INDIVIDUAL PROPERTY/DISTRICT
MARYLAND HISTORICAL TRUST
INTERNAL NR-ELIGIBILITY REVIEW FORM

Property/District Name: Willson Water Treatment Plant Survey Number: ~~WA-V-248~~ WA-V-419

Project: Rehabilitation of treatment plant Agency: FmHA

Site visit by MHT Staff: X no ___ yes Name ________ Date ________

Eligibility recommended X Eligibility not recommended ____

Criteria: X A ___B X C ___D Considerations: ___A ___B ___C ___D ___E ___F ___G ___None

Justification for decision: (Use continuation sheet if necessary and attach map)
Constructed in 1928, the Willson Water Treatment Plant is significant for its association with the development of Hagertown's infrastructure. The City of Hagerstown constructed the plant to provide its citizens with a reliable source of potable water, after years of unreliable water delivery from the existing reservoirs at Smithsburg and Edgemont. The Willson Plant reflects technological advances in water treatment and distribution. Consisting of a filter building, sedimentation basins, control and pump house, the plant intakes water from the Potomac River, processes it into potable water then distributes it to Hagerstown. Designed by engineer George L. Bean, the plant buildings exhibit modest features of the Colonial Revival style of architecture in their brick construction, configuration, parapet gable roofs and oculus windows. One of the most unique features of the plant is the earthen dike which surrounds the facility and protects it from the flood waters of the Potomac. For these reasons, we believe that the Willson Water Treatment Plant is eligible under criterion A and C.

Documentation on the property/district is presented in: with this form

Fifth Anniversary Publication "Hagerstown's Richard C. Willson Water Treatment Plant"

Prepared by: Willson Treatment Plant / City of Hagerstown

Lauren Bowlin — Sept. 8, 1994
Reviewer, Office of Preservation Services — Date

NR program concurrence: a yes ___ no ___ not applicable

[signature] — 9-27-94
Reviewer, NR program — Date

Survey No. WA-Y-419

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

___	Eastern Shore	(all Eastern Shore counties, and Cecil)
___	Western Shore	(Anne Arundel, Calvert, Charles, Prince George's and St. Mary's)
___	Piedmont	(Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery)
X	Western Maryland	(Allegany, Garrett and Washington)

II. Chronological/Developmental Periods:

___	Paleo-Indian	10000-7500 B.C.
___	Early Archaic	7500-6000 B.C.
___	Middle Archaic	6000-4000 B.C.
___	Late Archaic	4000-2000 B.C.
___	Early Woodland	2000-500 B.C.
___	Middle Woodland	500 B.C. - A.D. 900
___	Late Woodland/Archaic	A.D. 900-1600
___	Contact and Settlement	A.D. 1570-1750
___	Rural Agrarian Intensification	A.D. 1680-1815
___	Agricultural-Industrial Transition	A.D. 1815-1870
X	Industrial/Urban Dominance	A.D. 1870-1930
X	Modern Period	A.D. 1930-Present
___	Unknown Period (___ prehistoric	___ historic)

III. Prehistoric Period Themes:

- ___ Subsistence
- ___ Settlement
- ___ Political
- ___ Demographic
- ___ Religion
- ___ Technology
- ___ Environmental Adaption

IV. Historic Period Themes:

- ___ Agriculture
- X Architecture, Landscape Architecture, and Community Planning
- ___ Economic (Commercial and Industrial)
- X Government/Law
- ___ Military
- ___ Religion
- ___ Social/Educational/Cultural
- ___ Transportation

V. Resource Type:

Category: buildings and structures

Historic Environment: rural

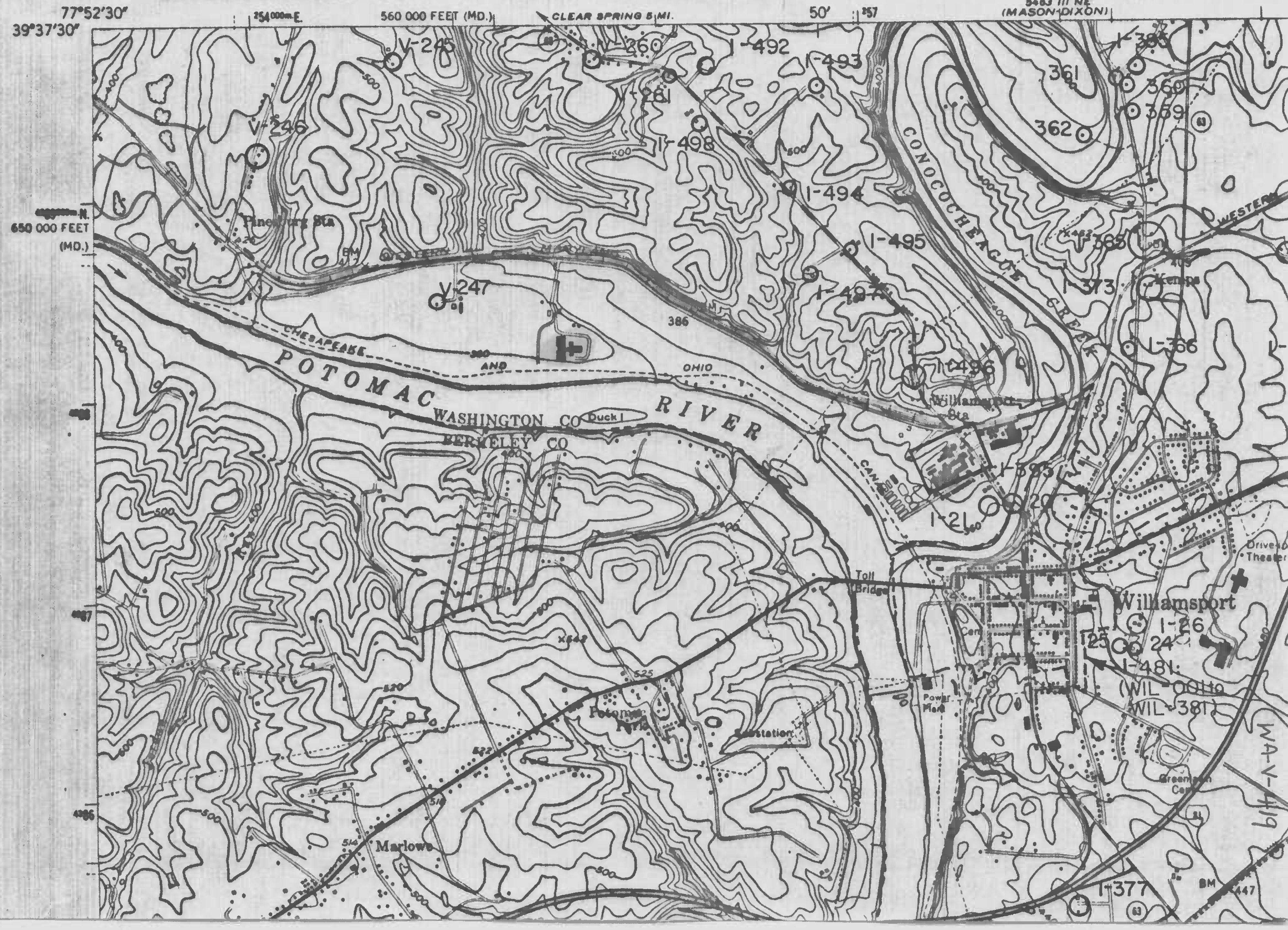
Historic Function(s) and Use(s): industrial/ waterworks

Known Design Source: George L. Bean

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WASHINGTON

UN ED STATES
DEPARTMENT OF THE AR
CORPS OF ENGINEERS



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R. C. Willson Water Treatment Plant

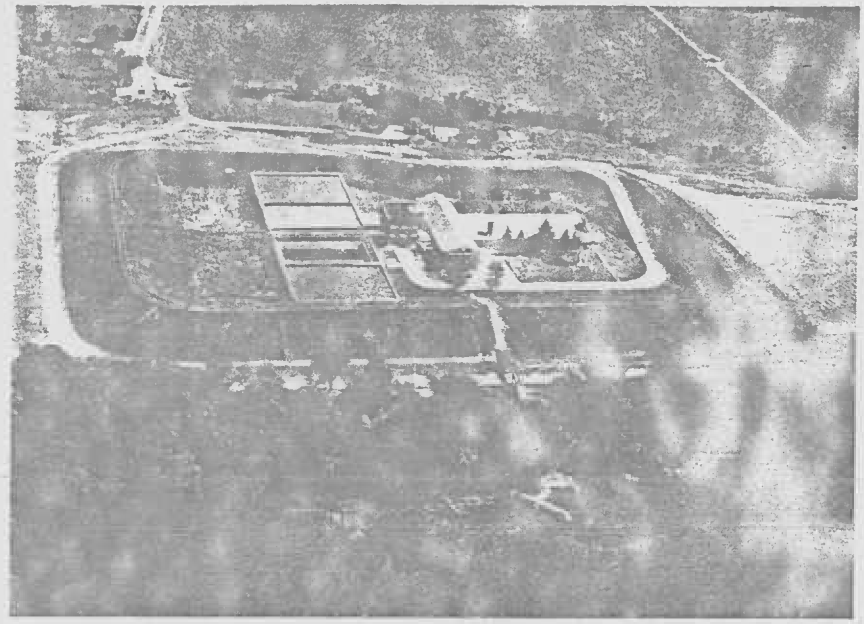
The water plant is named after Richard C. Willson, who was the second Superintendent of the Hagerstown Water Department. Mr. Willson began his employment at the Water Department as the Chemist on April 1, 1938. He served as Superintendent from April 12, 1945 to February 22, 1967, and was instrumental in improving the operation of the water treatment facility and the water system in general.

The original plant construction was completed on December 7, 1928, and was capable of producing and pumping up to 10 million gallons of filtered water per day. Basins were constructed for presettling of raw water and settling of chemically treated water. After passing through mixed media filters in the filtration building, disinfectant is added and the water is held in clear well storage under the filters until it is pumped to the distribution system by a series of vertical turbine pumps. Other significant structures include: filter backwash tank (holds water for washing filter beds between runs), surge suppression tanks (protect pumps and pipes against water hammer from surges), laboratory (chemical analysis and quality measurements), intake structure (point of withdrawal from Potomac River source), and the flood protection dikes (earthen berm 60 feet above river elevation).

In 1969, a program of improvements to the plant began. Phase I involved work on filters, treatment, laboratory, water tank, and plant roof. This work was completed in 1971.

Phase II involved electrical, pumping and waste water facilities upgrade. The work began in 1976 and was completed in 1979. Federal funding for this from ARC amounted to $725,350.

Phase III saw the establishment of new chemical storage and feeding systems, a new plant heating system, and a new walkway around the basins. This work was completed in 1981 and the ARC again provided funding in the amount of $783,200.



HAGERSTOWN'S........

Richard C. Willson Water
Treatment Plant

50th Anniversary

Welcome

This is to introduce you to a facility for which the City of Hagerstown and the employees of the Hagerstown Water Department take exceptional pride. Since it was first placed into operation on December 7, 1928 it has contributed immensely to the water system's ability to insure a good dependable potable water to our customers as well as to meet the challenge of continued growth in the community. Over the more than 50 years it has been in operation it has demonstrated its ability to cope with the many adversities created by man's activities as well as nature's without pause or serious consequence. When flood water of the Potomac River breached its protective dikes on March 18, 1936, it was quickly returned to full service in a matter of 17 days. Much of the original equipment such as pumps, motors, meters and electrical gear functioned for 50 years.

As you tour the plant, you will observe that many changes have taken place in recent years. New and more modern equipment is being added to meet the challenge of providing a safe, economical water supply to our advancing community. This is being accomplished without additional financial indebtness and without sacrificing the fundamentals of soundness and reliability so capably development by its original builders.

We hope that, as a result of your tour you will develop a better understanding of the importance of this facility to our community and leave with the same sense of pride enjoyed by those who are responsible for its operation and management.

Sincerely yours,
The Hagerstown Board of Water Commissioners

Hagerstown Board of Water Commissioners Richard A. Roberts, Chairman John C. Corbett and John A. Ziegler.

WA-V-419

Hagerstown's Search for a Dependable Water Supply

Like many communities of the early 19th Century, the citizens of Hagerstown relied on the many natural springs and shallow wells throughout the town for their water supply. The Hagerstown Mayor and Council's first official interest in providing a water supply for its residents was when, in 1849, they purchased the site of Oak Springs in the first block of West Franklin Street in an effort to provide and maintain a public source from which individuals could obtain their needs. Although there had been no general appeal for better water for drinking and sanitation, area residents became more mindful of the need for a piped system because of the fire hazard created as the town grew. In 1880, a group of interested citizens, inspired by William T. Hamilton, a leading citizen and later Governor of Maryland, formed the Washington County Water Company and with the cooperation of City officials, entered into a formal agreement to provide a water system. With $80,000 capital, the company then constructed Smithsburg Reservoir, a 12 inch transmission main and the water distribution system throughout the streets of the town.

Two years later, in 1882, residents witnessed the marvel of water flowing into their homes for household use and from hydrants to combat fires. However, their expectations were short lived, for the following year the system experienced what was to be the first of many water shortages due to seasonal drought and compounded by the additional demands of a growing population. In attempts to combat the condition during the next 25 years the company built Edgemont Reservoir, West End Reservoir, attempted the use of wells and Keyser Spring (in City Park) and built a water plant on the Antietam Creek. Although these improvements relieved the condition somewhat, the problem of shortages presisted annually and in 1918, it was decided that the system should be sold to the City of Hagerstown.

