Walker, A.E., Moore, J.N., Grams, P.E., Dean, D.J., and Schmidt, J.C., 2020, Channel narrowing by inset floodplain formation of the lower Green River in the Canyonlands region, Utah: GSA Bulletin, https://doi.org/10.1130/B35233.1.

Data Repository

DR1-DR10: Aerial Photographs in the Vicinity of the Hardscrabble Trench

Each year of analyzed aerial photography, including an additional set collected in July 2016, are shown here at an approximately 1:4500 scale. The purple squarein DR1-DR9are approximate boundaries of where the trench was excavated into the floodplain of Hardscrabble Bottom. Cleared vegetation prior to the excavation of the trench can be seenin the 2016 photo. Thelines in each image show the banks of the riverin different years, labels for each image specifying what years are shown below the image.

Photo DR1. 1940-08-30, National Archives and Records Administration
Photo DR2. 1951-09-19, United States Geological Survey
Photo DR3. 1966, Bureau of Land Management
Photo DR4. 1976-08-31, National Park Service
Photo DR5. 1988-08-27, Bureau of Reclamation
Photo DR6. 1993-06-14, United States Geological Survey
Photo DR7. 2002-06-18, 2002-06-19, National Park Service
Photo DR8. 2009-08-07, United States Department of Agriculture-Aerial Photography Field Office
Photo DR9. 2014-09-11, United States Department of Agriculture-Aerial Photography Field Office
Photo DR10. 2016-07-07, United States Department of Agriculture-Aerial Photography Field Office

Figure DR11. Grain-size distribution of sediments collected in the lower Green River. The suspended and bed sediments are from physical samples collected from cross-sections at Mineral Bottom to calibrate acoustic suspended sediment monitoring. Suspended sediment samples are depth-integrated EWI samples. In-channel bar sediments were collected from the surface of exposed in-channel bars near Fort Bottom and the trench. The remaining samples were collected from the trench and represent depositional components identified in the trench. Trench samples were collected at points in the trench and show the specific grain size of units; because of that, they are finer than the general sedimentology identified in the trench. The floodplain depositional component is split into levee and trough to illustrate differences in grain size between the two distinct parts of the floodplain. Full facies descriptions are available in Walker (2017).

Figure DR12. Channel width for each each 1 km reach in the lower Green River, plotted as a function of distance downstream. Large changes in width within a small number of reaches can influence changes for the entire study area.

Figure DR13. Rating relations for the Mineral Bottom gage (black line) and at the Hardscrabble trench (white circles). The similar curves show that stage at Hardscrabble Bottom can be estimated using discharge values from the Mineral Bottom gage. Stage at both gages has been normalized to a common elevation.

