

Appendix J. GWRC Project List

Type	Number	Goal / Objective / Strategy Name	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30 or later	Cost (\$)	Funding Source
Goal	1.0.0	Resilience												
Objective	1.1.0	Implement "Advancing Ecosystem and Community Resilience"												
Strategy	1.1.1	Community Resilience Y1	CZM R										\$ 60,000	CZM Resilience
Strategy	1.1.2	Community Resilience Y2		CZM R									\$ 60,000	CZM Resilience
Strategy	1.1.3	Community Resilience Y3			CZM R								\$ 60,000	CZM Resilience
Objective	1.2.0	Support local governments on policies												
Strategy	1.2.1	Update GWRC Hazard Mitigation Plan 2022		BRIC									\$ 100,000	BRIC
Strategy	1.2.2	Create a local resilience policy "toolbox"				CZM R							\$ 20,000	CZM Resilience Renewal
Strategy	1.2.3	Review and update local flood plain regulations				CZM R							\$ 20,000	CZM Resilience Renewal
Strategy	1.2.4	Update GWRC Hazard Mitigation Plan 2027							BRIC				\$ 100,000	BRIC
Objective	1.3.0	Support local governments on projects												
Strategy	1.3.1	Create and prioritize an inventory of flood-prone structures				CZM R							\$ 20,000	CZM Resilience Renewal
Strategy	1.3.2	Assess resilience of drinking water supply and wastewater management systems					CZM R						\$ 20,000	CZM Resilience Renewal
Strategy	1.3.3	Support implementation of resilience projects					CZM R						\$ 20,000	CZM Resilience Renewal
Strategy	1.3.4	Support implementation of resilience projects						CZM R					\$ 30,000	CZM Resilience Renewal
Strategy	1.3.5	Partner to address high hazard Lake Monroe Dam in King George County							DCR					DCR Dam Safety grant
Strategy	1.3.6	Partner to address high hazard dams in Caroline County (3)								DCR				DCR Dam Safety grant
Strategy	1.3.7	Partner to address high hazard dams in Spotsylvania County (5)									DCR			DCR Dam Safety grant
Strategy	1.3.8	Partner to address high hazard dams in Stafford County (7 or 13?)										DCR		DCR Dam Safety grant
Strategy	1.3.9	Support implementation of resilience projects										Later		BRIC
Objective	1.4.0	Engage, educate, and empower development community and local businesses												
Strategy	1.4.1	Engage developers on resilience					CZM R						\$ 20,000	CZM Resilience Renewal
Strategy	1.4.2	Engage local businesses on resilience						CZM R					\$ 20,000	CZM Resilience Renewal
Objective	1.5.0	Engage, educate, and empower the public												
Strategy	1.5.1	Implement a Flood Risk Communication Program	CZM C										\$ 25,000	CZM Special Project
Strategy	1.5.2	Participate in RAFT Y1			RAFT								\$ -	RAFT
Strategy	1.5.3	Participate in RAFT Y2				RAFT							\$ -	RAFT
Strategy	1.5.4	Participate in RAFT Y3					RAFT						\$ -	RAFT
Strategy	1.5.5	Create/expand website dashboard for tracking and celebrating progress						CZM R					\$ 10,000	CZM Resilience Renewal

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Goal	2.0.0	Water quality												
Objective	2.1.0	Engage local governments												
Strategy	2.1.01	Coordination with localities and CPT on water quality	CZM A WIP A										\$ 50,000	CZM and WIP Engagement
Strategy	2.1.02	Coordination with localities and CPT on water quality		CZM A WIP A									\$ 20,000	CZM and WIP Engagement
Strategy	2.1.03	Coordination with localities and CPT on water quality			CZM A WIP A								\$ 10,000	CZM and WIP Engagement
Strategy	2.1.04	Coordination with localities and CPT on water quality				CZM A WIP A							\$ 16,000	CZM and WIP Engagement
Strategy	2.1.05	Coordination with localities and CPT on water quality					CZM A WIP A						\$ 16,000	CZM and WIP Engagement
Strategy	2.1.06	Coordination with localities and CPT on water quality						CZM A					\$ 10,000	CZM Engagement
