



## SUBMISSION FORM

All submission forms must include the following information. Separate submission forms must be turned in for each eligible program. **Deadline: July 1, 2022.** Please include this submission form with the electronic entry. If you do not receive an email confirming receipt of your entry within 3 days of submission, please contact [Gage Harter](#).

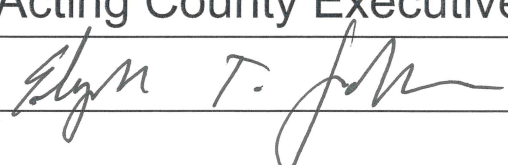
### PROGRAM INFORMATION

County: Prince William County  
Program Title: Prince William Public Libraries Bridging the Digital Divide  
Program Category: Information Technology

### CONTACT INFORMATION

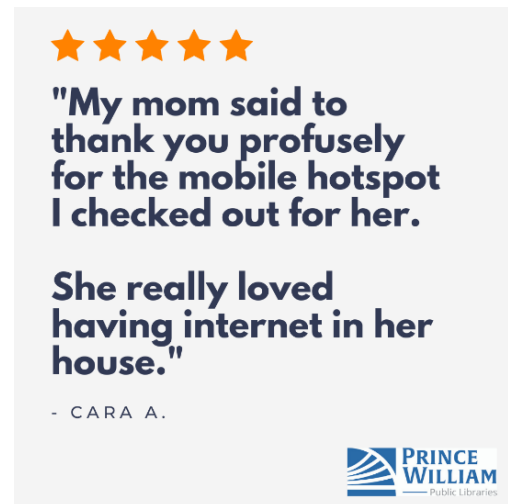
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### SIGNATURE OF COUNTY ADMINISTRATOR OR DEPUTY/ASSISTANT COUNTY ADMINISTRATOR

Name: Elijah T. Johnson  
Title: Acting County Executive  
Signature: 

## Program Overview

Prince William Public Libraries (PWPL) implemented a comprehensive plan to help remove barriers to digital access in support of Prince William County's and PWPL's Strategic Plans. PWPL now offers a laptop lending program, portable Wi-Fi hotspot lending program, and publicly available Wi-Fi access outside library buildings 24/7. The public also has access to 3D printers, 3D pens, wireless printing, innovative STEM toys, and a recording room at Central Library's Makerspace and – soon – Bull Run Library's Makerspace. In addition, PWPL enhanced its technology learning programs, added more content to its Digital Library, and created tutorials to help navigate the resources available on the Digital Library.



## Executive Summary

PWPL strives to achieve its vision of being the hub connecting people to the transforming power of information and is committed to removing barriers to digital access to information and education. The area we serve is home to some of the foremost tech companies and data centers in the nation, yet many area residents are still not part of the digital world. In 2020, Prince William County Government identified the lack of high-capacity internet access as a critical issue threatening the immediate quality of life and economic survival of residents and local businesses. PWPL adopted a comprehensive plan to help bridge the digital divide that included implementation of four services: (1) free, publicly available Wi-Fi access outside library buildings, (2) portable Wi-Fi hotspot lending program, (3) laptop lending program, and (4) enhanced digital literacy programming.

In summer 2021, PWPL improved the wireless coverage inside its 12 library branches and extended Wi-Fi outside the buildings to their outdoor areas and parking lots. The public now has access to free and reliable Wi-Fi 24/7, regardless of whether they have a library card or not. These improvements resulted in a 2,300-percent increase in Wi-Fi use in 2021 compared to 2020.

The Wi-Fi mobile hotspot lending was launched in November 2019 with just 10 devices. Immediately, the devices were in high demand and checkouts were running at capacity. In 2021, PWPL increased the number of devices to 400. Wi-Fi mobile hotspots became the most checked-out item of the year with 1,885 checkouts.

To further address the lack of computer and internet access at home among low-income families, PWPL began developing a laptop lending program and added new technologies to its libraries such as 3D printers, a Whisper Room at Central Library, and Gaming Lounge at Montclair Library. Enhanced digital literacy programming helps patrons improve their digital literacy skills and better utilize the new technologies. PWPL also added more content to its Digital Library and created tutorials to help navigate the resources available on the Digital Library.

## **Program Description**

### **Problem Faced by the Locality**

PWPL serves Prince William County and the City of Manassas in Northern Virginia. This area is home to some of the foremost tech companies and data centers in the nation, yet many residents are still not part of the digital world. According to the U.S. Census Bureau, in 2016 – 2020, 4.6 percent of Prince William County and 6.7 percent of Manassas City households did not have a broadband internet subscription, and 2.1 percent and 5.7 percent, respectively, did not have a

computer. While these statistics are better than the national average, they are lacking considering the regions' specifics. Northern Virginia has the most concentrated tech talent market in the country after San Francisco, with tech positions representing 8.3 percent of all jobs in the region (second to the Bay Area's 10.5 percent); has the largest data center market in the world, with 45,000 jobs supported by data centers in 2021; and is also believed to be the next great tech talent incubator, with the George Mason University Technology Innovation Park, located in Prince William County, taking the lead.