Photo DR1: 1940-08-30, National Archives and Records Administration

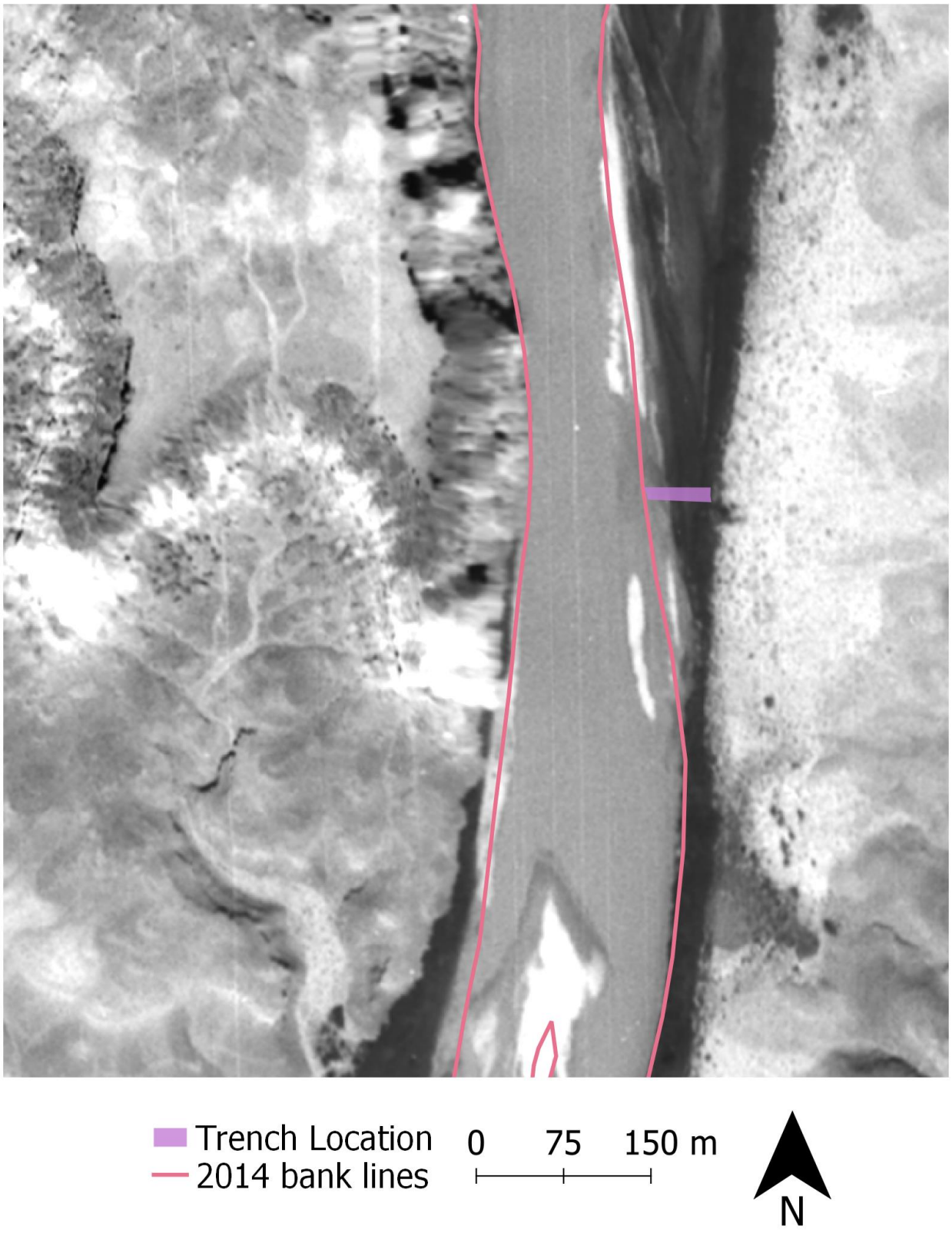


Photo DR2: 1951-09-19, United States Geological Survey

