Morrough P. O'Brien papers

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Descriptive Summary

Title: Morrough P. O'Brien papers
Date (inclusive): 1918-1981
Collection Number: WRCA 059
Extent: 12 linear feet26 boxes
Repository: Rivera Library. Special Collections Department. Riverside, CA 92517-5900
Languages: English.

Access
Collection is open for research.

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Preferred Citation
[identification of item], [date if possible]. Morrough P. O'Brien papers (WRCA 059). Water Resources Collections and Archives. Special Collections & University Archives, University of California, Riverside.

Biographical Information
Morrough Parker O'Brien was born in Hammond, Indiana, on September 21, 1902. He completed high school in Toledo, Ohio, and received a B.S. in Civil Engineering from Massachusetts Institute of Technology in 1925. He did graduate work at Purdue University, 1925-1927, and in 1927-1928, as the John R. Freeman Scholar of the American Society of Civil Engineers for study of fluid mechanics at the Technische Hochschule in Danzig and The Royal College of Engineering in Stockholm. He received three honorary degrees: the D.Sc. from Northwestern University; the D.Eng. from Purdue University; and the LL.D. from the University of California.

O'Brien engaged in three fundamentally different careers. His academic career as Professor, Chairman, and Dean of Engineering at the University of California, Berkeley, spanned the years 1928-1959. A second career was his pioneering work in the development of coastal engineering. His third career was his service form 1949 until his death to General Electric Company, to the University of Florida and other universities, and to government agencies.

Ernest O. Lawrence and Robert J. Oppenheimer were appointed assistant professors in the same year as O'Brien, and the three became good friends. These associations greatly influenced his views regarding the importance of research in a modern engineering school. During his tenure as Dean of the College of Engineering at Berkeley he led the development of the College to its top-ranked status in many engineering disciplines. He was widely regarded as a powerful and perceptive leader in engineering education. Under his leadership, the University established the external Engineering Advisory Council, the Engineering Alumni Society, and such research units as the Institute of Traffic and Transportation Engineering, the Sanitary Engineering Research Laboratory, the University-wide Water Resources Center, and the Biomechanics Laboratory (in cooperation with the Department of Orthopedic Surgery at the UC Medical School in San Francisco). UC President Emeritus Clark Kerr, who had served as Chancellor during the later years of O'Brien's tenure as Dean, remembered him as "the mighty Mike" and the "builder of the College of Engineering and a builder of Berkeley" during a symposium held in O'Brien's honor in March 1987. (A record of that symposium is in Shore and Beach, July/October 1987).

O'Brien received a number of honors from the University. O'Brien Hall, which houses the Hydraulics Laboratory and the Water Resources Collections and Archives, was named for him, and a portrait of O'Brien hangs in the entry hall of this building. He was awarded a Doctor of Laws degree in 1968. In April 1988 he was awarded the Clark Kerr Award, given by the Academic Senate. Dean O'Brien was also awarded the Lamme Award for excellence in teaching by the American Society for Engineering Education.

O'Brien was the founder of modern coastal engineering. He wrote a number of papers on the subject which have had a lasting influence. He was appointed Civil Engineer for the U.S. Army Board on Sand Movement and Beach Erosion in 1929, and initiated research by this board on coastal engineering. In 1930 he made field studies along the coasts of Washington, Oregon, and California, and wrote a detailed seven-volume report on the results of his observations. A landmark paper on the relationship between tidal prism and entrance area was one of the results of these studies. He summarized many of his observations and thoughts on beach processes and the effects of structures on beaches in his paper "The Coast of California as a Beach Erosion Laboratory" (Shore and Beach, July 1936). In 1938 he was appointed a member of the Beach
Erosion Board, U.S. Army Corps of Engineers, and served on it until it was abolished in 1963. He was then appointed to its successor, the Coastal Engineering Research Board, serving there from 1963 until 1978, a total of 40 years on the two boards.

The years of World War II were extremely busy for O'Brien, serving as Chairman of the Mechanical Engineering Department until 1943 when he was appointed both Dean of the College of Engineering and also Chairman of the Department of Engineering. He was Executive Engineer of the Radiation Laboratory under Professor E.O. Lawrence in 1942-1943. O'Brien was asked by Lawrence and General Groves, the Director of the Manhattan Project, to recruit an engineering team to design the engineering facilities at Oak Ridge for the electromagnetic system. O'Brien said that probably the most important thing he did in his life was to convince them that there was not time to build a competent staff, that they should hire companies with an established engineering staff to do the job. He was in charge of the Statewide University of California Engineering Science and Management War Training Program, 1940-1944, when the program registered 46,000 students who worked under 1,800 instructors. He worked for the U.S. Navy Bureau of Ships on underwater sound, on cavitation generated by submarine propellers (the results of his research were immediately implemented by submariners), and on the design and operation of amphibious craft. He also worked with Professor H.U. Sverdrup of the Scripps Institute of Oceanography on the forecasting of waves, and he directed a program of field and laboratory studies of landing craft for the bureau. In 1950 he and Professor Joe W. Johnson started what are now known as the International Conferences on Coastal Engineering.

O'Brien was a member of the Army Scientific Advisory Panel, 1954-1965, serving as its chairman, 1961-1965; a member of the Defense Science Board, 1961-1965; member of the Board of the National Science Foundation (a Presidential appointment), 1958-1960; and he served on numerous committees of the National Research Council. He was twice awarded the Distinguished Civilian Service Medal.