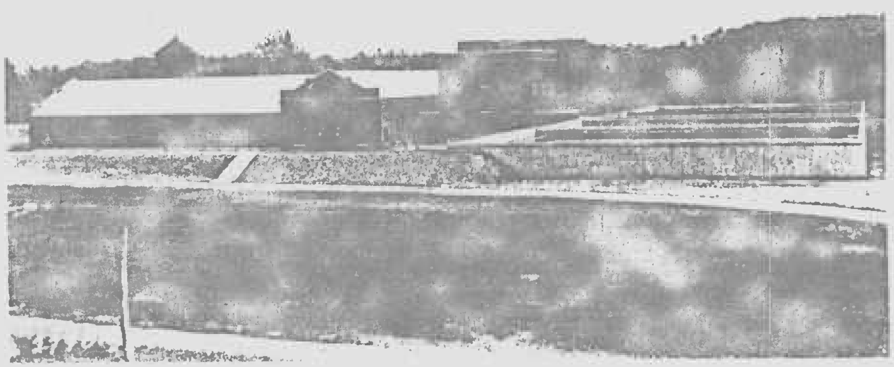
In 1923, seeking a final solution to relieve the community of the prohlem of unreliability, Hagerstown officials contracted with Mr. George L. Bean, an independent consulting engineer, to prepare a comprehensive study of local water resources for the purpose of selecting a reliable source. Indepth reviews were conducted on seven sites throughout Washington County and evidence pointed to the Potomac River as the most practical, from an investment and operational cost standpoint, as well as long term dependability. It was during this same year that the Williamsport Power Company was constructing their dam across the Potomac River at Williamsport and the site was selected to take advantage of the increased water level and storage created by that structure. The plant site was purchased in 1925 and Engineer Bean commenced the design of the 10.0 million gallon chemical treatment, filtration and pumping facility. While plans were being finalized, the intake structure and piping to the plant site was constructed. After several minor delays, construction of the plant and the 24 inch transmission main to Hagerstown began in mid 1927. Eighteen months later, on December 7, 1928 the plant began pumping fully treated water from the Potomac River

to Hagerstown's citizens. Since that day, the community has realized a reliable, excellent quality water.

In general, the plant employs standard sedimentation, filtration and chemical purification to transform the waters of the Potomac River to a safe potable state. To insure a continuous dependable operation, most of its vital components are in duplicate. Two of its unusual features are the presettling basins and flood protection dikes. In recent years improvements have been made toward increasing its nominal rated capacity from 10 to 20 million gallons daily.

Under the direction of a Plant Superintendent, fifteen plant operators are employed for the continuous operation and maintenance of the plant. It is manned twenty-four hours a day, every day of the year with a minimum of two operators per shift. A water chemist, working independent of the plant's operation, is employed to oversee water quality.

The plant was renamed in honor of the late Richard C. Willson who, while serving the Hagerstown Water Department as Superintendent from April 12, 1945 to February 22, 1967, was instrumental in improving the operation of this facility and the water system in general. Mr. Willson was first employed as Chemist on April 1, 1938.



1929 Photo of Plant

How the Treatment Process Works

So that you might have a better understanding of the operation of this water plant, the following is a description of the many items of equipment used in the water treatment process. This outlines the route of the raw water from the intake on the Potomac River, through the various stages of treatment employed to transform it into a safe potable state, to the final step of pumping it into the distribution system for use.

Potomac River

When the historic Potomac River reaches the intake of the water plant, it has drained an area of 4,719 square miles of upstream watershed. The watershed itself is relatively free of industrial types which cause pollution and is predominately agricultural and forrested. Its recorded minimum one day low flow of 180 million gallons is regarded as adequate to meet the plant's raw water requirements. Of additional benefit is the presence of the Potomac Edison Company dam 1.5 mile below the plant at Williamsport which maintains 250 million gallon of storage above the intake structure invert. During the periods of low water, flow is augmented by the Savage River Dam located on the South Branch of the Potomac and in the near future, the Bloomington Dam will serve to increase the reliability factor. Since the watershed is basically agricultural in nature, the most prevelant water quality problems results in siltation from land runoff and spring flooding.

Normal turbidity of raw water ranges from 5 to 20 ppm (parts per million) with a high flow carrying from 500 to 1,500 ppm. The highest rate of turbidity recorded was on June 19, 1949, when a flash flood upstream from the plant caused an excess of 20,000 ppm. Alkalinity (ph) ranges from 20 to 80 ppm and the average hardness is from 70 to 100 ppm. The highest hardness recorded at this plant was 180 ppm during the month of August 1951.

Flood Protection Dikes

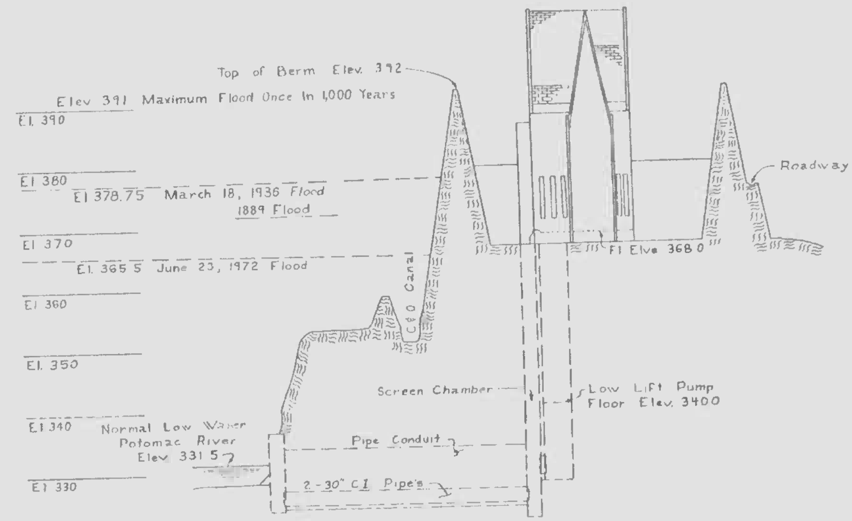
One of the most unique considerations made in the construction of the plant was that of providing an earthen dike to protect against the flood waters of the Potomac River. Originally, the berm of this dike was constructed to elevation 376 which was four feet above the highest flood of record at that time. It then surrounded the plant on three sides and joined the concrete walls at each end of the presettling basins which were three feet higher than the dike. On March 18, 1936, a record flood, cresting a 47'9" above normal, or 2'9" higher than the dike, inundated the plant, causing it to be out of service for a period of 17 days.

In 1957, the dikes were raised 16 feet to elevation 392 to insure against a reoccurance of the 1936 incident. This placed the berm 61 feet above the normal level of the river and 1 foot above a calculated 1000 year flood. In addition to the raising, space was provided within the plant compound should it become necessary to enlarge the sedimentation basins in the future.

Intake Structure

The intake structure consists of duplicate intake chambers and an extended concrete boom wall. The boom wall is constructed on a 45 degree angle with the shore line deflecting downstream, projecting 50 feet out into the river and connects with the upstream side of the intake structure to divert all wild water and drift following the shore line. The intake is built on the shore line, 5 feet below the water level at mean low. Bar screens across the front of the intake chambers keep out the heavy drift which may enter the boom protected basin.

From the intake, the raw water travels 450 feet by gravity through two 30 inch cast iron pipes, constructed inside a plain circular concrete conduit extending to the duplicate screen chambers at the plant. They have a combined hydraulic capacity of 40 MGD. Whenever the river reaches flood stage, valves located at the entrance into the screen chamber are used to restrain incoming water at the desired level.



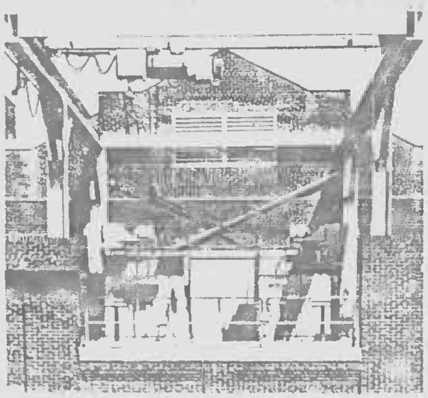
Flood Protection Dikes
R. C. Willson Water Treatment Plant

Automatic Cleaning Screens

The automatic cleaning screens, located just outside the pumproom and adjacent to the low service pump pit, consist of dual travelling water cleaning screens extending 56.92 feet below the top of the structure. The primary function of the screen is to remove debris from the raw river water before it enters the suction piping in order to protect the pumps from being clogged or damaged as they lift this water into the plant's treatment facilities. Each screen unit consists of a series of 58 copper wire screen baskets linked in a continuous loop. The water from the intake pipe passes through the screen baskets, depositing the suspended and floating refuse on the wire baskets. When the submerged basket becomes clogged with debris sufficient to cause the water level on the pump side of the unit to recede, the screen is activated automatically by a differential controller, and refuse collected on the screen baskets is lifted from the intake to the top of the structure. The debris is then removed by means of a high pressure water spray, collected in a concrete trough, then separated from the water by a press and deposited in a dumpster type container for removal.

The differential controller is designed to indicate the head loss in inches through the screen and is preset to automatically start the unit and turn on the spray water when a predetermined level is reached. Each unit includes a timer mechanism which insures that the screen will continue to run for at least one and one-half revolutions after the head loss has been relieved so that the debris is completely removed and not just lifted out of the water where it would dry on the baskets. The controller employs an air bubbling system to detect the change in water levels and activate a differential pressure switch. The system is also equipped with automatic timing and manual controls.

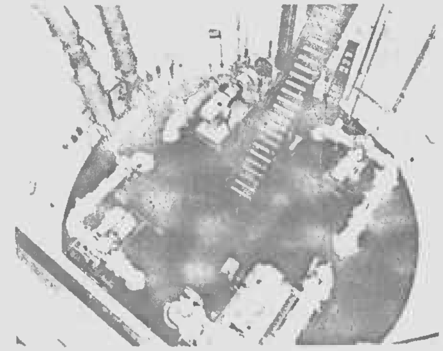
The hydraulic capacity through each screen unit is 24.0 MGD thus allowing the plant to operate at its full capacity in the event that it becomes necessary to shutdown one for maintenance or repair. The valving arrangement in the chamber provides the plant with the numerous options necessary to assure a continual operation and to control the level of influent water in the event of high water or flood in the river. The top of the structure was raised 11.0 feet to elevation 379.0 so that all motors, controls and electrical equipment are located above the highest record flood level of the Potomac River. The chamber itself is securely enclosed so that it could be flooded to the top of the structure without hindering its function or inundating the plant facility by allowing water to escape inside the dike protected area. Other important features of this facility is the overhead electric crane for maintenance, repair and replacement work, heating units to prevent freezing of the motors and control units and an independent ventilation system.



Two views of the automatic cleaning screen facilities showing the operating motor's on top of the structure and an internal view of the screens looking downward.

Low Service Pumps

After the water passes through the screen chamber, it must next be lifted to a higher elevation into the treatment basins by pumps located just inside the pump room at the bottom of a circular chamber or pump well. This well measures 28 feet deep by 42 feet in diameter. For this purpose two 5.0 MGD and two 10.0 MGD centrifugal pumping units are employed. The large units are rated at 8,000 gpm and are powered by 150 horsepower, 590 RPM, 3 phase 460 volt electrical motors. The smaller units are 3,900 gpm pumps equipped with 75 horsepower, 1,200 RPM, 460 volt electrical motors. Dual 36 inch pipes located ten feet under the floor of the well, carry water by gravity from the screen chamber to the pump's suction piping. The sizing arrangement allows for the plant operator to select various pumping rate combinations to make maximum use of capacities and to economize on power requirements. The electrical controls for these units consist of 5 KV switchgear located on the main floor of the pump room near the pump well. Once a unit is in operation, its pumping rate is regulated by motorized valves controlled from the motor control center.



Low Service Pumps

Pre-settling Basins

This plant is unique in that it was built with facilities to pre-settle water before the process of chemical activated settling begins. There are two such basins, one on each side of the sedimentation complex. They are rectangular in shape, 100 ft. wide by 122 ft. long and 17 ft. deep, built on reinforced concrete and have a capacity of 1,250,000 gallons each. Raw water supplied by the low lift pumps is distributed evenly across the backside of each bay through 4 inch perforations in the bottom of the submerged 24 inch

WA-V-4/9

supply mains. Detention in these basins permit the heavier particles to settle naturally to the bottom of this structure before the water is given chemical treatment. A five hour detention period will reduce a turbidity of from 500 to 1,500 ppm by about 50 per cent. This percentage will increase as the turbidities increase. The combined hydraulic capacity of these two basins is considered to be 20 MGD with a three hour detention period. Pre-settling provides three very important advantages. It assists in providing better clarification, helps to maintain low chemical treatment costs and allows the plant operator sufficient time to identify a change in raw water conditions and adjust for proper treatment. The settled water overflows a baffle or skimming wall and flows by gravity through 30 inch cast iron mains to the mixing and coagulation chambers.

