



Onondaga County Legislature

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Chairman

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ENVIRONMENTAL PROTECTION COMMITTEE MINUTES – JULY 19, 2022 **JULIE ABBOTT, CHAIR**

MEMBERS PRESENT: Dr. Chase, Ms. Kuhn, Mr. McBride, Mr. Kelly

ALSO ATTENDING: Chairman Rowley, Ms. Gunnip, Ms. Cody, Mr. Bush, Mr. Garland; see attached

Chair Abbott called the meeting to order at 1:41 p.m. *The minutes of the previous meeting have been distributed. There are no corrections to the minutes, and the minutes are approved.*

1. **SOIL & WATER CONSERVATION DISTRICT:** Mark Burger, Director; Travis Glazier, Director of the Office of Environment; Libby Hammerschmidt, Hand Pulling Crew Leader; Megan Vanderwarker, Hand Puller
 - a. **INFORMATIONAL: Budget Update**



Onondaga County Soil & Water Conservation District

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Discussion with Onondaga County Legislature on Water Chestnuts and 2021, 2022 and 2023 Budget's

Finish of 2021 Budget

-A challenging year! Nothing came easy

-Labor

- SWCD was down 25% on staffing for 9 months
- Put 2 non-essential programs on "Pause"
 - (annual Tree Sale and Enviro-Thon educational competition for high schoolers)
- Seasonal wages up due to lack of full-time employees (some due to retirements)
- Thankfully we know a lot of people and were able to supplement with part-time employees to get projects implemented
- We spent a lot of money on employment ads with very little interest in our jobs
- We have to be very selective when taking on new workloads. We are currently trying to get new staff up to speed (takes ~ 3 years) and get caught up on outstanding deliverables

-Year In Review

- Finished year in decent shape.
- Less travel, training, meeting expenses helped balance out additional expenses from COVID & market challenges. Participating in meetings by Zoom helped!
- We had to pass higher costs onto project sponsors, but fewer deliverables happened
- Farms that could not afford to participate in grant-funded projects returned their grant money and some projects were cancelled, such as:
 - Manure nutrient storage in Seneca River Watershed
 - Silage leachate management system in Seneca River Watershed

- Dry manure stacker in Onondaga Lake Watershed
- SWCD lost out on ~ \$50,000 of personnel money from these returned grants
- Local businesses lost out in sales of building materials, supplies and services
 - (the funding that passes through our shop typically goes on to support ~ 100 businesses in the community!)
- When budgets for projects wore out, we moved on to where funding existed for projects
- Many large storm events in south-western portion of county resulted in ~ 36 stream/flooding related projects. We primarily helped with permitting. Many landowners had to pay for repairs themselves (homeowner in T. LaFayette spent ~ \$40,000 to replace culvert with wooden-deck bridge). One farm project started at \$37,000 and finished at a cost of \$57,000.

-Grants & Budgets

- NYS essentially froze all grants. For example:
 - RFP released: January 2020
 - Ranked grant/project list announced: September 2020
 - Plan of Works due: May 2021
 - Contracts awarded: June 2021
 - *Process took ~ 1.5 years (normally does not take that long)
- In meantime, inflation substantially increased costs while grant financial awards were fixed amounts of funding for projects, based upon pre-inflation rates.
- Districts average cost tables for project cost estimation no longer accurate
- With delayed contracts and grant awards, District had to over-haul equipment (hydro-seeder, no-till drill) instead of purchasing/replacing equipment

Where we stand – 2022 Budget

- The challenges continue

-Cost of projects up!

- Manure nutrient storages estimated to be \$400,000 now estimated to cost \$1 Million
- 6" pipe for water line was \$140,000; now is \$380,000 (3X increase)

-Grants

- Authored a WQIP grant to DEC in 2020 to continue providing hydroseeding services to municipalities at reduced rates. Awarded grant in 2022; we are already over budget c/o increases in fuel, labor, materials & supplies. We had to raise our rate to highway departments by 41% to break even. (Municipalities are required to seed disturbed areas to maintain compliance w/ NYS & EPA stormwater regulations).
- We secured the following grants: EPF Rd. 27, AEM Base Tier 17, or NYS DEC WQIP Rd. 17. Unfortunately we are still awaiting contracts from NYS

-Shortage of materials and supplies

- Some farmers have chosen not to do projects and we have sent grant money back
 - A phase II soil management project (WASCOB)
 - Another soil management project (WASCOB)
 - Rebidding a manure nutrient storage project for a dairy farm for third time. (USDA NRCS also involved in this project)

-Cash Flow

- Payments from NYS Dept. of Ag & Markets & other customers have been slow

-Salaries

- We've been working on raising salaries for staff retention and future recruitment
 - *Seasonal help, w/ scientific backgrounds, can make as much at McDonalds!

