



VILLAGE OF NORTHBROOK ENVIRONMENTAL QUALITY COMMISSION

Thursday, February 18, 2021



Important Notice:

Pursuant to Section 7(e) of the Illinois Open Meetings Act (5 ILCS 120/7(e)) of Governor Pritzker's Executive Order 2021-04, this meeting of the Northbrook Environmental Quality Commission will be conducted remotely through a video conference call and will not be held at Village Hall. If you wish to hear the discussion or watch the meeting remotely, please contact Michaela Kohlstedt, Deputy Director of DPS, at michaela.kohlstedt@northbrook.il.us for call-in or viewing instructions

Audio conference: Dial: 408-418-9388
Access code: 187 934 1981

Individuals wishing to watch the video conference at the Village Hall may call 847-664-4051 by 4pm Thursday February 18 to reserve a seat where there is limited seating (8 seats) and masks will be required as well as maintaining proper social

REMOTE MEETING AGENDA

7:00 P.M.

- 1) Call To Order
- 2) Review of Minutes – January 21, 2021 Meeting
- 3) Hear From the Audience – Items not on the agenda
- 4) Community Planning Report
- 5) Northbrook Sustainability Baseline Assessment & Climate Action Plan Team Update
- 6) Mayors' Monarch Pledge Action Item Commitments
- 7) Pesticide Discussion with Ted Wynnychenko
- 8) Updates on Other Items:
 - a) Communication Initiatives & Messaging
 - b) Solar Permit Data
 - c) Village Plastic Bag Recycling Update
 - d) Recycling & Waste Data – Solid Waste, Electronics, Recycling, Light Plastics, Composting
- 9) Old Business
- 10) New Business
- 11) Remarks for the Good of the Order
- 12) Next Scheduled Meeting – March 18, 2021
- 13) Adjourn.

The Village of Northbrook is subject to the requirements of the Americans with Disabilities Act of 1990. Individuals with disabilities who plan to attend this meeting and who require certain accommodations in order to allow them to observe and/or participate in this meeting, or who have questions regarding the accessibility of this meeting or the facilities, are requested to contact Greg Van Dahm or Debra J. Ford (847-664-4014 and 847-664-4013, respectively) promptly to allow the Village of Northbrook to make reasonable accommodations for those persons. Hearing impaired individuals may call the TDD number, 847-564-8465, for more information.

Jeremy Reynolds, Chair of the EQC

**SUMMARY OF THE
CLIMATE ACTION PLANNING TEAM MEETING
VILLAGE OF NORTHBROOK
February 8, 2021**

Call to Order

Director of Development and Planning Services Michaela Kohlstedt called the CAPT meeting to order at 6:02 p.m. in a remote meeting through Zoom virtual meeting platform. Ms. Kohlstedt was present in the Village Hall, but there were no members of the public in attendance in the building.

Roll Call

The following Members were in attendance: Trustee Israel, Trustee Ross, John Albrecht, Frank Bleeker, Steven Elisco, Jill Franklin, Robyn Kole, Becky Mathison, Clare Poupard, Len Rago, Aaron Stash, Patti Vile, Melissa Hirsch, Derrik Chen, Nell Badgley, Joan Scovic, and Sandy Weiss.

Members absent: Pat Lederer, Kim Ptak, and Scott Robson.

The following Village Staff were in attendance: Michaela Kohlstedt, Jackie Clawson, Madeline Farrell, Corey Friedman, Erik Jensen, Matt Morrison, Kelly Hamill, Chan Yu, and Swati Pandey.

Also Present: paleBLUEdot consultant Ted Redmond and Greenest Region Corps Member Tessa Murray.
Members of the public: Yakov Simkin, Sandra Dold, and Doug Gerleman.

Public Comments

Yakov Simkin inquired on the transparency of the CAPT process in regards to regulatory decisions made to achieve emissions reductions. Director Kohlstedt responded that the preliminary drafted reports will be available for review with a targeted date in early May. After, the Village will promote the opportunity for public comments on the drafted Climate Action Plan. Residents may request to be notified of the public comments period by emailing tessa.murray@northbrook.il.us. Next, Yakov Simkin asked about the jurisdiction of the CAP, to which Trustee Israel answered that it is to be applied within incorporated Northbrook.

Sandra Dold introduced herself as a sustainable architect on the Board of Directors for the Illinois Green Alliance that has its own strategic plan she would like shared with CAPT members.

Doug Gerleman said he is attending to keep fellow interested Northbrook Garden Club members up to date with the CAPT process, and spoke on mitigating greenhouse gas emissions through planting long-rooted prairie plants to absorb atmospheric carbon.

Welcome and Meeting Goal Overview

Mr. Redmond thanked the CAPT members for completing the homework task of “saving” potential and new actions using the ActionFinder tool for each subteam category. He explained that backup copies of each subteam’s spreadsheet are saved, and the teams will now be working in shortened versions of the original files. The goal for today’s meeting is for each subgroup to establish its process of refining actions through ranking items by the screening criteria. The screening criteria are as follows: support, impact of implementation, potential for success, affordability, and overall cost to benefit.

Mr. Redmond explained that each subgroup should decide on their own how they will complete the rankings: either by attending an additional meeting, assigning some members to the task, or dividing up the actions by individuals evenly. Member Rago asked for clarification that this task will not involve eliminating any actions immediately before ranking, and Mr. Redmond responded that this can occur if the group is in agreement on the deleted actions. There is

also the option to create a secondary list of actions that are not considered a priority now, but will be saved to circle back to at a later time. Director Kohlstedt reminded the public that they are not assigned to breakout rooms, and the summary and Youtube recording of this meeting should be on the CAPT webpage of the Village website by Friday, February 12.

Breakout Round 1: Transportation/Land Use, Waste Management, Local Food

On behalf of the Local Food subteam, Director Kohlstedt reported the group successfully ranked half of the shortened list and decided to plan a secondary Zoom call to finish these rankings. Member Kole spoke for the Transportation and Land Use group that decided to divide the remaining actions evenly among members for individual review.

Member Weiss said the Waste subteam made the same decision after separating the list into subcategories. Member Elisco mentioned that the Transportation and Land Use spreadsheet still has 90 actions and Mr. Redmond offered to condense the document further for the group. Mr. Redmond reiterated groups can “strike off” actions the group does not find relevant or rephrase the language within actions to better suit Northbrook’s goals.

