



Committee: GO
Committee Review: Completed
Staff: Dr. Costis Torgas, Council IT Adviser
Purpose: Final action – vote expected
Keywords: #FiberNet, #broadband, #internet provision

AGENDA ITEM #20
 May 11, 2022
Action

SUBJECT

FY23-28 CIP: FiberNet (P509651)

EXPECTED ATTENDEES

None

FY23 COUNTY EXECUTIVE RECOMMENDATION

	Total	Thru FY21	Est FY22	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	Beyond 6 Years
EXPENDITURE SCHEDULE (\$000s)											
Planning, Design and Supervision	7,385	6,046	922	417	417	-	-	-	-	-	-
Land	4	4	-	-	-	-	-	-	-	-	-
Site Improvements and Utilities	19,017	17,266	1,251	500	130	130	60	60	60	60	-
Construction	38,060	1,522	8,898	27,680	9,045	4,047	3,647	3,647	3,647	3,647	-
Other	50,109	46,247	666	3,167	750	617	450	450	450	450	-
TOTAL EXPENDITURES	114,575	71,085	11,726	31,764	10,342	4,794	4,157	4,157	4,157	4,157	-
FUNDING SCHEDULE (\$000s)											
Contributions	1,611	1,611	-	-	-	-	-	-	-	-	-
Current Revenue: Cable TV	81,728	58,205	4,526	18,997	3,718	3,661	3,636	2,639	2,698	2,675	-
Current Revenue: General	20,223	256	7,200	12,767	6,624	1,133	521	1,518	1,489	1,482	-
G.O. Bonds	8,866	8,866	-	-	-	-	-	-	-	-	-
PAYGO	2,147	2,147	-	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	114,575	71,085	11,726	31,764	10,342	4,794	4,157	4,157	4,157	4,157	-
APPROPRIATION AND EXPENDITURE DATA (\$000s)											
Appropriation FY 23 Request			10,342	Year First Appropriation		FY96					
Appropriation FY 24 Request			4,794	Last FY's Cost Estimate		89,987					
Cumulative Appropriation			82,811								
Expenditure / Encumbrances			71,545								
Unencumbered Balance			11,266								

COMMITTEE RECOMMENDATIONS

The Committee, on a unanimous 2-0 vote of those members present, recommended the FY23 CIP FiberNet (P509651) budget of \$10,342,000 as proposed by the County Executive to the Council after a full discussion.

SUMMARY OF KEY ISSUES

The Committee reviewed the issues in the Staff analysis packet starting on page 1. Major issues included:

- The action to begin the shift of FiberNet funding away solely from Cable fund revenues and towards the General fund that began this fiscal year

- The need to clarify the governance structure of FiberNet and the role played by the Interagency Technology Policy Coordinating Committee (ITPCC)
- The importance of the new active connection (including an underwater segment under the Potomac) to the major internet servers in Ashburn Va that increases capacity and reduces latency of internet services provided to the County

The Committee took note of initiatives to consider revenue-producing aspects of the FiberNet program and suggested that, when appropriate, a joint session with the Planning, Housing and Economic Development committee of the Council (PHED) be organized to fully explore the potential of partnerships with the private sector and support for economic activity in the County under the pervasive “Culture of yes”.

This report contains:

Committee Staff Report	Pages 1-7
Original FiberNet budget submission	© 1-3
Amended FiberNet budget submission	© 4-6
Updated FiberNet map showing FNet 2 and FNet 3	© 7

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MEMORANDUM

April 26, 2022

TO: Government Operations and Fiscal Policy Committee
FROM: Dr. Costis Toregas, Council IT Adviser
SUBJECT: FY23-28 CIP: FiberNet (P509651)

Expected to attend:

Gail Roper, Chief Information Officer, Department of Technology and Enterprise Business Solutions (TEBS)
Joe Webster, Chief Broadband Officer, TEBS
Allison Dollar, Chief Budget Officer, TEBS
Leny Baustista, Finance Manager, Office for Broadband Programs, TEBS
Julie Knight, Fiscal and Policy Analyst, Office of Management and Budget (OMB)

Documents for Committee review:

1. Original budget submission detail (©1-3)
2. Amended budget submission detail (©4-6)
3. Updated FiberNet map showing FNet2 and FNet3 (©7)

Council staff *recommends the acceptance of the FiberNet budget at the level of \$10,342,000* that the County Executive has proposed.