Strategy	2.1.07	Coordination with localities and CPT on water quality							CZM A				\$ 10,000	CZM Engagement
Strategy	2.1.08	Coordination with localities and CPT on water quality								CZM A			\$ 10,000	CZM Engagement
Strategy	2.1.09	Coordination with localities and CPT on water quality									CZM A		\$ 10,000	CZM Engagement
Strategy	2.1.10	Coordination with localities and CPT on water quality										CZM A	\$ 10,000	CZM Engagement
Objective	2.2.0	Educate local governments												
Strategy	2.2.1	Coordinate training on water quality regulations	CZM B										\$ 14,000	CZM Training
Strategy	2.2.2	Coordinate training on the water quality studies of local tributaries	WIP B										\$ 15,000	WIP Training
Strategy	2.2.3	Coordinate training on BMPs - septic		WIP B									\$ 15,000	WIP Training
Strategy	2.2.4	Coordinate training on local water quality policy options		CZM B									\$ 7,000	CZM Training
Strategy	2.2.5	Coordinate training on BMPs - land conservation / forests			WIP B								\$ 15,000	WIP Training
Strategy	2.2.6	Coordinate training on BMPs - nutrient management planning				WIP B							\$ 15,000	WIP Training
Strategy	2.2.7	Provide education and case studies on using stormwater utility fees					WIP B						\$ 15,000	CZM Training
Strategy	2.2.8	Training on progress, new data sources, new tools						CZM B					\$ 7,000	CZM Training
Objective	2.3.0	Support local governments on policies												
Strategy	2.3.01	Create a local water quality policy "toolbox"	WIP C										\$ 7,500	WIP Special Project
Strategy	2.3.02	Support Port Royal in updating ordinances	WIP C										\$ 3,000	WIP Special Project
Strategy	2.3.03	Support Port Royal in updating Comprehensive Plan	WIP C										\$ 3,000	CZM Special Project
Strategy	2.3.04	Conduct soft "audit" or participate in regulatory audit		WIP C									\$ 10,000	WIP Special Project
Strategy	2.3.05	Prepare 309 grant application for Fairview Beach Implementation Plan			WIP C								\$ 2,000	WIP Special Project
Strategy	2.3.06	Prepare 309 grant application for Mataponi Implementation Plan				WIP C							\$ 2,000	WIP Special Project
Strategy	2.3.07	Engage state and federal agencies on technical requirements					WIP C						\$ 8,000	WIP Special Project
Strategy	2.3.08	Assist localities with implementing stormwater fees or stormwater utility fees						CZM C					\$ 8,000	CZM Special Project

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Strategy	2.3.09	Evaluate environmental program costs						CZM C					\$ 4,000	CZM Special Project
Strategy	2.3.10	Assist Caroline County in developing a "VESMP Lite " program										Later		
Objective	2.4.0	Support local governments on projects												
Strategy	2.4.01	Identify Coastal Resource Management Areas	WIP C										\$ 7,000	WIP Special Project
Strategy	2.4.02	Identify Areas of Geographic Concern	WIP C										\$ 7,000	WIP Special Project
Strategy	2.4.03	Develop locality water quality objectives and priorities	WIP C										\$ 7,000	WIP Special Project
Strategy	2.4.04	Septic system program management		WIP C									\$ 11,000	WIP Special Project
Strategy	2.4.05	Septic pump out tracking		WIP C									\$ 8,000	WIP Special Project
Strategy	2.4.06	Develop Va. CDBG and/or WQIF application(s) for Port Royal		WIP C									\$ 3,000	WIP Special Project
Strategy	2.4.07	Support Port Royal in addressing drainage on Route 301 (Main Street)			WIP C								\$ 6,000	WIP Special Project
Strategy	2.4.08	Plan for land conservation			WIP C								\$ 8,000	WIP Special Project
Strategy	2.4.09	Support urban tree program				WIP C							\$ 8,000	WIP Special Project
Strategy	2.4.10	Support forest carbon credit banking				WIP C							\$ 8,000	WIP Special Project
Strategy	2.4.11	Support action on Fairview Beach Implementation Plan					319							319
