HURRICANE HELENE RESPONSE
&
FINANCE AGENCY TECHNOLOGY PROJECTS

SENATE FINANCE & APPROPRIATIONS COMMITTEE

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October 15, 2024

Hurricane Helene

Response & Recovery

Timeline of Events

- **September 25th**: Governor Youngkin declares state of emergency to ensure the swift and coordinated deployment of resources to Southwest Virginia.

- **September 27th**: Storm arrives.

- **September 29th**: Federal Emergency Management Agency (FEMA) approves request for Direct Federal Assistance.

- **October 1st**: Major Disaster Declaration approved by President.

- **Ongoing**: Coordinated response efforts including private utilities, nonprofit organizations, federal, state and local government resources. More than 20 state agencies responded, including:

Virginia National Guard	Department of Emergency Management
Virginia State Police	Department of Corrections
Department of Social Services	Department of Health
Department of Behavioral Health & Dev. Services	Department of Fire Programs
Department of Education	Department of Transportation
Department of Conservation & Recreation	Department of Environmental Quality
Department of Agriculture & Consumer Services	Department of Forestry
Department of Wildlife Resources	Dpt. of Professional & Occupational Regulation
Department of Housing & Community Development	Virginia Works
Virginia TAX	Virginia Employment Commission

- Governor to establish Office of Recovery and Rebuilding.
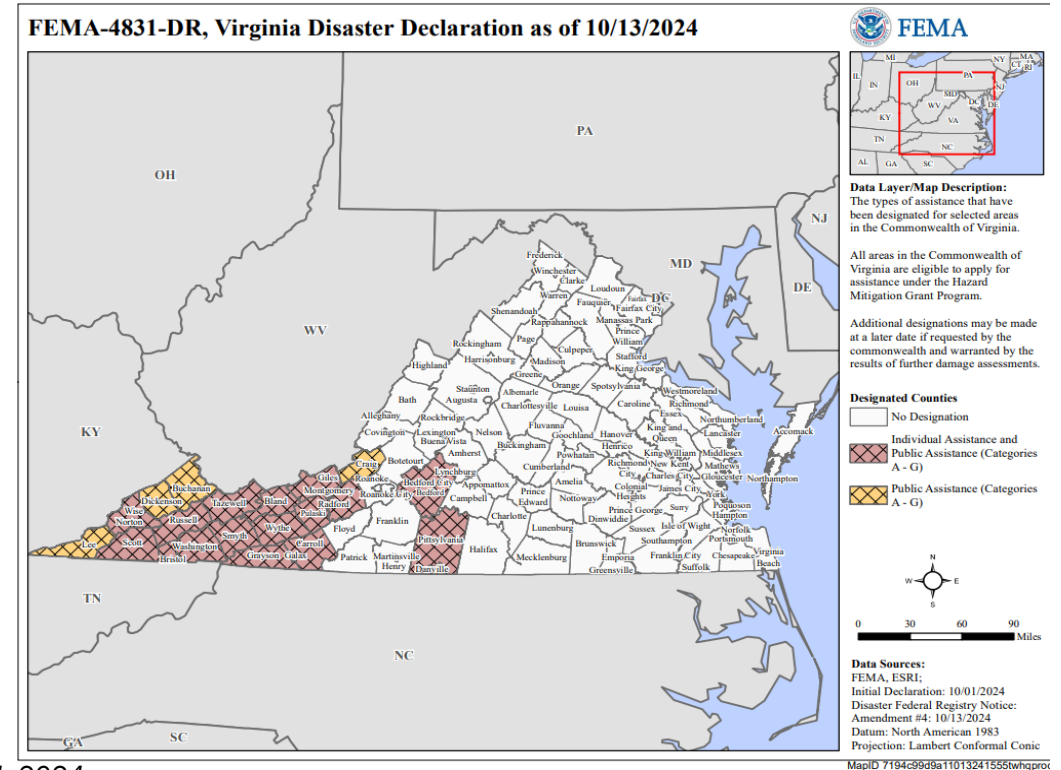
Rescue and Emergency Responses

- **Number of Rescues :** 70+
- **Loss of Life:** 3
- **Medical Support:** Oxygen, Insulin, First Aid, Vaccines
  - 100+ Hepatitis A
  - 237 Tdap
- **Water:**
  - Peak Boil Water: 37 systems
  - Current Boil Water: 4 systems
  - 1m+ bottles distributed
  - Well Test Kits
- **Food Distribution:**
  - Total: 37,250+
  - No meals requested since October 11th

