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The Spending of Environmental Quality Bond Act Monies: Monies on Regional Wetlands*

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Summary

The New York State Department of Environmental Conservation (DEC) is negotiating to purchase three wetlands in Region 8, one each in Livingston, Wayne, and Schuyler Counties. These purchases, at the costs estimated, will use up Region Eight's share of the Environmental Quality Bond Act monies. The wetlands have been selected because they are "highly productive". Their vegetation is interspersed so that it supports a wide variety of animal life and is maximally attractive to migratory birds. All of the wetlands selected are very large, and all vulnerable to farming or development.

An alternate standard might have stressed primarily their role in water management. If so, priorities would be different, and possibly the money would be used to buy more smaller areas located in strategic places such as the head waters of lakes and bays. Other rating systems could have favored wetlands near urban areas such as that on the lower Genesee.

The law requires that projects applying for federal funding be reviewed by the Regional Planning Board when the funding is being requested. Recently the Planning Board was asked to endorse the purchase of the wetland in Livingston County called Groveland Flats. This wetland of roughly 3,000 acres would cost an estimated 1.2 million dollars or 70% of the total allocation. The procedures did not require the Planning Board to consider alternate sites for purchasing or any master plan for development of wetlands in the State. It did not view a list of wetlands in the region. This Bulletin supplies a partial list of the wetlands, summarizes the DEC's reasons for its choices, and outlines the reasons for some other possible choices.

Selection of Wetlands for Purchase by the DEC

The Environmental Quality Bond Act of 1972 included an allocation of five million dollars for the acquisition of 50,000 acres of freshwater wetlands upstate. To help establish priority, the Department of Environmental Conservation (DEC) classifies wetlands on a point system (see below). No comprehensive list of wetlands in Region 8, which includes Monroe County, seems to exist, but there are probably several hundred. The Region 8 Office of the DEC (the Avon office) planned to submit a list of 42 wetlands to the State for purchase (Table 1). Sixteen of them were small wetlands (1-21 acres) on Beaver Creek, East Bay, Black Creek, Red Creek and Sodus Bay, all in Wayne County. There were two from Monroe County, on Brush Creek and Irondequoit Bay. However, only areas 100 acres or larger are now considered for purchase by the State, so the Region 8 list was trimmed to 15 wetlands of highest priority. These are presented in Table 2 in order of priority for purchase. No Monroe County wetland is included.

* The RCSI is indebted to the Region 8 Headquarters of New York State Department of Environmental Conservation for generously providing the information for writing this bulletin.

The Albany office of the DEC has approved 3 and possibly 4 wetlands for purchase in Region 8. The three are Groveland Flats in Livingston County, which ranks first; the Gillette-Noble Wetlands just north of and adjoining Montezuma swamp in Wayne County which is fifth on the local lists; and the Bad Indian Swamp near Watkins Glen in Schuyler County which is fourth. There is disagreement over ownership of the Canoga wetland in Seneca County. If the private claims are upheld, the State will probably try to purchase it. Approval for negotiation does not necessarily mean purchase. Local opinion will be considered.

Table 1. List of 38 of the 42 wetlands originally considered by Region 8 for purchase*

<u>County</u>	<u>Wetland</u>	<u>Acreage</u>
Chemung	Horseheads	220
Genesee	Wheatland Marsh	1,860
Livingston	Groveland Flats	3,100
	Log Pond	1,100
	Region 8 Headquarters	60
Monroe	Brush Creek	72
	Irondequoit Bay	270
Ontario and Yates	Canandaigua Lake	1,430
Ontario	Holcomb	350
	Honeoye Creek	1,600
	Honeoye Inlet	1,600
Orleans-Niagara	Tonawanda	1,850
Schuyler	Bad Indian Swamp	1,000
Seneca	Canoga	240
Seneca and Wayne	Dublin Brook	1,200
Steuben	South Cohocton	560
Wayne	Beaver Creek	1
	Beaver Creek	8
	Beaver Creek	21
	Black Creek	8
	Crusoe Lake	3,700
	East Bay	1
	East Bay	1
	East Bay	2.5
	East Bay	3.5
	East Bay Reef	7.5
	Galen	4,800
	Gillette-Noble	900
	Port Bay	9
	Port Bay	14
	Red Creek	1
	Red Creek	1
	Red Creek	1
Red Creek	2	
Red Creek	20	
Red Creek	20	
Sodus Bay	18	
Vanderbilt	2,600	

* This list is not arranged in order of priority

Table 2. List of 15 wetlands in Region 8 submitted for purchase by Avon office to the Albany office of DEC

