate lighting controls to minimize energy use during unnecessary periods.		◉	◉	◉	Ⓔ	1	1
SEQ-5	Construction Environment	To reduce pollution, noise and vibration from construction activities and vehicles.	Implement a Construction Environment Plan, which reduces pollution, noise and vibration from construction activities and vehicles to adjoining neighborhoods. Develop a materials staging and construction access plan prior to start of construction. Truck staging zones are to be placed for minimum disruption and impact. Limit unnecessary idling times on diesel powered engines to 3 minutes. Consider bio-diesel fuel as an alternative to pure diesel. Non-road construction equipment of 50hp or greater to include diesel emissions control technology according to EPA diesel retrofit recommendations, unless not technically feasible. All non-road diesel equipment to utilize ultra low sulfur diesel fuel (limit sulfur levels to 15ppm). Explore accelerated implementation of proposed EPA emission standards for non-road diesel equipment. Locate fixed diesel powered exhausts away from fresh air intakes. Consider condition of surrounding buildings, structures, infrastructure and utilities where appropriate. Coordinate construction activities in adjacent and nearby locations to avoid or minimize impacts and communicate plans with the public. Prepare contingency measures in the event established limits are exceeded.		●	●	●	Ⓔ		
SEQ-6	Const Storm Water Runoff and Pollution Prevention	Control site erosion and reduce negative impacts on hydrological and atmospheric systems produced by construction activities.	Provide Construction Storm Water Pollution Prevention Plan conforming to US EPA document 832/R-92-005. Prevent air pollution from dust and particulate matter during the course of construction. Utilize sprayed suppressing agents (nonhazardous, biodegradeable) for containment of fugitive dust and adjust strategies per meteorological conditions. Coordinate with SEQ-5 Construction Environment Plan.		●	●	●		Prq	Prq
SEQ-7	Use Existing Site Structures	Encourage the re-use of existing site structures to conserve resources.	Incorporate existing slurry wall, bathtub excavation, elements of Temporary PATH Station and utilities (such as the River Water Pump Station) for re-use in new site development to the extent possible.		●	●	●			
SEQ-8	Plant Selection	Use indigenous or acclimatized plants to reduce irrigation and maintenance requirements.	Specify naturalized or indigenous plant materials, which will promote biodiversity and support site ecological systems, as well as, reduce maintenance requirements. Use plantings that can be sustained by natural rainfall levels to reduce irrigation requirements.		●	●	●	○		
SEQ-9	Daylight Exterior Public Spaces	Design buildings and site structures to consider available daylight for public open spaces and green areas (within the context of the established massing guidelines).	Determine critical open spaces and green areas. Utilize shadow studies to determine available sunlight. Consider available sunlight in planning outdoor public spaces and site plantings.		●	●	●	○		
SEQ-10	Solar Access	To optimize solar access for utilization of solar energy.	Determine maximum available photovoltaic potentials for all building surfaces. Develop strategy for possible future transition to capture this potential. Quantify and document this strategy and any other "near threshold" renewable technologies in the Renewable Energy Transition Plan.		●	●	●	○		
SEQ-11	Recovery of Resources	To optimize utilization of site material resources and to facilitate the reduction of waste generated by building occupants that would otherwise be hauled to and disposed of in landfills and/or incinerators.	Study large-scale and small-scale opportunities for on-site recovery of waste. Consider opportunities to recover food, paper, plastic, metal and construction waste. Consider composting, biomethanization and other viable "waste to reuse" strategies. Consider in conjunction with Renewable Energy Transition Plan and Co-generation study.		●	●	●	○		
SEQ-12	Use of Undeveloped Parcels	Utilize inactive and undeveloped site parcels to provide a positive contribution to site environmental qualities.	Address both the "active" portions of the site under development, as well as, the "inactive" areas of the site, which have a supporting role. Apply guidelines Storm Water Use (SEQ-2) and Heat Island Effect Mitigation (SEQ-3) to "inactive" site areas.		●	●	●			

WATER ENVIRONMENTAL QUALITY

No.	Quality	WTC Guideline Purpose	WTC Guideline Action	Urban	Site/Parcel	Commercial Retail	Commercial Office	Tenant	LEED Base Points	LEED Roadmap
WEQ-1	Water Management Plan	To optimize utilization of site water resources.	Implement a Water Management Plan to evaluate use of storm water, waste water and potable water resources, study potentials for onsite reclamation of wastewater and provide a coordinated management plan for full site water resources. Use EPA recommendations per EO 12123 (June 1999) and Federal Energy Management Program (FEMP) Best Management Practices to develop Plan. The Plan must include, at a minimum, information on operation & maintenance, utility information, facility information, emergency response information and planning considerations.	(▲)	●	●	●	○		
WEQ-2	Wastewater Re-use	To minimize site wastewater outflows.	Implement wastewater strategies as required by Water Management Plan. Use reclaimed storm water and/or site water for toilet flushing, cooling tower makeup, vehicle maintenance and irrigation needs. Study additional opportunities to reduce the amount of potable water used in the building for conveying sewage.		○	○	○	○		
WEQ-3	Water Use Efficiency	To maximize water efficiency within buildings and reduce the burden on municipal water systems.	Reduce consumption of potable water as required by Water Management Plan. Use 30% less potable water than a baseline building (utilize 1992 Energy Policy Act fixture requirements to determine baseline) would by utilizing efficient water fixtures, automatic controls and/or waterless urinals.		◉	◉	◉	Ⓔ	2	2
WEQ-4	Landscape Hydrology	To maximize utilization of site water for landscape requirements.	Use site storm water for site landscape irrigation requirements in conjunction with Site Water Management Plan. Specify plantings requiring low amounts of watering. Use indigenous or acclimatized plants suitable for the current nature of the site. Employ high-efficiency irrigation systems with slow-drip, sub-soil irrigation and computer operation with linkages to meteorological data to optimize water resources.		◉	◉	◉	Ⓔ	1	1

