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VIRGINIA COASTAL RESILIENCE MASTER PLAN END USER SURVEY – RESULTS SUMMARY

Virginia Coastal Resilience Master Plan, Phase 2

JANUARY 22, 2024

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Document contains edits by DCR Office of Resilience Planning.

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Overview

This memorandum presents and interprets responses to the Virginia Coastal Resilience Master Plan (CRMP) End-User Survey that was conducted in December 2023 – January 2024. The purpose of the survey was to collect feedback from the plan's intended end users to inform development of the data and products created during the Phase II plan update, due December 2024. This memo presents a summary of survey respondents, responses and key findings disaggregated by organization type, and key takeaways for Phase II development.
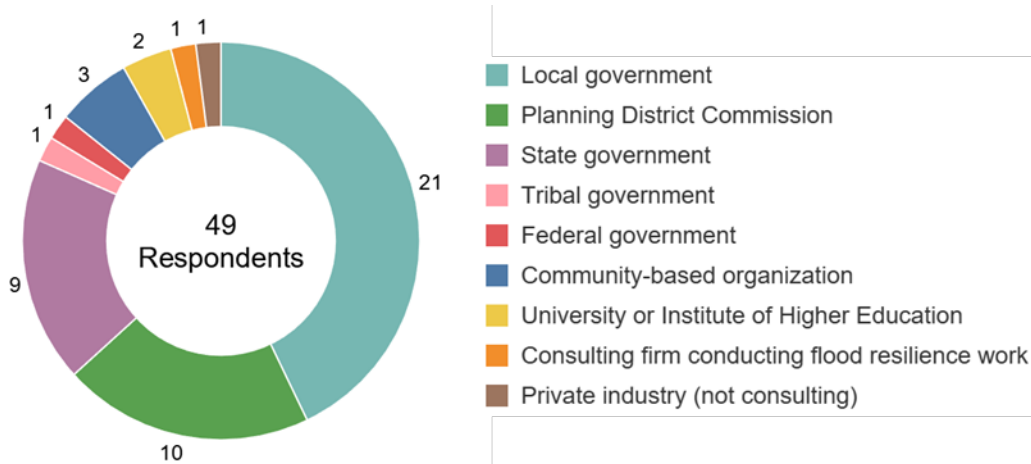
Survey Respondents

The survey had 49 total respondents, with the majority representing government agencies. Respondents represented:

- 18 Local governments
- 8 Planning District Commissions
- 8 State government agencies, departments, or divisions
- 9 other organizations, including tribal or federal governments, community-based organizations, universities, or private industry.

A summary of the respondents by organization type is provided below in Figure 1. A complete list of respondents by organization can be found at the end of this memorandum (Table 7, pages 18-19). Organization type is also used to classify responses to questions throughout the survey.

Figure 1. Count of survey respondents by employer type as indicated in the question "Please indicate which of the following best represents your employer's primary function."

Summary of Key Findings

Survey responses across all questions are consolidated into the below summary of key findings. This summary groups findings into feedback that is either: (1) relevant to the overall CRMP planning effort; (2) specific to the creation of the PDF document; (3) specific to the creation of the web-based services; or (4) funding-relevant findings relevant to work beyond the scope of the CRMP. Within each group, feedback is classified as either positive feedback, critique, or specific suggestion.

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Overall Feedback

Of the 49 survey respondents, 40 (82%) reported actively using at least one of the CRMP products before filling out the survey.

Positive Feedback

- The CRMP products have previously been utilized for a wide variety of use cases, with the most popular being public education and awareness (11 responses), grant seeking (13), and plan development (12), and research (15).
- Products are helpful for providing an overview of resilience-related activities happening across the state, both top-down driven by the Commonwealth and bottom-up driven by communities.
- Products are useful for communicating to non-technical audiences, ranging from individual residents to elected officials.

Critiques

- The Phase I plan's focus on coastal flooding limits its applicability for communities that face significant interior flooding and leads to a potentially misleading narrative that more inland areas do not face flood risks.
- CRMP data products (including underlying sea-level rise scenarios and funding sources) can become outdated, and require regular update to ensure relevancy for use.
- Not all critical infrastructure (as identified by localities) and resilience-related projects are captured.

Specific Suggestions

- Incorporate revised sea level rise projections.
- Expand analysis and narrative to encompass other flooding types, including pluvial/rainfall-driven flooding, riverine flooding, and composite flood impacts.
- Conduct additional economic analysis to capture more impacts in terms of dollars. This will help communicate risks and importance of resilience investments to decision makers.
- Add contextual information about flood insurance coverage, and the insurance gap that needs to be addressed.
- Further integrate and align the plan with other state plans, including the HMP.
- Develop a scorecard and tracking on community outreach by localities and regions.
- Continue education and engagement efforts with localities to further resilience planning capacity.

Plan Document

32 survey respondents (65%) have used the PDF plan document.

Positive Feedback

- Clear communication and flow in the plan document, making it readable and easy to navigate.

Critiques

- Example projects are seemingly arbitrary and often do not address the most pressing regional resilience needs.
- Impacts are not framed in terms of economic losses, which would be more helpful for driving decisions.

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Specific Suggestions

- Project sheets should be expanded and could be improved by including an icon to indicate project type and description or score to indicate population served.

- Include a narrative about coordination between state agencies and plans.

- Highlight case studies about how the plan and related products are being used.

- Expand content related to resilience-related economic development, job creation, and innovation.

- Place greater emphasis on natural infrastructure and incorporate biodiversity and ecological resilience.

- Include more specific actions to guide other state planning work.

- Improve tribal representation.

Web Explorer & Data Download

33 survey respondents (67%) have used the Web Explorer, while 16 (33%) have used the Portal Hub, and 4 (8%) have used the AWS data download options.

Positive Feedback

- Users found all elements of the web explorer useful, with the hazard information cited as being the most useful.

Critiques

- Web explorer can feel cluttered, hard to navigate, and overwhelming to users – there is almost too much information.

- Metadata and calculation methods are not clear in the web application, nor where to go to find that information.

- Not all data is available for download, and downloadable data can be hard to work with.

Specific Suggestions

- Include more context to explain the data, possibly through a pop-up function.

- Integrate more dynamic and user-friendly data download process, including:
  - Jurisdiction-specific impacts
  - Projects and initiatives
  - SLR models as a locally-storable raster rather than web service.

- Adding recommended citations in metadata would be helpful when referencing information in plans and grant applications.

- Improve and expand on the inventory of past, present, and future resilience work so that it is a more user-friendly and living database.

Funding & Financing

- Respondents have most experience seeking and winning federal and state grant funding sources.

