Research Square

Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

Recovering Documentary Heritage after the 2024 Floods: The UFSM/DAG Archives and the Use of Mass Freezing

Luiza Karoline Krauzer

luizakaroline1@gmail.com

Universidade Federal de Santa Maria

Maria Medianeira Padoin

Universidade Federal de Santa Maria

Debora Flores

Universidade Federal de Santa Maria

Research Article

Keywords: Archival preservation, Documentary heritage, Mass freezing, Floods, Disaster recovery

Posted Date: November 17th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-11609285/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License

Additional Declarations: No competing interests reported.

Recovering Documentary Heritage after the 2024 Floods: The UFSM/DAG Archives and the Use of Mass Freezing

Abstract

Conserving documentary heritage becomes particularly challenging amid extreme climatic events and society's lack of preparation for their consequences. This article examines the experience of a Brazilian institution, the Federal University of Santa Maria (UFSM), whose permanent archive was severely affected by the floods that devastated the state of Rio Grande do Sul in 2024. Most of the historical documents – 80% of the collection – were exposed to water, requiring an urgent and large-scale recovery operation. Here, the measures adopted by the General Archives Department (DAG) will be analyzed, with particular emphasis on mass freezing as an emergency strategy for stabilizing water-damaged archival materials. The recovery involved professionals, students, volunteers, and researchers from different fields, demonstrating the importance of interdisciplinary cooperation in disaster response. Freezing enabled the stabilization of the collection and provided time for subsequent stages of sanitation, drying, evaluation, and digitization. The experience also resulted in the production and dissemination of technical knowledge and contributed to the creation of TRANSDOC, a transdisciplinary initiative dedicated to the recovery and preservation of documentary collections. Based on the University's experience, the article argues for the importance of preventive planning, professional training, interinstitutional cooperation, and climate governance in the protection of documentary heritage. The recovery of the UFSM/DAG archives demonstrates how an emergency response can generate knowledge and strategies for strengthening archival resilience in the face of future extreme climatic events.

Keywords: Archival preservation; Documentary heritage; Mass freezing; Floods; Disaster recovery.

Introduction

Santa Maria, located in the center of the state of Rio Grande do Sul, in Brazil's deep south, has a population of approximately 271.735 people, according to IBGE's (Brazilian Institute of Geography and Statistics) 2022 census. One of the city's most distinctive elements is, surely, the Federal University of Santa Maria (UFSM), in which there are about 27.040 enrolled students, 2.098 faculty members, and 2.456 administrative technical staff (data referring to the first semester of 2026). The institution had its beginning as the University of Santa Maria (USM), founded by Profº José Mariano da Rocha in 1960, and became a Federal entity in 1965 (Brito 2021), the first public federal university outside of a capital city in Brazil.

Considering UFSM's history, we choose to highlight, in this article, the institution's concern regarding the professionalization of work in the preservation of historical and cultural heritage, emphasizing the records and documentary collections. Accordingly, on October 22, 1976, seeing the faculty members' unrest — especially the History Department, in relation to the organization and safekeeping of the regional collections of documents and the lack of a specialized labor force — the Archival Science course was created[1]. The beginning of the course's activities happened in 1977 and, during its trajectory, there have been updates to the curriculum, addressing the maintenance of the social functionality and the making of professionals who will come to attend societal demands.

> To educate able archivists to comprehend, investigate, create, manage, preserve, and provide access to documents and archival information, having at its core a solid scientific, humanistic, and technical training, understanding the ethnic, social, and cultural diversity of humanity, which reflects in ethical, fair, and socially responsible actions, aiming to collaborate with societal development regarding the intellectual, scientific, technological, economic, and environmental areas, seeking individual and collective wellbeing. (Universidade Federal de Santa Maria 2020)

[1] Universidade Federal de Santa Maria, n.d.a.

