

Practice of Information Construction of Hydrological Archives

Qian Yu^a, Jinyan Yang, Yijing Zhang

Jiangsu province hydrology and water resource investigation bureau Suzhou sub bureau, Suzhou 215129, China

Abstract. Hydrological work has developed rapidly with the advancement of national economy and social technology. China now has comprehensive hydrological projects and reliable hydrological station network involved with water level, rainfall, groundwater, evaporation, and sediment. Through the hydrological station network to collect the changes and movement rules of water in the natural world, the researchers sorted the obtained data parameters into hydrological materials, and compiled all the data materials and rules into hydrological archives. The records in the hydrological archives are the rules obtained from the long-term observation of hydrological conditions. In order to improve the utilization of hydrological archives, the information construction of hydrological archives can help people to avoid floods and disasters, and is conducive to the construction of water conservancy facilities, thereby promoting the development of national economy. This paper explains the importance and function of information construction of hydrological archives, and makes a prospect for water conservancy and other national economic construction departments to achieve better decision-making services, and proposes specific implementation measures.

1 Introduction

The hydrological archives are the summary and results of the various hydrological business work. The hydrological archives truly record the history and achievements of the various business of the hydrological department. Integrating information and observations, researches and surveys based on the changing rules of water are conducted. Classification and filing of original observations, hydrological data collection, hydrological and water resources survey and evaluation, and project achievements are an important component of the national science and technology archives, and also a valuable resource for the development of hydrology in the new situation.

2 The importance of information construction of hydrological archives

2.1 Informatization construction is the inherent requirement of the healthy development of the archives department

Nowadays, the managers of the file management department have not been able to keep up with the times. In the current situation of intelligent archival storage devices, some managers still manage documents in the traditional way, and can't learn to adapt to the new, more efficient and convenient management methods. With the intelligent informatization of the collection, storage and utilization of archives, the archives management

work will abolish the mode of low efficiency and low efficiency in the past, and adopt the high efficiency model after the construction of information technology.

2.2 Informatization is the only way to develop and utilize hydrological information

Hydrological information is the foundation for the construction of water conservancy projects. The construction of the project should fully consider the local hydrological information for construction design. Only in this way can the project be designed to protect nature and humanity. All engineering projects need to collect useful information from a large number of hydrological archives. The construction of an information management platform to serve the project to help them develop and utilize information has become the top priority of the archives management department.

3 The importance of hydrological archives management

The development of hydrological work is mainly based on the understanding and collection of hydrological archives. Only when familiar with local hydrological information can the hydrological work be completed better with reference and guidance from its extensive experience. As a vital part of the management of hydrological data, hydrological archive management has a major impact on flood control and water resources management. Only by improving the management of

^a Corresponding author: Yu Qian (1979 -), female, from Taixing, Jiangsu Province, is a political engineer and bachelor, mainly engaged in office file management. E-mail:675255787@qq.com

hydrological archives can the archive information be more authentic and reliable, and more valuable to users, which can also make information retrieval easier and more convenient. From this point of view, the modernization of hydrological archives management is an inevitable trend in the development of hydrological undertakings.

4 Characteristics of hydrological archives

4.1 Uniformity

Hydrological information is constantly changing and becoming very complex, continuous and having a certain relevance. When the hydrological observatory information is in an isolated and decentralized state, the hydrological archive information formed cannot accurately predict the regional hydrological rule. When managing hydrological archives, it is necessary to speed up the utilization of hydrological archives information sharing. Therefore, hydrological archives must have the characteristics of uniformity, that is, hydrological archives information must be standardized management, so that hydrological archives information resources sharing can be given a good condition.

4.2 Regionality

The hydrological file usually chooses a region or a river basin as a unit of document filing, which allows the hydrological file information to represent hydrological elements in only one basin or region. In recent years, thousands of hydrological stations in China has been constructed to record the original hydrological elements in real time, so that it can provide an important basis for hydrological forecasting and effectively provide services for regional economic construction and development.

4.3 Systematicness

In the perennial work of hydrologists, hydrological archives are the key materials. Generally, after daily accumulation and monthly accumulation, the archives of hydrology will be more and more perfect, and the value of their use will become higher and higher. At the same time, the systematic hydrological archive information can be used as analysis and research data, and the analysis results are more accurate. Hydrological archives also show strong systemic and coherent.