Breakout Round 2: Buildings/Energy, Climate Health and Safety

The Buildings and Energy group explained how they divided assignments for ranking actions by adding two columns to the left of the screening criteria’s columns. The first is marked “Assigned” and will be filled in by Tessa Murray with names of subteam members divided evenly among actions. The column added next to this one is designated for “Comments” to be made by other members who may dispute or discuss the ranking. Director Kohlstedt reported that the Climate Health and Safety subteam also divided remaining action items and that all rankings should be completed by March 1.

Mr. Redmond explained that at the meeting on March 8, members will review actions as they have been rated and prioritized. The group will decide on a numerical threshold for selecting rated actions and evaluate how many can reasonably be accomplished in 10 years that align with the greenhouse gas reduction goal. Member Elisco inquired on how many actions are expected for the final CAP, to which Mr. Redmond estimated 3-5 actions per strategic goal, with the largest subcategories (like Buildings/Energy) totaling around 40-60 action items. Also at the March 8 meeting, members will discuss which entities in Northbrook are best suited for implementing action items (Village Hall, Public Works, Northbrook Public Library, etc.). To save time during this meeting, potential partners could be added adjacent to actions in a new column while filling out rankings before then.

At this point, Member Rago expressed that he sees benefit in collaboration for ranking action items and the group decided to add another meeting before March 8 to go over what was ranked by individual members. March 1 is the agreed upon date for this additional meeting, and Member Stash reiterated that everyone should still do their “homework” of ranking their assigned items before March 1.

Breakout Round 3: Greenspace/ Tree Canopy, Water/ Wastewater, Climate Economy

When the whole group reconvened after the last breakout session, Trustee Israel reminded members that each group is responsible for their own assigned actions as well as double-checking and discussing other members’ scorings in the “Comments” section. Initial ideas for partners relevant to each action should be filled in when possible. Member Kole asked if businesses can be potential advocates and Director Kohlstedt confirmed that they may be considered partners for applicable action items.

Next Steps

Mr. Redmond clarified that each team has established ranking reviews in slightly different ways and if any member is unclear they should contact Village staff members designated to their subteam. On March 1, the CAPT will hold a Zoom meeting from 5-6:30 p.m. for subteams to collaborate in breakout sessions. Members should complete their homework tasks before this time. Mr. Redmond told members to expect two emails from him: one with the Zoom link and invitation to the newly added March 1 meeting, and another to recap this workshop session. Tessa Murray also mentioned she will send an email to the subteams that asked her to assign names to action items when she has

completed this. Member Albrecht asked if the March 1 meeting is open to the public and Trustee Israel clarified that all meetings are public, but on March 1 there will be no time for discussion beyond the task at hand.

Adjourn

At this time, Ms. Kohlstedt told members any questions can be directed to her or Tessa Murray via phone or email. She adjourned the meeting at 9:16 p.m.

Respectfully submitted,
/s/ Tessa Murray
Recorder



VILLAGE OF NORTHBROOK MEMORANDUM

DEVELOPMENT & PLANNING SERVICES

TO: ENVIRONMENTAL QUALITY CONTROL COMMISSION
FROM: TESSA MURRAY, GREENEST REGION CORPS MEMBER
DATE: FEBRUARY 18, 2021
SUBJECT: MAYORS' MONARCH PLEDGE ACTION ITEM COMMITMENTS

INTRODUCTION

Since 2017, Northbrook has signed onto the Mayors' Monarch Pledge through the National Wildlife Federation. In December of 2020, Northbrook resigned the pledge for 2021 and committed to the following action items:

1. Plant or maintain a monarch and pollinator-friendly demonstration garden at Village Hall or another prominent community location.
2. Display educational signage at monarch gardens and pollinator habitat beyond monarch demonstration gardens.
3. Integrate monarch butterfly conservation into the city's Park Master Plan, Sustainability Plan, Climate Resiliency Plan or other city plans.
4. Launch or maintain a public communication effort to encourage residents to plant monarch gardens at their homes or in their neighborhoods.
5. Change weed or mowing ordinances to allow for native prairie and plant habitats.

The pledge requires all signatory towns to commit to at least three items, but the organization provides around 40 possible actions to sign onto that can be added or removed from Northbrook's profile at any time. With 5 items, Northbrook is designated "signatory status", and at least 8 actions are needed to achieve "leadership circle" status. See below for a list of potential actions Northbrook could add to its 2021 pledge:

1. Launch, expand, or continue an invasive species removal program that will support the re-establishment of native habitats for monarch butterflies and other pollinators.
2. Create a community art project to enhance and promote monarch and pollinator conservation as well as cultural awareness and recognition.
3. Host or support a native seed or plant sale, giveaway or swap
4. Plant milkweed and pollinator-friendly native nectar plants in medians and public rights-of-way.
5. Launch or maintain an outdoor education program in school gardens that builds awareness and creates habitat by engaging students, teachers, and the community in planting native milkweed and pollinator-friendly native nectar plants
6. Initiate or support community science (or citizen science) efforts that help monitor monarch migration and health.
7. Add or maintain native milkweed and nectar producing plants in public community gardens.
8. Engage with community garden groups and urge them to plant native milkweeds and nectar-producing plants.

The first action item, an invasive species removal program, presents an opportunity to call on volunteers in Northbrook to engage in a conservation project while at home. The Village could create a seasonal and local guide to invasive species removal that instructs volunteers how to identify and properly remove common weeds in our area. This would include photos and information on the proper time of year to pull seed heads from invasive species like purple loose-strife, reed canarygrass, and crown vetch, when to root out garlic mustard, and organic alternatives to herbicide. The guide would be promoted through Village social media platforms to demonstrate its commitment to pollinators through an invasive removal program. This is a program that could be achieved even during the pandemic while socially distanced with residents participating at their own homes on their own properties.

Village staff is seeking input from the EQC on this possibility as an action item for the Monarch Pledge or on any of the listed potential actions.



