

Crosswalk Between Water Quality Planning and CRS Credits: Source Water Protection Planning for Drinking Water Utilities

Planning Steps/Activities	CRS Number/Credit Category	Specific CRS Credit Activity ¹
1. Delineate the source water protection area (SWPA).	410 Flood Hazard Mapping	<ul style="list-style-type: none"> • Develop new flood elevations, floodway delineations, wave heights, or other regulatory flood hazard data for an area not mapped in detail by the flood insurance study • While 410 is strictly flood hazard mapping, this is an opportunity to map and assess source water risks
	450 Stormwater Management	<ul style="list-style-type: none"> • Stormwater master planning to control peak flows
2. Inventory known and potential sources of contamination.	410 Flood Hazard Mapping	<ul style="list-style-type: none"> • Develop new flood elevations, floodway delineations, wave heights, or other regulatory flood hazard data for an area not mapped in detail by the flood insurance study • Have a more restrictive mapping standard • While 410 is strictly flood hazard mapping, this is an opportunity to map and assess source water risks
	420 Open Space Preservation	<ul style="list-style-type: none"> • Guarantee that currently open public or private floodplain parcels will be kept free from development
	430 Higher Regulatory Standards	<ul style="list-style-type: none"> • Limit new buildings and/or fill in the floodplain (This protects naturally functioning floodplains) • Require compensatory flood storage (protects floodplains) • Prohibitions or restrictions of outdoor storage of materials in floodplains, including hazardous materials • Protection of critical facilities, like water plants, or places storing hazardous materials
	450 Stormwater Management	<ul style="list-style-type: none"> • Regulate new development throughout the watershed to ensure that peak post-development runoff is no greater than peak pre-development runoff in relevant portions of the watersheds • Credit for implementing regulations through an adopted watershed master plan. Credit items include identifying wetlands, addressing protection of natural channels, consideration of a range of mitigation • Regulate new construction to minimize soil erosion and protect or improve water quality • Credit for post-construction BMP requirements for water quality
	540 Drainage System Maintenance	<ul style="list-style-type: none"> • Have a program for and conduct annual inspections of all channels and basins; remove debris as needed • Have a program to publicize no dumping regulations • Map and inventory of stormwater conveyance system including natural channels that are not inspected. • Capital improvement program allocated in budget
3. Determine susceptibility of the PWS to contaminant sources or activities within the SWPA.	None.	<ul style="list-style-type: none"> • None
4. Notify the public about threats identified in the contaminant source inventory and what they mean to the PWS.	330 Outreach Projects	<ul style="list-style-type: none"> • Distribute outreach projects with messages about flood hazards, flood insurance, flood protection measures, and/or the natural and beneficial functions of floodplains
	350 Flood Protection Information	<ul style="list-style-type: none"> • The public library and/or community's website maintains references on flood insurance and flood protection
5. Implement management measures to prevent, reduce, or eliminate risks to your drinking water supply.	410 Flood Hazard Mapping	<ul style="list-style-type: none"> • Develop new flood elevations, floodway delineations, wave heights, or other regulatory flood hazard data for an area not mapped in detail by the flood insurance study • Have a more restrictive mapping standard • While 410 is strictly flood hazard mapping, this is an opportunity to map and assess source water risks
	420 Open Space Preservation	<ul style="list-style-type: none"> • Guarantee that currently open public or private floodplain parcels will be kept free from development • Zone the floodplain for minimum lot sizes of 5 acres or larger
	430 Higher Regulatory Standards	<ul style="list-style-type: none"> • Have regulations tailored to protect critical facilities (such as drinking water assets) or areas subject to special flood hazards
	440 Flood Data Maintenance	<ul style="list-style-type: none"> • Keep flood and property data on computer records • Use better base maps • Maintain elevation reference marks
	450 Stormwater Management	<ul style="list-style-type: none"> • Regulate new development throughout the watershed to ensure that post-development runoff is no greater than pre-development runoff • Regulate new construction to minimize soil erosion and protect or improve water quality

