USGS Ohio-Kentucky-Indiana Water Science Center

Serving the Nation and providing high-quality science for over 100 years

USGS in Indiana,
A century of science with our partners

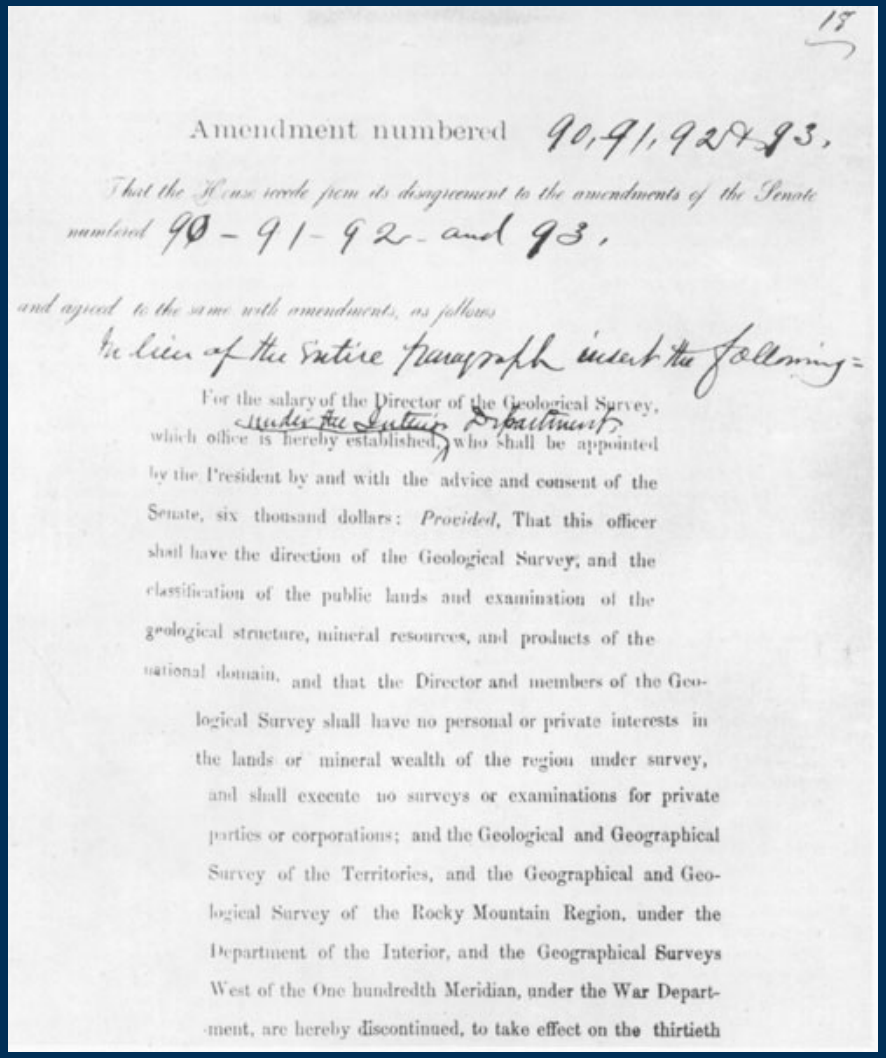
Pete Cinotto
Deputy Director
USGS OKI WSC
Louisville, KY

U.S. Department of the Interior
U.S. Geological Survey

USGS Established in 1879

USGS established for:

"classification of the public lands, and examination of the geological structure, mineral resources, and products of the national domain”



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Amendment numbered 90, 91, 92 & 93.

That the House recede from its disagreement to the amendments of the Senate numbered 90 - 91 - 92 - and 93.

and agree to the same with amendments, as follows

In lieu of the entire paragraph insert the following:

For the salary of the Director of the Geological Survey, which office is hereby established, under the Interior Department, who shall be appointed by the President by and with the advice and consent of the Senate, six thousand dollars: *Provided*, That this officer shall have the direction of the Geological Survey, and the classification of the public lands and examination of the geological structure, mineral resources, and products of the national domain, and that the Director and members of the Geological Survey shall have no personal or private interests in the lands or mineral wealth of the region under survey, and shall execute no surveys or examinations for private parties or corporations; and the Geological and Geographical Survey of the Territories, and the Geographical and Geological Survey of the Rocky Mountain Region, under the Department of the Interior, and the Geographical Surveys West of the One hundredth Meridian, under the War Department, are hereby discontinued, to take effect on the thirtieth

The Conference Committee copy of the law establishing the U.S. Geological Survey, 1879

USGS

Irrigation Survey – roots of water science at USGS (1888 – 1890)

The mission was authorized by Congress to survey western water resources, map them, and establish sites for reservoirs.