VILLAGE OF NORTHBROOK MEMORANDUM

DEVELOPMENT & PLANNING SERVICES

TO: ENVIRONMENTAL QUALITY CONTROL COMMISSION
FROM: MICHAELA KOHLSTEDT, DIRECTOR DPS
DATE: FEBRUARY 18, 2021
SUBJECT: PESTICIDES DISCUSSION – PART 1

On February 18, 2021 Ted Wynnychenko of Winnetka will be presenting to the Commission on pesticide use in the area. Mr. Wynnychenko is a member of the Winnetka Environmental and Forestry Commission, and he reached out to the EQC in January to begin a dialogue on the use of pesticides with an interest in seeing if Northbrook would like to “team up” with Winnetka and other possible surrounding communities in any potential regulations with the application of pesticides. Mr. Wynnychenko has included the attached powerpoint for review, as well as a news article. Also attached is the initial email sent by Mr. Wynnychenko to Chairman Reynolds providing more context for the discussion.

Kohlstedt, Michaela

From: Poupard, Tom
Sent: Monday, January 04, 2021 9:45 AM
To: ted@wynnychenko.com
Cc: 'Chuck Dowding'; 'Brendon Mendoza'; 'Scarlett Harper'; Kohlstedt, Michaela; Murray, Tessa
Subject: RE: Please forward to Jeremy Reynolds, Chair, Environmental Quality Commission

Thank you. Yes, I will forward this on to our commission chair.

We are in the midst of preparing our first Climate Action Plan, but I know this is also a topic of interest to the group.

By the way, if you are curious about the work we are doing our Climate action Plan, you can go to our web page:
<https://www.northbrook.il.us/993/Climate-Action-Plan>

Thomas R Poupard, AICP
Director of Development & Planning Services Village of Northbrook
1225 Cedar Lane
Northbrook, IL 60062
T: 847-664-4051
E: tom.poupard@northbrook.il.us
W: <https://www.northbrook.il.us/213/Development-Planning-Services>

-----Original Message-----

From: Ted Wynnychenko <ted@wynnychenko.com>
Sent: Saturday, January 2, 2021 10:33 AM
To: Poupard, Tom <Tom.Poupard@northbrook.il.us>
Cc: 'Chuck Dowding' <c-dowding@northwestern.edu>; 'Brendon Mendoza' <BMendoza@winnetka.org>; 'Scarlett Harper' <scarletharper2045@gmail.com>
Subject: Please forward to Jeremy Reynolds, Chair, Environmental Quality Commission

Mr. Poupard:

I found your name and email as the staff liaison for the Environmental Quality Commission on Northbrook's website.

My name is Ted Wynnychenko. I am a resident of Winnetka, and currently on the Environmental and Forestry Commission here.

Over the last few months we have been discussing pesticide application.

I am reaching out for the Commission to ask if this is a topic that your Commission would be interested in discussing as well, as I will detail below.

I would appreciate it if you would forward this email to Jeremy Reynolds and/or other members of the Commission.

Thank you
Ted Wynnychenko

Jeremy Reynolds:

I found your name on Northbrook's website.

A few months ago, the Winnetka Environmental and Forestry Commission (EFC) discussed the use and application of pesticides.

I have attached a copy of the presentation used at that meeting.

In researching this topic, I found that Illinois, like most states, has adopted statutes that preempt local governmental control of pesticides, and make it an exclusive state right.

The back story behind this is interesting. In 1991, the US Supreme Court ruled in *Wisconsin Public Intervenor v Ralph Mortier* (501 U.S. 597; 111 S.Ct. 2476; 115 L.Ed.2d 532). As it turned out, Mortier wanted to aerially spray property he had within the city limits of a town that had pesticide laws. The town said "no," and the case went all the way to the US Supreme Court on the question of whether states/local governments have the right to preempt federal laws on pesticides (the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), U.S.C. § 136 et seq.).

The court said that this was a state right, and this allowed local governments to share in the protection of their environments.

Well, not surprisingly, the pesticide industry immediately formed a lobbying group and got almost all states (I think like 47 of 50) to pass state laws that made pesticide regulation an EXCLUSIVE right of the state, not local government. Illinois was one of those states, and in the mid-1990's it passed the Illinois Pesticide Act (415 ILCS 60, P.A. P.A. 85-177 as amended) which explicitly barred local governments from regulating pesticides ("The regulation of pesticides by any political subdivision of this State, including home rule units, is specifically prohibited except for counties and municipalities with a population over 2,000,000. The regulation of pesticides under this Act is an exclusive power and function of the State, except as provided in this paragraph, and is a denial and limitation, under Article VII, Section 6, subsection (h) of the Illinois Constitution, of the power of a home rule unit to regulate pesticides.")

Well, it seems, people are now thinking about this again, because, I guess, even the "better" pesticides of today can still be a real problem for "good" insects (and people). In fact, I believe within the last few years both Connecticut and Hawaii considered removing these local prohibitions, which resulted in spending of millions of dollars by the pesticide industry in opposition, and the eventual failure of change.

So, the Winnetka EFC was discussing what our options might be to effect some local control, and I suggested that we reach out to neighboring communities to see if there was awareness of this issue, and if there would be any interest in trying to effectuate change in Illinois, not as an individual community or individual, but as a more "regional" group.

Thus, this email.

I think what we (I) am wondering if this is something your group was aware of, and whether or not it would be something you would want to discuss.

In researching this, I realized that this area was not immune from the horrors of the past. The North Shore Mosquito Abatement District Annual Report for 1950 states that: "After the emergence of adult mosquitoes in June, the TIFA was used to fog the whole District in an effort to reduce mosquito population. To minimize the traffic hazard, and to insure the best results, the work was carried on between the hours of 11:00 P.M. and dawn.

The TIFA started at the north end of Glencoe and worked south along the shore... It went up and down each street and alley so that the fog would penetrate through each block." And, since it was at night to avoid "traffic hazard," everyone was a home sleeping and enjoying the fog!

The "TIFA" is a fogging machine which fogged a solution of 5% DDT and 1/2% Lethane (I love the name "Lethane" - yes, I am sure it is lethal to lots of things).

So, sorry for the longer story.

In any case, if this issue is something that would concern your group, or not, please let me know.

I believe the Winnetka EFC is looking to see if any other communities in the area have considered this, done anything about it, or would be interested in discussing options for the future.

In addition to email, my home phone is 847-446-0072. I will be off work the first week of January, and the Winnetka EFC meeting is the second Wednesday of the month, so, if you have a chance, please let me know your thoughts so that I could share them.

Hope you have a great year.

Thanks

Ted

WARNING- EXTERNAL EMAIL: If unknown sender, do not click links/attachments. Never give out your user ID or password.