ENERGY ENVIRONMENTAL QUALITY

No.	Quality	WTC Guideline Purpose	WTC Guideline Action	Urban	Site/Parcel	Commercial Retail	Commercial Office	Tenant	LEED Base Points	LEED Roadmap
EEQ-1	Energy Management Plan	To conserve and optimize building energy use and minimize air emissions, including greenhouse gases, associated with energy consumption at the site.	Prepare an Energy Management Plan to conserve and optimize building energy use, minimize air emissions and coordinate and maximize the utilization of any site generated energy resources. The Plan shall include an energy use budget for the project for the first year of operation (building shall be a minimum of 50% occupied with unoccupied areas and building systems normalized for full occupancy) and broken down by major energy consumption category (ie., heating, cooling, lighting, fan energy, pump energy, etc.). Consider base building systems apart from occupancy with allowances for interconnections. After each year of operation, the actual utilization of energy shall be recorded and compared to this baseline energy use budget with appropriate adjustments for deviations in occupancy, base building conditions and climate norms. Significant deviations shall be evaluated and a detailed explanation for the probable cause of the deviation recorded in the updated plan. Strategies for reducing energy consumption below the first year of operation, as defined above, shall be identified and described. The Energy Management Plan shall include a similar itemization of any site generated energy resources, including a budget for each component, and annual updates of actual performance. The Plan shall identify measures and strategies for increasing utilization of clean on-site energy above the first year of operation, as defined above. Review opportunities for coordinated site strategies to conserve energy. Provide matrix outlining additional costs, benefits and impacts from, for instance, a co-generation plant, river water cooling, building integrated PV, fuel cells and other strategies. Review opportunities for coordinated site strategies to conserve energy. Provide matrix outlining additional costs and savings, available incentives benefits and impacts from, for instance, a co-generation plant, river water cooling, building integrated PV, fuel cells and other strategies	(▲)	●	●	●	○		
EEQ-2	Building Systems Commissioning	To implement a Building Commissioning Plan.	Engage an independent commissioning authority to prepare and execute a commissioning plan. Implement fundamental, best practice building commissioning procedures. Include design phase reviews, contractor submittal reviews, pre-functional and functional testing (including seasonal testing), training, Operations and Maintenance manuals and post occupancy review. Provide Building Commissioning Plan consistent with the requirements of NYSGBTC 638.8.		●	●	●	Ⓔ	1	1
EEQ-3	Optimize Energy Performance	To optimize the performance of building energy systems.	Optimize the performance of building energy systems through the utilization of a full DOE-2.1E or Energy Plus building energy model to compare alternative strategies for energy efficiency (kwh) peak load reduction (kW) and reduced use of fossil fuels. Integrate with Energy Management Plan. This is to include the full analysis of architectural and mechanical decisions in relationship to building energy expenditures. Achieve a minimum of 20% decrease in energy cost above ASHRAE 90.1-1999. This savings reflects both tower and office tenant build-out potentials. Tenant build-out potential (as demonstrated in a typical tenant build-out) will be modeled in the same integrated exercise and the economic results provided to potential tenants in support of the preferred buildout. Include full list of energy conserving opportunities available to tenants. Provide daylight dimming and occupancy sensors on light fixtures where appropriate. All light fixtures to use high efficiency ballasts and low mercury/low lead, long life lamps. Specify recyclable lamps. Utilize energy efficient equipment such as variable spped systems for fans, pumps and motors; motors that meet or exceed NEMA premium efficiency ratings and equipment that meets or exceeds ENERGY STAR® ratings. Comply with FEMP levels for commercial products not rated by ENERGY STAR®. Provide a high performance building envelope, including minimized thermal bridging, superior insulation, air infiltration barrier and insulated wavelength selective glazing (to improve daylight transmission). Provide envelope construction details consistent with NYSGBTC 638.7(d)(2). Use air-side and water-side economizers, as appropriate. "Silver Roadmap": three points require a minimum of 25% decrease in energy cost above ASHRAE 90.1-1999		●	●	●	Ⓔ	2	3
EEQ-4	Ozone Layer Protection	To reduce emission of ozone depleting chemicals.	Specify building HVAC systems with zero levels of CFC refrigerants, and provide plan for future elimination of HCFC's and halon in HVAC and refrigeration equipment and fire suppression systems. Avoid insulation materials that utilize chlorine based gases.		●	●	●	Ⓔ	Prq	Prq