Chemical Feeding and Storage Building

This building, which houses the chemical feeding equipment, as well as a storage area, is connected directly to the pumproom. On the first floor of this structure, two cylinders of chlorine, each have a 2,000 pound capacity, are stationed on observation scales and connected to a piping system which transfers this chemical, in a gas state, to the next floor level. There in a separate room, two V-notch, 1,000 lb. per day capacity chlorinators place it into a concentrated solution with water and deliver it to the mixing chambers located just outside the building. Also, located on the second floor are four dry chemical feeders, two of which are used to feed aluminum sulphate, known as alum, to the mixing chamber. The remaining two machines are utilized to feed activated carbon or hydrated lime whenever the use of these chemicals is required. These machines mix the dry chemicals with water to form a slurry for delivery to the mixing chamber. The third floor of this building is used for chemical storage and houses the hoppers into which the chemicals are dumped to feed the machines located directly below.

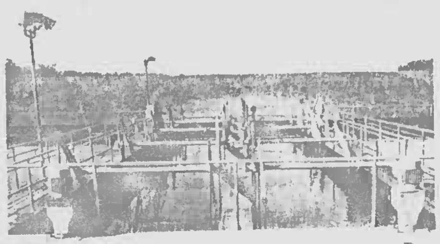
Mixing and Coagulation Chambers

The duplicate mixing and coagulation chambers are located in the center of the sedimentation complex, directly in front of the chemical storage building. Each unit is 12 feet wide and 122 feet long, constructed of reinforced concrete and equipped with mechanical rapid mixing and "walking beams" flocculating equipment. As pre-settled water enters from the bottom of each chamber directly below the mixers, it receives a controlled dosage of chemical, chlorine for disenfection and alum for coagulation. From this point in the purification process, the water is free of bacteria. The flash mixers, consisting of a 13 ft. stainless steel 3 inch dia. drive shaft equipped with two sets of mixing blades and 7-½ hp motor, provide a violent agitation of the incoming water to evenly distribute and secure, as quickly as possible, a

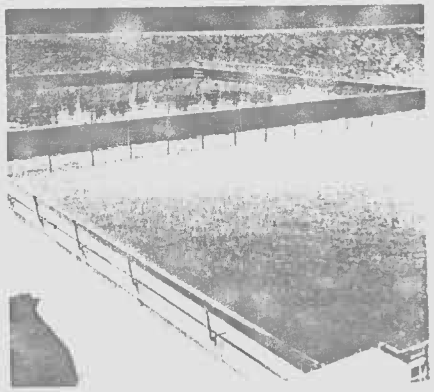
through diffusion of the alum. The water then flows over a baffle wall and through the chamber while the "walking beam" flocculation provides a slow gentle vertical stirring of the water as it moves the length of the basin. The flocculating equipment consists of a series of driving and connecting arms, powered by a 3 to 1 variable speed 5 ph electric motor equipped with a gear reducer type crank assembly, causing the walking beams to be rotated back and forth on a drive shaft. This rocking motion alternately lifts and lowers drop arms equipped with a series of horizontally suspended redwood paddles or "dashers" mounted on inverted V-type support frame assemblies located below the water. Each drop arm is equipped with two sets of support frames and each frame provides for eight 3 x 6 inch redwood dashers. Coagulation occures when the alum, in reaction to the bicarbonate properties of the water, undergoes a chemical change to form a gelatinuim precipitate, aluminum hydroxide, commonly known as floc. The floc's objective is to enmesh the suspended dirt particles in its large feathery type mass, of sufficient accumulated size and weight so that it can readily be removed in the process of sedimentation and filtration. The purpose of the walking beam flocculation is to cause sufficient, but gentle, agitation of the floc and dirt particles in the water so that they make contact with each other, increase in size and pack to greater density. The daily rated treatment capacity of each basin is 10.0 MGD.

Sedimentation Basins

The two sedimentation basins are 80 feet wide, 122 feet long and 17 feet deep and have a capacity of 850,000 gallons each. They are located, one on each side of the mixing and coagulation chambers, and have common walls with those units and the pre-settling basins. The flocculated water flows into these basins by means of 4-½ ft. x 6 ft. concrete conduit and is distributed



Mixing and Coagulation Chambers



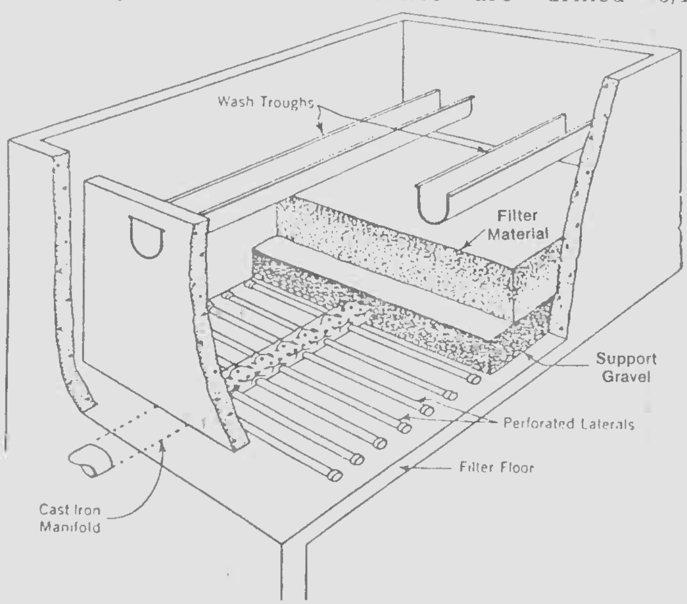
Pre-settling and Sedimentation Basins

evenly across the bay's width through 10 inch openings in its sidewall. Detention in this bay permits the heavy floc, with the dirt particles entrapped, to settle to the bottom, which in turn, leaves a practically clear water as it overflows the skimming wall to be piped to the sand filters.

Mixed Media Filters

The plant employs high rate mixed media gravity filters to apply the finishing touches or polishing to the water. They are built of reinforced concrete, rectangular in shape, each having an inside dimension of 24' x 18' x 8' with a surface area of 20.5 ft. x 18 ft. or 369 square feet. Each unit is designed to filter a nominal 4 gallon of water per square foot of surface or 2.0 million gallon daily. There are ten filters five on each side of the filter room, giving the plant its rated filtration capacity of 20.0 million gallon per day. Water from the sedimentation basin is delivered to the filters through a 30 inch cast iron pipe line which enters into a pipe gallery located under the main floor. A float activated rate control valve on the 30 inch pipe maintains a constant water level and flow to the filter.

Lying on the floor of each filter under the filter material is a collection system made up of a 10 x 15 inch elliptical cast iron manifold pipe with 60 bell joints connecting with 2-¾ inch cast iron laterals branching out on 8 inch centers. Each lateral, laid 1-¼ inch off the floor, contains 3/8 inch perforations on 6 inch centers, staggered on its underside. Tapped into the top of the larger manifold pipe are three rows of brass nozzles, spaced on 8 inch centers with the length of the manifold and on 6 inch centers across the manifold. These nozzles are drilled 5/16 inch



Cutaway View of a Filter

perpendicularly joining a ¼ inch hole drilled horizontally just below the top of the plug. This piping system collects the water as it drains down through the filter material support gravel and delivers it to one of two common discharge headers in the pipe gallery. Rate control equipment on each filter service to maintain a constant discharge flow.

The filters were designed by selecting material of a particular size and specific gravity in order to provide a bed that has its greatest inverse void graduation in the top layers and the finer courses at the deepest area. This allows a higher degree of filtration at volume rates. Filtration is accomplished when the water fills the voids of the porous, granual material and the impurities are left behind in the openings. The filter material consists of 16 inch of silica sand support gravel, 4-½ inches of ilmenite sand, 9 inches of silica sand and 19-½ inches of anthrocite coal. Each unit contains in excess of 66 tons of material.

Each filter has its own control station for the operation of all valves for the filtering and backwashing processes. In addition, loss of head indicators and recording instruments are displayed so that the performance of each unit may be monitored by the plant operator.

Backwashing or cleaning the filter is accomplished by reversal of flow through the manifold and lateral system in the filter bottom and by hydraulically operated surface washers. Water for this operation is supplied from a 75,000 gallon elevated water storage tank located outside the filter room. A wash water rate of 24 inch vertical rise per minute is used, which in turn provides for 30 to 35 per cent filter expansion. The specific gravity of each filter material is of prime importance during the backwashing process because each layer must maintain its bed position during this expansion. In washing a filter, a low rate of wash water is used for 3 to 4 minutes and then gradually opened full. Each unit is equipped with four hydraulically operated Palmer filter sweeps, thus eliminating the need for hand raking the surface during backwashing. Backwash water is collected in three 15 inch half round heavy steel wash troughs, having a 24 inch free board, which then conveys it to the plant drainage system to be returned to the automatic screen chamber when it is recycled back into the treatment process.

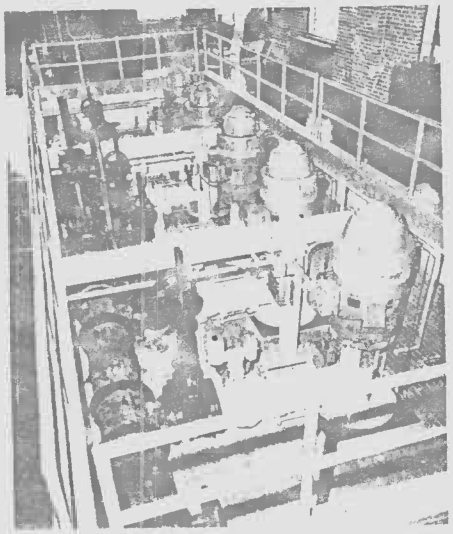
Clear Well Storage

The clear water wells, located just under the filters and separated by the piping gallery, are rectangular in shape, 98 feet x 24 feet x 13 feet, and have a combined capacity of 0.5 million gallons. They are interconnected at each end by 30 inch cast iron pipes, one of which is normally closed off so that the water will circulate through the full length of both wells. At the entrance of the effluent water into the south clear well, calcium hydrated lime is added for pH control from feeding equipment located on the filter room floor. The high service pumps take suction from a pit adjoining the north clear well. An observation window is located at the far end of the filter room to allow for the visual inspection of the filtered water clarity and level. Just prior to this suction pit, Fluoride is added at a rate of 1.0 parts per million. Chlorine can also be added at this point, if there is an insufficient amount in the finished water or if the chlorine content is too high, Sulphur Dioxide may also be induced for its removal or dechlorination.

WA-V-419

High Service Pumps

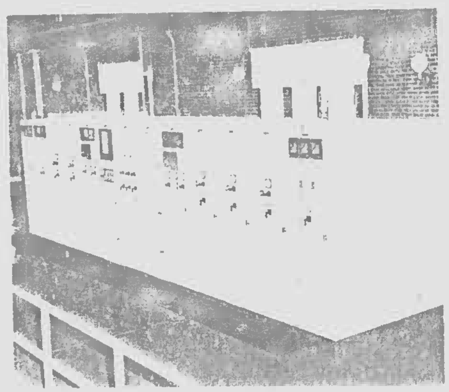
The water purification process now completed, the high service pumps take suction on the clear well suction pit through two 30 inch cast iron pipes and boosts it into the distribution system. For this purpose the plant employs five vertically mounted turbine self priming pumps located in the recessed area in the pumproom. Each pump has a rated capacity of 3,500 G.P. M. or 5.0 M.G.D. against a 400 ft. static head. The vertically mounted electric motors are 450 horsepower, three phase units with a rating of 1,775 R.P.M. Electrical controls for these units consist of 5 KV switchgear located on the main floor of the pumproom directly opposite the pump area. They discharge into a piping manifold connecting duplicate 24 inch cast iron mains to a valve chamber just outside the dike compound where they are interconnected with the two 24 inch transmission mains leading to the distribution system. These mains have a combined transmission capacity of 17.5 M.G.D. Pumping rates are controlled by motor operated valves located on each of the two discharge lines which are activated automatically from the motor control center. The normal working pressure on the discharge side of these units is from 150 P.S.I. to 170 P.S.I. when pumping within the range of 5.0 M.G.D. to 10.0 M.G.D. One pump is always maintained as a standby unit in the event of a breakdown and the operating time of each unit is alternated so that they receive comparatively equal use and so that each unit may be serviced and maintained regularly. Each pump is equipped with a disk type check valve which prevents the reversal of flow through the units when it is not in operation. In addition, larger disk type check valves are located on the 24 inch discharge lines to block the excessive surge such as might occur because of a shutdown until normal conditions are restored by the surge arrestor system.



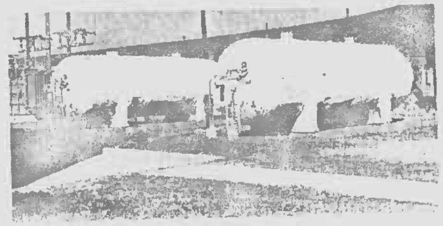
High Service Pumps

Surge Arrestors

Consisting of two carbon steel pressure vessels measuring 28'6" long and 8'0" in diameter, one unit for each of the two 24 inch transmission mains leaving the plant from the high service



High Service Pump Motor Controls



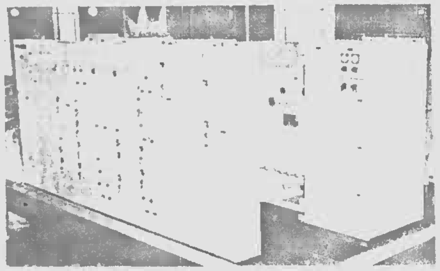
Surge Suppression Tanks

pumps. They are equipped with a level controller which automatically maintains the water and air ratio at a 50 per cent level inside the vessel. A dual air compressor system to provide make-up air is located in the plant pumproom. When pressure for the high service pumps is increased, the units automatically increase their air supply. When pump presure is reduced, the unit air is vented to maintain its water level at the desired condition. An alarm system to warn the plant operator of an abnormal problem is located on the pumproom control center. Each unit is designed to maintain the proper pressure condition for flow rates up to 16.4 M.G.D. at a maximum head of 440 ft. The vessels and their components are insulated with 4 inches of rigid urethane foam to protect them from temperature variation.