Introduction

FiberNet CIP provides for the planning, design, and installation of a countywide electro-optical fiber communication network with the capacity to support voice, public-safety, traffic management, data, Internet access, wireless networking (including public WiFi) and video transmissions among Montgomery County Government (MCG), Montgomery County Public Schools (MCPS), Montgomery College (MC), Maryland National Capital Park and Planning Commission (M-NCPPC), Housing Opportunities Commission (HOC) and Washington Suburban Sanitary Commission (WSSC) facilities. FiberNet is the communications backbone for the Public Safety Radio and Public

Safety Mobile Data Systems (collectively, Public Safety Communications System (PSCS), DOT's Advanced Traffic Management System (ATMS), and other technology implementations (including the 800 MHz IP public safety radio). Upgrades and replacements to electronic components in the core and at user sites extend the usefulness of outside fiber facilities. Core and user equipment must be periodically replaced and upgraded to harness the capabilities of technological evolution and to meet the expanding networking demands of FiberNet customers. FiberNet3 investments exponentially increased FiberNet's ability to support cloud services, resilient data storage and retrieval, and cost-effective access to high-speed broadband service. Video transmission will include distribution of public, education, government access channel and selected cable programming.

Given the migration of many County services to on-line format, the importance of FiberNet has grown. In addition, the responsibility of serving all agencies with high capacity, secure connectivity has increased the priority placed on maintaining and indeed improving FiberNet as a County and enterprise-wide infrastructure investment. The Executive includes this commentary as "Project Justification" (see @4):

FiberNet is a critical infrastructure asset providing communication services and applications to every agency in Montgomery County. As more services are offered electronically (e-applications, e-payment, e-document, e-storage, e-learning), and more services require cloud-access, it is critical that every County location has robust access to FiberNet, and that FiberNet be secure, reliable, and always-on, and that sufficient equipment be in place to enable data recovery in the event of major power outages, natural disasters, or cybersecurity events. In addition, aging internal building wiring, public WiFi access points, external fiber, and end point routers, switches and firewalls need to be upgraded to enable use of newer IT services and technology. A large amount of equipment is beyond End of Life or End of Support, and some had been identified as critical to replace to prevent cybersecurity intrusions.

Background

On January 15, 2022, the Executive transmitted a recommended budget for FiberNet (see @1-3). OMB subsequently requested that review of this submission by the Committee be postponed as additional work was being done that would have significant impact on the figures and requests. An amendment for this item was submitted on March 15, 2022 (see @4-6); in this amended submission, the Executive provided the following commentary:

FiberNet (\$10,396,000)

The FiberNet countywide electro-optical fiber communication network supports critical voice, public-safety, traffic management, data, Internet access, wireless networking (including public WiFi) and video transmissions among Montgomery County Government (MCG), MCPS, Montgomery College (MC), Maryland-National Capital Park and Planning Commission (MNCPPC), Housing Opportunities Commission (HOC) and Washington Suburban Sanitary Commission (WSSC Water) facilities. As more services are offered digitally (e-applications, e-payment, e-document, e-storage, e-learning), and more services require cloud-access, it is critical that every County location has robust access to FiberNet and wireless access within buildings. Furthermore, it is imperative that FiberNet be secure, reliable, and always-on, and that sufficient equipment be in place to enable data recovery in the event of major power outages, natural disasters, or cybersecurity events.

My recommended CIP FiberNet amendment provides additional funds to complete implementation of the County's Business Continuity Strategic Plan and replace other critically vulnerable FiberNet equipment to greatly enhance the County's protection from potential ransomware attacks.

Because declining cable franchise fee revenues, ongoing General Fund support has been added to the project beginning in FY23.

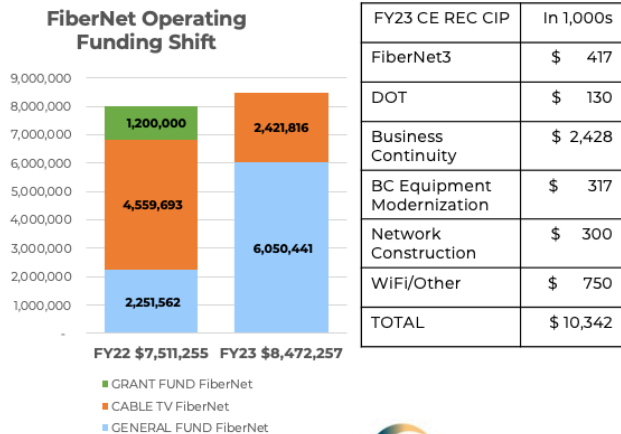
The Committee has long been pressing the Executive for a plan that responds to the importance of FiberNet funding in the face of declining Cable Fund revenues. This amendment is providing a pathway for support which has lessened demand on the Cable Fund and an increasing reliance on the General Fund, reflecting the important role played by FiberNet in everyday, as well as emergency operations for all agencies. The table below provides a snapshot of this shift.