No.	Quality	WTC Guideline Purpose	WTC Guideline Action	Urban	Site/Parcel	Commercial Retail	Commercial Office	Tenant	LEED™ Base Points	LEED™ Silver Roadmap
ENERGY ENVIRONMENTAL QUALITY										
EEQ-5	Renewable Energy Plan	To meet a portion of site energy requirements with on site and/or purchased renewable energy sources and institute a plan for transition as renewables become more cost-effective.	Utilize site generated and/or purchased renewable energy for a percentage of total building energy use. Provide transition plan for future conversion to renewables. Purchase or generate on site a minimum of 20% of overall annual electric energy requirements with renewables by 2010 consistent with NY State EO-111's evolving requirements and capabilities. Provide infrastructure to integrate technology into building systems, when possible.	◬	●	●	●	○		
EEQ-6	Energy Systems Control and Maintenance	To provide for ongoing verification of initial operation and energy utilization of building energy systems.	Provide a computerized, fully-integrated Building Management System (BMS) with energy and fluid flow measurement capabilities for all major energy consuming systems. Institute a maintenance plan for ongoing measurement, verification and maintenance of equipment efficiencies and resource utilization. Provide programmable controls. Install permanent monitoring systems to track energy performance. Provide for maintenance and operational continuity through manuals and education. Install continuous metering equipment for a representative sample of lighting systems, motors, drives, chiller efficiencies, and trending of economizer and heat recovery equipment cycles, air distribution pressures and volumes and boiler efficiencies. Integrate the above systems into the Building Commissioning Plan.		●	●	●	Ⓔ	1	1
EEQ-7	End-use metering	To maximize tenant incentives to conserve energy.	Include electrical distribution infrastructure required to allow end-user metering of tenants, including electricity use (kWh) and demand (kW) metering. Provide examples of existing incentive programs to tenants.		●	●	●	○		
MATERIAL ENVIRONMENTAL QUALITY										
No.	**Quality**	**WTC Guideline Purpose**	**WTC Guideline Action**	**Urban**	**Site/Parcel**	**Commercial Retail**	**Commercial Office**	**Tenant**	**LEED™ Base Points**	**LEED™ Silver Roadmap**
MEQ-1	Material Management Plan	To optimize utilization of site material resources and to facilitate the reduction of waste generated by building occupants that would otherwise be hauled to and disposed of in landfills and/or incinerators.	Implement a Materials Management Plan, which coordinates and implements material guideline requirements within the Sustainable Design Guidelines. Describe materials utilized, recycled content, location of manufacture/harvest, agricultural content, sustainable harvest certification, expected lifetime, maintenance requirements and recyclable/reuse potential at end of useful life. Minimize travel distance for building products and systems and locate sinks for highest recycled use for 'waste' materials in conjunction with MEQ-2 and MEQ-5. Provide infrastructure necessary to implement the recycling requirements of the plan. A central location for appropriately-sized recycling facilities must be provided for all buildings. Facilities must include, at a minimum, space for the separation, collection and storage for recycling of paper, corrugated cardboard, glass, plastics and metals, and each of these areas should be clearly identified. Provide easy truck access for the pick-up and removal of recyclables.	◬	●	●	●	Ⓔ	Prq	Prq
MEQ-2	Construction Waste Management	To reduce the amount of construction and demolition (C&D) waste going to landfills and/or incinerators and to conserve resources through reuse and recycling	Implement a Construction Waste Management Plan to divert construction, demolition and land clearing debris from landfill disposal to redirect recyclable and/or recovered resources back to the manufacturing process and to redirect salvageable materials to appropriate sites. Recycle and/or salvage a minimum of 50% of construction, demolition and land clearing waste, calculated by weight. Divert a minimum of 50% of construction waste by weight from landfill.		◉	◉	◉	Ⓔ	1	1
MEQ-3	Resource Reuse	To incorporate previously used building materials and products into new construction.	In coordination with the Materials Management Plan consider the use of salvaged, refurbished or reused materials and products in the building. Materials for reuse typically include reclaimed lumber and wood such as salvaged wood flooring and wood doors and cabinets, structural metal work such as beams, and miscellaneous metal such as doors, door hardware, etc. Decorative and specialized items such as salvaged wood and glass panels, banquettes, front and back bars and decorative or period lighting fixtures may be used in special public locations such as cafeterias or restaurants, and can contribute to this credit		○	○	○	Ⓔ		
MEQ-4	Materials with Recycled Content	To incorporate materials with recycled content and increase market demand for building materials and products that incorporate recycled content.	Specify materials with recycled-content in conjunction with the Materials Management Plan. The value of the recycled content portion of materials is to be at least 10% of the total project materials value (mechanical and electrical components are not to be included in these calculations). Determine recycled content value according to the following formula. For post-consumer recycled content determine percentage of recycled content in the material and multiply by value of material. For post-industrial recycled content determine percentage of recycled content in the material, multiply by ½ and multiply by value of the material.		◉	◉	◉	Ⓔ	2	2
MEQ-5	Material Proximity	To reduce environmental degradation resulting from transportation impacts by increasing the demand for building materials and products that are extracted and/or manufactured in close proximity to the building site.	Utilize local/regional materials in conjunction with the Materials Management Plan. Use a minimum of 20% of all building materials (based on cost) that are manufactured within a 500 mile radius of the site. Manufactured in this context means the location where 'final assembly' takes place		◉	◉	◉	Ⓔ	1	1
MEQ-6	Wood Certification	To specify wood which has been harvested according to sustainable forest management principles.	Utilize wood materials certified under the Forest Stewardship Council's Principles and Criteria (FSC) in conjunction with the Materials Management Plan. These materials may include dimensional framing components, flooring, doors, paneling, millwork and furnishings, handrails and trim, etc., as well as, temporary lumber and wood construction materials. Request vendor's chain-of-custody certificate number to verify certification. "Silver Roadmap"; this point requires that a minimum of 50% of wood based products (by value) are certified according to LEED™ criteria.		○	○	○	Ⓔ		1
MEQ-7	Agricultural materials	To encourage the specification of materials which are renewable and that grow in such a way as to support biological diversity and the health of the ecosystem	In coordination with the Materials Management Plan use renewable and rapidly renewable building materials and products.. Materials with annual growing cycles or which regenerate naturally within a 10-year-cycle are considered to be rapidly renewable materials. These materials include bamboo, poplar, cork, wool, cotton, jute, sisal, and soy-based products. Agricultural 'waste' materials such as wheatgrass, sunflower seed husks, and straw also qualify under this category. Release agents for concrete forms, which are made from plant oils such as corn oil are included. Use agricultural compost for site applications, including, but not limited to, turf, plantings and erosion control. "Silver Roadmap"; this point requires that 5% of project materials and products (by value) are renewable according to LEED™ criteria.		○	○	○	Ⓔ		1