- **Power Outages:**
  - Peak: 310,000
  - Current: Under 200
- **Cell Tower Outages:**
  - Peak: 287
  - Current: 0
- **Transportation:**
  - Peak Closures:
    - Roads: 484 primary and secondary
    - Bridges: 118
  - Current Closures
    - Roads: 2 primary, 16 secondary
    - Bridges: 10
- **Education:**
  - All schools, except Grayson County, reopened by October 7th
    - Grayson scheduled to reopen October 14th

Current Local Disaster Declarations

- As of October 13th, FEMA had authorized public assistance disaster designations for 25 localities. Of these, 17 jurisdictions have been approved for individual assistance.
  - Public assistance provide reimbursement to governmental and certain nonprofit entities on a cost-sharing basis.
    - Virginia has been approved by FEMA for 100% reimbursement for debris removal and emergency response costs for 90-days.
  - Individual Assistance allows for federal payments directly to impacted individuals.

Locality	Public Assistance	Individual Assistance
Bedford	✓	✓
Bland	✓	✓
Bristol	✓	
Buchanan	✓	
Carroll	✓	✓
Covington	✓	
Craig	✓	
Danville	✓	
Dickenson	✓	
Galax	✓	✓
Giles	✓	✓
Grayson	✓	✓
Lee	✓	

Locality	Public Assistance	Individual Assistance
Montgomery	✓	✓
Norton	✓	
Pittsylvania	✓	✓
Pulaski	✓	✓
Radford	✓	✓
Russell	✓	✓
Scott	✓	✓
Smyth	✓	✓
Tazewell	✓	✓
Washington	✓	✓
Wise	✓	✓
Wythe	✓	✓

Source: Federal Emergency Management Agency, October 14, 2024.

FEMA-4831-DR, Virginia Disaster Declaration as of 10/13/2024

Data Layer/Map Description:
The types of assistance that have been designated for selected areas in the Commonwealth of Virginia.

All areas in the Commonwealth of Virginia are eligible to apply for assistance under the Hazard Mitigation Grant Program.

Additional designations may be made at a later date if requested by the commonwealth and warranted by the results of further damage assessments.

Designated Counties
- No Designation
- Individual Assistance and Public Assistance (Categories A - G)
- Public Assistance (Categories A - G)

Data Sources:
FEMA, ESRI;
Initial Declaration: 10/01/2024
Disaster Federal Registry Notice:
Amendment #4: 10/13/2024
Datum: North American 1983
Projection: Lambert Conformal Conic
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Impacted Localities Account for Roughly Six Percent of Virginia's Economy

Impacted Localities (as of Oct 8)

