



CRS Technical Assistance: RAFT Scorecard Review Summary 2022-2023

CRS RAFT Scorecard Reviews Completed

In fiscal year 2022, Wetlands Watch conducted reviews of three Resilience Adaptation Feasibility Tool (RAFT) Scorecard reports. These RAFT scorecard reports were originally made January-March of 2023 and this supplemental review serves to highlight additional Community Rating System (CRS) program credit opportunities if the community were to join the CRS program. The original RAFT scorecards indicated which resilience actions could earn CRS credits, but this updated scorecard version explains in detail how specific actions scored through the RAFT process could earn CRS credit. Wetlands Watch staff has conducted meetings with the new RAFT communities located in the PlanRVA and Crater Planning District Commissions (PDC), both the City of Hopewell and City of Petersburg. Wetlands Watch staff provided report card reviews for CRS scoring potential. Wetlands Watch staff has engaged in RAFT meetings for both communities virtually and in-person, and provided support to Petersburg and Hopewell related to Wetlands Watch's floodplain expertise. Wetlands Watch staff met with Cities of Hopewell and Petersburg staff further to provide CRS and MS-4 permit resources. Where applicable, we highlighted specific CRS activities the communities could receive credit for if they were to document them appropriately.

The revised RAFT scorecards were sent to the communities by the RAFT team in January of 2023. The communities were encouraged to reach out to Wetlands Watch staff if they had any questions or wanted additional information about the review conducted or the CRS program.

The RAFT Team conducted an adapted scorecard production and review process for the Upper Mattaponi and Mattaponi tribes. Wetlands Watch conducted research into the feasibility of Virginia tribes joining the CRS program and completed a revised CRS scorecard based upon this tribal adaptation, along with a one-page summary of the barriers tribes face in CRS participation. The one summary report and adapted scorecard review is included in the pages that follow.

This report, Task 91.03, was funded by the Virginia Coastal Zone Management Program at the Department of Environmental Quality through Grant FY22 # NA22NOS419 of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, under the Coastal Zone Management Act of 1972, as amended.





Chincoteague RAFT Alumni Follow-Up Meeting Summary

Wednesday, June 14th 2023

Overview

Wetlands Watch staff had a modified meeting on the phone with Robert “Bob” Shendock, a Chincoteague Planning Commission Member, on June 14th 2023. Bob reached out to Wetlands Watch staff after an initial email exchange to share that an in-person follow-up meeting was unlikely due to extreme staff turnover and drastic attitude changes towards resilience initiatives since the Town had completed the RAFT process in 2018. Bob provided updates on the Town’s six items listed on their [Resilience Action Checklist](#), and discussion also included potential Community Flood Preparedness Fund (CFPF) grant opportunities for the Town.

General Feedback on the RAFT Process

Bob shared that the RAFT process was implemented with the Town at a very beneficial time. Before RAFT, the Town had dedicated little to no time on what resilience meant for their community and they were preparing for their next Comprehensive Plan update . He noted resiliency was a new topic for them and the RAFT process was helpful in breaching the issue, which ultimately led to the inclusion of resilience priorities throughout Chincoteague’s 2020 Comprehensive Plan.

Resilient Action Checklist Item Updates

1. Improve Stormwater Management

Bob shared he is unaware of any updates on this action item, and he prefaced the conversation by sharing there has been major turnover in Chincoteague’s Town Council and staff, including in the code enforcement and public works departments, and a new Town Manager has been appointed since completing the RAFT process in 2018. Bob noted the new council and staff members are on the more conservation side, and are not strong proponents of resilience initiatives. He stated attempting to address any of the resilience actions since the council and staff turnover has been “impossible.” He also noted this action item is still a pressing issue for the Town.

2. Improve Shoreline Management

In regards to identifying comprehensive solutions for improving shoreline management, Bob noted they recently hired a consultant to conduct an analysis of the southern portion of the island. Chincoteague has been experiencing more extreme wave action during storm events due to increased erosion of Assateague Island, located just south of Chincoteague. The goal of the study focused on the southern portion of the island is to identify potential solutions to alleviate the increased wave action. Bob shared he is hoping to include more marshland in the Town’s designated “resource conservation” zones, which are outlined in their ordinance and restricts

the development of any structures in these areas. He hopes they can do a better job of protecting their marshland in the future for improving both shoreline and stormwater management. Several of their marshland areas have been zoned as residential and have been filled in over the years, causing a lack of natural storage basins for stormwater runoff.

The Planning Commission met on June 13th to discuss rezoning two areas of marshland from mixed use to resource conservation areas. The Commission recommended to the Town Council to redesignate these areas as protected; however, Bob is not optimistic that the council will approve their recommendations. The Town Council meeting is scheduled for July 3rd.

3. Improve Access to Island

Bob noted this continues to be a pressing issue for Chincoteague, but there have been no actions taken since completing the RAFT. Not only is there an issue of access getting off and on the island with there only being on road for ingress/egress, but Bob shared the southern portion of the island becomes cut off by flood waters during storm events. In these instances, it becomes unsafe for residents in this area to evacuate, and emergency vehicle access is limited. Bob mentioned this is becoming a growing concern, because there continues to be increased development on this portion of the island.

4. Improve Wastewater Management

This action item is not as pressing of a problem as it was in 2018, according to Bob. Chincoteague has been working to drill additional wells in the town, but he is unsure if any of them are fully operational yet. However, the issue of aging water infrastructure has come up in town meetings, and they are working to improve this infrastructure as they redo the roads throughout town. Bob noted this process isn't necessarily moving as fast as he would like, but is grateful that it is being addressed.

Another issue Bob mentioned is access to water in case of emergencies. There is one water tower in Chincoteague located in the center of town. Bob noted access is more limited to the water tower for the northern and southern parts of the island, which could potentially pose problems in the future if there were ever to be multiple fire emergencies needing to be addressed across town.

5. Participate in Comprehensive Plan Update

This action item has been the most successful in both its completion and integration of resilience goals. Bob stated the references and resources the RAFT team provided to the Town were extremely useful during the 2020 Comprehensive Plan update. This process was particularly successful to Bob because he worked carefully to integrate resilience language and goals throughout all sections of the Comprehensive Plan, as opposed to only dedicating one section to it. Bob noted that if they would have decided to include all of the resilience language in a single section, it most likely would have been removed by Town Council members. He is hoping to include more resilience goals on data focused on future conditions for the next iteration of the Comprehensive Plan.

6. *Improve Communication*

Prior to the COVID-19 pandemic, Bob noted they were seeing an increase in participation from residents at public town meetings. This level of physical presence at public meetings has yet to bounce back since the pandemic; however, one improvement due to the pandemic is that the Town has started to stream their public meetings on Youtube. Bob estimated about 50 people view Town Council meetings online, and about half of that number for all other public meetings.

Funding Opportunities

Wetlands Watch staff highlighted the Community Flood Preparedness Fund (CFPF) as a potential financial resource for the Town to take advantage of as one way of addressing their stormwater maintenance goals. Bob noted applications for a Town-wide drainage study and hiring new staff were of great interest to him; however, he was wary of being able to garner interest from the Town Council and Town Planner, as they have been resistant to resilience initiatives in the past. Wetlands Watch staff offered our assistance if they do decide to pursue a CFPF grant, and emailed Bob more resources on the CFPF after the meeting.

