

ANALYSIS OF WORKLOADS AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

June 1987

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.A.1. Regulatory Program Direction</u>					
1. Conduct annual, management level meetings of 5 key regulatory agencies to review LIGMP implementation, problems, priorities, and program source development.	1	NYSDEC, NYSDOH, NCDH, SCDHS, NYCDOH	0.25 (R)	0	-----
2. Perform annual program audits of regulatory programs.	1	NYSDEC NYSDOH	0.5 (R)	0	NCDH, SCDHS, NYCDOH
3. Establish and maintain a listing of priority contaminants for program targeting.	2	NYSDEC NYSDOH	0.2 (NR) 0.05 (R)	0	NCDH SCDHS NYCDOH
4. Assemble and evaluate available information to identify significant concentrations of potential contaminant sources for program targeting.	2	NYSDEC	0.5 (R)	\$1,000 (R) (Computer)	NCDH SCDHS NYCDOH
5. Prepare annual groundwater problem inventory updates.	1	NYSDEC	0.5 (R)	\$250 (R)	NYSDOH, NCDH, SCDHS, NYCDOH
6. Develop and utilize a system of annual LIGMP performance assessment in terms of water quality and quantity indicators.	2	NYSDEC	0.5 (NR) 0.2 (R)	\$250 (R)	NYSDOH, NCDH, SCDHS, NYCDOH

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.A.1. Regulatory Program Direction (Continued)</u>					
7. Maintain the Long Island Groundwater Coordinating Committee as a forum for interagency coordination and information exchange.	2	NYSDEC	0.25 (R)	\$1,000 (R)	LIGCC Members
8. Establish and maintain a New York City interagency committee to provide a better focus on groundwater issues.	1	NYCDEP NYCDOH	-----	-----	NYSDEC, NYSDOH
9. Prepare formal update of LIGMP every three years.	2	NYSDEC	0.2 (R)	\$1,000 (R)	NYSDOH, SCDHS, NYCDOH, LIRBP

IV.A.2. Resource Management Framework

1. Use the hydrogeologic zones in administering management programs.	1	NYSDEC	Policy Recommendation	No Cost	All
2. Produce large scale maps of the hydrogeologic zones to aid program management.	1	NYSDEC	1.0 (NR)	\$1,000 (NR)	NCDH, SCDHS, NYCDOH, LIRBP, USGS
3. Consider essential revisions of the hydrogeologic zone boundaries in conjunction with future LIGMP updates.	2	NYSDEC	(See IV.A.8.)		
4. Regulatory agencies with applicable statutory jurisdiction will consider waivers of zone-based requirements.	3	None	Policy Recommendation	No Cost	All

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.A.2. Resource Management Framework (Continued)</u>					
5. Utilize the Groundwater Flow Regimes as a primary technical basis for groundwater resource management.	1	NYSDEC		No Cost Policy Recommendation	All
6. Utilize the Special Management Areas as a means of geographically targeting groundwater program emphasis.	1	NYSDEC		No Cost Policy Recommendation	NCDH, SCDHS LIRBP, NYCDOH, Towns, NYSDOH
7. Periodically update the lists and maps of Special Management Areas.	2	NYSDEC	0.25 (R)	\$500 (R) Maps	All
<u>IV.A.3. Standards and Classifications</u>					
1. Incorporate Part 703, "Groundwater Classifications, Quality Standards and Effluent Standards", as part of the LIGMP.	1	NYSDEC		No Cost Policy Recommendation	All
2. As part of the LIGMP, maintain the policy that all fresh groundwaters will be preserved for potable water.	1	NYSDEC		No Cost Policy Recommendation	All
3. Establish numerical guidelines and/or standards for all chemicals posing a threat to groundwater quality.	1	NYSDEC NYSDOH	3.0 (R)	\$1,000 (R)	NCDH SCDHS NYCDOH