He was a leader in several fields of engineering, including pumps and air compressors. The compressor design for the first American axial flow jet engine was laid out exactly in accordance with the method presented in the paper by O'Brien and Folsom entitled "The Design of Propeller Pumps and Fans." It was incorporated in what became the J47 engine with a production run of thousands. He was elected to the General Electric Company Propulsion Hall of Fame in 1984.


Professor O'Brien died on July 28, 1988, at his home in Cuernavaca, Mexico, at the age of 85.


**Collection Scope and Contents**

Correspondence, reports, and documents, concerning sedimentation, flow of water in channels, rivers, flood control, waves and surge, beach erosion, dams and related projects, pipes, hydraulic models, and pumps.


**Collection Number**

Collection number updated February 2019. Legacy collection number was O'BRIEN. This change was part of a project in 2018/2019 to update the collection numbers for collections in the Water Resources Collections and Archives.

**Indexing Terms**

The following terms have been used to index the description of this collection in the library's online public access catalog.

**Subjects**

University of California, Berkeley. College of Engineering

American Shore and Beach Preservation Association

Beach erosion

Channels (Hydraulic engineering)

Hydraulic engineering

Hydraulic laboratories

Hydraulic models

Hydraulics

Inlets

Tides
Box 1, Item 1  Transportation of bed load 1934
               Physical Description: 1 volume, holograph, bound

Box 1, Item 2  Channel contractions 1934
               Physical Description: 1 folder (5 pieces)

Box 1, Item 3  Henry, Marc. Propagation of flood waves in a rectangular channel 1937
               Physical Description: 25 leaves, Translated from the French by the aid of Works Progress Administration, University of Minnesota Sub-Project no. 40. Includes original copy in French

Box 1, Item 4  American Geophysical Union. Special Committee on Flood Waves. Reports and correspondence on flood waves 1935-1937
               Physical Description: 1 folder (45 pieces)
               Scope and Contents

Box 1, Item 5  Henry, Marc. Account relative to disturbance able to propagate at a uniform velocity in an open channel 1937
               Physical Description: 9 leaves
               Scope and Contents
               Includes copy of original in French.

Box 1, Item 6  Goodridge, R. S. A preliminary draft of report on "Deficiencies in basic hydrologic data."
               Physical Description: 25 leaves
               Scope and Contents
               With special reference to dynamics of unsteady flow, such as flood waves and related phenomena in open channels.

Box 1, Item 7  United States. Army. Corps of Engineers. Discharge of the Mississippi River at Friar Point, Miss 1932
               Physical Description: 1 folder (2 graphs)

Box 1, Item 8  Waves (surges) in open channels 1932-1933
               Physical Description: 1 folder (79 pieces, includes photographs)
               Scope and Contents
               Partial contents: Translatory waves in open channels : theoretical analysis of movement caused by changing the depth of water / Horace W. King --Checks on the model law for hydraulic structures / Morrough P. O'Brien.

Box 1, Item 9  Flood waves 1935-1938
               Physical Description: 1 folder (11 pieces)
               Scope and Contents
               Partial Contents: Die Wasserstandsvorhersage fur Wien = Water level forecasting for Vienna / Viktor Felber --Beitrag und Beispiel zur Schwallberechnung = Contribution and example for flood computation / Franz Vögerl --Slide rule for routing floods through storage reservoirs or lakes / Chesley J. Posey Velocity of flood crests --O'Brien's notes on these papers.

Box 1, Item 10 O'Brien's manuscript computations on "Wasserschwall und Wassersunk" by Philipp Forchheimer 1924?
                 Physical Description: 26 leaves
Box 1, Item 11  Karman, Theodore von. Letter to M. P. O'Brien on theory of flood waves 1937
   Physical Description: 1 folder (3 pieces)

Box 1, Item 12  Kramer, E. W. Report to Federal Power Commission on persistence of waves in New and Kanawha rivers due to regulation in flow at Radford Reservoir 1936
   Physical Description: 1 folder (6 pieces)
   Scope and Contents
   Includes correspondence and data to M. P. O'Brien, prepared in connection with the study of waves on the Pit-Sacramento and Klamath Rivers.

Box 1, Item 13  Allen, J. Experiments on water waves of translation in small channels 1934
   Physical Description: p. 754-768

Box 1, Item 14  Selim, Mohamed Ahmed. Flood waves 1940
   Physical Description: 33 leaves, holograph, bound

Box 1, Item 15  Johnson, J. W. Notes on unsteady or variable flow surges in channels 1934
   Physical Description: 1 folder (45 pieces)
   Scope and Contents
   Partial Contents: Checks on the model law for hydraulic structures / Morrough P. O'Brien --Velocity-head correction for hydraulic flow / Morrough P. O'Brien and Joe W. Johnson.

Box 1, Item 16  Pacific Coast photographs 1933-1937
   Physical Description: 28 photographs and postcards
   Scope and Contents
   Includes: Santa Barbara; Ventura; Long Beach; San Francisco; Russian River (mouth); Laguna Beach; La Jolla; Del Mar; Carmel Beach; Berkeley; Ensenada (Baja California, Mexico).

