NPS Form 10-900
(3-82)

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United States Department of the Interior
National Park Service

National Register of Historic Places Inventory—Nomination Form

For NPS use only
received
date entered

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic AUSTIN DAM

and or common Bayless Paper Company Dam

USE THIS COPY FOR DUPLICATING

2. Location

street & number Route #872 N/A not for publication

city, town Austin N/A vicinity of

state Pennsylvania code 42 county Potter code 105

3. Classification

Category	Ownership	Status	Present Use	
___ district	___ public	___ occupied	___ agriculture	___ museum
___ building(s)	X private	X unoccupied	___ commercial	___ park
___ structure	___ both	___ work in progress	___ educational	___ private residence
X site	**Public Acquisition**	**Accessible**	___ entertainment	___ religious
___ object	N/A in process	___ yes: restricted	___ government	___ scientific
	N/A being considered	X yes: unrestricted	___ industrial	___ transportation
		___ no	___ military	X other: Ruins

4. Owner of Property

name Hammermill Paper Company

street & number N/A

city, town Coudersport N/A vicinity of state Pennsylvania 16915

5. Location of Legal Description

courthouse, registry of deeds, etc. Potter County Courthouse

street & number East Second Street

city, town Coudersport state Pennsylvania 16915

6. Representation in Existing Surveys

title PHMC Site Survey has this property been determined eligible? ___ yes X no

date 1980 ___ federal ___ state X county ___ local

depository for survey records Potter County Historical Society

city, town Coudersport state Pennsylvania 16915

7. Description

Condition		Check one	Check one
___ excellent	___ deteriorated	X unaltered	X original site
___ good	X ruins	___ altered	___ moved date NA
___ fair	___ unexposed		

Describe the present and original (if known) physical appearance

The ruins of the Bayless Pulp and Paper Company dam are located in the narrow Freeman Run Valley north of Austin, Pa. The valley floor is less tha five hundred feet across and is bordered by steep sloped, forested sides. Route 872 runs along the eastern side of the dam only a few feet from the structure itself.

The dam was constructed of reinforced concrete and tied to the valley floor by the use of one and one fourth inch steel rods. A few smaller rods were placed horizontially in the concrete.

Numerous large pieces of sandstone were placed in the concrete to take up space and cut costs.

The structure as originally built in 1909 averaged forty-six feet in height and extended for 534 feet across the Freeman Run valley. The thickne of the concrete at the base of the dam was twenty feet and tapered to six feet nine inches at the height of thirty-two feet. The top thickness was tw feet. The perpendicular side of the dam was upstream facing the water. For several months the structure ran straight across the valley but after Januar 1910 a definite bow appeared in the concrete.

As it appears today, the dam is a series of broken sections extending east to west across the valley. Five large sections remain upright while tw large sections and several smaller pieces are toppled. The turned over sections have deteriorated more than the others. Many chips and small piece of concrete have fallen from the original breaks.

The two end pieces where the dam was anchored into the sides of the mountain remain in place, giving a partial picture of the original structure The eastern section is about fifteen feet in length while the western part i about one hundred twenty feet in length. Next to the western section is a void of about one hundred feet where the two large and smaller toppled piece are located. The largest standing section of about one hundred seventy feet is next. It is turned slightly downstream at its eastern end and contains cracks from top to bottom. The next section of about seventy-five feet was left standing with its western end pushed downstream at an angle of about thirty degrees. Another large section of about fifty feet stands near the eastern end of the dam. The largest section contains a spillway about eighty feet wide and directly below this is a sluiceway which was to be opened to relieve pressure. This seldom worked.

The area has grown up in small trees but is easily observed from the roadway as residents of Austin have from time to time cleared the eastern bank to establish an observation point. Freeman Run crosses the area, runni south between the second and third sections from the road.

NPS counting purposes: The nominated property contains one contributing site.