From the perspective of the Archival Science program, UFSM also sought to establish an administrative and historical archive responsible for the structure and organization of the institutional archive. After research, diagnosis, and the creation of archival policies, UFSM created a specific branch in 1990: the General Archives Division. In 2006, after another restructuring, it became the General Archives Department (DAG), which "has the purpose of coordinating the archival systems and developing the policies of archival management in the University" [2].

Presently, the DAG has as its main perspective

> To consolidate strategic action in administrative modernization, incorporating documental management actions seeking to potentialize access to information and reducing institutional bureaucracy, and has the mission of managing and coordinating UFSM's Archival Systems (SIARQ/UFSM), contributing to the agility and transparency regarding information access and ensuring the preservation of UFSM's documental patrimony. (Universidade Federal de Santa Maria 2023).

The documentation produced by an institution, over time, gains other meanings and utilities, beyond administrative function. These records begin to "perform a historical, evidentiary, or informative role, gaining a firm foothold as personal or institutional archivist documental heritage" (Deglinomini 2026). Therefore, it's noticeable that since the beginning of its journey, UFSM has sought the organization and conservation of its archives, as well as the proper education of capable professionals trained to perform their duties and to exercise archival diligence. The diligent maintenance of archival records is indispensable to the diffusion of access to information and the safekeeping of societal and institutional memory. A great part of UFSM's history, as well as of all the individuals who have been and currently are part of the university, is kept in its documentary patrimony, which, in addition to protecting its memory, allows the completion of new research and the making of new knowledge.

In this context, understanding and pondering the value of this documentary heritage and its safeguarding has become crucial, especially in the face of threats posed by the extreme weather events we have been experiencing. The role of the professionals working in the archival field, in conversation with other fields of knowledge, be it inside UFSM or from other institutions/public organs, has become imperative.

These reflections and records will be based on the experience of UFSM regarding its permanent archive, which suffered serious damage due to the heavy rainfall caused by the floods that occurred in 2024 in the state of Rio Grande do Sul, Brazil. Housed in the UFSM Rector's Office building, the DAG's permanent archive is located in the building's basement and, at the time, contained more than 12,000 boxes of historical documents[3]. During the heavy rains of April 2024, the basement was flooded, and countless documents sustained serious damage.

[2] Universidade Federal de Santa Maria, n.d.b.
[3] Universidade Federal de Santa Maria 2025.



Fig. 1 Document affected by mold. Source: DAG Archives (2024)



Fig. 2 Water-damaged documents from the UFSM General Archives Department after the 2024 floods. Source: DAG Archives (2024)

The 2024 floods

Southern Brazil has historically experienced recurring episodes of heavy rains and flooding. Since the mid-19th century, several floods have been recorded that have forever marked the history of Rio Grande do Sul, including those in 1873, 1928, 1936, 1941, 1967, and 2023 (Clarke *et al.* 2026). In September, November, and December 2023, there were heavy rains, windstorms, hailstorms, flash floods, and floods that resulted in dozens of deaths (Schabbach and Cunha 2024). This event should have alerted the government to the potential for destruction posed by a large-scale climate disaster and prompted authorities to take the necessary precautions, seeking first and foremost to protect the population and their property. However, in 2024, the disaster recurred on an unimaginable scale. According to meteorologists:

> The rains were the result of a combination of factors, including a mass of warm air over the central part of the country, which blocks the cold front in the southern region and causes the atmospheric instability to linger over the state, resulting in heavy and continuous rains.
>
> In addition, the period between late April and early May of 2024 is also influenced by the El Niño phenomenon, which is responsible for warming the waters of the Pacific Ocean and also contributes to forming instability areas over the state. (BBC 2024)

The floods that occurred in Rio Grande do Sul are characterized as extreme climatic and meteorological events, commonly known as "natural disasters," because they severely disrupt the functioning of a community and cause extreme damage and losses[4]. The floods were considered among the worst in all of Brazilian history. The climate changes that cause extreme events are distinctive features of the era in which we are living, known as the Anthropocene. Dipesh Chakrabarty notes that the term refers directly to the extent of human impact on nature, rather than to the geological time period itself. According to the historian, the term "helped focus public attention on the possibility that human beings now so dominated the planet that their collective impact was comparable to those of very large-scale planetary forces" (Chakrabarty 2018).

