



Buzzards Bay Project
National Estuary Program

Steve Pisch, Assistant Engineer & Phase II MS4 coordinator
Falmouth DPW
Town Hall Square
Falmouth, MA 02540

August 16, 2004

Mr. Pisch:

As you know, as Executive Director of the Buzzards Bay Project National Estuary Program, I filed a Request for Determination of Applicability (RDA) of the Massachusetts Wetlands Protection Act with the Falmouth Conservation Commission for recent work conducted by the Falmouth Department of Public Works (DPW) on Gifford Street in the vicinity of Sols Pond (RDA cover letter attached).

While investigating the DPW activities described in the RDA application to the Conservation Commission, it became apparent that the condition of Sols Pond has been degraded, not only because of the discharge of sediments to the pond from the recent road work, but also because of years of sediment accumulation at the discharge pipes. This discharge of sediments into the pond is evidenced by the fact that the end of the old stormwater discharge pipes are now buried under sediments¹. Furthermore, there are distinct “deltas” of sediment at the end of each pipe. These deltas are



Figure 1. Gully in recently deposited sediments and old sediments of a delta in front of a discharge pipe in an area of the pond exposed due to low water levels (Photo taken 8/13/04 , Joe Costa) .

¹ At some point, the buried pipes were broken off from the street connection which now results in a discharge from the edge of the pond bank. This action was never authorized under a wetlands permit.



visible because of the current low water levels in the pond (Fig.1).

When the Falmouth DPW reconstructed and moved the road and added sidewalks along the edge of the pond, the catch basins were filled with sand and the flow of stormwater to the pond was slowed and restricted. The recent cleaning of the basins and installation of sidewalks and curbs now appears to be resulting in increased volume and rate of stormwater, causing ongoing and severe erosion in the bank in some areas (Figs. 2 and 3).

It appears that much of these sediments accumulating in the catch basins and discharging to the pond may be derived from the activities at the Lawrence-Lynch Corporation facility across the street (see the aerial map, Fig. 4, and aerial photograph in Fig. 5). This industrial facility, covering roughly 27 acres includes sand and gravel mining, fill storage, and manufacture of hot mix asphalt, reclaimed asphalt pavement borrow, as well as other products. (see also the website www.lawrencelynch.com).

Trucks enter and leave the facility both through a steep driveway and via a weigh station and parking lot. The stormwater leaves these outer areas both as sheet flow across and down the street, and by a catch basin in the outer parking lot area (Fig. 6). All these catch basins are connected via underground pipes (at least four are easily observed) to Sols Pond.



Figure 2. Bank erosion (at location B in figure 5), and gully in recently deposited sediments in another area of Sols Pond (Photo taken 8/13/04 , Joe Costa) .



Figure 3. Same location as Figure 2 just three days later (8/16/04) after another moderate rainfall showing even greater erosion and the formation of a plunge pool.