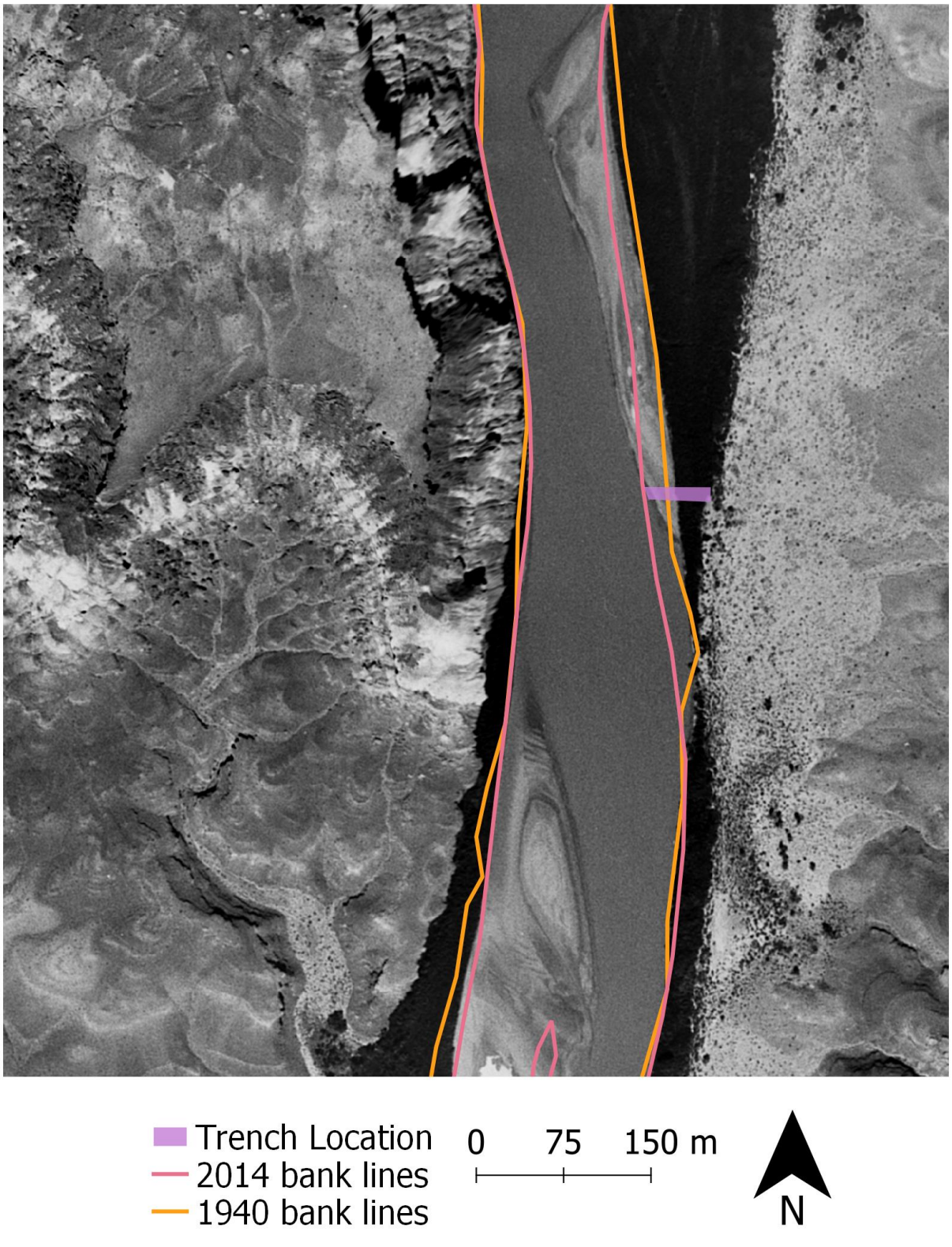


Photo DR3: 1966, Bureau of Land Management

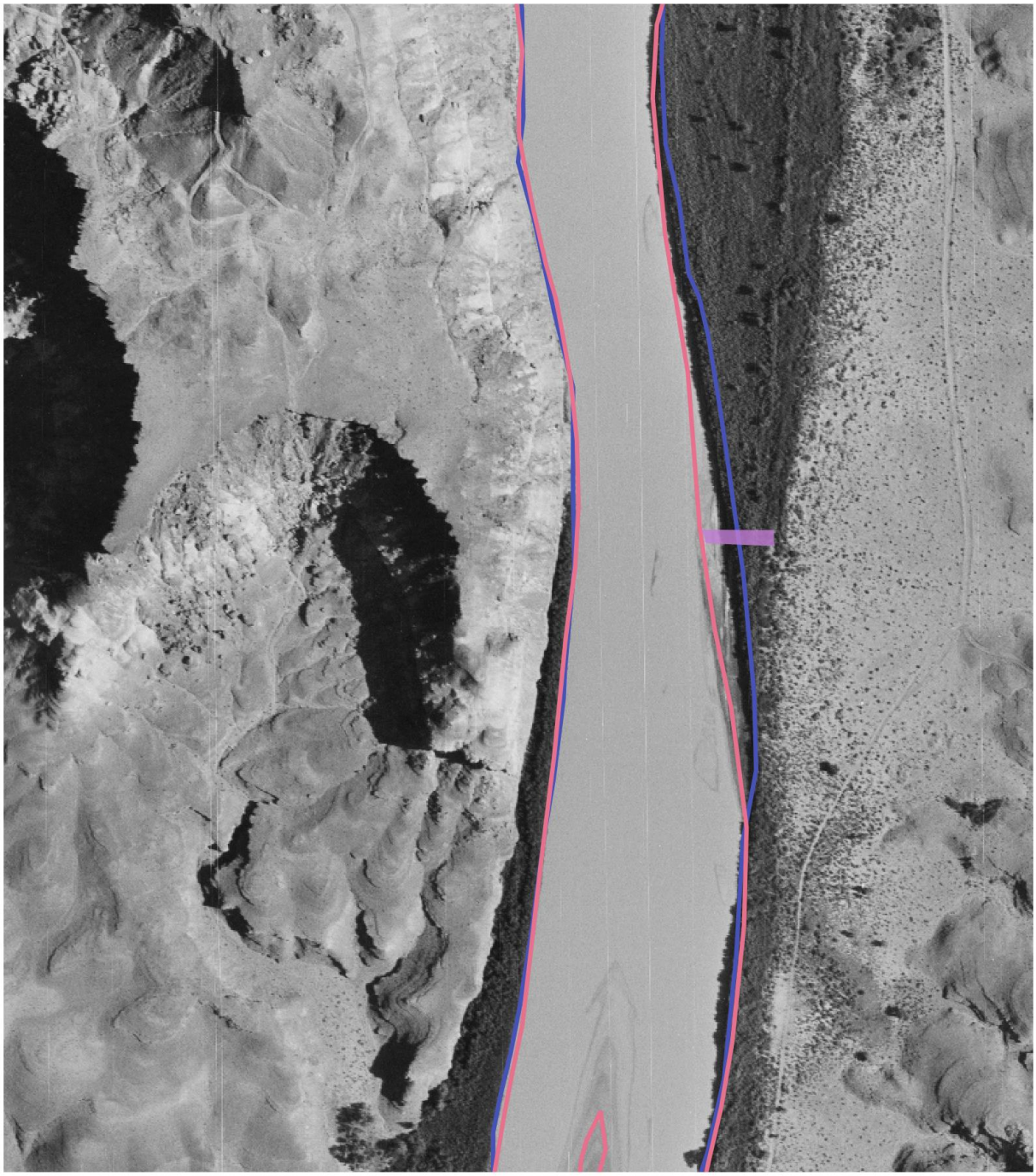