- Barriers to engaging with funding include:
  - Lack of staff and staff capacity, both in terms of numbers and expertise.
  - Challenges related to funding caps and local match requirements.
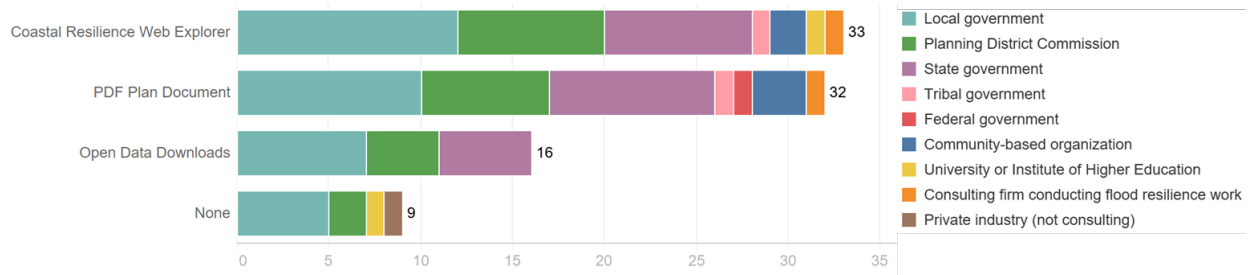
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- Competitive landscape and meeting requirements related to benefit-cost and environmental justice metrics.
- Gaps in data hindering project design and grant applications.
- Lack of awareness about relevant grant opportunities and timelines.
- Issues with slow administration and lack of coordination between state and localities/tribes.
- Limited political will and prioritization of resilience across competing interests.

- There are many steps the Commonwealth can take to address these barriers. Most popular were offering training for local government staff, highlighting best practices and successful case studies, and offering resources for evaluating funding opportunities.
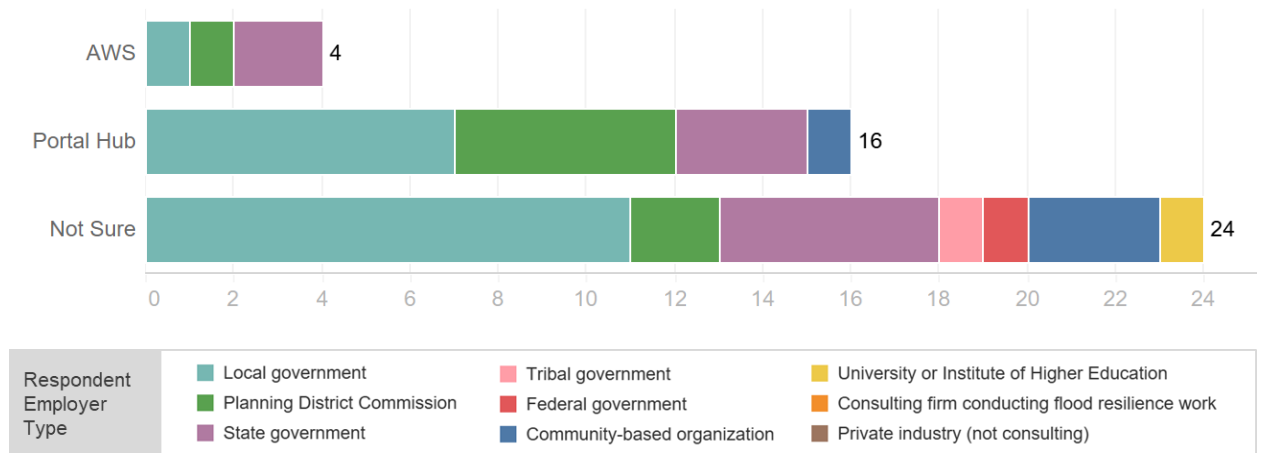
Detailed Survey Responses

Product Use

Respondents were asked which products they've used in their work, shown in Figure 2. 67% of respondents have used the Web Explorer while 65% of respondents have used the PDF Plan document. 18% of respondents had not yet used any of the Coastal Resilience Master Plan products in their work.

Figure 2. Responses to "Which of the Coastal Resilience Master Plan products have you used in your work?" broken down by organization type.

More specifically, respondents were asked if they had used the open data products through AWS or portal hub. Responses are shown in Figure 4.

Figure 3. Responses to "If you have downloaded open data, which of the two Coastal Resilience Open Data Portals have you used?" broken down by organization type.

Product Usefulness

When asked about the usefulness of each product, the majority of respondents said all three products were either somewhat or extremely useful, as shown in Figure 4. and Figure 5.

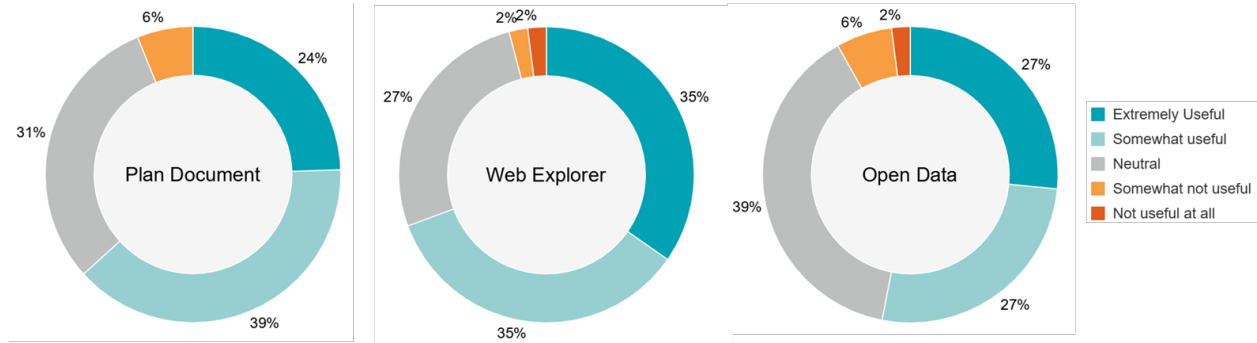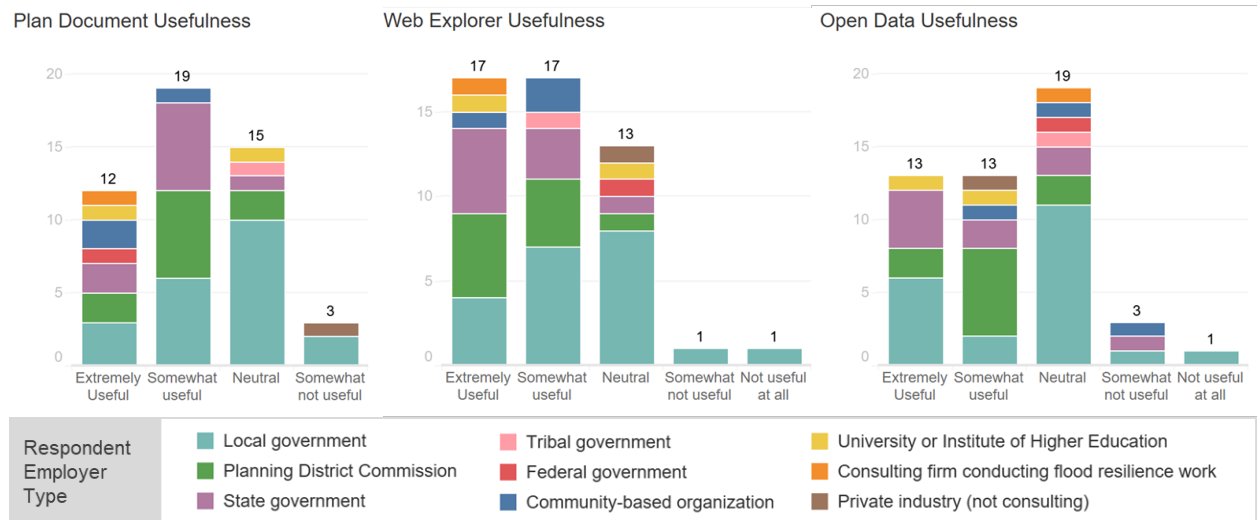Figure 4. Responses to "Please rank the overall usefulness of the Coastal Resilience Master Plan products."