Individual Mosquito Control

The problem with pesticides and why we should care

- While pesticides are aimed at killing mosquitos, they have harmful effects well beyond their intended use
 - Bees travel up to 5 miles out of their hive. If a bee is poisoned by pesticides, the whole colony could be poisoned
 - In 2019, 40% of honeybee colonies in the US died
 - Pesticides are highly lethal to monarchs
 - Between 1997 and 2017, the monarch population has gone from 682 million to 109 million
 - Birds eat the insects that have been poisoned and become sick as well
 - Over the past 50 years, North America has lost about 3 billion birds
 - Pesticides are harmful to humans, especially children
 - Boys with higher levels of Pyrethroid pesticides in their bodies are twice as likely to have ADHD

Why it Matters

- Bees are essential to our ecosystem
 - About one in three bites of food we eat would not be possible without bee pollination
 - Bees feed birds, rodents, fish, and other small animals that also feed larger animals
 - The elimination or decline of bees is not isolated – the entire food chain becomes less stable with their decline

Pyrethroids

- Pyrethrin is natural
 - Derived from *Tanacetum cinerariifolium*
 - Common Name: Dalmatian chrysanthemum
 - Native to Dalmatia in the Balkans
- Pyrethroids are synthetic long-lasting compounds similar to pyrethrin
 - Permethrin
 - Resmethrin
 - Deltamethrin
 - Prallethrin
 - d-Phenothrin

Pyrethroids

- Neonicotinoids replaced organochlorines
 - DDT (Dichlorodiphenyltrichloroethane)
- Pyrethroids replaced neonicotinoids
 - Permethrin first registered 4/29/79 with EPA
 - Alter nerve function by affecting Na channels
 - “Likely to be Carcinogenic to Humans” (orally)
 - ULV spraying estimated <0.0001% reaches target mosquitoes

Benefits

- North Shore Mosquito Abatement District
 - Mosquito Abatement District Act (70 ILCS 1005/) passed in September 1927
 - Abatement District established on December 8, 1927
 - Mission:
 - Reduce the risk of disease from mosquito-borne viruses
 - Minimize the negative impact mosquitoes have on the quality of life in the District

Benefits

- Private, individual mosquito control
 - “Start Enjoying Your Yard Again”
 - “Be the most popular house on the block!”



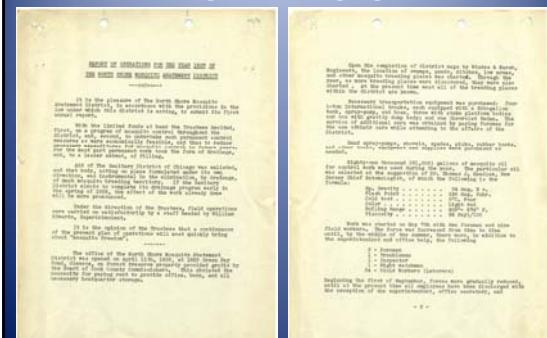
Costs



NSMAD

- Pyrethroids
 - Prallethrin
 - d-Phenothrin
- Synergist
 - Piperonyl Butoxide
 - cytochrome P-450 inhibitor
 - most important natural defense mechanism of insects
- Juvenile Hormone (JH) analog
 - (s)-Methoprene
 - Juvenile growth hormones must be absent for a pupa to molt to an adult
 - Interferes with an insect's life cycle and prevents it from reaching maturity or reproducing.

NSMAD - 1928



NSMAD – 1928-1950

- 1928-1934 – “Mosquito Oil” or “Furnace Oil” – 16K – 81K gallons
- No info 1935-1942
- 1943 – 1944 – Oiling: 22K-34K gallons
- 1945 – Tested: Amine 220 v. Rhothane (“Oil Formula” and “Army Formula”) v. DDT (6 gallons/acre)
- 1946 – 1% DDT – hosing not enough to clean – lethal to dogs and cats
- 1947 – 1948 – 1% DDT oiling and 5% DDT fogging (dumps)
- 1949 – Rhothane/DDD oiling (less toxic than DDT); Pyrethrum and DDT spraying; DDT capsules “can be used in rain barrels”
- 1950 – Rhothane/DDD oiling; Fogging 5% DDT with 0.5% Lethane between 11 PM and dawn “went up and down each street and alley”

Private, Individual Control

- Pyrethroids
 - Permethrin
 - Resmethrin
 - Deltamethrin
- Specific details hard/impossible to find
- “Natural” option offered by some, but clearly marketed as less effective

Pyrethroid - Benefit

- They do work
 - “Barrier treatments were effective at lowering mosquito populations although there was variation between studies and for different mosquito species.”

Pyrethroid - Costs

- Lethal to Monarchs 23 meters downwind of ULV application in 1-2 m.p.h. wind
- Lethal to Monarchs 120 meters downwind of ULV application in 8-11 m.p.h. wind
- Increased larval mortality for up to 21 days after being fed sprayed milkweed
- Residual killing time > 1 day

Pyrethroid - Costs

- Toxic to cats (less so to dogs)
- Toxic to fish, and should be kept out of bodies of water
- EPA “risk quotient” for “terrestrial avian species” are below EPA’s “levels of concern”
 - But, birds eat insects

Pyrethroid - Costs

- Extremely toxic to bees
- Associated with “bee kills” and colony collapse disorder
- Sublethal exposure resulted in <50% bees returning to hive
- Significantly decreased fecundity
- Reduced movement (30-71% decrease)
- Reduced social interactions (43-67% decrease)
- High levels detected in pollen collected by bees (pyrethroids most prevalent of pollen residues)

Alternatives

- Remove standing water
- Mosquito repellent
- Loose clothing
- Go indoors
- Screens

What can the EFC and Winnetka do?

- Educate residents about harmful effects of pesticides, and possible alternatives
 - Vet mosquito abatement companies that are using non-toxic chemicals and recommend them to residents
- Screened in porches
 - Change building codes that include all porches with screens (temporary or permanent) in GFA
- Evaluate Park District pesticide methods

Basic human rights must include the "right of the citizen to be secure in his own home against the intrusion of poisons applied by other persons"

Rachel Carson

Questions/Considerations

- Rights of homeowner
- Rights of neighbors
- Community concerns
- NSMAD vs. private use



Western Monarch Population Closer to Extinction; Still no Federal or State Protection in Sight

Home (/) - Press & Media (/Press) -

Western Monarch Population Closer To Extinction; Still No Federal Or State Protection In Sight

WESTERN MONARCH POPULATION CLOSER TO EXTINCTION; STILL NO FEDERAL OR STATE PROTECTION IN SIGHT

Population that winters along the California coast hit a low of less than 2,000 butterflies—a 99.9% decline since the 1980s. We must take action now to save the western monarch migration.

