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## Inventory of the David E. Hughes Papers, 1880-1942 (bulk 1920-1935)

### Collection number: MS 77/1

The Water Resources Center Archives

University of California, Berkeley  
Berkeley, California

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#### Descriptive Summary

**Title:** David E. Hughes Papers,

**Date (inclusive):** 1880-1942 (bulk 1920-1935)

**Collection number:** MS 77/1

**Creator:** Hughes, David Edward, 1861-1942

**Extent:** 2 linear ft. (4 boxes)

**Repository:** Water Resources Center Archives (Calif.)

Berkeley, California 94720-1718

**Shelf location:** This collection is stored off-campus at NRLF. Please contact WRCA staff for access to the materials.

**Language:** English

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#### Preferred Citation

### Access Points

United States. Army. Corps of Engineers. Los Angeles District.

Shore protection --California

Tide-waters --Law and legislation --California

Tide-waters --Law and legislation --United States

Submerged lands --Law and legislation --California

San Pedro Harbor (Calif.)

Los Angeles Harbor (Calif.)

Long Beach Harbor (Calif.)

Los Angeles River (Calif.)

Newport Bay (Calif.)

San Diego Harbor (Calif.)

### Biographical Information

David Edward Hughes was born on September 21, 1861 at Palmyra, Ohio, the son of Evan and Ann Johns Hughes. His youth was spent in that locality attending school, farming for his widowed mother, and working in sandstone quarries. At the age of sixteen he moved to Dunigan in Northern California.

He was largely self-educated, devoting every spare moment to study in both medicine and engineering. He taught in country schools and at Pierce College, College City, California, and, although still in his early twenties, became a professor of mathematics. Hughes was one of the finest applied mathematicians of his generation. He evolved, calculated, and published a table on the perfect transition ("Sickle") curve, or American spiral, which was used on the construction of the Chicago elevated railroad, as well as on other projects.

In 1893, he accepted employment with the U.S. Engineer Department, remaining with that service until his retirement in 1932. His first work for the War Department was on the improvement of Humboldt Bay, California, stabilizing the entrance by jetty construction. In 1902 he was transferred to the newly created Los Angeles Engineer District and, for the following thirty years, was its ranking civilian engineer. He built jetties and fortifications at San Diego, Calif., and breakwaters and fortifications for Los Angeles-Long Beach Harbor. For a year he served as engineer for a board appointed by President Taft to determine the site and the design for San Carlos Dam, later Coolidge Dam, in Arizona. His was the guiding hand in the establishment of federal harbor lines along the Southern California coast. These lines determined the development of the harbors.

Hughes investigated tideland law and ownership and became an authority on the subject. Typically, he urged and aided in the litigation that restored the local tidelands to the people and resulted in municipally owned harbors. He experimented and wrote on *surge* and *seiche*. He evolved the idea of substitution of waste dredging for the costly stone in the strengthening of breakwaters, and the vast chain at San Pedro, or Los Angeles, Harbor, built from this design is a monument to him.

Hughes was married to Lydia Wiklund in 1913 at Florence, Arizona. He was elected a member of the American Society of Civil Engineers on September 6, 1905. He died on November 19, 1942.

Excerpted from: *Transactions of the American Society of Civil Engineers*, v. 109 (1944), p. 1495-1497.

### Scope and Content

Correspondence and reports pertaining to Los Angeles Harbor, San Pedro Harbor, Long Beach Harbor, Los Angeles River, Newport Bay, San Diego Harbor, Santa Monica breakwater, and the Point Fermin landslide (1929). Includes materials on tides and boundaries.

The collection was given to the Water Resources Center Archives in March 1977 by Richard O. Eaton, of Sun City, Arizona. Mr. Eaton worked with Hughes at the office of the Los Angeles District of the U.S. Army Corps of Engineers.

Early Surveys and Property Line Arguments, Los Angeles Harbor; Tidal Phenomena; Los Angeles-Long Beach Breakwaters; Political Problems