Strategy	2.4.12	Repeat BMP signage project after additional BMPs are constructed						WIP C					\$ 11,000	WIP Special Project
Strategy	2.4.13	Support action on Mataponi Implementation Plan						319						319
Strategy	2.4.14	Prioritize impaired waterways for development of local watershed studies						WIP C					\$ 8,000	WIP Special Project
Strategy	2.4.15	Stormwater infrastructure asset management program(s)						CZM C					\$ 12,000	CZM Special Project
Strategy	2.4.16	Work with DEQ to conduct watershed studies for impaired waterways							CZM C				\$ 10,000	CZM Special Project
Strategy	2.4.17	Track storm drain cleaning								CZM C			\$ 7,000	CZM Special Project
Strategy	2.4.18	Work with DEQ to prepare Implementation Plans for impaired waterways								CZM C			\$ 10,000	CZM Special Project
Strategy	2.4.19	Support action on Implementation Plans									319			319
Strategy	2.4.20	Support action on Implementation Plans										319		319
Strategy	2.4.21	Support action on Implementation Plans										319		319
Objective	2.5.0	Engage, educate, and empower development community and local business												
Strategy	2.5.1	Engage on septic systems			WIP C								\$ 8,000	WIP Special Project
Strategy	2.5.2	Engage on land conservation / forests				WIP C							\$ 6,000	WIP Special Project
Strategy	2.5.3	Engage on nutrient management planning					WIP C						\$ 8,000	WIP Special Project
Strategy	2.5.4	Educate developers on all water quality topics						CZM C					\$ 6,000	CZM Special Project
Objective	2.6.0	Engage, educate, and empower the public												
Strategy	2.6.1	Public engagement in pollution prevention program		NFWF									\$ 50,000	NFWF
Strategy	2.6.2	Septic system public outreach			WIP C								\$ 8,000	WIP Special Project

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Strategy	2.6.3	Urban tree planting and reporting public outreach				WIP C							\$ 4,000	WIP Special Project
Strategy	2.6.4	Forest management public outreach				WIP C							\$ 4,000	WIP Special Project
Strategy	2.6.5	Promote working lands public outreach					CZM C						\$ 4,000	CZM Special Project
Strategy	2.6.6	Support nutrient management public outreach					CZM C						\$ 8,000	CZM Special Project
Strategy	2.6.7	Comprehensive public outreach on water quality							CZM C				\$ 6,000	CZM Special Project
Strategy	2.6.8	Create/expand website dashboard for tracking and celebrating progress								CZM C			\$ 5,000	CZM Special Project
Strategy	2.6.9	Storm drain public outreach									CZM C		\$ 6,000	CZM Special Project

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Type	Number	Goal / Objective / Strategy Name	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30 or later	Cost (\$)	Funding Source
Goal	3.0.0	Physical features												
Objective	3.1.0	Engage local governments												
Strategy	3.1.1	Coordination with localities and CPT on physical features		CZM A WIP A									\$ 30,000	CZM and WIP Engagement
Strategy	3.1.2	Coordination with localities and CPT on physical features			CZM A WIP A								\$ 10,000	CZM and WIP Engagement
Strategy	3.1.3	Coordination with localities and CPT on physical features				CZM A WIP A							\$ 16,000	CZM and WIP Engagement
Strategy	3.1.4	Coordination with localities and CPT on physical features					CZM A WIP A						\$ 16,000	CZM and WIP Engagement
Strategy	3.1.5	Coordination with localities and CPT on physical features						CZM A					\$ 10,000	CZM Engagement
Strategy	3.1.6	Coordination with localities and CPT on physical features							CZM A				\$ 10,000	CZM Engagement
Strategy	3.1.7	Coordination with localities and CPT on physical features								CZM A			\$ 10,000	CZM Engagement
