

TABLE VIII-5

Recommended Actions - Water Resources

Issue	Recommended Action	Partnering Organizations/Agencies	Funding	Priority & Steps of Action	Priority Area
Water Resources					
Stormwater Management				HHH	Watershed-Wide
	Educate citizens about stormwater BMPs and alternatives to impervious surfaces: what they are, why they are needed, and how to implement them.	CD, DEP, CD, DEP, USACOE	DCNR	1	
	Encourage homeowners to reduce the use of lawn chemicals that could pollute stormwater runoff.	JCWP, WS, PSCE, CD, RC&D, NPO, DEP, CP	DEP, DCNR, PSCE	1	
	Establish streamside buffers to filter stormwater runoff.	CD, NRCS, DEP, BP, Munic	BP, NRCS, DCNR, DEP	1	
	Implement storm drain stenciling programs to deter waste dumping.	JCWP, WS, NPO, Munic, CBF	DCNR, DEP	1	
	Incorporate stormwater management requirements in local subdivision and zoning ordinances.	Munic, CP, CD	DCED, DEP	1	
	Install filters at storm drains to clean runoff.	Munic, WS	DCED, DEP	1	
	Promote and provide assistance and funding for Act 167 stormwater management planning and implementation.	CP, DEP, CD, JCWP, USACOE	DEP, Pennvest	1	
	Provide assistance to separate existing Combined Sewer Overflows (CSOs).	CP, Munic, DEP, EPA, USACOE	DEP, DCNR, Pennvest	1	
	Restore and construct wetlands to hold and clean stormwater runoff.	CD, Munic, CP, NPO, WS	NRCS, DEP	1	
	Consider developing stormwater authorities to manage and fund the construction of stormwater management facilities.	CP, Munic		2	
	Construct demonstration areas of stormwater BMPs.	CD, RC&D, SEDACOG, SAPDC, PC	DEP, DCNR	2	
	Promote EPA wastewater regulations for stormwater management.	CP, Munic		2	
	Provide assistance for the construction and updating of stormwater management facilities (emphasizing alternative systems) and drains.	CP, Munic, DEP, EPA, USACOE	DEP, DCNR, Pennvest	2	
	Research ways to capture, store, and utilize stormwater as a net benefit to communities.	Munic, CP, NPO	DEP, Pennvest	2	
Water Monitoring				HHH	Watershed-Wide
	Assist in the formation of water monitoring groups, e.g. Senior Environment Corps, and watershed associations.	JCWP, NPO, WS, CD, DEP, USGS	DEP	1	
	Develop plan on how water quality data will be used.	JCWP, DEP, CVI	DEP	1	
	Gather all available data. Work with all existing monitors.	JCWP, DEP, ALLARM	DEP	1	
	Involve residents in identifying concerns and in monitoring.	DEP, JCWP		1	
	Organize and implement a consistent and comprehensive water monitoring/sampling program.	JCWP, DEP, CVI, DCNR, YCC, SRBC	CVI, Heinz, DEP, EPA, BP	1	
	Perform baseline watershed assessments of point and non-point sources of pollution.	JCWP, USGS, SRBC, DEP	USGS, SRBC, DEP	1	
	Provide training for water monitors/citizen groups.	EASI, DEP, JC, JCWP, ALLARM	DEP, DCNR	1	
	With DEP as the central repository for water monitoring data, the JCWP should develop a central hub for distributing watershed-wide data, utilizing web GIS technology.	JCWP, PFBC, DEP	DEP, DCNR	1	
	Begin a Keeper program for the Juniata River.	JCWP, WS	DCNR, DEP	2	
	Collect information on TMDLs in the watershed and incorporate into a water monitoring program.	JCWP, DEP, USACOE	DEP, USACOE	2	

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Water Resources					
Water Monitoring				HHH	Watershed-Wide
	Develop and implement surveys to determine the existence of aquatic and riparian species of concern. Assist with the development of management plans for each identified species.	PFBC, USFWS, DEP, USACOE	DCNR, USACOE	2	
	Ensure that local officials receive monitoring data.	JCWP, WS	DEP	2	