Box 1, Item 17  Beach erosion Pacific Coast, San Francisco entrance and adjacent beaches, Russian River to Santa Cruz excluding Half Moon Bay 1930-1933
   Physical Description: 1 volume, bound
   Scope and Contents
   Includes news clippings and photographs.

Box 1, Item 18  Siuslaw River, Oregon 1929
   Physical Description: 17 leaves, bound : photographs, maps

Box 1, Item 19  Model of Neches Canal 1935
   Physical Description: 1 folder (16 pieces), Includes correspondence with W. W. McLaughlin and E. W. Kramer on the Lower Neches Valley project and mapages

Box 1, Item 20  Centrifugal pumps (reversed flow) 1930-1932
   Physical Description: 1 folder (97 pieces)
   Scope and Contents
   Includes correspondence, graphs, calculations, etc. Partial contents: Reversed flow through centrifugal pumps / Morrough P. O'Brien and James E. Gosline --Reversed rotation of centrifugal pumps / Morrough P. O'Brien and James E. Gosline.
<table>
<thead>
<tr>
<th>Box 2, Item 21</th>
<th><strong>Surges in pipelines 1932-1939</strong></th>
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<tr>
<td><strong>Physical Description:</strong> 1 folder (107 pieces)</td>
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<tr>
<td><strong>Scope and Contents</strong></td>
<td></td>
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<tr>
<td>Includes correspondence, notes, graphs, data, etc. Partial Contents: Flow of water in 54-in. concrete conduit, Denver, Colo. / Fred C. Scobey --New emergency water supply for City of Santa Barbara / Raymond A. Hill.</td>
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<th>Box 2, Item 22</th>
<th><strong>Pine Canyon and Morris Dams, California 1937</strong></th>
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<td><strong>Physical Description:</strong> 1 folder (7 pieces)</td>
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<td><strong>Scope and Contents</strong></td>
<td></td>
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<tr>
<td>Includes graphs, correspondence, maps, etc.</td>
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<tr>
<th>Box 2, Item 23</th>
<th><strong>Problems on Guadalupe and Calero spillways 1935</strong></th>
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<td><strong>Physical Description:</strong> 1 folder (7 pieces)</td>
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<td><strong>Scope and Contents</strong></td>
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<tr>
<th>Box 2, Item 24</th>
<th><strong>Scobey, Fred C. Notes on conduit-capacity studies of interest to World Water Power Conference 1934</strong></th>
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<tr>
<td><strong>Physical Description:</strong> 1 folder (5 pieces)</td>
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<td><strong>Scope and Contents</strong></td>
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<tr>
<td>Includes: On the use of vd/1 as a parameter in the practice of hydraulics / by E. Parry.</td>
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<tr>
<th>Box 2, Item 25</th>
<th><strong>Steady non-uniform flow, special structures : notes of M. P. O'Brien 1927-1933</strong></th>
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<td><strong>Physical Description:</strong> 1 folder (28 pieces)</td>
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<td><strong>Scope and Contents</strong></td>
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<tr>
<td>Partial contents: Improved transition adds to flume capacity / J. A. Fraps --Spillway discharge capacity of Wilson Dam / Louis G. Puls --Tests of broad-crested weirs / James G. Woodburn --Pondage important factor in spillway design / Melvin D. Casler.</td>
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<tr>
<th>Box 2, Item 26</th>
<th><strong>Steady non-uniform flow, backwater curves : notes of M. P. O'Brien 1932-1937</strong></th>
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<tr>
<td><strong>Physical Description:</strong> 1 folder (48 pieces)</td>
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<td><strong>Scope and Contents</strong></td>
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<tr>
<th>Box 2, Item 27</th>
<th><strong>Analyzing hydraulic models for effects of distortion 1932</strong></th>
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<td><strong>Physical Description:</strong> 1 folder (5 pieces)</td>
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<td><strong>Scope and Contents</strong></td>
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<td>Includes correspondence with Julian Hinds on free overfall at the end of a horizontal channel, 1933.</td>
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<th>Box 2, Item 28</th>
<th><strong>Notes on velocity distribution in open channels 1933-1937</strong></th>
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<td><strong>Physical Description:</strong> 1 volume, bound</td>
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<td><strong>Scope and Contents</strong></td>
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<td>Includes correspondence, graphs, and computations.</td>
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<th>Box 2, Item 29</th>
<th><strong>Notes on circular and triangular weirs 1927-1934</strong></th>
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<td><strong>Physical Description:</strong> 1 volume, bound</td>
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<td><strong>Scope and Contents</strong></td>
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<tr>
<td>Includes papers, graphs, and computations.</td>
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</table>
Box 2, Item 30  Memorandum re checks on the model law for hydraulic structures 1932
Physical Description: 11 leaves, holograph

Box 2, Item 31  Models of estuaries 1935
Physical Description: 18 leaves

Box 2, Item 32  Discussion of "The motion of water through sluices and scale models" by Hurst and Watt undated
Physical Description: 10 leaves, holograph

Box 2, Item 33  Rangoon tidal model: correspondence with J. G. Brown, of Sir Alexander Gibb Partners, London 1933-1934
Physical Description: 1 folder (4 pieces)

Box 2, Item 34  Speeches on hydraulic engineering 1929
Physical Description: 1 folder (2 pieces)
Scope and Contents
Presented at Student Chapter, American Society of Mechanical Engineers.