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Virginia Coastal Zone
MANAGEMENT PROGRAM



Onancock RAFT Alumni Follow-Up Meeting Summary

Thursday, May 18th 2023

Overview

Wetlands Watch staff met with Joy Marino, Onancock Councilwoman, and Matt Spuck, Onancock's Town Manager, on May 18th 2023 in the Town's Council Chambers. Discussion topics included the Town's RAFT [Resilient Action Checklist](#), the Accomack-Northampton Planning District Commission's (ANPDC) regional resilience plan, the Town's beautification plan, and potential funding and partnership opportunities for the Town's resilience goals.

It is worth noting that Matt joined Onancock as the Town Manager in July 2020 and is extremely focused on improving the resiliency of the Town. As highlighted throughout the summary notes below, Matt wishes to prioritize green infrastructure solutions when at all possible, and has the knowledge and capacity to pursue grant funding for these projects.

General Feedback on the RAFT Process

Joy highlighted she really liked the process because it moved them beyond the debate on what's happening to the Town and instead forced them to think about how to deal with the impacts they are facing. Matt noted the Town hasn't done anything recently to implement their Resilient Action Checklist items, and thinks providing localities with ideas for smaller scale projects that don't involve a large financial investment would be very beneficial.

Resilient Action Checklist Item Updates

1. Complete Comprehensive Plan

The Town adopted its [comprehensive plan](#) on September 27th, 2021. Joy indicated a large portion of the language was reused from the previous comprehensive plan; however, she mentioned the Planning Commission members requested a copy of the RAFT Scorecard to review as they made updates to the plan. Under the "Natural Resources Goals and Actions" section of the plan, it lists "Complete RAFT scoring and develop resilience plan." The Town has since been involved in the development of ANPDC's resilience plan. The ANPDC received a round 3 Community Flood Preparedness Fund grant to complete the resilience plan.

Matt noted the majority of the projects they included as part of the resilience plan focused not on shoreline management, but on stormwater management. The Town is investigating several options to improve stormwater drainage throughout the community. After completing the RAFT process the Town installed a duckbill, a backflow prevention device, in one of the storm drains that flow to the creek; however, Matt is unsure of how effective the duckbill has been. He noted once the creek raises at least 18 inches, the device becomes useless because the water tops over the bulkhead. The Town is considering installing duckbill devices in the other two storm drains, but will investigate how to monitor the effectiveness of the current one, as the price of each device is about \$10,000.

2. Design Resilient Wharf Waterfront

Staff from Clark Nexsen, an architecture and engineering design company based out of Virginia Beach, visited the Town to suggest various options to improve the resiliency of the wharf. Suggestions included installing backflow prevention devices, floating the harbormaster building, and elevating the wharf's parking lot. As mentioned previously, the Town is still assessing the effectiveness of the backflow prevention device, and Matt noted floating the harbormaster building and elevating the parking lot is too costly and not effective long-term solutions. He also examined older Town plans that outlined potentially constructing flood walls, but Matt noted "that would just push the water to someone else's property." They are planning to dredge underneath the floating dock this Fall, and have already received a USACE permit to do so.

3. Projected Economic Impact Analysis

The Town has not conducted a formal economic impact analysis of investing in resilience projects; however, Matt noted the economic success of the Town is tied directly to the creek, and their main goal is to maintain its navigability. Joy shared that "the creek is our lifeblood." When asked about shoreline management, Matt shared the majority of the Town's shoreline is privately owned, and enforcement of the zoning ordinance is mostly tied to complaints they receive.

Wetlands Watch staff mentioned the new Tidal Wetlands Act guidelines that make living shorelines the default option for shoreline erosion control, unless the property owners can show a living shoreline will not work on the specific location. Matt noted the depth of the creek would most likely prevent property owner's from successfully installing living shorelines, but it may work in some areas.

4. Community Education and Outreach

Since completing the RAFT, the Town invested in emergency management magnets that include emergency services contact information and a list of supplies to have ready in case of an emergency. The magnets are available in the Town Hall for residents to pick up, but Joy stated she has made a concentrated effort to also hand them out to all residents herself.

The Town has yet to implement any other dedicated outreach efforts, but is interested in utilizing the Town's email and text alert lists to send information to residents. Matt and Joy noted they have about 600 emails and 300 phone numbers collected for these notifications; however, they need assistance in developing messages. Joy also noted 103.3 FM WESR radio station is a source the majority of residents receive their news from, and could potentially be utilized in the future.

Town Beautification Plan

Matt and Joy shared that the Town is currently developing a beautification plan in partnership with [Hill Studio](#). The plan is focused on outlining potential improvements related to parking, street signs, and lighting. The plan will not focus on resilience practices; however, during this conversation, Matt mentioned he does want Onancock to prioritize green solutions when possible. The Town has previously installed permeable pavers in some of its parking lots, but the Town has not had the capacity to maintain them and are longer serving their purpose. Matt noted he prefers rain gardens to permeable pavers, and the Town is looking to plant native

plants in their wetter properties to help prioritize water retention instead of relying the water to drain into the creek. Wetlands Watch staff advised the Town to prioritizing green retention practices in the highest elevated areas of the Town first in order to reduce stormwater runoff.

Funding and Partnership Opportunities

Wetlands Watch staff highlighted numerous funding opportunities the Town could pursue to help them with their resilience goals, including the Community Flood Preparedness Fund (CFPF), the Stormwater Local Assistance Fund (SLAF), and FEMA grants. Matt mentioned his interest in applying for a CFPF grant to have a drainage study completed for the Town, and then submitted project grants based on the study's results. He stated he is extremely opposed to applying for FEMA grants, noting the program's inaccessible eligibility requirements and that it is the "most complicated application process he's ever seen."

Wetlands Watch staff also mentioned an opportunity for the Town to participate in a Collaboratory project with college students to create a 10% design plan for any of the areas that are more impacted by stormwater runoff. Matt mentioned an underserved community in the Town, the Northeast community, whose storm drains have been severely neglected and would greatly benefit from this opportunity. Wetlands Watch staff are planning to follow with the Town staff to begin planning on this potential partnership.

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Northampton RAFT Alumni Follow-Up Meeting Summary

Thursday, May 25th 2023

Overview

Wetlands Watch staff met with Susan McGhee, Northampton County's Director of Planning, Permitting, and Enforcement, and Julie Floyd, the County's Environmental Outreach and Floodplain Manager, on May 25th 2023 in the Northampton County Courthouse. Discussion topics included the County's RAFT [Resilience Action Checklist](#), the status of their Community Flood Preparedness (CFPF) grants, and their interest in joining the Community Rating System (CRS) program. It is important to note that Kelley Parks, who was an original RAFT team member for the County, no longer works for Northampton County. Kelley now works as a consultant with the County's wetlands board. Susan and Julie shared completing the County's resilience action items has not been a priority due to Kelley's departure. Julie has been focused on receiving her Certified Floodplain Manager (CFM) certification, which she did receive in April 2023, and will now be focusing on the County's GIS initiatives.

General Feedback on the RAFT Process

Unfortunately, little feedback on the RAFT process was given during the meeting because Kelley had been the most involved County staff member during the RAFT process. Susan noted that one area of improvement could be to conduct more follow-ups with RAFT communities after they complete the initial process. She stated the County wasn't very motivated to return to their resilient action checklist since no one was following-up with the community about their progress.

Resilient Action Checklist Item Updates

1. Create a Tour for County Managers, Planners

When Kelley Parks was still on staff with the County, she had started to scope out best management practice (BMP) tours for county managers and planners. Since her departure, the County has not had time to revisit this checklist item. Susan noted the County was unable to hire a replacement planner for Kelley's position and resorted to hiring a consulting firm, [The Berkley Group](#), to serve as their planner and write their updated Comprehensive Plan.

