



Washington
State Department of
Agriculture

Pollinator Health Task Force

And the WSDA Pollinator Program

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Outline



What are pollinators and why are they important in Washington?



A brief history of the politics of pollinators



What has the Pollinator Health Task Force been up to, and what new programs/services can you expect?



How you can help, and how to get engaged

What are pollinators?



- An organism that moves pollen from the anther of a flower to the stigma of another flower
- Beetles
- Wasps
- Ants
- Butterflies
- Moths
- Flies
- Grasshoppers, crickets, and cockroaches (rarely, often accidental)
- Birds
- Mammals (mostly bats and not in WA)
- Reptiles (very rare, not in WA)
- Bees



- 90% of flowering plant species require a biotic pollinator
- Many pollinators are specialists and tightly linked to a genus or species of plant
- 75% of crop species rely to some degree on biotic pollinators
- This has been estimated to represent a third of the human diet (Klein et al. 2007)



Washington in 2019

Number 1

U.S. Producer of:

APPLES

BLUEBERRIES

HOPS

PEARS

SPEARMINT OIL

SWEET CHERRIES

Number 2

U.S. Producer of:

APRICOTS

ASPARAGUS

GRAPES

POTATOES

ALL RASPBERRIES

Number 3

U.S. Producer of:

DRIED PEAS

LENTILS

ONIONS

PEPPERMINT OIL

Washington in 2019 Without Pollinators

Number 1

U.S. Producer of:

HOPS

SPEARMINT OIL

Number 2

U.S. Producer of:

ASPARAGUS

GRAPES

POTATOES

Number 3

U.S. Producer of:

DRIED PEAS

LENTILS

PEPPERMINT OIL

Not Normally Attractive to Pollinators

Number 1

U.S. Producer of:

HOPS

Number 2

U.S. Producer of:

POTATOES

Number 3

U.S. Producer of:

DRIED PEAS

LENTILS

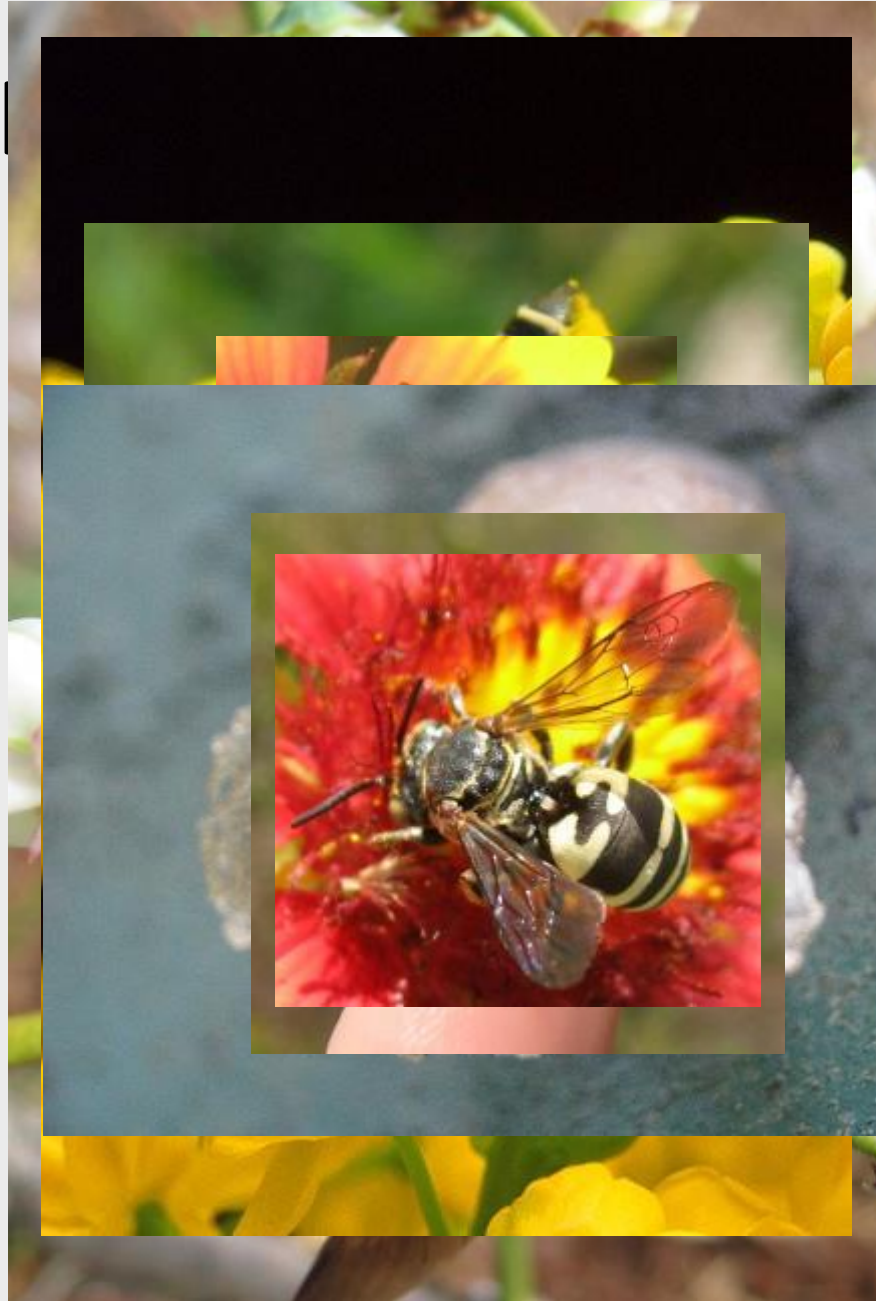
Bees



- 20,000 species of bees world wide
- Over 500 species in Washington
- Most bees are solitary, not social
- 70% of bees nest in the ground
- 30% nest in wood tunnels, hollow reeds or cavities
- Large variance in size and color

Bees besides honey

- Bumble bees
- Carpenter bees
- Mason bees
- Leafcutter bees
- Sweat bees
- Long-horned bees
- Stingless bees
- Blueberry bee
- Cuckoo bees







Once upon a time...



- Honey bee colonies peaked in the US in 1950
- Gradual decline since then, until Varroa mites (sharp decline in 1980s)
- In 2006 Colony Collapse Disorder was recognized
- In 2015 Obama called for a Pollinator Health Task Force, which released a report calling for (among other things) states to put together managed pollinator protection plans (MP3s) in 2016
- Washington published theirs in 2018

Washington State's MP3



- Managed Pollinator Protection Plans were part of a federal Pollinator Task Force recommendation that the EPA administers
- 11 pages long
- Lays out current challenges pollinators face and programs that currently help, plus suggestions for further work
- Also lays out Best Management Practices for growers, beekeepers, and pesticide applicators



AGR Pub 101-681 (N/4/18)

SUBSTITUTE SENATE BILL 5552

AS AMENDED BY THE HOUSE

Passed Legislature - 2019 Regular Session

State of Washington 66th Legislature 2019 Regular Session

By Senate Agriculture, Water, Natural Resources & Parks (originally sponsored by Senators Lias, Warnick, Van De Wege, Short, Rolfes, Schoesler, Wagoner, Honeyford, Hawkins, and Hunt)

READ FIRST TIME 02/22/19.

1 AN ACT Relating to the protection of all pollinators, including
2 honey bees; amending RCW 17.10.145, 79.10.120, 79.10.200, 79.10.280,
3 79A.05.305, 47.40.040, 47.40.100, and 79A.15.060; adding a new
4 section to chapter 43.23 RCW; adding a new section to chapter 77.12
5 RCW; adding a new section to chapter 15.58 RCW; adding new sections
6 to chapter 35.21 RCW; adding new sections to chapter 35A.21 RCW;
7 adding a new section to chapter 36.34 RCW; creating new sections; and
8 providing an expiration date.