Amounts in \$000s	Thru FY21	Est FY22	FY23	FY24	FY23-28
Cable Fund	58,205	4,526	3,718	3,661	18,997
General Fund	256	7,200	6,624	1,133	12,767
Other sources	12,624				
Totals	71,085	11,726	10,342	4,794	31,764

In addition, the chart and figure below provide more detail on this new TEBS commitment to right size support for FiberNet using contemporary and available strategies.

FiberNet Investments (Core Systems)

- FiberNet Operating Expense removed from Cable Fund and now funded by General Fund to reduce Cable Fund deficit
- New funding added to General Fund to support FiberNet operating
- FY22 \$1.2M Grant funding moved into General Fund base budget
- FY23 CE REC CIP includes new \$5.8 increase for Phase 1 Business Continuity and Core Systems Upgrades



FY23 CE REC CIP	In 1,000s
FiberNet3	\$ 417
DOT	\$ 130
Business Continuity	\$ 2,428
BC Equipment Modernization	\$ 317
Network Construction	\$ 300
WiFi/Other	\$ 750
TOTAL	\$10,342



Discussion

In order to better understand the activities within the recommended budget, Council staff raised a number of questions, and received the following responses from the Executive branch. Council staff has provided comments and suggestions where appropriate. It might be helpful for the Committee to review each answer and provide suggestions and direction during the worksession.

Summary of staff suggestions (details provided in sections below)

- The Committee should be briefed before the FY24 CIP request is formalized as to progress towards this goal of revenue production through services.
- An update will have to be made either to the governance, or composition mechanisms for FiberNet.
- The Committee should be briefed on the status of cable franchise negotiations when progress is perceived.

Council staff questions, answers from Executive, and (where appropriate), Council staff comments

1. How are the diminishing revenues from Cable Plan expected to be made up over the 6 years of the CIP plan?

A combination of budgeting new expenditures in the General Fund, transferring expenditures to the General Fund, generating revenue through services or grant funding, and program reduction.

Staff comment:

The Executive has begun to address the difficult question of supporting a County wide, priority infrastructure project through a variety of funding options. The Committee should be briefed before the FY24 CIP request is formalized as to progress towards this goal of revenue production through services. This is a revenue source where the County does not have significant experience, and there may be policy implications where the Committee and full Council may have to weigh in.

2. Please elaborate on the governance structure for FiberNet (current and future) and the role of the ITPCC in that governance structure.

The use of FiberNet funds has historically been reactive and used to fix problems associated with outmoded infrastructure and to support the unplanned service demands of County departments and ITPCC agencies. Although the ITPCC Principals, or the CIOs, have not formally met as a group for the last few years, we have been enacting a more proactive approach to upgrading our infrastructure, bandwidth, and performance as well as partnering with departments and agencies to plan our architecture and service improvement projects and pre-determine our use of funds. With the advancement of broadband technologies, FiberNet3 upgrades, and connectivity to the Equinix Tier 4 data center in Ashburn, FiberNet has become an enabler of innovation opportunities and access to leading-edge cloud services as well as helping to improve the lives of low-income residents via MoCoNet's digital equity service. TEBS has continued to meet with ITPCC members individually to seek their input, collaborate on solutions and provide them with ongoing updates regarding FiberNet's upgrade plans and service strategies.

Staff comment:

The lack of progress in ITPCC work effort is troubling; the Committee will have a chance to discuss this in the Operating Budget review. Since earlier FiberNet governance models included ITPCC leadership reviews, an update will have to be made either to the governance, or composition mechanisms for FiberNet.

3. Please update the Committee on the status of the activities funded by the recent \$7.2m FiberNet amendment: encrypted private cloud, failover recovery equipment, ransomware recovery equipment. What are key milestones for each?

This initiative will improve the County's cyber security capabilities with regard to ransomware recovery, improve the County's ability to access backup data and reduce related recovery times.

Equipment and related software have been encumbered, ordered, and received including:

- *Data Center Equipment*
- *Encrypted private cloud and failover recovery equipment*
- *Ransomware recovery equipment*

Key Milestones:

- *In September 2021, TEBS started initial planning for an infrastructure modernization project involving encrypted private cloud, failover recovery equipment, ransomware recovery equipment, and business continuity improvement.*
- *An architecture and technology strategy was developed to significantly improve the County's capabilities regarding secure data storage, ransomware protection, and business continuity capabilities.*
- *Funding was approved in December 2021 by the County Council via the FiberNet supplemental appropriation.*
- *All related phase 1 equipment and software have been ordered and received.*
- *The first phase of this project will be completed by September 2022.*
- *Data systems directly managed by TEBS will be encrypted and immutable ("uneditable" and secure from Ransomware attacks) by the end of Phase 1.*
- *Recovery time objectives will also be greatly enhanced for all TEBS managed data & applications.*
- *As part of this effort, a Business Impact Analysis ("BIA") is underway and will provide additional information on priority systems and recovery times.*
- *Future phases will provide other departments that manage their data and applications (non-TEBS-managed data and applications) opportunities to leverage this strategy and seek appropriate funding.*

4. Can you please provide metrics on progress made towards FiberNet3? Perhaps show miles of fiber supporting 3 vs 2 (is it 100-0 by now% when? Also please enhance map on CIP p10-5 differentiating FN3 vs FN2.