F.H. Newell lead this and became "*The Father of Systematic Stream Gaging*" when he realized the science of the day was inadequate and created new methods.

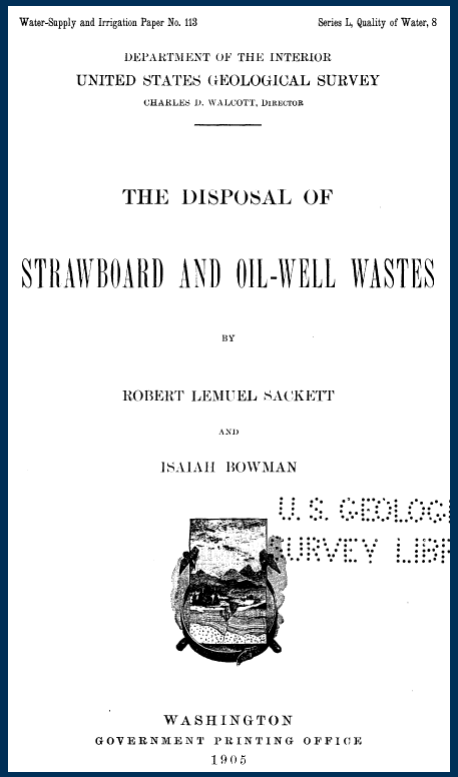
USGS

Growth and development of IN cooperative relationships

With support from Congress, the first specific appropriation for stream gaging became available in 1894 and, with increasing appropriations in 1902, USGS created "Districts" to operate more efficiently and foster collaboration.

Purdue University (Prof. G.E. Waesche) established the first 8 gages in Indiana for the USGS in 1903 (only 6 had chain gages).

"The Disposal of Strawboard and Oil-Well Waste" was commissioned in 1905 in cooperation with the Indiana Department of Health – first USGS water-quality study.



Water-Supply and Irrigation Paper No. 113 Series L, Quality of Water, 8

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY
CHARLES D. WALCOTT, DIRECTOR