Planning Steps/Activities	CRS Number/Credit Category	Specific CRS Credit Activity ¹
	510 Floodplain Management Planning	<ul style="list-style-type: none"> • Prepare, adopt, implement, and update a comprehensive flood hazard mitigation plan using a standard planning process • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain
	530 Flood Protection	<ul style="list-style-type: none"> • Protect existing floodplain development by floodproofing, elevation, or minor flood control projects
	540 Drainage System Maintenance	<ul style="list-style-type: none"> • Have a program for and conduct annual inspections of all channels and detention basins; remove debris as needed • Have a program to publicize "No dumping" regulations for waterways • Map and inventory of stormwater conveyance system including natural channels that are not inspected. • Capital improvement program allocated in budget
	610 Flood Warning and Response	<ul style="list-style-type: none"> • Provide early flood warnings to the public and have a detailed flood response plan keyed to flood crest predictions
	620 Levees	<ul style="list-style-type: none"> • Annually inspect and maintain existing levees; have a system for recognizing the threat of levee failure and/or overtopping, disseminating warnings, and providing emergency response; and coordinate with operators of critical facilities
	630 Dams	<ul style="list-style-type: none"> • Have a high-hazard-potential dam that could affect the community; have a system for recognizing the threat of dam failure, disseminating warnings, planning and practicing emergency responses; and coordinating with operators of critical facilities
6. Develop contingency planning strategies that address water supply contamination or service interruption emergencies.	510 Floodplain Management Planning	<ul style="list-style-type: none"> • Prepare, adopt, implement, and update a comprehensive flood hazard mitigation plan using a standard planning process • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain
	610 Flood Warning and Response	<ul style="list-style-type: none"> • Provide early flood warnings to the public and have a detailed flood response plan keyed to flood crest predictions

¹ [National Flood Insurance Program Community Rating System: A Local Official's Guide to Saving Lives, Preventing Property Damage, and Reducing the Cost of Flood Insurance](#)

Crosswalk Between Water Quality Planning and CRS Credits: Stormwater Management Planning for MS4s

Planning Steps/Activities	CRS Number/Credit Category	Specific CRS Credit Activity ¹
Apply for MS4 NPDES permit coverage	None	<ul style="list-style-type: none"> • None
Develop a Stormwater Quality Management Program (SWMP) that addresses six minimum control measures		
<ul style="list-style-type: none"> ○ Public Education and Outreach on Stormwater Impacts 	320 Map Information Service 330 Outreach Projects 350 Flood Protection Information	<ul style="list-style-type: none"> • Provide Flood Insurance Rate Map information to those who inquire, and publicize this service • Distribute outreach projects with messages about flood hazards, flood insurance, flood protection measures, and/or the natural and beneficial functions of floodplains • The public library and/or community's website maintains references on flood insurance and flood protection
<ul style="list-style-type: none"> ○ Public Involvement/Participation 	510 Floodplain Management Planning	<ul style="list-style-type: none"> • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain
<ul style="list-style-type: none"> ○ Illicit Discharge Detection and Elimination 	540 Drainage System Maintenance	<ul style="list-style-type: none"> • Have a program for and conduct annual inspections of all channels and detention basins; remove debris as needed • Have a program to publicize no dumping regulations • Map and inventory of stormwater conveyance system including natural channels that are not inspected. • Capital improvement program allocated in budget
<ul style="list-style-type: none"> ○ Construction Site Runoff Control 	450 Stormwater Management	<ul style="list-style-type: none"> • Regulate new construction to minimize soil erosion and protect or improve water quality
<ul style="list-style-type: none"> ○ Post-Construction Stormwater Management in New Development and Redevelopment 	410 Flood Hazard Mapping 420 Open Space Preservation 430 Higher Regulatory Standards 440 Flood Data Maintenance	<ul style="list-style-type: none"> • Develop new flood elevations, floodway delineations, wave heights, or other regulatory flood hazard data for an area not mapped in detail by the flood insurance study • Have a more restrictive mapping standard • While 410 is strictly flood hazard mapping, this is an opportunity to map and assess risks • Guarantee that currently open public or private floodplain parcels will be kept free from development • Limit new buildings and/or fill in the floodplain • Require freeboard • Require compensatory storage • Prohibitions or restrictions of outdoor storage of materials in floodplains, including hazardous materials • Have regulations tailored to protect critical facilities or areas subject to special flood hazards (for example, alluvial fans, ice jams, subsidence, or coastal erosion) • Keep flood and property data on computer records • Use better base maps • Maintain elevation reference marks