FiberNet3 uses the same fiber optic cables as FiberNet2. The scope of the FiberNet3 project was to enhance the capacity, intelligence, and functionality of FiberNet without expanding the number of route miles of fiber cable. These enhancements include (a) upgrade power at the hub sites; (b) 10-fold increase in bandwidth via new equipment enabling the upgrade from a 10 Gbps core network (FiberNet2) to a 100 Gbps core network (FiberNet3) and upgraded to carrier-class capabilities; (c) cutover sites to the new 100 Gbps (FiberNet 3) core network; and (d) provide resilient connectivity to an Equinix Tier 4 data center in Ashburn, VA. See attached map on @7.

- *Hub Site Power Upgrades: 100% completed (11 of 11 hubs).*
- *10-Fold Upgrade in Core Network Capacity: 100% completed (100 Gbps core network).*
- *Site Cut Over: 85% complete (515 sites completed, including all 230 MCPS sites). The remaining 15% are primarily public safety sites that require additional coordination and planning to provide backup connectivity during the cutover. The remaining sites are expected to be cut over by the end of FY22. A map of upgraded and locations in process will be provided with the March 2022 update.*
- *Equinix Tier 4 data center diverse connectivity: Fiber construction for one dark fiber route is complete. The County is in contract negotiations for a second diverse dark fiber*

route to Equinix. Network equipment has been ordered and is staged and installation in the colocation space has started. Fiber connectivity is in process.

Staff comment:

The connection to Ashburn VA is a major accomplishment as it ensures low latency, high bandwidth access to the Internet for all County users.

5. Please provide a status on Comcast & Verizon negotiations and likely impact on FiberNet funding for construction

We are in the very early renewal negotiation stages with both Comcast & Verizon. Both companies have agreed to maintain the same franchise terms while the renewal is underway. Comcast and Verizon seem to agree with the County on maintaining the same gross revenue calculations in the new franchises.

Staff comment:

The Committee should be briefed on the status of cable franchise negotiations when progress is perceived. In prior agreement cycles, the full Council has been put in the difficult position of endorsing long term agreements with significant impact on residents with minimal prior engagement. This delay provides an opportunity for the Executive to brief and receive reactions from the Committee and full Council before things are cast in stone.

6. The unencumbered balance in FiberNet has increased significantly. Why should more appropriation be allocated until it is spent down?

OMB updates the CIP unencumbered balance manually. The March 15, 2022, transmittal to Council was based on older balances. Updated balance is below.

Time run: 3/29/2022 9:05:08 AM

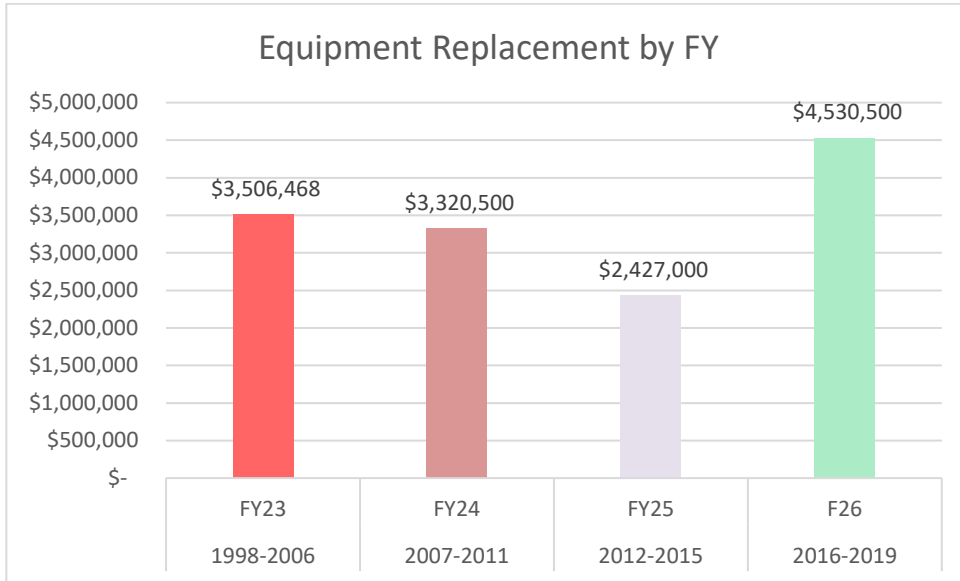
Project Number	Project Name	Award Number	Award Name	Current Year Appropriation	Current Year Revision	YTD Expenditures	Outstanding Approved	Remaining Balance
0349996	Fibernet - CIP	1000500	405	\$3,290,000.00	\$7,200,000.00	\$3,014,860.10	\$7,195,096.87	\$1,199,986.15
0349996	Total			\$3,290,000.00	\$7,200,000.00	\$3,014,860.10	\$7,195,096.87	\$1,199,986.15
Total								