8. Significance

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

Specific dates 1909-1911 **Builder/Architect** Rommell - T. Chalkey Hatton

Statement of Significance (in one paragraph)

The Bayless Pulp and Paper Company Dam, better known as the Austin Dam, is significant both in creating a tragic flood and in fostering legislation to prevent such disasters. When the Austin Dam broke on September 30, 1911, it caused Pennsylvania's second worst failure of a dam in terms of the number of people killed. Yet the Austin Dam failure also provided the impetus for passage of the first regulation and inspection law for dams in the state. Despite earlier dam failures, including the Johnstown flood in 1889, no such laws had been passed in Pennsylvania to avoid such catastrophes.

The Austin Dam was constructed by the Bayless Pulp and Paper Company to supply water for its mill in Austin. In 1900 this firm erected a large paper mill in the Borough of Austin to process timber harvested from the surrounding region. The Bayless plant stood out among several other paper mills in Austin, as the biggest mill and employer in the borough. In order to run this large plant, the Bayless Company also built an earthen dam on Freeman Run. Continuous water shortages, however, proved this dam inadequate. The company decided in 1909 to construct a concrete dam on Freeman Run to secure an adequate water supply.

The Bayless Company chose T. Chalkley Hatton, a sanitary and hydraulic engineer located in Wilmington, Delaware, to design the dam. Hatton made studies of the geology and rainfall of the area before he chose a site for the dam one half mile above downtown Austin. The construction of the dam spurred a population boom in town as construction workers flocked to the site. Austin's population swelled to an unprecedented 2,900 people. The construction workers completed the dam in 1909, creating a lake that extended more than a mile upstream.

The Austin disaster was foreshadowed by a structural failure soon after the dam's completion. In January, 1910 a sudden thaw filled the dam with forty-three feet of water. The water pressure shifted the dam thirty-two inches at the top and eighteen inches at the bottom. Two sections were broken out near the top on each end of the dam to relieve the pressure. After the water and threat subsided, these sections were replaced.

The next structural failure of the dam had tragic results. In September, 1911 the Bayless Company took advantage of unusually heavy rains to fill the dam to capacity. At 2:00 pm the dam broke along cracks stretching from top to bottom, sending a wall of water down Freeman Run. The flood first hit huge piles of lumber stacked by the Bayless mill. The lumber and water crashed through Austin, sweeping clean the valley floor. The flood roared another five miles down Freeman Run until it inundated the town of Costello. The flood killed seventy-eight people, most of whom were residents of Austin. The rampaging water also destroyed mills and hundreds of homes in Austin. The borough never fully recovered from the devastation. Many of the homes and mills were not rebuilt, and the population declined to its present level of only 700 people.

9. Major Bibliographical References

See Continuation Sheet

10. Geographical Data

Acreage of nominated property 1.25

Quadrangle name Austin

Quadrangle scale 1:24000

UTM References

	Zone	Easting	Northing
A	17	742520	4613750
B			
C			
D			
E			
F			
G			
H			

Verbal boundary description and justification

See Continuation Sheet

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

state	N/A	code	county		code
state	N/A	code	county		code

11. Form Prepared By

name/title Robert K. Currin, President/William Sisson

organization Potter Co.Historical Soc./PHMC date 7-30-86/10-86

street & number 308 N. Main St./3rd & North St. telephone (814)274-8124/(717)783-8946

city or town Coudersport/Harrisburg state Pennsylvania

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

___ national X state ___ local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

State Historic Preservation Officer signature

title LARRY E. TISE, State Historic Preservation Officer date 11/25/86

For NPS use only

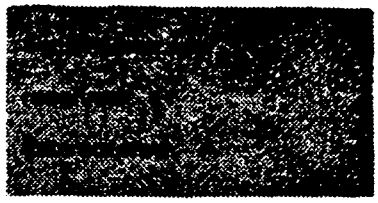
I hereby certify that this property is included in the National Register