Expert Contacts

Sarina Jepsen, Director of Endangered Species

(971) 244-3727 | sarina.jepsen@xerces.org (mailto:sarina.jepsen@xerces.org)

Scott Hoffman Black, Executive Director

scott.black@xerces.org (mailto:scott.black@xerces.org) | 503-449-3792

PORLAND, Ore., January 19, 2021---The Xerces Society today announced that only 1,914 monarch butterflies were recorded overwintering on the California coast this year. This critically low number follows two years with fewer than 30,000 butterflies—the previous record lows—indicating that the western monarch butterfly migration is nearing collapse.

Help support science-based conservation: become a member or make a donation today!

DONATE (<https://secure.acceptiva.com/?cst=b335b6>) JOIN (<https://secure.acceptiva.com/?cst=307561>)



The final results (<https://www.westernmonarchcount.org/data/>) from the 24th annual Western Monarch Thanksgiving Count show a 99.9% fall from the number of monarchs in the 1980s, when butterflies filled trees from Marin County to San Diego County.

"In only a few decades, a migration of millions has been reduced to less than two thousand butterflies," said Stephanie McKnight, a conservation biologist with the Xerces Society who helps coordinate the counting. The Western Monarch Thanksgiving Count (<https://www.westernmonarchcount.org/>) is a volunteer-driven community science monitoring project that annually assesses the number of monarch butterflies overwintering at groves of trees on the Pacific Coast of California and Northern Baja. The count is coordinated by the Xerces Society for Invertebrate Conservation and Mia Monroe, count founder and longtime volunteer coordinator. This is the primary way that the status of the western monarch migratory population is assessed.

Despite the COVID-19 pandemic hampering survey efforts, volunteers visited 246 overwintering sites—three more than last year—ranging from Mendocino on California's northern coast to Ensenada in Baja California, Mexico.

"Volunteers rallied to make safe, independent site visits this season realizing the data we each collect is especially important in this dismal year documenting the monarch butterfly's decline," said Mia Monroe.

The iconic monarch overwintering sites at Pacific Grove, known as "Butterfly Town, USA", was one of several that didn't have a single butterfly this year. Other well-known locations such as the Pismo State Beach Monarch Butterfly Grove and Natural Bridges State Park only hosted a few hundred butterflies.

"These sites normally host thousands of butterflies and their absence this year was heartbreaking for volunteers and visitors flocking to these locales hoping to catch a glimpse of the awe inspiring clusters of monarch butterflies," noted Sarina Jepsen, Director of Endangered Species at the Xerces Society.

The primary drivers of decline are loss of overwintering, breeding, and migratory habitat in California, and pesticide use.

Unfortunately monarchs lack state and federal legal protection to keep their habitat from being destroyed or degraded. A court decision (<https://xerces.org/press/court-rules-state-of-california-lacks-authority-to-protect-imperiled-bumble-bee-species-under>) in November, 2020, deemed that terrestrial invertebrates (including insect pollinators such as the monarch and bumble bees) cannot be offered protection under the California Endangered Species Act. A few weeks later, the US Fish and Wildlife Service announced (<https://xerces.org/press/much-needed-federal-protection-for-americas-beloved-monarch-butterfly-warranted-but-precluded>) that monarch butterflies are "warranted but precluded" from listing under the federal Endangered Species Act, making them a Candidate Species for federal protection.

Western monarchs may lack the legal protection that would usher in resources to help recover the population, but there are many things that can be done to improve their chances. The Xerces Society along with other researchers and partners developed the Western Monarch Call to Action (<https://xerces.org/western-monarch-call-to-action>). It provides five key steps that if implemented quickly, can help recover the population. This rapid approach aims to complement long-term plans such as the Western Association of Fish & Wildlife Agencies <https://wafwa.org/placement/2019-monarch-conservation-package/western-monarch-butterfly-conservation-plan-2019-2069/>. DONATE (<https://secure.acceptiva.com/?cst=b335b6>) JOIN (<https://secure.acceptiva.com/?cst=307561>)



There are many habitat restoration projects in progress right now to enhance and restore monarch breeding and overwintering habitat in California, but more are needed. Most urgently, overwintering habitat in California needs protection.