9 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

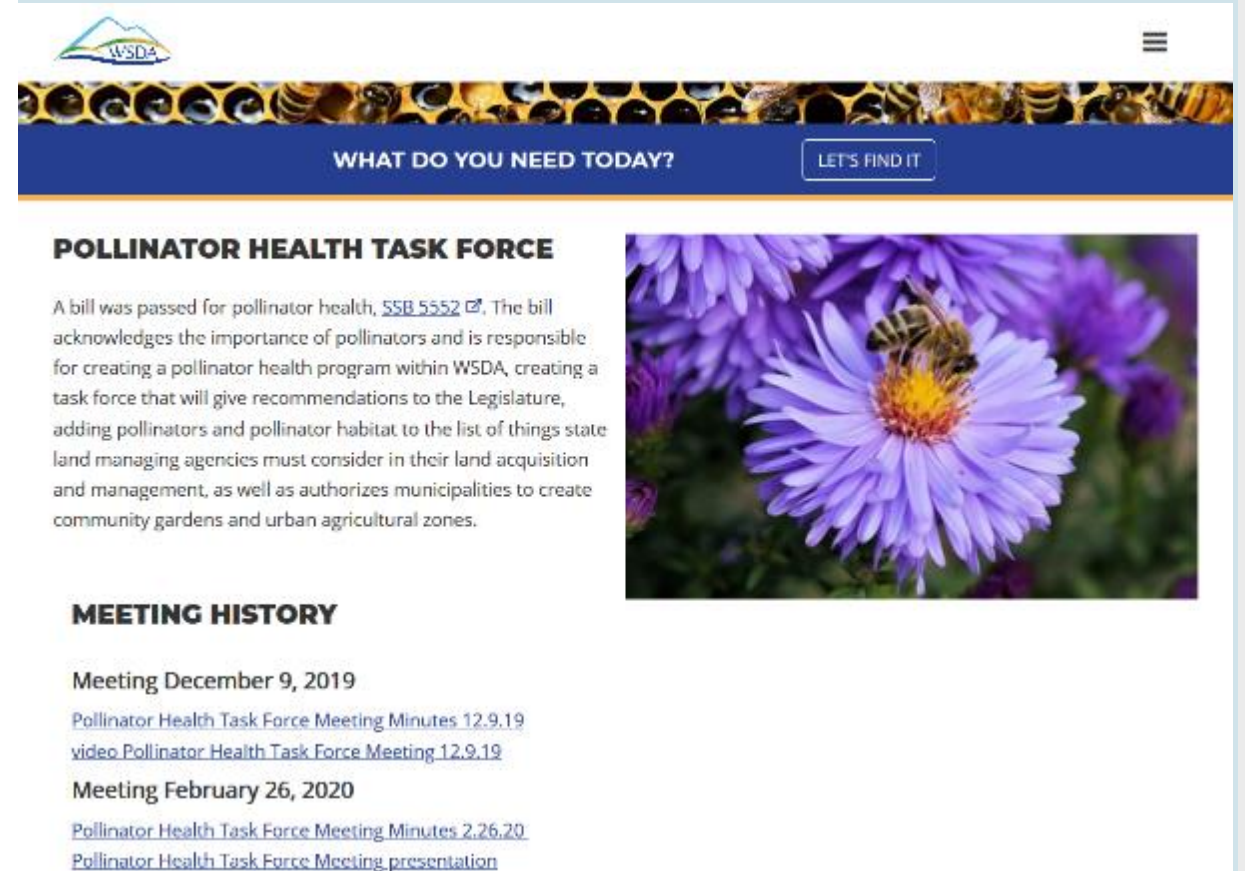
10 NEW SECTION. Sec. 1. The legislature finds that more than
11 three-fourths of the world's flowering plants and about thirty-five
12 percent of the world's food crops depend on pollinators to reproduce.
13 In Washington state, honey bees and other pollinators are responsible
14 for the production of tree fruits, small fruits, and other crops,
15 with the value in 2016 of crops pollinated by honey bees exceeding
16 three billion dollars. The legislature further finds that, beyond
17 agriculture, pollinators are keystone species in the terrestrial
18 ecosystems of Washington, with fruit and seeds derived from insect
19 pollination providing a major part of the diet of numerous bird and
20 mammal species. The state has experienced pollinator habitat loss
21 through property conversion, fragmentation, and degradation of land,