Planning Steps/Activities	CRS Number/Credit Category	Specific CRS Credit Activity ¹
	450 Stormwater Management	<ul style="list-style-type: none"> • Regulate new development throughout the watershed to ensure that post-development runoff is no greater than pre-development runoff • Maximum credit is given if all development is regulated. At a minimum, regulate developments of 5 acres or more and increases in impervious surfaces of 20,000 sq ft or more • Retention/detention of first 1 inch of rainfall credited as Water Quality (WQ) protection, but not full credit of Stormwater Management Regulations (SMR, Activity 452.a). • Onsite management of at least a 10-year storm is required for SMR credit. • Pre- and post-development hydrology calculations are required • Maximum credit is given if all storms up to and including the 100-yr are regulated to not exceed pre-development runoff rates. Bonus credit if all runoff is retained, or if the total volume released (above the half the rate of the 2-year storm) is not more than pre-development volume. • Credit for requiring LID for new development where feasible. • Regulate new construction to minimize soil erosion and protect or improve water quality
	510 Floodplain Management Planning	<ul style="list-style-type: none"> • Prepare, adopt, implement, and update a comprehensive flood hazard mitigation plan using a standard planning process • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain
	530 Flood Protection	<ul style="list-style-type: none"> • Protect existing floodplain development by floodproofing, elevation, or minor flood control projects
	540 Drainage System Maintenance	<ul style="list-style-type: none"> • Have a program for and conduct annual inspections of all channels and detention basins; remove debris as needed
<ul style="list-style-type: none"> ○ Pollution Prevention/Good Housekeeping for Municipal Operations 	None	<ul style="list-style-type: none"> • None
Implement the SWMP using appropriate stormwater management controls, or BMPs	410 Flood Hazard Mapping 420 Open Space Preservation 430 Higher Regulatory Standards 440 Flood Data Maintenance 450 Stormwater Management 520 Acquisition and Relocation 540 Drainage System Maintenance 610 Flood Warning and Response	<ul style="list-style-type: none"> • Develop new flood elevations, floodway delineations, wave heights, or other regulatory flood hazard data for an area not mapped in detail by the flood insurance study (useful for all water programs) • Have a more restrictive mapping standard • While 410 is strictly flood hazard mapping, this is an opportunity to map and assess source water risks • Guarantee that currently open public or private floodplain parcels will be kept free from development • Limit new buildings and/or fill in the floodplain • Require freeboard • Require compensatory storage • Have regulations tailored to protect critical facilities or areas subject to special flood hazards (for example, alluvial fans, ice jams, subsidence, or coastal erosion) • Keep flood and property data on computer records • Use better base maps • Maintain elevation reference marks • Acquire and/or relocate floodprone buildings so that they are out of the floodplain • Regulate new development throughout the watershed to ensure that post-development runoff is no greater than pre-development runoff • Regulate new construction to minimize soil erosion and protect or improve water quality • Have a program for and conduct annual inspections of all channels and detention basins; remove debris as needed • Provide early flood warnings to the public and have a detailed flood response plan keyed to flood crest predictions
Develop measurable goals for the SWMP	510 Floodplain Management Planning	<ul style="list-style-type: none"> • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain • Prepare an analysis of the repetitive flood loss areas within the community • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain

Planning Steps/Activities	CRS Number/Credit Category	Specific CRS Credit Activity ¹
Evaluate the effectiveness of the SWMP	510 Floodplain Management Planning	<ul style="list-style-type: none"> • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain • Prepare an analysis of the repetitive flood loss areas within the community • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain
Address stormwater impacts to any threatened / impaired waters (i.e., TMDLs)	450 Stormwater Management	<ul style="list-style-type: none"> • Regulate new development throughout the watershed to ensure that post-development runoff is no greater than pre-development runoff • Regulate new construction to minimize soil erosion and protect or improve water quality
	510 Floodplain Management Planning	<ul style="list-style-type: none"> • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain • Prepare an analysis of the repetitive flood loss areas within the community • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain
Provide reports on program status	510 Floodplain Management Planning	<ul style="list-style-type: none"> • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain • Prepare an analysis of the repetitive flood loss areas within the community • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain

¹ [National Flood Insurance Program Community Rating System: A Local Official's Guide to Saving Lives, Preventing Property Damage, and Reducing the Cost of Flood Insurance](#)

Crosswalk Between Water Quality Planning and CRS Credits: Watershed Planning Under the 319 Program

