Table 2: Summary of Selected Remedies and Previous Actions

Previous Decisions and Action Memoranda					
AOC No.	**Name**	**Past and/or Continuing Response Actions**	**Monitoring / Maintenance**	**Remedial Action Reference**	**Current Status**
N/A	OU III Groundwater Removal Action (at BNL South Boundary)	Extraction of contaminated groundwater from a series of extraction wells at the southern boundary, treatment via air stripping and discharge to a new recharge basin. This Action will continue as part of the selected remedy.	Continued operation and maintenance of groundwater treatment system. Groundwater monitoring	BNL, 1997a.	Began operation in June 1997.
N/A	OU III Off-Site Groundwater Removal Action	In-well stripping to hydraulically contain and treat the highest concentrations of TVOC off-site in industrial complex south of BNL. This Action will continue as part of the selected remedy.	Continued operation and maintenance of groundwater treatment system. Groundwater monitoring	BNL, 1998a.	Began operation in September 1999.
AOC - 27	On-Site OU III Carbon Tetrachloride Tank Groundwater Removal Action	Extraction of contaminated groundwater, treatment via an activated carbon filter and discharge on-site. Off site disposal of the spent carbon. This Action will continue as part of the selected remedy.	Continued operation and maintenance of groundwater treatment system. Groundwater monitoring.	BNL, 1999a.	Began operation in January 1999.
N/A	Public Water Hookup Removal Action	Connection of private well users south of BNL to the public water supply.	The Suffolk County Water Authority monitors the public water quality on a regular basis.	BNL, 1996b.	Started in 1996 and completed in 1998.
AOC-11 & 12	Building 830 Underground Storage Tanks Removal Action	Excavation and removal of contaminated soils, valve pit, pipes, trees, and tanks has been completed. Off-site disposal of waste materials is underway.	Groundwater monitoring.	BNL 1998d.	Excavation completed in February 1999.
AOC-29	Tritium Groundwater Interim Removal Action	Removal of spent fuel and tritium contaminated water from the spent fuel pool in 1997; installation of a stainless steel liner prior to reuse; elimination of other potential sources of leakage; and installation and operation of a pump and recharge system for tritium contaminated groundwater at the leading edge of the plume. The pump and recharge system will become part of the contingency remedy for this plume and will continue operation for a maximum of 1 year past the signing of the OU III ROD.	Well sampling and groundwater monitoring, and installation of a new pool liner for the Spent Fuel Pool.	BNL, 1997c.	Pump and recharge system began operation in 1997.

Table 2: Summary of Selected Remedies and Previous Actions (continued)

AOC No.	Name	Past and/or Continuing Response Actions	Monitoring / Maintenance	Remedial Action Reference	Current Status
Previous Decisions and Action Memoranda (continued)					
AOC-14	Cesspools/Septic Tanks Removal Action	Cesspools and septic tanks were filled for these following buildings: 919/919A-1, 919/919A-2, 919/919A-ST, 919B/975-1, and 919B/975-2.	None required.	BNL, 1994a.	Completed in 1994.
Current Decisions in OU III ROD: Strontium-90 Contaminated Groundwater					
AOC-9	Brookhaven Graphite Research Reactor (BGRR) including Pile Fan Sump (AOC 9D)	Alternative S5a will provide groundwater extraction, treatment via ion exchange, and on-site discharge. Contaminated soils associated with the BGRR and the Pile Fan Sump will be addressed in the ROD for the BGRR.	Operation and maintenance of groundwater treatment system. Groundwater monitoring.	Groundwater only: IT, 1999b. BNL, 1999b.	Planned action upon OU III ROD approval.
AOC-10	Waste Concentration Facility	Alternative S5a will provide groundwater extraction, treatment via ion exchange, and on-site discharge. Source remediation for the contaminated soils and out-of-service tanks at the Waste Concentration are addressed in the OU I ROD.	Groundwater monitoring.	Groundwater only: IT, 1999b. BNL, 1999b. Source Areas: BNL, 1999c.	Planned action upon OU III ROD approval.
AAI-1	Strontium-90 Groundwater Plume at the Former Landfill Area (AOC 2) in OU I	Alternative S5a will provide groundwater extraction, treatment via ion exchange and on-site discharge. The Former Landfill and Slit Trench (AOCs 2A and E) were capped in 1996; the Chemical/Animal Pits and Glass Holes (AOCs 2B and C) were excavated in the summer of 1997 and the Interim Landfill (AOC 2D) was capped in September 1997 as Removal Actions. These removal actions are adopted as final remedies in the OU I ROD.	Operation and maintenance of groundwater treatment system. Groundwater monitoring. Maintenance of landfill caps as part of OU I.	Groundwater only: IT, 1999b. BNL, 1999b. Source Areas: BNL, 1996a. BNL, 1997b.	Planned action upon OU III ROD approval.