- Acknowledges importance of and threat to pollinators in Washington
- Creates the WSDA Pollinator Program
- Creates the Pollinator Health Task Force which must give their recommendations to the legislature by December 31, 2020.
- Makes pollinators one of the priorities for all state land managing agencies
- Allows community gardens in cities & towns

PHTF Beginnings



- First meeting on December 9th
- Begin bringing together stakeholders
- Start work on a charter
- Figure out a starting point for creating our recommendations (thanks Minnesota!)
- 5 subcommittees: Habitat, Pesticides, Education, Managed Pollinators, Research

A screenshot of the WSDA website's page for the Pollinator Health Task Force. The page has a light blue header with the WSDA logo and a hamburger menu icon. Below the header is a decorative banner with a close-up image of a honeycomb. A dark blue navigation bar contains the text "WHAT DO YOU NEED TODAY?" and a button labeled "LET'S FIND IT". The main content area has a white background and features the following sections:

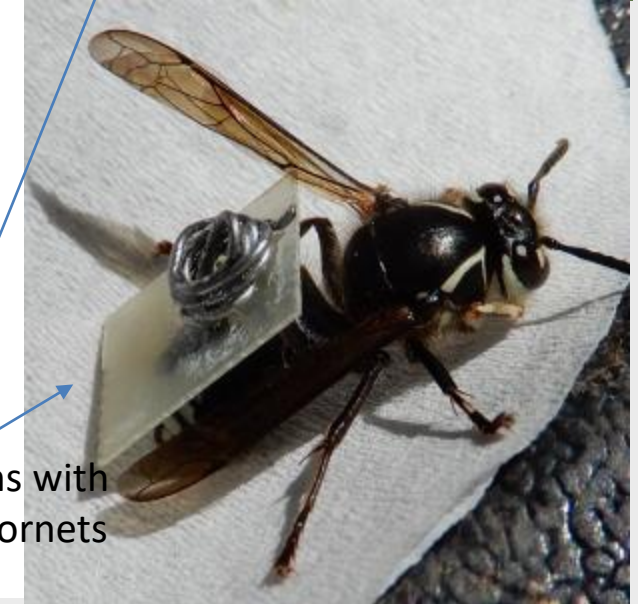
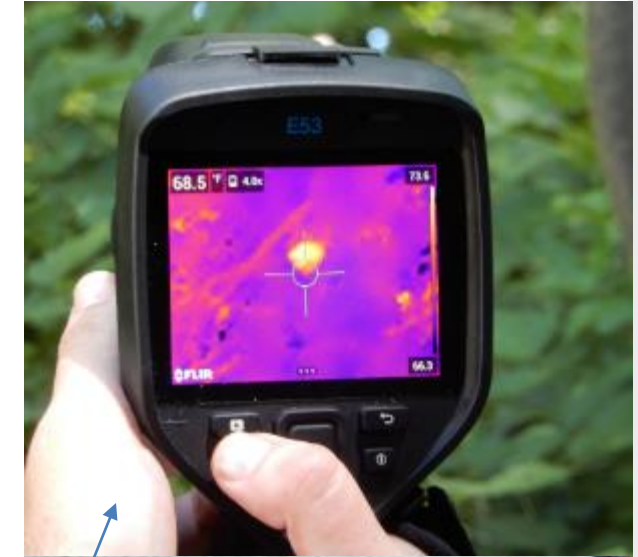
- POLLINATOR HEALTH TASK FORCE**: A paragraph explaining that a bill (SSB 5552) was passed, acknowledging the importance of pollinators and creating a task force to provide recommendations to the legislature. It also mentions that the bill adds pollinators and habitat to the list of things state land managing agencies must consider and authorizes municipalities to create community gardens and urban agricultural zones.
- MEETING HISTORY**: A section listing two meetings:
 - Meeting December 9, 2019**: Includes links for "Pollinator Health Task Force Meeting Minutes 12.9.19" and "video Pollinator Health Task Force Meeting 12.9.19".
 - Meeting February 26, 2020**: Includes links for "Pollinator Health Task Force Meeting Minutes 2.26.20" and "Pollinator Health Task Force Meeting presentation".