Noting these developments, it is hard to believe that there are families in Prince William County that do not have a computer or internet. This has become a pressing issue during the COVID-19 pandemic, as vital services like healthcare and education increasingly depended upon high-speed internet connections. The pandemic also made many library services unavailable to those who needed them most. In 2020, Prince William County Department of Information Technology (DoIT) identified the lack of high-capacity internet access as a critical issue threatening the immediate quality of life and economic survival of residents and local businesses.

### **Future-Ready, Easily Accessible Technology for All at PWPL**

Public libraries play an important role in supporting the community by providing free services and resources. It is PWPL's vision to be the hub connecting people to the transforming power of information, including the information available through digital media. Therefore, PWPL's Strategic Plan 2019-2023 includes Strategic Goals such as Future-Ready, Easily Accessible Technology: PWPL will provide access to state-of-the-art technology (following industry best practices) to address both internal and external customer expectations; Community-Responsive Enrichment: PWPL will provide programming that grows the system's user base and

reflects its evolving community; and Lifelong Learning: PWPL will reach more adult users by providing more lifelong learning and workforce development opportunities.

To help bridge the digital divide and resolve the issues of technology access, affordability, and literacy, PWPL adopted a comprehensive plan that included implementation of four services: (1) free, publicly available Wi-Fi access outside library buildings, (2) portable Wi-Fi hotspot lending program, (3) laptop lending program, and (4) enhanced digital literacy programming.

In 2021, PWPL achieved key milestones in the implementation of this comprehensive plan. PWPL now offers high-speed internet both inside and outside its libraries, providing 24/7 access and patrons can check out mobile Wi-Fi hotspots. In summer 2022, patrons will be able to check out laptops. In the libraries, there are computers and laptops with internet, printers, and scanners for patrons to use. All libraries have self-checkout stations, 24/7 book drops, and contact-free pickup. In addition, PWPL offers a variety of digital skills improvement programs for all ages, added more content to its Digital Library, and created tutorials to help navigate the resources available on the Digital Library.

PWPL achieved many of these improvements in close collaboration with DoIT in line with Prince William County's Technology Inclusion Initiative and Technology & Connectivity policies of the Comprehensive Plan. Prince William County and PWPL secured external funding such as the Coronavirus Aid, Relief and Economic Security (CARES) Act funding and FCC's Emergency Connectivity Fund. Library renovations at Central and Bull Run Libraries strategically included new Makerspaces with 3D printers and other technologies to the public, covered by the proffers, and private enterprises and grants helped PWPL launch new digital literacy programs.

### **(1) Free, Publicly Available Wi-Fi Access Outside Library Buildings**

In August 2021, PWPL extended Wi-Fi outside its 12 library branches to their outdoor areas and parking lots. The public now has access to free and reliable Wi-Fi 24/7, regardless of whether they have a library card or not. While PWPL does not have a separate data for indoor and outdoor Wi-Fi usage, one data point speaks for all: Wi-Fi use in the libraries in 2021 increased by 2,300 percent compared to 2020. PWPL's Technology Services Division is coordinating with DoIT on collecting more detailed statistics for 2022.

PWPL announced this new service through a creative video, "PWPL's Wi-Fi Has Left the Building!" that features a character representing the invisible Wi-Fi signal. This lighthearted, yet impactful video follows "Wi-Fi" as she longs to get outside. PWPL was awarded a coveted Hermes Creative Award for this video in the category Electronic Media/Social Media/YouTube Video. Hermes Creative Awards is an international awards competition for creative professionals and recognizes outstanding work in the industry while promoting the philanthropic nature of marketing and communications. PWPL was only one of two library systems to be recognized, and the only library system in the United States. The video was also awarded the 2022 PR Xchange Award from the American Library Association in the category Materials Promoting Collections, Services, Resources.

In addition to extending Wi-Fi outside library branches, a network re-architecture project improved the wireless coverage inside all library branches. While there were computers and laptops with internet in all library branches, patrons can now conveniently use their devices and connect to a reliable Wi-Fi. All libraries offer printing and scanning, and patrons can also wirelessly print to library printers from their computer, laptop, tablet, phone, or other mobile device.



## (2) Portable Wi-Fi Hotspot Lending Program

PWPL launched this service in November 2019 with just 10 devices. Immediately, the devices were in high demand and checkouts were running at capacity. In 2021, PWPL increased the number of devices to 400. Wi-Fi mobile hotspots became the most checked-out item of the year with 1,885 checkouts. Current data suggests that hotspots will also lead Top Checkouts of 2022. As of May 31, 2022, the Wi-Fi mobile hotspots were already checked out 1,420 times.