<u>Priority</u>	<u>County</u>	<u>Wetland Unit</u>	<u>Approximate Acreage</u>	<u>Estimated Cost</u>	<u>Remarks</u>
1	Livingston	Groveland Flats	3,100	\$1,200,000	
2	Ontario	Honeoye Creek	1,600	240,000	
3	Chemung	Horseheads	220	60,000	
4	Schuyler	Bad Indian Swamp	1,230	250,000	
5	Wayne	Gillette-Noble	900	250,000	(2)
6	Wayne	Vanderbilt	2,600	800,000	(2)
7	Steuben	South Cohocton	560	60,000	
8	Ontario	Holcomb	350	70,000	
9	Seneca	Canoga	240	40,000	
10	Ontario & Yates	Canandaigua Lake	1,430	300,000	
11	Ontario	Honeoye Inlet	1,600	240,000	
12	Seneca & Wayne	Dublin Brook	1,200	120,000	(1)
13	Wayne	Galen	4,800	480,000	(1)
14	Livingston	Log Pond	1,100	220,000	
15	Wayne	Crusoe Lake	<u>3,700</u>	<u>370,000</u>	(2)
TOTALS			24,630	\$4,700,000	

(1) Dublin Brook and Galen Wetlands should be acquired as a unit.

(2) Ultimate acquisition would consolidate the following units: Gillette-Noble Marsh, Vanderbilt Marsh, Crusoe Lake Wetlands, Black Creek Wetlands, and upland drumlin impoundment sites.

Criteria for Establishing the Value of a Wetland

Criteria for purchase involve judgement, and the educated judgement of two men is not necessarily alike, so that differences are understandable. Criteria had to be established, of course, to decide which wetlands to buy. The DEC devised a formula to help reduce differences in value judgement which reads:

$$\text{productivity} \times \text{vulnerability} + \text{additional factors} = \text{total} \times 5 = \text{rating}$$

Productivity (based on ten criteria, each with 0-10 points.)

- Total alkalinity. In general, acid soils, sphagnum bogs for example, are not attractive to animals and receive a low rating. This slot is blank on many of the rating forms for wetlands in this area.
- Percentage of total area with water 6-24 inches deep. Highest rating is given if about $\frac{1}{2}$ of the area is covered with water.

3. Adjacent soil fertility. There should be many and varied plants nearby to provide food and cover for animals. Adjoining urbanization, or plowed land would lower a rating.
4. Suitability for wildlife. This is a Soil Conservation Service rating, and it measures the factors other than soil fertility that make an area attractive to wildlife. It is only included if the Soil Conservation Service has rated the area.
5. Vegetative interspersion. Rating is high when there is rich growth in patches so that there are many interfaces of land and water.
6. Vegetative cover. Places for animals to hide: for highest rating about $\frac{1}{2}$ of the area should be covered.
7. Vegetative classes, and
8. Vegetative species. Greater diversity of living plants attracts more varied wildlife and generally stabilizes the community.
9. Fish and wildlife. These should be varied and plentiful.
10. Productivity rating. This is the mean of ratings 1 through 9 minus a rating for degradation.

A productive wetland then, supports many kinds of life and there is enough food and cover for all. In practice the criteria favor wetlands which support migratory fowl best.

Degradation is rated very carefully. The DEC is willing to consider a wetland for purchase that is decreasing in productivity if they think it will recover easily if protected and managed. Degradation measures loss that has already occurred.

Points 4-9 are more likely to be high in rural regions where wetlands are larger and there is more cover. Degradation is likely to be less. Therefore, most of the criteria favor rural wetlands over those close to large urban areas such as the marshes at the head of Irondequoit Bay.

Vulnerability (from 1 to 1.5 points)

Vulnerability estimates the degradation which may occur if the state does not buy the lands. A wetland is vulnerable if it is likely to be drained or filled by farmers, by developers or others. All of the wetlands approved for purchase in Region 8 are considered vulnerable.

Additional Factors

1. Unique or rare or endangered animal species (4 points). The full 4 points are awarded only if the habitat is limited and if the endangered species breeds there.
2. Unique vegetation (1 point)
3. Unique geology (1 point)
4. Unique habitat in area (3 points). For 3 points it must be the only wetland of the type in the State.

5. Flood control (1 point). Must have significant value attested by an engineer, or be beyond question.
6. Sediment filtering (1 point). Must remove sediment which would otherwise enter a body of water downstream.
7. Potential use (4 points). This refers to recreational use by man and highest rating goes to wetlands relatively close to urban centers. Groveland Flats at the southern end of Livingston County got a rating of 2 because it is supposed to be readily accessible to Rochester.
8. Aesthetic / open space value (3 points). For highest rating should be surrounded by development and should be unspoiled relative to surroundings.
9. Migration (bird) distribution (1 point).
10. Historical value (1 point).
11. Additional factors (5 points). For example, special fish spawning grounds.