Photo DR4: 1976-08-31, National Park Service

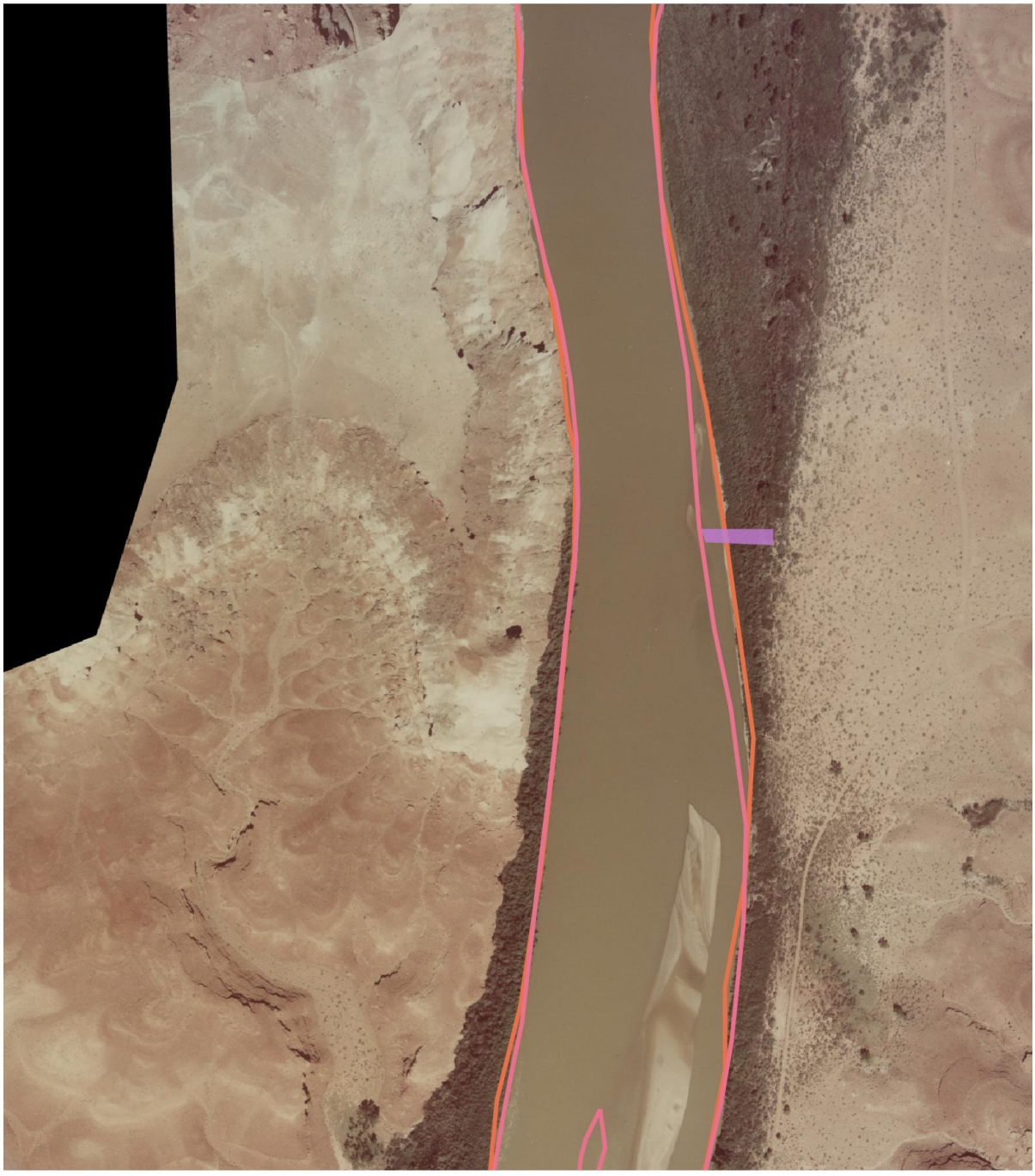


Photo DR5: 1988-08-27, Bureau of Reclamation

Photo DR6: 1993-06-14, United