OBP anticipates spending the remainder of the FiberNet CIP in FY22 as follows:

Project	Amount	Date
Public WiFi	\$ 43,843	FY22- 4th quarter
FiberNet	\$ 100,000	FY22- 4th quarter
Business Continuity	\$ 456,219	FY22- 4th quarter
Equipment	\$ 599,924	FY22- 4th quarter
Total	\$ 1,199,986	

7. Provide a list of projects/timelines that will match requested expenditures.

*Equipment has been identified as end of service and end of life. Dates under FY are manufactured date. Equipment is now incapable of uploading Cybersecurity software updates.





FiberNet

(P509651)

Category	General Government	Date Last Modified	01/10/22
SubCategory	Technology Services	Administering Agency	Technology Services
Planning Area	Countywide	Status	Ongoing

	Total	Thru FY21	Est FY22	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	Beyond 6 Years
EXPENDITURE SCHEDULE (\$000s)											
Planning, Design and Supervision	12,968	6,046	922	6,000	1,000	1,000	1,000	1,000	1,000	1,000	-
Land	1,504	4	-	1,500	250	250	250	250	250	250	-
Site Improvements and Utilities	18,817	17,266	1,251	300	50	50	50	50	50	50	-
Construction	20,948	1,522	8,858	10,568	2,088	1,696	1,696	1,696	1,696	1,696	-
Other	49,942	46,247	695	3,000	500	500	500	500	500	500	-
TOTAL EXPENDITURES	104,179	71,085	11,726	21,368	3,888	3,496	3,496	3,496	3,496	3,496	-

FUNDING SCHEDULE (\$000s)											
Contributions	1,611	1,611	-	-	-	-	-	-	-	-	-
Current Revenue: Cable TV	84,099	58,205	4,526	21,368	3,888	3,496	3,496	3,496	3,496	3,496	-
Current Revenue: General	7,456	256	7,200	-	-	-	-	-	-	-	-
G.O. Bonds	8,866	8,866	-	-	-	-	-	-	-	-	-
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TOTAL FUNDING SOURCES	104,179	71,085	11,726	21,368	3,888	3,496	3,496	3,496	3,496	3,496	-

APPROPRIATION AND EXPENDITURE DATA (\$000s)			
Appropriation FY 23 Request	3,888	Year First Appropriation	FY96
Appropriation FY 24 Request	3,496	Last FY's Cost Estimate	89,987
Cumulative Appropriation	82,811		
Expenditure / Encumbrances	71,545		
Unencumbered Balance	11,266		

PROJECT DESCRIPTION

FiberNet CIP provides for the planning, design, and installation of a countywide electro-optical fiber communication network with the capacity to support voice, public-safety, traffic management, data, Internet access, wireless networking (including public WiFi) and video transmissions among Montgomery County Government (MCG), Montgomery County Public Schools (MCPS), Montgomery College (MC), Maryland National Capital Park and Planning Commission (M-NCPPC), Housing Opportunities Commission (HOC) and Washington Suburban Sanitary Commission (WSSC) facilities. Video transmission will include distribution of public, education, government access channel and selected cable programming. FiberNet is the communications backbone for the Public Safety Radio and Public Safety Mobile Data Systems (collectively, Public Safety Communications System (PSCS)), DOT's Advanced Traffic Management System (ATMS), and other technology implementations (including the 800 MHz IP public safety radio). Upgrades and replacements to electronic components in the core and at user sites extend the usefulness of outside fiber facilities. Core and user equipment must be periodically replaced and upgraded, ideally at 7-8 year intervals, to harness the capabilities of technological evolution and to meet the expanding networking demands of FiberNet customers. Implementation of the third generation of core components, FiberNet3, began in FY21. FiberNet3 exponentially increased FiberNet's ability to support cloud services, resilient data storage and retrieval, and cost effective access to high speed broadband service. In FY22, FiberNet upgraded data center equipment and firewall devices at the Council Office Building (COB) data center. FiberNet will also implement an encrypted private cloud, failover recovery equipment and ransomware recovery capabilities as part of the County's business continuity initiative.