date

Keeper of the National Register

Attest: date

Chief of Registration



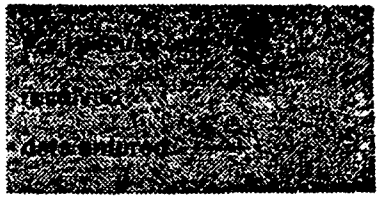
The Austin Dam failure was one of the worst dam failures in Pennsylvania history. Only one other single-dam failure, the Johnstown flood which killed over 2,100 people caused greater loss of life. Another flood in Crawford County in 1892 took one hundred lives. However, this flood was caused by the breaking of about twenty dams.

Survivors of the Austin Dam failure were quick to blame Hatton for the catastrophe. As court testimony later showed, the dam failed by sliding on its foundation. Hatton had chosen flat, porous sandstone as the foundation of the dam which allowed water to seep under and lift the dam. He had not stepped the base of the dam to prevent slippage. In addition, Hatton had created a wall that was too thin to hold back the water pressure when the dam was filled to capacity. The perpendicular wall facing upstream, large horizontal construction joints, and large stones embedded in the concrete added to the weakness of the dam.

Survivors were also quick to blame the state government for not inspecting the dam's safety during and after construction. The criticism prompted the Pennsylvania Water Supply Commission, which had jurisdiction over dams, to press for legislation enabling the Commission to inspect dams. Until this action, the Commission had not had power to inspect dams and enforce standards governing dam safety. The result of the Commission's action was legislation passed in 1913 that granted the Commission such power.

The 1913 legislation was the first state law permitting the effective regulation and inspection of dam construction. This law allowed the Water Supply Commission to set rules governing dams, including their construction. The legislation also guaranteed Commission inspectors access to inspect all dams in the state. In addition, the Commission could hold public hearings to investigate the construction and operation of dams. Anyone who blocked investigators' access, or who gave false testimony at hearings was threatened with fines and imprisonment.

Thus a positive result came from the catastrophe of the Austin Dam failure. The first law designed to prevent such tragedies in Pennsylvania was finally passed.



1. Bicentennial Committee - "Historical Sketches of Potter County" - Potter County Journal, Coudersport, Pa. - 1976.

2. "Integrated Flood Management: A Pennsylvania Perspective", Joint Legislative Air and Water Pollution Control and Conservation Committee - July 1981 - pages 17, 18 and 26.

