



THE FIRE INSURANCE RATING  
ORGANIZATION OF N. J.  
ENGINEERING DEPARTMENT  
NEWARK 2, N. J.

# **Edgewater Borough** **Bergen County, New Jersey**

MAY 31, 1946

## **KEY**

PROTECTED FIRE ZONE: Shown in Green.

NOTE.—For description of fire protection, etc., see other side.

Elevations range from 0 to 110 feet above mean sea level  
Water mains 8 inches and larger in diameter  
Water mains 6 inches in diameter  
Water mains 4 inches in diameter

Fire hydrants shown thus

Gate valves shown thus

Fire house shown thus

Fire apparatus designated by symbols thus:

(V) Automobile combination pumper and hose car  
(L) Ladder truck  
(A) Ambulance, Squad or Auxiliary car  
(Q) Booster tank or tanks on above



## EDGEWATER BOROUGH, BERGEN COUNTY, NEW JERSEY.

Population — 1940 Census — 4,028.

**IN GENERAL:** Located on the Hudson River opposite New York at about 125th Street. The borough embraces a narrow strip of land at the foot of the Palisades about 3.3 miles long and 0.2 to 0.5 miles wide. It is mainly a manufacturing community with 16 industries employing about 10,000. Area about 0.7 square miles. Elevations range from 0 to 110 feet. Roads are mainly concrete and macadam in good condition. Heavy traffic on main thoroughfares and steep grades could interfere with the response and operation of the fire department.

**WATER SUPPLY:** Water for domestic and fire protection purposes is furnished by the Hackensack Water Company which owns and operates the supply works, distribution system, and appurtenances and supplies water to all or part of 51 other municipalities in Hudson and Bergen Counties. The entire supply is taken from the Hackensack River about 12 miles northwest of Edgewater at the New Milford Pumping Station in the north central section of the area served, where it is pumped to purification works and re-pumped continuously to low and high services with two distributing reservoirs on the low service in Weehawken. The portion of the system in Edgewater is on the Weehawken Low Service supplied from Reservoirs No. 1 and No. 2, and by direct pumpage from the New Milford Plant through pressure regulators. The supply is dependent in part on a single 36-inch main sub-divided into 12-inch and 30-inch outside the borough. A 16-inch emergency connection provides gravity feed from Reservoir No. 3 on the Weehawken High Service in Fairview and a 6-inch emergency connection at the extreme north end of the borough provides an emergency supply from the New Milford High Service. For a detailed description of the Hackensack Water Company see report and map No. 59. **Distribution System:** In one service consisting primarily of parallel 12-inch and 30-inch lines connecting with a single 12-inch artery supplying fairly complete 6-inch gridiron extending to the west end for an average distance of about 2 blocks. See map and description above. **Consumption:** The average and maximum daily consumption during 1945 in the entire territory served (84,266 live services) were 39,221 and 46,526 million gallons respectively. The maximum daily consumption was 39,526 and 8.65 million gallons respectively on the low and high services. The average daily consumption was 32,914 and 6,307 million gallons respectively on the low and high services. On December 31st, 1945 there were 647 services in Edgewater, all of which were metered. It is estimated that 8.82% of the total consumption is used in Edgewater. **Pipe:** All pipe is cast iron, tar coated, bell and spigot joint, laid with about 3½-foot minimum cover. Total length, exclusive of 30-inch and 24-inch main, 40,964 feet; 2.6% 16-inch, 41.4% 12-inch, 3.7% 8-inch, and 52.3% 6-inch. No trouble reported from electrolysis, and freezing during severe weather has been confined to service connections. **Gate Valves:** There are 110 within the borough of various makes set with valve boxes at grade, except that large valves are set in brick vaults. Direction of operation is uniform. Inspection of valves is continuous resulting in about one complete annual inspection of all valves and semi-annual inspections of major control valves. **Hydrants:** There are 131 within the borough of Smith and Corey makes of standard type; 14 have one 2½-inch and one 4½-inch outlets and 4-inch branches. The balance have two 2½-inch and one 4½-inch outlets and 6-inch branches. Branches are gated in all instances. All outlet threads are National Standard. Hydrants are inspected semi-annually, after use, and frequently during freezing weather. At time of inspection those operated were found to be in good condition. **Pressures:** Readings taken at 4 well distributed hydrants showed pressures ranging from 48 to 72 pounds with an average of 58.25 pounds. **Fire Flow Tests:** Probable supply available for fire protection purposes was measured on November 23rd, 1945 by means of Pitot tube. Location of hydrant, discharge in gallons per minute, pressure before flow, and pressure during flow were as follows:

River Rd. 700 ft. S. of Mercedes Pl., 2,530—65—48.  
Undercliff Ave. 200 ft. N. of Vreeland Ave., 1,220—48—34.  
River Rd. and Dempsey Ave., 2,800—72—62.  
River Rd. and Palisade Ter., 960—48—20.