-Budget

- Over on "Subscriptions" line.

- Software companies changing their fee structure and now we have to have a license for each user (i.e. CADD)
- Budget for seed, mulch and fertilizer substantially higher (please see below)

Hydroseeding Item	2020 & 2021 Costs	2022 Cost
Lawn Seed mix	\$1.40 / lb	\$3.16 / lb
Conservation Seed mix	\$1.54 / lb	\$2.76 / lb
DOT Seed mix	\$1.47 / lb	\$3.67 / lb
Fertilizer	\$14.50 / 50 lb bag	\$21.00 / 50 lb bag
Wood Fiber Mulch	\$18.15 / bale	\$21.75 / bale

Community Relations

- The non-farm community is 3+ generations removed from the farm
 - They only know food to come from grocery stores
 - They forget the farmers & processes behind the scenes, working 7 days/week, 365 days/year
 - Lack of understanding about agricultural/environmental regulations and Best Management Practices (BMPs) that keep farms compliant with regulations. Community instead views the regulations and BMPs as harmful
- OnFARM Fest very important to continue and promote!

Labor

- Not a lot of people looking for jobs; had 4 seasonal position (2022) & 4 candidates
- Spent a lot of money on advertising without a lot of results
- Unemployment tax up 372% due to COVID! (budgeted \$1,000; spent \$3720)

Business Relationships / Collaboration

- Dry fertilizer spill on May 7. Former contact who always was ready and willing to help left position. After hours of calling around, we were not able to procure a street sweeper. *(SWCD operates the Ag Spill Response program out of it's office in Liverpool. It is a collaboration w/ Onondaga County 911 Center, NYS DEC Spill Response, City of Syracuse Dept. of Water, OCWA and farmers & contractors).*

Summary

Unfortunately, our cash appropriation is still at COVID levels (has been \$30,000 for the last two years. Usually is \$37,500). Respectfully, SWCD will be asking County to increase our cash appropriation in 2023 budget request.

b. INFORMATIONAL: Water Chestnuts Discussion & Demonstration

- Working 25 river miles; have draft management plan, waiting on approval
- Last year had \$100,000 proposal in budget for SWCD for water chestnut harvesting; 5 year outlook
- Between \$100-\$125,000 year in/year out; variation depends on environmental factors
- More sunny weather, more nutrients, etc. can produce more water chestnuts; dryer year could be less
- Stay with \$100,000/year; may look to bump it up in certain years; long term, amount should decrease as the issue curtails
- 5-7 year outlook for plan; codifying how county will approach this in future
- Safety components:
 - Put out orange signs where working for emergency purposes
 - 25 mile stretch of river, things can go wrong with other boats and weather
 - Crew safety very important – always wear life vests and safety whistles to get attention when needed
 - Crew members go through pre-lifeguard certification swimming test
 - Always work in 2 person crew