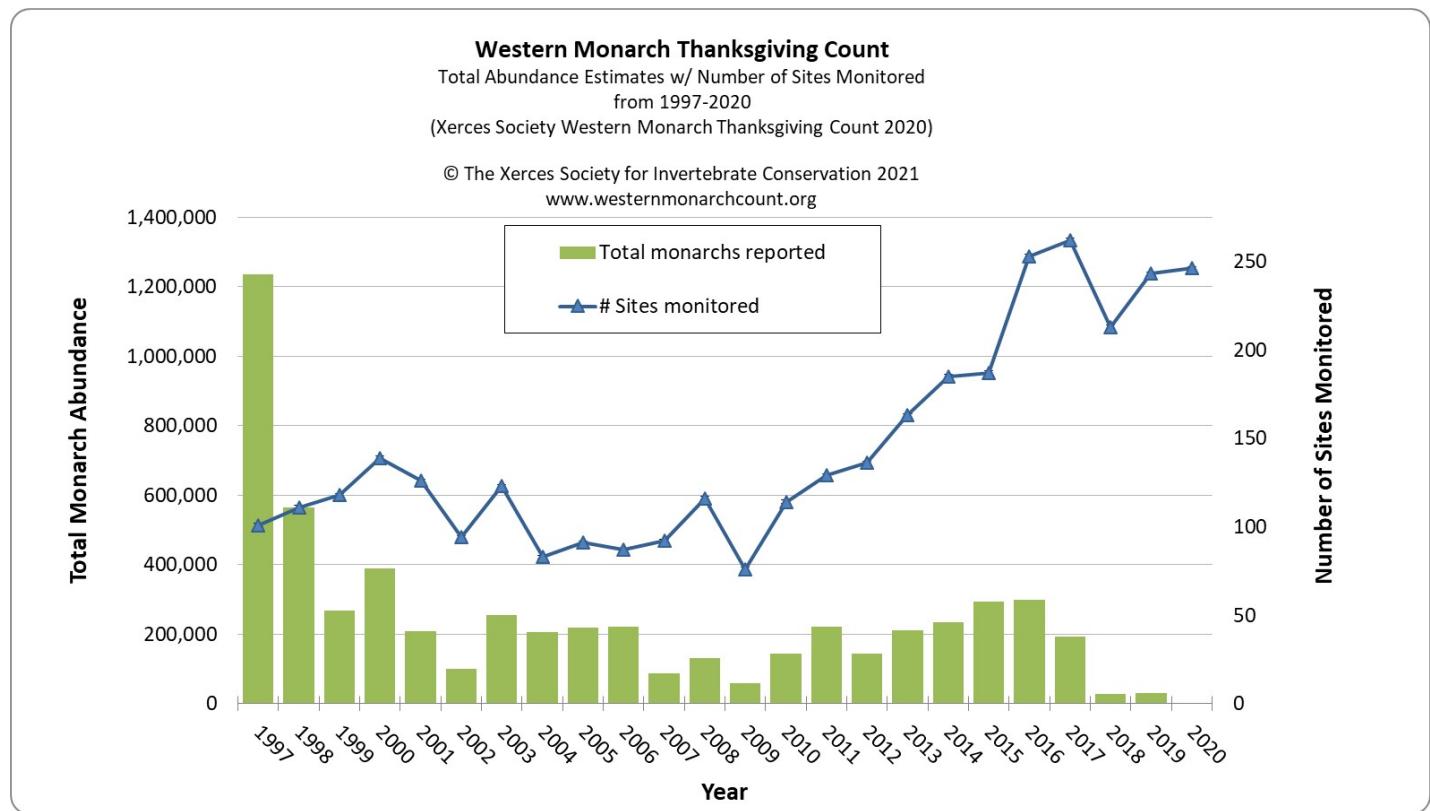
The Xerces Society will continue to pursue protection for the monarch and work with a wide variety of partners to implement science-based conservation actions urgently needed to help the iconic and beloved western monarch butterfly migration. Xerces will work hand-in-hand with farmers and ranchers to find practical solutions to restore and manage pollinator habitat on working landscapes and work with managers of roadsides, energy infrastructure, forests, and grasslands to enhance current habitat and create new habitat. Xerces will also continue collaborating with community scientists and enthusiasts, other nonprofits, and researchers to magnify each individual's efforts.

###

Western Monarch Thanksgiving Count Data: <https://www.westernmonarchcount.org/data/>

(<https://www.westernmonarchcount.org/data/>)

Western Monarch Call to Action: <https://xerces.org/western-monarch-call-to-action> (<https://xerces.org/western-monarch-call-to-action>)



This graph is released for use by any media outlet.

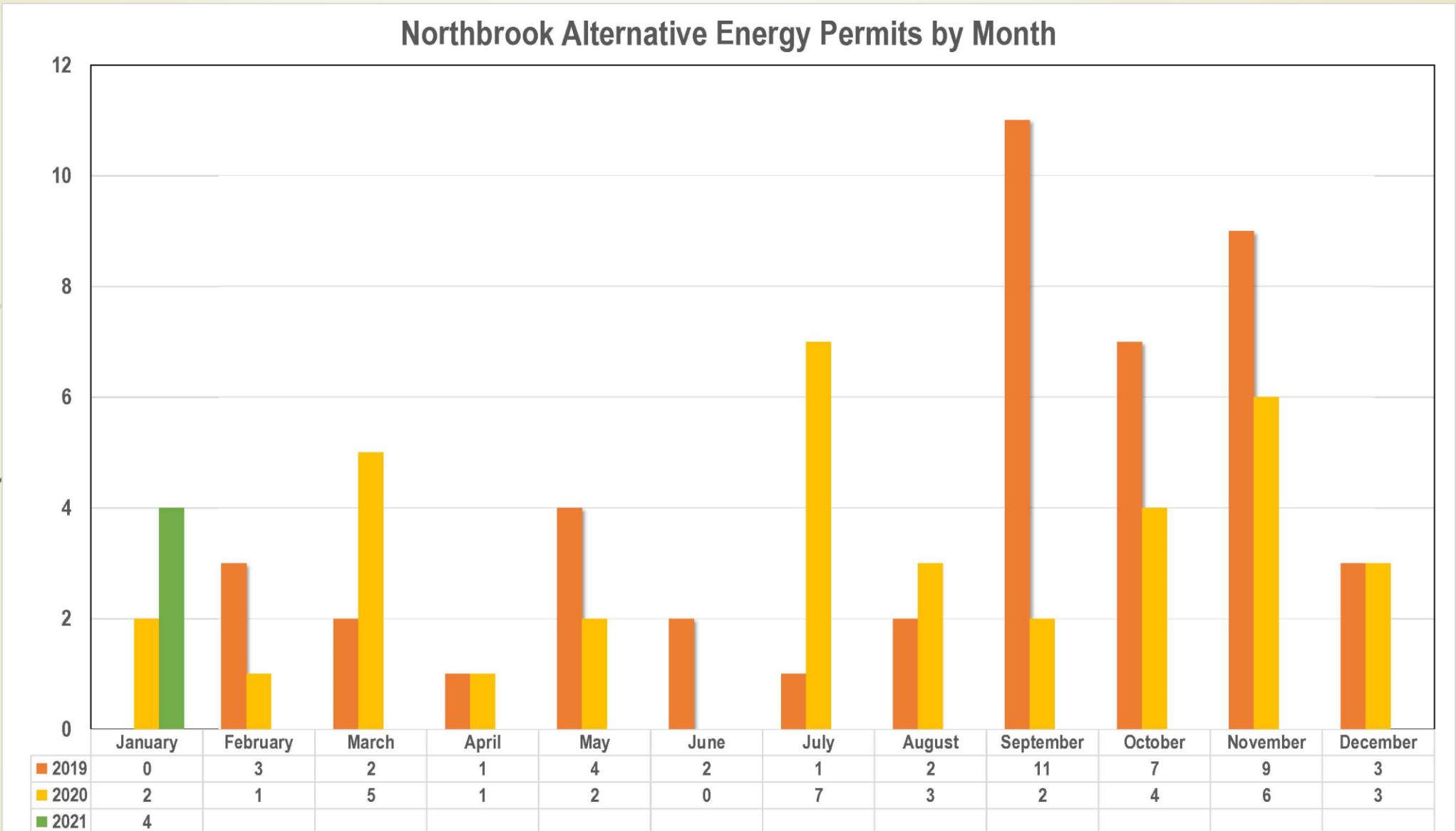
Western Monarch Thanksgiving Count Data 1997–2020: It shows that despite record volunteer effort, monarch numbers are at the lowest point recorded since the count started.