A photograph of a bee on a purple flower is positioned to the right of the "POLLINATOR HEALTH TASK FORCE" text.

Asian Giant Hornet



- December 8th report of dead AGH
- Site visit by WSDA staff on December 12th
- Began planning a trapping program, outreach campaign, and hiring outreach coordinator
- NY Times 'Murder Hornet' article came out May 2, 2020
- AGH Outreach Coordinator started May 4, 2020...
- Eradicated 1 nest in 2020 and 3 nests in 2021



Technology test runs with native bald-faced hornets

Houdini Fly



- Dave Hunter of Crown Bees started finding strange maggots in their mason bees last year
- They figured out the maggots were Houdini Fly at an Orchard Bee Association meeting
- He reported them to WSU and WSDA on December 15
- By February we had notified all Washington mason bee producers and started an outreach campaign
- Kleptoparasite of mason bees (*Osmia sp.*)

About the PHTF



The PHTF is comprised of a variety of stakeholders including

- state agency representatives
- pesticide applicator and producer representatives
- conservation group representatives
- agriculture representatives
- tribal representatives
- managed pollinator representatives
- and other concerned members of the public.

We also have a number of advisory members, and most members have been active in soliciting opinions from a variety of experts and people involved in some way with pollinators or pollination.



PHTF Recommendations

- Were sent to the legislature in November 2020
- Can be found on our website: agr.wa.gov/pollinators



AGR PUB 806-880 (N/11/20)

Do you need this publication in an alternate format? Contact WSDA at (360) 902-1976 or TTY Relay (800) 833-6388.

Pollinator Bill: SB 5253



- Implements many of the recommendations of the task force
- Continues the task force to help with implementation
- Affects WSDA, WDFW, WA-DOR, etc.
- Passed in the Senate and House unanimously
- Was signed into law and fully funded!!!!