Figure 5. Responses to "Please rank the overall usefulness of the Coastal Resilience Master Plan products" broken down by organization type.

More specifically, respondents were asked to reflect on the usefulness of the Web Explorer tabs and responses are presented in Figure 6 and Figure 7.

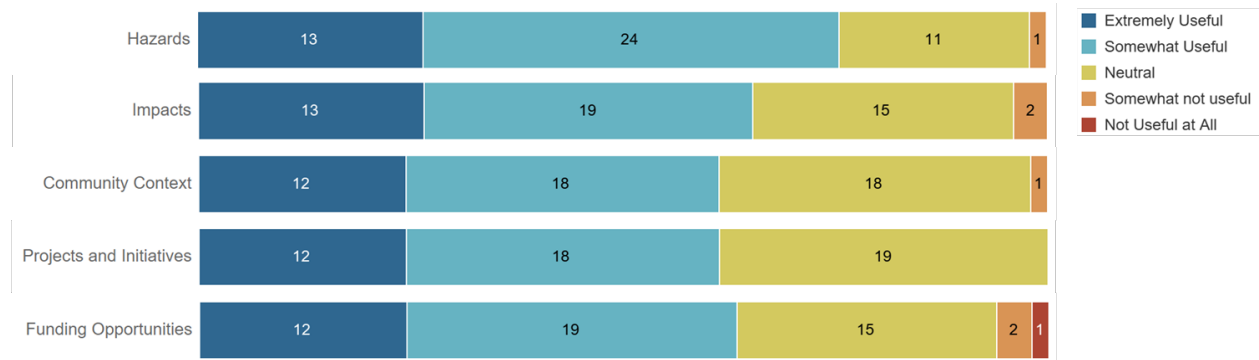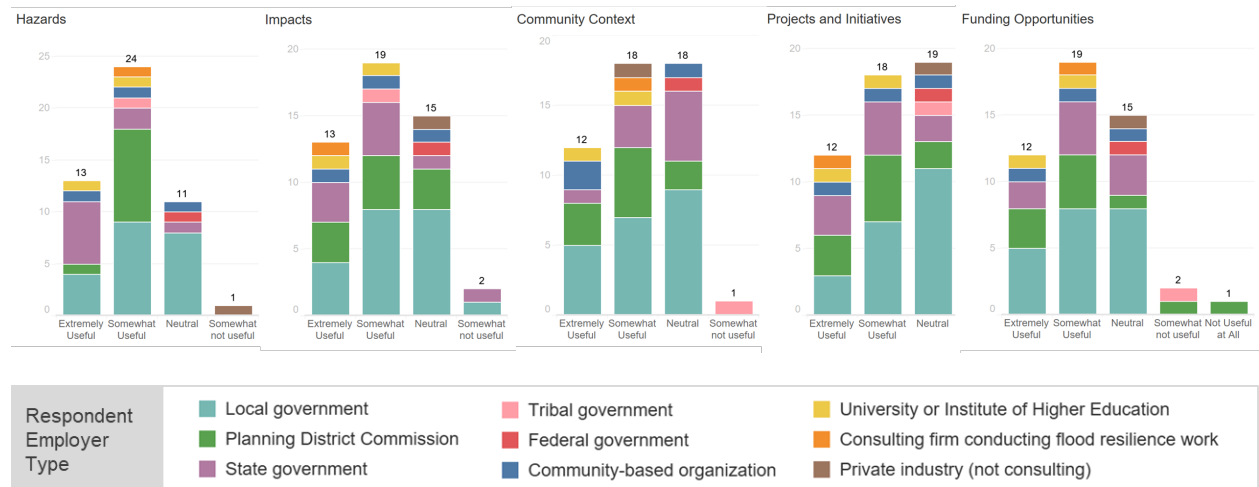Figure 6. Responses to "Please rank the usefulness of the Coastal Resilience Web Explorer tools."

Figure 7. Responses to "Please rank the usefulness of the Coastal Resilience Web Explorer tools." broken down by organization type.

Respondents provided additional comments regarding product usefulness, described in Table 1.

Table 1. Responses to "Please provide any comments regarding the usefulness of the Coastal Resilience Master Plan products." Responses that were left blank or indicated a simple "no" or "not applicable" are excluded.

ORG TYPE	RESPONSE
Local government	The updated Energy and Climate Change Action Plan (May 2023) utilized the Coastal Resilience Master Plan: https://www.alexandriava.gov/energy/energy-and-climate-change-action-plan. The City plans to develop a Flood Resilience Plan in 2024 and will utilize all products as we discuss updates to policy and programs understanding what is happening across the state is incredibly valuable. I'm not sure how the products were or were not used for the City's Waterfront Mitigation Program.
	Current plan is too focused. As a coastal community we face many types of flooding.
	Articulated very clearly. Clear format and flow, very readable and easy to navigate to find everything I'm looking for.
	The social vulnerability index map has been useful when social vulnerability is a criteria for grants.