Box 2, Item 34-1  Photographs of model tests of Pine Canyon Dam and Los Angeles County Flood Control District Dams no. 1 and no. 2
Physical Description: 1 folder (13 photographs and 6 pieces)

Box 2, Item 35  Siphon spillway at the Oakdale development of the Indiana Hydro Electric Power Company 1925-1935
Physical Description: 1 folder (10 pieces)
Scope and Contents
Includes correspondence, graphs, etc. Partial contents: Results of tests on siphon spillways for large flume / T. J. Corwin and A. W. Kidder --Siphon-spillway models tested against prototypes / Herbert H. Wheaton.

Box 2, Item 36  Siphon tests 1932-1935
Physical Description: 1 folder (25 pieces)
Scope and Contents
Includes calculations on siphons, correspondence with Libby's Canal Ranch, etc.

Skin friction of rough surfaces 1930
Physical Description: 1 folder (8 pieces)
Scope and Contents
Includes: "Experimental investigations on the problem of roughness" by H. Schlichting, translated by Josef Stauffer; and O'Brien's calculations on both papers.

Box 3, Item 38  Surges in hydraulic pipe 1929?
Physical Description: 1 folder (16 pieces)
Scope and Contents
Partial contents: Gibson method of measurement in pipes of variable areas --Vibration and extension of a ring under hydraulic pressures --Pressures in penstocks caused by the gradual closure of gates / Norman R. Gibson.
<table>
<thead>
<tr>
<th>Box 3, Item</th>
<th>Title</th>
<th>Physical Description</th>
<th>Scope and Contents</th>
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<tbody>
<tr>
<td>40</td>
<td>Forthmann, E. About turbulent diffusion of flow lines 1934</td>
<td>12 leaves</td>
<td>Translated from the German; originally published in Ingenieur Archiv, Vol. 5, no. 1 (February 1934), pages 42-54.</td>
</tr>
<tr>
<td>42</td>
<td>Von Karman, Theodore. Similarity of turbulent flow 1935</td>
<td>4 leaves</td>
<td></td>
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<tr>
<td>43</td>
<td>Small eddies : correspondence and diagrams for Klamath County Chamber of Commerce 1937</td>
<td>1 folder (4 pieces, includes 1 photograph)</td>
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<tr>
<td>44</td>
<td>Notes on turbulence data to September 1935 1935</td>
<td>1 folder (4 pieces, approximately 30 leaves)</td>
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<tr>
<td>45</td>
<td>Liceni, Franco. On the influence of Reynold’s number on the turbulent flow in the tubes 1935</td>
<td>132 leaves, holograph</td>
<td>Includes original paper in Italian &quot;Sopra l’influenza del numero di Reynolds sull’efflusso turbolento nei tubi.&quot;</td>
</tr>
<tr>
<td>47</td>
<td>Burgers, E. M., and M. A. Velikanov. The study of correlation of velocity pulsations in various points of a stream; translated from the Russian by Soomii 1934</td>
<td>6 leaves</td>
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<tr>
<td>Box 3, Item 49</td>
<td>American Geophysical Union. Special Committee on Flood Waves. Sub-committee II. Flood waves : bibliography 1937</td>
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<td>Physical Description: 1 envelope</td>
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<td>Box 3, Item 50</td>
<td>Miscellaneous reports on flood waves 1932-1937</td>
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<td>Physical Description: 1 folder (4 pieces)</td>
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<td></td>
<td>Scope and Contents</td>
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<td></td>
<td>Physical Description: 7 pages</td>
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<td>Box 3, Item 52</td>
<td>Model study of hydraulic forces on caisson for Pier 5, Tacoma Narrows Bridge 1939</td>
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<tr>
<td></td>
<td>Physical Description: 31 leaves, bound : photographs and 1 folder (1 notebook and 21 pieces) Folder contains background materials, photographic negatives, data, graphs, correspondence, news clippings, etc</td>
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<tr>
<td></td>
<td>Physical Description: 63 pages</td>
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<td>Box 4, Item 53</td>
<td>Models of estuaries 1934</td>
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<td>Physical Description: 35 leaves</td>
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<td>Box 4, Item 54</td>
<td>Proposed design, T-10 armored amphibian tank 1942</td>
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<td></td>
<td>Physical Description: 100 leaves, bound and 1 envelope of drawings : photographs</td>
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<td>Physical Description: p. 343-383</td>
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<tr>
<td></td>
<td>Physical Description: p. 167-190 and 2 notebooks of data and 1 folder (14 pieces) of background material WRCA has another copy: 68.2 F4</td>
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<tr>
<td>Box 5, Item 57</td>
<td>O'Brien, M. P., and Joe W. Johnson. The velocity-head correction 1934?</td>
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<tr>
<td></td>
<td>Physical Description: 12 leaves</td>
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<tr>
<td></td>
<td>Physical Description: 58 pages and 2 folders (ms. copy and background materials)</td>
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</table>
Box 5, Item 59  
**A report on sand movement and beach erosion along the Pacific Coast of the United States. 1931.**  
Physical Description: 17 volumes, bound  
Scope and Contents  
Includes portions of the original 7 volumes; see O'Brien 63 for photocopy of published report.  

