Project Director:

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Institutional Overview:

Baldwin Wallace University is an independent, liberal arts & sciences university located in Berea, Ohio, offering bachelor's and master's degrees, certificates, and professional education programs. In 1845, more than 15 years before the Civil War, Baldwin Wallace was founded as one of the first colleges in the nation to admit students without regard to race or gender.

Baldwin Wallace University strives to fulfill its enduring purpose by being a diverse, innovative, and caring educational community that empowers and accompanies each individual as they realize their potential for a life well-lived.

The University Archives acts as the primary repository of Baldwin Wallace University's long and progressive higher education including documents, objects, images, and ephemera detailing one hundred and eighty years of history.

Project summary:

Funding from the OHRAB regrant program supported the University's main library and the University Archivist, Kieth A. Peppers, in the implementation, training, and monitoring of disaster preparedness and environmental control initiatives. The grant supported the purchase and installation of monitoring equipment for humidity, temperature, leaks, and pests, enabling better management of environmental fluctuations and incidents that could damage archival materials.

Monitoring was seamlessly integrated into the daily operations of the archivist and his student assistant. Climate fluctuation reports, including temperature and humidity data, were publicly shared on the Archives' official webpage.

The long-term goal is to use the collected data to advocate for internal funding to support future HVAC upgrades. While leak monitoring remains a passive safeguard rather than an active data generator, pest monitoring has significantly enhanced the ability to detect and assess potentially harmful biological threats.

Summary of Relevant Project Activities and Accomplishments:

The following document includes the questions to be included in the Interim report as well as my responses.

1. **Narrative of self-assessment about how the project met the objectives submitted in your application.**

   The OHRAB-funded initiative aimed to strengthen the University Archives' disaster preparedness and environmental control strategies. Our objectives included installing environmental monitoring equipment, integrating data collection into daily operations, and leveraging findings for long-term preservation planning. Each of these goals was successfully implemented, demonstrating tangible improvements in archival management.

   One of the most significant outcomes was the seamless adoption of monitoring practices into the Archives' routine. The archivist and a student assistant actively engaged in routine data collection and analysis, ensuring continuous oversight of temperature, humidity, and pest activity. This shift from reactive to proactive management has been instrumental in identifying environmental trends, allowing for earlier intervention in potential risks.

   Additionally, the real-time data generated by the monitoring equipment has already influenced decision-making within the Archives. By tracking seasonal humidity fluctuations, we have identified patterns that will inform future preservation strategies. Although HVAC upgrades remain a long-term goal, the collected data provides concrete justification for funding proposals and internal resource allocation. A more detailed breakdown of the environmental fluctuations is included on the next page.

   The integration of pest monitoring tools has yielded immediate benefits, offering a more precise assessment of potential biological threats. Unlike our previous dependence on in-person happenstance, sticky traps provide continuous surveillance, allowing for quicker responses and more meaningful information. In contrast, leak monitoring remains a more passive process, serving as a safeguard that triggers action only when an issue arises.

   In summary, the project met its key objectives by embedding environmental monitoring into archival workflows, enhancing risk assessment capabilities, and establishing a foundation for future preservation initiatives. The support from OHRAB has enabled the Archives to implement lasting improvements, ensuring the continued protection of Baldwin Wallace University's historical collections.

2. **An evaluation of the project's impact (such as increased researcher demand for the records or actions the organization will take to sustain the results of the project).**

The implementation of environmental monitoring and disaster preparedness initiatives has had a measurable impact on the University Archives. While the primary focus of the project was to improve preservation conditions, its effects have extended beyond internal operations, influencing potential funding, institutional planning, and long-term sustainability strategies.

Statistics in the form of monthly charts and tables are posted and accessible via the aforementioned LibGuide. Deployment of the environmental monitoring equipment and reporting began at the end of August 2024, and continues through the present, providing just over four months of data.