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ORG TYPE	RESPONSE
	I am grateful for the staff that produced the Coastal Resilience Master Plan.
	These products should prove helpful
	Information from this plan will be utilized in PWC's upcoming development of a PWC Flood Resilience Plan.
	Southampton County is a considerable distance from the coast, so the usefulness of the Plan hasn't been determined.
	I really like the mapping products. As we implement our MS-4 program it will be good to know what areas of Spotsylvania are most at risk for climate impacts.
	I've used these products to discuss resilience resources and goals with elected officials.
	I don't know that I've had the need to use the coastal resilience master plan.
Planning District Commission	Coastal Resilience Web: Funding Opportunity update would be useful. Lack of downloadable Impact data. The data that is downloadable is difficult to parse and navigate. Most ESVA projects are initiated at the local town level - specific impacts on especially prone towns and jurisdictions would be useful. PDF Plan Document: Example projects are seemingly arbitrary and often do not address the most pressing regional resilience needs. Impacts on Community Resources, Critical Sectors, and Natural Infrastructure except Annual Structure Losses not put into dollar amounts - info that local stakeholders and decision-makers use to make determinations. Open Data Downloads: Dynamic Mapping would help with utilization.
	They are needed guidance in our own resilience planning.
	The primary benefit of the pdf is that it provides a solid overview of the context and history of the Commonwealth's planning efforts while also providing a narrative of what we are trying to accomplish. Static maps are nice and easy to read, but they can quickly become outdated. The web explorer is almost too much information. It's not clear how the "composite" impacts are calculated, and directing someone to the plan without a link is unhelpful. The project tab is very cluttered. The open data downloads are great to have, but the datasets themselves are not particularly useful.
	There are some nice graphics and statistics. But we don't come back to these products much.
	Its usefulness relates to either a public policy issue where we need context/data or if a grant funder requires certain data, maps, or narrative which the plan can assist with. We know the Master Plan is a good document, how we use it is driven by policy or $
	Since I am rather new to my position, I haven't had a lot of opportunities to utilize the CRMP products in any real-world scenarios. However, from what I have been able to see of the products, I can see how they would be of use in planning for resilience in our area. I think that it helps to see what areas are most at risk when planning ahead since it costs less to be proactive rather than reactive to potential risks.
	I found the print/PDF master plan product to be easily digestible. Having started my current position after the Master plan Phase I was completed, I thought it was really helpful to understand the foundations of resilience planning progress for the Commonwealth and to get a sense of the direction for future efforts.
State government	The future inundation products were very useful for assessing the resilience of natural heritage resources and protected lands in the coastal zone of Virginia.
	The products provide great historical data.
	The PDF was useful for someone who is new coming into this field. It gave a good lay of the landscape.
	The web explorer has been helpful for visualizing and exploring the data. Especially for someone new to all of

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ORG TYPE	RESPONSE
	this. We've also used the map services in a mapping tool we've been using on the Eastern Shore to identify future impacted communities.
	In using the plan, data download, and tools for grant writing and other technical reporting, it would be great to have recommended citations for each. For example, DCR is using the 2080 SLR projections in our planning and related grant proposals. The data comes from NOAA, but it's housed in Open Data Downloads. Having a recommended citation in the metadata, or ArcGIS Online landing page, would alleviate some ambiguity, i.e., should NOAA be the citation for the SLR map service or is it DCR, another entity?
	PDF Plan Document lists TAC recommendations, needs for improvement, and other locality/regional information not provided elsewhere. CRWE provides tabular summary at the locality scale and very local mapping impacts
	At VDEM there is some commonalities in the FEMA required hazard mitigation plans (state and local). The PDF document provides the references - where we can incorporate those findings into future hazard identification and risk assessments. FEMA requires the best available data. The better integrated these planning processes, the more useful these products will be for grant making decisions at our agency. It is challenging to set funding priorities from two different planning efforts, so alignment is key. The Coastal Resilience Web Explorer is helpful to get a quick glance at flood hazards, and social vulnerabilities.
	Provides good insights to coastal flooding exposure of transportation infrastructure. Provides good information on planned transportation related resilience improvements.
	I have not used the web explorer hence the answer to #7. Most design effort at the port is handled by consulting services.
Tribal government	I know the document would be really useful and I have had a chance to read some of it, but because of limited capacity, I have not been able to dedicate time to reading the whole document, and so I have not been able to fully take advantage of all of the information it has to offer.
Other	Key core resource for developing crucial Coastal Community on-community Community Action Plans to implement and actualize positioning for funding opportunities that are direct Shoreline and unique Riverine based Communities.
	Used data tables from plan document to supplement sea level rise risk and vulnerability info in 2 regional hazard mitigation plans, as well as the State HMP.
	Data driven information useful for grant writing and assessment of integrated services to broker and deliver.

Use Cases

Respondents were asked how they have used or would apply the products to their work across nine potential use cases. Across all respondents, there was the greatest interest in using the products in the future for public education and awareness (31), grant seeking (26), and plan development (27). The top use cases for the products to date have been research (15), grant seeking (13), plan devleopment (12), and public education and awareness (11).

- **Localities and PDCs** are particularly interested in using for public education and awareness, plan development, and grant seeking.
- **State government respondents** were most interested in public education and awareness, program/operational decisions, and research.

A breakdown of responses is shown in Figure 8 and Figure 9.