**FIRE DEPARTMENT:** A full-paid organization under the control of the fire commissioner who is a member of the common council. He is elected by popular vote for a 3-year term. Total membership 29 including a chief, deputy chief, 1 captain and 4 lieutenants. Members are appointed to the department by the mayor after a physical examination and are approved by the common council and subject to a 6-month probationary period. Officers are appointed on the basis of seniority by the fire commissioner or mayor and are approved by the common council. Men are divided into two platoons on duty alternately 10 and 14 hours every week. No meal periods are allowed. Firemen receive 14 to 21 days annual vacation according to rank during which period the department is short one man per platoon. Off-shift men are required to respond to all second alarms, notification of which is by telephone. An average of 8 off-shift men respond. There are no restrictions as regards the whereabouts of off-shift members. A pension fund for paid men is established by state law and is supported by assessments from salaries and appropriations by the city. Members may retire on half salary in case of total disability or after 20 years of service if 50 years of age. They are protected by State Tenure of Office Act. City owns apparatus and equipment and appropriated \$109,600 for the support of the department in 1946. **Companies—Engine Company No. 1:** Membership 7 including 2 lieutenants. Located on River Road at Palisade Terrace. Building is a 2-story joisted brick structure with metal covered wood roof, concrete apparatus floor, steam heat, electric lights, and 2 telephones. **Equipment:** One 1941 Mack 1,250-g.p.m. triple combination pumping engine carrying two 75-gallon booster tanks, 250 feet of 1½-inch hose, 1,450 feet of 2½-inch hose, 200 feet of 3-inch hose, 1 deck gun, 2 short ladders, and complete minor equipment. **Headquarters Company No. 2:** Membership 14 including the chief, deputy chief, 1 captain, and 1 lieutenant. Located on Hilliard Avenue at River Road in the borough hall. Building is a 3-story joisted brick structure with slag roof, concrete apparatus floor, steam heat, electric lights, and 2 telephones. **Truck Company No. 2—Equipment:** One 1938 Mack 65-foot aerial ladder truck carrying ground ladders ranging from 12 to 50 feet, totaling 212 feet, one 100-gallon booster tank, a 200-g.p.m. booster pump, 150 feet of 1½-inch hose, 200 feet of 2½-inch hose, a life net, ladder pipe, cellar pipe, flood-lighting equipment, salvage covers, and complete minor equipment. **Disaster Unit No. 5:** One 1942 Ford 500-g.p.m. combination pumping engine and emergency car carrying one 250-gallon booster tank, 400 feet of 1½-inch hose, 400 feet of 2½-inch hose, flood light and power generator, and complete emergency and salvage equipment. **Rescue Unit No. 7:** This unit is housed in a cement block public works maintenance and storage building near fire headquarters and consists of a 1939 Dodge 1½-ton panel truck with fairly complete emergency and entry equipment. **Engine Company No. 4:** Membership 8 including 2