Box 6, Item 60  
**O'Brien, M. P., and George H. Hickox. Elements of fluid mechanics with applications to hydraulics. Berkeley : University of California, 1934.**  
Physical Description: 1 volume (approximately 200 leaves), bound

Box 6, Item 61  
**Roles of hydraulic laboratories in geophysical research 1936**  
Physical Description: 4 leaves

Box 6, Item 62  
**Forest Service program : transient conditions, storage in banks, flood waves on steep gradients 1938-1940**  
Physical Description: 1 folder (20 pieces)  
Scope and Contents  
Work done for California Forest and Range Experiment Station, San Dimas; includes correspondence, reports, data, maps, etc. Partial contents: Recreational use of forest waters / C. A. Betts --On the theory of the chemical method for gauging discharge / V. M. Makkveyev --A new method for determining the flow in natural and artificial water courses / J. Aastad and R. Sognen --The San Dimas stream gaging flume : a code for dimensions, installation and operation as developed by the California Forest and Range Experiment Station, U.S. Forest Service. Washington : U.S. GPO, 1938? --"The San Dimas stream-gaging flume" by Munson and Bermel / comments by H. G. Wilm.

Box 6, Item 63  
**A report on sand movement and beach erosion along the Pacific Coast of the United States 1931**  
Physical Description: 3 volumes, bound (photocopy)  
Scope and Contents  

Box 6, Item 64  
**Studies of inlets 1969**  
Physical Description: 5 leaves, bound  
Scope and Contents  
Includes holograph and typescript drafts.

Box 6, Item 65  
**Coefficient of discharge, inlets 1971**  
Physical Description: 1 volume (approximately 30 leaves), holograph, bound

Box 6, Item 66  
Physical Description: 52 leaves WRCA has another copy: 25.6 K1
**Box 6, Item 66-1**  
**Tidal inlets on sandy shores 1971**

Physical Description: 10 volumes, bound  
Scope and Contents


**Box 6, Item 67**  
**Biographic material, reprints of articles by and bibliography of the works of Osborne Reynolds 1853-1970**

Physical Description: 1 folder (9 pieces)  
Scope and Contents


**Box 6, Item 68**  
**Semi-monthly progress reports of the field party at Long Branch, New Jersey, May to July, 1929: report to Beach Erosion Board 1929**

Physical Description: 1 volume (approximately 40 leaves), bound

**Box 8, Item 69**  
**Fellenius, Wolmar. International Cooperation for Experimental Work in Hydraulics 1935**

Physical Description: 1 folder (4 pieces)  
Scope and Contents

Translation of "Internationale Zusammenarbeit fur das wasserbauliche Versuchswesen." This organization was the predecessor of the International Association for Hydraulic Research.

**Box 8, Item 70**  
**A critical review of the E. I. Brown analysis of "Inlets on sandy coasts." Berkeley: Hydraulic Engineering Laboratory, University of California, 1971. (Technical report; HEL-24-10).**

Physical Description: 1 volume (approximately 40 leaves)  
Scope and Contents

With: Inlets on sandy coasts / Earl I. Brown --The stability of tidal inlets / Francis F. Escoffier. WRCA has another copy: 57 K1-1

**Box 8, Item 71**  
**Newspaper clippings on dredging at Santa Barbara Harbor, April 1938-August 1939 1938-1939**

Physical Description: 1 volume, bound

**Box 8, Item 72**  
**Miscellaneous notes on tidal inlets 1972**

Physical Description: 1 volume (approximately 240 leaves), bound

**Box 8, Item 73**  
**United States. Army. Corps of Engineers. Los Angeles District. Tidal prism and entrance channel area data, Morro Bay, Calif 1967?**

Physical Description: 1 volume, bound

**Box 8, Item 74**  
**Empirical hydraulic relationships for tidal inlets 1971**

Physical Description: 1 volume (14 leaves), bound
Box 8, Item 75  
**Tendency for tidal currents to move sand into or out of an entrance 1971**  
Physical Description: 1 volume (50 leaves), holograph, bound

Box 8, Item 76  
**Original basic data on equilibrium areas of inlets 1966**  
Physical Description: 1 volume, bound

Box 9, Item 78  
**Notes on hydraulic machinery : for Mechanical Engineering 126, University of California, Berkeley 1938**  
Physical Description: 3 volumes, bound  
Scope and Contents  
Contents: Hydraulic machinery problems --Reaction turbines --Hydrology, Stream flow.

Box 9, Item 79  
Physical Description: 2 volumes, bound

Box 9, Item 80  
**Studies of sand movement and beach erosion 1930**  
Physical Description: 14 leaves, bound

Box 9, Item 81  
**Characteristics of ocean waves 1936**  
Physical Description: 1 volume (approximately 20 leaves), bound

Box 9, Item 82  
**O’Brien, M. P., and R. G. Folsom. Fixed plant for interception dredging and beach restoration, Santa Barbara, Calif 1940**  
Physical Description: 3 leaves, bound : drawings

Box 10, Item 83  
**River and harbor hydraulics : lecture notes for Mechanical Engineering 275, Fall 1938, University of California, Berkeley 1938**  
Physical Description: 1 volume, bound and 1 folder (5 pieces)

Box 10, Item 84  
**Dorton, R. M. Supplemental report no. 2 on economic advantages of breakwater for Monterey Harbor 1928**  
Physical Description: 23 leaves, bound and 1 folder (4 pieces)  
Scope and Contents  
Includes file of correspondence

Box 10, Item 85  
**Woolley, J. A. Report on proposed harbor development for recreational and defense areas at Anaheim Bay, Seal Beach, California 1941**  
Physical Description: 1 volume, bound : maps, photographs  
Scope and Contents  
Includes: Report on protection of ocean shore between Anaheim Bay entrance channel and easterly city limits of the City of Seal Beach, California.

