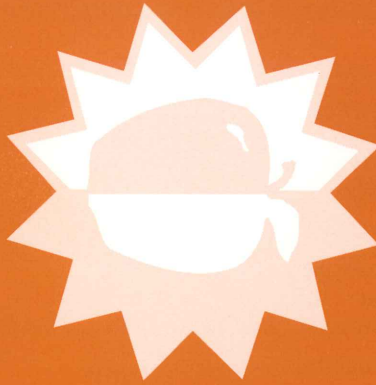


## Metropolitan New York in the Greenhouse

Infrastructure decisions in this decade will have consequences that reach far into the next century, a period in which — according to most of the world's climate scientists — the greenhouse effect will result in global climate change. Although there is great uncertainty as to the nature and extent of these consequences, metropolitan New York might be adversely affected in a number of ways. For example, greater evaporation in summer may outweigh heavier precipitation in winter to reduce New York City's water supply, a problem that could be compounded by greater salt water intrusion up the Hudson River and into ground water. Rising sea level, especially if combined with more severe and frequent storms, would increase coastal flooding and erosion. Already out of compliance with air quality standards for ozone, the metropolitan area could find higher temperatures exacerbating the situation. Worsened air pollution and prolonged heat waves may cause increased mortality among the elderly and the sick. With little prospect for automobiles with reduced carbon dioxide emissions, other controls on transportation would be required. Longer, hotter summers would require more air conditioning, adding to peak summer electricity loads and making electricity relatively more expensive; it is not clear where more electricity that does not contribute to the greenhouse effect would come from. Building design and maintenance would need to be reconsidered.

**Scenario Planning** is a means of exploring the future in the face of uncertainty. In four parallel workshops, the conference participants will develop a plausible, consistent description of metropolitan New York in the year 2020. Each group will be assigned an assumption as to the severity of future climate change, ranging from no effect at all to very severe. Their task will be to prepare a rich description of metropolitan New York under those circumstances, considering the waterfront, water resources and wastewater management, land use and infrastructure, air quality, transportation, building design and maintenance, and energy demand and supply.

Scenario planning is about perceiving possible futures in the present, rather than about predicting the future. Its purpose is to gather and transform information of strategic importance into fresh perceptions. The end result is not an accurate picture of tomorrow, but better decisions for the future.



Metropolitan New York  
in the Greenhouse:  
Infrastructure Planning  
for an Uncertain Future

Marine Sciences Research Center  
State University of New York  
Stony Brook, New York 11794-5000

*The  
Baked  
Apple ?*



## Metropolitan New York in the Greenhouse:

Infrastructure  
Planning for an  
Uncertain Future

A conference for community  
leaders to be held on  
Thursday and Friday,  
**November 3 and 4, 1994**  
at the Oval Room  
World Trade Center  
New York, New York



# Program

## Thursday, 3 November 1994

- 8:45 a.m. INTRODUCTION**  
*Douglas Hill*  
Infrastructure Group, Metropolitan Section  
American Society of Civil Engineers
- 9:00 THE GREENHOUSE EFFECT: THE SCIENCE BASE**  
*Anthony J. Broccoli*  
NOAA Geophysical Fluid Dynamics Laboratory  
Princeton University
- 9:30 ECONOMIC AND POPULATION PROJECTIONS**  
*Regina B. Armstrong*  
Senior Fellow, Regional Plan Association
- 10:00 Break**
- 10:30 WATERFRONT PLANNING**  
*Holly Haff*  
Former Director, Waterfront and  
Open Space Division  
NYC Department of City Planning
- 11:00 LAND USE AND INFRASTRUCTURE PLANNING**  
*Rae Zimmerman*  
Professor of Planning and Public Administration  
New York University
- 11:30 WATER RESOURCES AND WASTEWATER MANAGEMENT**  
*Robert Alpern*  
Co-Director, Reengineering and Strategic  
Planning Group  
NYC Department of Environmental Protection
- 12:00 Luncheon**  
*Stanley Lundine*  
Lieutenant Governor, New York State
- 1:15 p.m. AIR QUALITY AND HEALTH EFFECTS**  
*Lawrence I. Kleinman and Frederick W. Lippert*  
Brookhaven National Laboratory
- 1:45 TRANSPORTATION PLANNING**  
*John Falcocchio*  
Professor of Transportation, Polytechnic University
- 2:15 BUILDING DESIGN AND MAINTENANCE**  
*Lindsay Audin*  
Energy Manager, Columbia University