These add to 25 points, but a maximum of 5 can be used in any one evaluation. Five points can be accumulated by almost any wetland of 100 acres or more. Groveland Flats in Livingston County received 2 points for unique wildlife (whistling swans, ospreys and egrets in spring), 2 for flood control and sediment filtering and 2 for potential use. (This adds up to 6, but only 5 were counted in the final evaluation.) South Cohocton wetland in Steuben County received 2 points for being the largest marsh in the county, 1 for recreation, 1 for migration and 1 for combined flood control and sediment filtering.

The Financial Picture

The Bond Act anticipated purchases of 50,000 acres for 5 million dollars, an average of \$100 per acre. Was it a realistic estimate? The DEC hopes to stretch Bond Act monies with contributions from the federal government. There are two federal sources of money, only one of which can be applied to any given purchase. The Bureau of Outdoor Recreation (BOR) will pay up to $\frac{1}{2}$ of the cost, or the Pittman-Robertson Fund will pay up to $\frac{3}{4}$ of the cost of a purchase. The latter is funded from excise taxes on hunting arms and ammunition. Requests for aid in purchasing large acreages such as Groveland Flats are being made to the BOR.

The areas in Region 8 that have been authorized for attempted purchase will cost \$1,740,000. As originally described, these 4 areas encompass 5,470 acres. Thus, the cost would be about \$318 per acre. If the federal government agrees to pay for half of the cost, the amount of land that can be bought per Bond Act dollar is doubled. However, even if the state pays only half, the cost would be \$150 per acre - 50% over the estimate. If the BOR does not share, the cost will be three times that estimated, and prices are apt to rise.

The State does have the option of buying easements rather than outright title. For example, none of the owners of the Gillette-Noble wetlands are willing to sell their property. They are now preserving the wetlands, so that the DEC could buy a restrictive or conservation easement on the property and assure continued preservation. An appraiser would evaluate the property and estimate how much its value would decrease if the wetlands could not be developed by the next buyer. The DEC would pay that difference and the owner would agree not to develop the wetlands. An easement is estimated to cost 10-20% of land purchase price. The cost of easements would probably be borne by the DEC without federal aid because the property would not be opened to the public.

Successful purchase of four wetlands in Region 8 will exhaust its share of the Bond Issue wetland monies. If easements are obtained instead of outright purchases, or if the federal government finances part of the purchases, the money saved will hopefully be used to buy more wetlands in Region 8. Nevertheless, the Bond Issue monies will buy less wetland than was originally hoped, and the choices will become more critical.

The DEC not only purchases wetlands. It manages them - usually setting the water level to attract migratory fowl. Because they have limited staff and much work, the DEC prefers to buy a few large consolidated areas rather than a series of isolated wetlands. Such areas, once purchased, have a recreational value for birdwatchers, hunters, fishermen, etc.

Wetlands in Water Management

When the League of Women Voters and the RCSI tried to give a simple explanation of the importance of wetlands to voters in Monroe County in support of the Bond Act, they said wetlands: (1) cleanse waste from the waters, (2) soak up waters - decreasing the likelihood of flooding, (3) control and refill the water table and (4) supply spawning areas. These functions of wetlands are important in water management. They would be best served by the purchase of a number of wetlands at strategic places such as the headwaters of lakes. Because money is short buying a number of wetlands also unfortunately means buying less acreage per wetland. At present, Groveland alone uses almost 70% of our allocation. The wetland at the entrance of Irondequoit Creek into the Bay demonstrably helps to filter some of the dissolved pollutants out of the creek water. The creek is so polluted now that the wetlands are overloaded, but once the interceptor sewer is functional the water will be much cleaner and the wetland will contribute even more significantly to higher water quality in Irondequoit Bay. That wetland received a very low rating by the DEC because its productivity is low and degradation high. If its potential to help in the management of Irondequoit Bay were given equal weight with productivity it might have received a much higher rating.

If there is not enough money to buy both highly productive wetlands and less productive wetlands in strategic places, then hard choices become necessary. Such choices are difficult because many kinds of wetlands should be included in a master plan for a region. Recently the Natural Resources Committee of the Genesee/Finger Lakes Regional Planning Board was asked to endorse the purchase of Grovelands without being shown a workable plan for the development of a wetland network in the state, or at least in the region. If development of such a plan were demanded, then open public discussion could help determine what the State wishes to gain from our wetlands. Then, it would be possible to judge which wetlands will best serve that goal or goals before purchases are authorized.

For example, wetlands paid for in large part with Pittman-Robertson money might be chosen in regard to value for game management since special taxes of hunters paid for them, while wetlands bought primarily with Bond Act monies could be chosen for water management since that was the concern of many of the voters.

Finally, if the freshwater wetlands bill now before the legislature is passed, there will be a wetlands inventory and a permit required before any change is made to a wetland. This will give us a stronger basis for decision.