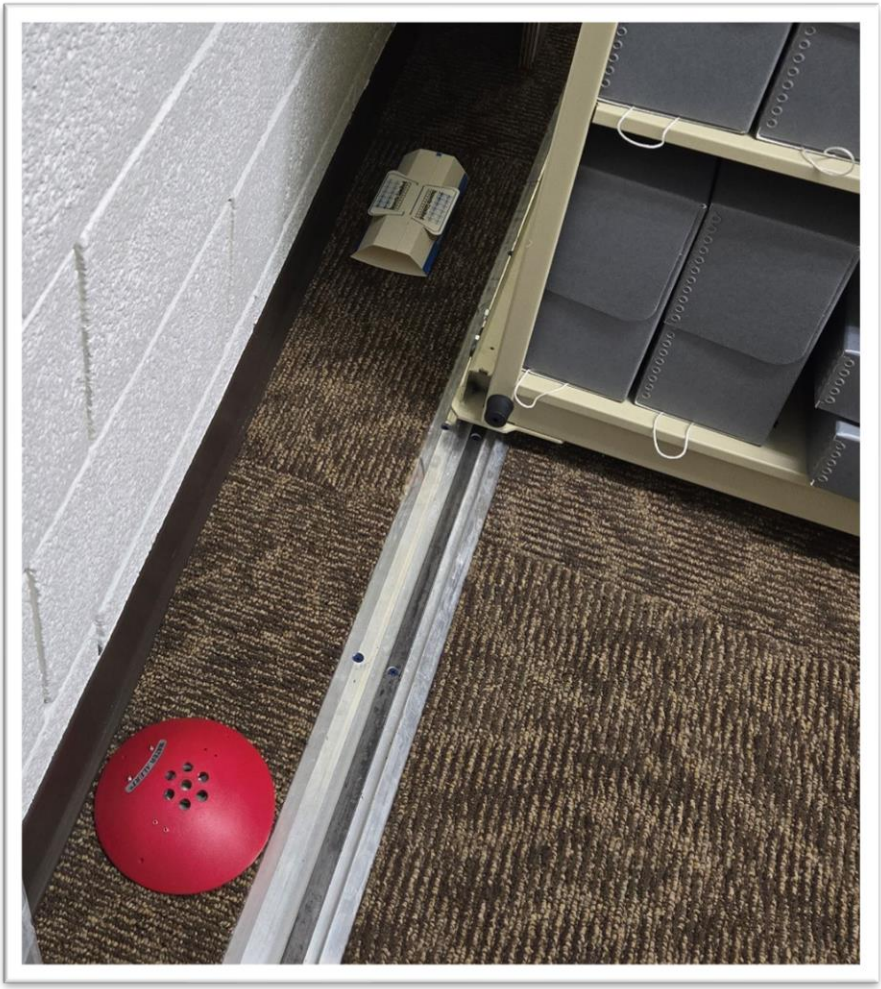
	Temperature [°C]	Temperature [°F]	Relative Humidity
Mean value	20.8	69.44	41.8
Minimum value	18.3	64.94	12.8
Maximum value	23.7	74.66	70.6

The lowest temperature was recorded on October 16, 2024, between 9:15 PM and 10:00 PM, a Wednesday. The temperature was 64.94°. The highest temperature was recorded on August 30, 2024, at 10:25 AM, a Friday. The temperature was 74.66°. The recommended temperature range for archival storage, per the Society of American Archivists (SAA) is between 60° and 70°, close to the range observed for the archive. While representing almost a 10° difference, this seems generally stable considering the University Archives lacks a dedicated HVAC system or controls and relies on the heating and cooling of the University Library as a whole.

The lowest relative humidity was recorded on December 12 and 13, 2024, between 6:30 PM and 6:45 PM and again at 2:00 AM, a Thursday and Friday respectively. The relative humidity was 12.8%. The highest relative humidity was recorded on September 29, 2024, between 2:30 PM and 3:00 PM, a Sunday. The relative humidity was 70.6%. The recommended relative humidity range for archival storage, per the Society of American Archivists (SAA) is between 40% and 50%, a much narrower range than what was observed in the archive. Representing almost a 60% difference, this is troubling and problematic by professional standards and something that will need to be made known to administration and building maintenance. The silver lining in this significant swing in humidity is that the mean is 41.8%, meaning the archive's relative humidity is generally within the recommended range and the lows and highs recorded are outliers.

Since no moisture or leaks have been detected, the primary takeaway from this aspect of the project is the successful deployment and functionality of the moisture sensors. The sensors were strategically placed along the exterior walls of the

Archive, where they were calibrated to ensure accurate readings, continuously monitored for any fluctuations and maintained with a consistent power supply to ensure long-term reliability.



While no moisture-related incidents have been recorded to date, this absence of issues is itself a positive outcome. It suggests that the Archive's structural integrity remains intact and that existing preventive measures, such as climate control and drainage systems, are effectively mitigating the risk of water intrusion. Furthermore, the lack of alerts provides a stable baseline, allowing future data to be compared against these optimal conditions.