INDOOR ENVIRONMENTAL QUALITY

No.	Quality	WTC Guideline Purpose	WTC Guideline Action	Urban	Site/Parcel	Commercial Retail	Commercial Office	Tenant	LEED™ Base Points	LEED™ Silver Roadmap
IEQ-1	IAQ Performance	Establish high indoor air quality (IAQ) for the comfort and well-being of the building's occupants by minimizing the potential for poor air quality, and by establishing minimum IAQ performance and standards.	Provide an Indoor Air Quality Management Plan which employs architectural and HVAC design strategies to establish minimum outdoor air quantities, chemical, biological and particulate source control and on-going air quality monitoring to achieve a positive impact on the overall indoor environment and well being of the occupants. Meet the requirements of ASHRAE Standard 62-2001: "Ventilation for Acceptable Indoor Air Quality", utilizing the Ventilation Rate Procedure. Prepare plan in accordance with the requirements of NYSGBTC 638.7(d)(1,2 and 3). Draft the plan in accordance with the EPA "Building Air Quality: A Guide for Building Owners and Facility Managers", 1991 and EPA and National Institute for Occupational Safety and Health, Building Air Quality Action Plan, 1998.		▲ (circled)	●	●	Ⓔ	Prq	Prq
IEQ-2	Daylight & Views	Provide building occupants with connections to the outdoors through the introduction of daylight into habitually occupied areas of the building. Provide building occupants with views via direct line of sight to the outdoors from regularly occupied spaces when possible.	Towers: Provide a 2% minimum daylighting factor to 75% of regularly occupied tenant spaces. Build a tenant office fit-out (5,000 SF) to demonstrate optimum daylight access, louvers and glare controls, and ceiling geometries intended to optimize daylighting strategies. Quantify performance of integrated curtain wall and tenant fit-out with proposed savings. Retail: Seek to maximize daylight penetration to concourse areas and below grade retail areas. Provide views to the outdoors from concourse areas to assist users in wayfinding and orientation.		▲ (circled)	◉	◉	Ⓔ	1	1
IEQ-3	Air Quality Monitoring	To retain high indoor air quality standards by establishing monitoring protocols to assist in maintaining appropriate ventilation rates for the comfort and well-being of building occupants.	Indoor air quality must be tested annually and must meet minimum criteria for five years in accordance with minimum requirements of NY State EO-111reference to NYSGBTC 638.7(d)(1). Once radon measurements are found to be satisfactory, subsequent testing for this contaminant is not required. Where concentration levels of noted contaminants exceed the established parameters in any specific area during this 5 year period, seek to locate and remediate/eliminate contaminants, then flush out area with 100% outside air for a minimum of one week and retest until a satisfactory result is achieved. Consideration should be given to a permanent indoor air quality monitoring system with centralized controls that provides feedback on ventilation performance and contaminant concentrations based on a combined carbon monoxide, carbon dioxide and volatile organic compound monitors. "Silver roadmap"; this point requires that Carbon Dioxide Monitors are installed according to LEED™ criteria.			●	●	Ⓔ		1
IEQ-4	Ventilation Air Quality	To provide outside air to all occupied spaces in the building to support the comfort and well-being of building occupants and as an energy conservation measure.	Demonstrate that the requirements of Section 5, 'Best Practices for Maintaining IEQ' of the International Performance Measurement & Verification Protocol, Volume II 'Concepts and Practices for Improved Indoor Environmental Quality', March 2002 have been met. Provide capability for system default to 100% outside air at all times where practicable and in balance with energy conservation. "Silver Roadmap"; this point requires that an air change effectiveness of .9 as determined by ASHRAE 129-1997 be achieved in mechanically ventilated spaces.			●	●	Ⓔ		1
IEQ-5	Construction IAQ Management Plan	To provide minimum standards for the air quality of building areas upon occupancy.	Implement a Construction Indoor Air Quality Management Plan in conformance with NY State EO-111reference to NYSGBTC 638.7(d)(2) and the USGBC LEED 2.1 Rating System. During construction, meet or exceed the recommended Design Approach of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guideline for Occupied Buildings under Construction, Chapter 3. Use high efficiency filtration media at all HVAC return air grilles during construction and replace all base building mechanical system filtration media with Minimum Efficiency Reporting Value of 13 (MERV 13) filters in accordance with ASHRAE 52.2 – 1999 immediately prior to occupancy. On completion of construction and prior to occupancy, conduct a two-week flush out with new filtration media using 100% outside air, in accordance with NYSGBTC 638.7(d)2. Replace all filtration media used with new MERV 13 filters. Alternatively, test indoor air quality at random sampling points for every 20,000 sf, or by each floor if smaller, in accordance with recognized national standards, to achieve an air quality profile at time of occupancy which satisfies the specific minimums for carbon dioxide, carbon monoxide, formaldehyde, volatile organic compounds, particulates and radon as per NY State EO-111reference to NYSGBTC 638.7(d)(2) and include one additional testing procedure for 4-PCh to satisfy all of the Alternate Procedure Requirements for LEED 2.1. Where concentration levels of contaminants exceed the established parameters in any specific area, flush out area with 100% outside air for a minimum of two weeks and retest until a satisfactory result is achieved.			●	●	Ⓔ	2	2
IEQ-6	Reduce Contaminants from Materials	To reduce the density of contaminants that are emitted by common building materials and which affect the comfort and well-being of building occupants	Develop and implement a Materials Management Plan to minimize utilization of materials with high levels of volatile organic compounds (VOC's) and other toxic characteristics which adversely affect Indoor Air Quality (IAQ). VOC's must meet or be lower than those in the following standards: Adhesives and sealants: South Coast Air Quality Management District Rule #1168 Paints and coatings: Green Seal Standard GS-11 Carpet and carpet adhesives: Carpet and Rug Institute Green Label Indoor Air Quality Test Program Minimize unprotected insulation in ducts, supply plenums and return plenums per NYSGBTC 638.7(j). "Silver Roadmap"; this point requires that non-urea-formaldehyde-based bonding agents are utilized in composite wood and typical millwork applications such as veneer and plastic laminate applications according to LEED™ criteria.			●	●	Ⓔ	3	4
IEQ-7	Chemical & Particulate Control	To minimize sources of chemical and particulate air contamination.	Design all major entrances with permanent walk-off grilles to minimize particulate transfer. Provide MERV 13 air filters for removal of 90% of particulates at air intakes and provide building owner with a maintenance schedule for filter replacement. Build slab-to-slab partitions and provide negative air pressure of at least 7PA with isolated exhaust systems of at least .5cfm/sf at work rooms with printing and copying equipment, janitorial closets and all chemical use areas. Locate exhausts to ensure that there is no potential for re-entrainment of exhaust air to other supply in-takes. Provide drains for appropriate disposal of liquid waste in spaces where water and chemical concentrate mixing occurs.			●	●	Ⓔ	1	1