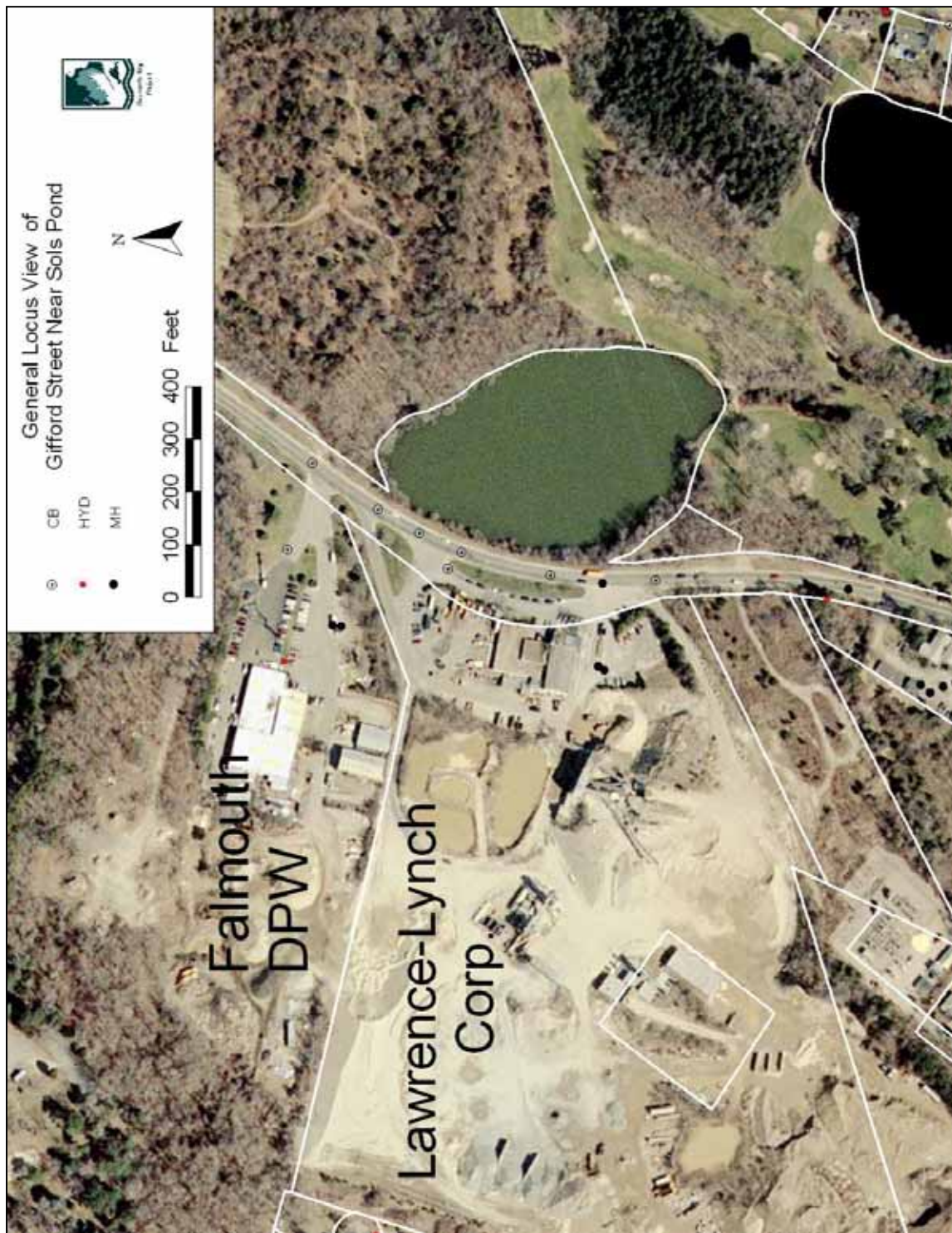


Figure 4. Aerial photograph of Lawrence-Lynch Corp. Industrial Facility along Gifford Street and Sols Pond. Catch basin locations and parcel boundaries from Falmouth GIS department. Note the apparent elevated chlorophyll levels in Sols Pond (green coloration), in contrast with the pond on the other side of the Woodbriar Golf Course in the photograph. Falmouth GIS disclaimer: “The Town of Falmouth makes no claims, no representations and no warranties, express or implied, concerning the validity (express or implied), the reliability or the accuracy of the GIS data and/or GIS products furnished by the Town, including the implied validity of any uses of such data. Parcel lines are graphic representations only.” Photograph taken March 2001.

The trucks leaving the Lawrence-Lynch facility appear to loose appreciable amounts of sand and other material as evidenced by the large amount of sand in the street, and clouds of dust following trucks. (Composite photograph, Fig. 7) This material falls onto Gifford Street, and evidently eventually gets washed into Sols Pond.



Figure 5. Lawrence-Lynch Corp. photo from www.lawrencelynch.com.

As you also know, last year the Town of Falmouth was issued a National Pollution Discharge Elimination System (NPDES) permit from EPA for discharges from your “small municipal separate storm sewer systems” (Phase II MS4s).

As part of the conditions of your permit, over the next five years, the town is required to “develop, implement and enforce a program to reduce the discharge of pollutants from the MS4 to the maximum extent practicable; protect water quality, and satisfy the water quality requirements of the Clean Water Act and Massachusetts Water Quality Standards.”

Among the tasks included in the Town’s permit:

- The town must map all stormwater discharges and stormwater networks to wetlands and surface waters.
- The Board of Health and DPW will detect and remove existing illicit connections to the stormwater system
- The Conservation Commission and Planning Board will better manage future stormwater discharges by amending regulations or proposing new bylaws (if necessary), to ensure adequate stormwater treatment and management to meet the federal permit thresholds (alteration of 1 acre or more of land)
- The Town will establish a Stormwater Management Committee of town officials from all key boards and interested residents to guide and refine the program during the next five years.

