

ON THE LEVEL



THE CANAL SOCIETY OF NEW JERSEY

Rolling Mill vs. The Canal DOVER EXCITED!

WHICH SHALL STOP – THE WHEELS OF THE MILL OR THE CANAL BOATS?

25 Canal Boats Lying Idle!

Trouble Between the Morris Canal Company and the Dover Rolling Mill Co.

It took a lot of water to fill the Morris Canal and sometimes that water had to be shared with local industries. Since the early 1800s the water of the Rockaway River had been dammed at Dover to power the iron-making operations that gave the town its livelihood. Although the coming of the canal allowed those industries to prosper, it also, at times, led to conflict.

Boonton Weekly Bulletin

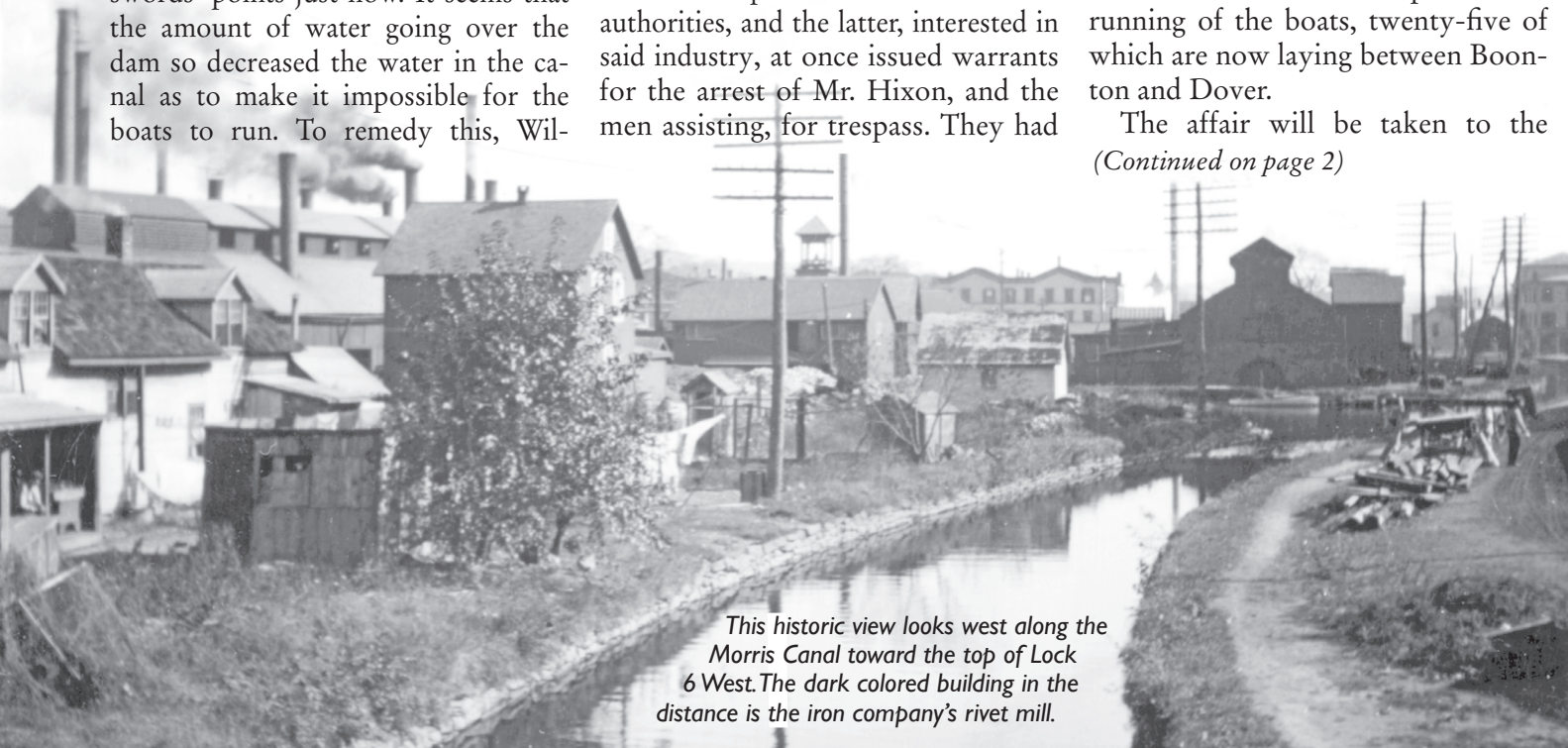
Thursday, July 29, 1875

The Morris Canal and Banking Company and the Dover Rolling Mill Company are at swords' points just now. It seems that the amount of water going over the dam so decreased the water in the canal as to make it impossible for the boats to run. To remedy this, Wil-

