



**\$2,799,000 Operating
Request (GF-S)**

Aerial Imagery is becoming more prevalent in our society and decision making, but it has been around for almost 100 years.

DNR has been taking aerial photographs beginning in the 1950's to the 2000's. These aerial photos exist as film rolls and are deteriorating as time goes on.

"The film is deteriorating with every passing day...."

DNR has the equipment and knowledge to preserve this historic data source but lacks the staff needed to catalogue the aerial photographs and to operate the scanning equipment to convert the imagery into a usable format.

Digitizing and Preserving the Aerial Film Archive

DNR's Aerial Film Archive allows us to observe and measure the changing landscape of our state, at a bird's eye view, from the 1950s to present. As the years go on, the physical film is deteriorating beyond use and needs to be preserved for future Washingtonians.

The Department of Natural Resources (DNR) has over 2.5 million aerial film negatives covering Washington beginning in the late 1950's. From tracking tree growth over time, to assessing damage and reconstructing sites after a natural disaster, aerial photographs are the nearest one can get to a time machine.

The knowledge and equipment needed to work with historic aerial film is becoming increasingly rare by the day. DNR has the knowledge and is in possession of the equipment necessary to convert the film to digital format but lacks the staff and data storage to do so.

Request is for additional staff and data storage

Currently the imagery is stored on film rolls, making it unusable in modern computing environments. This also makes accessing the physical aerial film archive time consuming and requires a great deal of in-house knowledge to locate the appropriate imagery.

The **film is deteriorating with every passing day**, and the only aerial film scanners available on the market and will be unsupported by the vendor in 2030. DNR is in possession of four aerial film scanners but lacks the staff and data storage to convert the archive to digital format and make it accessible for anyone interested in historic imagery. Our proposed solution is to:

- **Hire new staff to clean, prepare, and index rolls of aerial film negatives**
A total of six employees in project positions for six years will allow DNR to prepare the film for scanning (cleaning and repairing) and index the film (determine location of the imagery and collect metadata about the project).
- **Existing staff will scan the prepared aerial film negatives**
As the film is cleaned and indexed, existing staff will begin scanning the film and converting it to digital format.
- **Build and maintain data storage for the film scans**
Data storage is needed both during the scanning process, and after the film is scanned, to host and distribute the data. Scanning aerial film at high resolution results in extremely large data sets, at least several petabytes, and existing data storage infrastructure is insufficient for such a high volume of data.

Who benefits from this data being digital?

The historic aerial photographs are currently used by many state agencies, Tribal governments, local governments, environmental organizations, legal firms, historical societies, members of the public, and anyone curious about past events. Having this invaluable resource in a format that can be easily accessed and preserved will allow DNR to continue to provide this data for anyone interested in historic conditions in Washington.