	Expedite watershed assessment (305(b)) to identify impaired waters (303(d)) and establish TMDLs.	DEP, JC, PSU, JCWP, ALLARM, USACOE	DEP, USACOE	2	
	Identify streams that need to be monitored, e.g. recovering streams and streams in danger.	PFBC, USFWS, DEP, USACOE	PFBC, USFWS, USACOE	2	
	Implement a range of stream assessments, including chemical, biological, and habitat.	EASI, WS, RSVP, USACOE	USACOE	2	
	Participate in public meetings on TMDLs for specific stream reaches, and develop water monitoring as a follow-up to ensure that the TMDLs produce the desired results.	WS, NPO, JCWP, DEP, EPA		2	
Acid Mine Drainage (AMD)				HH	Raystown and Frankstown Branch
	Collect background data on sites to do remediation.	CD, DEP, BAMR, WPCAMR, JC, SA RC&D	DEP, BAMR, WPCAMR	1	Priority Areas: Great Trough Creek, Shoups Run, Sandy-Longs Run, Six Mile Run
	Investigate and provide assistance to fix areas where clean surface water infiltrates deep mines.	DEP, CD, BAMR, WPCAMR, USACOE	DEP, USACOE	1	
	Perform assessments of streams and discharges with current flow data, to enable the design of new projects.	SA RC&D, JC, WS, NPO, DEP, WPCAMR, BAMR	DEP, BAMR, WPCAMR	1	
	Prepare a comprehensive Mine Drainage Abatement Cost Evaluation Plan for the Raystown Branch.	JCWP, CVI, DEP, BAMR, WPCAMR, SA RC&D, USACOE	WPWPP, WPCAMR, DEP, USACOE	1	
	Promote and provide assistance for the restoration of all AMD-impacted streams.	DEP, CD, NRCS, WPCAMR, USACOE, SA RC&D	WPCAMR, DEP, WPWPP, USACOE	1	
	Provide assistance to projects that minimize the AMD impacts to local streams.	DEP, BAMR, CD, WPCAMR, USACOE	DEP, WPWPP, WPCAMR, DCNR, USACOE	1	
	Update inventory of abandoned mine lands by county/watershed.	BAMR, DEP, WPCAMR, USACOE, SA RC&D	USACOE	1	
	Update the Broad Top Soil and Water Conservation Project (1981).	WS, Munic, CP, SA RC&D		1	
	Coordinate the AMD and sewage projects.	DEP, SA RC&D, WPCAMR		2	
	Divert water runoff away from spoil piles.	CD, WS, SA RC&D		2	
	Eliminate bony/spoil piles on sites. Consider recycling or converting to energy.	CD, DEP, SA RC&D, Land owners	DEP, BAMR, WPCAMR	2	
	Have federal funds (AML Trust Fund - \$1.5 billion) released to states.	Governor, DEP, WS, NPO		2	
	Promote existing AML/AMD abatement programs.	DEP, BAMR, WPCAMR		2	
	Promote reining using BMPs in unreclaimed abandoned mine areas to help reduce AMD.	BAMR, DEP, WPCAMR		2	
	Provide assistance for a watershed reclamation plan.	JCWP, DEP, CD, WPCAMR, USACOE, SA RC&D	DEP, USACOE	3	
	Use brownfields program to address AMD/AML problems.	CP, CD, EPA Office of Surface Mining		3	

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Water Resources					
Flooding/Floodplain Management					
				HH	Watershed-Wide
	Carry out detailed studies to accurately map floodplains and flood elevation levels and to update the present approximate studies.	CP, JCWP, CD, USACOE, Munic, FEMA	DEP, DCNR, FEMA, PEMA, NRCS, USACOE	1	Priority Areas: Belleville (Little Kish Creek)
	Educate landowners, planners, and municipal officials on the flood-related consequences of various land use planning decisions and activities.	CP, PSATS, DCED, DEP	DEP, DCNR	1	
	Encourage municipalities to create, implement, and enforce floodplain ordinances.	CP, CD, JCWP	Floodplain Taxes, FEMA, PEMA, DCNR	1	
	Promote and assist in property buyouts and relocation for those living in floodplains.	CP, FEMA, PEMA	FEMA, PEMA	1	
	Promote floodplain management and accurate delineation of floodplains.	CD, CP, Munic, USACOE	FEMA, DCED, USACOE	1	