The purpose of the surge arrestor system is to protect the plant's pumps and piping from excessive pressure surges which result from abrupt interruptions such as those associated with an electrical power failure as well as routine plant shutdowns. By storing and releasing energy on the pipelines, they are able to balance the energy changes or surges. When there is a pump shutdown, the pressure in the pipeline begins to decrease and the compressed air expands, thus forcing the water stored in the vessel into the pipeline. This process continues until the pressure ceases to decrease, at which point, the vessel is approximately 90 per cent empty of its liquid. This action avoids the column separation which would occur if the down stream flows were suddenly interrupted. Then as the flow reverses back toward the plant, the check valves located on the 24 inch pipe lines inside the plant automatically close to block the passageway to the pumps, thus causing it to be accepted back into the tanks where the resulting compression of the air acts as a cushion to control or absorb the returning surge.

Electrical Power

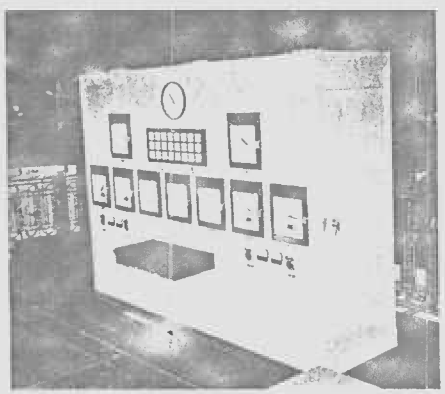
The plant is served by the Potomac Edison Company through a dual 34.5 K.V. power line service arrangement. Service is received from a power distrihution line along Bottom Road, which is interconnected with two of the company's major power transmission facilities, each being fed from an independent generating source. The point of connection features a sectionalizing switch located on the company's distribution line between the two lines into the plant. In the event of a major outage, the switch can be utilized to divide the distribution line, thus eliminating the power drain created by the outage and allowing the plant to revert to the service line located on the uneffected side of the switch. Only one line is necessary for the operation of the plant under normal conditions. The company's power lines, which are elevated to the highest flood of record, terminated at a substation which is located inside the plant's protective dikes. From that point, electrical wiring is extended underground to the plant's 1,000KVA capacity substation located inside the pump room.



Low Service Pump Motor Controls and Electrical Switchgear.

Master Control Panel

All of the metering and recording devices necessary to provide operating personnel with a continuous information regarding plant operations are centralized on a flow and indicator panel. This unit houses gauges and chart recorders for the high and low service pump discharge rates, the water levels of the low lift suction well and the finished water clear well, pump discharge pressures and vital information regarding the operating conditions of the surge arrestors system. These visual aids are backed up by an annunciator-alarm system which provides immediate notification of a problem critical to the plant's operation. Once an alarm is sounded, it must be acknowledged by the operator to silence the annunicator. In addition, this unit is equipped with the controls for the motorized valves which regulate pumping discharge rates for both the high and low service pumps. From this location, plant operators can adjust the valve opening to achieve a desired pumping rate while observing the results of that action on the flow meter gauges. Also located in the pumproom is a gauge which indicates the level of water in West End Reservoir. Information is telemetered by telephone line from a similar type recorder located at the reservoir. This provides the plant operator with the constant status of the water reserves of the system.



Master Control Panel

Laboratory

The department operates a laboratory equipped to perform all the necessary tests to assure that the water produced for distribution is of the upmost quality and to determine that the treatment process is proper and efficient. It is certified by the Maryland State Department of Health and inspected and monitored by that agency annually. The laboratory is equipped to perform such tests as, turbidity, color, pH, dissolved oxygen, chlorine residual, fluoride content, bacteria, manganese, and iron. It processes a total of 100 water samples taken from various points throughout the distribution system monthly, in addition to the daily routine examinations of water taken from the various stages of the plant's treatment process.

Laboratory

Emergency Sump Pumps

Two emergency gasoline motor driven sump pumps are located at the east end of the filter building. Each pump has a design capacity of 3,500 GPM at a head of 32 feet. The purpose of these units is to provide positive plant drainage during periods when the plant gravity drains are inundated by rising river waters. Whenever the flood waters reach a point 20 feet above normal, the 30 inch valve in the outfall drain is closed and all drainage is then diverted into a 50,000 gallon underground sump located just outside the building. Water is then pumped out around the closed drain valve and over the dikes under pressure. Because they are rarely needed for actual use, these pumps are tested bimonthly to insure they are in proper operating condition.

Plant Improvement Program

Ever since its inception in 1880, the Hagerstown Water System has experienced a continued healthly and consistant pattern of growth. This fact holds true in almost every aspect, the size of the service area, miles of pipe line, the number of customers and last but not least, water consumption. Therefore, with each passing year, the water production reserves of this plant are depleting to fulfill these requirements. In 1969, after careful interpretation of past consumption trends and projections of long range requirements, it was decided that a review of the facility's production capabilities and its role in the future water supply picture of the community was in order. As a result, a detailed engineering report was developed by Whitman, Requardt & Associates of Baltimore, Maryland, which indicated that the most practical approach to meeting our future water requirements would be to refurbish and improve the plant to increase its capacities. Thus, the recommendation of the consulting engineers were developed into phases based on need, the fact that construction could not be allowed to interfere with the plant's normal operation and the funds available. To date, a considerable amount of work has been accomplished under this program.

Phase I - Involving the expansion of water treatment facilities. This involved doubling the filtration rates by installing new mixed media filter material and rate control equipment, installing mechanical rapid mixing and walking beam flocculators, constructing automatic cleaning screens and such work as refurbishing the elevated wash water tank, replacing the plant roof and updating the water laboratory. Work began on this phase in 1971 and was completed in 1976 at a cost of $666.587.

Phase II - Involving the improvements necessary to increase the plant's pumping capacity. Under this project the new high and low lift pumps were installed along with major

WAV-419

electrical equipment replacements, modernization of pumping controls, a surge supression system, dual electrical service and waste water facilities. Actual construction began in February 1976 and was completed in April 1979 at an estimated cost of $1,470,000. Federal funding from the Appalachain Regional Commission in the amount of $725,350 assisted in the financing of this work.

Phase III - This project will involve new chemical storage and feeder facilities, refurbishing of the plant's heating system and major operator oriented improvements such as the automation of chemical feeders, expanded laboratory facilities and basin walkways. Plans and specifications for this project have been completed and actual work is expected to begin by mid 1979.

Federal funding from the Appalachian Regional Commission in the amount of $783,200 have been secured to cover approximately 80% of construction costs.

The final step in the current program referred to as Phase IV, will involve the installation of devices to aid in the process of settling and mechanical sludge removal equipment in the sedimentation basins when the plant nears an average 15 MGD production level.

Water Analysis

Sample Location - Richard C. Willson Water Treatment Plant
Laboratory-E.P.A. Water Supply Research Laboratory, Cincinati, Ohio
Date-June 25, 1975
Standards-Safe Drinking Water Act of 1974

	EPA Minimum Standards	Test Results
Arsenic	0.05 mg/1	0.005 mg/1
Bariun	1.0	0.2
Cadmium	0.010	0.002
Chromium	0.05	0.005
Cyanide	0.2	.0.02
Lead	0.05	0.005
Mercury	0.002	0.0005
Nitrate	10.0	4.0
Selenium	0.01	0.005
Silver	0.05	0.006
Fluoride	1.6 at 70.2°F	0.8
Turbidity	1.0 S.U.	0.44 S.U.
Color	15.0 S.U.	8.0 S.U.
Odor	3.0 S.U.	0
Total Dissolved Solids	500 mg/1	78.0 mg/1
Chloride	250 mg/1	10.0 mg/1
Sodium		7.0
Lithium		0.013
M.B.A.S.	0.5	0.3
Copper	1.0	0.06
manganese	0.05	0.03
Iron	0.3	0.1
Zinc	5.0	0.06

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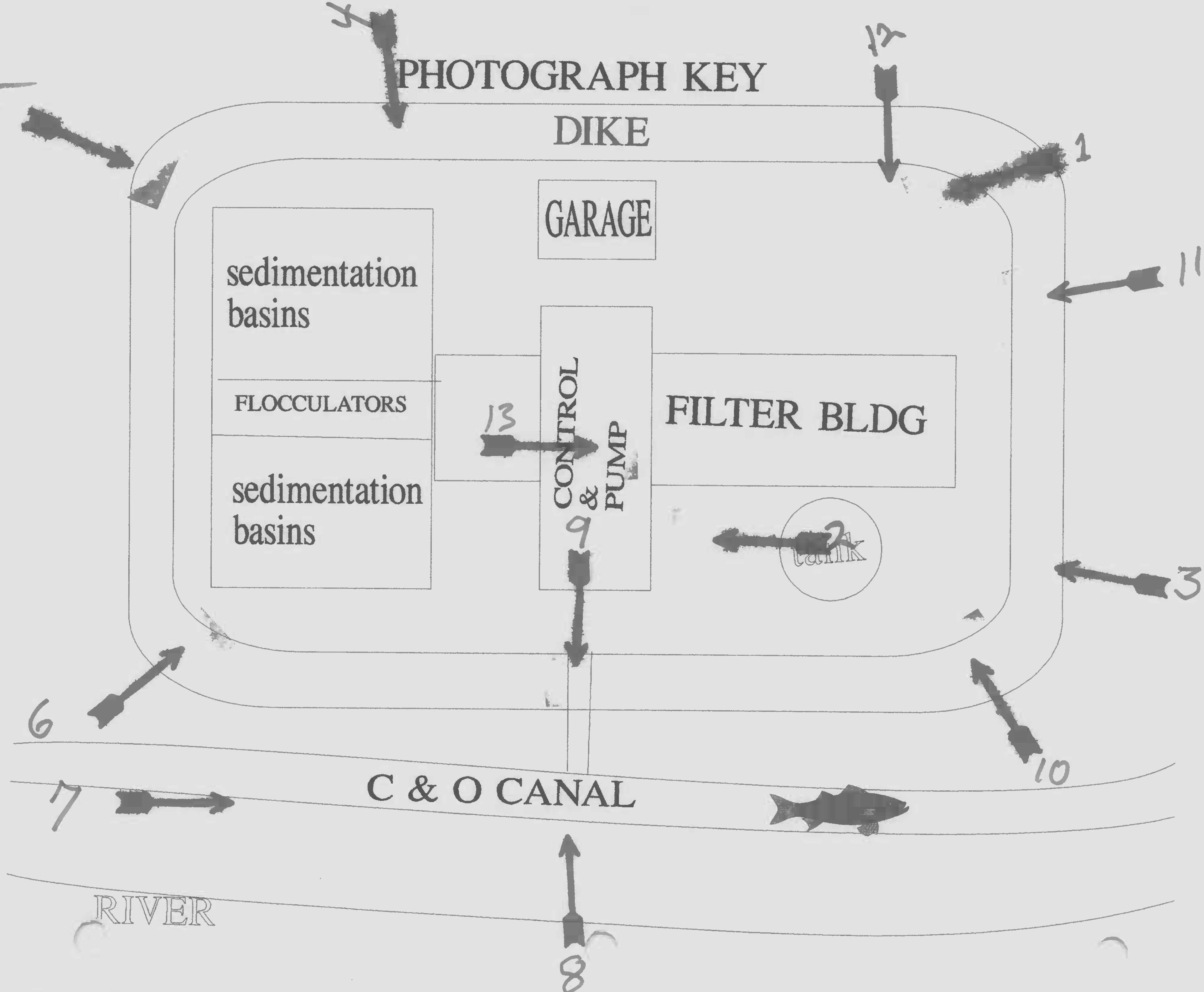
ADDENDUM: Page 16

Phase III as described on page 16 of the 50th anniversary brochure of the R. C. Willson Water Plant was begun in the fall of 1979 and completed in the summer of 1981.

Reference is made to a Phase IV which would involve basin enhancements. This phase was never carried forward.

WA-V-419

PHOTOGRAPH KEY



Capsule Summary

WA-V-419

~~WA-V-248~~

R.C. Willson Water Treatment Plant
10802 Water Works Road
Williamsport, MD

Built in 1928, the R.C. Willson Water Treatment Plant which serves Hagerstown is located along the Potomac River, just west of Williamsport. The Plant includes a large brick treatment facility, large concrete sedimentation basins, a steel water tower and a later Ca 1960s surge tank and garage building. The complex is contained within an earthen dike, 69 feet above the normal river level. The buildings are of brick construction, one story high and T-shaped with a gabled roof. Gables are finished with brick parapets with concrete coping. A three story flat roofed, with parapet chemical treatment building is attached to the west end of the plant and is part of the original construction. The building's front is the north elevation. Added to the main structure is a wing for chemical storage, extending to the south, said to have been constructed in the 1970s. It follows the same design as the rest of the building. The plant exhibits an industrial vernacular style of the 1920s.