Box 10, Item 86  
**Sonderegger, A. L. Report on plans and specifications prepared by J. A. Woolley, consulting engineer, on dredging, timber groins, stone jetty, beach fill and appurtenances at Anaheim Bay entrance 1941**  
Physical Description: 6 leaves, bound  
Scope and Contents  
Prepared for the City of Seal Beach, California.
   Physical Description: 35 pages : maps
   Scope and Contents
   Includes BCDC progress report, 1967.

Box 10, Item 88  Grant, Ulysses S., and W. B. Myers. Preliminary geological report on a portion of Terminal Island and the Seaside Park area, Long Beach, California 1940
   Physical Description: 1 volume (approximately 100 leaves), bound : maps, photographs (including aerial photos)

Box 10, Item 89  Grant, Ulysses S., and W. B. Myers. Preliminary report on a geological investigation of the Long Beach tidelands 1939
   Physical Description: 1 volume (approximately 20 leaves), bound : maps, photographs

Box 10, Item 90  Grant, Ulysses S., and W. B. Myers. Preliminary report on the lower part of the old San Gabriel River channel, Long Beach, California 1939
   Physical Description: 1 volume (approximately 40 leaves), bound : maps, photographs

Box 11, Item 91  Board of Harbor Commissioners, Long Beach, California : regarding Long Beach tidelands 1939-1949
   Physical Description: 2 volumes, bound : maps
   Scope and Contents
   Contents: Technical material to March 15, 1939 -- Correspondence to May 1, 1940.

Box 11, Item 92  Long Beach tideland litigation 1939
   Physical Description: 3 volumes, bound Contents: v. 1. Geology, U.S.C. G.S. -- v. 2. Tides to end of technical notes -- v. 3. Survey of Bancroft Library beach erosion reports
   Scope and Contents
   Includes reports, memorandum, correspondence, diagrams, etc., regarding Long Beach tideland litigation.

Box 12, Item 93  Harbor maintenance and beach restoration at Santa Barbara, California 1938-1941
   Physical Description: 3 volumes, bound and 2 folders (42 pieces) Contents: To September 12, 1938 -- January 31-October 5, 1940 -- October 5, 1940-May 9, 1941
   Scope and Contents
   Includes file of correspondence, newspaper clippings, photographs, etc., regarding Santa Barbara harbor.

Box 12, Item 94  Maintenance dredging and beach restoration at Santa Barbara, California 1935-1938
   Physical Description: 3 volumes, bound Contents: May 1935-October 1937 -- Correspondence to December 16, 1937; Report of Leeds, Verrill and Fitzgerald; Information on dredges and dredging costs -- Correspondence to April 8, 1938
   Scope and Contents
   Includes: Report of Board of Engineers on restoration and maintenance of beaches and harbor, Santa Barbara, Calif., June 30, 1936 / by Charles T. Leeds, G. E. Verrill, and Gerald C. Fitzgerald.
Box 13, Item 95  Maintenance and improvement of existing river and harbor works: specifications for dredging, Santa Barbara harbor, California. Los Angeles: U.S. Engineer Office 1940
   Physical Description: 1 volume (approximately 25 pages), bound and 1 folder (38 pieces)
   Scope and Contents
   Includes file of correspondence and photographs regarding Santa Barbara dredging.

Box 13, Item 96  Correspondence regarding Surfside Colony beach protection 1941
   Physical Description: 1 folder (17 pieces)
   Scope and Contents
   Includes correspondence with Alfred Barstow and J. A. Woolley.

Box 13, Item 97  Fixed pumping plant, Santa Barbara, California: correspondence, January-June, 1942 1942
   Physical Description: 1 volume, bound: maps and 1 folder (4 pieces)
   Scope and Contents
   Includes copy of report on preliminary design, longhand notations on report, priorities critical list, notice to applicant for preference rating, plan of maintenance considered.

Box 13, Item 98  River and harbor hydraulics: lecture notes for Mechanical Engineering 275-A, University of California, Berkeley 1938
   Physical Description: 1 volume, bound

Box 14, Item 99  California Beaches Association. Transcript of meeting of the California Beaches Association held March 28 and May 16, 1936 1936
   Physical Description: 1 volume (loose-leaf, approximately 165 leaves)

Box 14, Item 100  California Beaches Association. California Beaches Association monthly bulletin 1936-1937
   Physical Description: 1 folder (13 volumes) Contents: Vol. 1, no. 1 (January 1936)-v. 2, no. 1 (January-February 1937)

Box 14, Item 101  Shoreline Planning Association of California, Inc. California coast 1949-1950
   Physical Description: 1 folder (6 volumes) Contents: Vol. 3, no. 3 (August 1949)-v. 4, no. 4 (December 1950)

Box 14, Item 102  American Shore and Beach Preservation Association. Our national shoreline: a priceless heritage 1940-1964
   Physical Description: 1 folder (11 pieces)
   Scope and Contents
   Partial contents: Our national shoreline and preservation --History of the American Shore and Beach Preservation Association --Our shrinking shoreline.