	Provide assistance for implementing stream restoration BMPs.	DEP, NRCS, USFWS, CD, USACOE	BP, NRCS, DCNR, USFWS, USACOE	1	
	Provide assistance for obtaining and installing flood control devices.	DEP, PEMA, USACOE	DEP, PEMA, FEMA, USACOE	1	
	Provide education to municipalities to implement floodplain monitoring programs and ordinances.	CD, CP, JCWP, DCED, PSCE	DEP, DCNR	1	
	Develop demonstration areas and educational packets for stream restoration BMPs.	BP, CBF, USACOE	BP, CBF, USACOE	2	
	Discourage clearcutting to reduce flooding, and promote use of BMPs when logging.	CD, BF, Munic		2	
	Educate about the difference between the floodway and floodway fringe and the different regulations for each.	CD, JCWP, CP, Munic		2	
	Prohibit clearcuts in streamside forested buffers.	CD, Munic		2	
	Promote additional taxes for those residing in a floodplain.	JCWP, CP, FEMA, PEMA	FEMA, PEMA	2	
	Promote Greenway initiatives in the watershed to discourage floodplain encroachment.	JCWP, CD, CP, ACorp, AHDC, DCNR, USACOE	DCNR, NPS	2	
	Promote no new development along streams for permanent or temporary residences (camps).	JCWP, CP		2	
	Provide assistance for permanent easements along streams.	CD, NPO	DCNR	2	
	Provide incentives for townships to assess accuracy of floodplain studies.	CP, FEMA, DEP	DEP, FEMA	2	
	Research the terms of the relocation assistance program to determine whether all options must be offered to residents in floodplain.	CP		2	
	Restore natural floodplains along channelized streams in boroughs and villages.	CD, PFBC, DEP, USACOE, USFWS, PEMA	DEP, FEMA	2	Belleville (Little Kish Creek)
Public Water Supply					
				HH	Watershed-Wide
	Determine areas in need of dry hydrants, and provide assistance to communities for construction.	RC&D, Munic, CP, BF	RC&D, NRCS, USFS	1	
	Educate public on easy ways to reduce water use.	JCWP, WS, NPO, SRBC	DEP, DCNR	1	
	Obtain funding for training water plant operators to operate more effectively.	RC&D, Munic, CP	DEP, DCED	1	
	Perform watershed assessments to locate water quantity-limited areas.	JCWP, RC&D	DEP	1	
	Promote regionalization of purchasing and supply. Encourage the development of county and/or multi-municipal water supply plans.	CP, Munic, CD, JCWP	DEP	1	
	Promote water conservation at all times, not just during droughts.	Munic, WS, NPO		1	
	Provide assistance for the upgrade and construction of water lines.	Munic, CP, BF, USACOE	DEP, CP, Pennvest	1	

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Water Resources					
Public Water Supply				HH	Watershed-Wide
	Provide assistance in assessing secondary water sources.	CP, Munic, SRBC, BF, USACOE	DEP, Pennvest	1	
	Provide assistance in finding adequate water supplies for communities.	SRBC, CP, Munic, BF, USACOE	DEP	1	
	Provide incentives to encourage source water protection measures by municipalities or water authorities.	CP, DEP, Pennvest	DEP, Pennvest	1	
	Encourage municipalities to save and utilize stormwater for non-potable uses.	CP, JCWP, WS		2	
	Identify leaks in water systems.	Munic, Water Authorities	DEP, Pennvest	2	
	Promote ordinances to regulate water withdrawals by individual wells and farms in order to ensure the viability of public water supplies.	SRBC, Munic, CP	SRBC	2	
	Promote Wellhead Protection programs to protect the quality and quantity of community ground water supplies.	DEP	DEP	2	
	Provide incentives for small boroughs to develop a municipal water supply.	Munic, CP, DCED, Pennvest	DEP, Pennvest	2	
	Provide incentives to municipalities or authorities who run their facilities well.	CP, DEP, Pennvest	DEP, Pennvest	2	