Julie still thinks having a resource for county managers and planners to learn about BMPs would be helpful, and mentioned the possibility of creating a video or slideshow to share with county staff.

2. Conduct Joint Session with Planning Commission and Board of Supervisors

No formal joint session was created between the County's Planning Commission and Board of Supervisors; however, the County did include a standalone "Resilience Environment"

section in their most recent Comprehensive Plan. Susan noted all Planning Commission members read this section thoroughly.

Although a joint session was not created in this particular instance, Susan mentioned the County will create action groups made up of members from the Planning Commission and Board of Supervisors (two members each) when a significant issue arises that needs to be addressed. The County currently has an action group focused on developing more affordable housing in the region. There may be opportunities in the future for the County to create an action group focused on resilience if needed, Susan noted.

3. Participate in CBF's Oysters & Trees

The County has not participated in the Chesapeake Bay Foundation's (CBF) oysters and trees initiative since completing the RAFT. Wetlands Watch staff shared resources on the new [Coastal Resilience and Trees Fund](#) (CRTF) if they are still interested in similar projects, especially if they are on a smaller scale.

4. Create Maps

Northampton County has not created nor used any new maps to outline risk, other than those created by the RAFT team. The County's current GIS priority is to create updated election maps given the new redistricting and census changes. Julie will be the main staff member at the County leading this effort.

5. Conduct County-wide Preparedness Meetings

The County has not had the capacity to conduct emergency preparedness meetings. Julie mentioned they do have the hurricane preparedness guide on their website for residents. The County is interested in creating a Community Emergency Response Team (CERT), but no steps have been taken yet to initiate this.

6. Develop a Basic Needs List

The County has not created a basic needs list for emergency preparedness; however, they are in the process of building a County emergency shelter. The estimated budget for the shelter is \$84 million, and they have already received \$16.8 million from the state.

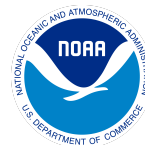
7. Create a Task Force for Vulnerable Populations

The County has not taken any steps to create a task force to reach other parts of the community that do not come to centralized meetings. Susan and Julie both stated they really do like this action item, and will see what efforts can be made to start working on it.

Community Flood Preparedness Fund (CFPF) Grants

Northampton County has received two grants through the Community Flood Preparedness Fund (CFPF); one that [supports County staff capacity](#) and one to create a [resilience plan for Oyster Village](#). Julie is managing both of these grants. The first grant focused on staff capacity is currently completely funding Julie's salary. The County hopes to absorb the

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cost of her position once the CFPF grant is complete. The County is currently in the beginning stages of creating the resilience plan for Oyster Village under the second grant.

Community Rating System (CRS) Interest

In April 2019, Wetlands Watch staff conducted a Community Rating System (CRS) training with Northampton County and was estimated to join at a Class 7 (15% discount) if they were to join the program at that time. Wetlands Watch staff asked if the County had taken any steps since then to join the CRS program, and Susan noted they had not because the County did not have enough flood insurance policies in the Special Flood Hazard Area (SFHA) to make it financially beneficial. Wetlands Watch staff then shared that the CRS discounts now apply to all flood insurance policies in the community, not those just in the SFHA, since the implementation of Risk Rating 2.0 in April 2022. The County plans to reevaluate their interest in joining the program given this update. Wetlands Watch staff shared the new estimated policy savings under Risk Rating 2.0, and can also be found in the table below.

			Risk Rating 2.0	Prior Methodology			
			TOTAL	TOTAL	SFHA * X-STD/AR/A99 **	PRP ***	
PIF			230	230	73	157	0
AVERAGE PREMIUM			\$650	\$650	\$840	\$562	\$0
PREMIUM			\$149,611	\$149,611	\$61,313	\$88,298	\$0
CRS Class	% Discount						
9	5%	Per Policy	\$ 33	\$33	\$42	\$28	\$0
		Per Community	\$ 7,481	\$7,481	\$3,066	\$4,415	\$0
8	10%	Per Policy	\$ 65	\$46	\$84	\$28	\$0
		Per Community	\$ 14,961	\$10,546	\$6,131	\$4,415	\$0
7	15%	Per Policy	\$ 98	\$59	\$126	\$28	\$0
		Per Community	\$ 22,442	\$13,612	\$9,197	\$4,415	\$0
6	20%	Per Policy	\$ 130	\$92	\$168	\$56	\$0
		Per Community	\$ 29,922	\$21,092	\$12,263	\$8,830	\$0
5	25%	Per Policy	\$ 163	\$105	\$210	\$56	\$0
		Per Community	\$ 37,403	\$24,158	\$15,328	\$8,830	\$0
4	30%	Per Policy	\$ 195	\$118	\$252	\$56	\$0
		Per Community	\$ 44,883	\$27,224	\$18,394	\$8,830	\$0
3	35%	Per Policy	\$ 228	\$132	\$294	\$56	\$0
		Per Community	\$ 52,364	\$30,289	\$21,459	\$8,830	\$0
2	40%	Per Policy	\$ 260	\$145	\$336	\$56	\$0
		Per Community	\$ 59,844	\$33,355	\$24,525	\$8,830	\$0
1	45%	Per Policy	\$ 293	\$158	\$378	\$56	\$0
		Per Community	\$ 67,325	\$36,421	\$27,591	\$8,830	\$0

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Wachapreague RAFT Alumni Follow-Up Meeting Summary

Thursday, May 25th 2023

Overview

Wetlands Watch staff met with Robert “Bob” Williams, Wachapreague Town Councilman, and Tomeka “Meka” Watkinson, Wachapreague Planning Commission member, on May 25th 2023 in the Wachapreague Town Hall building. Discussion topics included the Town’s RAFT [Resilience Action Checklist](#), the sewer system update, and drainage improvement plan. Bob noted they have not been as focused on their resilience action items due to the Town’s sewer system update, which is detailed later in this summary.

General Feedback on the RAFT Process

The RAFT process was very helpful for Town leadership to be involved, but Bob noted they have had difficulty with getting Town residents involved in resilience conversations. Assisting local leadership with how to breach these conversations with residents may be something the RAFT team can consider in the future. Additionally, Bob mentioned the RAFT process felt very involved at the beginning, but since 2018-2019, they have felt less supported. If there is capacity, the RAFT team should consider conducting at least annual check-ins with RAFT alumni communities.

Resilient Action Checklist Item Updates

1. Upgrade and Improve Town Emergency Response and Communications

Since completing the RAFT process, Accomack County has built a new emergency operations center. Bob noted the Town will not pursue building its own center because they do not have the space nor staff to support it. During emergency or storm events, the County center contacts Wachapreague’s Town Clerk, Charlie Gible.

The Town has tried to improve its communications with residents through multiple mediums, such as fliers in the Town post office, the Town website, and the Town’s Facebook page; however, residents have not been very responsive. Bob said they’ve considered sending outreach mailers to residents, but they do not have the money to support the effort. During Wachapreague’s last town meeting, someone volunteered to start an e-newsletter and the council is exploring ways of partnering with the ANPDC to get important information to residents.

Wachapreague recently held a visioning meeting for residents to provide feedback on improvements for the town as part of the Town’s Comprehensive Plan update. The meeting was held on May 13th and attended by 10 residents. Bob noted part of this process is to identify how to best reach residents, but it has been difficult since residents also aren’t actively seeking out information either. The vision planning process is being led by a former ANPDC staff member and they are working to put together comprehensive notes based on residents’ feedback that will ultimately be incorporated into the new Comprehensive Plan.