lieutenants. Located on River Road opposite plant of the Ford Motor Company. Building is a 2-story joisted brick structure with slag roof, concrete apparatus floor, steam heat, electric lights, and telephone. **Equipment:** One 1939 Mack 1,500-g.p.m. triple combination pumping engine carrying one 135-gallon booster tank, 2,000 feet of 2½-inch hose, 250 feet of 1½-inch hose, 400 feet of 3-inch hose, 1 deck gun, 2 short ladders, and complete minor equipment. **In Reserve—Engine Company No. 3:** One 1915 Ahrens-Fox 700-g.p.m. pumping engine carrying 800 feet of 2½-inch hose, 200 feet of 3-inch hose, foam generator, deck gun, and fairly complete minor equipment. **Hose:** All 2½-inch hose and 3-inch hose is C.R.L. with National Standard screw couplings. There is a total supply of 2,750 feet of 1½-inch hose, 9,250 feet of 2½-inch hose, and 1,200 feet of 3-inch hose, of which 1,700 feet, 4,400 feet, and 400 feet respectively is kept in reserve, distributed at the fire stations. Of the total supply of 2½-inch hose about 60% is more than 5 years old and 50% is more than 7 years old; 1,000 feet of 3-inch hose is more than 5 years old. Hose is tested annually at 300 pounds pressure with shut-off nozzle. **Operations:** Department is governed by municipal ordinance and department rules and regulations under the general supervision of the fire commissioner. The chief has control of apparatus at all times and of men when on duty, and can suspend members pending hearing by mayor and council. Motors are started twice daily and 2 operators are assigned to each piece of apparatus, but all men can drive and operate equipment. **Drills and Training:** Company fire department drills are held twice each year and 2-hour instruction and demonstration classes are held twice weekly under the company officers. Department drills consist of hose laying, ladder raising, pump operation and use of equipment under the direction of the chief officers. **Fire Methods:** Booster streams and 1½-inch lines are used on incipient fires supported by engine streams with shut-off nozzles. Gas masks, heavy stream appliances, flood-lighting equipment, foam generators, and salvage covers are carried and used to good advantage. **Response to Alarms:** Complete running card assignments for first, second, and third alarms are provided whereby two engine companies and 1 truck company respond to all first alarms except to small fires of definitely known extent, to which one piece of apparatus is assigned. One additional engine responds to second and third alarms and assistance is summoned from neighboring communities. Apparatus moves in under a well arranged cover up system. Off-shift men respond to second alarms and man reserve equipment. Substantial aid is available from New York City and from the surrounding paid departments in North Bergen, West New York, and Englewood, and from nearby volunteer departments at Fort Lee and Cliffside Park. **Building Inspection:** Industrial, mercantile and apartment occupancies are inspected four times each year by company officers and special hazards are investigated and inspected regularly by the chief officer together with company officers. Excellent plans and records are kept of inspections and violations. **Records and Reports:** A journal and log is kept of all fires, and daily, monthly, and yearly reports are made to the mayor and council. Records are very complete except that data as to age of hose is lacking. **Fire Alarm System:** Fire alarm system is not part of the fire department and is in charge of a full time fire alarm superintendent. Repairs and extensions are made by an experienced linemen who is privately employed and lives outside of the borough. Extensions are made by linemen of the Public Service Corporation who are hired by the borough. Headquarters equipment is located in a room in basement of borough hall, a non-fireproof building severely exposed and subject to hazards incident to buildings housing automobile fire apparatus. Apparatus is part Gamewell and part local construction and consists of several wood panels with necessary switches and meters to operate system. There is a single circuit in four loops carrying all boxes, alarm instruments, and relay for a whistle. Circuit is protected by duplicate ½-ampere and 3-ampere fuses and vacuum lighting arresters. Operating panel carries loop switches with compensating resistances. Current for operation of system is supplied by 4 oxide film rectifiers serviced from the 110-volt lighting circuit with 4 banks of storage batteries of 30 cells each floating. One bank of storage batteries and one rectifier is held in reserve. Batteries, protected by 3-ampere fuses on battery rack, are mounted on a wood shelf on iron rods in room with operating board. Rectifiers are protected by 1-ampere fuses. There is a motor generator set in reserve. Inside wiring is partly exposed and is in generally good condition, but arrangement is poor due to congestion and generally unsuitable location. There is a time and date stamp, 6 gongs, a breakwheel transmitter with a disc for each box and disc for 8 phantom locations; two punch registers, a time limit relay in Truck No. 2 house for whistle; 3 gongs and a register in Engine No. 1 house; 3 gongs and a register in Engine No. 3 and 4 houses; gongs in homes of chief, deputy chief, and fire alarm superintendent and 50 Gamewell non-interfering type boxes. Boxes are mounted on utility company poles at or near street intersections and have red and silver indicating bands. There is about 16 miles of overhead wire mounted below power wire on utility company poles. Wire is No. 8 hard drawn triple-braided weatherproof. Alarms of fire may be telephoned to Truck Company No. 2 house. Telephone switchboard located on apparatus floor at this house has extensions to all fire stations and police headquarters. There is an A.D.T. gong and register located at Truck Company No. 2 house near watch desk. Tests are made for voltage and amperage twice a day. Apparatus is tested daily by time signal and boxes are tested monthly in conjunction with a low current relay and special register. There is a map of fire alarm circuits and records of tests are kept in a trouble book. Breakwheel transmitter at headquarters is operated by man on watch.

**POLICE DEPARTMENT:** Consists of a chief, 3 sergeants, 2 lieutenants, 1 captain, and 20 patrolmen working in 8-hour shifts. There are 17 police signaling boxes and an ambulance and two radio cars are provided. One or two cars with 2 to 4 patrolmen respond to fire alarms and assist in the maintenance of fire lines. Unauthorized building construction is reported.

**BUILDING LAWS:** Code of Suggested Ordinances for Small Municipalities as recommended by the National Board of Fire Underwriters was adopted by reference on January 1st, 1933. Code provides for the annual appointment of a building inspector, requires that plans and specifications be submitted before building operations may begin and establishes fire limits in which wood shingle roofs are prohibited. Building department is well organized and is under the supervision of a competent building inspector.

**FIRE PREVENTION LAWS:** Code of Suggested Ordinances for Small Municipalities as recommended by the National Board of Fire Underwriters was adopted by reference on January 1st, 1933. State laws adequately cover the storage and shipment of explosives and flammables and the construction of motion picture booths. They also restrict the discharge of fireworks to responsible bonded parties.

**ZONING ORDINANCE:** Adopted May 18th, 1937.