	Annual Total	% of State
Income Tax	$731.4 million	3.9%
Taxable Sales	$8.9 billion	6.7%
Employment	249,330	6.2%
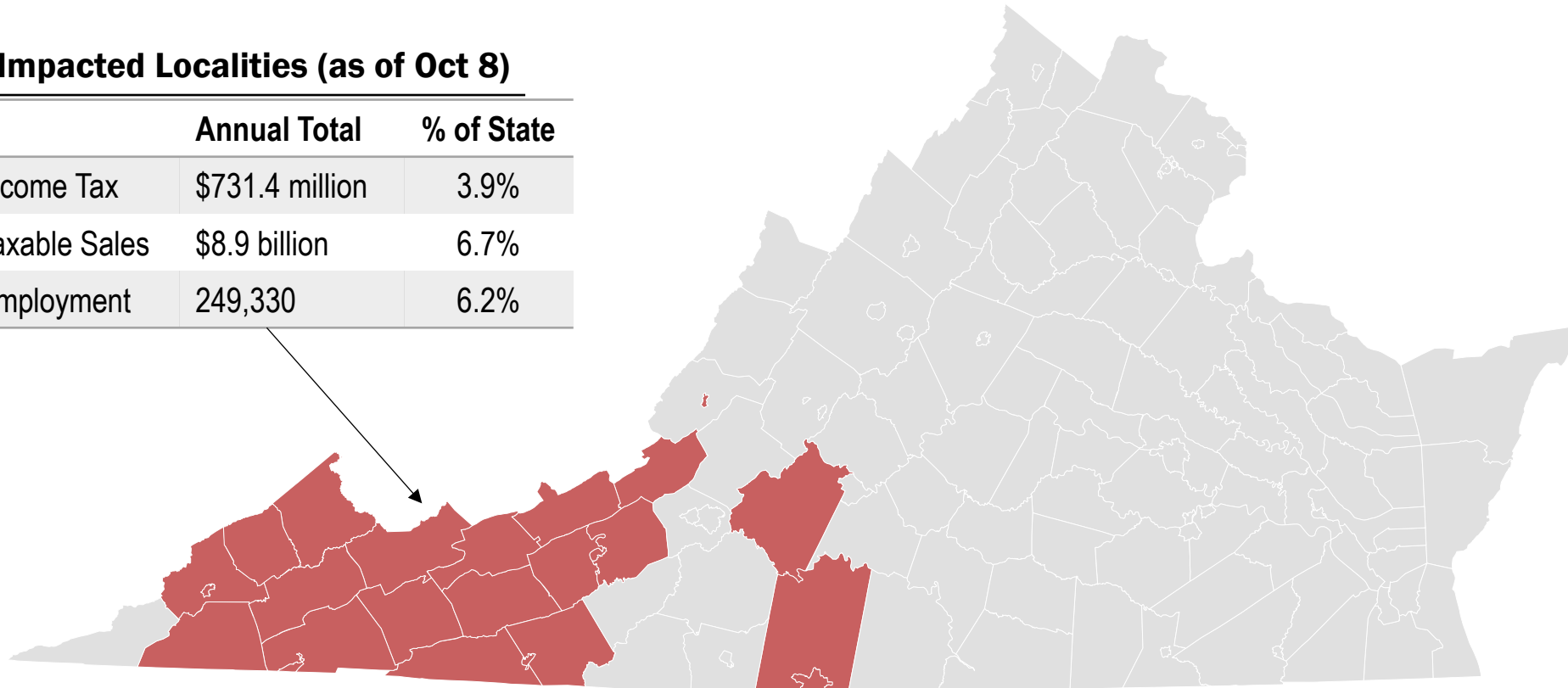
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Sources: FEMA, VA Dept of Taxation Fiscal Year 2023 Annual Report: Table 1.7; Taxable Sales by Locality, Weldon Cooper Center; Bureau of Labor Statistics, QCEW.
Note: Additional localities have recently been added by FEMA (including Lee County.)

- A cross-agency workgroup led by Virginia Tax has been assembled to estimate the economic and revenue impacts of the storm.

Current Disaster Authorization Totals $20 Million

- **September 25:** Executive Order (EO) 37 authorized a total of $2.75 million

- **September 29:** Amount increased to $12.0 million

- **October 2:** Additional adjustment increases total to $20.0 million

Categories	EO 37	September 29 Revision	October 2 Revision
Personal Services - regular and overtime	$ 1,494,000	$ 2,204,832	$ 2,786,016
Travel, Meals, Lodging	$ 187,500	$ 255,000	$ 263,106
Contractual Supplies	$ 327,500	$ 7,136,668	$ 9,345,083
Supplies / Materials	$ 455,000	$ 1,887,500	$ 4,645,045
Transportation	$ 121,000	$ 351,000	$ 601,000
Equipment	$ 165,000	$ 165,000	$ 1,109,750
Other - DFA/EMAC	$ -	$ -	$ 1,250,000
Total	$ 2,750,000	$ 12,000,000	$ 20,000,000

Item	Revised Amount	Estimate for EO 37	Difference
Estimated VEOC Costs	$ 13,110,083	$ 432,500	$ 12,677,583
Other State Agency Costs	$ 2,517,295	$ 865,000	$ 1,652,295
Estimated DMA Costs	$ 2,000,000	$ 1,000,000	$ 1,000,000
Special Teams Costs	$ 1,082,260	$ 452,500	$ 629,760
EMAC Mission Costs	$ 40,362	$ -	$ 40,362
Other - 25% cost share for Direct Federal Assistance	$ 1,250,000	$ -	$ 1,250,000
Total Authority Requested	$ 20,000,000	$2,750,000	$ 17,250,000

- Obligations are estimates and fluctuate daily between categories.