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Figure 8. Responses to "Consider the following potential use cases of the Coastal Resilience Master Plan products. Which of the following responses best reflect how you use the plan in your work?"
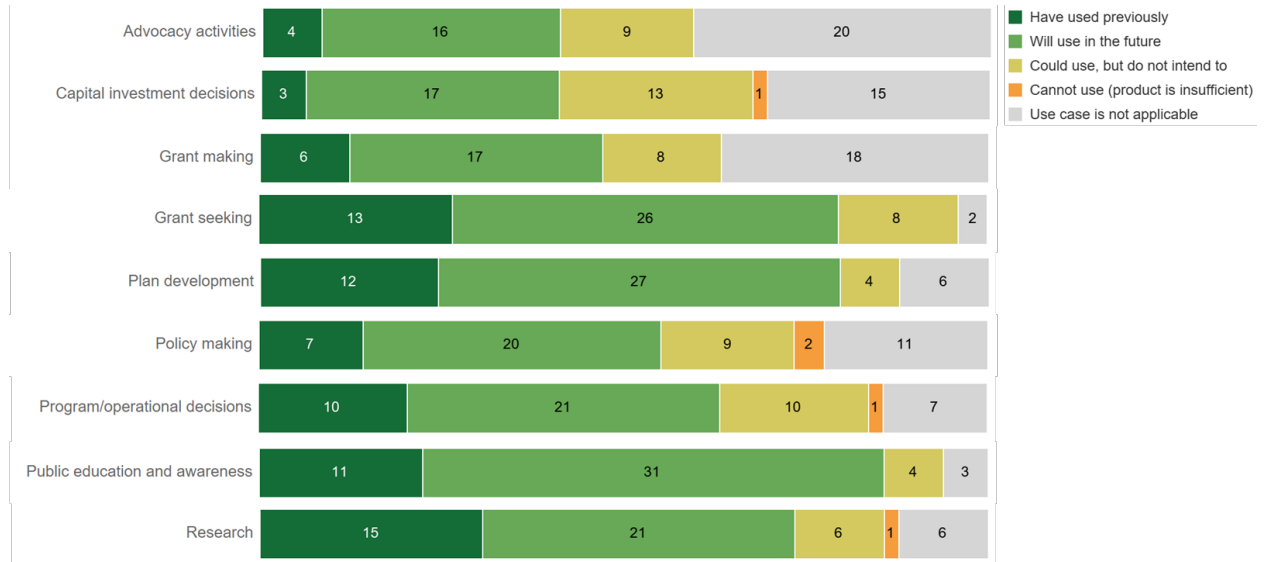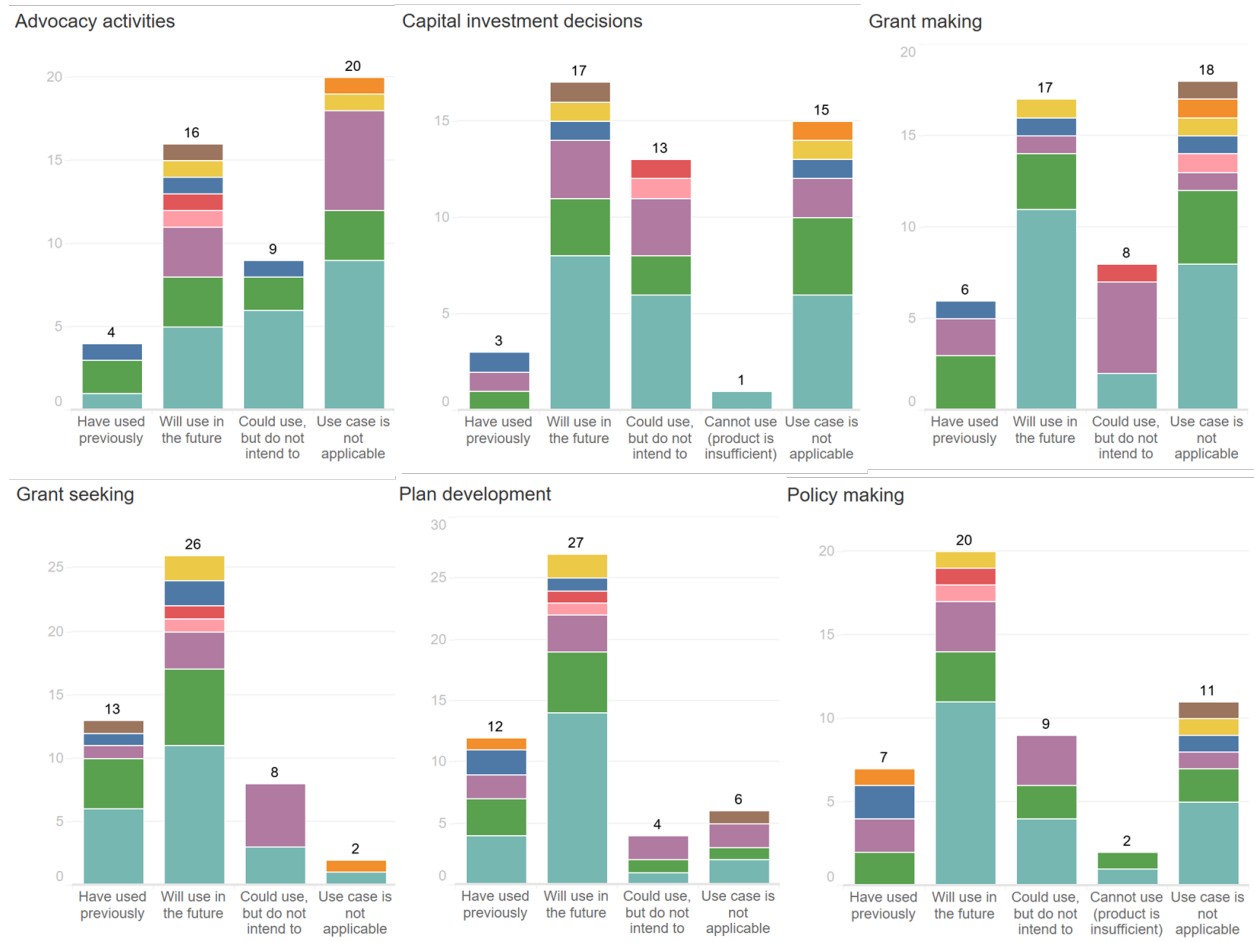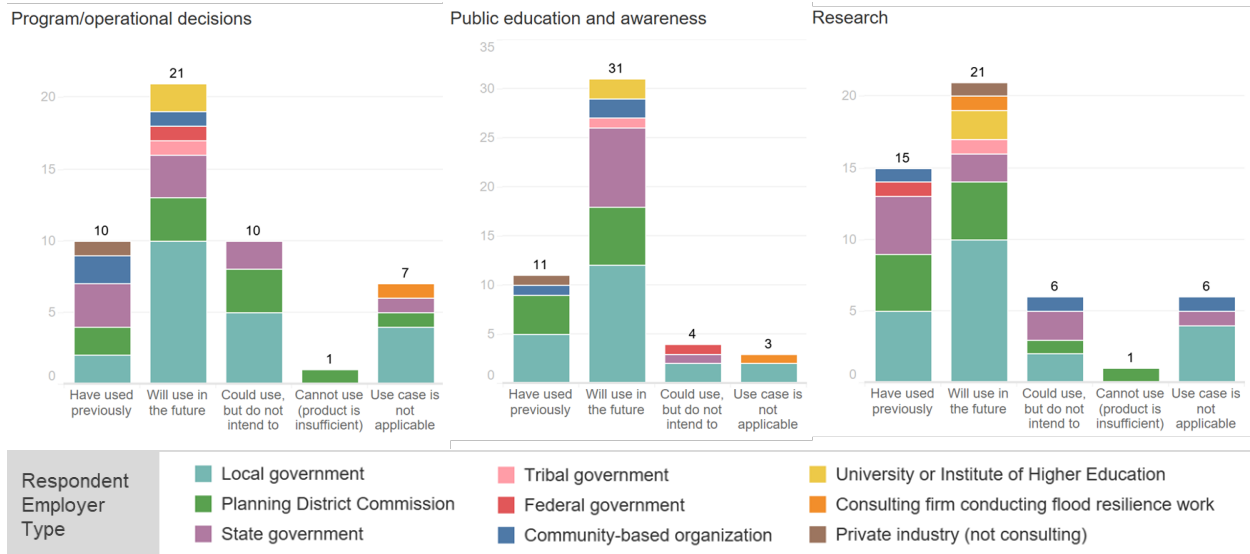

Figure 9. Responses to "Consider the following potential use cases of the Coastal Resilience Master Plan products. Which of the following responses best reflect how you use the plan in your work?" broken down by organization type.

To complement the nine use cases presented above, respondents were also asked if they had used the products in other ways. Through this open-ended question, respondents generally provided more detailed information on the ways they have used products for planning and grant application development.

Table 2. Responses to "Have you used the Coastal Resilience Master Plan products in other ways? If so, please describe the product and its applications." Responses that were left blank or indicated a simple "no" or "not applicable" are excluded.

ORG TYPE	RESPONSE
Local government	Our consultant has used the data for our own master planning effort.
	To build educational and outreach materials.
	We have used it to determine social vulnerability for grant applications.
	I have used it to inform property owners of potential for sea level rise at or near their property.
Planning District Commission	Used as a base or point of reference for other tools and products.
	I have embedded them in our website.
	We refer to the master plan when giving presentations or briefings, usually in the context of being consistent with our own regional policies.
	Its driven by the question and how best to answer such question either qualitative or quantitative
	I have used the CRMP products as a way to understand the region that I now work in and the potential risks that it faces. It has helped me to get a better idea of what issues I am working with and what areas may need the most focus for resilience projects.
State government	We used the future inundation products to assess the resilience of natural heritage resources and protected lands in the coastal zone of Virginia.
	Mentioned above, we used the map service from the data portal to identify future impacted communities. We are using that information to design a community project on the Eastern Shore around flooding impacts.
	None other than already mentioned, we look at grant projects that are funded by FEMA that were identified in the plan.
Other	Community Action Plan partnership

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Limitations

Respondents were asked about the limitations they have encountered when using the CRMP materials and responses are presented in Table 3.