liam Hixon, Esq., Superintendent of the Boonton division of the canal, on Thursday night, spiked down twelve inches of oak timber on top of the dam. This interfered with the wheels of the Rolling Mill Company and they ceased to move. The Rolling Mill Company at once complained before the Dover authorities, and the latter, interested in said industry, at once issued warrants for the arrest of Mr. Hixon, and the men assisting, for trespass. They had

a hearing and were released on bail. The trouble created considerable excitement in Dover, both parties insisting on their right in the premises. A large number of citizens were at the place where the trouble occurred and assisted, to the best of their ability, in straightening matters out. The rolling mill, immediately after, cut the timber away, not without trouble, however, because the timber was firmly fastened with large spikes ten or twelve inches in length. After the timber was removed, the water lowered to such an extent in the canal as to prevent the running of the boats, twenty-five of which are now laying between Boonton and Dover.

The affair will be taken to the
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This historic view looks west along the Morris Canal toward the top of Lock 6 West. The dark colored building in the distance is the iron company's rivet mill.

Rolling Mill vs The Canal

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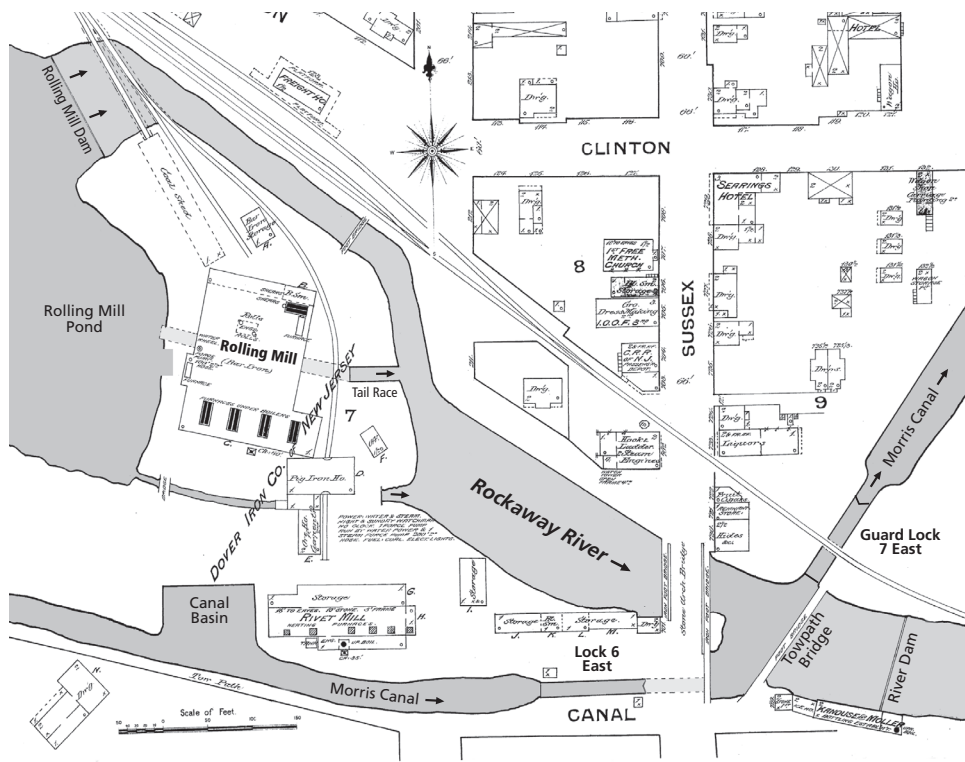
courts and bids fair to make considerable work for the lawyers. We are not well enough acquainted with the rights of the respective parties to give an opinion in regard to the matter in this issue. Mr. Hixon generally knows what he is about; whether he did on Tuesday evening remains to be seen.