Table 2: Summary of Selected Remedies and Previous Actions (continued)

AOC No.	Name	Selected Remedial Actions	Monitoring / Maintenance	Remedial Action Reference	Current Status
Current Decisions in OU III ROD – Tritium Contaminated Groundwater					
AOC-29	Spent Fuel Pool at the HFBR	Alternative T4 will provide monitored natural attenuation with contingencies using the existing pump and recharge system and a low-flow extraction system to be installed close to the HFBR.	Groundwater monitoring.	IT, 1999b. BNL, 1999b.	Planned action upon OU III ROD approval.
Current Decisions in OU III ROD - VOC Contaminated Groundwater					
AOC-14	Bubble Chamber Spill Area	VOC Alternative 10c will provide a combination of active groundwater treatment using in-well air stripping and pump and treat technologies and groundwater monitoring to meet remedial action objectives both on and off the BNL site. Cesspools and septic tanks were previously removed as part of the Cesspool/Septic Tank Removal Action.	Groundwater monitoring. Institutional controls.	IT, 1999b. BNL, 1999b.	Planned action upon OU III ROD approval.
AOC-15	Potable, Supply and Monitoring Wells	VOC Alternative 10c will provide a combination of active groundwater treatment using in-well air stripping and pump and treat technologies and groundwater monitoring to meet remedial action objectives both on and off the BNL site.	Groundwater monitoring. Institutional controls. Potable wells are monitored quarterly for compliance with the Safe Drinking Water Act. A number of BNL's potable and supply wells have well head protection.	IT, 1999b. BNL, 1999b.	Planned action upon OU III ROD approval.
AOC-24A	Process Supply Wells	VOC Alternative 10c will provide a combination of active groundwater treatment using in-well air stripping and pump and treat technologies and groundwater monitoring to meet remedial action objectives both on and off the BNL site.	Groundwater monitoring. Institutional controls. A number of BNL's potable and supply wells have well head protection and these wells are monitored for compliance with the Safe Drinking Water Act.	IT, 1999b. BNL, 1999b.	Planned action upon OU III ROD approval.
AOC-26A	Building 208	VOC Alternative 10c will provide a combination of active groundwater treatment using in-well air stripping and pump and treat technologies and groundwater monitoring to meet remedial action objectives both on and off the BNL site. Remedial Investigation and PA/SI groundwater sampling did not indicate levels of VOCs in the groundwater at Building 208 that require active remediation.	Groundwater monitoring. Institutional controls.	IT, 1999b. BNL, 1999b. PWG, 1999b.	Planned action upon OU III ROD approval.
AOC-26B	Building 96	A source removal system using re-circulation wells with air stripping treatment of VOC contaminated groundwater at this AOC will be provided as part of VOC Alternative 10c.	Groundwater monitoring. Operation and maintenance of groundwater treatment system.	IT, 1999b. BNL, 1999b. PWG, 1999a.	Planned action upon OU III ROD approval.

Table 2: Summary of Selected Remedies and Previous Actions (Continued)

AOC No.	Name	Selected Remedial Actions	Monitoring / Maintenance	Remedial Action Reference	Current Status
Current Decisions in OU III ROD – VOC Contaminated Groundwater (continued)					
AAI-2	OU I/IV Groundwater Investigation	VOC Alternative 10c will provide a combination of active groundwater treatment using in-well air stripping and pump and treat technologies and groundwater monitoring to meet remedial action objectives both on and off the BNL site. Removal Actions were conducted on the following source areas for these groundwater plumes: The Current Landfill (AOC 3) was capped in 1995. The Former Landfill and Slit Trench (AOCs 2A and E) were capped in 1996. The Chemical/Animal Pits and Glass Holes (AOCs 2B and C) were excavated in the summer of 1997. The Interim Landfill (AOC 2D) was capped in September 1997. These removal actions are adopted as final remedies in the OU I ROD for these source areas.	Groundwater monitoring. Public water has been provided to the area south of BNL where these plumes are. Suffolk County Building codes require new construction to connect to public water where available.	Groundwater: IT, 1999b. BNL, 1999b. Source Areas: BNL, 1994c. BNL, 1996a. BNL, 1997b.	Planned action upon OU III ROD approval.
Suspected Source Area Decisions in OU III ROD					
AOC-7	Paint Shop	The Building 244 (Paint Shop) excavation for paint contaminated soils was completed in May 1989. Post excavation and Operable Unit III Remedial Investigation soil samples showed no significant contamination. The post excavation data is documented in SAIC, 1991.	Groundwater monitoring.	IT, 1999b. BNL, 1999b.	Documented in OU III ROD.
AOC-18	AGS Scrapyard	Soil contamination is addressed in the OU I ROD. The OU III Remedial Investigation did not indicate contaminated groundwater from this AOC that required remediation.	Groundwater monitoring.	IT, 1999b. BNL, 1999b.	Documented in OU III ROD.
AOC-19	Trichloroethene (TCE) Spill Area	The OU III Remedial Investigation work did not locate a source area that required remediation.	Groundwater monitoring.	IT, 1999b. BNL, 1999b.	Documented in OU III ROD.
AOC-20	North End of Linear Accelerator (LINAC) including Recharge Basin HT	Contaminated soil at this AOC is addressed in the OU I ROD. Basin HT receives once-through cooling water and cooling water blowdown from the AGS and is permitted by NYSDEC. It is also a potential Tiger Salamander habitat. Sediment sampling conducted during the Remedial Investigation showed elevated contaminant levels and that additional sampling is required. A minimum of five surface water and sediment samples will be collected in spring 2000. The Basin will also be evaluated during spring and summer 2000 to determine if it is a tiger salamander breeding habitat. If the results of this evaluation and the additional data indicate to the DOE, EPA or NYSDEC that additional investigation or remediation is needed, the three parties will meet to discuss what additional actions need to be taken.	Continue monitoring and maintenance as required by BNL's SPDES permit (Outfall 006, in permit NY-0005835) from NYSDEC and as outlined in BNL's Wildlife Management Plan. This Plan contains activities designed to reduce potential impacts to the Tiger Salamander by BNL activities. Groundwater monitoring.	IT, 1999b. BNL, 1999b.	Documented in OU III ROD.