Table 1. Responses to "Have you encountered any limitations in the plan's products that have prevented you from using them how you would like? If so, please describe the product and its limitations" broken down by organization type. Responses that were left blank or indicated a simple "no" or "not applicable" are excluded.

ORG TYPE	RESPONSE
Local government	Focus is too limited for all the climate change/flooding issues localities face. In addition, we have developed our own City-specific and more focused materials and evaluations.
	The example project sheets need an icon or indicator for the project type (ex. for structural projects, is the example a flood risk reduction measure, a structural shoreline stabilization, or community infrastructure). See pg. 180-181.
	I have used them despite limitations and just have caveats added to my product.
	We have a small town, but we have critical infrastructure that will be inundated during a 100-yr flood event. Don't see this info on the map.
	Already answered that I have not used the products.
Planning District Commission	Coastal Resilience Web: Funding Opportunity update would be useful. Lack of downloadable Impact data. The data that is downloadable is difficult to parse and navigate. Most ESVA projects are initiated at the local town level - specific impacts on especially prone towns and jurisdictions would be useful. PDF Plan Document: Example projects are seemingly arbitrary and often do not address the most pressing regional resilience needs. Impacts on Community Resources, Critical Sectors, and Natural Infrastructure except Annual Structure Losses not put into dollar amounts - info that local stakeholders and decision-makers use to make determinations. Open Data Downloads: Dynamic Mapping would help with utilization.
	The Resilience Web Explorer is not linked everywhere it should be across State Agencies and so it can be difficult to find.
	It doesn't consider rain driven flooding and the associated stormwater projects. It doesn't layout enough implementation strategies to drive state budget discussions and priorities (compared to state programs other than resiliency).
	The scenarios for hazards do not really correspond to local or regional planning scenarios or timelines. (e.g. 2020/2040/etc. vs twenty-five years, thirty years).
	I have not encountered limitations in its use. However, as part of the project prioritization committee for phase II, we have discussed how more information/data could be useful.
	Any limitations are being addressed through phase 2, i.e. precipitation impacts as a key component to coastal resilience in the region.
	On the web explorer, I really want to click on map shading to see a popup that explains the underlying data. Also, the data available for the Projects and Initiatives is almost non-existent, making that page not so useful.
State government	Not really, but I/we've used them at a very high level.
	Much of my work with the plan and related data includes GIS analysis. The current format of the SLR models (web map service) limits our ability to analyze the spatial data. Having these data available as rasters that can be locally stored and analyzed with typical GIS processing abilities would improve efficiency and produce better results.

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ORG TYPE	RESPONSE
	Limited to coastal flooding. We are looking at statewide flooding.
Other	Access/Awareness/Communication/Inclusion

Desired Plan Content

Respondents were asked to reflect more specifically on the PDF plan document and what content they would like to see in a future revision. Responses are presented in Table 4.

Table 2. Responses to "What content would you most like to see included in future PDF plan documents?" broken down by organization type. Responses that were left blank or indicated a simple "no" or "not applicable" are excluded.

ORG TYPE	RESPONSE
Local government	We would benefit by more in depth info on pluvial flooding in coastal zones. It sounds like this will be explored more in future versions.
	rainfall data, urban flooding issues
	More project sheets, with a EJ lens/score on sheet, plus population served/protected.
	I'm new here, so I really don't feel qualified to make a recommendation.
	I would like to see information about storm surge flooding
Planning District Commission	Specific impacts on especially prone towns and jurisdictions. Dollar amounts on flooding impacts.
	Drainage issues
	Revised sea level rise projections. Narrative about coordination between state agencies and plans. Case studies of how the plan is being used.
	Expand sections on water management economic development, job creation, innovation being developed in Virginia
	It may be helpful to know what percentage of homes and businesses have flood insurance within each area identified for coastal flood exposure. There are Land Acres Exposed and Buildings Exposed with High Tide and Extreme Flood for both 2020 and 2080 with the percent change, but knowing the extent of insurance and how many will need it would be nice.
State government	Greater emphasis on natural infrastructure.
	Data currency
	An inventory of past, present, and future resilience work in the Coastal Zone. It's too easy to reinvent the wheel and documenting this work somewhere that is searchable and living would be a huge value add.
	recommended citation and more specific actions for land conservation and conservation planning. Incorporation of biodiversity priorities and ecological resilience
	No recommendations, however I would like to request an overview of the plan and web based products to our agency. We have a wide range of divisions and programs that may find these products useful.
	Pluvial and fluvial impacts. Composite flooding impacts.
Tribal government	I would really like to see something mentioned about the Tribes in Virginia. I think it is important that a state-wide planning document have at least some reference to how Tribes experience coastal resilience issues in the larger context of the surrounding community, and the state in general.
Other	Scorecard on Community Outreach by Local and Regional levels

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Funding & Financing Experience

Separate from the CRMP materials, respondents were also asked about their experience seeking and using funding and financing mechanisms to implement resilience activities. Responses are presented in Figure 10 and Figure 11.