- Box 1, item 1      **Hughes, D. E.**  
Random notes on lands and tides. [n.d.]  
**Physical Description:** 9 leaves
- item 2            **Norway, W. H.**  
Field notes of the Mormon Island lines of Township 5 South, Range 13 West, San Bernardino Meridian, California. 1880  
**Physical Description:** 6 leaves
- item 3            **Hughes, D. E.**  
[Extracts from legal proceedings: City of Los Angeles vs. Borax Consolidated, Ltd., January 14, 1935; The People vs. Banning Company, n.d.; DeGuyer vs. William Banning, 1881?]
- item 4            **Hughes, D. E.**  
Traverse on Mormon Island. October 31, 1899  
**Physical Description:** 8 leaves
- item 5            **Hughes, D. E.**  
[Correspondence and extracts of correspondence re Mormon Island]. 1908-1937
- item 6            **Hughes, D. E.**  
Retrospection [re Mormon Island]. April 10, 1929.  
**Physical Description:** 4 leaves
- item 7            **Hughes, D. E.**  
Memorandum on resurvey of Mormon Island. July 4. 1916.  
**Physical Description:** 14 leaves, Includes handwritten addenda dated May 26, 1930.
- item 8            **Hughes, D. E.**  
Note on ordinary high water mark. Oct. 14, 1935  
**Physical Description:** 4 leaves
- item 8.5          **Hughes, D. E.**  
"Now what did Hughes testify or write or say about datum and high water?" [1930-1936?]  
**Physical Description:** 6 leaves, holograph
- item 9            **Hughes, D. E.**  
[Handwritten notes re Mormon Island, Wilmington Harbor tides]. 1936
- item 12.5        **Hughes, D. E.**  
The City of Los Angeles, respondent, v. San Pedro, Los Angeles & Salt Lake Railroad Co., appellant. Apr. 8, 1920.  
**Physical Description:** 14 leaves
- item 14          **Hughes, D. E.**  
History of the inner Bay of San Pedro, California, bearing upon the ownership thereof, together with the author's views on the right of retaining it entire for general federal and public uses. 1908 24 leaves
- item 15          **Hughes, D. E.**  
On navigability of San Pedro Inner Harbor. June 11, 1908.  
**Physical Description:** 10 leaves

- item 16           **Hughes, D. E.**  
                    **Letters, 1908 August 6 and August 11, to Joseph H. Call, Los Angeles, Calif. [re Inner Bay of San Pedro and boundary of Rancho Dan Pedro]. 1908**  
  
                    **Physical Description:** 8 leaves
- item 17           **Hughes, D. E.**  
                    **[Memorandum re harbor line surveys and titles to shorelines and islands of San Pedro Bay.] Nov. 30, 1915.**  
  
                    **Physical Description:** 44 leaves, Includes supplements dated Sept. 21, 1930 and July 25, 1938.
- item 17.5         **Hughes, D. E.**  
                    **United States Harbor Lines for Inner and Outer Harbors, San Pedro, Calif. July 29, 1908**
- item 18           **Hughes, D. E.**  
                    **Memorandum of survey for Los Angeles Harbor fortifications. July 4, 1917**  
  
                    **Physical Description:** 16 leaves
- item 19           **Hughes, D. E.**  
                    **Letter, 1921 September 18, to John Doe, et. al., Long Beach, Calif. [Re "ordinary high tide" as limit of navigable water and claims of Long Beach to former tide and submerged lands in the San Pedro and Los Cerritos grants]. 1921**  
  
                    **Physical Description:** 9 leaves
- item 20           **Hughes, D. E.**  
                    **Random remarks [advising against early breakwater extension]. Jan. 14, 1923**  
  
                    **Physical Description:** 14 leaves
- item 21           **Hughes, D. E.**  
                    **Comment [re San Pedro Chamber of Commerce report on extension of breakwater]. Sept. 27, 1923**  
  
                    **Physical Description:** 5 leaves
- item 22           **Hughes, D. E.**  
                    **Notes as to location and width of channel in front of San Pedro. July 2, 1924.**  
  
                    **Physical Description:** 3 leaves
- item 23           **Hughes, D. E.**  
                    **About the "vara." 1925**  
  
                    **Physical Description:** 2 leaves
- item 24           **Hughes, D. E.**  
                    **Timorous commentary from first impressions on reading proposed bill for unification of harbor control. Feb. 15, 1925**  
  
                    **Physical Description:** 6 leaves, Includes copy of proposed bill.
- item 25           **Hughes, D. E.**  
                    **Memoranda [sic] on conditions attached to breakwater construction. Mar. 21, 1925**  
  
                    **Physical Description:** 2 leaves
- item 26           **Hughes, D. E.**  
                    **Memorandum on Reservation Point [re channel widening, dredging, Deadman's Island]. Sept. 21, 1925**  
  