ESTIMATED SCHEDULE

The primary focus of the FY21-22 CIP had been to plan and install core third-generation FiberNet3 equipment to exponentially expand capacity within FiberNet, upgrade hub-site electrical equipment to support installation of FiberNet3 equipment, and to establish Ashburn data center connections to enable cost-effective future technology public-private partnerships with government and educational institutions, major research and educational institutions, and large employers. Additional work was done in response to Covid to expand outdoor public WiFi to 14 libraries and to expedite transitioning MCPS to FiberNet3 to support hybrid simultaneous in-person and online teaching. FiberNet was expanded to extend fiber to 448 government and education sites by the end of FY22, including 18 Flash Route 29 Bus Rapid Transit stations. The Traffic Management network reaches over 230 traffic cameras and 909 traffic signals, and backup power to keep traffic signals operations during large scale power outages have been added at 436 traffic signals.

In FY22, TEBS received a \$7.2 million supplemental appropriation to refresh past end of life network, routing and firewall equipment in the COB data center and to install and implement an encrypted private cloud, failover recovery equipment, and ransomware recovery capability. This implementation creates resilient data storage in Ashburn, VA and strengthens the County's ability to safely access and protect data and systems against ransomware.

COST CHANGE

Technology Services

TEBS received a \$7.2m supplemental in FY22 and funds were added in FY27 and FY28.

PROJECT JUSTIFICATION

FiberNet is a critical infrastructure asset providing communication services and applications to every agency in Montgomery County. As more services are offered electronically (e-applications, e-payment, e-document, e-storage, e-learning), and more services require cloud-access, it is critical that every County location has robust access to FiberNet, and that FiberNet be secure, reliable, and always-on, and that sufficient equipment be in place to enable data recovery in the event of major power outages, natural disasters, or cybersecurity events. In addition, aging internal building wiring, public WiFi access points, external fiber, and end point routers, switches and firewalls need to be upgraded to enable use of newer IT services and technology. A large amount of equipment is beyond End of Life or End of Support and some had been identified as critical to replace to prevent cybersecurity intrusions.