Strategy	3.1.8	Coordination with localities and CPT on physical features									CZM A		\$ 10,000	CZM Engagement
Strategy	3.1.9	Coordination with localities and CPT on physical features										CZM A	\$ 10,000	CZM Engagement
Objective	3.2.0	Educate local governments												
Strategy	3.2.1	Provide education on relevant regulations		CZM B									\$ 7,000	CZM Training
Strategy	3.2.2	Coordinate training on species and habitats			CZM B								\$ 7,000	CZM Training
Strategy	3.2.3	Coordinate training on urban and non-urban stream restoration				CZM B							\$ 7,000	CZM Training
Strategy	3.2.4	Coordinate training on urban and non-urban shoreline restoration					CZM B						\$ 7,000	CZM Training
Strategy	3.2.5	Coordinate training on mussel projects						CZM B					\$ 7,000	CZM Training
Objective	3.3.0	Support local governments on policies												
Strategy	3.3.1	Identify related programs on physical features, habitats, and species		CZM C									\$ 8,000	CZM Special Project
Strategy	3.3.2	Support compliance with relevant regulations		CZM C									\$ 8,000	CZM Special Project
Strategy	3.3.3	Create a policy "toolbox" on physical features		CZM C									\$ 9,000	CZM Special Project
Strategy	3.3.4	Evaluate the lifecycle and systems costs / benefits related to habitats			CZM C								\$ 8,000	CZM Special Project
Strategy	3.3.5	Follow up on CZM study of historic drainage structures			CZM C								\$ 9,000	CZM Special Project
Strategy	3.3.6	Guide Land Conservation in Virginia to the Highest Conservation Value Lands				CZM C							\$ 8,000	CZM Special Project
Strategy	3.3.7	Develop mitigation and adaptation plans for flora and fauna threatened by climate change										Later		
Objective	3.4.0	Support local governments on projects												
Strategy	3.4.01	Identify local and regional projects to improve physical features				CZM C							\$ 9,000	CZM Special Project
Strategy	3.4.02	Support urban and non-urban stream restoration						NFWF						NFWF
Strategy	3.4.03	Support urban and non-urban shoreline restoration							NFWF					NFWF
Strategy	3.4.04	Target water quality improvement in streams supporting rare species									CZM C		\$ 8,000	CZM Special Project
Strategy	3.4.05	Support or develop and mussel programs										Later		
Strategy	3.4.06	Support low-impact closed system aquaculture such as tilapia/aquaponics										Later		

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Type	Number	Goal / Objective / Strategy Name	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30 or later	Cost (\$)	Funding Source
Strategy	3.4.07	Support conservation of wetlands that support rare and endangered species										Later		
Strategy	3.4.08	Pursue the restoration and enhancement of wetland habitats										Later		
Strategy	3.4.09	Support maintenance and restoration of forest habitat										Later		
Strategy	3.4.10	Support maintenance and restoration of open habitats										Later		
Strategy	3.4.11	Partner in buffering lands around Fort A.P. Hill and Marine Corps Base Quantico										Later		
Strategy	3.4.12	Pursue Sentinel Landscapes Partnerships										Later		
Strategy	3.4.13	Support expansion of the Rappahannock River National Wildlife Refuge										Later		
Objective	3.5.0	Engage, educate, and empower development community and local businesses												
Strategy	3.5.1	Engage developers on physical features							CZM C				\$ 6,000	CZM Special Project
Strategy	3.5.2	Engage local businesses on physical features										Later		
Objective	3.6.0	Engage, educate, and empower the public												
Strategy	3.6.1	Habitats and species public outreach									CZM C		\$ 5,000	CZM Special Project
Strategy	3.6.2	Shoreline management public outreach										Later		
Strategy	3.6.3	Stream management public outreach										Later		