Contractual:
- Base camp in Washington County (14 days)
- Sanitation Stations (14 days)
- Staff Augmentation (VEOC, IA program, etc.)
- Distribution of goods (transportation)
- Local requests for debris removal (planning)

Supplies/Materials:
- Water
- Food
- PIO materials
- Human Services: toilets, showers, laundry
- Generators
- Fuel
- Water bladders (tanks)

Previously Authorized Disaster Recovery Sum Sufficient Amounts

Year Opened	Disaster	Total Authorization	Adjustments	Adjusted Authority
FY 11	2011 Tornado Donation Prg	$ 600,000	$ -	$ 600,000
FY 16	Winter Storm Jonas (2016 Snow Storm)	$ 5,968,030	$ -	$ 5,968,030
FY 17	Hurricane Matthew	$ 5,518,590	$ -	$ 5,518,590
FY 19	Hurricane Florence	$ 60,000,000	$ (21,635,000)	$ 38,365,000
FY 19	Hurricane Michael	$ 2,000,000	$ 3,165,163	$ 5,165,163
FY 20	February 6 Flooding Event	$ 350,000	$ -	$ 350,000
FY21	Winter Storm Gail	$ 350,000	$ (200,000)	$ 150,000
FY21	January 6, 2021 Civil Unrest	$ 2,750,000	$ (2,000,000)	$ 750,000
FY21	February 11, 2021 Winter Storm	$ 1,000,000	$ -	$ 1,000,000
FY22	Buchanan Co Flooding/TS Ida	$ 1,000,000	$ -	$ 1,000,000
FY22	January 3-6, 2022 Snow Storms	$ 1,000,000	$ -	$ 1,000,000
FY22	January 15-16, 2022 Snow Storm	$ 1,000,000	$ -	$ 1,000,000
FY22	January 20, 2022 Snow Storm	$ 350,000	$ -	$ 350,000
FY22	January 28, 2022 Snow Storm	$ 1,000,000	$ -	$ 1,000,000
FY23	July 2022 Buchanan Co. Flood	$ 1,000,000	$ -	$ 1,000,000
FY23	July 2022 Southwest VA Flood	$ 1,000,000	$ -	$ 1,000,000
FY23	Hurricane Ian - Sept 2022	$ 2,750,000	$ -	$ 2,750,000
FY23	Texas Border EMAC	$ 3,129,900	$ -	$ 3,129,900
FY23	COVID-19 HMGP	$ 5,741,288	$ -	$ 5,741,288
FY24	TS Ophelia - Sept. 2023	$ 1,000,000	$ -	$ 1,000,000
FY24	Wildfires 2023	$ 10,000,000	$ (3,165,163)	$ 6,834,837
FY24	Wildfires March 2024	$ 5,000,000	$ -	$ 5,000,000

Finance Agency Technology Projects

Integrated Revenue Management System Replacement
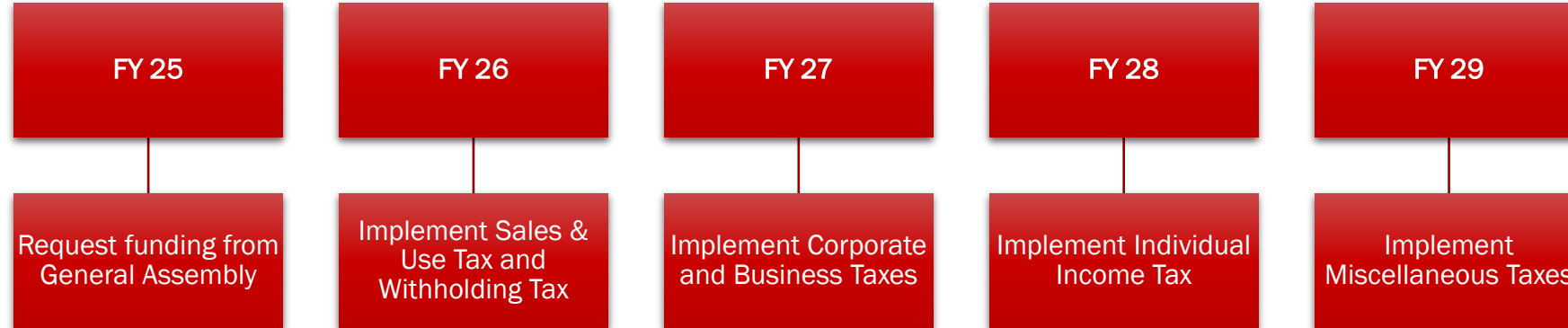
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Cardinal Modernization Program