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.A.4. Monitoring</u>					
1. Develop a groundwater monitoring manual.	2	NYSDEC NYSDOH	1.0 (NR)	\$500 (NR) (Printing)	NCDH, SCDHS, NYCDOH, USGS, Cornell Univ.
2. Conduct an annual review of agency monitoring activities during Regulatory Management Oversight meetings.	2	NYSDEC NYSDOH	0.2 (R)	\$1,000 (R)	NCDH, SCDHS, NYCDOH, USGS
3. Require 90 days prior notification before sealing any well or the extraction of any well casing.	2	NYSDEC	No Cost	Policy Recommendation	NCDH, SCDHS, NYCDOH, USGS
<u>IV.A.5. Groundwater Information System</u>					
1. Continue data entry and verification for priority groundwater information files already established on the System 2000 at SUNY at Stony Brook Computing Center.	1	-----	Under Existing Program		NYSDEC, NCDH, SCDHS, SCWA, LIRPB, Towns
2. Computerize files justifiable for direct program support, including the Well Permit Program Data and the Islandwide Spill Notification and Response Data.	2	NYSDEC	2.0 (R)	\$5,000 (NR) (Hardware) \$5,500 (R) (Timesharing)	-----
3. Institute individual agency data quality assurance programs for data files.	2	-----	2.0 (R)	\$50,000 (R) (Lab Verif- ication Analysis)	NYSDEC, NCDH, SCDHS, NYCDOH, USGS, LIRPB, NYSDOH, Towns

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.A.5. Groundwater Information System (Continued)</u>					
4. Complete FY '81 Management Information System Project.	1	NYSDEC	-----	-----	-----
<u>IV.B.1. Hazardous Material Storage &amp; Handling</u>					
1. Enhance implementation of Suffolk County Article 12.	1	SCDHS	2.0 (R)	-----	-----
2. Conduct a pilot project to evaluate the "site-as-a-system" concept for inspecting complex facilities.	2	NYSDEC	2.0 (NR)	\$1,000 (NR)	NYCH, SCDHS, NYCDOH, Towns
3. Obtain authority and implement strong local bulk storage programs in Nassau County and New York City.	1	NCDH NYCDOH	6.0 (R)	\$200,000 (R) (Lab)	NYSDEC, NYSDOH
4. Implement State Petroleum Bulk Storage Law.	2	NYSDEC	Funding to be accomplished through a Fee System		SCDHS, NCDH, NYCDOH
5. Provide guidance reports on bulk storage.	2	NYSDEC	Under Existing Program		-----
6. Implement the Incompatible Use Law.	2	NYSDEC	2.0 (R)	\$50,000 (R)	SCDHS, NCDH, NYCDEP

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.B.2. Industrial/Commercial Wastes &amp; Hazardous Wastes</u>					
1. Periodically evaluate from Hazardous Waste Manifest, annual generator reports, and Part 360 permit data and identify any needed program modification.	1	NYSDEC	Under Existing Solid Waste Programs		NCDH, SCDHS, NYCDOH
2. Conduct detailed hazardous waste generation surveys on selected representative industrial/commercial areas.	2	NCDH SCDHS NYCDOH	4.0 (NR)	\$10,000 (NR)	NYSDEC, LIRPB, Towns
3. Intensify efforts to establish sites for hazardous waste treatment, storage and disposal facilities in the State.	2	NYSDEC	Cost estimates im-possible in absence of specific identified "needs".		All
4. Aggressively seek remediation funds from Federal Superfund.	1	NYSDEC	Under Existing Programs		-----
5. Aggressively pursue enforcement of hazardous waste violations on Long Island.	2	NYSDEC	Under Existing Programs	\$100,000 (R) (Drilling & Laboratory)	NCDH, SCDHS, NYCDOH
6. Staff and train Region 1 and 2 Offices to implement existing industrial waste and hazardous waste regulations.	1	NYSDEC	2.0 (R) (See Also (IV.B.1.2.) Laboratory Training)	\$50,000 (R)	-----
7. Evaluate regionalizing Part 364 permits.	2	NYSDEC	0.5 (NR)	-----	-----