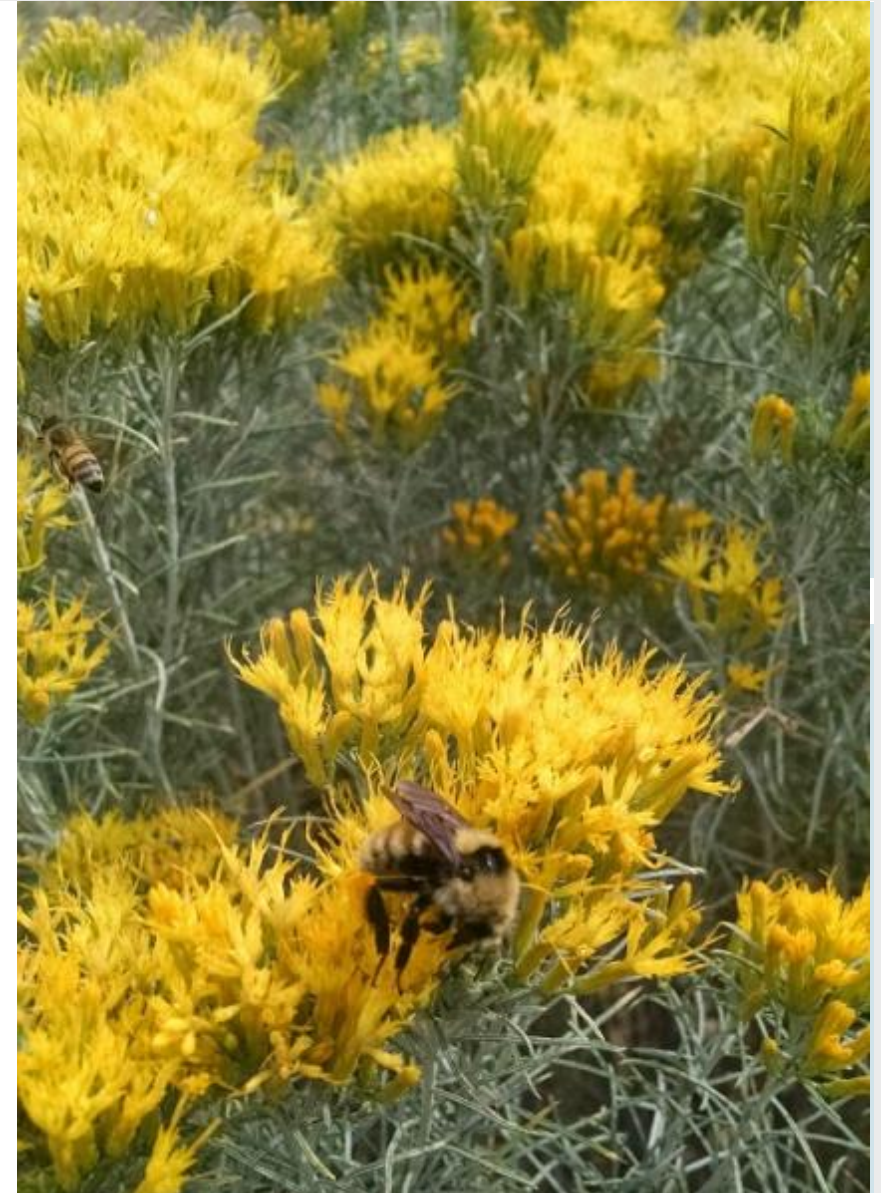
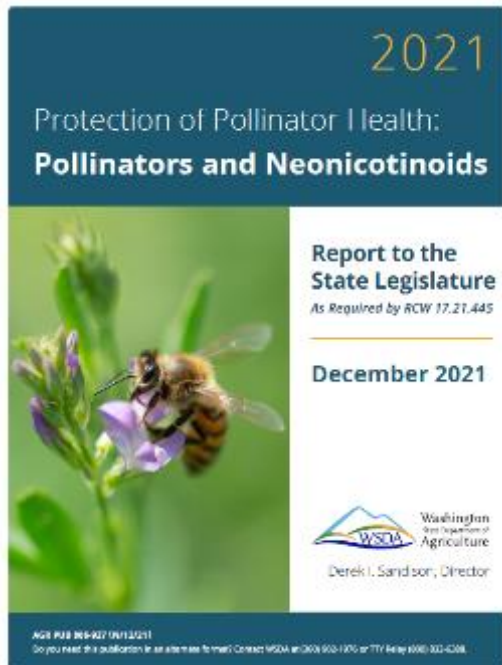
The screenshot shows the Washington State Legislature website page for Bill SB 5253. The page header includes the text 'WASHINGTON STATE LEGISLATURE' and 'Bill Information > SB 5253'. A search bar is present with the number '5253' entered and buttons for 'Bill', 'Initiative', '2021-2022', and 'Search'. The main heading is 'SB 5253 - 2021-22' with the subtitle 'Implementing the recommendations of the pollinator health task force.' and a list of sponsors: 'Sponsors: Lias, Warnick, Das, Dhingra, Hasegawa, Hunt, Lovelett, Rolfes, Saldaña, Van De Wege, Wagoner'. A 'Bill Status-at-a-Glance' section shows the current version as '2nd Substitute - 2SSB 5253' and the current status as 'C 278 L 21'. A progress bar titled 'Where is it in the process?' shows the bill's status across four stages: 'Introduced', 'In Committee', 'On Floor Calendar', and 'Passed Chamber'. The progress bar indicates that the bill has passed the Senate and the House, and is currently on the Governor's desk. Below the progress bar, there are links for 'Go to documents...' and 'Go to videos...'. The page also features a 'Bill History' section at the bottom.