2. Develop/Create a Coastal Resilience Resource List

Wachapreague has not formally put together a Coastal Resilience Resource List, but Bob noted the Town's top priorities are the on-going sewer system update, the need for an improved drainage system, funding for relocating fire department, and potentially relocating the Town Hall building out of the high risk flood zone. The fire department has already purchased the land where the department will be relocated to, they just need the funding to relocate the facilities. Wetlands Watch staff encouraged the Town to look into federal infrastructure grant opportunities to fund this effort. Additionally, the Town is starting to "socialize" the idea of relocating the Town Hall building, but Bob noted it will probably be quite some time before it happens. Wetlands Watch staff noted Community Flood Preparedness Fund (CFPF) resources as a potential avenue of securing funding for this effort.

3. Work Collaboratively to Install Cell Phone Towers/Broadband Internet in Our Communities

The Town is still struggling to contract a cell phone company to provide service to the area. One cell phone company, Verizon, told the Town that they do not have enough customers in the area to justify installing a cell tower. Bob shared that another Town Council member spoke with a different cell phone company about installing a cell tower, and this company had denied the request because the land set aside for the tower contained protected wetlands. Wetlands Watch staff encouraged Bob and Meka to potentially explore identifying a different location for the tower due to this update.

Sewer System and Drainage Improvement Plan Updates

Wachapreague has successfully secured funds to install a sewer system that will support the district of the Town. The effort is being completely funded by grants, which were secured with assistance from the Accomack-Northampton Planning District Commission (ANPDC). Bob outlined that the new system will include 17 grinder pumps and hook ups and 1 pump station. The new system, as planned, will not incorporate much of the surrounding neighborhoods, but Bob said that is something the Town is interested in doing in the future. According to Bob and Meka, the majority of the residents have not had trouble with their septic systems. However, this is a new residential structure that was built closer to the shore that had to have an above ground septic system installed. Bob noted the system cost the homeowner \$45,000 and they will have to pay at least \$5,000 to replace the system's membrane every 5-6 years. This will continue to be a growing issue for coastal communities as traditional septic systems begin to fail due to rising sea levels.

Bob and Meka highlighted the Town's next goal is to make substantial improvements to its drainage system. Wachapreague contracted [Davis, Bowen & Friedel](#), an engineering firm based in Maryland, to create a preliminary plan and budget for the improved system. The engineering firm estimated that the improvements will be approximately \$3 million. The plan intends to partner with ANPDC again to pursue funding opportunities to implement the plan. Wetlands Watch staff highlighted the potential for the Town to pursue a Community Flood Preparedness Fund (CFPF) grant for the improvements, especially since ANPDC is in the process of creating a resilience plan for the region.

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CRS Technical Assistance: Tribal Considerations

Wetlands Watch has found only two instances of tribal nations participating in the Community Rating System, one of which subsequently retrograded from the program. Technical staff from the Lummi Nation, a Class 7 CRS-community and sole participating tribal nation, spoke with Wetlands Watch regarding their experience, which helped to inform the findings below. Barriers to joining the CRS program for tribes include:

1. **Limited Resources:** Tribes have limited capacity to effectively participate in the CRS program. Implementing the necessary floodplain management measures can be costly and burdensome. Staff time is the primary cost for joining and maintaining participation. Additional costs include outreach projects and developing guiding planning documents. The availability of technical assistance and support varies and is not sufficient for all tribes.
2. **Data and Information Gaps:** Accurate flood mapping is valuable for CRS participation, but some tribal areas may lack comprehensive flood risk data and hazard assessments. A [2013 report](#) by the Government Accountability Office revealed FEMA had not prioritized mapping for flood risk of tribal lands, which the agency confirmed. This leaves tribal nations to manage unrecognized flood risks and residents uninsured or underinsured. Flood risk awareness is a key driver for involvement in the CRS program, yet tribes are working with inadequate flood mapping and a lack of risk communication from FEMA. Additionally, FEMA flood mapping on Indian Reservations may not accurately identify flood risks.
3. **Regulations:** Federally recognized tribes have a legal status as sovereign entities in the U.S. This status can pose challenges in aligning tribal floodplain management with federal initiatives like the CRS. Tribal land types, whether on federal or state reservations, or private property, add complexity within the CRS program due to differing and overlapping regulations. Lands may be fractured by transfer of ownership to non-tribal members and jurisdiction may be infringed upon by neighboring localities. This can impact record keeping for permitting, which is a prerequisite to the program in Activity 310: Elevation Certificates.
4. **Cultural and Environmental Considerations:** Tribal nations have strong ties to their lands and may prioritize traditional construction methods and cultural heritage over the flood mitigation measures and construction standards creditable by the CRS. Adoption of International Building Codes is a prerequisite to move beyond a Class 7 in the program. This limits incentives available for the development of comprehensive programs. Environmental preservation efforts lead to significantly higher scoring for Activity 420: Open Space Preservation.

Each tribal nation is unique in terms of its geography, culture, and challenges. What works for one tribe will not be suitable for another, and tailoring CRS scoring to fit the specific needs of each tribe can be complex. Virginia Indian Tribes are strongly encouraged to contact Wetlands Watch for support and join the Virginia CRS Workgroup. More information can be found [by following this link](#).

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Potential Activities for CRS Credit
RAFT Scorecard Adaptation for Tribes
Wetlands Watch CRS Adaptation created January 2024

ACTIVITIES OUTLINED BELOW ARE ONLY RELEVANT TO CRS PROGRAM CREDIT IF THEY OCCUR IN THE SPECIAL FLOOD HAZARD AREA (SFHA).

Section 1: LEADERSHIP, POLICY, AND COLLABORATION

1.1 - LEADERSHIP AND PLANNING FOR RESILIENCE:	
Scoring Metric	CRS Notes
a. Leadership roles are identified for staff and/or elected officials important for planning for resilience. If staff is limited or nonexistent, the tribe has tasked someone with handling resilience efforts for the community.	No CRS credits available
b. Training and education events are held for elected officials specifically on extreme heat, flood, and storm hazard resilience issues.	No CRS credits available.
c. Training and education events are held for staff, or if staff is limited or nonexistent, training of whomever has been tasked with handling extreme heat, flood, and storm hazard resilience efforts for the community.	Training for staff is credited in the CRS program (CFMs taking courses offered by FEMA).
d. Staff and/or elected officials, or whomever has been tasked with handling extreme heat, flood, and storm hazard resilience efforts for the community, are meeting at least once per quarter to coordinate planning specifically on these resilience issues.	No CRS credits available.

1.2 - LEADERSHIP AND RESPONDING TO EMERGENCY:	
Scoring Metric	CRS Notes
a. Tribe has identified stakeholders who will require emergency response for extreme heat, flood, and storm hazards including socio-economically vulnerable populations, such as the elderly and medically fragile.	Identifying socially vulnerable populations — knowing where the most at-risk populations are is part of getting credit under CRS activity 610.
b. Tribe has established internal emergency response roles (e.g., standing committees, staff titles) for extreme heat, flood, and storm hazards, and these staff and partners participate in at least one training each year.	When this information is packaged correctly, it could earn CRS credits. In order to get credit for CRS activity 610, the tribe staff would need to go through emergency training at least once per year.
c. Tribe collaborates on resilience planning with the stakeholders who will need emergency response services for extreme heat, flood, and storm hazards and has provided citizens with opportunity to give input.	No CRS credits available.
d. Tribe has a means of communicating these plans to citizens during extreme heat, flood, and storm events.	Emergency and response notification — under CRS activity 610 — via an alert system or Code RED is credited and notifications under multiple avenues (like Facebook) are also eligible for credit.