Figure 10. Responses to "What types of financing have you *successfully used* to fund your flood resilience activities (projects, staffing, initiatives, planning, etc.)?" broken down by organization type.
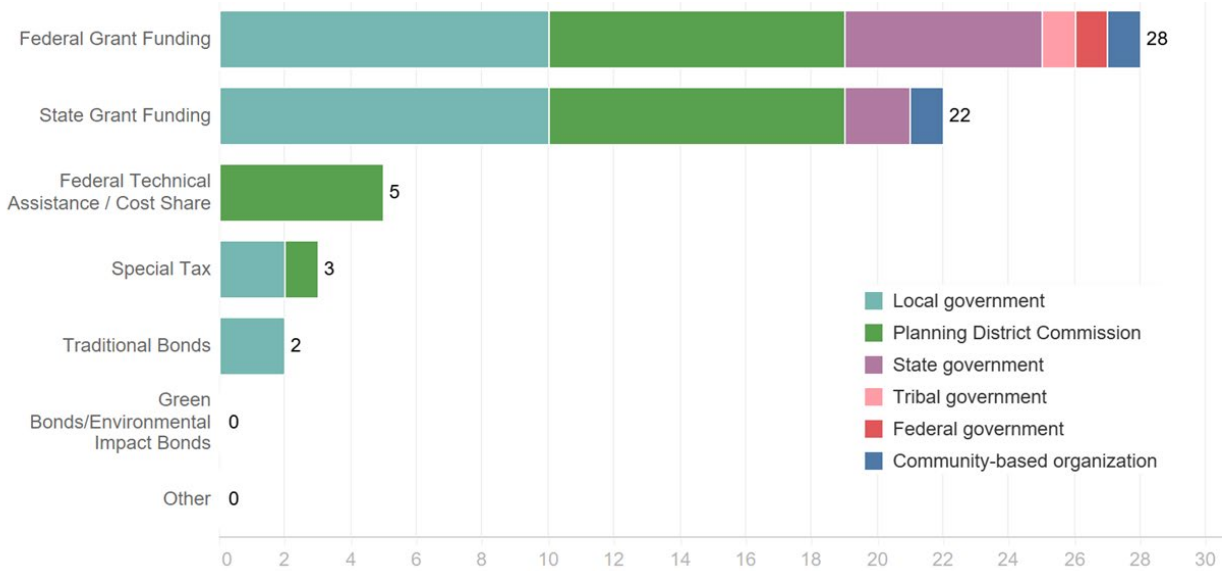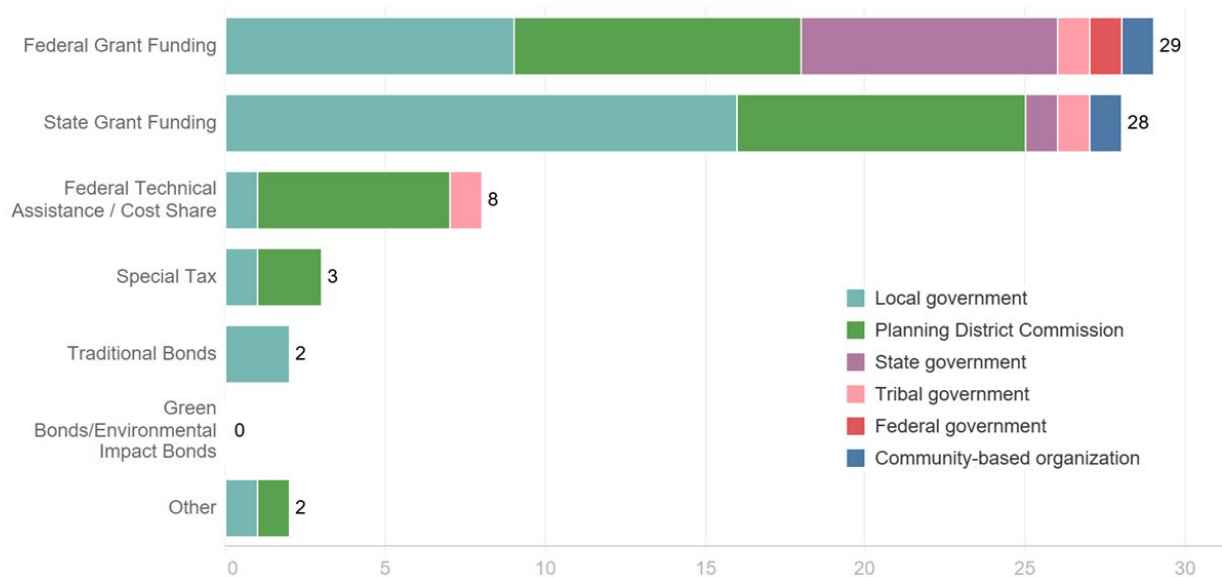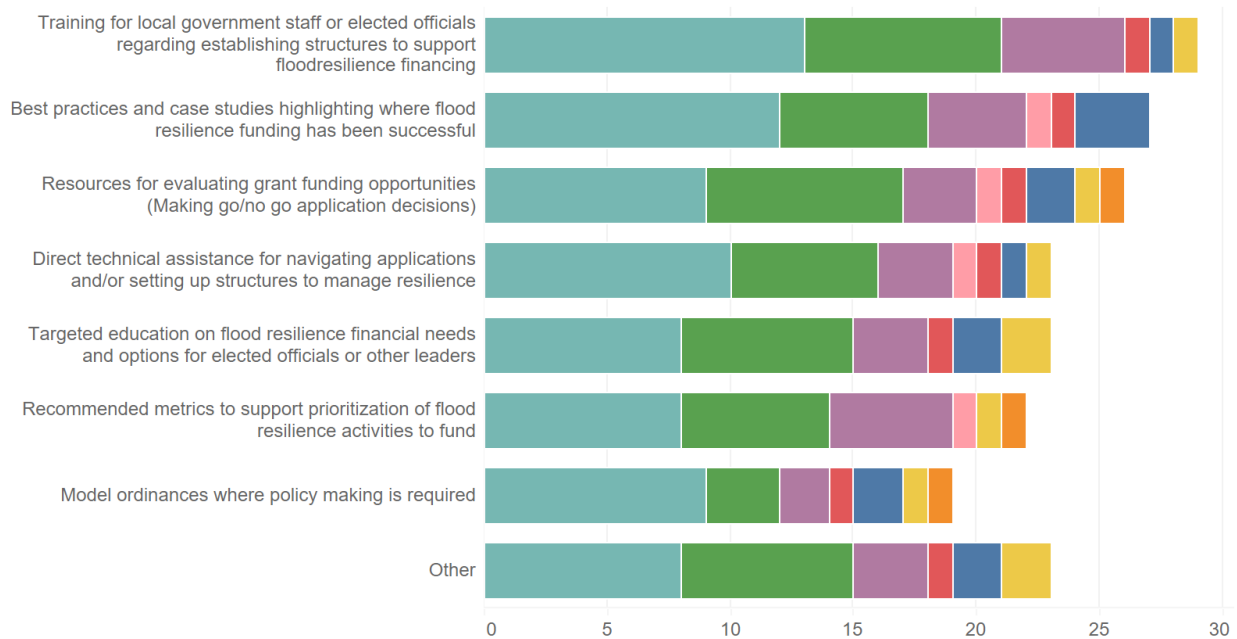

Figure 11. Responses to "What types of financing have you *sought* to fund your flood resilience activities (projects, staffing, initiatives, planning, etc.)?" broken down by organization type.

Funding Barriers

Additionally, respondents were asked about the barriers they face when seeking or accessing funding for resilience activities and responses to that are presented in Table 5.

Table 3. Responses to "Are there any specific barriers that have prevented you from seeking or accessing funding for flood resilience activities?" broken down by organization type. Responses that were left blank or indicated a simple "no" or "not applicable" are excluded.