Looking ahead, continued monitoring of these sensors will enable the Archives to detect emerging risks before they escalate into significant threats. Regular checks and data reviews will ensure the system remains operational and responsive, allowing for proactive adjustments to environmental conditions. Though no immediate concerns have arisen, the infrastructure established through this project strengthens the Archives' preparedness to swiftly address any moisture-related threats in the future.

The pest detection traps are strategically placed near the leak detectors along the exterior walls of the Archive. Numerous specimens have been captured using these discreet sticky traps, revealing that more insects are present than were perceived by the archivist and his assistants during regular usage periods. The traps' placement along the walls, rather than in the Archive's most trafficked areas, may explain why the insects were not initially noticed. Additionally, many of the insects documented appear to be nocturnal or prefer dark environments, which may have contributed to their previous oversight.

Among the specimens captured was a lone black vine weevil, which, while known to damage leafy plants, poses no threat to paper documents. The spiders appear to be the common and harmless cellar (or daddy-long-legs) spider, and possibly the woodlouse spider. All three species are native to the area and are generally nocturnal. Unaware of the extent of these creatures' presence, the University Archives enlisted an exterminator to address the situation.

Similar to the leak/moisture detection sensors, we have not had to deploy the contents of the disaster preparedness kits—this remains a positive "non-event."

The disaster supply cases have been stored in a designated location, communicated to library staff, and signage has been placed within the Archive to ensure accessibility in case of an emergency outside of standard operating hours.

One of the most immediate impacts has been an increased awareness of archival preservation among faculty, students, and researchers. By publicly sharing climate fluctuation reports, the Archives has demonstrated transparency in its preservation efforts, fostering trust among users who rely on these resources for research, publicity, and educational purposes.

To sustain the benefits of this project, environmental monitoring has been fully integrated into daily archival operations. The archivist and student assistants will continue to track climate conditions, with periodic assessments used to refine preservation strategies. Furthermore, ongoing partnerships with campus facilities management will help ensure that environmental risks are addressed proactively, rather than reactively.

3. **Share how your institution will build upon the success of the project through additional initiatives.**

   The project has also strengthened the Archives' role within the University's larger infrastructure planning. While the initial intent was to collect environmental data to provide concrete evidence for future funding requests—specifically for HVAC system improvements and other preservation-related investments—issues related to the demographic cliff and declining enrollment have complicated this process. Budgets are currently stretched thin, and all capital budget spending has been suspended. Future developments in this area, as well as forecasts for funding, are beyond my expertise and speculative.

   Nonetheless, data collection and analysis of long-term trends will continue, ensuring that preservation remains a priority in facility management and supporting future initiatives and justification for funding. Moving forward, the Archives plans to explore additional funding sources to expand monitoring capabilities, such as upgrading leak detection systems or incorporating real-time data alerts. The long-term goal is to maintain and enhance this monitoring infrastructure, safeguarding Baldwin Wallace University's historical collections for future generations.

Project Expenses:

1. In-kind contributions were closely matched with the proposed time commitments outlined in the original application. This includes both time allocated by the archivist and student assistants for the creation and curation of an online platform for posting climate measurements, data collection, project management, and initial setup of wi-fi- enabled environmental monitoring equipment. This necessitated online account creation, IT assisting with internet connectivity, and mounting equipment. A breakdown of the requested funds and costs associated with the purchased equipment, such as monitoring sensors and environmental tools, is included in the attached financial summary.

2. The cumulative total of all expenses incurred for the project reflects the projected costs nearly exactly, with some savings attributed to preferred customer discounts from the vendor.
   The purchase of monitoring equipment, including temperature and humidity sensors, as well as pest detection tools, was completed within the budget outlined in the original application. The costs associated with these purchases align with both the proposal and the actual expenditures, ensuring the project remains fiscally responsible and efficient. Minor variations, if any, occurred but did not impact the overall budget.
3. The project did not require a cash match aside from the cost of pest control services, which included a visit from an exterminator. However, the exact cost of this service was not made clear to me at the time. The decision to engage an exterminator was made after the discovery of an increased presence of insects, including species that could potentially pose a threat to archival materials. While this service was necessary, I was not able to confirm the exact expenses associated with the pest control visit, and this detail will be clarified as soon as possible.
4. All in-kind contributions, on the part of Baldwin Wallace University staff, students, IT, and maintenance staff were accounted for and utilized. Various employees from various departments were briefed on the functionality of the supplies and equipment purchased, as well as the location of disaster response supplies.
5. All receipts for purchases made in relation to this funding opportunity are attached as images at the end of this document (pages 9-12). Due to an ordering issue, the three water alert sensing system pucks were purchased as two separate orders, with two separate receipts.