Planning Steps/Activities	CRS Number/Credit Category	Specific CRS Credit Activity ¹
1. Build Partnerships		
Identify key stakeholders	510 Floodplain Management Planning	<ul style="list-style-type: none"> • Include on the planning committee representatives from the public and other non-governmental stakeholders.
Identify issues of concern for inclusion in the watershed plan	430 Higher Regulatory Standards	<ul style="list-style-type: none"> • Prohibitions or restrictions of outdoor storage of materials in floodplains, including hazardous materials
Set preliminary goals	510 Floodplain Management Planning	<ul style="list-style-type: none"> • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain
Conduct public outreach	330 Outreach Projects	<ul style="list-style-type: none"> • Distribute outreach projects with messages about flood hazards, flood insurance, flood protection measures, and/or the natural and beneficial functions of floodplains
	350 Flood Protection Information	<ul style="list-style-type: none"> • The public library and/or community's website maintains references on flood insurance and flood protection
2. Characterize the Watershed		
Collect existing data and create a watershed inventory	410 Flood Hazard Mapping	<ul style="list-style-type: none"> • Develop new flood elevations, floodway delineations, wave heights, or other regulatory flood hazard data for an area not mapped in detail by the flood insurance study • Have a more restrictive mapping standard • While 410 is strictly flood hazard mapping, this is an opportunity to map and assess water risks
	440 Flood Data Maintenance	<ul style="list-style-type: none"> • Keep flood and property data on computer records • Use better base maps
	540 Drainage System Maintenance	<ul style="list-style-type: none"> • Have a program for and conduct annual inspections of all channels and detention basins; remove debris as needed • Map and inventory of stormwater conveyance system including natural channels that are not inspected. • Capital improvement program allocated in budget
Analyze data	510 Floodplain Management Planning	<ul style="list-style-type: none"> • Review, analyze, and summarize data collected on natural hazards, including addressing impacts on natural floodplain functions.
Identify causes and sources of pollution that need to be controlled	510 Floodplain Management Planning	<ul style="list-style-type: none"> • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain
Identify data gaps and collect additional data if needed	440 Flood Data Maintenance	<ul style="list-style-type: none"> • Keep flood and property data on computer records • Use better base maps
Quantify pollutant loads	None	<ul style="list-style-type: none"> • None
3. Finalize Goals and Identify Solutions		
Set overall goals and management objectives	510 Floodplain Management Planning	<ul style="list-style-type: none"> • Prepare, adopt, implement, and update a comprehensive flood hazard mitigation plan using a standard planning process • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain
Develop indicators/targets	420 Open Space Preservation	<ul style="list-style-type: none"> • Guarantee that currently open public or private floodplain parcels will be kept free from development • Acquire parcels in the floodplain
Determine load reductions needed	None	<ul style="list-style-type: none"> • None
Identify critical areas	510 Floodplain Management Planning	<ul style="list-style-type: none"> • Prepare, adopt, implement, and update a comprehensive flood hazard mitigation plan using a standard planning process • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain
Develop management measures to achieve goals		
4. Design an Implementation Program		
Develop implementation schedule	510 Floodplain Management Planning	<ul style="list-style-type: none"> • Prepare, adopt, implement, and update a comprehensive flood hazard mitigation plan using a standard planning process • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain

Planning Steps/Activities	CRS Number/Credit Category	Specific CRS Credit Activity ¹
Develop interim milestones to track implementation of management measures		
Develop criteria to measure progress towards meeting watershed goals		
Develop monitoring component		
Develop information/education component		
Develop evaluation process		
Identify technical and financial assistance needed to implement plan		
Assign responsibility for revising the plan		
5. Implement Watershed Plan		
Implement management strategies	420 Open Space Preservation	<ul style="list-style-type: none"> • Guarantee that currently open public or private floodplain parcels will be kept free from development
	430 Higher Regulatory Standards	<ul style="list-style-type: none"> • Limit new buildings and/or fill in the floodplain • Require freeboard • Require compensatory storage • Have regulations tailored to protect critical facilities or areas subject to special flood hazards (for example, alluvial fans, ice jams, subsidence, or coastal erosion)
	450 Stormwater Management	<ul style="list-style-type: none"> • Regulate new development throughout the watershed to ensure that post-development runoff is no greater than pre-development runoff • Regulate new construction to minimize soil erosion and protect or improve water quality
	520 Acquisition and Relocation	<ul style="list-style-type: none"> • Acquire and/or relocate floodprone buildings so that they are out of the floodplain
	540 Drainage System Maintenance	<ul style="list-style-type: none"> • Have a program for and conduct annual inspections of all channels and detention basins; remove debris as needed
	610 Flood Warning and Response	<ul style="list-style-type: none"> • Provide early flood warnings to the public and have a detailed flood response plan keyed to flood crest predictions.
Conduct monitoring	540 Drainage System Maintenance	<ul style="list-style-type: none"> • Have a program for and conduct annual inspections of all channels and detention basins; remove debris as needed
Conduct information/education activities	320 Map Information Service	<ul style="list-style-type: none"> • Provide Flood Insurance Rate Map information to those who inquire, and publicize this service
	330 Outreach Projects	<ul style="list-style-type: none"> • Distribute outreach projects with messages about flood hazards, flood insurance, flood protection measures, and/or the natural and beneficial functions of floodplains
	350 Flood Protection Information	<ul style="list-style-type: none"> • The public library and/or community's website maintains references on flood insurance and flood protection
6. Measure Progress and Make Adjustments		
Review, evaluate information	510 Floodplain Management Planning	<ul style="list-style-type: none"> • Prepare, adopt, implement, and update a comprehensive flood hazard mitigation plan using a standard planning process • Prepare, adopt, implement, and update a plan to protect natural functions within the community's floodplain
Prepare annual workplans		
Report back to stakeholders and others		
Make adjustments to program		

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