- 2:45 ENERGY DEMAND AND SUPPLY**  
*Samuel C. Morris and Gary A. Goldstein*  
Brookhaven National Laboratory  
*Ajay Sanghi*, New York State Energy Office  
*Douglas Hill*, Douglas Hill, PE, PC
- 3:15 Break**
- 3:45 SCENARIO PLANNING ASSIGNMENTS**  
*Malcolm J. Bowman*  
Marine Sciences Research Center, SUNY at Stony Brook
- 4:15 SCENARIO PLANNING WORKSHOPS (begin)**
- 5:15 Buffet dinner break**
- 6:15 SCENARIO PLANNING WORKSHOPS (resume)**
- 9:00 Adjourn**

## Friday, 4 November 1994

- 9:00 a.m. SCENARIO PLANNING WORKSHOPS (resume)**
- 12 noon Lunch**  
*Ruth W. Messinger*  
Borough President of Manhattan
- 1:00 p.m. REPORTS OF SCENARIO PLANNING WORKSHOPS**  
RESPONSES, Panel:  
*Jeanne Fox*, Regional Administrator,  
U.S. Environmental Protection Agency  
*Rita Meyninger*, Regional Director,  
Federal Emergency Management Agency  
*Raymond R. Ruggieri*, Director, New York  
Metropolitan Transportation Council  
*Antonia Bryson*, Deputy Commissioner,  
NYC Department of Environmental Protection  
*Philip Jessup*, International Council for  
Local Environmental Initiatives  
*Edward A. Parson*, JFK School of Government,  
Harvard University
- 4:00 Adjourn**

- Sponsors
- American Society of Civil Engineers, Metropolitan Section, Infrastructure Group
  - The University at Stony Brook, Marine Sciences Research Center
  - Rutgers University, Institute for Marine and Coastal Sciences
  - The New York Academy of Sciences, Engineering Section
  - The Port Authority of New York and New Jersey
  - New York Sea Grant Institute
  - New York State Bar Association, Environmental Law Section
  - Regional Plan Association

# Conference Registration Form

## Metropolitan New York in the Greenhouse: Infrastructure Planning for an Uncertain Future November 3 and 4, 1994

First name	Last name	
Affiliation		
Mailing address		
City	State	Zip
( ) - ( ) -		
Telephone number	Fax Number	

Make your check payable to **Metropolitan Section — ASCE**.  
Please return this form with your full payment to:

Gina Gartin  
Marine Sciences Research Center  
State University of New York  
Stony Brook, New York 11794-5000  
Phone: 516-632-8781 Fax: 516-632-8820

### FEES

Registration fee includes attendance and buffet lunches on both days of the meeting and a buffet supper on Thursday, November 3. If the reservation is made with this form, hotel accommodations are available at Loew's New York Hotel, Lexington Avenue at 51st Street. There is a direct subway connection on the E-train between the hotel and the World Trade Center.  
*No door registration because of security regulations*

Hotel @ \$129 per night (single or double)	Enclosed	
<input type="checkbox"/> Wed. 11/2	<input type="checkbox"/> Thu. 11/3	\$
<input type="checkbox"/> Confirmation requested		
<input type="checkbox"/> Smoking	<input type="checkbox"/> Non-smoking	
Postmarked Before 10/22 After 10/22		
Registration \$190 \$240		\$
Total fees enclosed		\$

Registrations will be accepted after October 22 only if space is available.  
Refund requests will not be honored after October 22, 1994.  
Registration fee is waived for speakers, moderators, and panelists only.