Help support science-based conservation: become a member or make a donation today!

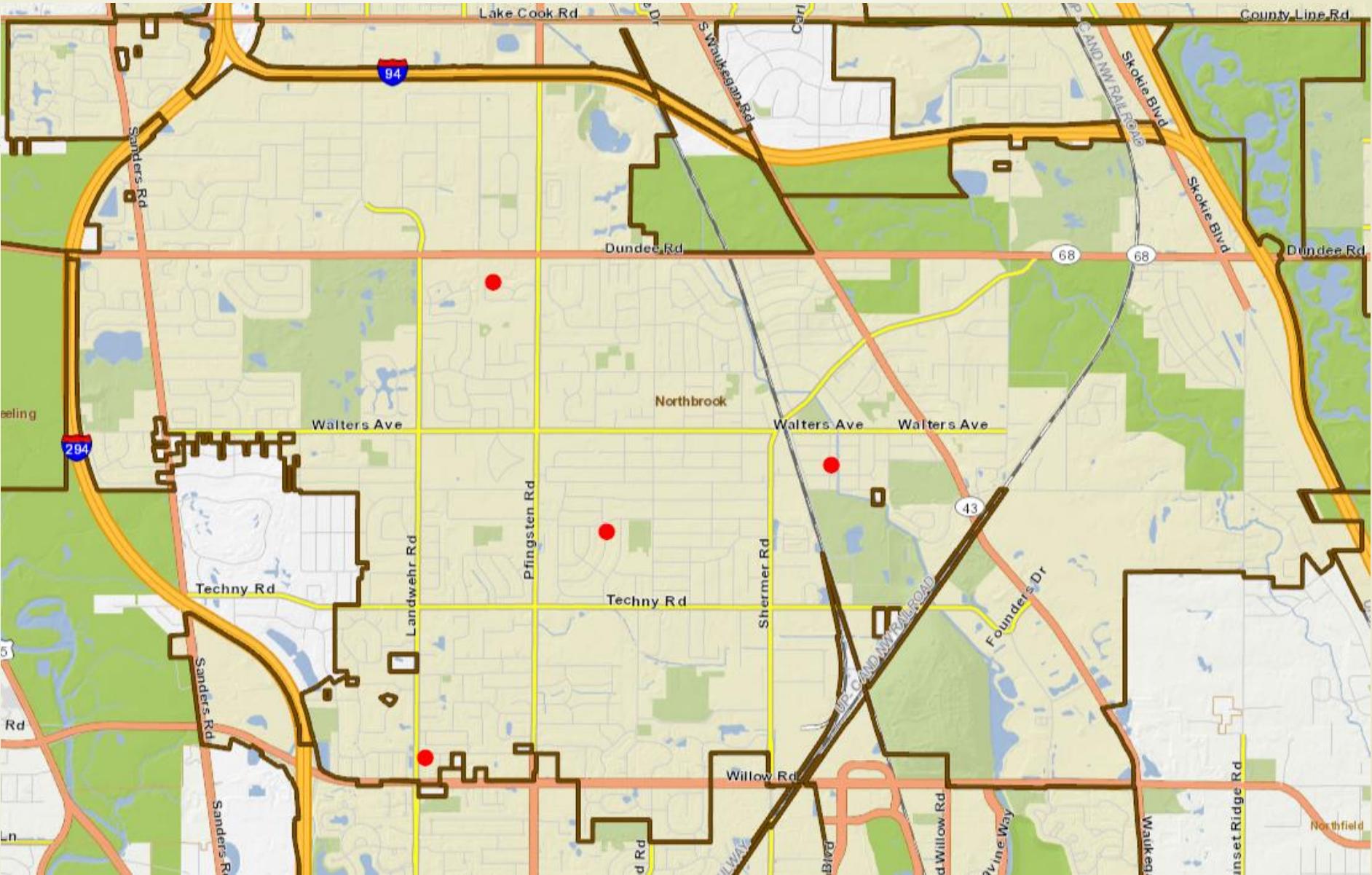
DONATE (<https://secure.acceptiva.com/?cst=b335b6>) JOIN (<https://secure.acceptiva.com/?cst=307561>)

