Water Treatment Plant for Stann Creek

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The town of Stann Creek is a picturesque Belizean (British Honduran) community of some 7,000 inhabitants, located at the mouth of a stream of the same name which, some people say, was once called St. Ann Creek.

More than 80 percent of the people live in modest frame houses which, more likely than not, lack the sanitary conveniences commonly found in urban households. A survey in 1965 indicated that of the nearly 1,200 dwellings in the town about 90 percent had no piped water, 92 percent no bathing facilities, and 96 percent no sanitary excreta or sewage disposal facilities. The survey, carried out by environmental health personnel of the medical department of the British Honduras Ministry of Health, also revealed that somewhat more than 50 percent of the dwellings inhabited by almost 25 percent of the population were one- or two-room units and that 16 percent of these were single-room structures.

In October 1961 the town of Stann Creek as well as the city of Belize, the nation's capital, suffered from the impact of Hurricane Hattie which, even today, is used as a sort of chronological landmark in the life of the Belizeans. This or that event took place before or after Hurricane Hattie is commonly heard.

The outside world went to the aid of British Honduras. This aid included a special fund from the United Kingdom. The fund, earmarked for the rehabilitation of devastated areas, was administered by the Reconstruction and Development Corporation.

Through loans or grants, or a combination of both, the corporation assisted in financing the construction and reconstruction of dwellings in areas affected by the hurricane. The corporation also provided funds for two special projects, construction of a public water supply system which Stann Creek lacked and substantial improvements to the town's electrical power system which had provided service only from 6 p.m. to 6 a.m. The water system will be, at least for the present, the largest single consumer of electrical power in town.

Stann Creek boasts a new light and power system and hundreds of new or rebuilt though modest houses. In addition, and for the first time in history, inhabitants of the town who had always taken their water directly from the river could obtain potable, safe, and abundant water treated in a plant constructed along with other works of the water supply system. The plant was financed by the corporation at an approximate cost of U.S. $175,000.

The first of its kind in British Honduras, the treatment plant, begun in November 1964 and completed in August 1966, has a designed capacity of 500,000 gallons per day. The water reaches the consumer after a process of conventional treatment which includes chemical coagulation, sedimentation, rapid gravity sand filtration, and disinfection. It is estimated that the capacity of the plant is adequate to serve a population of 10,000, estimated for Stann Creek in the year 2000.

The treatment plant, located about a mile and a quarter upstream from the town, receives