TAX SYSTEM REPLACEMENT & MODERNIZATION

- The Integrated Revenue Management System (IRMS) is Virginia Tax's legacy core tax processing and accounting system that:
  - Processes ~12 million returns annually for 36 different tax types; and
  - Generates revenues of ~$30 billion annually, contributing 95% of the Commonwealth's General Fund revenue.
- IRMS is 25 years old (developed and implemented from 1999 through 2005) based on outdated PowerBuilder technology.
- The system and associated databases are becoming increasingly expensive to maintain and secure, posing significant risks to the integrity of our taxpayer data and limiting the agency's ability to serve Virginia taxpayers.
  - Given the magnitude of revenue dependent on its functionality, it is critical to replace the technology to avoid system failure.
  - Other benefits include greater adaptability to policy changes, less costly implementation, improved data analytic capabilities, better taxpayer experience, improved agency efficiency, and ability to recruit technology support staff.
- Virginia Tax has been preparing for system replacement for seven years:

2017	2019	2020	2022	2023	2024
• Performed Current State Assessment + determined IRMS was nearing end of life and must be replaced soon (Performed by CapTech)	• Issued RFI to determine Build vs Buy decision (Performed by MathTech)	• Evaluated RFI responses for Build vs. Buy decision, and determined to buy a new system (Performed by MathTech)	• Performed IV&V of prior assessments; affirmed that IRMS replacement is needed (Performed by Gartner)	• Requested funding to develop and issue RFP and to replace IRMS (Approved in 2024 Appropriation Act)	• Developed and Issued RFP for IRMS replacement (Performed by Gartner)

TAX SYSTEM REPLACEMENT & MODERNIZATION

- The 2024 Appropriation Act provided $1M in funding for the RFP process; RFP was issued July 19 and proposals are under evaluation.

- In addition, the 2024 Appropriation Act required a workgroup consisting of money committee staff, VITA, DPB, and the Secretary of Finance to review the plan for implementation of a modernized tax system.

- Tentative replacement timeline if funding (approx. $24m/year for 4 years) is approved during 2025 General Assembly session:

FY 25	FY 26	FY 27	FY 28	FY 29
Request funding from General Assembly	Implement Sales & Use Tax and Withholding Tax	Implement Corporate and Business Taxes	Implement Individual Income Tax	Implement Miscellaneous Taxes

- Next steps:
  - Finalize workgroup report (due November 1).
  - Select a vendor.
  - Request funding from the General Assembly to begin the first year of system replacement (~$24m in FY26).
  - If funding is approved, begin implementation in Summer 2025.

Cardinal Business Needs Assessment Status

Background/History

- Cardinal serves as the Commonwealth's statewide system of record for Financials (FIN) and Human Capital Management (HCM)

- Built on Oracle's PeopleSoft Enterprise Resource Planning (ERP) suite
  - Includes customizations made by the Commonwealth to meet existing business processes

- FIN was deployed from 2011 to 2016 and is the Commonwealth's financial system of record
  - Original plan was to deliver full General Ledger, Accounts Payable, Accounts Receivable/Billing, Project Costing, Purchasing, Time & Attendance and Absence Management capabilities to all agencies
  - VDOT implemented the original plan
  - Functional roll-out to all other agencies was paused in 2016 to implement HCM
  - Resulted in other agencies using non-Cardinal transactional applications to interface their data into Cardinal

- HCM was deployed from 2021 to 2022 and is the Commonwealth's HR system of record
  - Includes Benefits Administration, Human Resource Management, Payroll, Time & Attendance, and Absence Management modules

- The overall Cardinal user base includes: ~226 agencies, ~440 localities participating in Commonwealth's Local Choice program, ~10,000 core users, and ~200,000 self-service users (including 42,000 retirees, 46,000 locality employees)

State of Play

- Current scope of Cardinal Financials includes:

  - 200+ agencies running the general ledger

  - VDOT has full implementation. All other agencies use FIN to record receipts and disbursements only.

  - Inability to use FIN functionality for project costing, required for federal reporting, and basic billing has resulted in agencies building stand-alone systems or using multiple spreadsheets to accomplish objectives.