Extreme weather events resulting from the Anthropocene, such as floods, are concrete examples of the prevailing climate injustice. The population most severely affected is often that in a vulnerable economic situation, and "those who contribute the least to the emissions that cause global warming and who have little influence over public policies and urban development have suffered the most from the floods" (Canofre 2024, apud. Clarke *et al.* 2026). Despite this, the magnitude of the 2024 disaster went beyond socioeconomic boundaries, affecting different social groups and localities.

The heavy rains began on April 27, 2024, and three days later, they had already claimed their first five victims, including in the city of Santa Maria[5]. On the first day of May, the government declared a state of public calamity, as the number of affected municipalities and deceased individuals continued to rise. The situation in Rio Grande do Sul in mid-May resembled a war zone: flooded streets, homes destroyed by the force of water and mud, and people left homeless, displaced, injured, and dead. The civil defense report lists 478 municipalities affected, 2,398,255 people impacted, 806 injured, 29 missing, and 182 confirmed deaths[6].

The central region of Rio Grande do Sul, where Santa Maria is located, was isolated due to flooding of the Vacacaí, Toropi, and Jacuí rivers and a landslide in the Itaara mountain range, which blocked highways at various points, making it impossible to travel or communicate with other regions. The flooding of the Jacuí River caused the collapse of the Fandango Bridge on the highway BR-153/RS, and the bridge over Arroio Grande on RS-287, in the district of Palma, in Santa Maria, was swept away by the water. The neighborhoods of Urlândia,

[4] National Geographic Brasil 2024.
[5] BBC 2024.
[6] Defesa Civil. 2024.

Km 3, Campestre, Schirmer, Bilibio, and Vila Figueira, along with several rural districts, were the most affected by the flooding[7]

The inability to travel also affected the city's drinking water supply, since three of the four water mains were ruptured[8], and before long, supplies at the city's stores ran out, and highway blockades prevented restocking, causing panic among the population.

And it was against this backdrop of collapsing urban infrastructure that, on April 30, 2024, the UFSM's permanent archive was completely submerged by water. A lake, located next to the building whose basement the DAG occupies, overflowed and flooded the site. About 80% of the collection was affected by the flood, which remained submerged for about 12 hours. On the same day, the DAG and the Office of the Provost for Infrastructure arranged for the excavation of a makeshift channel between the access ramp to the building— where the water entered the basement— and the street in front of the building. At the same time, two vacuum trucks were removing water from the archive[9].



Fig. 3 Vaccuum trucks draining the water flooding the location of the archive. Source: DAG Archive (2024)

[7] GZH. 2024.
[8] Santa Maria. 2024.
[9] Universidade Federal de Santa Maria. 2024dVacuumVacuum.



Fig. 4 Water flooding the UFSM General Archives Department. Source: DAG Archives (2024)

Due to the swift damage-control efforts, a large portion of the collection was salvageable, but it had already sustained damage such as swelling and weakening of the paper fibers, the proliferation of microorganisms, and fading of the inks used to record the information. According to Kozjak (2010),

> "At a temperature between 18°C and 36°C, and a relative humidity above 65%, there is a high probability that mold will appear on a wet book within 48-72 hours after exposure to water. Mold secretes enzymes that break down, alter, and weaken organic materials, and the colored substances produced as a product of mold metabolism create irreversible stains on the book's paper, cloth, and leather."

Faced with this situation, the DAG team, with the help of numerous volunteers, had to put its expertise into practice and develop a plan to recover the damaged archives. The initiative was named Operation UFSM Collection Recovery, and involved the assistance of researchers and staff from a wide range of fields of knowledge. The boxes of documents were removed from the underground of the Rector's Office and taken to the UFSM Convention Center, where the drying process began in preparation for freezing.