	Provide landowner education of the sources of water in the basin.	SRBC, CP, JCWP, BF		2	
Sewage and Septage				HH	Watershed-Wide
	Encourage municipalities to manage on-lot and/or municipal sewage systems.	CP, PSATS, DEP		1	
	Coordinate Act 537 plans with land use plans to help implement land use objectives, i.e. smart growth, rather than letting sewage planning drive land development.	Munic, CP, DEP, WS		1	
	Hold public meetings to discuss sewage problems and Act 537 plans.	CP, Munic, RC&D	DEP	1	
	Prepare a watershed-wide evaluation of on-lot and municipal sewage problems. Provide assistance to improve the systems.	CP, Munic, USACOE	DEP, USACOE	1	
	Provide assistance for completing or updating Act 537 sewage plans.	CP, DEP	DEP	1	
	Provide assistance for rural on-lot sewage.	DEP	DEP	1	
	Provide funding for implementation of Act 537 plans, especially in low-income areas where on-lot malfunctions need correction.	Pennvest, DEP, DCED	Pennvest, DEP, DCED	1	
	Provide funding for sewage system upgrades/construction.	RC&D, DEP	DEP	1	
	Provide incentives to get residents involved in sewage planning.	Munic, CP, DEP, RC&D		1	
	Request citizen participation in municipal sewage planning efforts (Act 537).	Munic, CP, DEP, RC&D		1	
	Separate storm sewers from sanitary sewers.	CP, Munic	DEP, Pennvest	1	
	Train municipalities on how to deal with sewage complaints.	CP, CD, DEP	DEP	1	
	Advocate cluster systems or alternatives where possible.	CP, Munic		2	
	Construct demonstration sites to show alternative wastewater treatment systems.	DEP	DEP	2	
	Hold wastewater workshops on different options/alternative wastewater projects.	JCWP, RC&D	CVI	2	
	Increase certification requirements for Sewage Enforcement Officers (SEOs).	DEP		2	
	Make PENNVEST accessible to every community, including all income levels.	Pennvest, Munic, RC&D		2	

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Water Resources					
Sewage and Septage				HH	Watershed-Wide
	Modify PENNVEST approach to encourage on-lot system upgrades and encourage development of multi-municipal sewage agencies and municipal-run operation and maintenance programs.	Pennvest, Munic, CP, RC&D, CD		2	
	Promote a variety of affordable sewage disposal options.	CP, RC&D		2	
	Promote additional funding to increase the number of SEOs in the watershed.	RC&D, SEDACOG	DEP	2	
	Promote the existing PENNVEST cost-share program.	CP, Pennvest		2	
	Research economically feasible alternative waste water treatment facilities.	DEP, USACOE	DEP, USACOE	2	
	Create educational package that complements demonstration sites and educational workshops.	JCWP, CVI	CVI	3	
	Promote a required alternative systems training and certification for all SEOs.	DEP	DEP	3	
	Provide assistance for a monitoring program that monitors water supplies to ensure wastewater systems are functioning properly.	DEP	DEP	3	
	Support the safe application of sewage sludge (biosolids) on abandoned mine lands and farmland.	CD, CP, Munic, DEP		3	
Wetlands				HH	Watershed-Wide
	Educate landowners on the benefits and values of wetlands.	EPA, NRCS, CBF, BP, CD, PGC, PFBC		1	
	Include wetlands in the definition of environmentally sensitive areas. Incorporate wetland development restrictions into local subdivision and zoning ordinances.	Munic, CP, CD	DCED	1	
	Investigate and promote the use of wetlands for stormwater management.	EPA, NRCS, CBF, BP, CD, PGC, PFBC, USACOE	DCNR, USACOE, PADOT	1	
	Promote wetland preservation or restoration over mitigation.	EPA, NRCS, CBF, BP, CD, PGC, PFBC	USACOE, DCNR	1	