As part of your MS4 NPDES permit, you may wish to work with Lawrence-Lynch to minimize their sediment contributions to Gifford Street because runoff from their driveway meet the regulatory definition of an “illicit discharge” from their property. You may already have regulations in place that allow you to regulate this discharge. If not, under your phase II program you could adopt regulations that can require truck wash stations, a sediment and stormwater trap along the entire base of their driveway, a swirl separator under the parking lot, daily street sweeping, and other appropriate BMPs for sand and gravel operations.

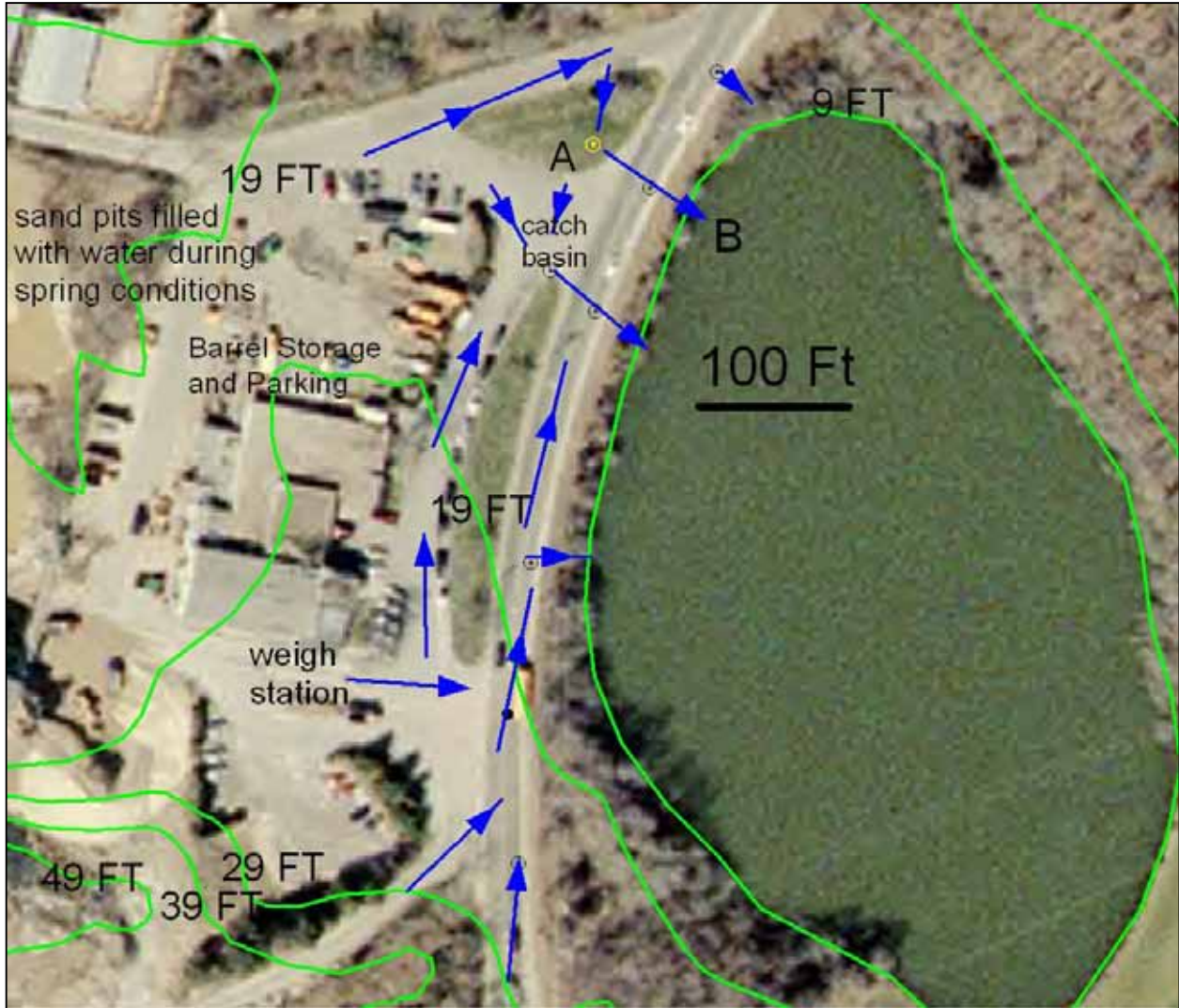


Figure 6. Stormwater flow directions based on field observations during wet and dry conditions and topographic discharges (contour data from Mass GIS). Catch basins (circle with dot symbol) from Falmouth GIS. Catch basin A is not included in Falmouth GIS data set and is based on field observation. Catch basin positions are approximate. Falmouth GIS disclaimer: "The Town of Falmouth makes no claims, no representations and no warranties, express or implied, concerning the validity (express or implied), the reliability or the accuracy of the GIS data and/or GIS products furnished by the Town, including the implied validity of any uses of such data. Parcel lines are graphic representations only."