Water Chestnuts

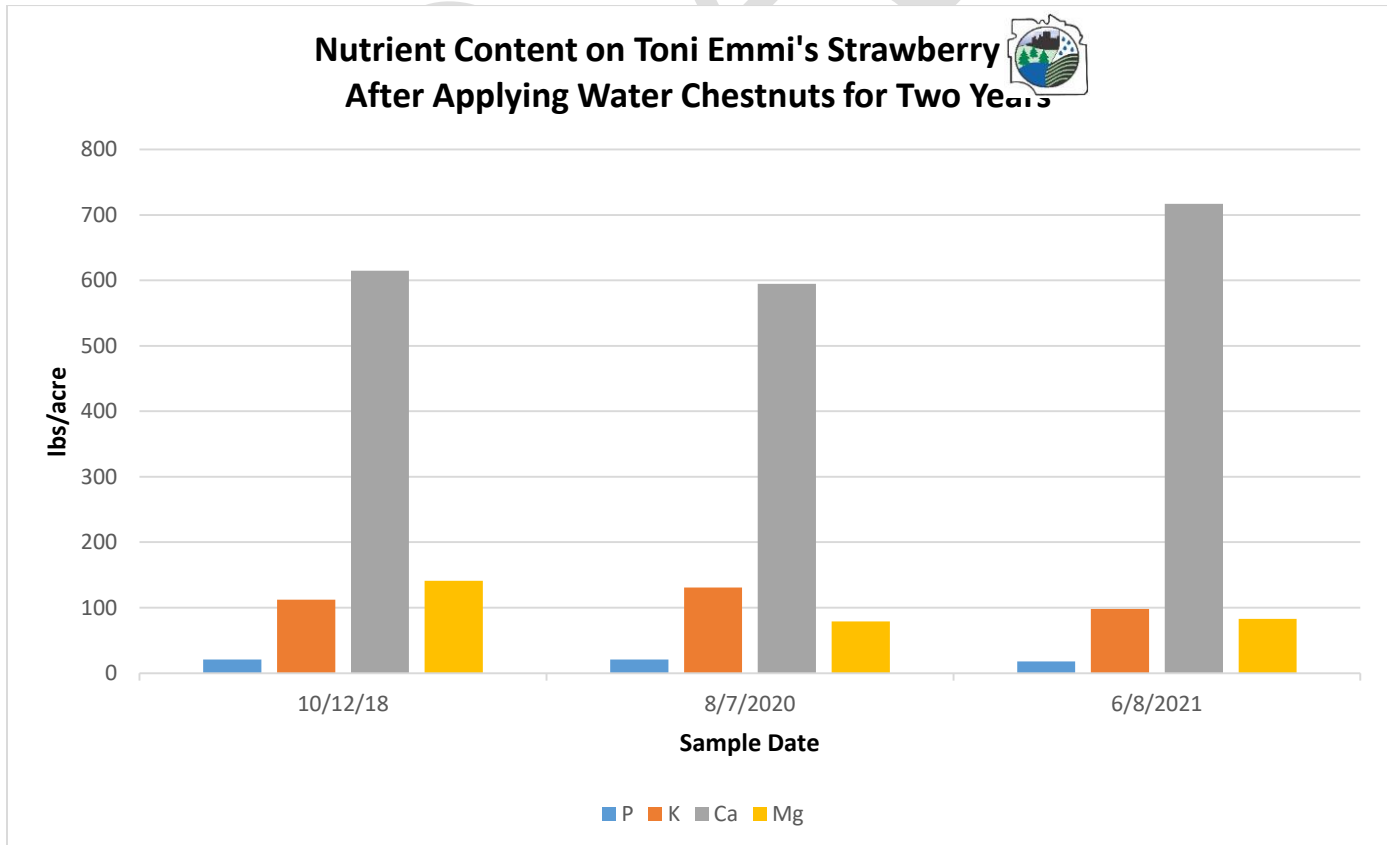
- Came from West Africa, Europe and NE Asia in the late 1800's
- Each plant produces 20 seeds; each seed can produce 15 stems; leaving one plant behind can produce a whole patch
- Grow in still bodies of water; can grow up to 16'

- Ecosystem is affected, as the leaves will create a mat, which does not allow sunlight in; as they decompose, they decrease the amount of oxygen in the water, which chokes out native species
- Problem for boaters and swimmers – cannot get through the patch
- Seeds are sharp and wash up on shore; can cause injuries
- Green seeds have to be taken out; black ones have already died and stay afloat
- Process to be able to pull water chestnuts
 - If a person is in a wetland or within 100' adjacent to a wetland, they must have NYS DEC permits
 - Working along the canal, have to have permit from Canal Corporation
 - Insurance regulations are also necessary for safety
 - Start process 9-12 months in advance to allow ample time to get everything (permits, insurance) in place
 - Took 6 months for SWCD to receive their permits
 - Permits necessary for private property as well; SWCD available to help with process
- Hourigan and Emmi Farms accept water chestnuts - applied to the field to help build soil health
- Emmi Farm is helping keep track of nutrient content in the soil

Water Chestnut Nutrient Content

The wet weight of water chestnuts is ~38% moisture. An estimated 200,000 pounds of chestnuts (wet weight) have been removed from Cross Lake and the Seneca River and applied to our county's agricultural fields. This is equivalent to 124,000 pounds of dry matter. Using last year's plant tissue analysis of a water chestnuts, pounds of nutrient applied to the fields are:

<u>Nutrient:</u>	<u>lbs/acre:</u>
Nitrogen	3,304.25
Potassium	2,037.21
Phosphorus	330.43