The R.C. Willson Water Treatment Plant is important for its architecture and for its contribution to the history of public works in Hagerstown, a city that reached its peak in growth in 1929, the year after this plant was constructed. Built of brick, the Plant retains many original interior and exterior features that reflect stylistic and structural preferences of the 1920s. It also reflects the culmination in the development of Hagerstown's public water system, an effort which began as early as 1849. The Plant was designed by Charles E. Kountz of Hagerstown, Architect and George E. Bean, Engineer, Philadelphia, PA.

Maryland Historical Trust
State Historic Sites Inventory Form

Survey No. ~~WA-V-248~~ WA-V-419

Magi No.

DOE X yes ___ no

1. Name of Property (indicate preferred name)

historic R.C. Willson Water Treatment Plant

and/or common

2. Location

street & number 10802 Water Works Road ___ not for publication

city, town Williamsport X vicinity of Williamsport congressional district 6

state Maryland county Washington

3. Classification

Category	Ownership	Status	Present Use	
___ district)	X public	X occupied	___ agriculture	___ museum
X building(s)	___ private	___ unoccupied	___ commercial	___ park
X structure	___ both	___ work in progress	___ educational	___ private residence
___ site	**Public Acquisition**	**Accessible**	___ entertainment	___ religious
___ object	___ in process	X yes: restricted	___ government	___ scientific
	___ being considered	___ yes: unrestricted	___ industrial	___ transportation
	___ not applicable	___ no	___ military	X other: municipal water treatment

4. Owner of Property (give names and mailing addresses of all owners)

name Water Department, City of Hagerstown

street & number 51 W. Memorial Blvd. telephone no.: 301-790-3200 ext 171

city, town Hagerstown state and zip code Maryland 21740

5. Location of Legal Description

courthouse, registry of deeds, etc. Washington County Court House Liber

street & number West Washington Street Folio

city, town Hagerstown state Maryland

6. Representation in Existing Historical Surveys

title N/A

date ___ federal ___ state ___ county ___ local

depository for survey records

city, town state

7. Description

Survey No. ~~WA-V-248~~

Condition		Check one	Check one
x excellent	___ deteriorated	___ unaltered	x original site
___ good	___ ruins	x altered	___ moved date of move ________
___ fair	___ unexposed		

Prepare both a summary paragraph and a general description of the resource and its various elements as it exists today.

DESCRIPTION SUMMARY:

Built in 1928, the R.C. Willson Water Treatment Plant which serves Hagerstown is located along the Potomac River, just west of Williamsport. The Plant includes a large brick treatment facility, large concrete sedimentation basins, a steel water tower and a later Ca 1960s surge tank and garage building. The complex is contained within an earthen dike, 69 feet above the normal river level. The buildings are of brick construction, one story high and T-shaped with a gabled roof. Gables are finished with brick parapets with concrete coping. A three story flat roofed, with parapet chemical treatment building is attached to the west end of the plant and is part of the original construction. The building's front is the north elevation. Added to the main structure is a wing for chemical storage, extending to the south, said to have been constructed in the 1970s. It follows the same design as the rest of the building. The plant exhibits an industrial vernacular style of the 1920s.

General Description

The building rests on poured concrete foundations. The bricks forming the walls and parapets are laid in common bond with recessed joints. Wall area is defined by corbeled brick work forming pilasters and cornices and separating the bays. Windows have single panes which seem to have replaced industrial-type 12-pane windows. They are marked by poured concrete sills.

The original front entrance is in the north gable wall of the north-south wing. This facade consists of three bays defined by corbeled brick work. The entrance is central with windows on either side. Above the openings are brick-lined arches with cast stone plinths and keystones. This decorative work provides distinction to the entrance facade.

Just west of the building are two large concrete sedimentation basins. Topped with round iron railings, they are each 80 feet wide, 122 feet long and 17 feet deep with a capacity of 850,000 gallons each. Between the two basins are mixing and coagulation chambers, two of them, each 12 feet wide by 122 feet long, of reinforced concrete. In these, the initial water purification process begins with the addition of chlorine and alum.

Another exterior structure is the water tower at the southeast corner of the building. This elevated water storage tank has a capacity of 75,000 gallons which are used to backwash the filters in the filtration room adjacent to the tower. The tower is round with a rounded bottom and a conical roof terminating with a ball finial. It is constructed of riveted panels of steel with a central conduit and four supporting legs. One of the legs, the northwest one, is equipped with a ladder leading to a railed catwalk around the circumference of the tower.

The complex is in excellent condition, although the water tower is deteriorated with a significant leak in its base.

Interior

The interior of the R.C. Willson Water Treatment Plant is essentially one large space divided into specialized areas. From the south side entrance, one enters into the area forming the top of the T of the building's configuration. This area, the pump room, houses the low service pumps and the high service pumps. The function of the low service pumps is to pump screened river water up into the presettling basins outside the building. The pumping area is in a round recessed well which is 28 feet below the floor level and 42 feet in diameter. The well is enclosed with a decorative iron railing. At the north end of this wing is a rectangular shallow well housing the high service pumps which send the purified water into the distribution system. This area consists of five vertically mounted turbine pumps. They are housed in a rectangular recessed area enclosed by an iron pipe railing. The pump room has a concrete floor with brick walls. On the walls are mounted original lighting fixtures with scroll brackets holding translucent globes. There are also rows of functional industrial overhead incandescent lights. In addition to the pump areas this room also houses the master control panel which holds gauges and chart recorders for the pump discharge rates. This unit is adjacent to the low level pump well. There is also a high service pump motor control unit.

The stem of the T houses the filtration plant, consisting of 10 filter basins, measuring 24 feet by 18 feet by 8 feet in depth. Water is pumped from the sedimentation basin to these filters where it drains down through the filter material. This is the final stage of the water treatment process. Each filter basin has its own control station consisting of a marble console with raised panel wooden doors and black polished slate tops. Mounted on the consoles are both computerized and needle driven recording instruments. Set along the north wall of the filtration room, near its west end is a wooden cabinet of chestnut, with a projecting work surface. At the corner where the pump room and the filtration room are attached, is the laboratory. The floor of the filtration room is several feet higher than the other parts of the building to allow for the elaborate piping system beneath.

West of the pump room is the three story chemical building which houses the chemical feeding equipment. An additional chemical storage wing was added to the south elevation of the filtration room in the 1970s.

8. Significance

Survey No. ~~WA-V-248~~

Period	Areas of Significance	Check and justify below		
___ prehistoric	___ archeology-prehistoric	X community planning	___ landscape architecture	___ religion
___ 1400-1499	___ archeology-historic	___ conservation	___ law	___ science
___ 1500-1599	___ agriculture	___ economics	___ literature	___ sculpture
___ 1600-1699	X architecture	___ education	___ military	___ social/ humanitarian
___ 1700-1799	___ art	___ engineering	___ music	
___ 1800-1899	___ commerce	___ exploration/settlement	___ philosophy	___ theater
X 1900-	___ communications	___ industry	___ politics/government	___ transportation
		___ invention		___ other(specify)

Specific dates 1928 **Builder/Architect** George E. Bean, engineer; Charles E. Kountz, architect

check: Applicable Criteria: X A ___ B X C ___ D
and/or
Applicable Exceptions: ___ A ___ B ___ C ___ D ___ E ___ F ___ G

Level of Significance: ___ national ___ state X local

Prepare both a summary paragraph of significance and a general statement of history and support.

SIGNIFICANCE SUMMARY:

The R.C. Willson Water Treatment Plant is important for its architecture and for its contribution to the history of public works in Hagerstown, a city that reached its peak in growth in 1929, the year after this plant was constructed. Built of brick, the Plant retains many original interior and exterior features that reflect stylistic and structural preferences of the 1920s. It also reflects the culmination in the development of Hagerstown's public water system, an effort which began as early as 1849. The Plant was designed by Charles E. Kountz of Hagerstown, Architect and George E. Bean, Engineer, Philadelphia, PA.

Historical Context

The city of Hagerstown is located near the center of the width of a fertile basin between mountain ranges known as the Cumberland Valley. It was laid out in 1762 by Jonathan Hager, a German immigrant who was a farmer, fur trader and land developer. The original town was divided into 520 lots and was located at the intersection of prominent Colonial roads. One of these led down the Cumberland Valley from Harris' Ferry on the Susquehanna to Williams' Ferry on the Potomac, and another, the Philadelphia Wagon Road, led west into the frontier.

In 1776, Hagerstown became the county seat of newly formed Washington County. The town then became a governmental center with a courthouse and jail in addition to being an agricultural center. By the early 19th century, construction of turnpikes, especially those linking Baltimore to the National Pike at Cumberland, and the road improvements enhanced Hagerstown's role as a trade and transportation nucleus. With the development of railroads in the mid and late 19th century, Hagerstown's position as a trade center was again expanded. The B&O, Western Maryland, Norfolk and Western and Cumberland Valley Railroads all served Hagerstown.

In addition to the influence of the railroads, Hagerstown experienced the urbanization and industrialization that was occurring throughout the nation in the second half of the 19th century. In population, the city grew from 6,627 in 1880 to 16,507 in 1910.[1] By 1920 the population was 28,064 and by 1940, the growth had slowed with the population in that year reaching 32,491. In the 1990 census, the population was 35,445, a gain of only 3,000 in the past 50 years. These records show that Hagerstown experienced a major growth phase, significant to its character today, during the late 19th and early 20th centuries. During the 1870-1940 period, Hagerstown supported a variety of industries, the most important being machine shops, steam railroad repair shops, flour and grist mills, furniture, knit goods and organs. Much of the present day appearance of Hagerstown was defined during this time period with distinct areas and neighborhoods reflecting architectural trends of the late 19th and early 20th centuries. In Maryland, by 1914, more people were working in industry than in agriculture, and more were living in urban areas than in rural areas.[2] Hagerstown's fourfold growth in population between 1870 and 1930 with the biggest jump taking place between 1910 and 1920 (16,507 to 28,064) resulted in a tremendous need for housing throughout the city.

Resource History

Hagerstown's rapid growth in the early 20th century accelerated the need to institute public improvements, among them a dependable municipal water system. The first official governmental attempt to provide water for the residents of Hagerstown was in 1849 when the Mayor and City Council purchased Oak Springs located in the first block of West Franklin Street. This was an effort to provide and maintain a source of water for public use. Prior to this time, residents depended on wells and springs for their water needs.

In 1880, the Washington County Water Company was formed by a group of citizens led by William T. Hamilton who later became Governor of Maryland. The water company entered into a formal agreement with the City to provide a water system. The effort was encouraged by the need for a piped system to create a more reliable means for fire fighting due to increased fire hazard on the rapidly growing town. By 1882, there was a water distribution system with a 12 inch main and five hydrants. However, during the next 25 years, continual water shortages from the growing population and droughts necessitated the construction of several reservoirs to meet the City's needs. Shortages continued to occur and in 1918, the Washington County Water Company was purchased by the City of Hagerstown.

After five years of mounting problems with the water system, including insufficient supplies and substandard quality, the City hired George E. Bean, an independent consulting engineer from Philadelphia to make a study of the local water resources in Washington County and identify a good source. This study identified the Potomac River at Williamsport as a good site to build a chemical

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[1]Eleanor Burchey, "The Industrialization of Maryland, 1860-1914." Richard Walsh and William Lloyd Fox eds. Maryland, A History: 1632-1974. (Baltimore: Maryland Historical Society, 1974) p. 431.

[2]Ibid, p. 396 citing U.S. Dept. of Commerce, Bureau of the Census, Census of Manufactures: 1914, I, 553.

treatment, filtration, and pumping facility. Construction began on the plant in 1927. On December 7, 1928, the plant with a 24-inch transmission main to Hagerstown began operation. The design of the plant was unique in that it was designed to pre-settle water before the chemically induced settling procedure began.[3] The plant was known as the Williamsport Water Plant.

In 1968, the water plant was renamed in memory of Richard C. Willson, who began working for the water department as a chemist in 1938. He was superintendent of the plant form August, 1945 until his death in February, 1967.

According to the Maryland Historical Trust's file on Maryland Architects, Charles E. Kountz, architect for the plant, was active from 1908. He was affiliated with the firm of Mack and Kountz in Hagerstown. His partner was Fred J. Mack who lived from 1878 to 1957.

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[3] Richard C. Willson Water Treatment Plant 50th Anniversary Brochure p.7.

Maryland Historical Trust
State Historic Sites Inventory Form

Survey No. ~~WA-V-248~~ WA-V-419

Magi No.

DOE X yes ___ no

Section Number 8 Page 4

HISTORICAL CONTEXT:

MARYLAND COMPREHENSIVE PRESERVATION PLAN DATA

Geographic Organization: Western Maryland

Chronological/Developmental Period(s):

Industrial/Urban Dominance 1870-1930 A.D.

Prehistoric/Historic Period Theme(s):

Architectural/Landscape Architecture/Community Planning

Resource Type:

Category: Building(s), structure(s)

Historic Environment: Rural

Historic Function(s) and Use(s):

Water Treatment Facility

Known Design Source: Industrial Vernacular

Charles E. Kountz, architect
George E. Bean, engineer

WA-V-419

9. Major Bibliographical References

Survey No. ~~WA-V-248~~

Burchey, Eleanor, "The Industrialization of Maryland, 1860-1914." Richard Walsh and William Lloyd Fox eds. Maryland, A History: 1632-1974, Baltimore: Maryland Historical Society, 1974.