INDOOR ENVIRONMENTAL QUALITY									LEED™	
No.	Quality	WTC Guideline Purpose	WTC Guideline Action	Urban	Site Parcel	Commercial Retail	Commercial Office	Tenant	Base Points	Silver Roadmap
IEQ-8	Thermal Comfort	To provide building users with a high level of thermal comfort to promote comfort, well-being and enhanced productivity.	Design the building envelope in accordance with ASHRAE Standard 55-2004 to manage the flow of air, moisture and thermal energy in the building. Include capability for adjustments to thermal conditions to address seasonal changes and associated modifications in typical levels of clothing. Design an integrated system (thermal shell and HVAC) that allows building operators to monitor and control air temperature in each zone. To avoid condensation problems, mechanical systems must be designed to deal with part-load cooling conditions so that they are able to maintain appropriate dehumidification levels. "Silver Roadmap"; this point anticipates ASHRAE Standard 55-2004 will be adopted by the USGBC in lieu of Standard 55-1992.			●	●	(E)		1
IEQ-9	Pest Control	To mitigate health concerns caused by any unwanted pests, their excrement and the chemicals used to control them.	Develop an Integrated Pest Management Plan based on USEPA Best Management Practices, which promotes physical controls and non-pesticide measures over pesticide application. Physical controls include building sealing strategies, improved sanitation, pest-resistant plantings and improved maintenance of wet areas. When necessary, use boric acid or other nontoxic alternatives in lieu of more toxic chemicals to control and eliminate rodent populations from building.		●	●	●	(E)		
IEQ-10	Occupant Control	To provide building occupants with a high level of thermal, ventilation and lighting system control to promote productivity, comfort and well-being	Provide building occupants with controls over airflow, temperature and lighting systems including individual controls where practicable and feasible. Provide operable windows where practicable and feasible.			●	●	(E)		
IEQ-11	Acoustics	Minimize vibration and noise levels in indoor spaces and at exterior environments to achieve appropriate physical comfort and sound isolation for tasks and speech intelligibility, while contributing to human well-being and productivity	Where practical program locations of mechanical equipment and other sources of noise away from areas of building and exterior spaces designed for use by building tenants and the public. Design separations to minimize transfer of noise. Consider strategies to reduce the transmission of exterior ambient noise. Comply with the recommendations of ASHRAE Applications Chapter 46 Design Guidelines to reduce potential noise and vibration from mechanical equipment, and the Architectural Graphic Standards 8th Edition: Sound Isolation Criteria Table, page 44 to address acoustic criteria for enclosed office space such as offices, meeting rooms and other occupied areas.			●	●	(E)		
IEQ-12	Lighting Quality	To employ enhanced lighting design to maximize quality and efficiency of electric lighting and fully coordinate with daylighting	Design an ambient electrical lighting system that is coordinated with daylighting strategies to provide flexible illumination. Endeavor to meet the recommendations of the Illuminating Engineering Society of North America's (IESNA) 9th Edition Handbook, Chapter 10 Quality of the Visual Environment, and the Lighting Design Guide. Provide high frequency electronic ballasts, recyclable lamps and low mercury/low lead lamps as defined by the US Environmental Protection Agency's Toxicity Characteristic Leaching Procedure (TCLP) testing procedure. Supplement ambient lighting system with multi-level task lighting to maintain a minimum of 35 footcandles (in typical office area) at desk level throughout hours of occupancy.			●	●	(E)		

Notes:
1. While all projects are encouraged to strive for LEED™ "Silver", the "Base Points" represent the minimum possible for certification according to the requirements of EO-111 (26 is the minimum for "Certification" level, 33 is the minimum for "Silver" level and reasonable allowance must be made for points which would be disallowed in an actual submission).
2. As discussed earlier, the integrated planning and whole systems approach of this high density, mixed-use development contain a significant number of environmental/sustainable dimensions which extend beyond the boundaries of any one project and could be captured under the Innovation Credit category as defined by the USGBC. These opportunities and other potential sustainable strategies should be pursued and they will enhance the achievement of a LEED™ "Silver" level equivalency

LEED Professional	1	1
Innovation (4 of 4 points)	4	4
Designated LEED Points	30	37

MEMORANDUM

To: Members of the Bush Administration
From: Environmental Defense, National Wildlife Federation, National Audubon Society
Re: Coastal Louisiana Restoration Plan
Date: September 29, 2005

In the wake of Hurricane Katrina, members of the Administration have expressed interest in accelerating efforts to restore lost coastal wetlands and barrier islands but have raised questions about the level of funds that could be spent wisely and quickly. Based on our review of Army Corps and state planning documents and discussion with participating scientists, we have developed a set of projects and studies to begin the restoration of Louisiana's natural hurricane protection system. We recommend that the Administration seek $5.5 billion in an emergency supplemental appropriations bill for these projects and studies.

Most of these funds would be directed at previously identified projects. The Final LCA report issued by the US Army Corps of Engineers and the State of Louisiana in November 2004, and the draft PEIS completed in 2003, identified likely projects but lacked the sense of urgency Katrina has shown is needed: Many critical sediment and freshwater diversion and barrier island restoration projects and studies were postponed for decades. We believe it is possible to dramatically accelerate the design and construction of potential diversion, pipeline and barrier island restoration projects.

The $5.5 billion in near-term funding, according to our analysis, breaks down as follows:

- $3.1 billion to begin the restoration of coastal wetlands and barrier islands through a set of promising sediment pipelines and diversion projects east and west of the Mississippi River. These projects are described in more detail below.

- $1 billion for land acquisition, easements (including easements on cypress swamp forests) and the relocation of infrastructure, including the voluntary relocation of the service centers and small communities south of Pointe a la Hache. The voluntary relocation of some infrastructure will enhance opportunities to quickly restore lost coastal wetlands and reduce future flood losses.

- $1.115 billion to complete within two years the Mississippi River Delta Management Study proposed in the final LCA plan ($15 million), and to relocate the main shipping entrance to the Mississippi River so that this project can be implemented quickly if found to feasible ($1.1 billion).

- $ 300 million to create a Science and Technology Program, a Demonstration Program, and to provide for beneficial use of dredged material, as envisioned in the final LCA plan.

- $45 million for experts to complete studies of other potential pipelines and diversion that are not identified below, to complete large-scale feasibility studies within four years of the Atchafalaya River third outlet, the "Third Delta" concept, and the Chenier Plain Freshwater and Sediment Management and Allocation Reassessment.