Table 2: Summary of Selected Remedies and Previous Actions (continued)

Suspected Source Area Decisions in OU III ROD(continued)					
AOC No.	**Name**	**Selected Remedial Actions**	**Monitoring / Maintenance**	**Remedial Action Reference**	**Current Status**
AOC-21	Leaking Sewer Pipes	Approximately 18,000 linear feet of old sewer lines have been replaced or upgraded to date. An additional 10,000 linear feet are scheduled to be replaced and/or upgraded by the end of 2000 as part of BNL's construction and maintenance program.	Groundwater monitoring.	IT, 1999b. BNL, 1999b.	Documented in OU III ROD.
AOC-22	Old Firehouse	Excavation of contaminated soils/concrete at the Old Firehouse was completed in March 1986. The OU III Remedial Investigation confirmed that no further action is required at this AOC. Post excavation data is documented in SAIC, 1991.	None required.	IT, 1999b. BNL, 1999b.	Documented in OU III ROD.
AOC-24B	Recharge Basin HP	This basin receives once-through cooling water from the Brookhaven Medical Research Reactor, which is permitted by NYSDEC as Outfall 004 under BNL's SPDES permit, and is also a potential Tiger Salamander habitat. Sediment sampling conducted during the Remedial Investigation indicated no need for sediment removal.	Continue monitoring and maintenance as required by BNL's SPDES permit (NY-0005835) and as outlined in BNL's Wildlife Management Plan. This Plan contains activities designed to reduce potential impacts to the Tiger Salamander by BNL activities.	IT, 1999b. BNL, 1999b.	Documented in OU III ROD.
AOC-24C	Recharge Basin HN, Alternating Gradient Synchrotron (AGS)	This basin receives once-through cooling water and cooling tower blow-down from the AGS and stormwater runoff. These discharges are permitted by NYSDEC (Outfall 002 on BNL's SPDES permit). This is also a potential Tiger Salamander habitat. Sediment sampling conducted during the Remedial Investigation indicated no need for sediment removal.	Continue monitoring and maintenance as required by BNL's SPDES permit (NY-0005835) and as outlined in BNL's Wildlife Management Plan. This Plan contains activities designed to reduce potential impacts to the Tiger Salamander by BNL activities.	IT, 1999b. BNL, 1999b.	Documented in OU III ROD.
AOC-25	Heavy Machine Shop	Excavation of PCB contaminated soils completed in August 1992. Soils were disposed of off-site. Cleanup approved by EPA and NYSDEC.	Groundwater monitoring.	BNL, 1993. IT, 1999b. BNL, 1999b.	Documented in OU III ROD.
AOC-26A	Building 208 in Warehouse Area	Vapor Degreaser removed. Oil/water separators removed in 1999 as part of the Facility Site Review project at Buildings 206, 208 and 209. This work was performed under the supervision of the Suffolk County Department of Health Services.	Groundwater Monitoring.		Documented in OU III ROD.
AOC-26B	Building 96 (PCB soil contamination)	Excavation and off site disposal of the PCB contaminated soils above the New York State cleanup level (1 ppm) will be performed.	Not applicable.	PWGa, 1999.	Planned action upon OU III ROD approval.
AOC-27	Building 464 (Former Chemistry Complex)	Excavation of mercury/PCB contaminated soil was completed in September 1993. Contaminated soil was disposed of off-site. An old carbon tetrachloride tank was removed in 1998 as part of the Facility Site Review Project. Neutralization Pits will be located and remediated if necessary as part of the Facility Site Review Project. This work will be performed under the oversight of Suffolk County Department of Health Services.	Groundwater monitoring.	BNL, 1994a. BNL, 1998b. IT, 1999b. BNL, 1999b.	Documented in OU III ROD.