Box 14, Item 103-1  Saving the American beach: a position paper by concerned coastal geologists; results of the Skidaway Institute of Oceanography Conference on America's Eroding Shoreline: the need for geologic input into shoreline management, decisions and strategy, 25-27 March, 1981, Savannah, Georgia / Orrin H. Pilkey, Jr. and James D. Howard, conveners. 1981?
   Physical Description: 16 leaves, bound WRCA has another copy: 25.82 M1
Box 14, Item 103-2
Memorandum on the objectives of the American Shore and Beach Preservation Association 1981

Physical Description: 1 volume (approximately 30 leaves), bound

Scope and Contents

Box 15, Item 104

Physical Description: 56 pages : mapages

Box 15, Item 104-1

Physical Description: 55 pages : map, photographs

Box 15, Item 104-2

Physical Description: 154 pages

Scope and Contents
Includes appended materials regarding the U.S. Beach Erosion Board action on the subject report.

Box 15, Item 105

Physical Description: 51 pages : mapages

Box 15, Item 105-1

Physical Description: 56 pages : mapages

Box 15, Item 105-2

Physical Description: 2 volumes, bound : map and 1 folder (18 pieces)

Scope and Contents
Includes revisions made April 29, 1949 and correspondence relating to U.S. Beach Erosion Board action on the subject report.

Box 16, Item 106

Physical Description: 8 pages : mapages
Physical Description: 4 volumes, bound : maps and 1 folder (3 pieces)  
Scope and Contents  
Includes supplementary enclosures and revisions made for U.S. Beach Erosion Board members. |
Physical Description: 37 pages : maps |
Physical Description: 8 pages |
Physical Description: 2 volumes, bound : maps and 1 folder (6 pieces)  
Scope and Contents  
Includes supplementary enclosures and revisions made for U.S. Beach Erosion Board members. |
Physical Description: 46 pages : map WRCA has another copy: G4609 H4 |
Physical Description: 1 volume (approximately 50 pages) and 17 maps |
| Box 17, Item 108 | Report on proposed improvements at Santa Barbara Harbor 1934  
Physical Description: 1 volume (approximately 35 leaves), bound |
Physical Description: 51 pages : maps |
<table>
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<tr>
<th>Box 17,</th>
<th>Item 108-1 Suppl</th>
<th>United States. Beach Erosion Board. Supplementary report, beach erosion study at Santa Barbara, California. Washington : The Board, 1941.</th>
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<th>Fixed pumping plant, Santa Barbara, California : correspondence; enabling legislation for California Beach Erosion Board and California Shore Protection Board 1940-1941</th>
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<th>Preliminary design of a fixed pumping plant for harbor maintenance and beach restoration at Santa Barbara, California 1940</th>
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<td>Includes memorandum for U.S. Beach Erosion Board.</td>
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Box 18, Item 110  

Physical Description: 41 pages : maps

Box 18, Item 110-1  
**United States. Beach Erosion Board. Beach erosion study, Orange County, Calif** 1938-1939  

Physical Description: 1 folder (58 pieces)  
Scope and Contents  
Draft and preliminary materials to report published (title as given above) as House Document 637, 76th Congress, 3d Session, 1940.

Box 18, Item 110-2  
**United States. Army. Corps of Engineers. Orange County, California, Appendix V, Phase I, Beach Erosion Control Study : letter from the Secretary of the Army transmitting a letter from the Chief of Engineers, Department of the Army, dated May 9, 1960 .. on a cooperative beach erosion control study of shore from Newport Bay to San Mateo Creek Washington : U.S. GPO, 1960. (House document (United States. Congress (86th, 2nd session : 1960). House) ; no. 398).**

Physical Description: 67 pages : maps

Box 18, Item 110-3  

Physical Description: 1 volume, bound : maps

Box 19, Item 111  

Physical Description: 25 pages : maps

Box 19, Item 111-1  
**United States. Army. Corps of Engineers. Oceanside, Ocean Beach, Imperial Beach, and Coronado, San Diego County, Calif., beach erosion control study : letter from the Secretary of the Army transmitting a letter from the Chief of Engineers, United States Army, dated February 28, 1956 on a cooperative beach erosion control study of Oceanside, Ocean Beach, Imperial Beach, and Coronado Washington : U.S. GPO, 1957. (House document (United States. Congress (84th, 2d session : 1956). House) ; no. 399).**

Physical Description: 56 pages : maps

Box 19, Item 111-2  
**Frye, Arthur H., Jr. Beach erosion control report on cooperative study of Oceanside, Ocean Beach, Imperial Beach, and Coronado, San Diego County, California. Los Angeles : U.S. Army Corps of Engineers, Los Angeles District, 1955.**

Physical Description: 1 volume, bound : maps and 1 folder (14 pieces)  
Scope and Contents  
Includes file of supplementary material developed by U.S. Beach Erosion Board in preparation of this report.

Physical Description: 82 pages, bound : maps and 1 folder (6 pieces)
Scope and Contents
"To accompany review of reports, navigation, Los Angeles and Long Beach Harbors, Calif., with a view to extending the existing breakwater and to improving Bixby Slough and Laguna Dominguez, dated July 1, 1948." Includes file of material accompanying report: Draft "Beach erosion study, Long Beach, California," January 16, 1942, U.S. Beach Erosion Board; plates showing changes in offshore depths, existing and proposed structures, and vicinity map.