                    **Physical Description:** 10 leaves
- item 26.5         **Hughes, D. E.**
-

- Letter, 1925 October 4, to "Any who may care to read" [re "east basin" Los Angeles Harbor]. 1925  
Physical Description: 6 leaves
- item 28      **Hughes, D. E.**  
Memo, U.S. Public Land Survey of Deadman's Island "along ordinary high water mark" by Thompson in 1868. Nov. 16, 1925  
Physical Description: 1 leaf, holograph
- item 29      **Hughes, D. E.**  
S.W. Corner sec. 19 [re mistake by Stevenson in survey of San Pedro area in 1885]. Dec. 21, 1925  
Physical Description: 1 leaf
- item 30      **Hughes, D. E.**  
Letter, 1926 April 4, to Mr. Hale [re Lecouvereur's survey of 1870]. 1926  
Physical Description: 2 leaves
- item 31      **Hughes, D. E.**  
Views on breakwater conditions. Mar. 27, 1927  
Physical Description: 10 leaves
- item 33      **Hughes, D. E.**  
Views of breakwater conditions. Mar. 17, 1928  
Physical Description: 16 leaves and supplement
- Box 2, item 37.5      **Hughes, D. E.**  
Union Pacific Railroad appendices nos. 1 to 6 inc. by D.E. Hughes, Civil Engineer [re San Pedro Bay, Los Angeles Harbor; physical history, history of ownership, surveys, high water marks, bench marks]. Feb. 1936  
Physical Description: ca. 150 leaves
- item 38      **Hughes, D. E.**  
Notes on high water mark. Jan. 5, 1936  
Physical Description: 7 leaves
- item 38.5      **Hughes, D. E.**  
Letter, 1937 June 24, to Easton [re legal aspects]. 1937  
Physical Description: 4 leaves
- item 39      **Hughes, D. E.**  
Letter, 1937 November 16, to A. L. Sonderegger, Los Angeles, Calif. [re East Jetty, Deadman's Island]. 1937  
Physical Description: 3 leaves
- item 40      **Hughes, D. E.**  
Recollections, pertaining to the southerly portion of Los Cerritos Rancho, derived from observations, readings and hear-says; and of contemplation for Nature's work in the vicinity; and interference by works of man; also a Surveyor's thoughts of acquired status of land titles... Nov. 29, 1937  
Physical Description: 41 leaves
- item 41      **Hughes, D. E.**
-

- ABC's [re tides inside and outside harbors]. Dec. 9, 1937  
Physical Description: 7 leaves
- item 42      **Hughes, D. E.**  
Letter, 1937 December 25, to Major Theodore Wyman Jr., Los Angeles, Calif. [re harbor lines desired by Long Beach]. 1937  
Physical Description: 12 leaves
- item 42.5    **Hughes, D. E.**  
Additional coordinates, etc. for harborline map [Long Beach inner harbor]. [n.d.].  
Physical Description: 3 leaves
- item 43      **Hughes, D. E.**  
Letter, 1938 January 25, to U. S. Engineer Office, Los Angeles, Calif. [re Long Beach harbor mouth]. 1938  
Physical Description: 11 leaves
- item 44      **Hughes, D. E.**  
Reproduced picture and rehashed remarks [re Los Angeles River and San Gabriel River mouths]. Feb. 27, 1938  
Physical Description: 6 leaves, holograph
- item 45      **Hughes, D. E.**  
Channel and harbor lines between LaGoleta and Timms Point in San Pedro. May 6, 1938  
Physical Description: 12 leaves
- item 46      **Hughes, D. E.**  
Last squawk [re height of ordinary high water in the state of nature near Long Beach pre-1896]. June 30, 1938  
Physical Description: 10 leaves
- item 47      **Hughes, D. E.**  
Memorandum [re partition lines between Los Cerritos and San Pedro Ranchos]. Sept. 20, 1938  
Physical Description: 8 leaves
- item 48      **Hughes, D. E.**  
Was the San Gabriel River and any of its branches navigable in the state of nature? Nov. 22, 1938  
Physical Description: 19 leaves
- item 49      **Hughes, D. E.**  
[Los Cerritos Rancho meander lines along its southerly boundary]. Mar. 1, 1939  
Physical Description: 19 leaves
- item 50      **Hughes, D. E.**  
[Ocean shore of Terminal Island between city limits and entrance to Long Beach inner harbor]. Aug. 25, 1939  
Physical Description: 18 leaves
- item 50.5    **Sonderegger, S. L.**  
Shore line of easterly portion of Terminal Island and mouth of old San Gabriel River [map]. Dec. 1905.
- item 51      **Hughes, D. E.**
-

[Notes re the Bates (?) report on early surveys]. Sept. 1 and 9, 1939

Physical Description: 37 leaves

item 52

Hughes, D. E.

Partition between San Pedro and Nieto grants as seen by the man in the moon. Sept. 9, 1939

Physical Description: 37 leaves

item 53

Hughes, D. E.