Strategy	3.6.4	Create/expand website dashboard for tracking and celebrating progress										Later		

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Goal	4.0.0	Sustainable development												
Objective	4.1.0	Engage local governments												
Strategy	4.1.1	Coordination with localities and CPT on sustainable development			CZM A WIP A								\$ 30,000	CZM and WIP Engagement
Strategy	4.1.2	Coordination with localities and CPT on sustainable development				CZM A WIP A							\$ 18,000	CZM and WIP Engagement
Strategy	4.1.3	Coordination with localities and CPT on sustainable development					CZM A WIP A						\$ 18,000	CZM and WIP Engagement
Strategy	4.1.4	Coordination with localities and CPT on sustainable development						CZM A					\$ 10,000	CZM Engagement
Strategy	4.1.5	Coordination with localities and CPT on sustainable development							CZM A				\$ 10,000	CZM Engagement
Strategy	4.1.6	Coordination with localities and CPT on sustainable development								CZM A			\$ 10,000	CZM Engagement
Strategy	4.1.7	Coordination with localities and CPT on sustainable development									CZM A		\$ 10,000	CZM Engagement
Strategy	4.1.8	Coordination with localities and CPT on sustainable development										CZM A	\$ 10,000	CZM Engagement
Objective	4.2.0	Educate local governments												
Strategy	4.2.1	Coordinate training on regulations relevant to sustainable development			CZM B								\$ 7,000	CZM Training
Strategy	4.2.2	Coordinate training on sustainable development practices				CZM B							\$ 7,000	CZM Training
Strategy	4.2.3	Coordinate training on Transfer/Purchase of Development Rights					CZM B						\$ 7,000	WIP Training
Objective	4.3.0	Support local governments on policies												
Strategy	4.3.1	Conduct Greenways Feasibility Study	VDOF										\$ 40,000	VDOF
Strategy	4.3.2	Participate in Virginia Walkability Action Institute		VDH									\$ 10,000	VDH
Strategy	4.3.3	Identify related programs on sustainable development			CZM C								\$ 8,000	CZM Special Project
Strategy	4.3.4	Create a policy "toolbox" on sustainable development				CZM C							\$ 8,000	CZM Special Project
Strategy	4.3.5	Evaluate the lifecycle and systems BCA related to sustainable development										CZM C	\$ 10,000	CZM Special Project
Strategy	4.3.6	Provide assistance on Transfer/Purchase of Development Rights programs										Later		
Strategy	4.3.7	Assess environmental justice										Later		
Strategy	4.3.8	Participate in regional energy and climate change planning										Later		
Strategy	4.3.9	Support implementation of energy and climate change plan										Later		
Objective	4.4.0	Support local governments on projects												
Strategy	4.4.01	Increase "scenic river" and "scenic byway" designation miles										CZM C	\$ 3,000	CZM Special Project
Strategy	4.4.02	Identify local and regional sustainable development projects										CZM C	\$ 10,000	CZM Special Project
Strategy	4.4.03	Support increasing river and coast access										Later		
Strategy	4.4.04	Urban Heat Island Mitigation										Later		
Strategy	4.4.05	Support Port Royal in King Street pier maintenance and costs										Later		
Strategy	4.4.06	Support implementation of Greenways Feasibility Study Y1										Later		

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Strategy	4.4.07	Support implementation of Greenways Feasibility Study Y2										Later		
Strategy	4.4.08	Support implementation of Greenways Feasibility Study Y3										Later		
Strategy	4.4.09	Support implementation of Greenways Feasibility Study Y4										Later		
Strategy	4.4.10	Add Rappahannock River to www.virginiawatertrails.org										Later		
Strategy	4.4.11	Refine Rappahannock River assets in www.virginiawatertrails.org										Later		