The Canal Trouble

August 5, 1875

The trouble between the Morris Canal Company and the Dover Rolling Mill Company is settled for the present, by an action of the Canal Company, on Friday last. An injunction was served upon the Rolling Mill Company, which prevented the tearing away of the timber placed on the river dam. It will be remembered that the Rolling Mill Company, after the arrest of Mr. Hixon, tore up the timber which the latter had spiked on the dam. In consequence, the boats were prevented from running for the time being. After the injunction, Mr. Hixon again fastened eight inches of timber on the dam, where it now remains. This made sufficient depth of water in the adjoining level to permit the running of the boats.

The water in the Swede iron mine, in close proximity to the canal, about a mile from Dover, owned by the Boonton Iron Company, is pumped



In 1745 Joseph Shotwell dammed the Rockaway River at Dover to power his bloomery forge. Later the company of Canfield & Losey acquired the site and erected a forge, nail factory, and rolling mill. When the Morris Canal was built through Dover in the 1820s, its route needed to cross the Rockaway River down-stream from the ironworks so as not to interfere with that establishments's use of the water power. This 1886 Sanborn insurance map shows the complicated arrangement that allowed the canal and the Dover Iron Company's rolling mill to share use of the Rockaway River.

out by a water wheel run with water from the canal. Mr. Hixon, in consequence of some trouble with Mr. Oram, stopped the wheel on Friday, when the mine commenced to fill with water preventing the miners from working. An understanding was had and on Saturday the wheel was

again put in motion.

We hope the difficulties will be satisfactorily settled, but such a thing seems almost impossible. If there is sufficient water, no further trouble need be apprehended. ■

THE ISSUES

At Dover the Morris Canal needed to cross the Rockaway River below the ironworks lest it interfere with the company's right to use the river for waterpower. Below the ironworks dam, Lock 6 East allowed boats to pass from the canal into the river behind a canal company dam that kept the river at the proper level for boats to cross. The dam also allowed water from both the canal and the river to flow through Guard Lock 5 East and fill the section of canal between Dover and Boonton. When water levels in the river were low the iron

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MEETINGS

Morris County Cultural Center, 300 Mendham Road, Morris Township

Friday, January 17, 7:30 p.m. Refreshments at 7:00

THE LEHIGH NAVIGATION:

How a Waterway Changed America

By MARTHA CAPWELL-FOX

Delaware & Lehigh National Heritage Corridor
Historian and Archives Coordinator

In this presentation we will hear how the discovery of anthracite coal in the mountains of northeastern Pennsylvania, and the development of canals, specifically by the Lehigh Coal and Navigation Company, as an efficient way of delivering the coal to markets, triggered the American Indus-

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LEHIGH COAL & NAVIGATION COMPANY

Newark Daily Advertiser – October 27, 1834

In this 1834 article the Lehigh Coal & Navigation Company justly brags of its newly developed ability to deliver tons of anthracite coal to both the Philadelphia and New York markets. Although the company had completed its canal from Mauch Chunk (now Jim Thorp) to Easton in 1829, it had to wait for the completion of the Morris, D&R, and Delaware Division canals to provide an outlet to coastal cities.

We learn by the Philadelphia Commercial Herald that this company has loaded at that port since the 1st of April, one ship, 9 brigs, 110 schooners, and 30 sloops.

From the company's depot at Newark, the shipments have been 41 schooners, and 86 sloops, so that in a little more than 6 months, 1 ship, 9 brigs, and 116 sloops, making 277 vessels, have been dispatched to other ports from the Lehigh mines. The coal is brought from the mines to Newark by the Lehigh and Morris Canals, the first terminating at Easton on the Delaware, and the latter commencing on the Delaware opposite Easton [Port Delaware, now Phillipsburg], and terminating at Newark [the Morris Canal was not expanded to Jersey City until 1836].

The company has recently established a depot at Perth Amboy, which is supplied by boats passing down the Lehigh and Delaware & Raritan Canals, and the Raritan River; some boats, we understand, have passed down the canals, entered New York Bay, and actually delivered their cargoes at the wharfs in the city of New York. The depot at Perth Amboy, which is intended for the supply of the Eastern and Northern markets, is accessible for vessels of any burthen, at any season of the year.