Richard C. Willson Water Treatment Plant 50th Anniversary Brochure, 1978.

10. Geographical Data

Acreage of nominated property approximately 6

Quadrangle name Williamsport

Quadrangle scale 1:24000

UTM References DO NOT COMPLETE UTM REFERENCES

	Zone	Easting	Northing		Zone	Easting	Northing
A				B			
C				D			
E				F			
G				H			

Verbal boundary description and justification

The area associated with this resource shall be that property enclosed by the man-made dike to include the dike itself, surrounding the water treatment facility, an area of approximately 6 acres.

List all states and counties for properties overlapping state or county boundaries

state Maryland code county Washington code

state code county code

11. Form Prepared By

name/title Paula S. Reed, PhD, Architectual Historian

organization Paula S. Reed and Associates, Inc. date December 17, 1996

street & number 105 N. Potomac Street telephone 301-739-2070

city or town Hagerstown state Maryland 21740

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 supplement.

The survey and inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

return to: Maryland Historical Trust
People's Resource Center
100 Community Place
Crownsville, MD 21032-2023
410-514-7000

WA-V-419

Click here for a plain text ADA compliant screen.

Maryland Department of Assessments and Taxation
WASHINGTON COUNTY
Real Property Data Search

Go Back
View Map
New Search

Account Identifier: **District -** 02 **Account Number -** 021390

Owner Information

Owner Name:	HAGERS CITY OF	**Use:**	EXEMPT COMMERCIAL
		Principal Residence:	NO
Mailing Address:	CITY HALL HAGERSTOWN MD 21740	**Deed Reference:**	1) / 168/ 290 2)

Location & Structure Information

Premises Address	**Zoning**	**Legal Description**
10802 WATER WORKS ROAD WILLIAMSPORT 21795	P	25.66 ACRES WATER PLT S/BOTTOM RD NEAR WILLIAMSPORT

Map	Grid	Parcel	Sub District	Subdivision	Section	Block	Lot	Group	Plat No:
47	23	70						82	Plat Ref:

Special Tax Areas **Town**
Ad Valorem
Tax Class

Primary Structure Built	Enclosed Area	Property Land Area	County Use
1927	27,756 SF	25.66 AC	

Stories	Basement	Type	Exterior

Value Information

	Base Value	Value As Of 01/01/2003	Phase-in Assessments As Of 07/01/2003	As Of 07/01/2004
Land:	64,100	64,100		
Improvements:	955,800	1,073,100		
Total:	1,019,900	1,137,200	1,059,000	1,098,100
Preferential Land:	0	0	0	0

Transfer Information

Seller:		**Date:**	**Price:**
Type:		**Deed1:**	**Deed2:**
Seller:		**Date:**	**Price:**
Type:		**Deed1:**	**Deed2:**
Seller:		**Date:**	**Price:**
Type:		**Deed1:**	**Deed2:**

Exemption Information

Partial Exempt Assessments	Class	07/01/2003	07/01/2004
County	000	0	0
State	000	0	0
Municipal	000	0	0

Tax Exempt: COUNTY AND STATE
Exempt Class: PUBLIC WORKS PROPERTIES

Special Tax Recapture:

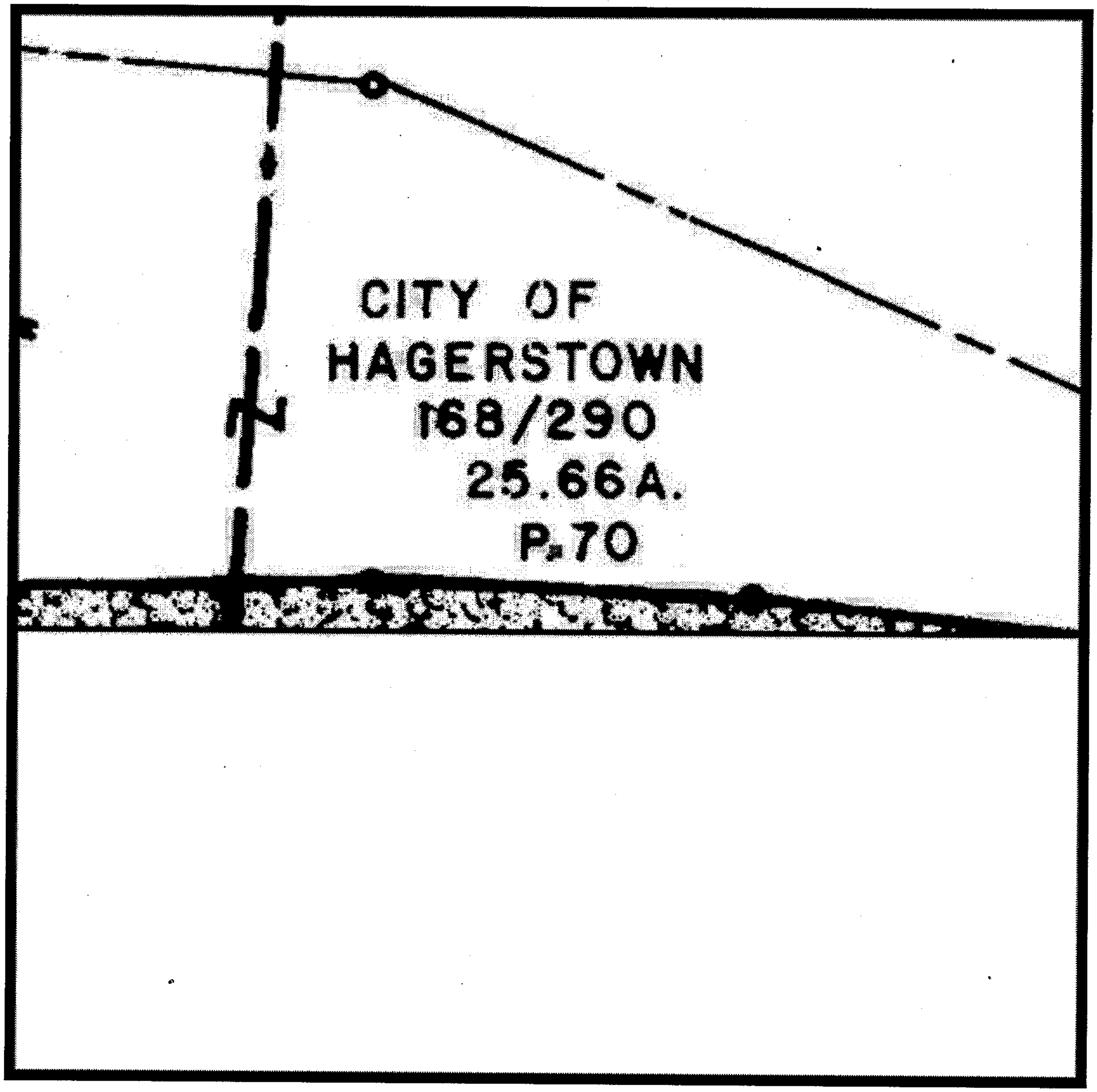
* NONE *

WA-V-419

Maryland Department of Assessments and Taxation
WASHINGTON COUNTY
Real Property Data Search

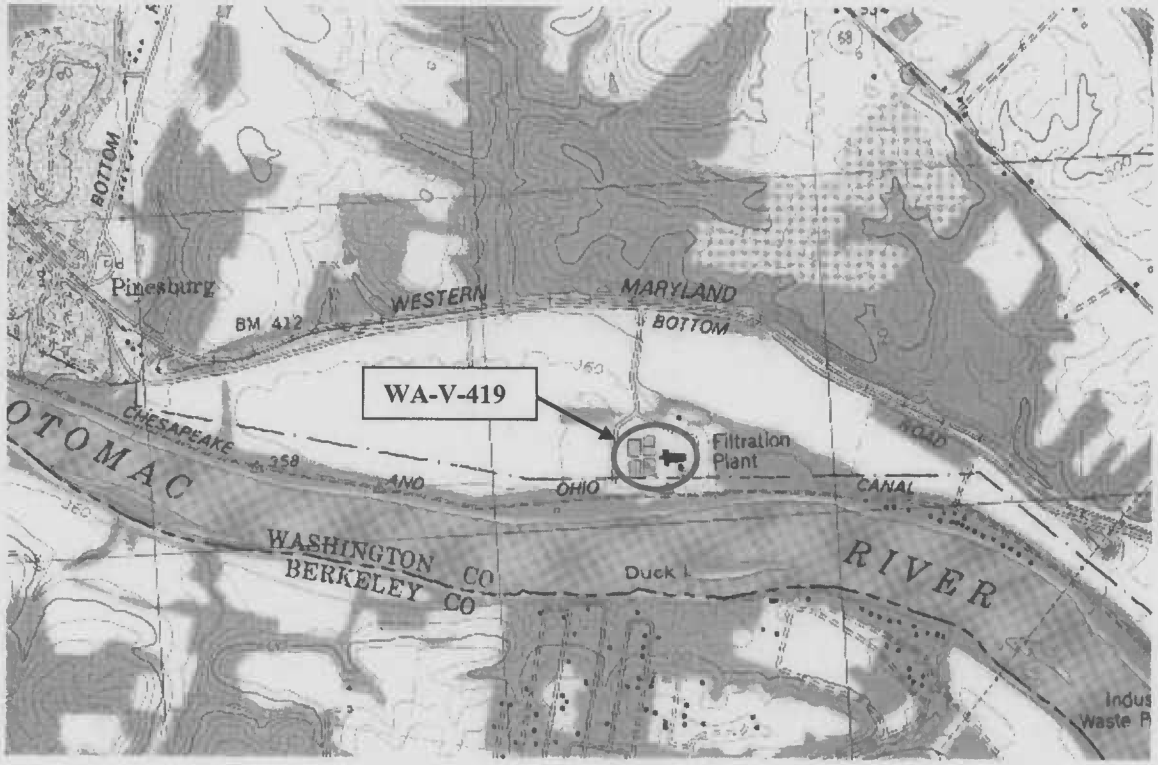
Go Back
View Map
New Search

District - 02 **Account Number** - 021390



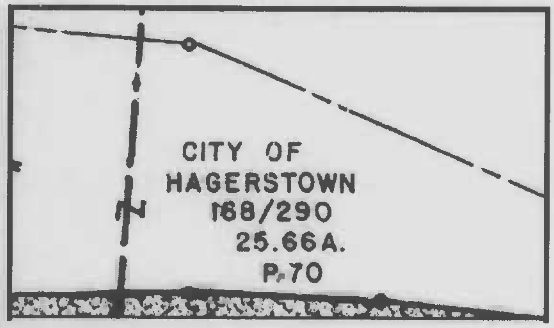
Property maps provided courtesy of the Maryland Department of Planning ©2001.
For more information on electronic mapping applications, visit the Maryland Department of Planning web site at www.mdp.state.md.us/webcom/index.html

WA-V-419
Richard C. Willson Water Treatment Plant
10802 Water Works Road, Williamsport
Williamsport Quadrangle