Physical Description: 50 pages, bound : maps and 1 folder (6 pieces)
Scope and Contents
Includes file of material accompanying report: "Interim report on harbor-improvement, Camp Pendleton, California," March 25, 1953. WRCA has another copy: MS 97/1 C42 1950.


Physical Description: 1 volume (approximately 75 leaves), bound and 1 folder (8 pieces)
Scope and Contents
Includes file of correspondence and a U.S. Engineer Office map, "Jetties at entrance to Humboldt Bay, Cal.," dated August 29, 1919.


Physical Description: (House document (United States. Congress (87th, 1st session : 1962). House) ; no. 458). 80 pages : mapages


Physical Description: 1 volume (approximately 75 leaves), bound


Physical Description: 1 volume, bound

United States. Beach Erosion Board. Study at Ventura and Hueneme, California 1940

Physical Description: 26 leaves, bound

United States. Army. Corps of Engineers. Appendix I, coast of California, Carpinteria to Point Mugu, beach erosion control study : letter from the Secretary of the Army transmitting a letter from the Chief of Engineers, United States Army, dated June 6, 1952 on a cooperative beach erosion control study of the Pacific Coast line of the State of California Washington : U.S. GPO, 1953.

Physical Description: (House document (United States. Congress (83rd, 1st session : 1952). House) ; no. 29). 145 pages : maps


Physical Description: 1 volume, bound


Physical Description: 3 volumes, bound : maps

Box 21, Item 121-1  United States. Beach Erosion Board. Beach erosion control report on cooperative study of Pacific coast line of the State of California : correspondence, endorsements, corrections to appendices I and II, Point Mugu to San Pedro breakwater 1950-1951

Physical Description: 1 folder (12 pieces)


Physical Description: 167 pages : maps


Physical Description: 169 pages : maps


Physical Description: 1 volume, bound : maps


Physical Description: 1 volume, bound : maps


Physical Description: 19 pages : mapages

Physical Description: 104 leaves : maps, photographs

Scope and Contents

Includes memorandum to the Shore Protection Board on the report, December 17, 1940.


Physical Description: 25 leaves : 10 folded maps


Physical Description: 178 pages : maps


Physical Description: 2 volumes : maps, photographs and 1 folder (2 pieces)

Scope and Contents

Includes file of supplementary material by U.S. Shore Protection Board dated December 17, 1940.


Physical Description: 27 pages : maps

Box 23, Item 131 United States. Shore Protection Board. Grays Harbor, Washington 1945

Physical Description: 26 leaves, bound : maps


Physical Description: 29 pages : 4 maps


Physical Description: 2 volumes, bound : maps, photographs and 1 folder (3 pieces)

Scope and Contents

Includes file of material by the U.S. Beach Erosion Board dated April 17, 1950, which accompanies report.


Physical Description: 55 pages : maps

Physical Description: 55 pages


Physical Description: 2 volumes : maps


Physical Description: 2 volumes : maps


Physical Description: 62 pages, bound : maps


Physical Description: 1 volume, bound : maps


Physical Description: 110 pages : maps


Physical Description: 44 pages : maps


Physical Description: 2 volumes, bound : maps and 1 folder (4 pieces)

Scope and Contents
Includes file of supplementary memoranda and a summary report by the U.S. Beach Erosion Board.
Box 24, Item 144  

Physical Description: 34 leaves, bound : maps

Box 24, Item 145  

Physical Description: 80 leaves : maps

Box 25, Item 146  
**Bibliography, river hydraulics, sediment transport. 1918.**

Physical Description: approximately 400 leaves, bound
Scope and Contents
Bibliography assembled for unidentified "investigation" which presumably was published. Includes both the citations "referred to in parts I and II of the text" as well as those from which quotations were not taken. Emphasis on China, Grand Canal, Yellow River and Mississippi River.

Box 25, Item 147  
**Cost estimates of by-passing sand at selected inlets. 1949.**

Physical Description: 1 folder (7 pieces)
Scope and Contents
Includes data made available to the U.S. Beach Erosion Board on Santa Barbara and Port Hueneme Harbors, Calif.; Lake Worth Inlet, Florida; Cold Spring Inlet, New Jersey; and Fire Island Inlet, N.Y.

Box 25, Item 148  
**Santa Monica beach problems, littoral drift: correspondence, news clippings, photographs 1936-1937**

Physical Description: 1 folder (9 pieces)
Scope and Contents
Correspondence addressed to Morrough P. O'Brien, Dean, College of Engineering, University of California at Berkeley.

Box 25, Item 149  

Physical Description: approximately 120 leaves

Box 25, Item 150  
**Correspondence with Joe W. Johnson regarding coastal engineering investigations 1967-1974**

Physical Description: approximately 250 leaves, bound

Box 25, Item 151  
**Miscellaneous materials pertaining to U.S. Beach Erosion Board studies and reports 1944-1947**

Physical Description: 8 folders (approximately 175 pieces) Includes correspondence, news clippings, reports, memoranda, etc
Scope and Contents

Box 25, Item 152  

Physical Description: 2 volumes, bound : maps, photographs
Box 26, Item 153a  

   Physical Description: 32 pages and 5 photographs (col. and b

Box 26, Item 153b  

   Physical Description: 1 folder (2 pieces) and 18 photographs

Box 26, Item 154  

   Physical Description: 60 pages, bound: maps

Box 26, Item 155  

   Physical Description: 1 volume, bound: maps