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.B.2. Industrial/Commercial Wastes &amp; Hazardous Wastes (Continued)</u>					
8. Implement procedures for local health department review and comment on Part 364 permits.	3	NYSDEC	0.6 (R)	-----	NCDH, SCDHS, NYCDOH
9. Complete the Long Island portion of the State Hazardous Waste Management Plan.	3	NYSDEC	2.0 (NR)	\$1,500 (NR) (Printing)	NCDH, SCDHS, NYCDOH, LIRPB
<u>IV.B.3. Municipal Solid Waste Management</u>					
1. Conduct an environmental and operational evaluation of landfills on Long Island, and establish a priority list and schedule for closure, including all sites in the Deep Recharge Areas.	1	NYSDEC	2.5 (NR)	-----	NCDH, SCDHS
2. Complete the Long Island Regional Solid Waste Management Plan.	2	NYSDEC LIRPB	0.5 (NR)	\$200,000 (NR) (Contract with LIRPB)	NCDH, SCDHS, Towns
3. Strengthen Long Island administration and enforcement of the non-hazardous solid waste program and provide technical assistance to local governments in developing resource recovery projects.	1	NYSDEC	3.0 (R)	\$50,000 (R) (Drilling & Lab Analysis)	-----



ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	OTHER AGENCIES
<u>IV.B.3. Municipal Solid Waste Management (Continued)</u>					
4. Establish a system of priorities to determine use of available program resources for Solid Waste regulatory programs.	1	NYSDEC	Under Existing Solid Waste Programs		-----
<u>IV.B.4. Municipal, Industrial &amp; Commercial Wastewater Discharge</u>					
1. Establish geographic and categorical priorities for administering the SPDES program on Long Island.	1	NYSDEC	Under Existing Water Programs		-----
2. As part of a Statewide effort, implement specific DEC commitments to improve the administration and enforcement of the SPDES Permit Program.	1	NYSDEC	Under Existing Water Programs Plus: 3.0 (R) \$100,000 (R) (Lab Analysis) \$5,000 (NR) (Computer Equipment) \$7,500 (R) (EDP & Seminar Costs)		-----
3. Manage SPDES permits within the pilot study of Site-as-a-System Management (IV.B.1.).	2	NYSDEC	0.5 (NR) \$2,500 (NR) (Computer Support)		NCDH, SCDHS

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.B.4. Municipal, Industrial &amp; Commercial Wastewater Discharge (Continued)</u>					
4. Continue efforts to establish standards for toxic organic chemicals (same as IV.A.3.3.).	1			See IV.A.3.: Standards and Classifications	
5. Investigate ways to delegate elements of the SPDES program to Long Island County and New York City Health Departments.	3	NYSDEC	0.25 (NR)	0	Conference of Local Public Health Directors

IV.B.5. On-Site Sanitary Wastewater Disposal

1. Continue to administer Suffolk County Sanitary Code, Article 6, to limit the density of new on-lot disposal systems.	1	SCDHS		Under Ongoing Program	-----
2. Develop model local zoning provisions and site development guidelines and advise local governments on their use.	1	LIRPB		Carry out thru NPS Handbook development and as part of ongoing programs.	Towns, Villages
3. Review findings of Consumer Products Project and implement any needed product controls (Homeowner's BMP's).	2	NYSDEC	1.0 (NR) 0.5 (R)	\$50,000 (NR) \$10,000 (R)	NCDH, SCDHS, LIRPB, NYCDOH
4. Develop regulations to fully implement ECL Article 39 on septic system additives.	2	NYSDEC	1.0 (NR) 0.5 (R)	\$20,000 (NR) \$10,000 (R)	NYSDOH, NYCDOH, NCDH, SCDHS