FISCAL NOTE

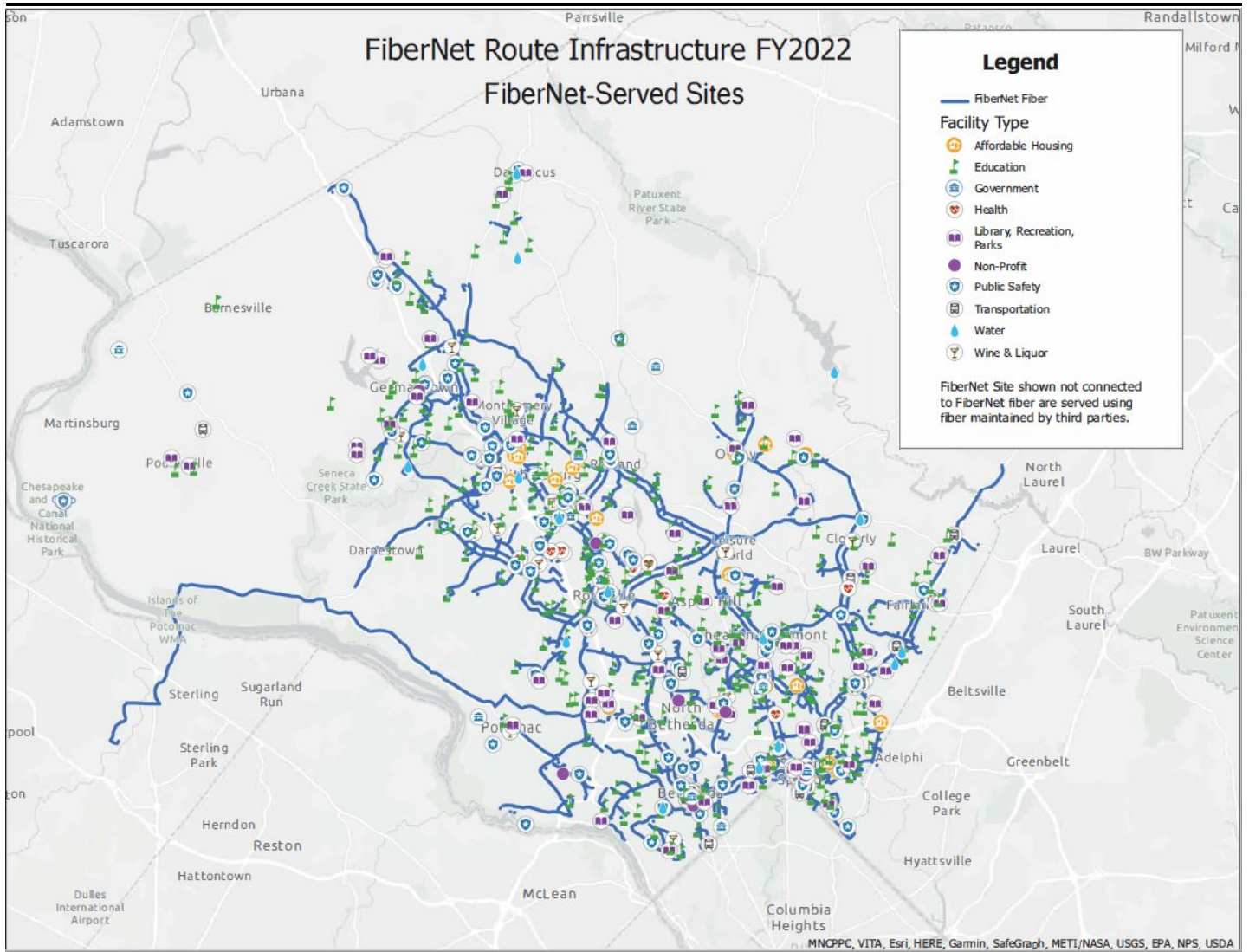
The FiberNet CIP originally was funded by the General Fund. As restricted-use Cable Fund PEG/I NET capital grant funding grew, the Cable Fund became the primary funding source for FiberNet. Cable revenues are declining as cord cutting increases. Funding for future FiberNet CIPs may need to be supplemented by the General Fund. FiberNet operations and maintenance (O&M) activities are a critical component of FiberNet's utility but are not funded by the FiberNet CIP. Federal regulatory actions, or the outcome of renegotiations when the Comcast and Verizon franchises expire in 2021, may negatively impact the Cable Fund. The County is negotiating extensions of the current franchises. In FY16 funds were also used to support government and educational ultraMontgomery broadband initiatives. An FY22 Current Revenue General Supplemental was approved for \$7.2 million for business continuity enhancements.

DISCLOSURES

Expenditures will continue indefinitely.

COORDINATION

Technology & Enterprise Business Solutions (TEBS), Department of Transportation, Advanced Transportation Management System Project, Montgomery County Public Schools, MNCPPC, MC, HOC, WSSC, PSCS, Information Technology Policy Coordination Committee (ITPCC), ITPCC CIO Subcommittee, and Interagency Technology Advisory Group (ITAG); and supports ATMS, Traffic Signal System Modernization (TSSM) and Traffic Signal CIPs.





FiberNet

(P509651)

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ESTIMATED SCHEDULE

Previous CIPs focused on expansion of the FiberNet footprint to existing Montgomery County Government, MCPS, Montgomery College, Housing Opportunities Commission and WSSC locations and installing the majority of third-generation FiberNet3 equipment and integration, including upgraded core and hub equipment and establishment of Ashburn data center connections, refreshed past end of life routing and firewall equipment, and installed and implemented an encrypted private cloud, failover recovery equipment, and ransomware recovery capability. The FY23-24 CIP funds complete the implementation of Phase I of the County's Business Continuity Strategic Plan. FY25-FY28 activities will focus on implementing Phases 2 and 3 of the Business Continuity Strategic Plan and replacement of other critically vulnerable FiberNet edge equipment.

COST CHANGE

Reflects a \$7.2 million FY22 supplemental and increased FY23 to FY28 funding for Business Continuity Strategic Plan implementation.

PROJECT JUSTIFICATION

FiberNet is a critical infrastructure asset providing communication services and applications to every agency in Montgomery County. As more services are offered electronically (e-applications, e-payment, e-document, e-storage, e-learning), and more services require cloud-access, it is critical that every County location has robust access to FiberNet, and that FiberNet be secure, reliable, and always-on, and that sufficient equipment be in place to enable data recovery in the event of major power outages, natural disasters, or cybersecurity events. In addition, aging internal building wiring, public WiFi access points, external fiber, and end point routers,

switches and firewalls need to be upgraded to enable use of newer IT services and technology. A large amount of equipment is beyond End of Life or End of Support and some had been identified as critical to replace to prevent cybersecurity intrusions.