We have been informed of a striking fact which exemplifies the great importance and benefits of the internal improvements of our country: a few weeks since, an Erie Canal boat which had brought a load of coach lumber to Newark, took in a return cargo of coal, destined for the town of Elmira, on the Tioga River, near the Pennsylvania line, in the state of New York.

It is curious to trace the route of this lot of coal on the map. First, it starts



This map shows how the canals discussed in this 1834 article linked together to deliver anthracite coal from the Pennsylvania coal field to coastal city markets. From these port cities deep water vessels then deliver coal to developing markets from New England to the Carolinas. Lehigh coal could even reach an isolated inland location.

from the mines and arrives at Mauch Chunk by railroad; thence it takes the Lehigh Canal to Easton, then the Morris Canal to Newark, then through the New York Bay and up the North River [Hudson River] to Albany, and then by the Erie Canal

through Seneca Lake to Salubria [now Watkins Glen] at its head, then by the Chemung Canal to Elmira, which in a direct line is about 100 miles from the place of starting, having gone about 700 miles to arrive at its destination point. ■

The Lehigh Navigation

We sometime forget that our Morris and D&R canals did not extend all the way to the Pennsylvania coal fields. In 1817 Philadelphia industrialists Josiah White and Erskine Hazard discovered how anthracite coal could be used in large-scale manufacturing. Realizing its potential, they leased 10,000 acres of land in the Lehigh coal region. To transport the coal to where it could be sold they acquired the rights to improve the navigation of the Lehigh River. They first built a road from their mines at Summit Hill to

the Lehigh River and then a system of bear trap locks to make the Lehigh navigable to its junction with the Delaware River at Easton. Coal arks provided one-way, downstream, transportation from the mines to Philadelphia.

In the 1820s the system was improved with the construction of a switchback railroad from Summit Hill to what had become the town of Mauch Chunk. Canal, locks, and dams were built along the Lehigh River and the Delaware Division Canal along the Delaware River (Continued on page 6)

2019 – THE YEAR IN REVIEW

This year the Canal Society celebrated its 50th anniversary by continuing to partner with communities in Morris County and with the New Jersey State Park Service to rack up an impressive list of accomplishments.

In the spring we hosted our fourth New Jersey Canals and Local History Symposium. This has become an annual event with new presentations every year. At Waterloo, we had our museum, boat exhibit, and carpenter shop open for visitors on Canal Day in June and every Saturday from July through September. We also worked on a number of Morris Canal Greenway projects:

Inclined Plane 2 East

Partnership with Roxbury Township

\$250,000 Morris County Historic Preservation Trust grant for Phase II stabilization

Boonton Greenway Trail

Partnership with the Town of Boonton's Trail Committee

- Greenway trail head kiosk in Grace Lord Park funded by the CSNJ
- Boonton Ironworks National Register certificate of eligibility



This 2007 photo of the tailrace tunnel and bypass channel at Plane 2 East was taken before the Phase I restoration stabilized the turbine chamber. Since then, these stone walls have continued to deteriorate and the whole area has overgrown by invasive vegetation. The newly funded Phase II restoration work will fix these problems and make the site more accessible for visitors.

- Boonton Ironworks full National Register nomination

The National Register project is being funded by grants from the New Jersey Historic Preservation Trust and the Morris County Heritage Commission Re-Grant Program as well as donations from the CSNJ, the New Jersey Highlands Coalition, and the town of Boonton.

Lincoln Park

Partnership with the Borough of Lincoln Park

- Greenway trail head signage in Aqueeduct Park.
- Greenway interpretive signage at the Lock 14 East site.

- Additional Greenway interpretive signage along the Inclined Plane 10 East trail.

This signage project was funded by the CSNJ.

Next year's projects include plans to develop the Greenway trail-heads at Powerville in Boonton Township's Griffith Park and at Dorsey's Pond in Montville Township. We also plan to develop a new Greenway section of the CSNJ web site that will help the public learn about and visit Greenway locations across the state.

Thanks to our members and our volunteers, it's been a successful year. With your continued help and support the good work will go on. ■

MEETINGS

(Continued from page 2)

trial Revolution, in the Lehigh Valley and then elsewhere in Pennsylvania, New Jersey and New England.