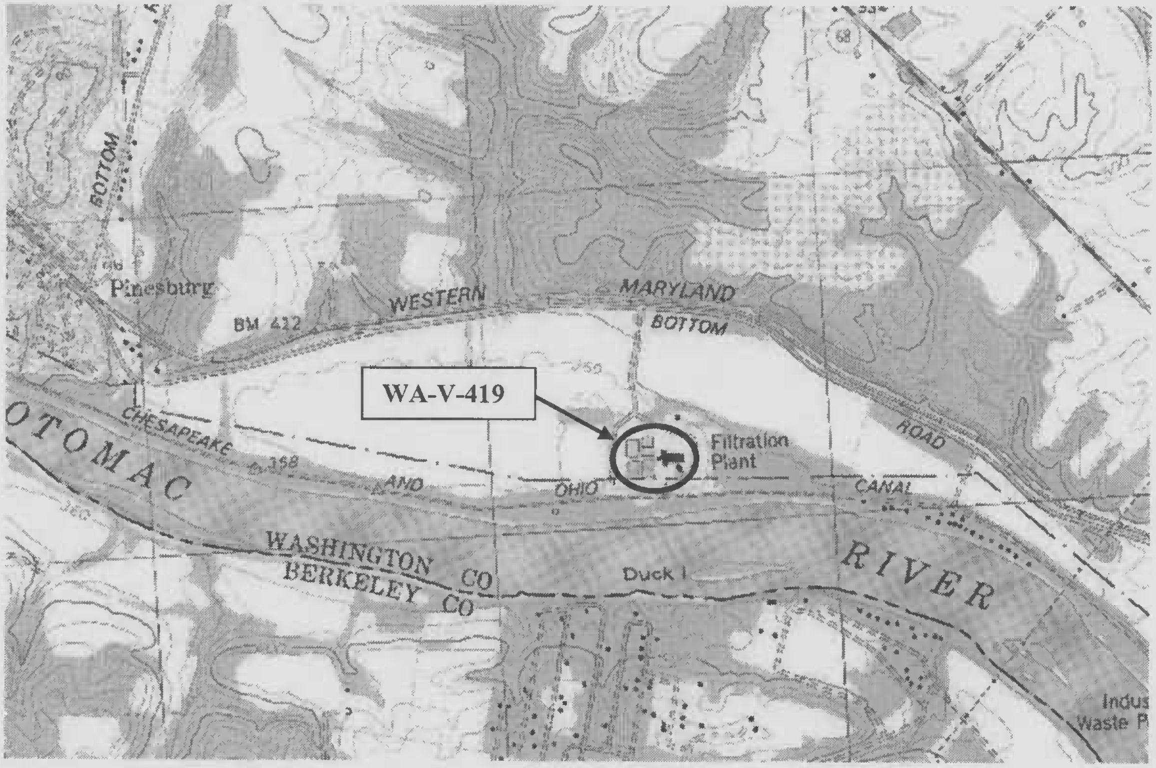


1993-94 Aerial Photo

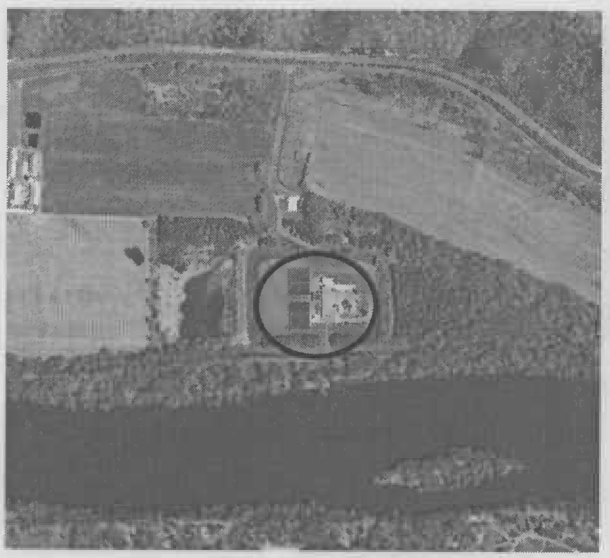
Tax Map 47



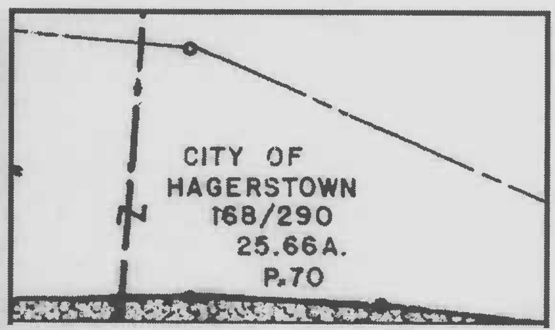
WA-V-419
Richard C. Willson Water Treatment Plant
10802 Water Works Road, Williamsport
Williamsport Quadrangle



1993-94 Aerial Photo



Tax Map 47



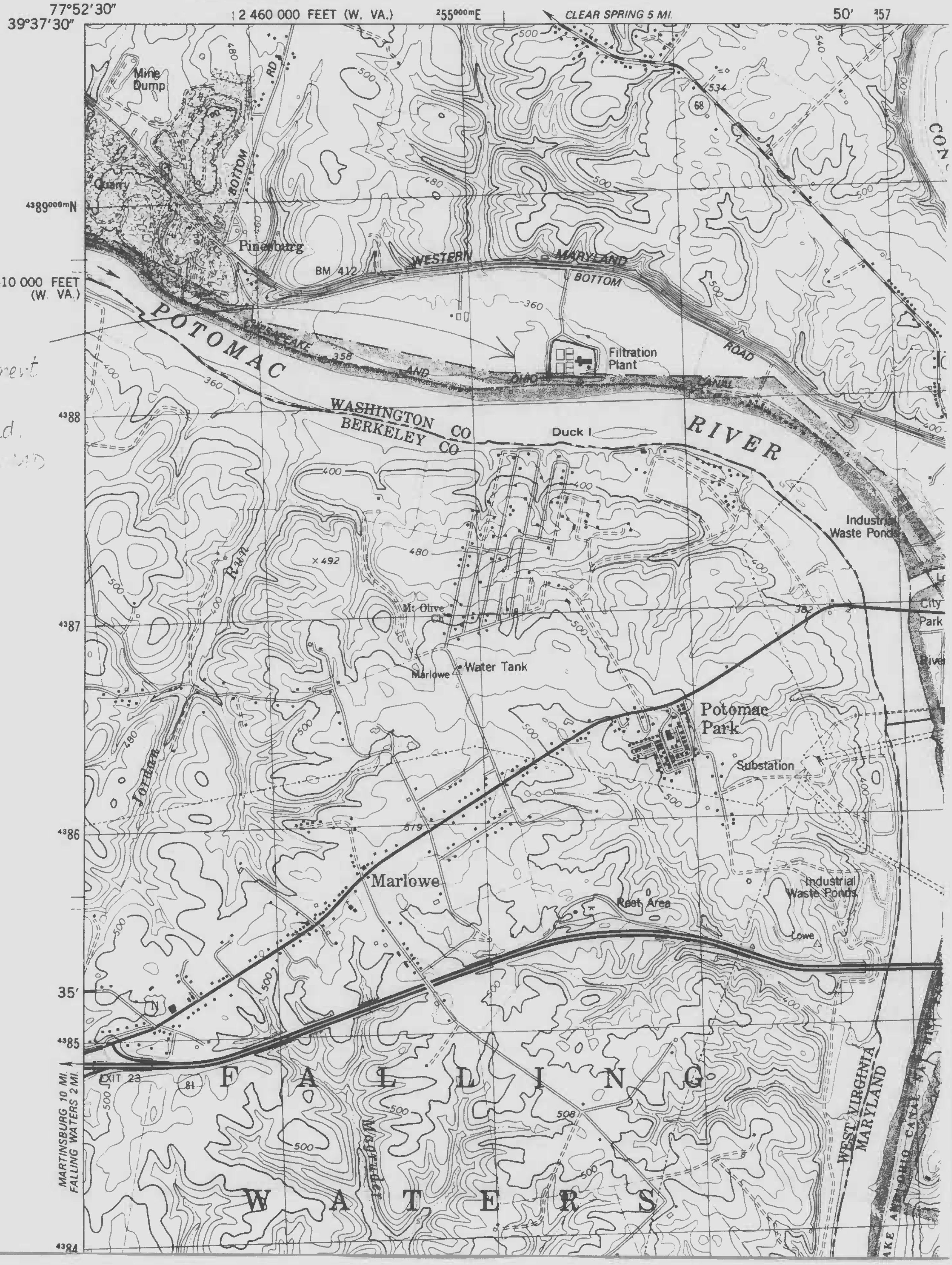
WA-V-419

5463 III NW
(CLEAR SPRING)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

~~WA-V-248~~

R.C. Willson
Water Treatment
Plant.
Water works Rd.
Williamsport, MD



~~WA-V-248~~ WA-V-419

R.C. WILLSON WATER TREATMENT PLANT

10802 WATER WORKS RD

WILLIAMSPORT, MD WASHINGTON CO

Photo by P. REED

11/96

neg. loc. MHT

VIEW:

#1

~~WA-V-218~~ WA-V-419

R.C. WILLSON WATER TREATMENT PLANT

10802 WATER WORKS RD

WILLIAMSPORT, MD WASHINGTON CO

photo by P. REED

11/96

neg loc. MHT

VIEW: SE

#2

~~WA-V-248~~ WA-V-419

R.C. WILLSON WATER TREATMENT PLANT

10802 WATER WORKS RD

WILLIAMSPORT, MD WASHINGTON CO

photo by P. REED

11/96

neg loc MHT

VIEW: NE

#3

~~WA-V-248~~ WA-V-419

R.C. WILLSON WATER TREATMENT PLANT

10802 WATER WORKS RD

WILLIAMSPORT, MD WASHINGTON CO.

photo by P. REED

11/96

neg loc MHT

VIEW: SW

#4

~~WA-V-248~~ WA-V-419

R.C. WILLSON WATER TREATMENT PLANT

10802 WATER WORKS RD

WILLIAMSPORT, MD WASHINGTON CO

photo by P. REED

11/96

neg. loc. MHT

VIEW: S

#5

~~WA-V-248~~ WA-V-419

RC WILLSON WATER TREATMENT PLANT

10802 WATER WORKS RD

WILLIAMSPORT, MD WASHINGTON Co.

photo by P. REED

11/96

neg. loc. MHT

VIEW: N

#6

~~WA-V-248~~ WA-V-419

R.C. WILLSON WATER TREATMENT PLANT

10802 WATER WORKS RD

WILLIAMSPORT, MD WASHINGTON CO

photo by P. REED

11/96

neg. loc. MHT

VIEWS N, detail, Chemical building add'n

7

~~WA-V-218~~ WA-V-419

R.C. WILLSON WATER TREATMENT PLANT

10802 WATER WORKS RD

WILLIAMSPORT, MD WASHINGTON CO.

photo by P. REED

11/96

neg. loc. MHT

view: NW, detail, sediment basins

8

~~WA-V-248~~ WA-V-419

R.G. WILLSON WATER TREATMENT PLANT

10802 WATERWORKS RD

WILLIAMSPORT, MD WASHINGTON CO

photo by P. REED

11/96

neg. loc. MHT

VIEW: W, E ELEVATION, DETAIL

#9

~~WA-V-248~~ WA-V-419

R.C. WILLSON WATER TREATMENT PLANT

10802 WATER WORKS RD

WILLIAMSPORT, MD WASHINGTON CO

photo by P. REED

11/96

neg. loc. MHT

VIEW: NE, detail, water tower

#10

~~WA-V-248~~ WA-V-419

R.C. WILLSON WATER TREATMENT PLANT

10802 WATERWORKS RD

WILLIAMSPORT, MD WASHINGTON CO

photo by P. REED

11/96

neg. loc. MHT

VIEW: SW, WATERTOWER

#11

~~WA-V-248~~ WA-V-419

RC WILLSON WATER TREATMENT PLANT

10802 WATER WORKS RD

WILLIAMSPORT, MD WASHINGTON CO

photo by P. REED

11/96

neg. loc. MHT

VIEW: NE, WATER TOWER

#12

~~WA-V-248~~ WA-V-419
RC WILLSON WATER TREATMENT PLANT
10802 WATERWORKS RD
WILLIAMSPORT, MD WASHINGTON CO
photo by P. REED
11/96
neg. loc. MHT
VIEW: NORTH ELEVATION, SE VIEW
#13