FISCAL NOTE

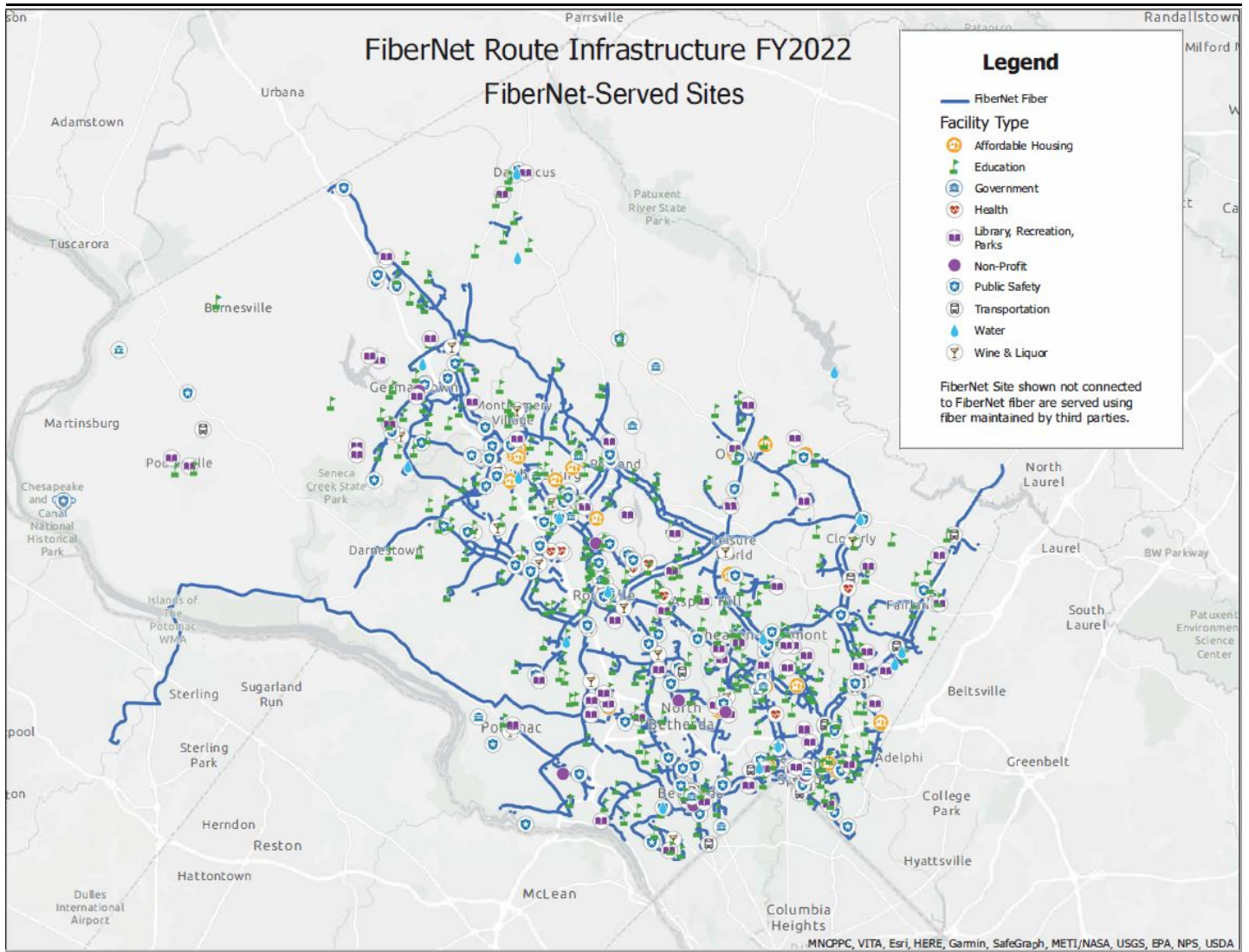
An \$7.2 million supplemental appropriation request was approved. Ongoing General Fund support was added beginning in FY23 due to declining Cable Fund revenues.

DISCLOSURES

Expenditures will continue indefinitely.

COORDINATION

Technology & Enterprise Business Solutions (TEBS), Department of Transportation, Advanced Transportation Management System Project, Montgomery County Public Schools, MNCPPC, MC, HOC, WSSC, PSCS, Information Technology Policy Coordination Committee (ITPCC), ITPCC CIO Subcommittee, and Interagency Technology Advisory Group (ITAG); and supports ATMS, Traffic Signal System Modernization (TSSM) and Traffic Signal CIPs.



FiberNet FY23 CIP

Legend

- FiberNet3
- FiberNet2
- FiberNet Fiber

FiberNet Site shown not connected to FiberNet fiber are served using fiber maintained by third parties.