In addition to the town's MS4 NPDES permit, stormwater runoff from industrial operations, such as asphalt manufacturers and sand and gravel mining operations, require an industrial facility stormwater permit if stormwater discharges from their property and discharges to a wetlands or water body. This "Storm Water Multi-Sector General Permit for Industrial Activities" or MSGP NPDES permit is issued by EPA. Information about who needs this permit can be found at the web address:

<http://cfpub.epa.gov/npdes/stormwater/ipermit.cfm>

As the Town of Falmouth Phase II coordinator, You may wish to contact EPA about whether this NPDES permit is required for Lawrence-Lynch. If they require a permit, they may have been out of compliance with the stormwater regulations for a number of years. It is prudent to investigate this permit because much of the impervious surface areas in the front of the Lawrence-Lynch properties, including the dirt and gravel parking and staging area for construction vehicles, barrel storage area (Fig. 8), the area in front of their weigh station, and the area in front of their maintenance garage (Fig. 9) are connected hydrologically to the town's drainage system, including two catch basins in the outer parking area which in turn are connected by 2 pipes under the road to Sols Pond (Fig. 6).

Another nuance of this case is the fact that Lawrence-Lynch Corporation owns the pond bank and portion of Sols Pond along Gifford Street (Fig. 10). This fact may have additional implications for the need for a Multi-Sector General Permit for Lawrence-Lynch.

The ownership of the wetlands does not alter the need for the DPW to file a Notice of Intent for the recent wetland alterations or to meet stormwater management regulations of the town and state. If the filling of a wetland or erosion of wetlands or pond bank is the result of DPW activities, then enforcement orders should be issued against the DPW to correct the problem, whether or not they own the property that was damaged. Generally, property owners are agreeable to wetlands restoration activities on their properties, but if necessary, the Conservation Commission can issue an enforcement order against the property owner to allow the restoration activities. At this point it may be wise to develop a site plan with property boundary information from the Barnstable Registry of Deeds.

Another consideration about the additions of sidewalks along two miles of Gifford Street is that it may have triggered the need for a Phase II Construction permit to be filed with EPA. Such a permit is needed if more than 1-acre cumulative new impervious surface was created (among other criteria). Normally when the Town files a Notice of Intent, the Order of Conditions meets the EPA Construction Permit requirements, but the absence of a Notice of Intent in this case may be problematic. It does not appear that the Town has filed a stormwater Notice of Intent with EPA (this is different from the Wetlands NOI). You may wish to contact the EPA's construction permits program and refer to the website:

<http://cfpub.epa.gov/npdes/stormwater/cgp.cfm>

Finally, under the Massachusetts Wetlands Protection Act, activities outside the 100 foot wetlands buffer zone (such as the ongoing loss of sand from the Lawrence Lynch Corp. activities) that alters “an Area Subject to Protection Under MGL Ch. 131 S. 40” (filling in the pond) can require the filing of a Notice of Intent². This means that Lawrence Lynch could receive an enforcement order from the Conservation Commission to file an after the fact Notice of Intent.

The bottom line is that the DPW will likely need to address the wetland alterations caused by the recent road activity, and improve stormwater treatment of its discharges. Lawrence Lynch will ultimately have to reduce the loss of sand from its facility, and comply with any required stormwater or hazardous material permitting program at the local, state, or federal level.

In light of these recent events, it may be prudent for the Falmouth DPW to reexamine its policies about obtaining state and local wetland permits for their projects.

Sincerely,

Joseph E. Costa, PhD
Executive Director

cc: Joseph Canzano, Thelma Murphy, EPA Region I
Linda Domizio, Phase II Coordinator, DEP
DEP-SERO, Wetlands
Falmouth Board of Selectmen
Falmouth Conservation Commission
Lawrence-Lynch Corporation

² Refer to 310 CMR 10.02 (2) (c).