~~WA-V-248~~ WA-V-419

R.C. WILLSON WATER TREATMENT PLANT

10802 WATERWORKS RD

WILLIAMSPORT, MD WASHINGTON Co

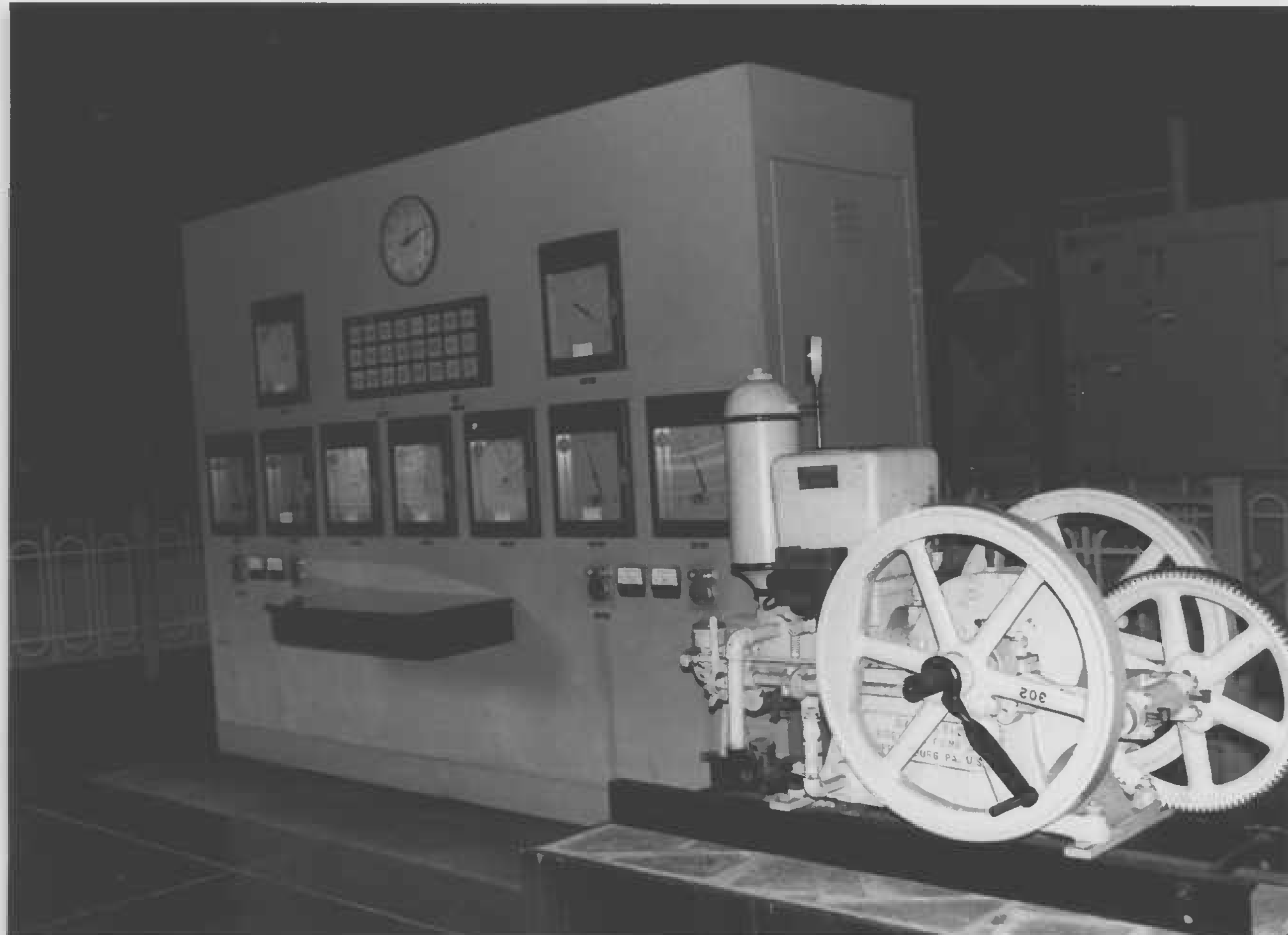
photo by P. REED

11/96

Neg. loc. MHT

VIEW: Interior pumproom, S. side, low level pump area

#14



~~WA-V-248~~ WA-V-419

R.C. WILLSON WATER TREATMENT PLANT

10802 WATER WORKS RD

WILLIAMSPORT, MD WASHINGTON CO

photo by P. REED

11/96

neg. loc. MHT

VIEW: Interior, pumproom, low level pump indicator + monitor

#15

~~WA-V-248~~ WA-V-419

RC WILLSON WATER TREATMENT PLANT

10802 WATER WORKS RD

WILLIAMSPORT, MD WASHINGTON CO

photo by P. REED

11/96

neg. loc. MHT

VIEW: INTERIOR, PUMP ROOM, HIGH LEVEL PUMPS

#16

~~WA-V-218~~ WA-V-419

RC WILLSON WATER TREATMENT PLANT

10802 WATER WORKS RD

WILLIAMSPORT, MD WASHINGTON CO

photo by P. REED

11/96

neg. loc. MHT

VIEW: INTERIOR, PUMP ROOM, WALL SCONCE

#17

~~WA-V-248~~ WA-V-419

R.C. WILLSON WATER TREATMENT PLANT

10802 WATER WORKS RD

WILLIAMSPORT, MD WASHINGTON CO

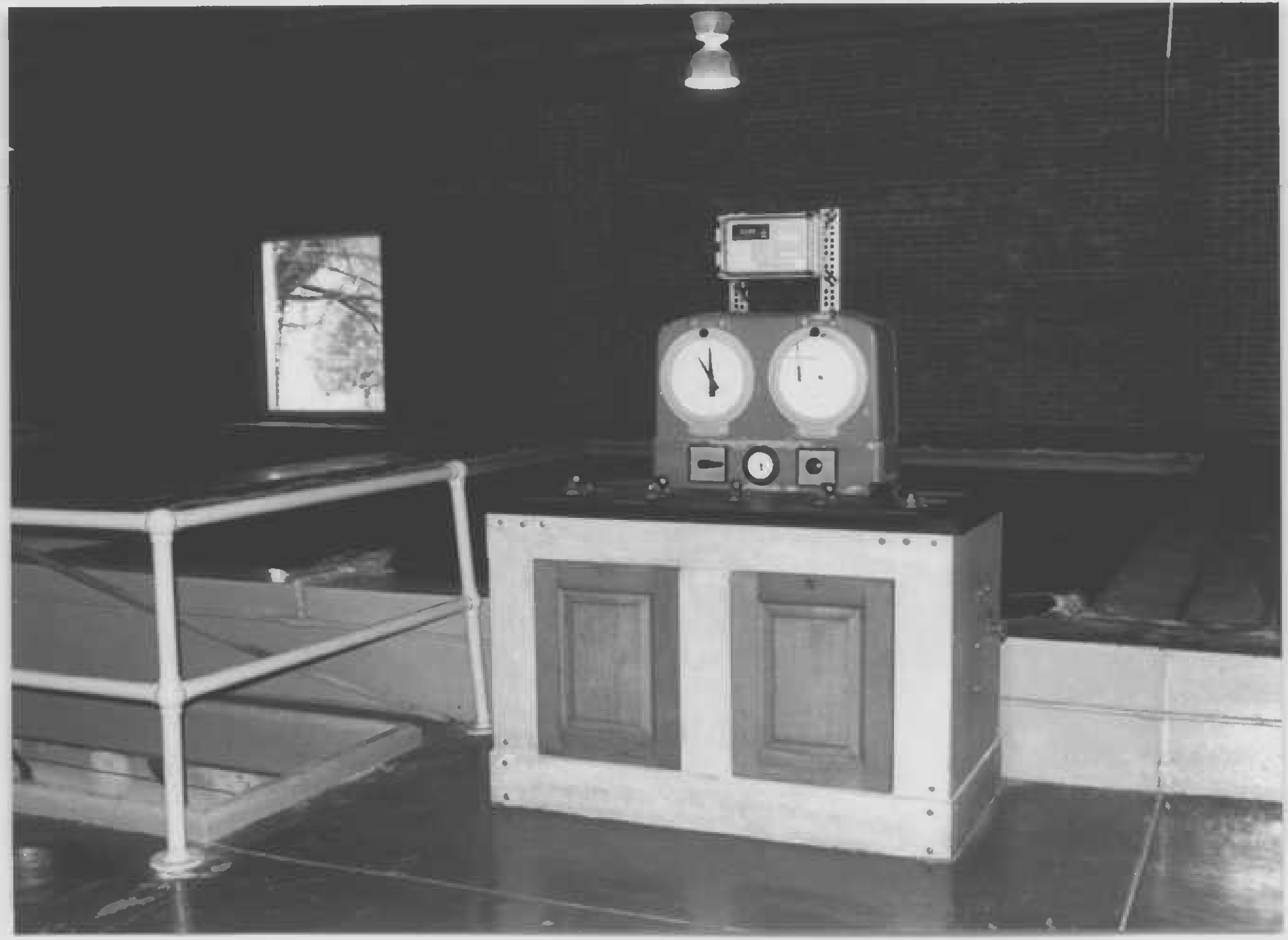
photo by P. REED

11/96

neg. loc. MHT

VIEW: INTERIOR FILTRATION ROOM, NE

#18



~~WA-V-248~~ WA-V-419

R.C. WILLSON WATER TREATMENT PLANT

10802 WATERWORKS RD

WILLIAMSPORT, MD WASHINGTON CO

photo by P. REED

11/96

neg. loc. MHT

VIEW: INTERIOR, FILTRATION ROOM, marble console monitor

#19

~~WA-V-248~~ WA-V-419

RC WILLSON WATER TREATMENT PLANT

10802 WATER WORKS RD

WILLIAMSPORT, MD WASHINGTON CO

photo by P. REED

11/96

neg. loc. MHT

VIEW: INTERIOR, FILTRATION SYSTEM piping

#20

~~WA-V-248~~ WA-V-419

RC WILLSON WATER TREATMENT PLANT

10802 WATER WORKS RD

WILLIAMSPORT, MD WASHINGTON CO

Photo by P. REED

11/96

neg. loc. MHT

VIEW: CHESTNUT CUPBOARD, FILTRATION ROOM

#21

~~WA-V-248~~ WA V-419

R.C. WILLSON WATER TREATMENT PLANT

10802 WATERWORKS RD

WILLIAMSPORT, MD WASHINGTON CO

photo by P. REED

11/96

Neg. loc. MHT

View: RESTROOM, WEST END, PUMP ROOM

#22

WA-V-419

NO 2

#17

WILLSON WATER TREATMENT PLANT

WA CO.


RICHARD
FROM

NO 2

WA-V-419

03378254 1:22 N N N-3 2

8177

WILLSON H_2O TREATMENT PLANT WA CO

NO 3

WA-V-419

91#

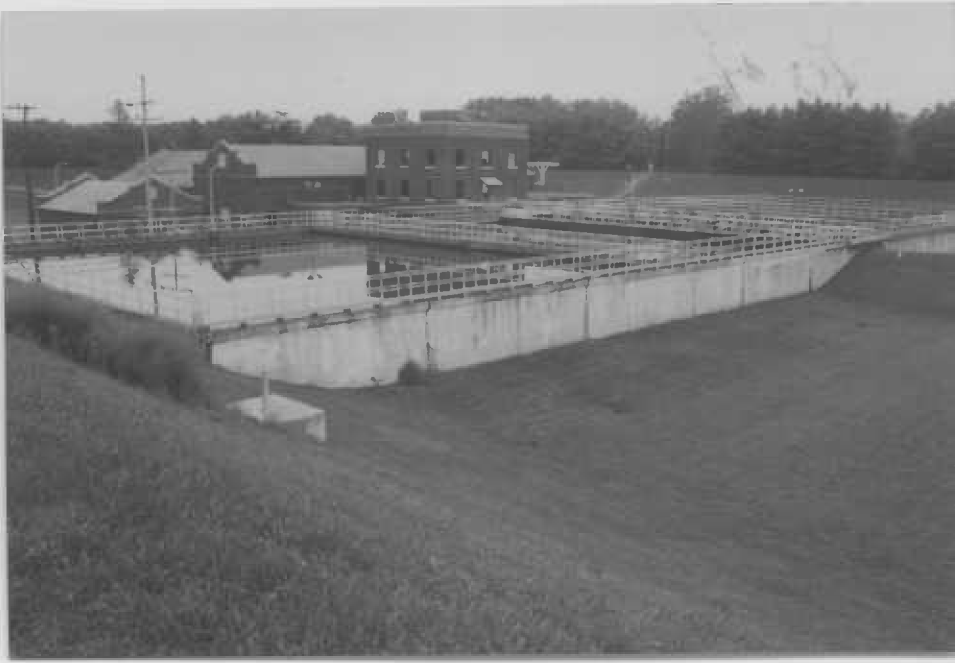
WILLSON H_2O TREATMENT PLANT
WA CO

NO 4

WA-V-419

#16

WILLSON H_2O TREATMENT PLANT WA CO



No 5

WA-V-419

41 #

WILLSON H_2O TREATMENT PLANT, WACO

NO 6

WA-V-419

E17

WILLSON H_2O TREATMENT PLANT WACO

No 7

WA-V-419

(2) 38254 122 N H N-12

11 #

WILLSON H_2O TREATMENT PLANT WA CO.

NO 8

WA-V-419

6#

WILLSON WATER TREATMENT PLANT WA Co

NO 9

WA-V-419

8 F.

WILLSON H_2O TREATMENT PLANT WA CO

NO 10 WA-V-419

2#

WILLSON H_2O TREATMENT PLANT WA CO

No 11

WA-V-419

C113B25 4122 N N N-12

9 #

WILLSON H_2O TREATMENT PLANT
WA CO

WA-V-419

NO. 12

78825 4 12 N N-12

SA

WILLSON H_2O TREATMENT PLANT WA CO

No 13

WA-V-419

1437325 4122 1 M 11 1 2

Filter
Bldg

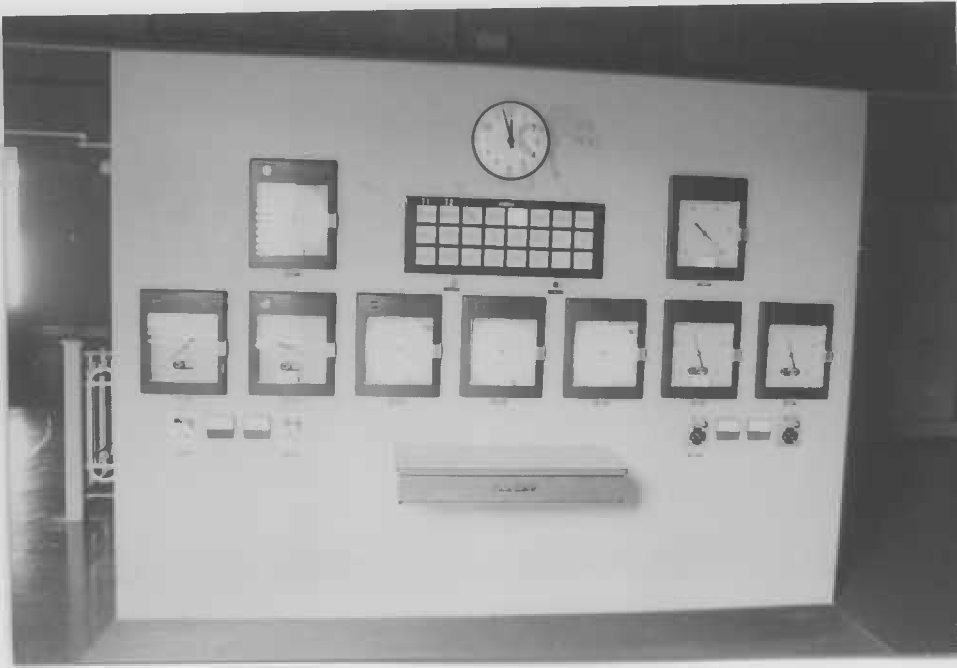
WILLSON H_2O TREATMENT PLANT WA 6

WA-V-419

Pumps

[4] 3825 41 27 4 NN 12

WILLSON TREATMENT PLANT WA 6



WA-V-419

Control

Panel

38254122 N N N-1 2

WILLSON H_2O TREATMENT PLANT

WA Co

WA-V-419

Control

Bldg

C393825 4:22 N N N 2

WILLSON H_2O TREATMENT PLANT WA CO