1.3 - LOCAL COLLABORATION WITH STATE AGENCIES AND REGIONAL PDCs:	
Scoring Metric	CRS Notes

a. Staff and/or officials engage with regional, state, and/or federal agencies on extreme heat, flood, and storm hazard resilience-oriented issues.	<p>Many communities receive credit for Hazard Mitigation Plans (HMP) under CRS activity 510.</p> <p>Note: Outreach is credited in the CRS program, and is a really easy way to earn points. The tribe doesn't have to be the one conducting the outreach - the tribe can earn extra credits if a "stakeholder" is conducting the outreach. Outreach work conducted by a regional PDC to tribal grounds can be credited, it just needs to be tracked. Wetlands Watch has tracking templates that the tribe can use. Outreach needs to occur on an annual basis to be creditable.</p>
b. Participation in local and regional extreme heat, flood, and storm hazard resilience-oriented committees and initiatives to serve socio-economically vulnerable populations.	No CRS credits available
c. Elected officials participate in relevant local and regional extreme heat, flood, and storm hazard resilience-oriented commissions.	No CRS credits available
d. Staff work to identify funding opportunities and priorities to address extreme heat, flood, and storm hazard resilience issues at the regional and state level.	No CRS credits available

1.4 - ADAPTIVE GROUNDS MANAGEMENT:

Scoring Metric	CRS Notes
a. Tribe incorporated new heat, flood, and storm data, scientific analyses, and approaches to resilience, within the last five years into Floodplain Management.	No CRS credits available.
b. Tribe incorporated new heat, flood, and storm data, scientific analyses, and approaches to resilience, within the last five years into Zoning.	Higher regulatory standards than those mandated by the NFIP-minimum may be creditable under Activity 430.
c. Tribe incorporated new heat, flood, and storm data, scientific analyses, and approaches to resilience, within the last five years into Site and Subdivision planning.	No CRS credits available.
d. Tribe incorporated new heat, flood, and storm data, scientific analyses, and approaches to resilience, within the last five years into the Comprehensive Plan.	<p>There are certain actions/sentences that could be included in a Comprehensive Plan that would receive credit under the CRS Program.</p> <p>One example: A tribe can earn 10 points, if the land use plan (comprehensive plan or other plan) recommends open space use or low-density development in flood-prone areas (CRS Manual pg. 420-25).</p>

1.5 - The NFIP'S COMMUNITY RATING SYSTEM:

Scoring Metric	CRS Notes
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a. Grounds have achieved a CRS Score Of 9 Or Higher.	N/A
b. Grounds have achieved a CRS Score of 8.	N/A
c. Grounds have achieved a CRS Score of 7.	N/A
D. Grounds have achieved a CRS Score of 6 or lower.	N/A

Section 2: RISK ASSESSMENT AND EMERGENCY MANAGEMENT

2.1 - GROUNDS EXPOSURE AND VULNERABILITY ASSESSMENT:	
Scoring Metric	CRS Notes
a. Exposure and/or vulnerability assessments for extreme heat, flood, and storms hazards are completed, mapped and updated within the last 5-7 years, available at the local level, and (as evidence of being used) referenced in Tribal policy making.	These actions would be related to Floodplain Management Planning (FMP) - CRS activity 510.
b. Sources of flooding (for coastal, inland, and/or flash flood events) and distribution of heat are identified and updated within last 5 years as applicable.	See above.
c. Flooding for different return period events and number of extreme heat days are identified, projected, and mapped.	See above.

d. Additional vulnerabilities (see above), including cultural, historic and economic assets, are identified and updated within the last 5 years.	See above.
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2.2 - RISK ASSESSMENT FOR VULNERABLE POPULATIONS:	
Scoring Metric	CRS Notes
a. Tribe has identified vulnerable populations that are subject to flooding and coastal storm hazards.	Tribe could potentially earn CRS activity 610 credit if it identified vulnerable communities at risk of flooding and included this data in planning documents regarding flood warning and response. Special emphasis on CRS activity 612 - Flood threat recognition (FTR) system.
b. Tribe has engaged vulnerable populations and provided them with meaningful information (e.g., in their own language, relevant to their circumstances) relating to their vulnerability to coastal storm hazards.	Outreach to rep loss areas is a prerequisite for the tribe depending on the number of repetitive loss properties, and increased outreach efforts to properties beyond the minimum required is creditable. These actions are potentially creditable under CRS activity 330 - Outreach Projects. The County can earn “double” points for providing their outreach materials in both English and another language.
c. Tribe has worked with vulnerable populations to increase their emergency preparedness and evacuation	The Tribe could potentially earn CRS activity 610 credit if

plans so they know their risk and know what steps should be taken during and after an event.	it identified vulnerable communities and created a plan to conduct outreach to the communities about potential flooding risks and impacts.
d. Tribe partners with organizations that provide assistance to vulnerable populations before, during and after storm hazards, including food banks or pantries with refrigeration units and backup generators.	No CRS credits available

2.3 - BUSINESS AND ECONOMIC RISK ASSESSMENT:	
Scoring Metric	CRS Notes
Tribe has included the business sector in its assessment and mapping of extreme heat, flood, and storm hazard vulnerability.	If the tribe wanted to receive credit for engaging with the business community, they could create a Program for Public Information (PPI) under CRS activity 332c. Establishing a PPI involves creating a committee composed of various community members, including community business officials. Members of the committee create a strategic plan for disseminating information about flood risk to the community. Input from the business sector is only credited under this activity. If the businesses are not vulnerable to flood risk, this activity may

	not be relevant.
b. Tribe has engaged council and finance staff in hazards mitigation and/or resilience planning.	See above.
c. Tribe has programs for cultural asset management particularly assets that serve socio-economically vulnerable populations, to encourage each asset to be protected in case of an emergency and plan for preservation.	See above.
d. Tribal emergency management communicates with business sector regarding business' operations, cultural preservation, and roles during hazard events or evacuation.	<p>If a plan is created to provide businesses with flood information prior to, during, or after a flood event, credit could be earned through CRS activity 610.</p> <p>Special emphasis on activity 612 - Flood Threat Recognition (FTR) system. A written plan must be adopted to receive CRS credit.</p>

2.4 - HAZARD MITIGATION:	
Scoring Metric	CRS Notes
a. The HMP specifically addresses extreme heat, flood, and storm hazard resilience.	CRS communities typically receive credits for HMPs under activity 510 - Floodplain Management Planning (512a). The Middle Peninsula PDC regional HMP has been awarded 237 points in Gloucester, for example.

b. Tribe is engaging in regional coordination for Hazard Mitigation through a regional plan.	See above.
c. The HMP details how the Tribe collaborates with Virginia Department of Emergency Management and Department of Conservation and Recreation Floodplain Management, the Federal Emergency Management Agency State Hazard Mitigation Officer and National Weather Service.	See above.
d. The HMP is approved by FEMA, was developed with meaningful public engagement with socio- economically vulnerable communities and is formally adopted by Tribal governing body.	See above.