Figure 7. Three views of trucks leaving the Lawrence Lynch Industrial site. Note accumulated sediments (Photo taken 8/13/04 , Joe Costa)



Figure 8. Vehicle and barrel storage area near outer parking area. See Fig. 6 map. Note that the town road layout is just to the left of the hedge in the top picture, and just to the right of the hedge in the bottom picture.



Figure 9. Apparent maintenance garages at front of Lawrence Lynch building.

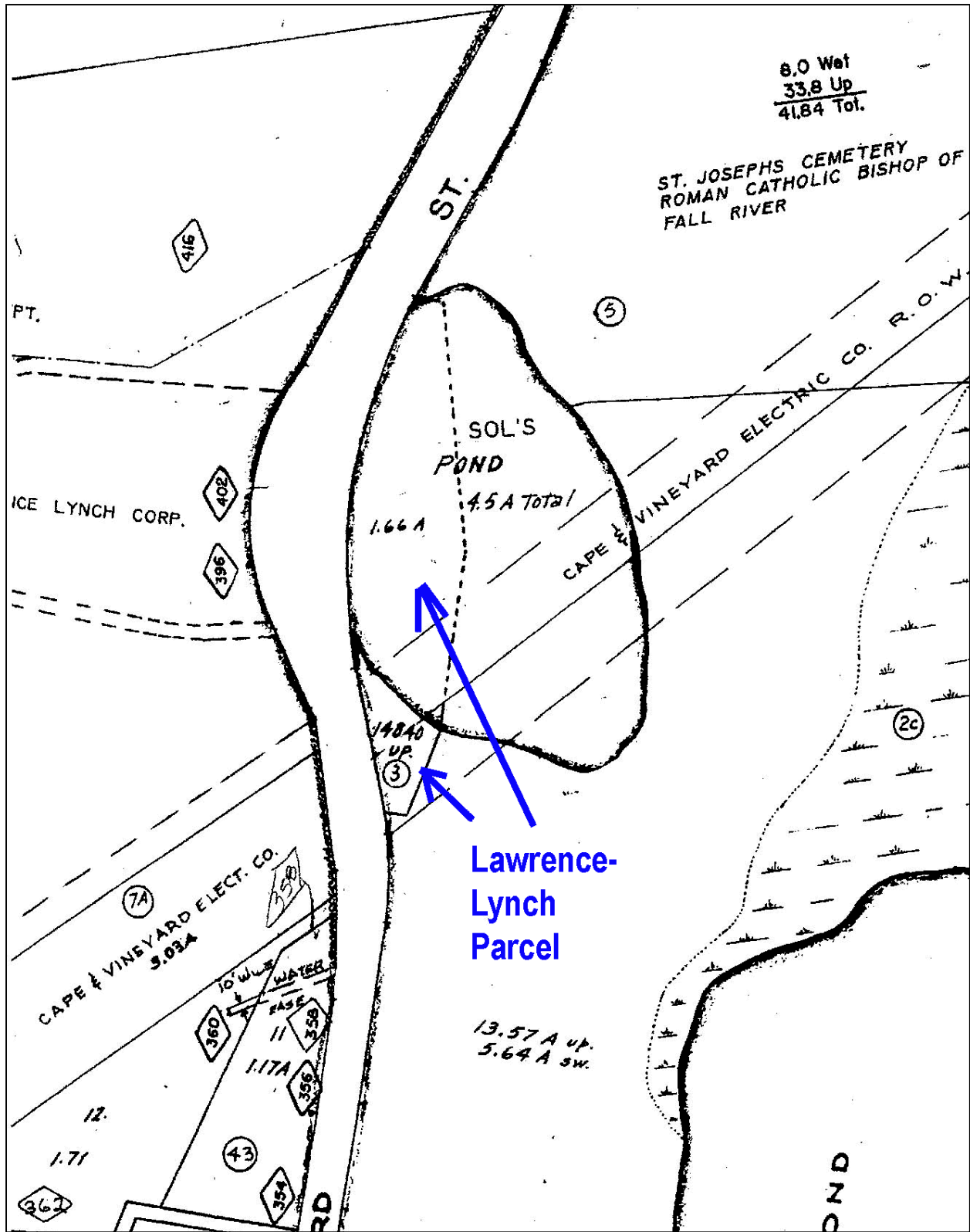


Figure 10. The Town of Falmouth assessors map indicates that the pond bank and section of Pond along Gifford Street are owned by Lawrence-Lynch Corporation.