Publicity and Crediting:

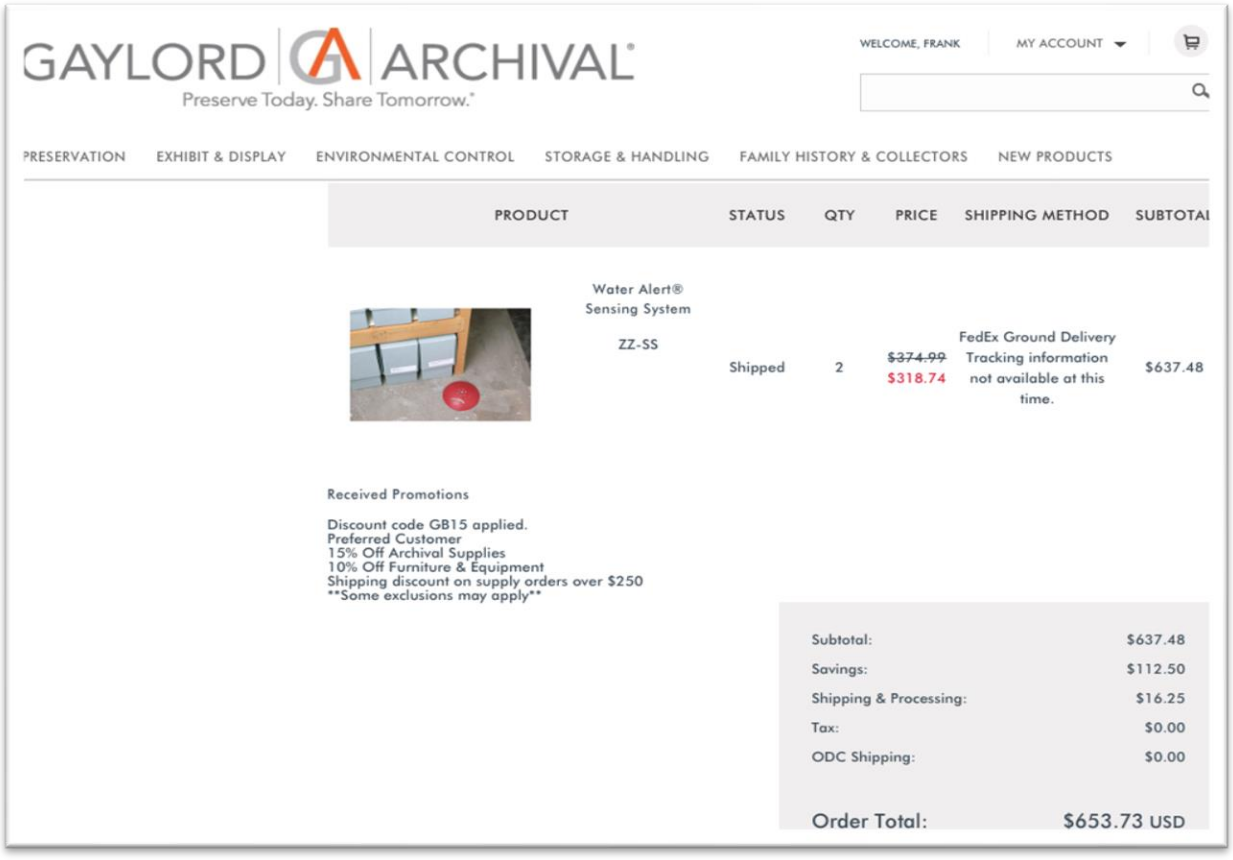
1. The primary portal and online presence for the project, along with subsequent reporting, are hosted on the University Archives LibGuide webpage. This page, while nested within the University Library's version of LibGuides, is fully accessible without requiring logins or firewalls. As such, it serves as an open-access platform for all interested parties to access project updates, data, and findings. The Disaster Response and Environmental Monitoring Initiative is prominently featured on the page, with monthly reports on climate fluctuations (temperature and humidity) shared through publicly available graphs and charts. These reports are updated regularly to ensure that interested parties can track the progress of the project and gain insights into the environmental conditions within the University Archives.

   Additionally, proper credit is given to our funding sources, including the National Historical Publications and Records Commission (NHPRC) and the National Archives and Records Administration (NARA), with hyperlinks to their respective websites for further information. The Ohio Historical Records Advisory Board (OHRAB) is also acknowledged for its support.