x

Solar Permit Data



Solar Permit Data – for January 2021



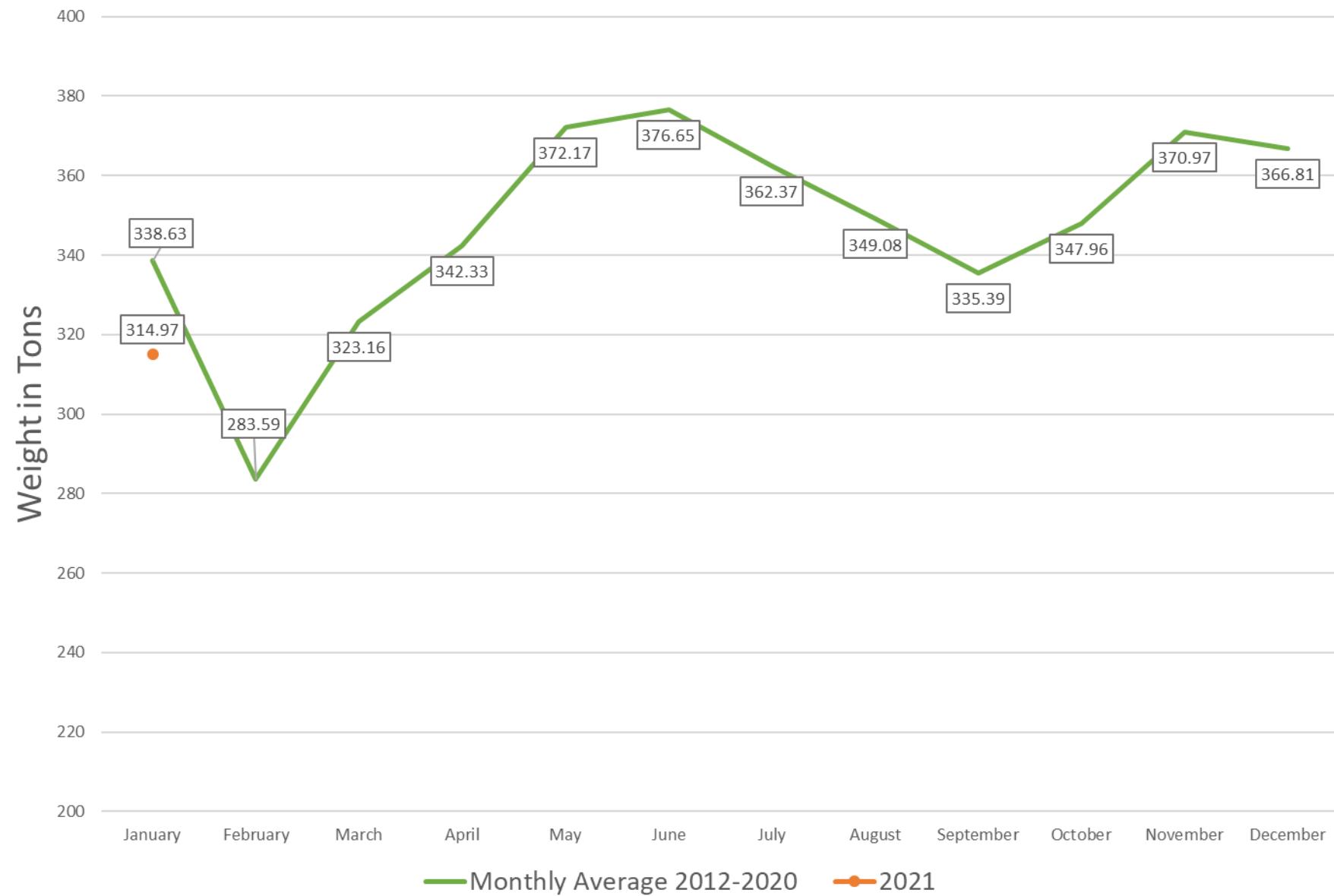
Recycling & Waste Data



2021 Landfill Tonnage vs. 2012-2020 Average



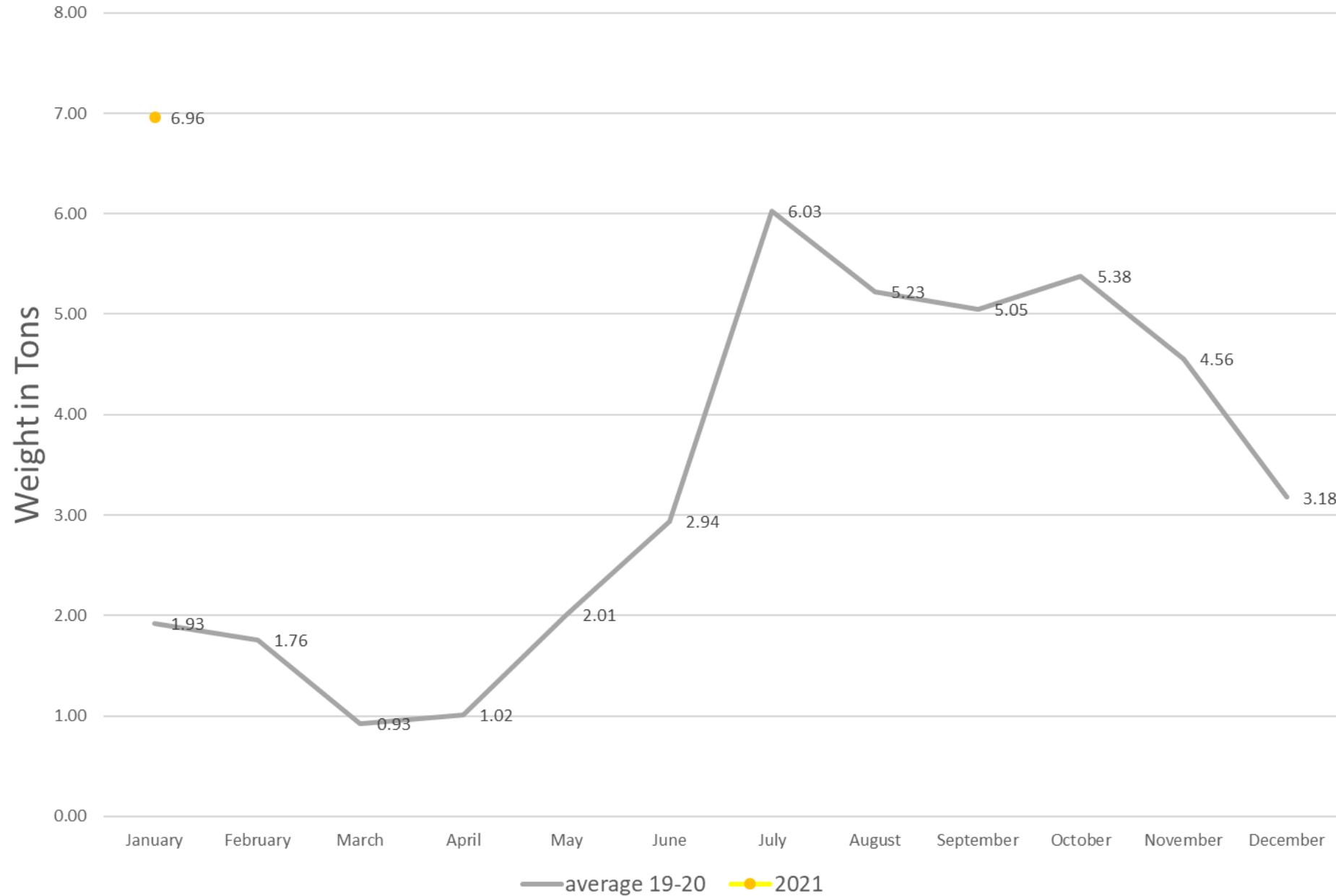
2021 Recycle Tonnage vs. 2012-2020 Average



2021 Compost Tonnage vs. 2012-2020 Average



E-waste Collection (2021 & 2019-2020 Average)



Simple Recycling: Textile and Household Goods

Northbrook Textile & Household Goods Collection (2021 and 2019-2020 average)