Strategy	4.4.12	Rappahannock River Water Trail Launch Sites Enhancement Plan										Later		
Strategy	4.4.13	Rappahannock River Water Trail Launch Sites Signage										Later		
Strategy	4.4.14	Reduce dependence on vehicles										Later		
Strategy	4.4.15	Support impervious surface reduction										Later		
Objective	4.5.0	Engage, educate, and empower development community and local businesses												
Strategy	4.5.1	Engage developers on sustainable development										Later		
Strategy	4.5.2	Engage local businesses on sustainable development										Later		
Strategy	4.5.3	Promote Virginia Certified Ecotour Guide Course and connections										Later		
Objective	4.6.0	Engage, educate, and empower the public												
Strategy	4.6.1	Water use public outreach										Later		
Strategy	4.6.2	Energy use public outreach										Later		
Strategy	4.6.3	Trails and Waterways public outreach										Later		
Strategy	4.6.4	Promote ecotourism and recreation										Later		
Strategy	4.6.5	Create/expand website dashboard for tracking and celebrating progress										Later		

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Goal	5.0.0	Technical tools												
Objective	5.1.0	Track strategic plan implementation												
Strategy	5.1.01	Annual tracking of implementation	WIP C										\$ 3,000	WIP Special Project
Strategy	5.1.02	Annual tracking of implementation		WIP C									\$ 3,000	WIP Special Project
Strategy	5.1.03	Annual tracking of implementation			WIP C								\$ 3,000	WIP Special Project
Strategy	5.1.04	Annual tracking of implementation				WIP C							\$ 3,000	WIP Special Project
Strategy	5.1.05	Formal plan update					CZM C						\$ 5,000	CZM Special Project
Strategy	5.1.06	Annual tracking of implementation						CZM C					\$ 3,000	CZM Special Project
Strategy	5.1.07	Annual tracking of implementation							CZM C				\$ 3,000	CZM Special Project
Strategy	5.1.08	Annual tracking of implementation								CZM C			\$ 3,000	CZM Special Project
Strategy	5.1.09	Annual tracking of implementation									CZM C		\$ 3,000	CZM Special Project
Strategy	5.1.10	Formal plan update										CZM C	\$ 5,000	CZM Special Project
Objective	5.2.0	Educate local governments												
Strategy	5.2.1	Coordinate training on environmental datasets							CZM B				\$ 7,000	CZM Training
Strategy	5.2.2	Coordinate training on water resource management							CZM B				\$ 7,000	CZM Training
Strategy	5.2.3	Coordinate training on renewable energy								CZM B			\$ 7,000	CZM Training
Strategy	5.2.4	Coordinate training on air quality control								CZM B			\$ 7,000	CZM Training
Strategy	5.2.5	Coordinate training on road recycling paving									CZM B		\$ 7,000	CZM Training
Strategy	5.2.6	Coordinate training on environmental justice									CZM B		\$ 7,000	CZM Training
Strategy	5.2.7	Coordinate training on trash disposal										CZM B	\$ 7,000	CZM Training
Strategy	5.2.8	Coordinate training on industrial waste management										CZM B	\$ 7,000	CZM Training
Objective	5.3.0	Support local governments on projects												
Strategy	5.3.1	Regional grant writer position feasibility study										Later		
Strategy	5.3.2	Regional Floodplain Manager position feasibility study										Later		
Strategy	5.3.3	Regional Public Outreach position feasibility study										Later		
Strategy	5.3.4	Regional grant writer position										Later		
Strategy	5.3.5	Regional Floodplain Manager position										Later		
Strategy	5.3.6	Regional Public Outreach position										Later		
Objective	5.4.0	Engage, educate, and empower development community and local businesses												
Strategy	5.4.1	Engage developers on technical tools										Later		
Strategy	5.4.2	Engage local businesses on technical tools										Later		