  - Cardinal FIN and HCM are 20+ versions behind due to lengthy HCM implementation (security patches are current).

  - No real "Business Intelligence" drill down capabilities.

Cardinal Business Needs Assessment

Phase 1 (Sept-Dec 2024) – Expected Spend $3M

- **Agency Outreach:** Finance, led by DOA, conducting outreach to all state agencies to identify opportunities to de-commission agency-based systems and potentially transition to the common Cardinal Platform.

  o Supervised by the Cardinal Governance Committee CGC, which meets every two weeks.

  o Process for conducting this assessment approved by CGC (**Appendix 1**)

- **Fit/Gap analysis:** All agencies surveyed about their current information systems, upgrades in process and planned, to facilitate a "Fit/Gap" analysis which will involve:

  o Identifying agency-based systems which are potential candidates for de-commissioning and transitioning to one of the available Cardinal Oracle PeopleSoft systems within the next couple of years

  o Identifying the business needs of our agencies and performing the Fit/Gap against currently deployed/available Cardinal systems, and against a SaaS/Cloud version of those systems, to the extent available – applying a commonly accepted framework (**Appendix 2**)

  o Preliminary estimates of potential implementation costs and ongoing run-rate savings, using publicly available information and insights from our consulting partners.

- **Deliverables:** We will analyze and summarize findings upon conclusion of this phase in December 2024

- **Go/Pause/No-go decision for future phases** – we will provide a readout and seek feedback and input for this purpose upon conclusion of the work

Future Path

Phase 2 (Spring of 2025) – Expected Spend - $3-4M

- Formulate a strategy and plan to adopt a cloud-based platform down the road:
  - ERP vendors are all focused on software-as-a-service (SaaS) versions of their software which are hosted in the cloud (versus managed by the customer)
  - The life cycle of a software product is declining, and the business model is changing. Advanced technologies (AI functionality, advanced data management and reporting, etc.) are being developed and deployed rapidly compared to the decades-old technology in use today. It will become harder and less efficient for complex organizations such as the Commonwealth to "keep up" over time if legacy systems are maintained indefinitely.
  - Even prioritizing security patching could become difficult unless these new technologies are deployed at scale going forward
  - Cardinal currently costs $42M annually to maintain. Underlying technology is 20+ years old.
- We need to embark on a parallel path at looking at more modern, more secure, user-friendly and faster cloud-based systems fit-for-tomorrow's purpose.
  - Implementation of a cloud ERP system in a complex, decentralized environment like the Commonwealth would take 3-5 years (best case scenario). The current Cardinal project took over 10 years to complete.
  - Several states have already taken this step (**Appendix 3**)
- In the Spring of 2025, we will leverage the information gathered from Phase 1 to articulate a possible longer-term strategy, including issuing RFIs to ERP vendors and system integrators.
  - Commencement is subject to "Go/Pause/No-Go decision after Phase 1.

Governance & Funding

- The Cardinal Governance Committee (CGC) was formed in conjunction with legislative language authorizing up to $12 M in working capital funds (Chapter 1, 2022 Special Session 1), $9.5 M approved via decision brief by Secretary of Finance (of which, $7-8 M expenditures are expected in FY 2025 for Phases 1 and Phase 2 pending checkpoint on Go/Pause/No Go decision).

- CGC established in 2021 (Item 246 B.2. of Chapter 2, 2024 Special Session I)
  - Current mission is to explore opportunities **for expansion** of Commonwealth agency applications onto the Cardinal platform and explore **de-commissioning of agency-based systems**.
  - Provides executive leadership for strategic direction of Cardinal Program
  - Ensures alignment of program initiatives with the Commonwealth's overall strategic mission, vision, goals, and needs of the end user
  - Provides recommendations for future projects to Secretary of Finance and Secretary of Administration