In combination, these sediment and diversion projects would not only quickly restore and nourish significant amounts of coastal wetlands near populated areas that need additional protection from storm surges as soon as possible. Construction of many diversion projects would also give managers the ability to operate different diversions under different flow conditions. We do not envision that all of these diversions would be operated simultaneously; rather, we envision that some diversions would be operated in some years and not other years.

The cost estimates in this memo are based upon the 2003 Draft PEIS and the 2004 final LCA plan.

Work at this rate will require engineering and scientific capability that would exceed the Corps' existing resources. We therefore propose that the Administration ask Congress to create a three-member independent commission within the Department of the Army to oversee and accelerate restoration efforts. This Commission could contract not only with the Corps and other federal and state agencies and institutions but could also employ such mechanisms as private design competitions. To raise the profile and sense of urgency, we suggest that the Commissioners be appointed by the President following consultation with the Governor of Louisiana, and be answerable to an interagency task force.

Summary of Diversion, Pipeline and Barrier Island Projects

Sediment Pipelines – A series of sediment pipelines can be constructed east and west of the Mississippi River, including pipelines at Empire ($406M), Bastian Bay ($440M), American/California Bay ($593M), Myrtle Grove ($127M), and Quarantine Bay ($734.9). These projects will rebuild lost wetlands in the shallow coastal bays that now abut the lowest reaches of the Mississippi River.

Construct Diversions – A series of freshwater diversions of at least 50,000 cfs can be constructed to nourish highly degraded fresh to brackish wetlands in shallow open water areas east and west of the Mississippi River. These projects include diversions at Myrtle Grove ($143M), Fort Jackson/Boothville ($8M), Empire, Bastian Bay, American/California Bay ($15M), Caernarvon ($2M), and White's Ditch ($35M).

Close MRGO; Construct Sediment Pipelines -- The Corps should close MRGO. Cost: $12 million. Pipelines and diversion should be constructed to rebuild wetlands north and south of the Mississippi River Gulf Outlet. Cost: $46.9 million and $25 million, respectively. The Corps should also expand an existing diversion at Violet.

Improve Freshwater and Sediment Flows Into Maurepas Swamp—Federal and state agencies should proceed with several projects to reverse the decline of Maurepas Swamp. They should build a diversion at Hope Canal, construct the Convent/Blind River diversion, and construct gaps in the existing dredged material banks of the Amite River Diversion Canal to improve water quality and introduce nutrients and sediments into western Maurepas Swamp. Cost: $10 million, $28 million, and $2.9 million, respectively.

Construct Atchafalaya River Diversion -- This project would convey Atchafalaya River water to northern Terrebonne Parish via an Avoca Island levee diversion. Cost: $132.2 million. Congress and the Administrayion should also reserve $500 to move additional water and sediment east from the Atchafalaya River into the northern reaches of Terrebonne Bay.

Bayou Lafourche Freshwater Diversion – This project would reintroduce flow from the Mississippi River into an existing bayou, reducing salinity levels and reducing loss rates between Bayou Lafourche and Terrebonne Bay. EPA, USACE, and other agencies should quickly assess whether this diversion project could be expanded to 5000 cfs capacity or more without impacting infrastructure, and should quickly assess whether some infrastructure could be elevated or relocated. Cost: $75.2 million.

Begin Barataria Barrier Shoreline Restoration – The project would mine offshore sediment source to reestablish barrier islands. The project would create a 3,000-foot-wide islands, and would restore critical portions of the original barrier island chain, and would aid the littoral movement of sediment to the remainder of the chain. Cost: $181 million.

Begin Terrebonne Barrier Shoreline Restoration – This project would mine sediment to restore critical element of the barrier island chain, including Timbalier and Isles Dernieres barrier island chain. Cost: $84.8 million.

Begin Point Au Fer Island Shoreline Stabilization – This project would stabilize the shoreline of Point Au Fer Island to prevent estuarine habitats from conversion to marine habitats. Cost: $32 million.

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September 22, 2005

The Honorable Max Baucus
511 Hart
Senate Office Building
Washington, D.C. 20510

Re: S. 1711
Proposed Waiver by U.S. Environmental Protection Agency of Environmental Requirements in Response to Hurricane Katrina

Dear Senator Baucus:

This letter is submitted on behalf of the Committee on Environmental Law of the Association of the Bar of the City of New York (hereinafter "Committee") regarding the Committee's opposition to Senate Bill 1711 that would grant the U.S. Environmental Protection Agency ("EPA") unprecedented legal authority to ignore federal and state environmental laws for a period of 18 months after it takes effect. The bill as drafted is overly broad and unnecessary to deal with the aftermath of Hurricane Katrina.

Members of the Committee are drawn from the private, government and public sectors and represent diverse viewpoints with respect to environmental matters and have significant experience with the substantive requirements of all federal environmental laws and EPA regulations.

While there is indeed merit in recognizing the enormous environmental and public health issues in the Gulf Coast region and the public does expect EPA to utilize considerable enforcement discretion in addressing its environmental laws, the EPA does not need the broad authority this bill provides. Many EPA regulations already include provisions for emergency exemptions from compliance with requirements during such national disasters as Katrina, and EPA has enforcement discretion where its regulations are less clear. Similarly, EPA has broad authority to address such issues as disposal of debris, contaminants contained in floodwaters and assistance to state and local authorities

on emergency cleanup and recovery. In fact, a good example of EPA's broad authority is its granting of a limited waiver of summertime gasoline requirements as a result of the increased natural gas demands nationwide as supplies fell in the wake of Katrina.

The Committee further finds that the bill authorizes waivers that are too long in duration, fails to restrict the waiver authority to those states directly impacted by the hurricane, does not attempt to limit the waiver authority with respect to programs where a limited waiver might be considered appropriate, and fails to set forth any reliable criteria for granting such a waiver. Accordingly, the Committee asks that you not support Senate Bill 1711.

Respectfully,

Christine A Fazio

Christine Fazio, Chair
Environmental Law Committee

Louisiana Coastal Area Ecosystem Restoration Program

Section 1 - Findings.

(A) The coastal Louisiana ecosystem has lost 1.2 million acres of wetlands over the last 80 years, is predicted to lose another 300,000 acres of wetlands by 2050, and is seeing the rapid erosion of barrier islands.