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.B.5. On-Site Sanitary Wastewater Disposal (Continued)</u>					
5. Continue investigations of on-site system design modifications and pilot study of maintenance districts.	2	SCDHS	Under Existing Program		-----
<u>IV.B.6. Pesticides and Fertilizers</u>					
1. Research methods to reduce use of agricultural chemicals in Eastern Suffolk County.	2	Cornell Univ. Coop. Ext.		\$50,000 (R)	NYSDEC, SCDHS
2. Implement recently revised FIFRA pesticide screening procedures.	1	USEPA	Federal Efforts at National Level		-----
3. Monitor implementation of revised FIFRA procedures and assess need for additional State actions.	1	NYSDEC	0.3 (NR)	0	NYSDOH, SCDHS
4. Consult on State registration of new pesticides, impose necessary monitoring requirements, and withdraw registration on evidence of unacceptable leaching.	1	NYSDEC	0.5 (R)	0	NYSDOH, SCDHS
5. Continue pesticide monitoring programs and identification of appropriate water supply options.	1	SCDHS		\$260,000 (R)	NYSDEC, NYSDOH

NOTE: This and all other monitoring studies should be evaluated annually with-in management level meetings of IV.A.1.1.1.

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.B.6. Pesticides and Fertilizers (Continued)</u>					
6. Develop model local zoning provisions and site development guidelines to reduce fertilizer use and advise local governments concerning implementation.	2	LIRPB	Carry out thru NPS Handbook development and as part of ongoing programs.		Towns, Villages
7. Develop brochures and pamphlets on the use of alternate ground covers.	2	LIRPB	0.5 (NR)	\$10,000 (NR) (Printing)	Cooperative Ext.
<u>IV.B.7. Special Groundwater Protection Areas</u>					
1. Promote local agency designation of SGPA's as "critical environmental areas" under SEQRA.	1	NYSDEC LIRPB	0.5 (R)	\$2,000 (R) (Printing, Maps, Meetings))	Towns, Villages
2. Revise status of critical area designations and, if justified, propose legislation to allow State designation under SEQRA.	3	NYSDEC	0.1 (NR) (Review) 0.5 (NR) (Regulations)	\$10,000 (NR) (Hearings)	LIRBP
3. Conduct special interdisciplinary permit reviews, emphasizing groundwater protection, within Special Groundwater Protection Areas.	1	NYSDEC SCDHS NCDH NYCDOH	0.4 (NR) (Revised Program) 2.0 (R)	0	-----

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.B.7. Special Groundwater Protection Areas (Continued)</u>					
4. Develop a model local zoning ordinance and technical guidance manual and advise local governments on their use.	1	LIRPB	Carry out thru NPS Handbook development and as part of ongoing programs.		NYSDEC, SCDHS, NCDH, Towns, Villages
5. Prepare watershed management strategies for the identified Special Groundwater Protection Areas.	2	LIRPB	6.0 (NR)	\$10,000 (NR) (Maps and Printing)	NYSDEC, SCDHS, NCDH, Towns, Villages
NOTE: This is the Planning called for in Item 6. below.					
6. Develop proposed Federal and State companion legislation for planning in Special Groundwater Protection Areas.	2	NYSDEC, Legislative Commission	0.5 (NR)	0	LIRPB, SCDHS, NCDH, Towns, Villages

IV.C.1. Groundwater Quantity Management through the Long Island Well Permit Program

1. Refine and augment the Long Island Well Permit Program to achieve regional quantity management.	1	NYSDEC	1.0 (NR) 2.0 (R)	\$50,000 (R) (DEC share) USGS contract) \$1,000 (R) (Computer Services, Maps, Printing)	-----
--	---	--------	---------------------	---	-------