Martha Capwell-Fox is the historian and archives coordinator for the Delaware & Lehigh National Heritage Corridor. The corridor was created by Congress in 1988 to preserve the historic transportation routes – canals and railroads – that carried anthracite coal from the mines to markets. She is the author of the presently published book *Geography, Geology, and Genius: How Coal and Canals Triggered the American Industrial Revolution*. There will be copies for sale at the meeting.

Friday – March 20, 2020 at 7:30 p.m. – Refreshments at 7:00

THE DELAWARE & HUDSON CANAL

Please watch the CSNJ web site for information about the program.

Rolling Mill vs. The Canal

(Continued from page 2)

company held back water to keep its pond full. To keep the canal in operation Mr. Hixon raised the level of the river dam to keep water flowing into the canal. However, he raised it high enough to back up water into the wheel pits stopping the water wheels from turning at the ironworks. Only a few inches made all the difference. It took a lawsuit to straighten things out.

Today, so much fuss over a little water here or there might seem like a quaintness easily relegated to the past. However, think of how put out we are when our electricity goes off for even a few minutes and nothing in our world works. ■

D&R CANAL 2020 WALKS AND EVENTS

These walks and events are sponsored by the D&R Canal Watch. All Saturday Canal Walks begin at 10 AM, unless noted. Meeting Places are designated with "(MP)" in the walk description. Contact information for Program Leaders is below. If emailing, use "D&R Canal" in subject header.

D&R Canal Watch, www.canalwatch.org – D&R Canal State Park, www.dandrcanal.com

Bob Barth, 201-401-3121; bbarth321@aol.com

Pamela V'Combe, 609-635-2783; pjvcombe@gmail.com

Jessica Hunsdon, 732-993-4505

Saturday, January 11 – 10:00 a.m.

Towpath clean-up. MP at Lock 11 in South Bound Brook, across from the post office on Canal Road. Join members of the Canal Watch in their effort to keep the state park a beauty spot in central New Jersey. Leader: Bob Barth

Sunday, January 26 – 2:00 p.m.

Two-Canal Walk. Meet outside of the Lambertville Station restaurant, near the caboose. Join the D&R Canal Watch and the Friends of the Delaware Canal for a guided history and nature tour along both of our neighboring towpaths. This popular event is just one of the many activities held during the annual Lambertville-New Hope Winter Festival. For details, visit www.winterfestival.net.

The first stop of this two-mile walk will be the D&R Feeder lift and outlet locks then through Lambertville and across the Delaware River bridge into New Hope. The Winter Walk will be held weather and conditions permitting. If in doubt, check for a go/no go message on the www.fodc.org homepage. Free, but donations are welcome and appreciated. Leaders: Bob Barth and Susan Taylor.

Saturday, April 4 – 10:00 a.m.

Towpath clearing in South Bound Brook. Meet at the Lock 11 parking lot on Canal Road (across from the post office). Bring loppers, work gloves, hand saw, and/or clippers; a rake would also help. We are going to reopen an old section of the towpath. Leader: Bob Barth

Saturday, April 11 – 10:00 a.m.

Alexander Road to Rocky Hill (meeting place @ parking lot on Rt. 518) Hike 5.7 miles or choose the 3.8-mile walk to Kingston. Spring will be bursting as we hike along Carnegie Lake, cross the Millstone Aqueduct, and visit picturesque lock and locktender's house. Weather permitting, we may visit the Rockingham grounds, site of George Washington's final wartime headquarters. Leader: Pamela V'Combe

Saturday, May 2 – 10:00 a.m. to 1:00 p.m.

Bilingual (English/Spanish) Nature Walk. Enjoy a casual 3-mile walk on the D&R Canal towpath between Lock 11 in South Bound Brook and Zarephath. Please meet at Canal Park in South Bound Brook, across from the post office on Canal Road at Madison Street. We will enjoy conversation in English and Spanish as we identify various wildlife and vegetation. Please RSVP by email to Jessica Hunsdon at jhunsdon@gmail.com or call/text her at 732-993-4505.

Saturday, May 9: 10:00 a.m.