(B) These coastal wetlands and barrier islands serve as a critical storm buffer for New Orleans, other coastal communities, oil and gas infrastructure and the navigation system of the Mississippi River. The physical security of these communities and infrastructure depends on the reversal of these losses. The ecosystem is also a unique and nationally important ecological and economic resource for the U.S.

(C) While the Chief of Engineers has submitted a Louisiana Coastal Area Ecosystem Restoration Study and Programmatic Environmental Impact Statement dated January 31, 2005 to the Congress, Hurricane Katrina has demonstrated the national urgency of accelerating the design and implementation of a comprehensive restoration program that, to the greatest extent feasible, is based on projects that are designed to replicate natural processes and are based on the best available science and engineering.

Section 2 – Program.

The Commission established by Section 3 and the Task Force established by Section 4, in cooperation with other federal and state agencies, shall implement a Louisiana Coastal Area Protection and Restoration Program, referred to in this Act as "the program." The goals of the program shall be to preserve and restore the coastal wetlands and barrier islands formed by the Mississippi River delta on an expedited basis to protect communities and infrastructure from storm damage, to protect critical navigation and oil and gas infrastructure, and to provide fish and wildlife habitat and other natural resource benefits in a scientifically sound and cost-effective manner. To the extent practical, the program shall achieve no net loss of coastal wetlands of the Mississippi River delta by 2015, and net restoration of wetlands at a rate of 20,000 acres per yea by 2025.

Section 3 - Coastal Louisiana Protection and Restoration Commission.

(A) ESTABLISHMENT -- There is established within the Department of the Army a "Coastal Louisiana Protection and Restoration Commission," referred to in this Act as the Commission, to develop, oversee, and carry-out an accelerated Louisiana Coastal Area restoration program subject to the approval of the Task Force.

(B) MEMEBERSHIP—The Commission shall consist of three members with expertise in engineering, hydrology and wetlands to be appointed by the President after consultation with the Governor of Louisiana.

(C) AUTHORITY AND DUTIES - The Commission shall have overall responsibility for developing policies, strategies, plans, programs, projects, activities and budgets, and for authorizing expenditures from funds provided for the program that will address conservation, protection, restoration and maintenance of the coastal Louisiana ecosystem on an accelerated basis so as to meet program goals. The Commission shall coordinate, and contract with other federal and state agencies and the private sector in designing and carrying out the Program and may use private design competitions as a means of stimulating and accelerating cost-effective plans, designs and construction. Commission decisions shall be subject to the approval of the Task Force as set forth in Section 4. Among its duties, the Commission shall

(1) establish the design of and funding for near-term sediment and freshwater diversion, sediment pipeline and barrier island projects described in (the Accelerated Near-Term restoration program sub-section) for construction subject to approval by the Task Force;
(2) establish a technical support staff, which may include detailees from other federal and state agencies;
(3) develop an annual budget, subject to approval by the Task Force, that will allocate appropriated funds to the Commission itself, the Task Force, member agencies and agency or private sector contactors;
(4) coordinate with other federal and state agencies through the Coastal Louisiana Ecosystem Protection and Restoration Task Force;
(5) provide for public review of and input to draft plans, holding hearings and obtain all necessary administrative approvals, permits and licenses as otherwise required by law.

Section 4 – Federal-State Task Force.

(A) ESTABLISHMENT- There is established a task force to be known as the 'Coastal Louisiana Ecosystem Protection and Restoration Task Force' (referred to in this Act as the 'Task Force') to advise the Commission on the program, to approve restoration projects and budgets, and to coordinate the work of the Commission with federal and state agencies.

(B) MEMBERSHIP- The Task Force shall consist of the following members (or, in the case of the head of a Federal agency, a designee at the level of Assistant Secretary or an equivalent level) with the President designating the chair:
(1) The Chair of the White House Council on Environmental Quality
(2) The Secretary of the Army
(3) The Secretary of the Interior
(4) The Secretary of Commerce
(5) The Administrator of the Environmental Protection Agency

(6) The Secretary of Energy.
(7) The Director of the Federal Emergency Management Agency;
(8) The Commandant of the Coast Guard;
(9) Three residents of Louisiana appointed by the President in consultation with the Governor of Louisiana, who are knowledgeable about the activities of State of Louisiana in support of the program.
(10)The three Commission members, who shall sit ex officio but shall not vote.

(C) DUTIES- The Task Force shall be responsible for approving the annual budget, comprehensive plans and specific project designs for the program developed by the Commission and for advising the Commission as it deems appropriate. It shall also:
(1) Submit to Congress a biennial report that summarizes the activities of the Task Force and progress toward the goals of the Program.
(2) Coordinate individual agency budget requests in support of the Program.
(3) Establish policy for guiding the Commission in the carrying out of the program.

(C) PROCEDURES- The Task Force shall:

(1) implement procedures to facilitate public participation with regard to Task Force activities, including—
(2) provide advance notice of meetings;
(3) provide adequate opportunity for public input and comment;
(4) maintain appropriate records; and
(5) make a record of proceedings available for public inspection; and
(6) establish such working groups as are necessary to assist the Task Force in carrying out its duties.
(6) Make decisions by majority vote.

(D) COMPENSATION- Members of the Task Force or any associated working group may not receive compensation for their services of the Task Force or working group. Travel expenses of all federal agency members of the Task Force in the performance of their service on the Task Force or working groups shall be paid by the agency that the member represents.

(E) APPLICATION OF THE FEDERAL ADVISORY COMMITTEE ACT- The Federal Advisory Committee Act (5 U.S.C. App.) shall not apply to the Task Force or any working group of the Task Force.

Section 5 - Accelerated Near-Term Restoration program.

(A) IN GENERAL- The Commission shall design and carry out an accelerated near-term restoration program that shall consistent of freshwater and sediment diversion projects, sediment pipeline and barrier island restoration projects. These efforts shall include the Myrtle Grove, Hope Canala and Bayou Lafourche diversion projects and the Barataria Basin barrier island project identified in the January 2005 Report of the Chief of Engineers for Louisiana Coastal Area Ecosystem Restoration, and the November 2004 Programmatic EIS, and other such projects ready for construction before December 2007. Where feasible and appropriate, the capacity of the diversion projects shall be expanded to accelerate wetland restoration and land building to the maximum extent appropriate.