- Best testament to program – Belgium Bridge in Clay, 4 acre mat knocked back so far that the crew can hand pull the

rest; have to keep working the patches year after year

- Grateful for neighbors that hand pull at their property, hand pulling crews (since 2016), Enviro Aquatics and CNY Aquatics; all efforts make a difference
- Work with Oswego County SWCD – river system from Three Rivers to Phoenix, Onondaga County west side and Oswego east side; Oswego SWCD does herbicide treatment of the water; application process starts this week
 - Using Chase Enterprises – will try an agriculture drone designed for this type of work (10’ wing span) and boat
 - Herbicide treatment is a permitted process regulated by the state
- Grants – agencies slow to announce recipients and come to contract; hoping it will speed up back to pre-COVID time frames; i.e. waiting 18 months for contract, which is an issue with supply chain issues and inflation

2021 Water Chestnut Mechanical Harvesting

Site #	Area	Contractor	~ Acres	Loads / Pounds	Notes
1	Forey Path	CNY Aquatic Harvesting - Fulton	8	142 / 284,000	Contractor started mid-July due to flood-stage conditions (~ 4ft above normal)
2	South Bay	CNY Aquatic Harvesting	15	179 / 358,000	
4	Belgium Bridge	CNY Aquatic Harvesting	3.9	28 / 56,000	
5	South Cooper's	CNY Aquatic Harvesting	14.9	227 / 454,000	Contractor had to suspend work periodically due to swift currents in Seneca River
6	Jack's Reef	CNY Aquatic Harvesting	3.3	28 / 56,000	
	Herbicide Trmt	Chase Enterprises - Oswego	14.3		
	Hand pulling Team – Seneca, Oswego, Oneida River System	Onon SWCD Interns		- / 45,740	
	TOTAL		59.4	1,197,740 #	\$107,795 spent in 2021

2022 Water Chestnut Mechanical Harvesting

Site #	Area	Contractor	~ Acres	Loads / Pounds	Notes
1	Forey Path	CNY Aquatic Harvesting - Fulton	8	111 / 218,000	Contractor started in early July. Water level 2 ft below normal.
2A	South Bay - West	Enviro-Aquatics - Hamilton	7.5		Split in half so that contractor can be paid in a more timely manner
2B	South Bay - East	Enviro-Aquatics - Hamilton	7.5		Split in half so that contractor can be paid in a more timely manner
3	690 Bridge Abutment – Baldwinsville	CNY Aquatic Harvesting – Fulton	3.2		NEW SITE! Added in 2022
4	Belgium Bridge	Enviro-Aquatics - Hamilton	3.9		Will be done by hand pullers. Patch substantially knocked down after years of herbicide and mechanical harvesting
5	South Cooper's	CNY Aquatic Harvesting	14.9		
6	Jack's Reef	CNY Aquatic Harvesting	3.3		
	NEW Site to replace Belgium Bridge acres	To Be Determined	TBD 5?		May add 5 acres additional harvest to South Bay
	Herbicide Trmt	Chase Enterprises - Oswego	19.3		

	Hand pulling Team – Seneca, Oswego, Oneida River System	Onon SWCD Interns			
	TOTAL		~ 63.7		Cost for work in 2022 has gone up substantially (~ 60%) over 2021 prices!

What Makes the Water Chestnuts so Invasive?



Each plant can
produce up to
15-20 seeds



Each seed can
produce up to
15 stems



- This means one single plant left behind has the potential to produce up to **300 plants** the following year.
- One acre is equal to ~66,667 plants



Onondaga County Soil &
Water Conservation District

Water Chestnut Hand Pulling w/ Canoe 2016 - 2020



Water Chestnut Hand Pulling w/ John Boat 2020 - Present



Floating Chestnut mats that broke off and lodged in Baldwinsville. August 20, 2021



Land application of water chestnuts. Helps to improve soil health!

October 14, 2021

Windrows of Water Chestnut in farmer
John Hourigan's field



Applying Chestnuts to agricultural fields

Removing chestnuts using a hand unloader on pickup
truck bed



Tilling Water Chestnuts into farm soil



Mechanical Harvesting



THANK YOU!

To Dr. Russell Nemecek (retired) from
Onondaga County Health Dept. for getting the
invasive species program started!



The meeting was adjourned at 2:31 p.m.

Respectfully submitted,

JAMIE McNAMARA, Clerk
Onondaga County Legislature

ATTENDANCE

COMMITTEE: ENVIRONMENTAL PROTECTION COMMITTEE
DATE: JULY 19, 2022

NAME (Please Print)	DEPARTMENT/AGENCY
Tenesha Murphy	CE Office
Craig Dennis	SWCD
Mark Burger	SWCD
Jarce Lepniak	Leg
Jim Beebe	Leg
Travis Glazier	Env.
Kyle Cody	Office of Env.
Megan Vanderwaker	SWCD
Libby Hammerschmidt	SWCD