- Membership includes:
  - Scott Adams* – State Comptroller, Department of Accounts
  - Janet Lawson* – Director, Department of Human Resource Management
  - Sharon Lawrence – Deputy State Comptroller, Department of Accounts
  - Stacy Pendleton – Deputy Director, Department of Human Resource Management
  - Laura Farmer – Chief Financial Officer, Virginia Department of Transportation
  - Jon Howe – Associate Director, Budget Operations and General Government, Department of Planning and Budget
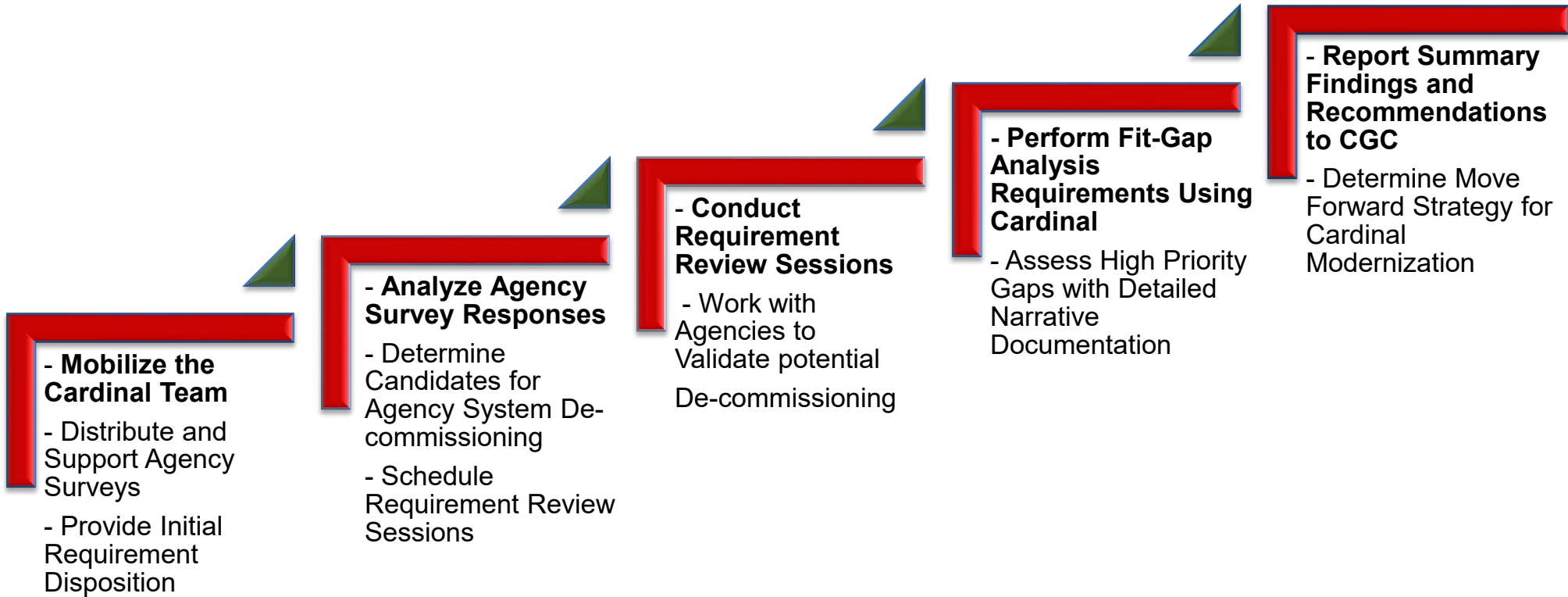 - Robert Osmond – CIO, Commonwealth of Virginia

*Committee Co-Chairs

- The CGC consistently engages with the staff of the House Appropriations and Senate Finance & Appropriations Committees to solicit input and feedback within and outside the CGC meetings.