(B) For each plan of work, the Commission shall develop and provide a feasibility study for approval by the Task Force, and shall carry out that plan in compliance with otherwise applicable federal and state laws if approved under this Act.

(C) Mississippi River Gulf Outlet: Near-term projects shall include a plan for closing the Mississippi River Gulf Outlet, relocating navigation infrastructure as appropriate, and restoring wetlands. The Commission shall develop a plan and the Task Force shall select a plan within one year of the enactment of this Act.

Section 6 - Comprehensive Plans and Regulations.

(A) INITIAL PLAN-By December 2007, the Task Force will complete a comprehensive plan that evaluates and proposes a set of additional specific diversion, sediment pipeline and barrier island projects with feasibility studies so that final design and construction could proceed. This shall include the Mississippi River Delta Management project.

(B) UPDATED PLAN-By December 2009, the Task Force will complete an updated comprehensive plan with feasibility studies for the following major projects: the Third Delta, the Atchafalaya Basin third outlet diversion project and the Chenier Plain Freshwater and Sediment Management and Allocation Project. This plan shall set forth the expected acres of wetland gains and wetland losses prevented to be achieved by the plan by specific dates based on the best available scientific evidence.

(C) In conjunction with the Secretary of the Army, this comprehensive plan will include an assessment of modifying the flow and timing of flows of Mississippi River water and sediment into Atchafalaya Basin through Old River Control Structure, and optimization of the water and sediment in the

Basin for coastal wetland restoration, including a third outlet from the Basin through the east guide levee.

(D) The Commission shall establish regulations for the operation of each project completed under the program subject to approval by the Task Force to assure that the projected benefits of the project are realized.

Section 7 - Science and Technology Program.

(A) IN GENERAL- The Commission shall establish a coastal Louisiana ecosystem science and technology program.

(B) PURPOSES- The purposes of the program established by paragraph (1) shall be:
(1) to identify any uncertainty relating to the physical, chemical, geological, biological, and cultural baseline conditions in coastal Louisiana and to resolve any such uncertainty with a view to accelerating design and implementation of the accelerated near-term restoration program described in Section 5 and the comprehensive plan described in Section 6;
(2) to improve knowledge of the physical, chemical, geological, biological, and cultural baseline conditions in coastal Louisiana; and
(3) to identify and develop technologies, models, and methods to carry out this *section* so as to facilitate implementation of restoration programs and projects on a rapid enough time scale to reduce significantly loss of wetlands projected to occur over the next ten to twenty years.
(4) To monitor coastal wetland loss and gain and the effect of the program;

(C) CONTRACTS AND COOPERATIVE AGREEMENTS- In carrying out this subsection, the Commission may enter into a contract or cooperative agreement with an individual or entity (including a consortium of academic institutions in Louisiana) with scientific or engineering expertise in the restoration of aquatic and marine ecosystems for coastal restoration and enhancement through science and technology.

(D) SCIENCE REVIEW BOARD. As part of the Science and Technology Program, the Commission shall establish a Science Review Board of eight to twelve members, who shall be nominated by the Commission and approved by the Task Force. The Science Review Board shall review workplans and projects of the Science and Technology Program and shall expeditiously review and provide comments on the goals, scope and proposals of the comprehensive plan and any update, including feasibility studies and scope of such investigations, described in Section 6, criteria for project priorities, sequencing, design and operations, proposals for science and engineering needs and opportunities that will facilitate timely reversal of coastal land loss and accelerated coastal restoration. The

Science Review Board shall also endorse or decline to endorse any specific project feasibility studies developed by the Commission prior to consideration by the Task Force.

(E) Of the funds appropriated under Section9 of this Act, $100 million shall be available to carryout the science and technology program authorized by this Section. The annual budget for this program shall be set by the Commission and approved by the Task Force.

Section 8 - Authority to Undertake Projects.

(A) The Commission may use funds appropriated by Subsection 10(A) of this Act (1) to undertake the planning, design and scientific responsibilities described by this Act, and (2) to construct projects if (A) project plans cost less than $100 million or are detailed plans developed for the Mississippi River Gulf Outlet, a diversion at Hope Canal, Barataria Basin Barrier Shoreline Restoration, Bayou Lafource Reintroduction or a Diversion at Myrtle Grove; and (B) they are endorsed by the Science Board and approved by the Task Force and Governor of Louisiana.

(B) The Commission may use any other funds appropriated under Section 9 to undertake projects approved by the Commission if they are subsequently authorized by Congress and approved by the President

(C) None of the projects described in paragraph 6(B) shall be undertaken without further authorization by Congress.

Section 9 - FUNDING

(A) The sum of $5 billion is hereby appropriated to carry out the Program to remain available until expended.

(B) Cost-Share Requirement: None of the funds made available by Section 10(A) section shall be available for project construction work unless and until the Governor Louisiana enters into an agreement with Commission to provide as a cost-share the funds that will become available to the State of Louisiana, exclusive of funds provided directly to local governments, from federal energy leases for off-shore coastal areas.

(C) Future Appropriations and Cost-Share: Additional funds may be appropriated as appropriate for the program beyond those available in Section A, but only in accordance with a cost-share agreement between the Task Force and the State of Louisiana and approved by subsequent act of law.

Lessons from 9/11:
Environmental and Land Use Issues Raised in Response to Catastrophe

October 27, 2005

Further Reading

Nation on Edge, http://home.sandiego.edu/~lawdean/nation.html

Environmental Law Institute, *Recovering from Katrina and Rita: Environmental Governance Lessons Learned and Applied*, October 17, 2005, http://www2.eli.org/seminars/pastevent.cfm?eventid=113

University of California at Berkeley, legal materials related to Hurricane Katrina, http://www.law.berkeley.edu/library/dynamic/guide.php?guide=disasters

Environmental Law Institute, National Wetlands Newsletter, http://www2.eli.org/nwn/gulf.cfm