Fig. 5 Removal of the documents from the building's underground. Source: DAG Archives(2024)



Fig. 6 Fans and dehumidifiers being used during the drying process. Source: DAG Archives (2024)

The freezing technique was chosen because it is the most appropriate strategy for halting the deterioration of paper fibers and preventing the proliferation of microorganisms. This choice is justified primarily by the large volume of documents to be treated and by its effectiveness; according to Peter Waters (1975), stabilization by freezing is the "most generally accepted and proven method of stabilizing water-damaged library and archival materials is by freezing and storing at low temperature". Furthermore, the author explains:

> "Stabilization by freezing also provides important advantages when it is not possible to assess immediately the value of the damaged materials or to determine which items can or cannot be replaced. In other words, such stabilization gives time in which to estimate recovery costs, to prepare adequate environmental storage conditions, and to restore the buildings

> affected. In some cases, it may be necessary to restore or rebuild the original facilities-a process which can require a long time" (Waters, 1975, p.5).

This is, therefore, consistent with the situation faced by the university, in which a huge volume of an institution's documentation needed to be processed urgently, and there was no time to deeply analize what was being tended to. As a result, the freezing was carried out in accordance with the Recommendations for the Safeguarding of Water-Damaged Archival Collections, developed by the National Archives System (SINAR) and approved by the National Archives Council (CONARQ) through Resolution No. 34, dated May 15, 2012 (Flores *et al.* 2023). To this end, four refrigerated chambers were rented from local private companies. During the operation, every precaution was taken to ensure the safety and well-being of the team working on the recovery, and the use of Personal Protective Equipment was mandatory.



Fig. 6 Refrigerated chambers used to freeze the water-damaged archival collection. Source: DAG Archives (2024)



Fig. 7 Documents being placed in the freezing chambers. Source: DAG Archives (2024)

Subsequently, the convention center and multipurpose space were adapted for the recovery team's activities, dividing them into stations for cleaning and sanitizing, interleaving documents, packing into bags, sealing, and packing into boxes for freezing. After the collection was distributed, the space housed an average volume equivalent to 6 file boxes per square meter; that is, in a room measuring 150 m², it was possible to accommodate approximately 900 file boxes (Flores *et al.* 2023).

The temperature and humidity in Rio Grande do Sul in May-June 2024 were also factors that impacted the Operation, making dehumidifiers and fans necessary to prevent the proliferation of microorganisms during the sanitization and drying of the paperwork. After sorting, excess moisture was removed using paper towels, and the same material was used to insert between the pages to prevent the still-wet documents from sticking together. Next, the documents were prepared for the packing process, placed in polyethylene plastic bags, and vacuum-sealed using vacuum pumps and benchtop vacuum sealers (Flores *et al.* 2023). This part of the process is important because sealing reduces the risk of ice crystal formation during freezing, thereby preserving the paper. Finally, the sealed documents were placed in perforated plastic boxes and transported to the freezing chambers.

Over the course of four months, 12,000 boxes from the DAG collection were frozen and thus preserved, a direct result of the diligence and expertise of the team in charge. However, the recovery of the documents was not the only outcome of Operation UFSM Collection Recovery. The entire intervention was meticulously documented on the Operation's website[10] to diffuse information and the methods used. In addition, the DAG collaborated with the National Archives on two publications — the guide on *Initial Actions for Safeguarding Archives after a natural disaster caused by flooding (2024)* and the *Quick Guide for the Rescue of Water-Damaged Collections (2024)* — and also released a *Guide to Setting Up a Drying Area for Water-Damaged Collections (2024)* and the *Documentary Rescue: Guide to the Recovery of Water-Damaged Collections (2024).* Thus, the important work carried out at UFSM has gained increasing visibility and has become a benchmark for rapid responses to extreme climatic and meteorological events.

