

Item No.	Sixteen Components of Act 220				
	Key Action	Study/datasource/product	Brief description of the study/datasource/product	What has been completed to date?	By DEP or others (specify others)
1	An inventory of the surface water resources of each region of this Commonwealth, including an identification of the boundaries of significant watersheds and an estimate of the safe yield of such sources for withdrawal and nonwithdrawal uses during periods of normal conditions and drought.	Draft Critical Area Resource Plan/Draft Rock/Marsh Creeks Critical Area Resource Plan Adams County Water Supply and Wellhead Protection Plan (JS); Monocacy Stormwater Mgt (Act 167) Plan, 2002 (JS) Marsh Creek Stormwater Assessment Project and Sourcewater Protection Plan (JS); Rock Creek Comprehensive Watershed Mgt Plan (JS); The Screening Tool Output (HL); The PA StreamStats (HL); For inventory, consider: bi-annual Integrated Report, NPS Management Plan sans safe yield estimate. (AW): draft CARPS for Laurel Hill Creek and Back Creek (Somerset and Fayette Co.) (MH)	Identified critical water planning areas, document (JS); The Screening Tool identifies the watershed boundaries and provides an estimate of withdrawal uses. Similar information will be available through the PA StreamStats (HL)	Potomac River Basin (JS); The Screen Toll and the PA StreamStats provide the info for the entire state (HL).	To develop a water budget for Marsh Creek (JS); The Screening Tool and StreamStats are the DEP and the USGS products (HL); Laurel Hill CARP was drafted for internal review, July, 2016 (MH)
2	An inventory of the groundwater resources of each region of this Commonwealth, including an identification of aquifers and groundwater basins and an assessment of their safe yield, prime recharge areas, recharge capacity, withdrawal limits and relationship to stream base flows.	Withdrawal in Chapter 110; Conceptually PA Source Water Protec. (HL); Draft Rock/Marsh Creeks Critical Area Resource Plan Adams County Water Supply and Wellhead Protection Plan (JS); ICPRB (JS); Completion/Adoption of Municipal Wellhead Protection areas in PA Counties of the Potomac Watershed (JS); various USGS and Topo Geo groundwater reports (DG);	Regarding ICPRB products, there are too many to know at this time (JS) Evaluation of Existing Community Water Systems (Adams Co.), (JS); Chapt 110 provides withdrawal info for GW (HL)	Potomac River Basin (JS); Chapter 110 info applies to the entire state (HL).	To develop a water budget for Marsh Creek (JS); Chapter 110 info is a DEP product (HL).
3	An assessment and projection of existing and future nonwithdrawal use needs and the values of watercourses included within this Commonwealth or Federal wild and scenic river systems.	The SWP CWPA Criteria; TheTNC Studies; The SRBC's (HL); Integrated Report, DCONR Rivers Conservation Program/Rivers Conservation Plans (AW)	The SWP CWPA Criteria includes a surrogate for the the nonwithdrawal/in_stream flow needs; The TNC Studies are focused on the same in stream flow needs, and finally The SRBC has adopted the TNC needs as well looked into other criterias for the cunsumptive use limits (HL)	Potomac River Basin (JS), The CWPA criteria and the TNC's are developed for the entire state. The SRBCs are available only for the SRB part of the state (HL)	Basinwide Groundwater Study of the entire Potomac basin (JS); the DEP, the DEP and TNC and finally by the SRBC respectively (HL)
4	An assessment and projection of existing and future withdrawal use demands.	SWP Screening Tool, Chapter 110, Water Allocation Permits, Clean Water, Discharges, NPDES, SRBC, DRBC (HL); Draft Rock/Marsh Creeks Critical Area Resource Plan Adams County Water Supply and Wellhead Protection Plan (JS); USGS Model - integrating stream gauging data, groundwater data, land use/development, water availability studies, etc. (JS)	SWP Screening Tool at one time looked into projection of water use, Chapter 110 provides the basis for the existing withdrawals, the Water Allocation Permits looks into projection of water demands for the public water suppliers, also the Clean Water, Discharges and the NPDES permis as well as the SRBC; DRBC (HL); Draft Rock/Marsh