Los Cerritos B San Pedro patent common boundary. Oct. 4, 1939

Physical Description: 4 leaves, holograph

item 54

Hughes, D. E.

[Miscellaneous: patents, correspondence, maps, notes, re early surveys and property line problems; Los Angeles Harbor, San Pedro breakwater controversy]. 1887-1938

item 54.5

Hughes, D. E.

Terminal Island, Calif. Apr. 1941.

Physical Description: 14 leaves

**Diversion of Los Angeles River from Los Angeles-Long Beach Harbors**

- Box 2, item 55      **Hughes, D. E.**  
                          **Memoranda. 1914-1920**
- Physical Description:** Contents: no. 1. Diversion of silt from Los Angeles Harbor. Dec. 22, 1914 (23 leaves) -- no. 7. [Untitled]. Mar. 24, 1915 (17 leaves) -- no. 9. Flood control. Sept. 5, 1915 (13 leaves) -- no. 16. [Untitled]. Feb. 11, 1917 (4 leaves) -- no. 22. [Untitled]. May 20, 1919 (13 leaves) -- no. 25. [Untitled]. Sept. 19, 1919 (21 leaves) -- no. 34. [Untitled]. Nov. 11, 1920 (8 leaves).
- Box 3, item 56      **Hughes, D. E.**  
                          **[Discussion and estimates on river diversion along different routes and different grades, based on topographic map and recent profiles, furnished by Mr. Reagan, County Engineer]. 1916**
- Physical Description:** 40 leaves, holograph
- item 57              **Hughes, D. E.**  
                          **Reminiscences on breaking ground for harbor protection work. Oct. 27, 1919**
- Physical Description:** 4 leaves
- item 58              **Hughes, D. E.**  
                          **[Correspondence, re flood control and Los Angeles River]. 1917-1938**
- item 59              **Hughes, D. E.**  
                          **[Miscellaneous notes, maps, re silt diversion]. 1919**

**Santa Monica Breakwater**

Box 3, item 60

**Hughes, D. E.**

[Letter report addressed to Board of Commissions of the City of Santa Monica re breakwater under contract for construction. Recommends change in contract, substitution of random stone]. Apr. 13, 1933

**Physical Description:** 8 leaves

item 61

**Hughes, D. E.**

[Correspondence re Santa Monica breakwater]. 1933-1934

**Point Fermin Landslide**

- Box 3, item 62      **Hughes, D. E.**  
                         **Data pertaining to the Point Firmin [sic] land slide. Aug. 31, 1929**  
  
                         **Physical Description:** Includes the report of F.L. Ransome on geological conditions near Point Fermin; maps, graphs, drilling logs.
- item 63              **Arnold, Ralph, Malcolm H. Bissell, and William J. Miller**  
                         **Report on the Point Fermin landslide, San Pedro, California. Aug. 28, 1929**  
  
                         **Physical Description:** 9 leaves
- item 64              **Hughes, D. E.**  
                         **[Correspondence re the landslide]. July-Oct. 1929**

Los Angeles County Sewer Outfall

Box 3, item 65

Hughes, D. E.

[Correspondence re Los Angeles County "Whites Point Sewer Outfall" controversy]. 1925-1934

**Newport Bay, California**

- Box 3, item 66      **Hughes, D. E.**  
                            **Memorandum [re proposed improvement of entrance to Newport Bay]. Feb. 3, 1924**  
                            **Physical Description:** 28 leaves
- item 67              **Beach, Lansing H.**  
                            **Newport Bay, Calif. preliminary report. Mar. 14, 1925**  
                            **Physical Description:** 50 leaves
- item 68              **Beach, Lansing H.**  
                            **Orange County Harbor Commission report to the Board of Supervisors. Apr. 14, 1925**  
                            **Physical Description:** 13 leaves

**San Diego and Vicinity**

- Box 3, item 69      **Hughes, D. E.**  
                            **Memorandum on proposed revisions of San Diego Harbor lines. Sept. 15, 1911**  
  
                            **Physical Description:** 13 leaves
- item 70              **Hughes, D. E.**  
                            **Memorandum on reservation for dike in Pueblo lot 219. July 6, 1926**  
  
                            **Physical Description:** 3 leaves
- item 71              **Hughes, D. E.**  
                            **Pertaining to False Bay [re San Diego River delta in False Bay, course of the river and title to tidelands, in litigation as State vs. City of San Diego]. July 28, 1939-Aug. 20, 1939**  
  
                            **Physical Description:** 27 leaves
- item 72              **Hughes, D. E.**  
                            **[Correspondence and letter reports re Coronado sea wall; San Diego Harbor; proposed LaJolla breakwater]. 1905-1935**