2.5 - CITIZEN EMERGENCY PREPAREDNESS:	
Scoring Metric	CRS Notes
a. Tribe has a current emergency preparedness plan, updated within the last five years, which identifies emergency preparedness risks and needs, including knowledge of water safety, heat safety and heat related illness management.	<p>To get credit under CRS activity 610, you must have an Emergency Operations Plan that meets specific criteria listed in the 2017 CRS Manual, page 610-1.</p> <p>Credit for flooding warning and response activities in a community is complicated because the CRS program requires that you receive some credit in multiple activities to receive any credit at all. For example, you have to have a system</p>

	that predicts flooding, a warning dissemination process, a plan for specific responses to a flood event, and pay special attention to notifying critical facility operators.
b. Tribe conducts citizen outreach at least once a year to inform citizens about emergency preparedness.	The minimum requirement for credit under CRS activity 610 is community outreach that occurs at least annually. See page 610-7 in the 2017 CRS Manual.
c. Tribe engages citizen groups, including schools, hospitals, and other groups, in testing preparedness through emergency drills, disaster simulations, and planning workshops.	No CRS credit available
d. Tribe has implemented early warning signals/systems/emergency warning tools for its citizens, particularly those most vulnerable.	The tribe could potentially earn CRS activity 610 credit if it created a plan to conduct outreach to the identified vulnerable areas about potential flooding risks and impacts.

Section 3: INFRASTRUCTURE RESILIENCE

3.1 - STORMWATER INFRASTRUCTURE:	
Scoring Metric	CRS Notes

a. Tribe offers at least one official incentive for private property activities that manage stormwater.	No CRS credits available
b. Tribe funds stormwater management projects through stormwater utility fees, user fees, grants, or other creative funding mechanisms.	No CRS credits available
c. Tribe implements one or more stormwater BMPs on public property for educational demonstration, as shown by signage, tours, or other information.	If this program offered educational information about flood risks, then the annual event could be submitted for CRS credit under CRS activity 330 - Outreach Projects (332a). Signage related to the stormwater runoff campaign may be considered a “general outreach project” and worth more points than a flier in a library, for example. The brochures and door hangers may be creditable, as well.
d. Tribal stormwater policy goes above and beyond the minimum state requirements.	The tribe could receive credit for enforcing state erosion and sediment control regulations, if adopted and enforced on tribal grounds. Communities receive 40 points in CRS activity 450c for the 2,500 square foot disturbance requirement in the CBPA.

3.2 - CRITICAL TRANSPORTATION INFRASTRUCTURE:	
Scoring Metric	CRS Notes
a. Tribe has identified critical transportation infrastructure and assessed its vulnerability within last 5 years.	No CRS credits available
b. Tribe has developed a protection plan and a contingency	No CRS credits available

plan for critical transportation infrastructure within the last 5 years.	
c. Tribe has a plan available and has informed citizens which critical transportation infrastructure to utilize in the case of coastal storm hazards.	No CRS credits available
d. Tribe has a contingency plan for critical transportation infrastructure. This plan has been created and/or updated in the past 5 years.	No CRS credits available

3.3 - WATER SUPPLY AND WASTEWATER MANAGEMENT SERVICES:	
Scoring Metric	CRS Notes
a. Tribe conducts an assessment of its drinking water supply and wastewater management, both public sources and private well owners, to identify vulnerabilities to storm hazards.	No activities under this subsection are applicable to the CRS program. To date, the CRS program does not consider water quality impacts from flood events.
b. Tribe water supply plan addresses coastal flooding and hazard events to assure safe drinking water supply and water conservation.	No activities under this subsection are applicable to the CRS program. To date, the CRS program does not consider water quality impacts from flood events.
c. Tribe conducts a citizen education program on safe drinking water to assure post-event public health and safety.	No activities under this subsection are applicable to the CRS program. To date, the CRS program does not consider water quality impacts from flood events.
d. Tribe communications with municipal water and wastewater utility, to manage ongoing challenges to safe water, including during and after a storm. Alternatively	No activities under this subsection are applicable to the CRS program. To date, the CRS program does not consider water quality impacts from

or additionally, the Tribe has established methods of communication with private well and water system owners, to ensure all are informed about how they can increase their water system resiliency.	flood events.
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3.5 - ELECTRICITY INFRASTRUCTURE:	
Scoring Metric	CRS Notes
a. Tribe's fire safety plan has been updated within the last 5 years and addresses flood, storm, and extreme heat hazard effects upon electrical infrastructure.	The Tribe could earn credit under CRS activity 610c – Flood Response Operations for identifying critical infrastructure, but the Tribe must receive credit under multiple activities before earning credit for this activity.
b. Tribe has developed a plan to protect critical electrical infrastructure and address gaps in back-up power provision within the last 5 years.	If the Tribe prohibited critical facilities within the 500-year floodplain, or required the critical facilities to be protected to the 500-year floodplain level, the Tribe could earn credit under CRS activity 432f - Protection of Critical Facilities (PCF).
c. Tribe conducts a citizen education program on back-up power resources and electrical safety to assure post-event public health and safety.	The tribe could get credit for activities listed in its EOP, but the tribe would need to receive credits under multiple activities in CRS activity 610.

d. Tribe communicates with electricity utility, to manage ongoing challenges to electricity provision, including during and after a heat wave, flood, or storm event. Additionally, the Tribe has established methods of communication with consumers, to ensure all are informed about how they can increase their electrical system resiliency and avoid or respond to power outages.	See above.
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3.5 - CRITICAL INFRASTRUCTURE FOR EMERGENCY SERVICES:	
Scoring Metric	CRS Notes
a. Tribe identifies critical infrastructure for emergency services and assessed its vulnerability within last 5 years.	The Tribe could earn credit under CRS activity 610c – Flood Response Operations for identifying critical infrastructure, but the Tribe must receive credit under multiple activities before earning credit for this activity.
b. Tribe has a plan to protect critical infrastructure from storms within the last 5 years.	If the Tribe prohibited critical facilities within the 500-year floodplain, or required the critical facilities to be protected to the 500-year floodplain level, the Tribe could earn credit under CRS activity 432f - Protection of Critical Facilities (PCF).
c. Tribe informs citizens which critical infrastructure they should be used during coastal storm hazards.	The tribe could get credit for activities listed in its EOP, but the tribe would need to receive credits

	under multiple activities in CRS activity 610.
d. Tribe has a contingency plan for continuing services. This plan has been developed or updated in the last 5 years.	See above.

3.6 - FLOOD CONTROL INFRASTRUCTURE:

Scoring Metric	CRS Notes
a. Tribe has identified flood control and dam safety infrastructure vulnerabilities and developed a contingency plan within last 5 years.	If the tribe's comprehensive plan references preserving flood-prone areas as open space, the tribe can earn 10 points under activity 420 (OSI-7).
b. Tribe has developed plans to enhance resilience by identifying synergies between flood control structures, including levees and dams if applicable, and other options, such as nature-based solutions.	If the tribe enforces the CBPA resource protection area (RPA) prohibition of development, then the tribe could submit undeveloped RPA area for credit under CRS activity 422a. The tribe could also receive credit for the undeveloped wetlands located in the SFHA if they enforce the regulations outlined in Virginia's Tidal Wetlands Act.
c. Tribe informs citizens which flood control structures, including dams, are vulnerable to flooding.	If the tribe developed a green infrastructure plan, it could be credited under CRS activity 512c - Natural Floodplains Function Plan. This credit is

	difficult to achieve because of its comprehensive requirements.
d. Tribe communicates with state agencies, to manage ongoing challenges to structural safety. Alternatively, or additionally, the Tribe has established methods of communication with structure and adjacent landowners, to ensure all are informed about how they can increase their structural resiliency and avoid or respond to floods.	