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.C.1. Groundwater Quantity Management through the Long Island Well Permit Program (Continued)</u>					
1. Maintain Islandwide technical, hydro-geologic data base and resource assessment function.	1	USGS	2.0 (R) 4.0 (NR)	\$5,000 (R) (Computer Support)	NYSDEC
2. Seek legislative authority for DEC to require monitoring and reporting of agricultural irrigation pumpage.	2	Legislative Commission	Part of Ongoing Activities		NYSDEC
3. Update the map of quantity stressed areas every three (3) years.	1	NYSDEC	0.5 (R) (3-yr. interval)	\$1,000 (R) (Computer interval)	USGS, NCDH, SCDHS, NYCDEP
4. Prepare area-specific management strategies for areas identified as quantity stressed and impending quantity stressed.	1	NYSDEC NYSDOH	1.0 (R)	\$2,500 (R) (Computer Support)	SCDHS, NYCH, NYCDOH, Towns, Cities

IV.C.2. Regional Quantity Issues

1. Prepare a regional water quantity/water supply strategy plan for Long Island.	2	NYSDEC NYSDOH	3.0 (NR)	\$150,000 (NR)	Legislative Commission, NYCDEP, NCDH, SCDHS
2. Verify and confirm the preliminary findings of the Brooklyn/Queens Aquifer Management Feasibility Study.	2	NYCDEP USGS	1.0 (NR)	\$60,000 (NR) (USGS Coop. Agreement)	NYSDEC, NYSDOH, Corps of Engrs.
3. Plan for the interconnection and complementary utilization of the Jamaica Water Supply system and the NYC surface supply system.	2	NYCDEP, Jamaica Water Supply Co.	2.0 (NR)	\$200,000 (NR)	NYSDEC, NYCDOH, NYSDOH

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.C.2. Regional Quantity Issues (Continued)</u>					
4. Revise and modify Jamaica Water Supply Well permits to reduce existing stresses on the aquifer.	1	NYSDEC	1.0 (NR)	\$10,000 (NR) (Hearings)	USGS, NYCDEP
5. Implement priority short-term recommendations of the proposed Nassau County Water Supply Plan.	1	NCDH NCDPW	1.5 (NR)	\$2,500,000 (NR) *	NYSDEC, NYSDOH
6. Better define the hydrology, safe yield, and saltwater interface of the Lloyd and Magothy Aquifers in Nassau County.	2	NCDH USGS	2.0 (NR)	\$200,000 (NR)	NYSDEC
<u>IV.C.3. Groundwater Flooding</u>					
1. Carry out a study of options to solve the groundwater flooding problems in Brooklyn and Queens.	2	NYCDEP	2.0 (NR)	\$200,000 (NR)	USGS
2. Develop a map of maximum groundwater table elevations.	2	USGS	2.0 (NR)	\$50,000 (NR)	NYSDEC
3. LIRPB and NYC Planning Department should incorporate the maps of maximum groundwater table elevations into their planning activities.	2	LIRPB NYC Planning	No Cost Policy Recommendation		Counties, Towns

\* Included for information, but not added to program costs due to inclusion of capital construction in the estimate.

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.C.4. Water Conservation</u>					
1. Actively promote water conservation.	2	All	Within Ongoing Programs		-----
2. Implement water conservation recommendations of Nassau County Master Water Supply Plan.	1	NCDH NCDPW	See Item IV.C.2.5.		NYSDEC
3. Continue implementation of ECL Section 15-0314 requiring water saving plumbing fixtures including enforcement.	2	NYSDEC	0.5 (R)	0	-----
4. Require water conservation measures as a condition of Long Island Well Permits and Water Supply Permits, as needed in areas of impending and existing quantity stress.	1	NYSDEC	Part of IV.C.1., Ground-water Quantity Management, through Long Island Well Permits.		Water Purveyors
5. Evaluate potential application of water conservation measures on Long Island and likely impact.	3	NYSDEC NYSDOH	1.0 (NR)	0	Legislative Commission
<u>IV.C.5. Water Recharge</u>					
1. Require the subsequent recharge of suitable quality water, where appropriate.	2	NYSDEC	Part of IV.C.1., Ground-water Quantity Management, through Long Island Well Permits.		USGS
2. Prepare and periodically update a map showing general areas of high and low water table elevations (see IV.C.1.1.).	2	NYSDEC	0.25 (R)	\$200 (R) (Maps)	USGS



ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.C.5. Water Recharge) (Continued)</u>					
3. Develop model local zoning ordinance and guidance covering on-site recharge of stormwater.	2	LIRPB	Carry out thru NPS Handbook development and as part of ongoing program.		NCDH, SCDHS, NYSDOH, NYSDEC, Towns
4. Continue demonstration project on AWT/aquifer recharge in Nassau County and evaluate future application elsewhere.	2	NCDPW	Part of ongoing 201 Study		NCDH, SCDHS, NYSDOH, NYSDEC
5. Evaluate recharge as an element of conjunctive groundwater/surface water management in Brooklyn/Queens.	2	NYCDEP	Included in IV.C.2., Items 2 and 3.		USGS
<u>IV.D. Zoning and Land Development Controls</u> (See Sections IV.B.5., IV.B.6., IV.B.7., IV.C.1., and IV.C.4.)					
<u>IV.E.1. Spill Response</u>					
1. Prepare and disseminate a guidance document addressing petroleum and hazardous material spills and cleanup.	2	NYSDEC	1.0 (NR)	\$3,000 (NR) (Printing)	State Comptroller
2. Develop an ongoing training program for spill response personnel.	2	NYSDEC	0.5 (R)	\$1,000 (R)	NYCDOH, NCDH, SCDHS
3. Provide guidance on disposal of hazardous material resulting from spill cleanup.	2	NYSDEC	0.5 (NR)	\$2,000 (NR)	NCDH, SCDHS, NYCDOH

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.E.1. Spill Response (Continued)</u>					
4. Develop end-point criteria for petroleum and hazardous materials spill cleanup.	2	NYSDEC, State Comptroller	1.0 (NR)	\$200,000 (NR) (Contract)	NCDH, SCDHS, NYCDOH
5. Evaluate non-petroleum hazardous material spill response needs on Long Island and report on findings.	1	SCDHS NCDH NYCDOH	3.0 (NR)	0	NYSDEC, NYSDOH
6. Maintain a responsive level of enforcement activity to recover the cost of cleanup activities from the spiller.	2	NYSDEC	2.0 (R)	\$100,000 (R) (Analytical Lab Support & Well Drilling)	NCDH, SCDHS, NYCDOH

IV.E.2. Management of Contaminated Aquifer Segments

1. Maintain capacity to perform trackdown on sources of significant contamination incidents.	2	NYSDEC, NCDH, SCDHS, NYCDOH	See Item IV.E.1.6. Above		-----
2. Develop and maintain a priority system for contamination source trackdown.	1	NYSDEC NYSDOH	0.2 (R)	0	NYCDOH, NCDH, SCDHS
3. Develop and periodically update (3-year cycle) a document which identifies, describes, and maps all known contaminated aquifer segments.	2	NYSDEC	0.5 (R)	\$1,000 (R)	NYCDOH, NCDH, SCDHS
4. Develop response strategies for contaminated aquifer segments to protect water supply wells.	2	SCDHS NCDH NYCDOH	1.0 (R)	0	NYSDEC, NYSDOH, USGS

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.E.2. Management of Contaminated Aquifer Segments (Continued)</u>					
5. Execute a demonstration project to evaluate the effectiveness of unproven management technologies for contaminated aquifer segments.	3	NYSDEC	1.5 (NR)	\$500,000 (NR)	NCDH, SCDHS, USGS
<u>IV.E.3. Wellhead Treatment</u>					
1. Maintain an ongoing technology assessment function on wellhead treatment methods.	2	NYSDOH	0.25 (R)	0	NCDH, SCDHS, NYCDOH
2. Prepare and maintain guidance for water purveyors on availability and costs of wellhead treatment.	2	NYSDOH	0.25 (R)	0	NCDH, SCDHS, NYCDOH
3. Perform pilot water supply treatment project for pesticides and nitrates.	2	SCDHS	Funded Through EPA R&D Grant		EPA, NYSDOH
<u>IV.E.4. Water Main Extension/Water Importation</u>					
1. Identify areas needing public water, establish priorities, estimate costs, and investigate alternatives.	2	SCDHS	Part of Ongoing County-Funded Project		NYSDEC, NYCDOH, PSC, NYS Legislature