2. Ritter Library, the home of the University Archives, publishes a monthly newsletter distributed to all University faculty, staff, and administration. The purpose of this newsletter is to provide brief but essential updates on library services, staffing, upcoming programs, and grant-funded initiatives. The April 2024 edition of the Ritter Library newsletter featured a segment highlighting the OHRAB grant received by the University Archivist, Kieth A. Peppers. This section provided an overview of the grant, including the purchase and installation of environmental monitoring tools such as temperature and moisture sensors designed to protect the Archives' fragile materials. Here is the excerpt from the newsletter:

   Library Spotlight
   University Archivist, Kieth Peppers, received notice last week that he was awarded an OHRAB (Ohio Historical Records Advisory Board) grant for $5200.00 this summer for an Archival Disaster Response and Environmental Monitoring initiative. He will be purchasing and setting up various instruments to monitor the BW Archives for moisture, temperature, and other threats to the fragile materials held in the archives. Congratulations to Kieth and thank you for your work preserving BW history.

Receipts:



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WELCOME, FRANK | MY ACCOUNT

PRESERVATION | EXHIBIT & DISPLAY | ENVIRONMENTAL CONTROL | STORAGE & HANDLING | FAMILY HISTORY & COLLECTORS | NEW PRODUCTS

PRODUCT	STATUS	QTY	PRICE	SHIPPING METHOD	SUBTOTAL
Water Alert® Sensing System ZZ-SS	Shipped	2	~~$374.99~~ $318.74	FedEx Ground Delivery Tracking information not available at this time.	$637.48

Received Promotions

Discount code GB15 applied.
Preferred Customer
15% Off Archival Supplies
10% Off Furniture & Equipment
Shipping discount on supply orders over $250
Some exclusions may apply

Subtotal:	$637.48
Savings:	$112.50
Shipping & Processing:	$16.25
Tax:	$0.00
ODC Shipping:	$0.00
Order Total:	$653.73 USD

Ohio Historical Records Advisory Board
National Historical Records & Publications (NHPRC)
State and National Archival Partnership (SNAP) Grants Regrant Program

Salaries and Wages	Grant Funds	Matching Funds	Total
Archivist wages for weekly monitoring and reporting at $35 per hour		$2,170.00	$2,170.00
Library staff wages during training		$280.00	$280.00
Student employee wages during training		$60.00	$60.00
IT, Buildings & Grounds, and Safety/Security integration and awareness		$150.00	$150.00
Subtotals: Salaries and Wages	***$0.00***	***$2,660.00***	***$2,660.00***
Supplies	**Grant Funds**	**Matching Funds**	**Total**
Museum Insect Monitoring Kit	$148.79		$148.79
Just-In-Case Case - Disaster Preparedness Kit	$916.75		$916.75
			$0.00
			$0.00
Subtotals: Supplies	***$1,065.54***	***$0.00***	***$1,065.54***
Equipment	**Grant Funds**	**Matching Funds**	**Total**
Testo 160 Wi-Fi Environmental Monitoring System	$454.16		$454.16
Water Alert Sensing System (quantity of 3)	$1,124.97		$1,124.97
			$0.00
			$0.00
Subtotals: Equipments	***$1,579.13***	***$0.00***	***$1,579.13***
Contracted Services	**Grant Funds**	**Matching Funds**	**Total**
			$0.00
			$0.00
			$0.00
			$0.00
Subtotals: Contracted Services	***$0.00***	***$0.00***	***$0.00***
Other Eligible Expeneses	**Grant Funds**	**Matching Funds**	**Total**
			$0.00
			$0.00
			$0.00
			$0.00
Subtotals: Other Eligible Expenses	***$0.00***	***$0.00***	***$0.00***
Summary Budget	**Grant Funds**	**Matching Funds**	**Total**
Salaries and Wages	***$0.00***	***$2,660.00***	***$2,660.00***
Supplies	***$1,065.54***	***$0.00***	***$1,065.54***
Equipment	***$1,579.13***	***$0.00***	***$1,579.13***
Contracted Services	***$0.00***	***$0.00***	***$0.00***
Other Eligible Expeneses	***$0.00***	***$0.00***	***$0.00***
Total Project Budget	***$2,644.67***	***$2,660.00***	***$5,304.67***

	Yes	No
If you do not receive full funding, will you accept partial funding and still complete the project as outlined in the application?	Yes	

OHIO HISTORICAL RECORDS ADVISORY BOARD
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