5 Current problems

At present, China's informatization construction of hydrological archives is not enough. The government paid more attention to the construction of engineering construction, water treatment and water environment testing, instead of to the information construction of comprehensive archives management, and its efforts to promote the overall situation still needs to be

strengthened. On the other hand, file managers do not have modern file management skills. Some management personnel are part-time rather than full-time, and engaged the work without systematic training and learning. Their ability of file management is not professional enough, and the use of hydrological files is not efficient. There are also problems with technical support and unified planning.

6 Specific measures for improving hydrological archives informationization

This paper analyzes the problems existing in the management work, and according to the advanced archive management experience at home and abroad, proposes several improvement measures for the current hydrological file management in order to promote the modernization of archives management. The specific contents are as follows:

6.1 Increase the resource input of informationization work

Hydrological archives have a long history, and traditional hydrological archives are mostly based on paper carriers. Therefore, traditional management methods mainly focus on paper carriers. An important role of the modern file management platform is the online access function of archive information. The electronization of traditional paper information has become an urgent problem to be solved. Through multimedia and computer technology, important hydrological archives can be converted into searchable text information storage by OCR (Optical Character Recognition) technology after scanning, making it possible to store file information in digital form. The archives management department should give sufficient attention to the informatization work, start from improving the infrastructure of file management, increase the research and development personnel of the information platform, strengthen the professional training of archivists, master the new technologies and equipment of file management, and data retrieval software. The design should be more user-friendly and consistent with the characteristics of the hydrological archives. The established database should be linked to the local hydrological network and updated in a timely manner. The research departments of the various information share the collated materials to make the resources of the information service platform up-to-date and comprehensive.

6.2 Grasp the hydrological archive information release platform

In the hydrological archives work, it is necessary to establish a modern file management model to realize the role of resources and consulting services. It is necessary to attach importance to the construction of three information platforms: public service website platform, mobile phone information publishing platform and news

media publishing platform to accelerate the informationization process of hydrological archives.

6.3 Strengthen the editing and research of archives

Hydrological archives have certain independence, systematicness, timeliness and continuity. The development of hydrological archives should also take this feature into account. In the process of reorganization of hydrological archives, it should be sorted by basin, region and age as much as possible to simplify the query and retrieval of users and facilitate their utilization. Faced with the increase in the stock of hydrological archives, archivists should strengthen the editing and research work, and process some applied data into systematic data, so that the dead files can be turned into living data information to users, thereby improving the utilization of hydrological files.

6.4 Improve the file management facility

According to the current file management conditions, the implementation plan for the modernization of file management was designed, and the construction of management facilities was completed one by one according to the plan requirements. In the process of building facilities, the unit should give support to resources and improve the enthusiasm of managers to promote the process of management modernization. Promote the docking of the file management system and the unit office system, develop special electronic signatures, realize the online circulation and online archiving of the current electronic documents, provide security for the direct use of electronic documents, and improve the efficiency of archiving work. On the basis of sufficient resources, the file management researchers can carry out the research and development of the file information system efficiently, the staff can get comprehensive technical training, and the overall quality of the file management department will be comprehensively improved.

6.5 Promote the sharing of hydrological archive resources

In the development and utilization of hydrological archives, it is necessary to establish a sound hydrological file sharing mechanism. All departments should rationalize the hydrological file management mechanism. Not only should the hydrological archives share information sharing mechanisms be established between the hydrological departments at all levels, but also the hydrological departments should the departments effectively cooperate to build a file resource sharing mechanism. We will strive to fully realize the digitization of information and materials, make non-confidential information proactively open, realize shared materials without going out, and make full use of computer technology, network technology and database technology to form long-term and stable data among regions,

industries and departments. The sharing mechanism promotes the sharing of hydrological archives information and plays a positive role in promoting the efficiency of hydrological archives utilization.

7 Conclusion

In short, because hydrological archives have been widely used in many fields, and as the basic data for the development of the national economy, hydrological archives play an important role in the current social and economic development process. The informationization of hydrological archives management service is the general direction and the only path for the long-term development of hydrological work under the new situation. We must deeply understand the necessity, importance and urgency of strengthening the hydrological archives informationization to promote hydrological development and serve the people's livelihood. Guided by the spirit of the 19th National Congress of the Communist Party of China, scientific planning, strengthening leadership, improving the system, ensuring investment, and achieving a leap in the informationization of hydrological archives management services.

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