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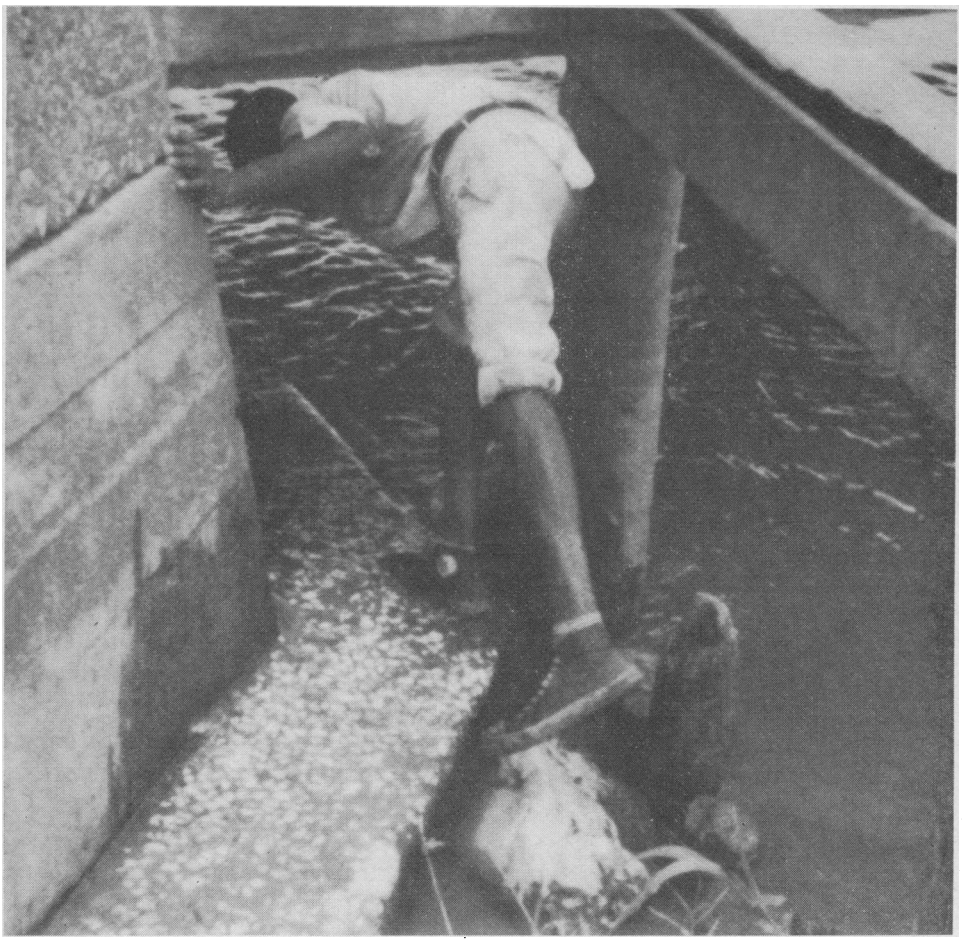
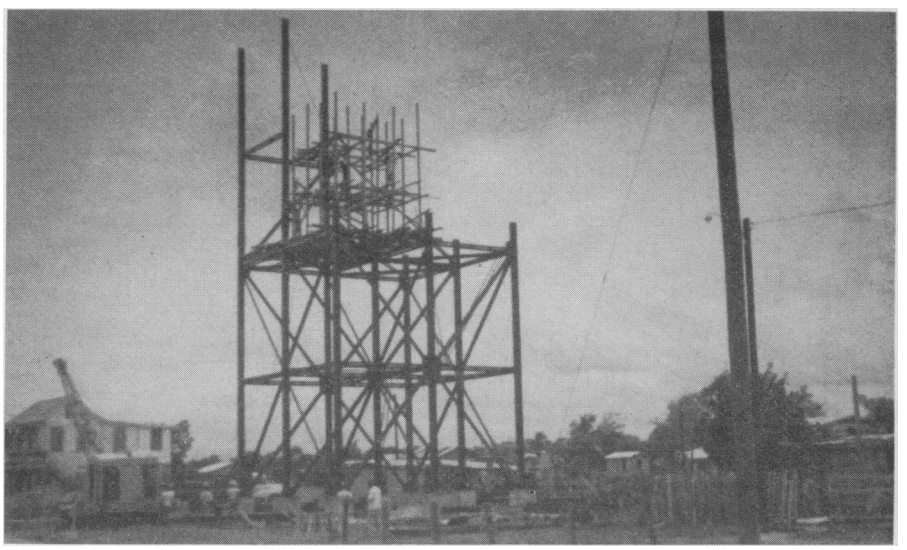
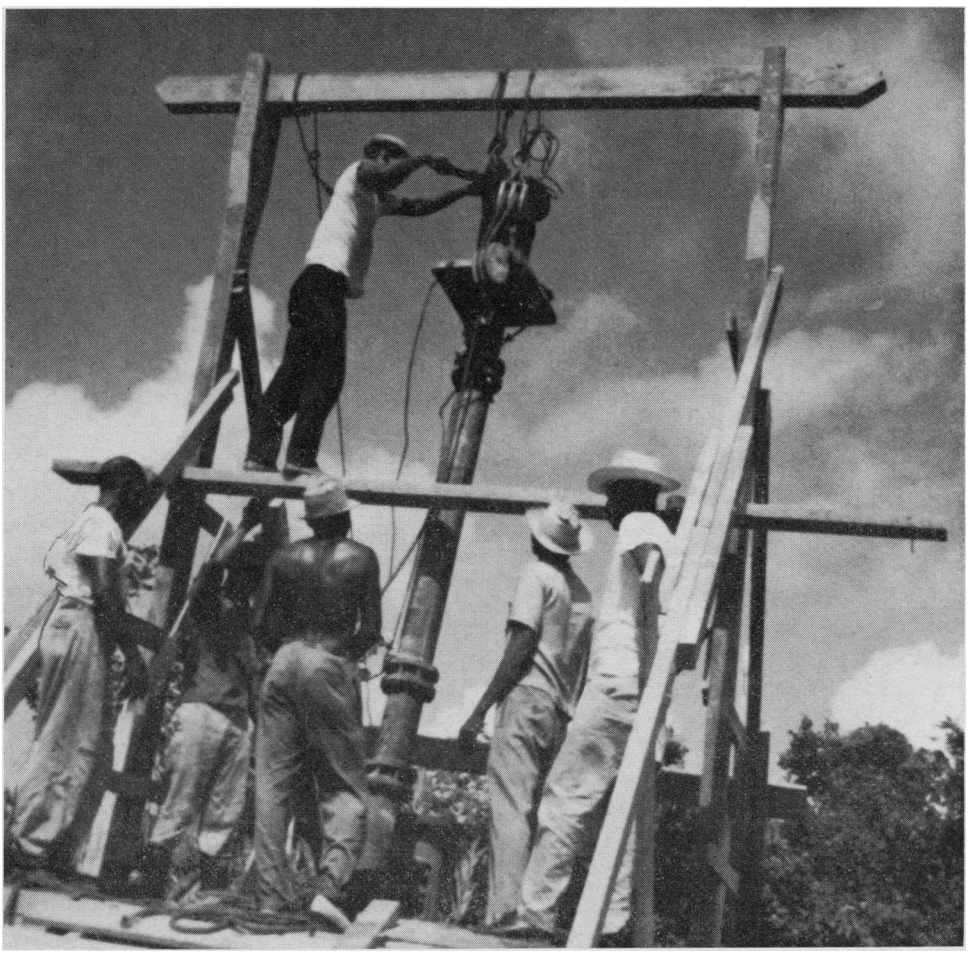