THE DISPOSAL OF

STRAWBOARD AND OIL-WELL WASTES

BY

ROBERT LEMUEL SACKETT

AND

ISAIAH BOWMAN

WASHINGTON
GOVERNMENT PRINTING OFFICE
1905

First “USGS” gages in Indiana

1. Wabash River at Logansport, Ind

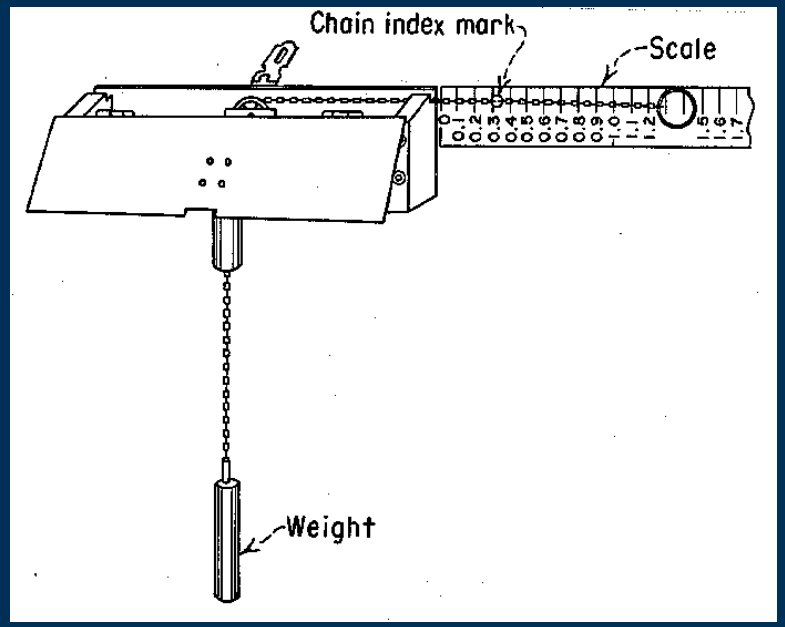
2. Wabash River at Terre Haute, Ind

3. Tippecanoe River near Delphi, Ind

4. West Branch of White River at Indianapolis, Ind

5. Eel River at Cataract, Ind

6. East Branch of White River at Shoals, Ind

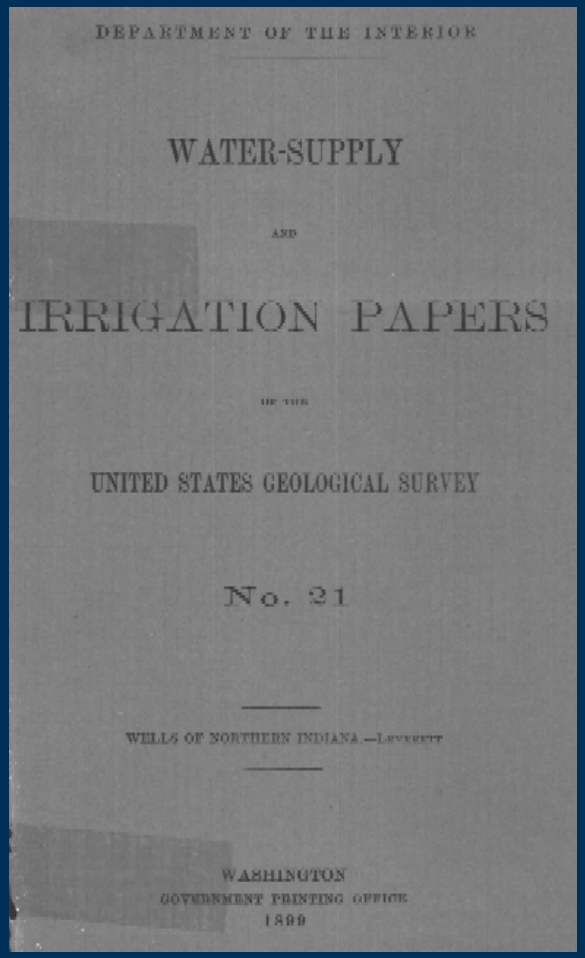


USGS

Groundwater -

USGS also focused on groundwater from the start! The first report on Indiana groundwater was published in 1899:

"Wells of Northern Indiana"; F. Leverett; USGS Water Supply and Irrigation Paper No. 21



DEPARTMENT OF THE INTERIOR

WATER-SUPPLY

AND

IRRIGATION PAPERS

OF THE

UNITED STATES GEOLOGICAL SURVEY

No. 21

WELLS OF NORTHERN INDIANA.—LEVERETT

WASHINGTON
GOVERNMENT PRINTING OFFICE
1899

First formal USGS presence in Indiana

The Survey began adding more stream gages in Indiana in 1928 in cooperation with the IN Division of Engineering and the USACE.

Nathan C. Grover (USGS Branch Chief), in 1930, went to Indianapolis and conferred with Denzil Doggett (IN).

Cooperation was arranged on the condition that the USGS would establish a district office in Indianapolis (R315 Federal Building, Indianapolis, IN).

The district office was established August 18, 1930, with H.E. Grosbach as district engineer.

USGS

“308” Investigations – Aligning missions to improve efficiency

In 1926, the USACE and Federal Power Commission made a joint report to Congress, which was published as House Document 308, that identified streamflow data as a critical need. An appropriation was made on 1/21/1927 to the USACE.

The 308 investigations established the groundwork for the current roles of the USGS and USACE as we see them today - from the USACE Chief of Engineers on 4/19/1928:

“It is contemplated by this office that in general, stream gaging, river profiling, and the necessary topographic mapping will be executed by the USGS…”. “…District engineers should not, however, form new parties for the purpose of executing work which can be done by the USGS.”

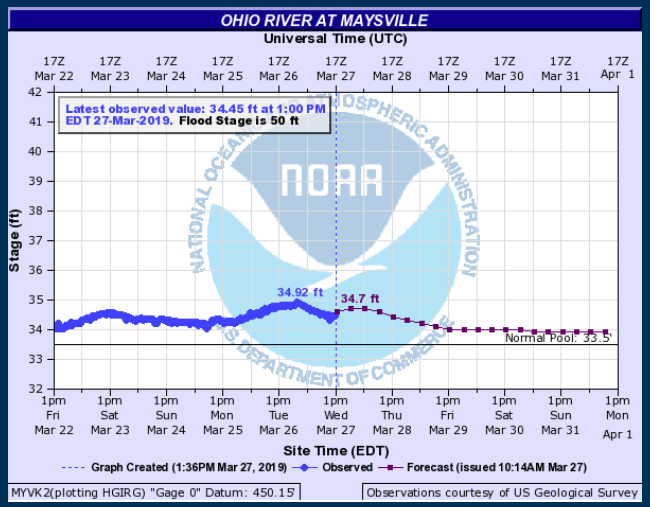
USGS

The Great Depression era –
The Weather Bureau

USGS obtained funding ($500K) from the Public Works Administration for new gages in 1933.