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*The hotspot we checked out from the library was a lifesaver while we were visiting family.*

Our youngest did not have a cell phone, however, he was able to use the hotspot and his tablet with a chat program to stay connected.

It was so simple he was able to set it up himself!

— Nicole





The hotspots allow patrons to get free internet access wherever they are. Patrons can check out the device through PWPL's Online Catalog or at any of its 12 libraries. The hotspots are loaned out for a three-week period and each Wi-Fi hotspot kit contains a hotspot device, charging adaptor, and instructions.

T-Mobile is the provider of mobile hotspots and provides PWPL technical support for the devices. Each library branch also has staff available to help with troubleshooting and answer any questions.

### **(3) Laptop Lending Program**

In 2021, PWPL received, through the CARES Act, 100 laptops with built-in Wi-Fi hotspot and web filtering service that patrons can borrow and conveniently use at home. PWPL's Technology Services Division set up the devices and developed lending policies and procedures, and PWPL's Material Services Division generated barcodes, ensured proper labelling and processing, and entered the laptops into circulation. PWPL will launch the service in summer 2022.

### **(4) Enhanced Digital Literacy Programming**

Programming serves major role for the greater Prince William community. The success of technology and innovation companies in the area ignites the interest of young people in pursuing careers in these fields. Therefore, there is a high demand for STEM programs. Since these can be costly – for many parents – the free STEM programs in the library are the only option they have for their children to be introduced to these technologies and tools. Similarly, adults who strive to enhance their digital literacy skills and stay up to date with modern technologies are given the opportunity through PWPL's services and programming at no cost.



PWPL's goal is to provide access to modern, engaging, and effective STEM education for all. In 2021, PWPL secured a sponsorship to expand Girls Who Code, a national program that aims to close the gender gap in technology and to change the image of what a programmer looks like and does. PWPL was also awarded a grant for Hour of Code, a series of engaging and effective live, online coding classes.

Another sponsorship allowed PWPL to update its STEM Kits with innovative items such as Air Rocket Kit, Bits & Bytes, Digital Microscope, Jumbo Fossil Dig Kit, Mega Gemstone Kit, and Squishy Circuit Kit. These items are widely used this year as PWPL returns to in-person STEM programs.

Two grants enabled PWPL to expand Learning Circle, a program designed to advance career preparation, digital inclusion, and economic empowerment for adults with underdeveloped skills. Adults could also attend specialized classes and programs such as Introduction to the Computer, Internet Searching and Safety, and Microsoft Word Essentials. PWPL also created tutorials to help navigate the resources available on the Digital Library and offered One-on-One Tech Help, personalized sessions with a library staff member helping residents with their laptop, basic computer skills, iPad, Kindle, smartphone, or other devices.

## **Specialized, Modern Technology**

In July 2021, PWPL opened Makerspace, Studio 8601 in its Central Library. The public now has access to a 3D printer, 3D pens, and tech and coding toys such as Arduino starter kit, Chibi Chip starter kit, Ozobot Bits, and a Sphero Bolt. The Makerspace also includes a Whisper Room where patrons can record audio, video, music and podcasts with the available keyboard, mics, and mixer board. Patrons can use their smart device, or the library's Macbook and recording software. Central Library offers a variety of specialized programs at the Makerspace such as Makerspace Teen Time, 3D Printing Demonstration, Open Studio Time, Sphero Design Challenge, and more. From its opening to the end of 2021, 229 people visited the Makerspace. With the pandemic restrictions easing, PWPL expects this number to be much higher in 2022.



At Montclair Library, PWPL opened a Gaming Lounge with a PlayStation 4 and Nintendo Switch and several games to choose from. From its opening in July to the end of 2021, children and teens visited the Gaming Lounge 377 times and spent 200 hours playing,

socializing, and developing their skills. PWPL expects these numbers to rise rapidly this year. By the end of May 2022, the Gaming Lounge was visited 338 times.

### **What's Next?**

In 2022, PWPL continues to help bridge the digital divide and make the new technologies accessible to more residents. Another of PWPL's library branches – Bull Run Library – will open a state-of-the-art Makerspace MakerLab, HIVE 8051 with new technology and craft tools and equipment. A Digital Media Lab will offer a digital graphic design studio suite, animation studio, green screen, video and audio editing equipment, and more. Laptops and iPads will be integrated to provide a holistic maker experience. There will also be a Cricut, sewing machine, 3D printer, and more for residents to learn and express their creativity. The space will be open daily and will have a dedicated Maker Librarian on-site to help answer questions and provide technical support. There will also be opportunities to learn in both group and individual settings.

After a break forced by the pandemic, the Girls Who Code program has restarted in June 2022 and will continue in the fall and beyond. Thanks to the support of local IT companies, PWPL will offer this program at more library branches to more girls in the area.

PWPL also continues to implement a comprehensive outreach project that includes the introduction of new library technologies such as self-service holds pickup lockers and vending machines with books and other library materials.