It is of the utmost importance that the knowledge gathered by DAG and its collaborators be spread, so that the sanitation and restoration techniques used become common knowledge among other institutions that may need them in the event of natural disasters. APERS — the Public Archives of Rio Grande do Sul, headquartered in Porto Alegre — through the initiative "S.O.S. Memory and Heritage of RS, conducted a survey following the 2024 floods, listing the state archives that were affected by the flooding[11]. The institutions that responded were the Department of Public Works, the Department of Culture, the Institute of Health, the Court of Auditors, the Department of Roads and Highways, the State Attorney General's, the Public Prosecutor's Office, the Court of Justice, the Secretariat of Planning, Governance, and Management, the Department of Traffic, the Secretariat of Health, the Secretariat of Economic Development, the Rice Institute, the Silo and Warehouse Company, the Secretariat of Housing and Land Regularization, the Foundation for Science and Technology, State University of Rio Grande do Sul, State Foundation for Environmental Protection, Ports of Rio Grande do Sul, Military Brigade, Civil Police, Secretariat of Justice, Secretariat of Education, Chief of Staff's Office, and Military Chief of Staff's Office[12]. From there, APERS gathered volunteers and disseminated technical guidelines for the rescue of the collections—which include the publications produced in collaboration with DAG/UFSM.

---

[10] https://www.ufsm.br/orgaos-suplementares/dag/operacao-recupera-acervo-ufsm

[11] APERS 2024.

[12] In portuguese: Secretaria de Obras Públicas, Secretaria de Cultura, Instituto de Saúde, Tribunal de Contas, Departamento de Estrada e Rodagens, Procuradoria Geral do Estado, Ministério Público, Tribunal de Justiça, Secretaria de Planejamento, Governança e Gestão, Departamento de Trânsito, Secretaria de Saúde, Secretaria de Desenvolvimento Econômico, Instituto do Arroz, Companhia de Silos e Armazéns, Secretaria de Habitação e Regularização Fundiária, Fundação de Ciência e Tecnologia, Universidade Estadual do RS, Fundação Estadual de Proteção Ambiental, Portos RS, Brigada Militar, Polícia Civil, Secretaria de Justiça, Secretaria de Educação, Casa Civil e Casa Militar.

As a result of these emergency measures, the team at the UFSM's General Archives transformed the experience gained during the recovery of the documents into a permanent research initiative: TRANSDOC. It is a transdisciplinary environment that aims to foster interaction and integration among a wide range of fields of knowledge (Archival Science, History, Chemistry, Pharmacy, Engineering, Biology, Information Technology, etc.) and their methodologies to advance scientific research related to the recovery and preservation of documentary collections. In addition to the conservation of UFSM's archives, TRANSDOC also assists in the recovery of paper documents from eight public agencies in the Porto Alegre metropolitan region (Flores *et al*. 2023).



Fig. 8 UFSM's coat of arms being restored. Source: DAG Archives (2024)



Fig. 9 Restoration of periodicals. Source: DAG Archives (2024)

This is where the documents are defrosted; they are transferred from the cold room to a refrigerator. After thawing at room temperature, the papers are sanitized, dried, and prepared (separating papers that are stuck together, removing staples and other items, etc.). Finally, each document goes to the Permanent Document Evaluation Commission (Cpad), which assesses the priority for digitization. After being digitized using a planetary scanner — recommended for use with sensitive and damaged papers — the boxes of recovered documents are temporarily stored in the archive of Building 48D, of the Office of the Dean of Undergraduate Studies[13]. Digitizing the collection is essential for the preservation of this documentary heritage, since even though the documents have been recovered, they are old and the paper's structure has been damaged by contact with water and microorganisms. Thus, the possibility of future deterioration of these papers makes digital preservation of the utmost importance to prevent the loss of institutional memory.



[13] Universidade Federal de Santa Maria 2024b.

Fig. 10 The multipurpose space holding TRANSDOC activities. Source: DAG Archives



Fig. 11 Preparation of documents for digitization after freezing. Source: DAG Archives (2024)

It is also essential to reflect on the extent of the property damage caused by the floods, which extends far beyond institutional collections. Amid the material losses suffered by those whose homes were inundated by water, mud, and debris carried by the rain, personal documents, family records, photographs, and irreplaceable objects were lost. Therefore, it is necessary to encourage and assist in the recovery and preservation of all collections that can be protected — whether private or public — so that the negative consequences of the events of 2024 — and of possible future disasters — do not continue to harm the memory and history of the Brazilian population.