The Weather Bureau also received $112K from the PWA for maintaining flood-forecasting gages (USGS was developing stage / discharge ratings at these gages already).

The Weather Bureau had no construction facilities, so USGS agreed to complete construction on these gages.



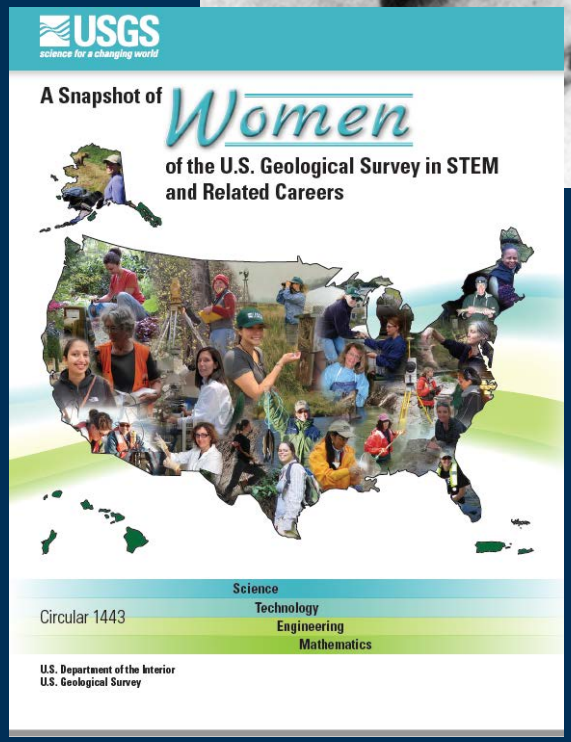
USGS gages continue to support NWS operations to this day!

USGS – Women in Science

Some of the first women in science were employed by USGS (F. Bascom for example) – and IN helped increase this role!

The first measurement of streamflow made by a woman at USGS occurred in Indiana!

Elizabeth Hurst, an engineering aid, made the first wading measurement on November 19, 1942.

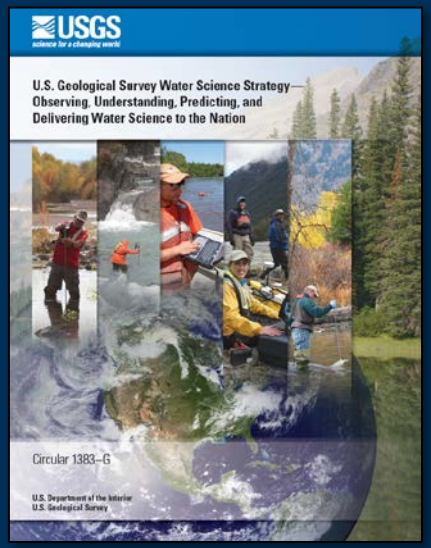


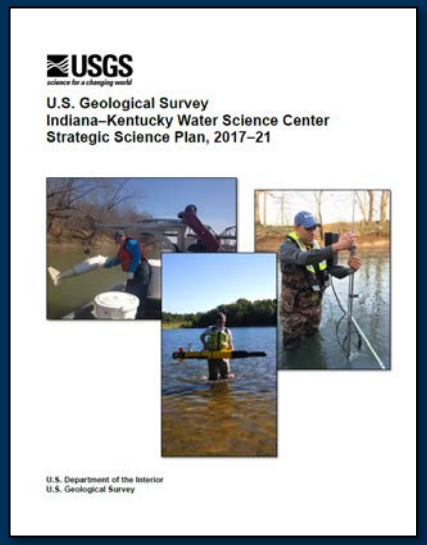
USGS

The USGS strategic plan for the present and the future

We can't do what we do without your help – we greatly appreciate you and your support!

As for USGS - innovations, cutting-edge science, and partnerships will continue; it's all part of our plan!





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