History Bike Tour on the D&R Canal towpath from Kingston to Griggstown and back, 10 miles round trip. Explore the structures along the D&R Canal with Canal Watch trustee Bob Barth. Meet in the causeway parking lot in Griggstown. Bring water; helmet required. Allow three hours. Leader: Bob Barth

Saturday, May 9 – 10:00 a.m.

S. Bound Brook – Lock 11 to East Millstone. MP parking lot on Route 514. Overflow parking across the street near Rescue Station) Hike 5.8 miles or 3.1 m walk to Zarephath. This stretch of the canal crosses over a spillway, passes over a lock and has many spring flowers. The East Millstone Bridgetender's house will be open to celebrate the 2nd Franklin Twp Historical Homecoming. Leader: Pamela V'Combe.

SAVE THE DATE SYMPOSIUM

New Jersey Canals and Local History Symposium

Saturday, April 25th, 2020
9 a.m. – 5 p.m.

Morris County Cultural Center

Watch for e-mail confirmation of this time and date.

INDUSTRIAL HERITAGE WALKS

March through June

March 21st
Oreland

Explore Morris County's Only Ghost Town

April 4th
**Morris Canal
Greenway Walk**
Denville to Rockaway

May 9th
Split Rock Furnace
Morris County's only standing iron furnace

June 6th
**Mt. Hope Mines and
Mineral Railroad**
Walk plus a visit to the Ford Faesch House

*Industrial Heritage Walks are sponsored by
the Morris County Park Commission.*

For information and reservations, please email
macgraphics2@gmail.com or call 973-292-2755.

Roebling Chapter SIA Annual Meeting

Saturday, January 25th
Meeting starts at 12:30p.m.

Rogers Meeting Center
32 Spruce Street, Paterson, NJ

Roebling Chapter's web site: roeblingsia.org.

ON THE LEVEL

PO Box 137, Morris Twp, New Jersey 07937

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973-292-2755 – www.CanalSocietyNJ.org

IN MEMORIAM: JOYCE KANIGEL, 1954-2019

In September, CSNJ advisory board member Joyce Kanigel passed away at age 65. Joyce was a long time Rockaway resident and a great friend of local history. While serving on the Rockaway Borough Council she worked on many historic preservation projects, including the Morris Canal Greenway trail and interpretive signage. She was a regular presenter at our New Jersey Canals and Local History Symposium entertaining us with tales

of local mischief and misdeeds.

While serving on the Borough Council, she was liaison to the Library Board and the Land Use Board and a member of the Borough Historical Committee and the Environmental Commission. On the county level Joyce had been appointed to the Morris County Open Space Committee and the Morris County Heritage Commission.

Joyce was fascinated with all as-

pects of Rockaway's history, particularly the Morris Canal. She loved Tourne Park, Frelinghuysen Arboretum, and many other special places in Morris County. She enjoyed trail-walking with her husband, Harry. Joyce is survived by four wise adult children and two grandchildren.

Joyce was the go-to person for local history of the Rockaway area. She was always cheerful, knowledgeable, and a pleasure to work with. She will be greatly missed. ■

CALENDAR OF EVENTS

Friday, January 17

Program Meeting

Martha Capwell-Fox, The Lehigh Navigation
Morris County Cultural Center, 7:30 p.m.

Saturday, January 25

Roebling Chapter Annual Meeting

Roebling Chapter Society for Industrial Archeology

Friday, March 20

Program Meeting

The D&H Canal (Tentatively Scheduled)
Morris County Cultural Center, 7:30 p.m.

Saturday, April 25

New Jersey Canal and Local History Symposium

Morris County Cultural Center, 9:00 a.m. to 5:00 p.m.

www.CanalSocietyNJ.org

nj-cnal@googlegroups.com

Lehigh Coal & Navigation

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making it possible for canal boats to make two-way trips.

Finally, with the completion of the Morris and D&R canals, the Lehigh Navigation gained access to both the New York and Philadelphia markets. In 1836, when the Morris Canal was extended from Newark to Jersey City, the company acquired direct access to New York Harbor. Join us at our January program meeting to hear the whole story. ■



ADDRESS SERVICE REQUESTED

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CANAL SOCIETY OF NEW JERSEY

FIRST CLASS MAIL