As of now, during the making of this article, for the second half of 2026, experts are predicting a super El Niño[14], which raises concerns about heavy rains and their consequences in the southern region. Therefore, it is essential to have adequate climate governance — that is, "mechanisms, processes, and institutions through which governments, businesses, and civil society organizations, at national and international levels, make decisions and implement actions and public policies to address climate change" (Schabbach *et al.* 2024). Rapid response and preparation regarding the measures that should be taken in extreme situations were decisive factors in the recovery of the documents in the custody of DAG/UFSM. What happened at UFSM, although sad and distressing for all those who understand the importance of preserving institutional memory, serves as an example to other institutions of the efficiency and importance of cooperation across fields of knowledge during disaster events.

The DAG's efforts to recover the documentation and subsequently create the TRANSDOC space demonstrated the team's exceptional effectiveness and proficiency, serving as an example for other archives that may suffer the terrible consequences of climate-related tragedies. The experience and knowledge gained during and after the Operation UFSM Collection Recovery should be shared and further developed. However, the factor that deserves the most attention is the absolute necessity of considering preventive measures so that, in the future, our documentary collections will be as secure as possible. That being the case, knowledge and professional preventive guidance, as policies for the field, taking the global reality into account, are among the key lessons we can also take away.

[14] Instituto Nacional de Pesquisas Espaciais 2026.

References

APERS. 2024. *Enchentes no Rio Grande do Sul - Arquivos atingidos e ações do Arquivo Público.* https://www.apers.rs.gov.br/enchentes-no-rio-grande-do-sul-arquivos-atingidos-e-acoes-do-arquivo-publico.

Arquivo Nacional. 2024a. *Ações iniciais para salvaguarda de arquivos após ocorrência de desastre natural por inundação*.

Arquivo Nacional. 2024b. *Guia rápido para o resgate de acervos danificados por água*.

BBC. 2024. *A cronologia da tragédia no Rio Grande do Sul.* https://www.bbc.com/portuguese/articles/cd1qwpg3z77o.

Chakrabarty, Dipesh. 2018. "Anthropocene Time." *History and Theory*. https://doi.org/10.1111/hith.12044.

Clarke, B., et al. 2026. "Climate change and El Niño behind extreme precipitation leading to major floods in southern Brazil in 2024." *Natural Hazards* 3 (4). https://doi.org/10.1038/s44304-025-00162-8.

Defesa Civil. 2024. *Defesa civil atualiza o balanço das enchentes no RS.* https://www.defesacivil.rs.gov.br/defesa-civil-atualiza-balanco-das-enchentes-no-rs-10-7.

Deglinomini, Liziani de Souza. 2026. *A história documental da Faculdade de Farmácia de Santa Maria pós tragédia climática de 2024*. UFSM.

Ferreira, Rafael Chaves, and Glaucia Vieira Ramos Konrad. 2016. "O ensino de arquivologia no Brasil: o caso dos cursos de arquivologia do RS." *BIBLOS – Revista do Instituto de Ciências Humanas e da Informação* 28 (3): 128–152. https://periodicos.furg.br/biblos/article/view/5358. Accessed June 24, 2026.

Flores, Debora, Neiva Pavezi, Daiane Regina Segabinazzi Pradebon, and Jonas Ferrigolo Melo. 2023. "Mass Freezing as a Large-Scale Archival Rescue Strategy: Lessons from the 2024 Floods in Southern Brazil." *Comma*.

GZH. 2024. *Enchente em Santa Maria provoca morte, deslizamento e acessos bloqueados: "Não tínhamos enfrentado nada igual", diz prefeito.* https://gauchazh.clicrbs.com.br/geral/noticia/2024/05/enchente-em-santa-maria-provoca-morte-deslizamento-e-acessos-bloqueados-nao-tinhamos-enfrentado-nada-igual-diz-prefeito-clvoirx4t01fh011wau1o0hqf.html.