States Geological Survey

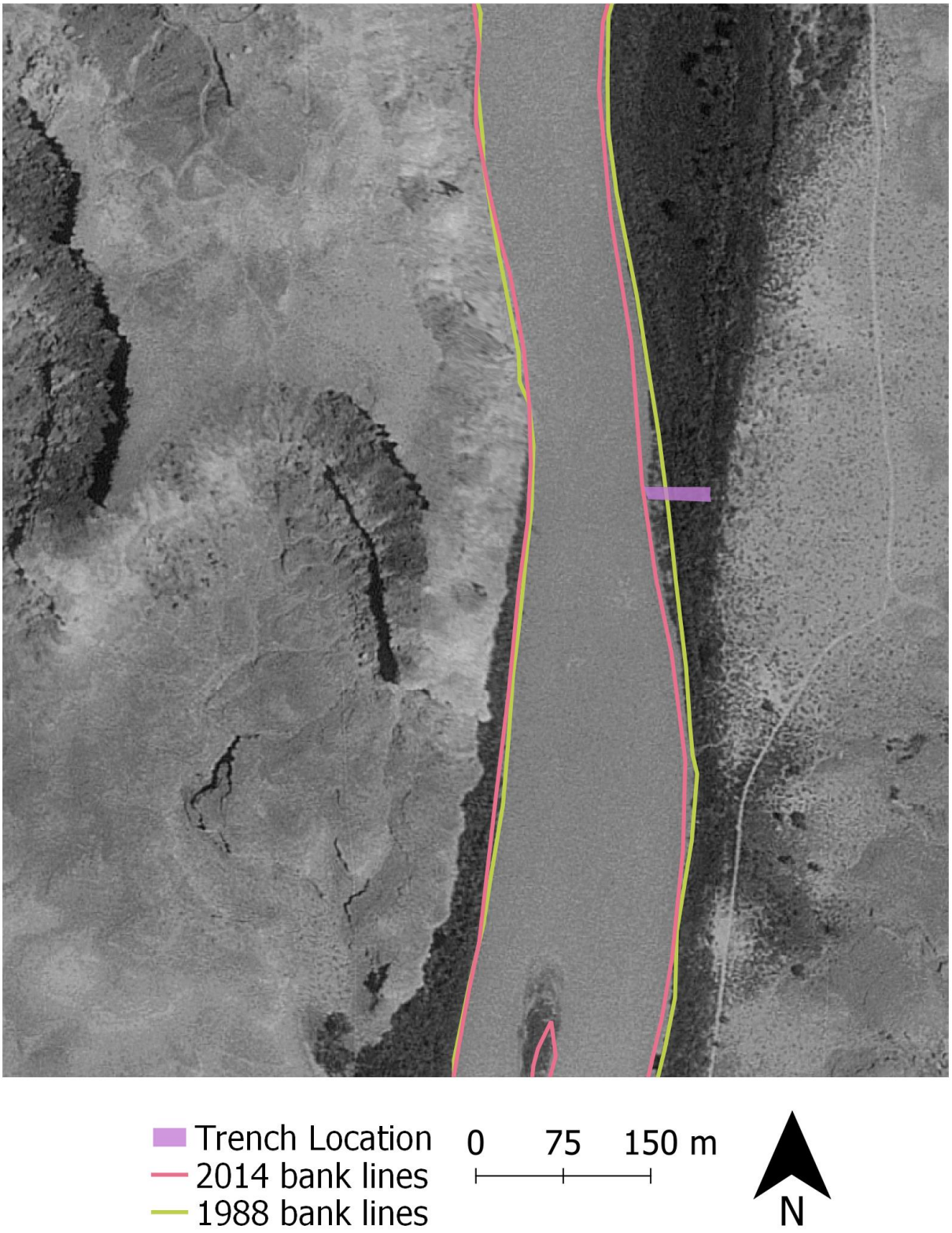


Photo DR7: 2002-06-18, 2002-06-19, National Park Service

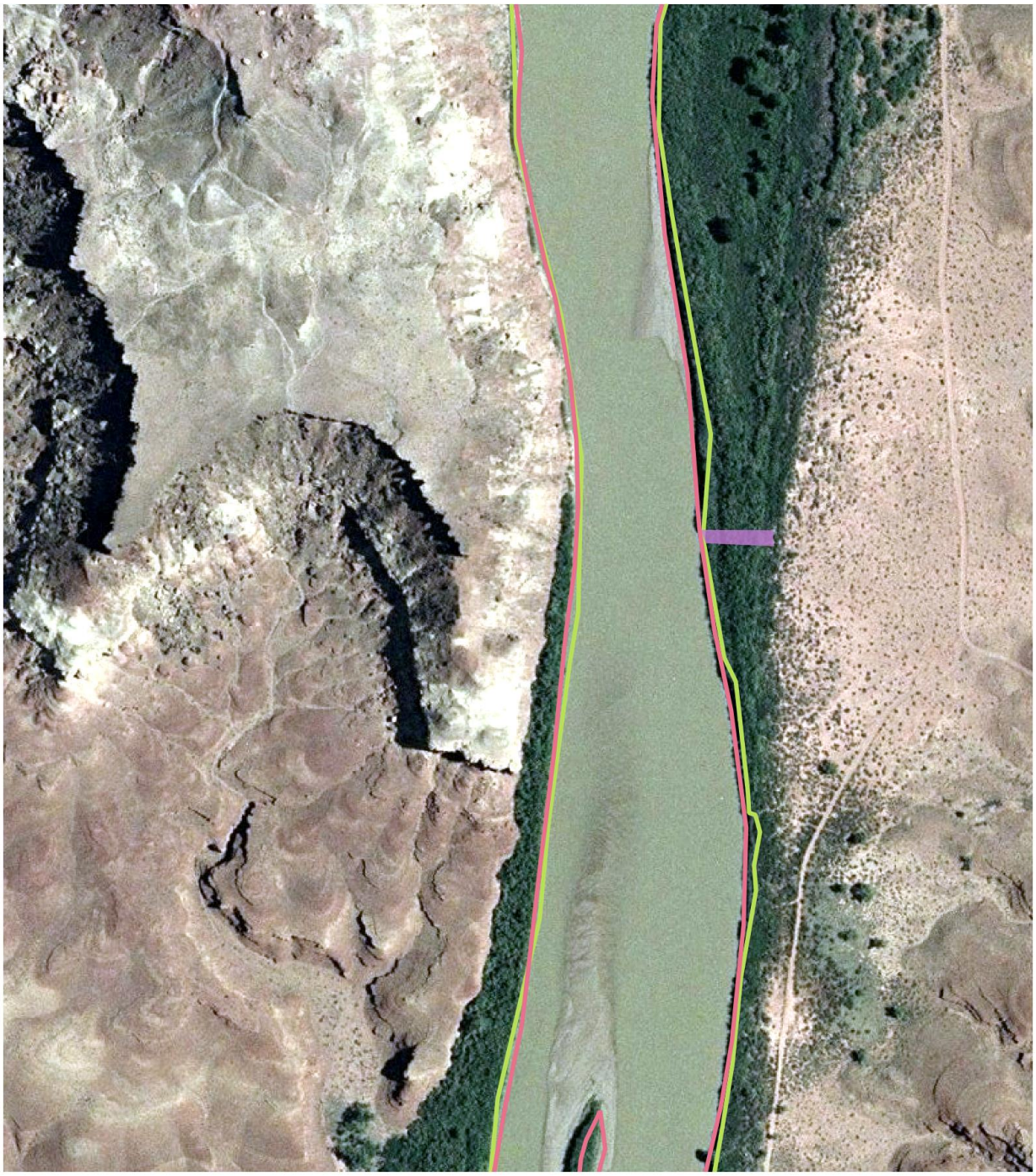