ORG TYPE	RESPONSE
Local government	Many funding sources require the project to be identified in a 'plan' so having all of our projects in this plan is expected to be beneficial as we look for future funding.
	The Grant application process has become extremely cumbersome and time consuming. We weigh the amount against how much we will need to spend just to put an application together which is getting ridiculous. Also many state grants are becoming difficult to get funds back in a timely manner, which means we are fronting the money for months or a year.
	CFPF maximum grant cap, state revolving loan max. cap, limited time between NOFO and grant deadline (need time for City Manager signature).
	Lack of staff to apply for grants is the biggest challenge for us. Also, better communication of grants that are available.
	I think our limited population size might have prevented us from obtaining BRIC funding. Not sure about that.
	insufficient staff
	lack of staff - Because the VA grants only cover the cost of hiring new employees and do not cover salaries of existing employees, we do not have the staff to execute any grants. In small areas like Northampton County, the cost of a CFM has historically been too much. Until the Phase one of the CFPF grant we did not have a CFM. Now the county is deciding whether or not they will continue to have a CFM because the funding for that position is gone.
	Local match required by state and federal grants.
	Just that I haven't decided yet how to approach grant application for project related to LiDAR or aerial drone imagery
	County Admin does not want to do anything that curbs the development community.
	Capacity
	General capacity to write the grants and apply for them.
	Staff time
	staffing/matching funding
	H & H analysis before addressing flooding issues, but no funds for the analysis
Planning District Commission	Agency and government capacity. Willingness of local decision-makers.
	Because flood resilience doesn't include more ancillary impacts (such as rates of septic failure and soil mapping), our region appears to not be impacted which can dissuade elected officials from acting and hurt our grant funding chances. There are also just more opportunities out there than we can possibly keep up with and we rarely have extra capacity to keep making "shovel ready" projects.
	Local contributions
	Limitations on how often one can apply (DSFPP five-year gap). Inability to use CFPF funds for existing staff or to include indirect costs. Staff capacity for developing proposals.

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ORG TYPE	RESPONSE
	staff to manage new initiatives.
	Limitations are related to grant funder priorities.
	I'm honestly unsure since I haven't done anything with funding so far.
	Northern Virginia is often limited by environmental justice and/or marginalized community requirements within grant programming, especially in recent BIL/IRA programs. While this is important to ensure that marginalized communities have equitable access to funding, the screening tools can be limiting for communities in the region that are marginalized, but do not fit into the screening tools' programming.
	we need more data on Pluvial flooding before we can design resilience projects and apply for funding.
State government	Challenged to find grants that apply to specific needs
	Not sure/NA - Our program (CZM) is a pass through organization, so we're driven by the needs of our network.
	VDEM traditionally seeks funding on behalf of localities that are interested in applying. Barriers we have seen at the local level are cost share, and staffing.
	Seeking funding grants for resilience requires quite a bit of work. There is a limitation on staffing resources.
Tribal government	Limited staff capacity in terms of numbers and subject-matter expertise hinder out ability to apply for funding for a multitude of reasons, some of which amount to simply not having enough time to read a NOFO. At the state-level, some funding opportunities are not available to Tribes, and for those that are, the competition is so strong that it often is not worth the time and resources to apply for a grant that likely will not be awarded anyway. In general, I think Tribe-to-state funding and coordination processes are still very new, especially for the Federally recognized Tribes, so it's just uncharted territory for both sides.
Other	A lack of grant writing personnel
	Local match requirements
	NOAA/EPA Smart Growth for Coastal and Waterfront Communities (2009) not adopted locally by Locality, initially, no locality Certified Floodplain Manager, and deficient implementation of Planning for any but headwater area the Locality. Without administrative Implementation, Planning and incorporated language in State Statute required local "Plans" i.e. Official Map (Zoning) and Comprehensive Plan, the Administrative representation of Hazards is poor and poorly positions Community Action Plans in the most at risk communities. I
	Petersburg City Council
	We do not specifically engage in flood resilience advocacy, education or other activities. However, we are working with RAFT to see how we can empower business owners who seek to facilitate flood resilience for area residents.

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When presented with a multiple-choice question about actions the Commonwealth could take to address funding barriers, the majority of respondents said that training for local staff, best practices and case studies, and resources for evaluating grant opportunities would be helpful. The distribution of responses are show in Figure 12.

Figure 12. Responses to "What could the Commonwealth do to help address barriers that prevent you from seeking or accessing funding for flood resilience activities?" broken down by organization type.

General Support Needs

Finally, respondents were asked for additional input on ways the Commonwealth could support their flood resilience needs. Responses are presented in Table 6.

Table 4. Responses to "Are there any other ways in which the Commonwealth could support your organization's flood resilience needs?" broken down by organization type. Responses that were left blank or indicated a simple "no" or "not applicable" are excluded.

ORG TYPE	RESPONSE
Local government	It is very valuable to understand what is happening across the state, especially in communities like ours - small and highly urban with older infrastructure being decimated with these very severe storm events that don't trigger a declaration of a NR disaster but they really negatively impact our community (cars are totaled, basements and first floors under water, driving is unsafe, pets get swept away, people are displaced, etc.). While we understand what is happening here in NoVA through those relationships and through our PDC, it would be great to learn from other cities facing these challenges! We are looking to learn as much as we can from our partners across the state so helping to facilitate that would be very valuable! Thank you!
	Climate Change issues are more than just sea level rise. Extreme rainfall and urban flooding in old drainage systems is a major issue. Unfortunately, in an effort to provide funding to coastal issues, other issues now have less priority.
	Create a model pathway for communities to obtain a state-match on large federal Coastal Storm Risk Management projects. Similar to NY/NYC.
	This falls into another Departments purview.
	Education classes and updates telling local government how to be involved.

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ORG TYPE	RESPONSE
	Hire someone who knows about these things to work for the city of Petersburg. We simply need more people in order to do the job.

Survey Respondents by Organization

Table 7. Number of survey respondents from each organization, classified by organization type.

ORG TYPE	ORGANIZATION	NUMBER OF RESPONDENTS
Local government	City of Alexandria	1
	City of Newport News	1
	City of Norfolk	1
	City of Portsmouth	1
	City of Richmond	1
	City of Suffolk	1
	King George County	1
	King William County	1
	Lancaster County	1
	Middlesex Department of Social Services	1
	Northampton County	2
	Prince William County	2
	Southampton County	1
	Spotsylvania County	1
	Stafford County	2
	Town of Ashland	1
	Town of Dumfries	1
	Town of West Point	1
Planning District Commission	Accomack-Northampton PDC	1
	Crater PDC	1
	George Washington RC	2
	Hampton Roads PDC	2
	MPPDC	1
	Northern Neck PDC	1
	Northern Virginia RC	1
	PlanRVA	1
State government	Department of Environmental Quality	1
	Department of Housing and Community Development	1

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ORG TYPE	ORGANIZATION	NUMBER OF RESPONDENTS
	Virginia Coastal Zone Management Program; DEQ	1
	Virginia Department of Conservation & Recreation - Division of Natural Heritage	2
	Virginia Department of Conservation and Recreation	1
	Virginia Department of Emergency Management	1
	Virginia Department of Transportation	1
	Virginia Port Authority	1
Tribal government	Nansemond Indian Nation	1
Federal government	Marine Corps Base Quantico	1
Community-based organization	Bay Aging	1
	Crittenden, Eclipse and Hobson (CE&H) Heritage Civic League	1
	Northumberland Public Library	1
University or Institute of Higher Education	Virginia State University	2
Consulting firm conducting flood resilience work	Salter's Creek Consulting	1
Private industry (not consulting)	Communities In Schools of Petersburg, Inc.	1

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