A vendor taking water from the river

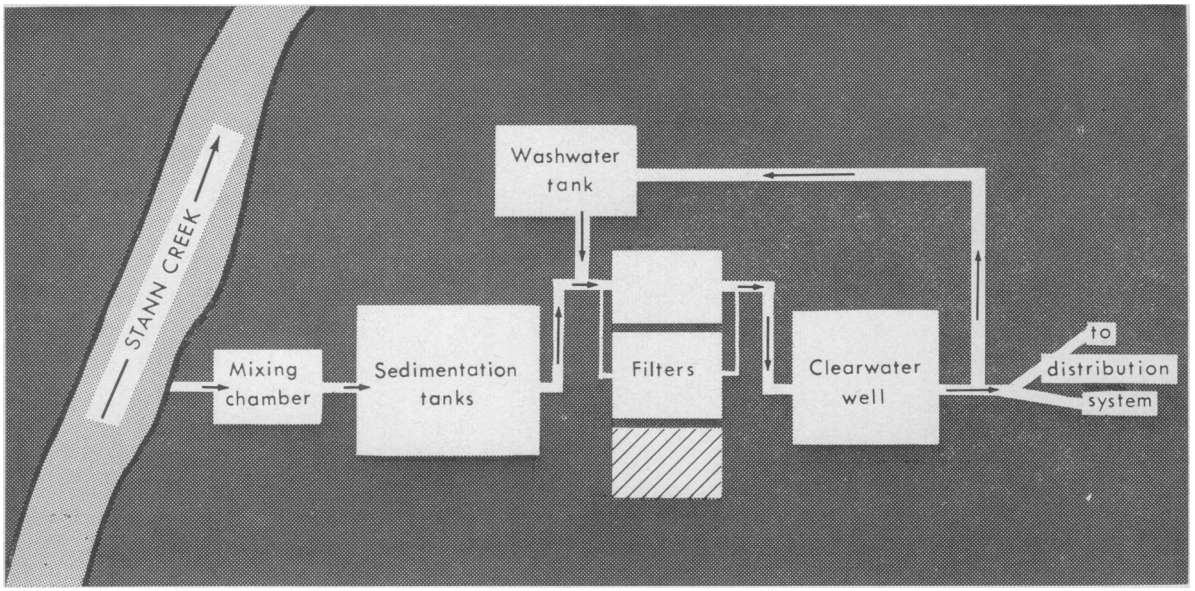


Erecting the steel tower for the elevated tank

The clearwell and treatment plant under construction



Installing an intake pump



Flow diagram of Stann Creek's water treatment plant

water pumped from North Stann Creek. The treated water is pumped through 6-inch pipe from a 150,000-gallon clearwell to the distribution system which covers the present area of the town and to an elevated balancing tank of 120,000 gallons capacity.

Intake pumps are two 10-horsepower, single-stage, centrifugal units rated at 240 gallons per minute at a head of 60 feet, with 5-inch suction and 3-inch discharge. Filtered water is pumped to the distribution system by two 240-gallons per minute, 15-horsepower, submersible units against a head of 200 feet. All the pipe used in the system is of asbestos cement and of 6-, 4-, 3-, or 2-inch diameter.

The project's planners did not contemplate the use of public faucets, and efforts were made to promote and facilitate metered service connections to all potential consumers within a reasonable period of time. But as is usually the case, there were those in the town of Stann Creek who lamented the passing of the old, well-rooted river customs.

The river had for many, many years been a favorite place for doing the family laundry, for bathing, and for meeting friends just to pass the time of day. It had also been a source of income for water vendors who used horsecarts, pushcarts, and other means to deliver water to householders at a rate of 50 Belizean cents (about 35 U.S. cents) for each 5-gallon can. Now it was proposed to deliver 1,000 imperial gallons (1,200 U.S. gallons) to each property at a cost not to exceed Belizean $2.

"But, who cares?" the diehards asked. "Man does not live by bread alone, nor by money either. Besides, my grandmother drank water straight from the river, and she lived to be 90. And to make things even worse, they are planning to put 'medicine' into it to spoil the taste of our tea."

These and like comments were made by many citizens in the Creole tongue of the country or in that of the so-called black Caribs which they learned from their forefathers. The black Caribs arrived in Central America toward the end of the 18th century after the British exiled them from the Caribbean island of St. Vincent in the Windward Group.

With good management, improved health education, and some luck, more infants will survive their first year of life because the town has a safe water supply. Little by little the diarrheal diseases will disappear as a threat to the health and well-being—and in the worst cases, to the life—of those beings who belong to the future.