3.7 - NATURAL AND NATURE-BASED FEATURES:

Scoring Metric	CRS Notes
a. Tribe has identified natural and nature-based features that are protective and can assist with resilience such as to reduce wind speeds, flooding, and heat.	If the tribe's comprehensive plan references preserving flood-prone areas as open space, the tribe can earn 10 points under activity 420 (OSI-7).
b. Tribe has developed plans and policies that use natural and nature-based features to enhance flood, storm, and extreme heat resilience.	If the tribe enforces the CBPA resource protection area (RPA) prohibition of development, then the tribe could submit undeveloped RPA area for credit under CRS activity 422a. The tribe could also receive credit for the undeveloped wetlands located in the SFHA if they enforce the regulations outlined in Virginia's Tidal Wetlands Act.
c. Tribe is implementing projects that are in accordance with the plans and policies developed to utilize natural	If the tribe developed a green infrastructure plan, it could be

and nature-based features to increase flood, storm, and extreme heat resilience.	credited under CRS activity 512c - Natural Floodplains Function Plan. This credit is difficult to achieve because of its comprehensive requirements.
d. Tribe offers incentives for the use of natural and nature-based features to increase flood, storm, and extreme heat resilience.	If the tribe were to adopt incentives for the use of natural and nature based features, the tribe could receive credit under CRS activity 422f - Open Space Incentives. There are 7 open space incentives eligible for credit - listed on page 420-25 of the 2017 CRS Manual.

Section 4: PLANNING FOR RESILIENCE

4.1 - BUDGET, FUNDING AND STATE & FEDERAL ASSISTANCE:	
Scoring Metric	CRS Notes
Tribe has capital improvement (CI) funding for resilience. Projects include upgrading critical infrastructure, water and wastewater systems and food and health systems, with priority for needs of vulnerable populations.	Credit for Capital Improvement Plans (CIPs) that make permanent structural changes within the drainage system to reduce flood problems or maintenance problems are eligible through CRS activity 542c. Communities can only receive credit under the CIP activity if they receive credit under activity 442b - Problems Site Maintenance (PSM).

b. Tribe has conducted an economic and cultural impacts assessment of flood, storm, and extreme heat hazards.	No CRS credits available
c. Tribe has identified specific actions for resilience (pre/post extreme heat, storm, and flooding mitigation) in Hazard Mitigation Plan.	The tribe can receive credit for the actions referenced in this section of the RAFT scorecard if the regional HMP was eligible for credit under CRS activity 510.
d. Tribe has identified funding for non-CI resilience projects, including priority needs of vulnerable populations impacted	No CRS credits available

4.2 - HAZARD RESILIENCY IN COMPREHENSIVE PLAN:	
Scoring Metric	CRS Notes
a. The comprehensive plan discusses how community engagement around resilience informed the plan.	No CRS credits available
b. The comprehensive plan includes clear discussion of resilience and	The information included in the comprehensive plan is usually credited under CRS

incorporates assessments to inform the development of policies to reduce vulnerability to hazards.	activity 510 and would typically be included in the regional HMP.
c. The comprehensive plan includes goals and objectives for preserving and protecting natural resources that mitigate hazards, such as trees to address heat islands and wetlands to act as flood buffers.	If the tribe's comprehensive plan references preserving flood-prone areas as open space, the tribe can earn 10 points under activity 420 (OSI-7).
d. The comprehensive plan addresses impacts on critical infrastructure and essential services from flood, storm, and extreme heat hazards, particularly for impacts affecting socio-economically vulnerable populations.	The CRS program would not credit this in the inclusion of a comprehensive plan, but the monitoring of risk to critical infrastructure is credited in CRS activity 610.

4.3 - LAND USE ORDINANCES:	
Scoring Metric	CRS Notes
a. Tribe land use regulations protect areas vulnerable to flooding by limiting development inside the floodplain or encouraging development outside the floodplain.	Limitations of development in the CBPA resource protection area (RPA) and wetlands is a creditable activity in the CRS program, through activity 420, Open Space Preservation.
b. Tribe land use regulations protect areas vulnerable to flooding by setting higher standards in existing flood zones or by designating additional flood zones beyond those designated by FEMA.	There are countless CRS credits available for setting higher standards than the NFIP-minimum standards in existing flood zones. These actions are credited under activity 430 listed on page 430-1 in the 2017 CRS Manual.

c. Tribal land use regulations protect heat-prone areas and areas vulnerable to flooding by setting buffers, including open space.	Limitations of development in the CBPA resource protection area (RPA) and wetlands is a creditable activity in the CRS program - activity 420, Open Space Preservation.
d. Tribal land use regulations protect areas vulnerable to flooding by using setbacks to protect flood-prone areas.	Setbacks are treated much like buffers and could be credited under multiple sections of activity 420. In Virginia, setbacks are typically credited through the RPA.

4.4 - INCENTIVES FOR HAZARD RESILIENCE:

Scoring Metric	CRS Notes
a. Tribe offers an incentive for achieving resilience goals: discourage development in areas prone to flooding; protect critical ecosystems; encourage sustainable development; improve resilience in high-risk areas; reduce heat island effects, and preserve natural assets.	If the tribe were to adopt incentives for the use of natural and nature based features, the tribe could receive credit under CRS activity 422f - Open Space Incentives. There are 7 open space incentives eligible for credit and they are listed on page 420-25 of the 2017 CRS Manual.
b. Tribe offers a second incentive for achieving the goals listed above.	See above.
c. Tribe offers a three or more incentives for achieving the goals listed above.	See above.
d. Tribe develops incentives in consultation with agencies and	No CRS credits available

organizations working with socio-economically vulnerable populations.	
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4.5 - NATURAL RESOURCE PRESERVATION:	
Scoring Metric	CRS Notes
a. Tribe has identified and mapped natural resources that are important for broad ecosystem health and heat reduction, and which are at risk of being lost due to heat, flooding, and storm hazards.	Limitations of development in the CBPA resource protection area (RPA) and wetlands is a creditable activity in the CRS program - activity 420. If the tribe were to adopt incentives for the use of natural and nature based features, the tribe could receive credit under activity 422f - Open Space Incentives. There are 7 open space incentives eligible for credit and they are listed on page 420-25 of the 2017 CRS Manual.
b. Tribe has developed plans and policies that preserve and restore natural resources to increase resilience to extreme heat, floods, and storms.	<p>Limitations of development in the CBPA resource protection area (RPA) and wetlands is a creditable activity in the CRS program - activity 420. If the tribe were to adopt incentives for the use of natural and nature based features, the tribe could receive credit under activity 422f - Open Space Incentives. There are 7 open space incentives eligible for credit and they are listed on page 420-25 of the 2017 CRS Manual.</p> <p>If the tribe's comprehensive plan references preserving flood-prone areas as open</p>

	space (to the extent possible), the tribe can earn 10 points under CRS activity 420 (OSI-7). If the tribe developed a green infrastructure plan, it could be credited under CRS activity 512c - Natural Floodplains Function Plan. This credit is difficult to earn because of its comprehensive requirements.
c. Tribe has programs with residents, civic organizations, and nonprofit organizations to educate community about the natural resource preservation plan and engage them in helping to implement the plan.	The tribe could receive credit for outreach related to natural resource preservation through CRS activity 330 - Open Space Preservation. This message would satisfy the sixth priority topic (protect natural floodplain functions). For examples on how to phrase this message, see 330-4 of the 2017 CRS Manual.
d. Tribe is funding actions that implement the natural resource preservation plan.	No CRS credits available, unless general outreach projects are pursued, with signage publicly posted that gives educational flood information, creditable under CRS Activity 330.