Creeks Critical Area Resource Plan Adams County Water Supply and Wellhead Protection Plan (JS); USGS Model -integrating stream gauging data, groundwater data, land use/development, water availability studies, etc. (JS)	SWP Screening Tool looks into the entire state, Chapter 110 also statewide, Water Allocation Permits looks into individual permits at the time of issuing the permit, Clean Water, Discharges NPDES may also practice projections ; SRBC; DRBC (HL); Draft Rock/Marsh Creeks Critical Area Resource Plan Adams County Water Supply and Wellhead Protection Plan (JS); USGS Model -integrating stream gauging data, groundwater data, land use/development, water availability studies, etc. (JS); Potomac River Basin (JS)	SWP Screening Tool, Chapter 110, Water Allocation Permits, Clean Water, Discharges, NPDES are the DEPs ; SRBC; DRBC are obviously by SRBC and DRBC (HL); Draft Rock/Marsh Creeks Critical Area Resource Plan Adams County Water Supply and Wellhead Protection Plan (JS); USGS Model - integrating stream gauging data, groundwater data, land use/development, water availability studies, etc. (JS); To develop a water budget for Marsh Creek (JS)
5	An identification of potential problems with water availability or conflicts among water uses and users.	SWP Screening Tool, Water Allocation Permits, SRBC; DRBC, TNC? (HL); Draft Rock/Marsh Creeks Critical Area Resource Plan Adams County Water Supply and Wellhead Protection Plan (JS)	SWP Screening Tool looks into water availability Chapter 110 provides the basis for the existing withdrawals, the Water Allocation Permits also looks into water demands/availability for the public water suppliers, as well as the SRBC; DRBC at their general studies and also issuing individual dockets (HL)	SWP Screening Tool is statewide, the Water Allocation Permits are for the public water suppliers, as well as the SRBC; DRBC at there are bound by their boundaries(HL). Potomac River Basin (JS)	SWP Screening Tool and Water Allocation Permits,are the DEPs; SRBC; DRBC are obviously by SRBC and DRBC (HL);To develop a water budget for Marsh Creek (JS)
6	An identification of critical water planning areas comprising any significant hydrologic unit where existing or future demands exceed or threaten to exceed the safe yield of available water resources.	SWP Critical Water Planning Areas (Screening Tool output); Critical Area Resource Plans for Laurel Hill Cr. , and Back Creek; also SRBC and DRBC (HL); Draft Rock/Marsh Creeks Critical Area Resource Plan Adams County Water Supply and Wellhead Protection Plan (JS)	SWP Critical Water Planning Areas (Screening Tool output) identifies such watersheds; Critical Area Resource Plans for Laurel Hill Cr. , and Back Creek looks into CWPA areas more closer ; also SRBC and DRBC have looked into such areas to develop protection plans (HL)	Statewide; certain mentioned watersheds and the SRB and DRB (HL); Potomac River Basin (JS)	SWP Screening Tool is the DEPs ; SRBC; DRBC are obviously by SRBC and DRBC (HL)To develop a water budget for Marsh Creek (JS)
7	An assessment of the current and future capabilities of public water supply agencies to provide an adequate quantity and quality of water to their service areas.	Water Allocation; SRBC, DRBC (HL)	As a part of permitting process the PWS is assessed carefully (HL). Watershed Alliance of Adams County (JS)	Permits are normally assessed for the PWS sources (HL); All Adams County Watersheds, part of Potomac(JS)	
8	An assessment of floodplain and storm water management problems.	Rock Creek Comprehensive Watershed Mgt Plan (JS); Act 167 planning, potentially county emergency ops plans (but not likely) (AW); Stormwater Management Plans by municipalities (Act 167 plans); FEMA floodplain maps; USACE (JS)		Potomac River Basin (JS)	
9	An assessment of navigation needs and the means for restoration, development and improvement of transportation by water.	Inventory of navigable streams exists with DEP's water quality program; Widen and deepen of the Delaware River by the USACE (JS)		Potomac River Basin (JS)	