Photo DR8: Photo S8: 2009-08-07, United States Department of Agriculture-Aerial Photography Field Office

Photo DR9: 2014-09-11, United States Department of Agriculture-Aerial Photography Field Office

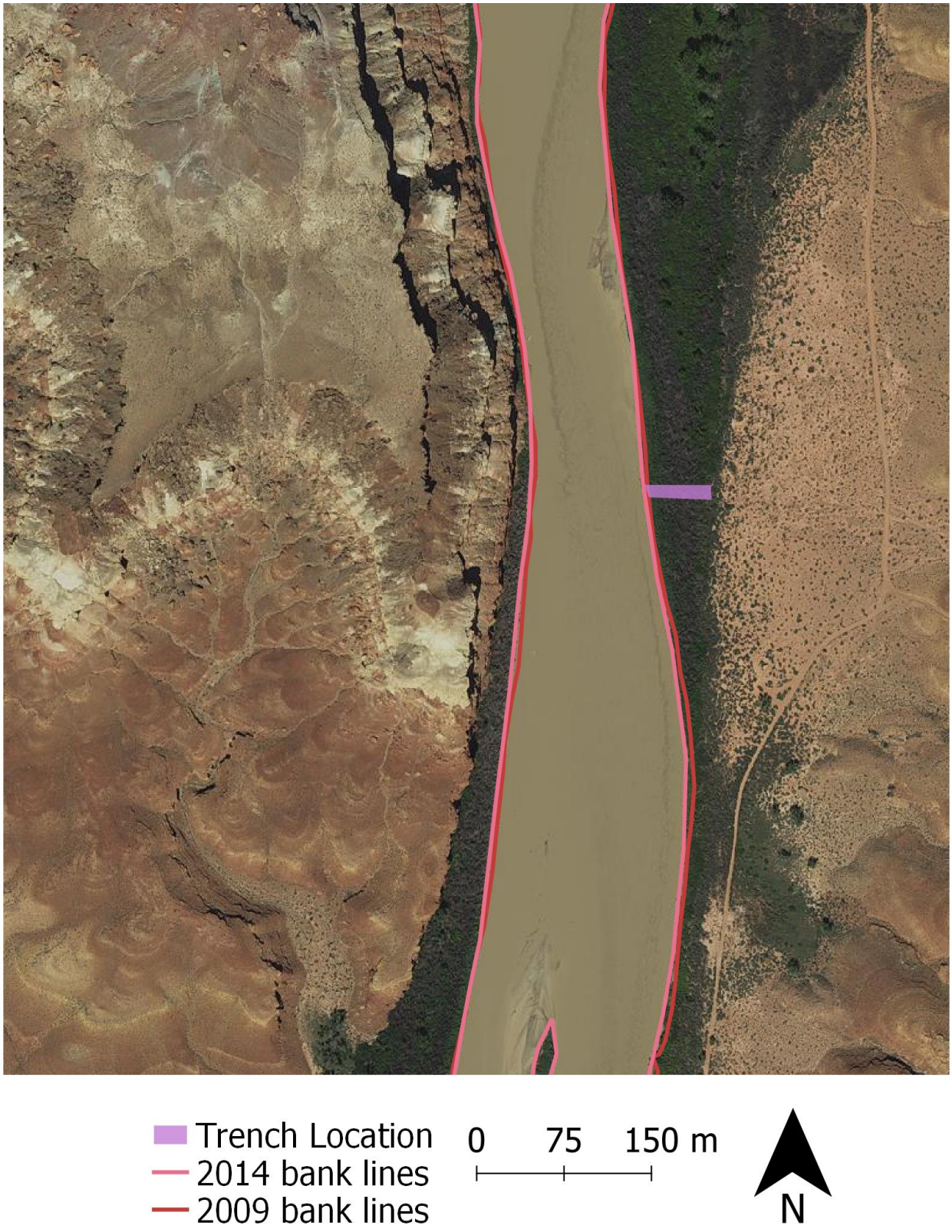
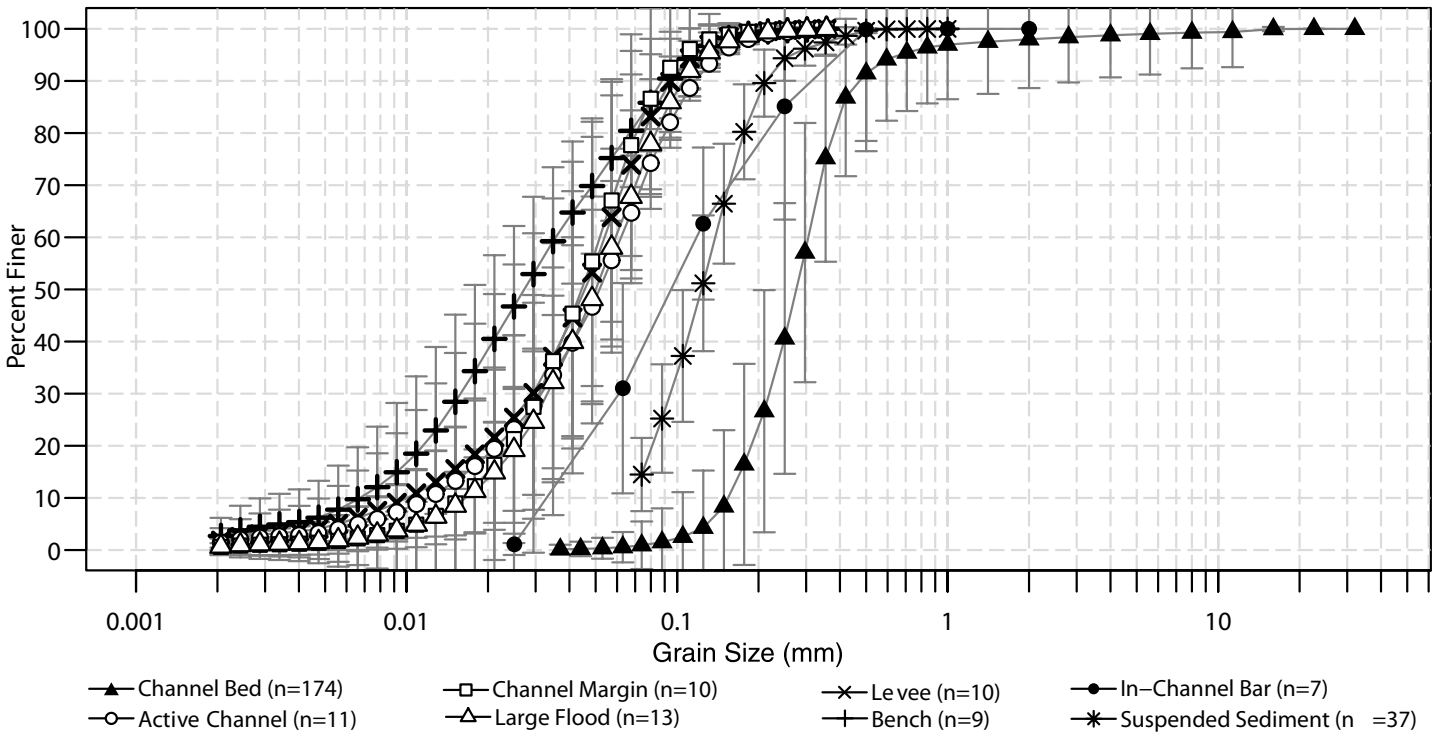