Instituto Nacional de Pesquisas Espaciais. 2026. *Nota técnica conjunta aponta alta probabilidade de El Niño no segundo semestre de 2026*. https://www.gov.br/inpe/pt-br/assuntos/ultimas-noticias/nota-tecnica-conjunta-aponta-alta-probabilidade-de-el-nino-no-segundo-semestre-de-2026.

Kozjak, I. 2010. "Salvage of Archival Materials After Disasters: New Possibilities of the Central Laboratory for Conservation and Restoration of the Croatian State Archives." *Arhivski vjesnik* 53 (1). https://hrcak.srce.hr/62416.

National Geographic Brasil. 2024. *O que são eventos climáticos extremos e por que eles são tão perigosos?* https://www.nationalgeographicbrasil.com/meio-ambiente/2024/05/o-que-sao-eventos-climaticos-extremos-e-por-que-eles-sao-tao-perigosos.

Santa Maria, 2024. Decree nº 82. https://leis.org/municipais/rs/santa-maria/lei/decreto/2024/82/decreto-n-82-2024-declara-estado-de-calamidade-publica-no-municipio-de-santa-maria-por-tempestade-local-convectiva-chuvas-intensas-cobrade-13214-conforme-portaria-n-260-2022-do-ministerio-de-desenvolvimento.

Schabbach, Leticia Maria, and Lucas de Lima Cunha. 2024. *Os municípios do Rio Grande do Sul atingidos por fenômenos climáticos extremos em 2023*.

Universidade Federal de Santa Maria. 2020. *Projeto Pedagógico do Curso de Bacharelado em Arquivologia*. Santa Maria: UFSM. https://www.ufsm.br/cursos/graduacao/santa-maria/arquivologia/projeto-pedagogico. Accessed June 24, 2026.

Universidade Federal de Santa Maria. 2023. *Plano de Gestão de Documentos e Arquivos (PGDOC)*. Santa Maria: UFSM. https://www.ufsm.br/orgaos-suplementares/dag/plano-de-gestao-de-documentos-e-arquivos-pgdoc. Accessed June 24, 2026.

Universidade Federal de Santa Maria. 2024a. *Guia de instalação de área de secagem de acervos danificados pela água*.

Universidade Federal de Santa Maria. 2024b. *Recuperação do arquivo da UFSM é paradigma para outras instituições atingidas pelas inundações.* Santa Maria: UFSM. https://www.ufsm.br/2024/08/19/recuperacao-do-arquivo-da-ufsm-e-paradigma-para-outras-instituicoes-atingidas-pelas-inundacoes.

Universidade Federal de Santa Maria. 2024c. *Resgate documental: Guia de recuperação de acervos danificados pela água*.

Universidade Federal de Santa Maria. 2024d. Servidores, alunos e militares atuam na recuperação do Arquivo Geral da UFSM. Santa Maria: UFSM. https://www.ufsm.br/2024/05/06/servidores-alunos-e-militares-atuam-na-recuperacao-do-arquivo-geral-da-ufsm.

Universidade Federal de Santa Maria. 2025. *Um ano após as enchentes no RS: o trabalho de recuperação de arquivos realizado pelo DAG UFSM.* Santa Maria: UFSM. https://www.ufsm.br/2025/05/08/um-ano-apos-as-enchentes-no-rs-o-trabalho-de-recuperacao-de-arquivos-realizado-pelo-dag-ufsm.

Universidade Federal de Santa Maria. n.d.a. *Arquivologia – Histórico do curso.* Santa Maria: UFSM. https://www.ufsm.br/cursos/graduacao/santa-maria/arquivologia/historico-do-curso.

Universidade Federal de Santa Maria. n.d.b. *Histórico – DAG*. Santa Maria: UFSM. https://www.ufsm.br/orgaos-suplementares/dag/historico.

Waters, Peter. 1975. *Procedures for Salvage of Water-Damaged Library Materials*. Washington, DC: Library of Congress.