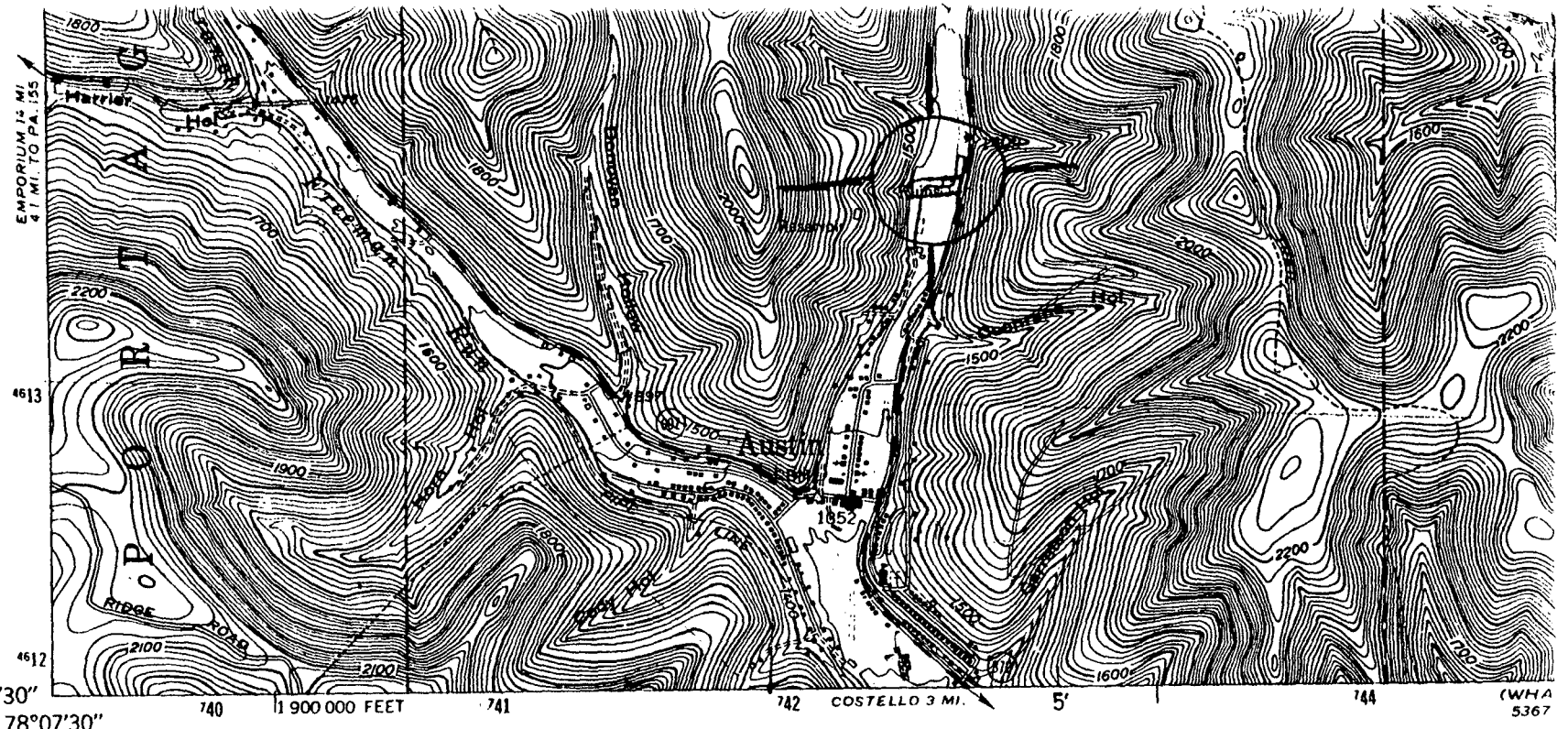
3. Nuschke, Marie K., "The Dam That Could Not Break." - The Potter Enterprise, Coudersport, Pa. - 1960.

4. Tabor, Thomas T III, "The Goodyears, An Empire in the Hemlocks" - Thomas T. Tabor, III - 1971

5. Wold, Barta J., "Austin, Pa., The Hemlock City." - The Potter Enterprise, Coudersport, Pa. - no date.

Beginning at the southeast top corner of the dam, then proceeding west 535 feet; then proceeding north 100 feet to a point forty feet north of the northwest top corner of the dam; then proceeding east 535 feet; then proceeding south sixty feet to the point of beginning. This boundary contains the nominated ruins and the immediately adjacent land.

AUSTIN DAM
Potter County
Austin Quadrangle
Zone 17
E742520 N4613750



Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, and
Pennsylvania Department of Highways

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1945. Field check 1948

Polyconic projection. 1927 North American datum
10,000-foot grid based on Pennsylvania coordinate system.
north zone

Civil division boundaries are indefinite

1000-meter Universal Transverse Mercator grid ticks,
zone 17, shown in blue

Revisions shown in purple were compiled in cooperation with State of Pennsylvania from aerial photographs taken 1971. This information not field checked

MN
GN
8½°
151 MILS
1°57'
35 MILS

UTM GRID AND 1971 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

SCALE

1 1/2
1000 0 1000 2000
1 5

CONTOUR INT
DATUM IS ME

THIS MAP COMPLIES WITH NATI
FOR SALE BY U. S. GEOLOGICAL
A FOLDER DESCRIBING TOPOGRAPHIC MAP