Photo DR10: 2016-07-07, United States Department of Agriculture-Aerial Photography Field Office



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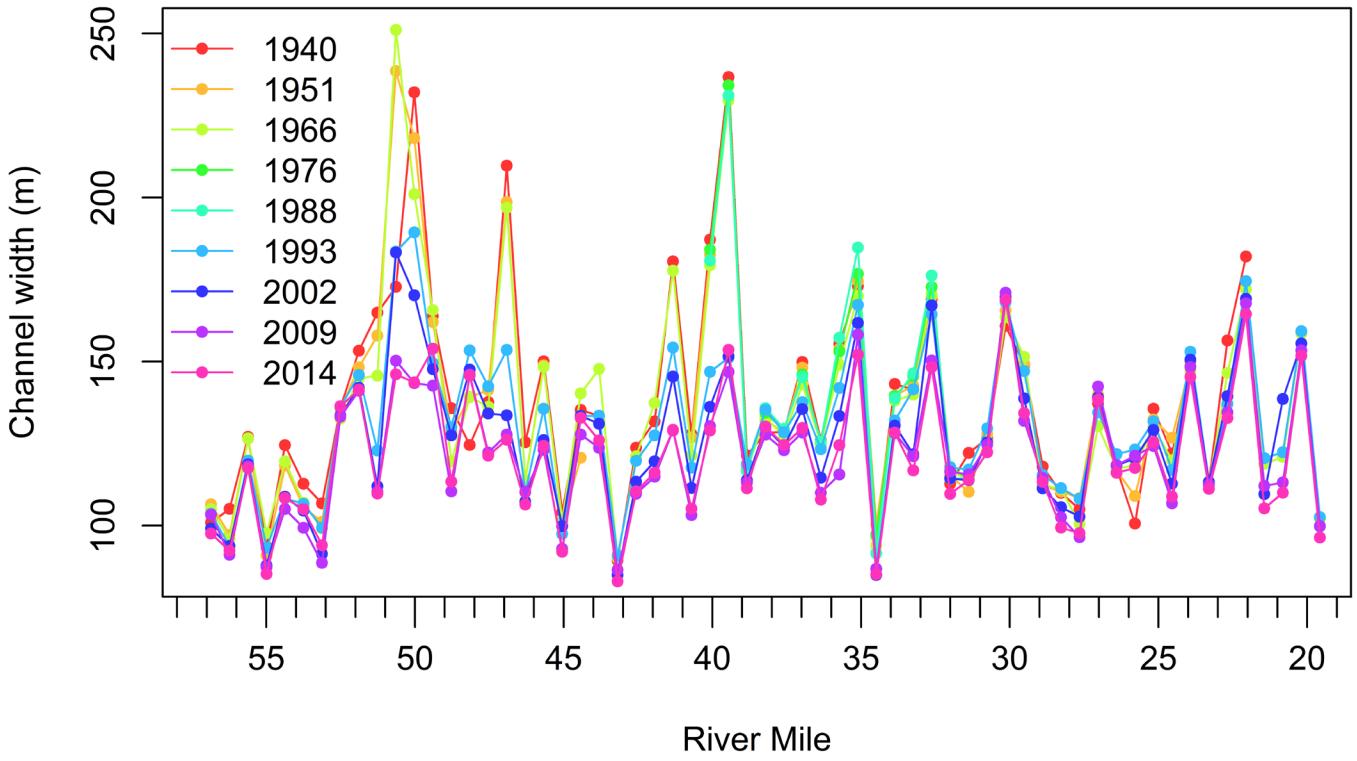

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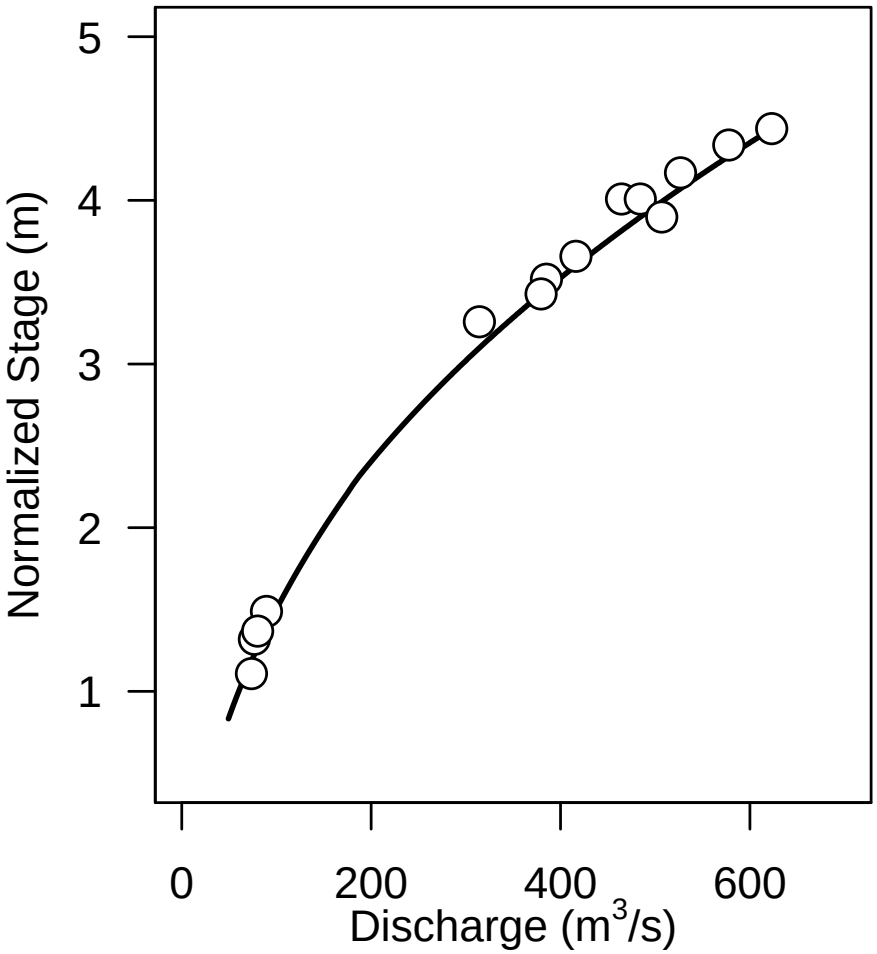

Figure DR13: Rating relations for the Mineral Bottom gage (black line) and at the Hard-scrabble trench (white circles). The similar curves show that stage at Hardscrabble Bottom can be estimated using discharge values from the Mineral Bottom gage. Stage at both gages has been normalized to a common elevation.