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.E.4. Water Main Extension/Water Importation (Continued)</u>					
2. Identify areas most appropriately served through the establishment of Water Quality Treatment Districts and propose the establishment of county districts to do so.	2	SCDHS	1.0 (NR)	\$50,000 (NR)	NYSDOH
3. Evaluate treatment technology for private residential water treatment systems and monitor effectiveness of those presently in use.	2	SCDHS	0.5 (R)	-----	NYSDOH
4. Examine the need for government subsidy of water supply extensions and develop needed legislation.	2	Legislative Comm. on Water Resource Needs of Long Island	Covered under existing funding of State Legislative Commission		SCDHS, NYCDOH, NYSDEC
<u>IV.E.5. Sewering</u>					
1. Perform an inventory of areas likely to require detailed evaluations for sewerage to prevent or reduce contamination and estimate study costs.	2	NCDH SCDHS	0.5 (NR)	\$2,000 (NR) (Printing)	NYSDEC
2. Review above report and recommend feasible options for accomplishing the needed evaluations.	2	NYSDEC	0.2 (NR)	0	NCDH, SCDHS

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.F. Regulatory Enforcement</u>					
1. Implement the DEC commitments for SPDES enhancement. (These commitments relate to the enforcement of all regulatory programs.)	1	NYSDEC	See Item IV.B.4.2.	-----	-----
2. Enhance analytical capability and surveillance to support enforcement of all major contaminant source control programs.	1	NYSDEC, NYSDOH, NCDH, SCDHS, NYCDOH	3.0 (R) (1 Attorney, 2 ECO's)	-----	-----
3. Annually review effectiveness of enforcement activities, functional and geographical priorities, and levels of resource deployment.	1	NYSDEC NYSDOH	See Item IV.A.1.		NCDH, SCDHS, NYCDOH
4. Place higher enforcement priority in the area of industrial establishments discharging without a proper permit.	1	NYSDEC	Statement of Policy, Work Load included in IV.B.4.		NCDH, SCDHS, NYCDOH, Towns
5. Evaluate the use of DOH watershed rules and regulations to strengthen water quality program enforcement on Long Island.	1	NYSDOH NYSDEC	0.5 (NR)	0	NCDH, SCDHS, NYCDOH, Water Purveyors

IV.G. Public Education and Participation

- |   |   |                    |                                      |     |
|---|---|--------------------|--------------------------------------|-----|
| 1. Implement "long term" educational approach through curriculum development. | 2 | SUNY @ Stony Brook | Funded separately by NYS Legislature | All |
|---|---|--------------------|--------------------------------------|-----|

ANALYSIS OF WORKLOAD AND COSTS  
LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM

RECOMMENDED ACTION	PRIORITY	LEAD AGENCY	AGENCY COSTS		OTHER AGENCIES
			PERSONAL SERVICES (Man-Years)	NON-PERSONAL SERVICES (Dollars)	
<u>IV.G. Public Education and Participation (Continued)</u>					
2. Develop and implement an information and education program on Long Island Groundwater.	2	NYSDEC, NYSDOH, NCDH, SCDHS, NYCDOH	2.0 (R)	\$4,000 (R) (Publications)	Legislative Comm. LIRPB, USGS, Coop. Ext., Others
3. Carry out annual review of educational activities and materials at annual Regulatory Management Oversight meetings.	1	NYSDEC NYSDOH	See Item IV.A.1.		NCDH, SCDHS, NYCDOH
4. Promote the involvement of all agencies in outreach to the general public on groundwater.	2	LIGCC	See Item IV.A.1.c.		All
5. Conduct a public participation program for this Long Island Groundwater Management Program.	1	NYSDEC	Completed		LIRPB, NYCDOH, SCDHS, NYSDOH, USGS