Appendices

Appendix 1: High Level Approach – Phase 1

- Mobilize the Cardinal Team

- Distribute and Support Agency Surveys

- Provide Initial Requirement Disposition

- Analyze Agency Survey Responses

- Determine Candidates for Agency System De-commissioning

- Schedule Requirement Review Sessions

- Conduct Requirement Review Sessions

- Work with Agencies to Validate potential

De-commissioning

- Perform Fit-Gap Analysis Requirements Using Cardinal

- Assess High Priority Gaps with Detailed Narrative Documentation

- Report Summary Findings and Recommendations to CGC

- Determine Move Forward Strategy for Cardinal Modernization

Appendix 2: Agency System Decommissioning Framework

Criteria	Decommissioning Agency Financial System Candidate?		Exception?
Agency-Based Financial System?	Yes	No	
Executive Branch Agency?	Yes	No	Expressed interest to move to Cardinal
Not Higher Ed or Independent?	Yes	No	Expressed interest to move to Cardinal
Cardinal Future Functionality Match?	Yes	No	Follow-Up
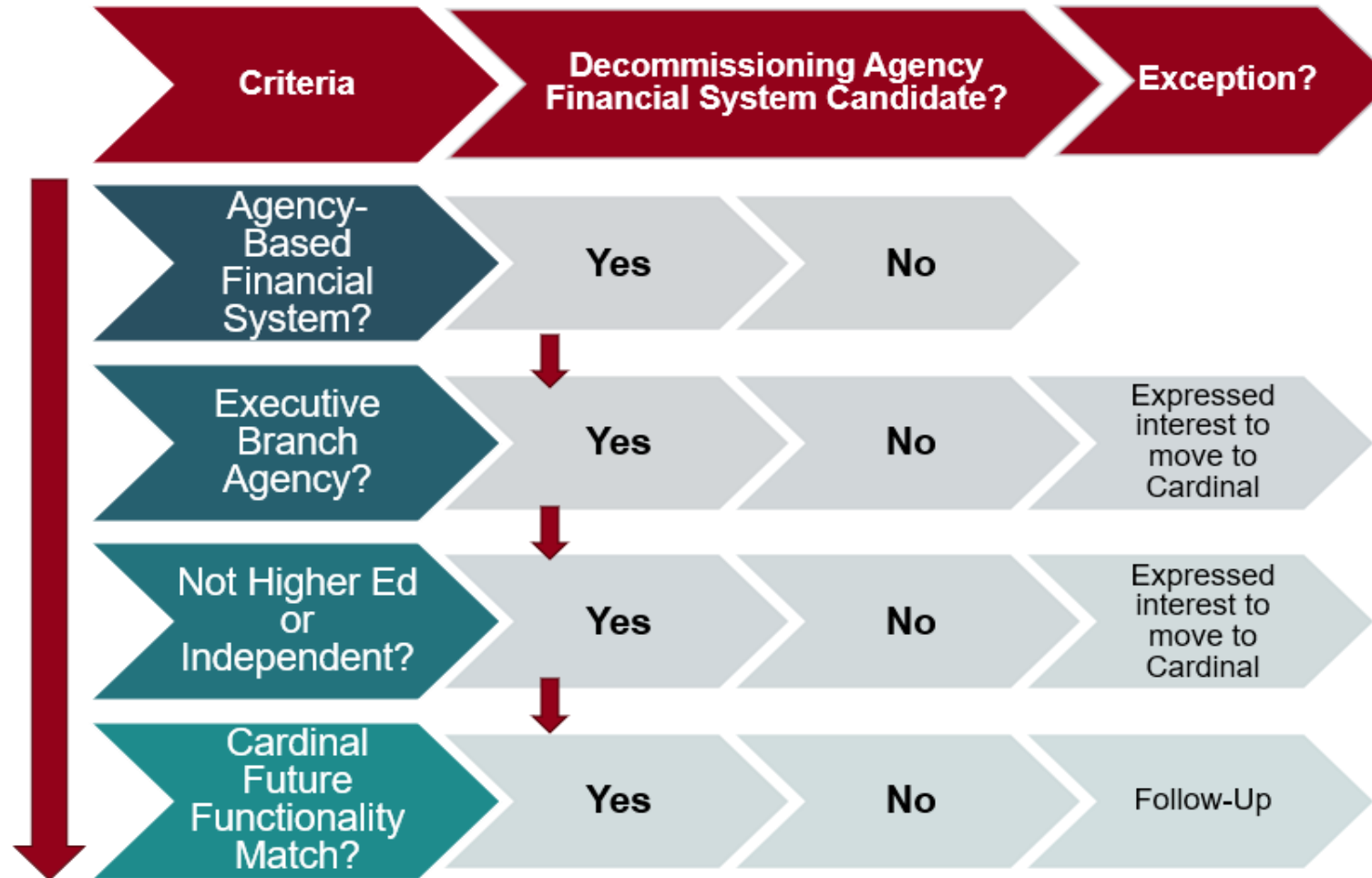
Appendix 3: States undergoing system modernization

- Several other states are already launching or completing Cloud ERP implementations, including but not limited to:
  - North Carolina
  - Washington
  - Maine
  - Rhode Island
  - Georgia
  - Missouri
  - New Jersey