	Provide assistance for wetland preservation and the creation/enhancement of new wetlands.	EPA, NRCS, CBF, BP, CD, PGC, PFBC, USACOE	NRCS, USACOE, USFWS, DU, DCNR	1	
	Raise awareness and promote the Wetlands Reserve Program, the Conservation Reserve Program and the Conservation Reserve Enhancement Program (CREP).	CD, NRCS, NPO, WS		1	
	When landowners buy property, they should be told where there are wetlands, if any, and what they can and cannot do with them.	Munic, CP, CD		1	
	If constructing new wetlands, site on prior converted farmland or other hydric soils.	CD, CP, NPO, WS		2	
	Investigate and promote the use of constructed wetlands for sewage treatment.	EPA, NRCS, CBF, BP, CD, PGC, PFBC, USACOE	DEP, EPA, USACOE	2	
	Provide assistance and technical expertise in building a wetland demonstration area showing the alternative uses of wetlands.	EPA, NRCS, CBF, BP, CD, PGC, PFBC, USACOE, USFWS	DEP, USACOE, DCNR	2	
	Provide assistance for technical training/technical expertise in wetland science.	DEP, PFBC, USACOE, USFWS	USACOE, DEP, USFWS	2	
	Provide assistance for the EMAP initiative to identify and evaluate wetlands.	RC&D, JCWP, CD		2	
	Support and improve the wetland banking program.	EPA, NRCS, CBF, BP, CD, PGC, PFBC, USACOE		2	
Industrial Pollution				H	Watershed-Wide
	Develop partnerships (watershed associations) with industry to go beyond compliance and to improve water quality.	WS, NPO, JCWP	DEP	1	

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Water Resources					
Industrial Pollution				H	Watershed-Wide
	Educate business/industry groups on general industrial pollution, resource recovery, pollution prevention.	DEP	DEP	1	
	Initiate water quality monitoring programs to assess water quality above and below major industries.	WS, JCWP, USACOE	DEP, DCNR, USACOE	1	
	Promote resource efficiency within industry – educate.	DEP, CP	DEP	1	
	Develop an incentive program for those industries going above and beyond existing regulations and permit requirements.	CP, DEP	DEP, EPA	2	
	Educate and encourage industries to perform chain of custody audits where they are not required.	DEP	DEP	2	
	Make people aware of DEP/EPA websites concerning industrial pollution discharge sites.	DEP, EPA, JCWP		2	
	Promote pollution prevention evaluation program.	DEP	DEP	2	
	Present an annual watershed award to industry for good pollution prevention practices.	DEP, JCWP	DEP, DCNR	3	
Air Pollution				M	Watershed-Wide
	Educate citizens on and investigate alternative ways to dispose of trash (such as composting).	PSCE, CRC, PC		1	
	Educate landowners and municipal officials on the problems associated with trash burning. Specify which materials should not be burned in household burn barrels.	Munic, DEP, JCWP, CRC	DEP	1	
	Investigate methods to reduce VOCs and the smells from farms and wastewater treatment facilities.	DEP, PDA, CD		1	
	Obtain air quality data from DEP.	JCWP		1	
	Encourage municipalities to send warnings to those out of compliance with air pollution permits. Educate on how to deal with complaints.	Munic, CP, DEP	DEP	2	
	Investigate the need for public transportation.	CP, DCED, SEDACOG, SAPDC		2	
	Promote and provide assistance for plastic recycling in areas where plastic is not collected.	Munic, CRC	DEP	2	
	Promote municipal ordinances to regulate use of burn barrels.	JCWP, NPO, WS		2	
	Promote the Electric Choice Program and encourage consumers to choose electricity providers that generate less pollution.	DEP, NPO		2	
	Provide convenient and affordable household waste disposal options to prevent trash burning.	Munic, CRC, PACW, NPO, WS	DEP	2	