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10	An assessment of the water resources required to serve areas with important or unique natural, scenic, environmental or recreational values of national, regional, local or Statewide significance, including national and State parks; designated wild, scenic and recreational rivers; national and State wildlife refuges; and the habitats of Federal and State endangered or threatened species.	Draft Rock/Marsh Creeks Critical Area Resource Plan Adams County Water Supply and Wellhead Protection Plan (JS); Monocacy Stormwater Mgt (Act 167) Plan, 2002 (JS); Marsh Creek Stormwater Assessment Project and Sourcewater Protection Plan (JS); DCNR Rivers Conservation Plans (AW)		Potomac River Basin (JS)	To develop a water budget for Marsh Creek (JS)
11	A process for identifying projects and practices that are being or have been implemented by water users that reduce the amount of water withdrawal or consumptive use, improve efficiency in water use, provide for reuse and recycling of water, increase the supply or storage of water or preserve or increase groundwater recharge and a recommended process for providing appropriate positive recognition of such projects or practices in actions, programs, policies, projects or management activities recommended under paragraph (16)	SWP Planning Principal Recommendations, Passby, DEP Water Management Plans, Water Conserv. Website (NE) ; Water Systems that do better such as PWD, and AWWRA could serve as a source of info (HL) Rock/Marsh Creeks Critical Area Resource Plan Adams County Water Supply and Wellhead Protection Plan (JS); Act 167 plans (AW); County CD Comp Plans; Act 167 plans and GG Projects list recharge areas, needs database created; various USGS publications on recharge rates (MH)		Potomac River Basin (JS)	To develop a water budget for Marsh Creek (JS)
12	An identification of practical alternatives for an adequate supply of water to satisfy existing and future reasonable and beneficial uses, including improved storage, groundwater recharge and surface water/groundwater conjunctive management programs.	CARPS normally address this; SRBC and DRBC can serve as an inf sources (HL); Draft Rock/Marsh Creeks Critical Area Resource Plan Adams County Water Supply and Wellhead Protection Plan (JS); Act 167 plans (AW)		Potomac River Basin (JS)	
13	An assessment of both structural and nonstructural alternatives to address identified water availability problems, adverse impacts on water uses or conflicts between water users, including potential actions to develop additional or alternative supplies, conservation measures and management techniques.	CARPS normally address this; SRBC and DRBC can serve as an inf sources (HL); Draft Rock/Marsh Creeks Critical Area Resource Plan Adams County Water Supply and Wellhead Protection Plan (JS)		Potomac River Basin (JS)	
14	A review and evaluation of statutes, regulations, policies and institutional arrangements for the development, conservation, distribution and emergency management of water resources.	Standardize domestic water well construction standards (JS) New Regulations must be established in the Potomac Basin similar to that of SRBC (JS); State Water Plan, water allocation and the drought management program (HL); NPS Management Plan (AW)		Potomac River Basin (JS)	Potomac and statewide. need for licensed, domestic well construction Standards (JS)
15	A review and evaluation of water resources management alternatives and recommended programs, policies, institutional arrangements, projects and other provisions to meet the water resources needs of each region and of this Commonwealth.	State Water Plan, water allocation and the drought management program (HL); Draft Rock/Marsh Creeks Critical Area Resource Plan Adams County Water Supply and Wellhead Protection Plan (JS)	To be implemented by statewide committee only (JS)		To develop a water budget for Marsh Creek (JS)
16	Proposed methods of implementing various recommend actions, programs, policies projects or management activities.	State Water Plan, water allocation and the drought management program (HL) Draft Rock/Marsh Creeks Critical Area Resource Plan; Adams County Water Supply and Wellhead Protection Plan (JS)		Potomac River Basin (JS)	To develop a water budget for Marsh Creek (JS)