Section 5: COMMUNITY ENGAGEMENT, HEALTH, AND WELL-BEING

5.1 - INVOLVEMENT IN RESILIENCE PLANNING:	
Scoring Metric	CRS Notes
a. Tribe has a written policy regarding the role of citizens, businesses, schools,	If the tribe wanted to get credit for a written policy stipulating the roles of various stakeholders listed

pantries, clinics, institutional, nonprofit, faith-based communities, veterans, and other stakeholders in extreme heat, flood, and storm hazard resilience.	in this section, it could do so through the creation of a Program for Public Information (PPI) - CRS activity 332c. Establishing a PPI involves creating a committee composed of various community members. Members of the committee create a strategic plan in regards to disseminating flood risk to the community. Input from the groups listed in this section are only credited through the outreach activity section.
b. Tribe has staff dedicated to engagement in extreme heat, flood, and storm hazard resilience, including a standing committee that addresses resilience as part of its work.	Public engagement on flood risk issues is credited under CRS activity 330 (332a - Outreach Projects (OP)). Staff committees focusing on engagement are credited through CRS activity 332c - Program for Public Information (PPI).
c. Tribe holds at least one meeting per year, including one for vulnerable citizens to address extreme heat, flood, and storm hazard resilience issues and posts the results of the meetings. For 75-150,000, at least two such meetings per year; for 150,000+ at least three per year.	If the tribe holds a public meeting and provides educational information about flood risk, then the presentation(s) could be submitted for CRS credit under activity 330 - Outreach Projects (332a). Presentations are considered a “general outreach project” or a “targeted outreach project,” depending on the meeting audience. For example, if at least 50% of the vulnerable citizens attend, the meeting qualifies as a “targeted outreach project” and can receive more credit than a “general outreach project.”
d. Tribe informs and engages vulnerable populations about extreme heat, flood, and storm hazard resilience by using website, social media, media serving minorities, and faith-based organizations to enable them to provide suggestions	If the tribe creates outreach media to a targeted Population, like as described for repetitive loss areas, these outreach actions are eligible for credit under CRS activity 332a - Outreach

about issues and strategies.	Projects. If the tribe develops a Program for Public Information (PPI), CRS activity 332c, then all outreach actions receive extra credit under CRS activity 330.
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5.2 - PROVIDING HAZARD RESILIENCE INFORMATION:

Scoring Metric	CRS Notes
a. Tribe provides to citizens localized user-friendly information on extreme heat, flood, and storm resilience, in digital and non-digital formats and in multiple languages where appropriate based on demographics.	No CRS credit available at this time. The tribe could earn CRS credit for the individual outreach actions under CRS activity 332a - Outreach Projects, but the tribe could earn specific credits for targeting outreach to non-english speaking tribal members if the tribe has a Program for Public Information (PPI) - CRS activity 332c.
b. Tribe provides to citizens localized user-friendly information on extreme heat, flood, and storm resilience, on a website (e.g., interactive maps).	Flood risk information posted on websites are credited under multiple CRS activities, including activity 352c - Flood Protection Website (WEB) and activity 320 Map Information Service. The tribe could receive WEB credit if specific information listed on CRS Manual page 350-6 are included. The tribe can receive CRS credits for posting online maps illustrating flood risk under CRS activity 320 — the more information about flood risks included, the more points are awarded. A list of those potential credits can be found on CRS Manual page 320-1.
c. Tribe provides localized user-friendly	The tribe can earn credits for displaying

information on extreme heat, flood, and storm resilience in public spaces (e.g. offices or community buildings).	information about flood risk in public spaces, such as a library, under CRS activity 322a - Outreach Projects. Flyers displayed in public places are “Informational Projects.”
d. Tribe provides citizens with localized, user-friendly information about economic and cultural costs and risks associated with extreme heat, flood, and storm hazards.	The tribe can receive credit for providing information on flood risk under CRS activity 332a - Outreach Projects. If the tribe develops a Program for Public Information (PPI), CRS activity 332c, then all outreach actions receive extra credit under activity 330.

5.3 - LEADERSHIP & VOLUNTEER NETWORKS FOR RESILIENCE:	
Scoring Metric	CRS Notes
a. Tribe supports and invests in community-led initiatives on extreme heat, flood, and storm hazard resilience.	Any efforts related to building citizen leadership and volunteer networks for increasing flood risk education are credited through CRS activity 330 - Outreach Projects. As discussed throughout the RAFT scorecard sections 5.1 and 5.2, the tribe can receive credits for various outreach activities depending on the type of outreach method. If the tribe develops a Program for Public Information (PPI), CRS activity 332c, extra CRS credits are available for all outreach initiatives.
b. Tribe offers training opportunities and education opportunities for community leaders or volunteers to educate citizens on what they can do to increase their extreme heat, flood, and storm hazard	See above.

resilience on individual properties or in neighborhoods.	
c. Tribe supports community leaders or volunteers in education and outreach efforts about extreme heat, flood, and storm hazard resilience by providing them with materials, speakers for gatherings, or support for resident action projects.	Educational opportunities could potentially be credited under CRS activity 330 - Outreach Projects.
d. Tribe highlights the work of community leaders or volunteers in supporting and advancing extreme heat, flood, and storm hazard resilience, on its website, through social media, Facebook, awards, or other means.	See above.

5.4 - RESILIENT SYSTEMS TO PROVIDE FOOD, HEALTH, AND MEDICINE:	
Scoring Metric	CRS Notes
a. Tribe has plans for providing food to vulnerable populations, has areas for improvement, has developed partnerships to address these needs, and has provided information to citizens on how to access food during emergencies through its comprehensive, emergency operations plan, or other plans.	<p>Credits are available for an Emergency Operations Plan that meets specific criteria listed in the 2017 CRS Manual page 610-1.</p> <p>Credit for flooding warning and response activities in a community is complicated because the CRS program requires that you receive some credit in multiple activities to receive any credit at all. For example, you have to have a system that predicts flooding, a warning dissemination</p>

	process, a plan for specific responses to a flood event, and pay special attention to notifying critical facility operators.
b. Tribe has plans for providing healthcare to vulnerable populations, has areas for improvement, has developed partnerships to address these needs, and has provided information to citizens on how to access healthcare during emergencies through its comprehensive, emergency operations plan, or other plans.	See above.
c. Tribe has plans for providing medicine to vulnerable populations, has areas for improvement, has developed partnerships to address these needs, and has provided information to citizens on how to access medicine during emergencies through its comprehensive, emergency operations plan, or other plans.	See above.
d. Tribe has plans for providing cooling centers to vulnerable populations, has areas for improvement, has developed partnerships to address needs during an extreme heat event, and has provided information to citizens on how to obtain access through its comprehensive, emergency operations plan, or other plans.	See above.

5.5 - PHYSICAL AND MENTAL HEALTH FOR SOCIAL EQUITY IN COMMUNITY RESILIENCE:

Scoring Metric	CRS Notes
a. Tribe maintains data on community physical and mental wellbeing and challenges through specific metrics, such as the metrics for “deaths of despair” (suicide, cirrhosis of the liver, overdoses) and hazard related deaths and injuries (drowning, debris impact, heat stroke).	No CRS credits available
b. Tribe has met at least once with partners to identify “trusted messengers” for communicating with vulnerable populations.	These actions are potentially creditable under CRS activity 330 - Outreach Projects. The County can earn “double” points for providing their outreach materials in both English and another language if relevant to flood risk education.
c. Tribe has identified, or maps its vulnerable citizens, and has done this in partnership with nonprofits, faith- based organizations, and its health and community services board.	See above.
d. Tribe has a plan with nonprofits, faith-based organizations, and health and community services board that helps its physically and mentally challenged vulnerable populations prepare for flood, storm, and extreme heat events, and that provides assistance to them during and after these events.	Any efforts to plan for responses during an emergency as listed in RAFT scorecard section 5.5 are credited under CRS activity 610. These credits are available for an Emergency Operations Plan that meets specific criteria listed in the 2017 CRS Manual page 610-1.