PHTF Implementation Plan



An implementation plan for SB 5253 was due to the legislature on December 31, 2021.

A WSDA report on the risk of neonicotinoid pesticides to pollinators was also due to the legislature on December 31, 2021.



What did SB 5253 do?



- Continued the PHTF until at least 2024
- WSDA + PHTF must complete implementation plan for SB 5253 by end of 2021 (including communication plan between beekeepers, growers, and pesticide applicators)
- Made it illegal to use non-native bumble bees for open field ag
- Established WSU pollinator extension and outreach program complete with a fully funded position
- All public works projects that include landscaping must have at least 25% of that landscaping be pollinator habitat



And... WSDA Pesticide Management Division must:



- Continue and update pollinator protection training
- Include pollinator protection in drift reduction training
- Support WSU pesticide education programs
- Coordinate with Katie and WSU on pesticide investigations and share findings
- Update penalty matrix
- Provide credits for pesticide courses focused on pollinator protection measures
- Write a report on neonicotinoid pesticides and treated seeds with recommendations to mitigate risks to pollinators by end of 2021

And... Some other agencies must...



- WDFW
 - Implement practices necessary to maintain pollinator habitat on department-owned and managed agricultural and grazing lands where practicable
 - Evaluate various restoration techniques with the goal of improving habitat for native pollinators
 - Update its riparian habitat recommendations to encourage development of pollinator habitat
- Conservation Commission
 - Sustainable Farm and Fields grant program prioritize grant applications that concurrently create or maintain pollinator habitat
 - Develop a small grants program to educate residents about the value of habitat for both managed and native pollinators, and to provide the necessary technical and financial assistance and materials to create it



And... WSDA Pollinator Program must:



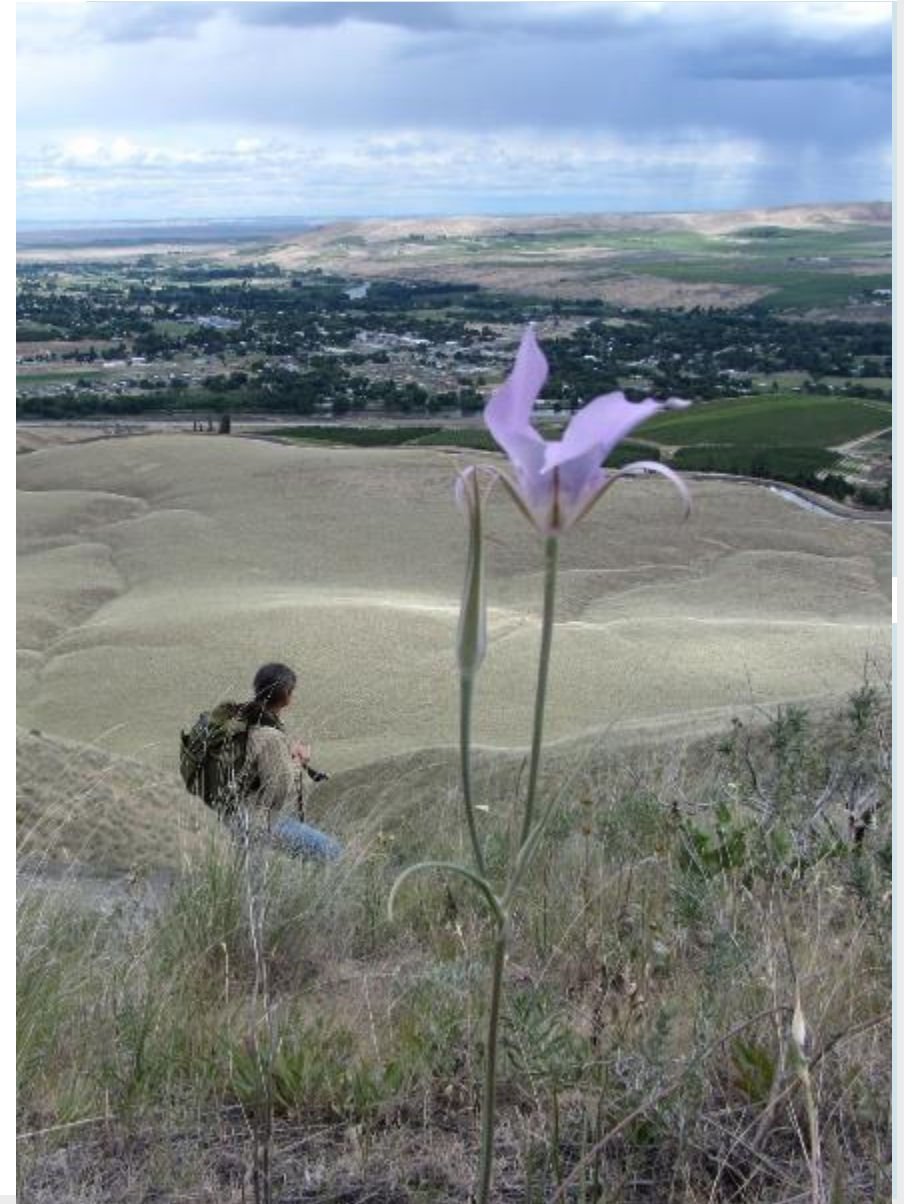
- Review with WSU education needs and create education plan
- Complete an analysis of critical impacts and needed best management practices for managed and wild pollinators
- Document the bee species within the state and map their distributions
- Report annually to noxious weed control board about pollinator issues
- Provide materials about certification programs
- Educate the public through plant nurseries
- Survey registered beekeepers
- Continue and maintain partnership with federal agencies and neighboring states
- Increase the availability of pollinator-related resources on the department's website
- Review guidelines on state-managed lands
- In consultation with the DOR, review the open space taxation act
- Develop a list of native forage plants
- Work with WSDA PMD on pesticide investigations
- Continue running the PHTF



Outreach/Education



- WSDA, WSU, WDFW, etc. will be working on multiple outreach/education/extension projects aimed at:
 - Beekeepers
 - Pesticide applicators
 - Growers
 - K-12
 - Landscapers/nursery staff
 - Home gardeners
 - Entomology nerds
 - General public



Outreach/Education



- Projects include:
 - New WSDA pollinator website
 - Outreach materials and education through nurseries
 - Pollinator protection training
 - WA Bee Atlas
 - Capitol campus pollinator garden
 - Education plan through WSU
 - Eventually case studies for habitat creation and more...



Non-native bumble bees



- The eastern bumble bee, *Bombus impatiens*, is now invasive in the Seattle area and spreading
- The western bumble bee, *Bombus occidentalis*, was just listed as a Priority Species by the state (federal ESA listing may follow soon)
- Non-native bumble bees compete with native, spread diseases
- Now illegal to use non-native in open field agricultural use

- RCW 17.24.081



Washington Bee Atlas



- Based on the Oregon Bee Atlas
- (By based on, I mean they are sharing resources with us, helping us start training, and all our data will be shared...we're basically stealing their idea with their permission and support)
- We will start off slow this year with about a dozen volunteers
- If we get funded, we will expand next year and hopefully have a permanently established program
- I really want to know what that bee is!

Education through plant nurseries



- “Educate the public through plant nurseries about the necessity for blooming nectar plants to be available to wild and managed pollinators throughout their respective active seasons;”
- Putting together outreach materials for ‘shelf ticklers’
- Also short videos on safely using pesticides and creating habitat

How can you help?



- Plant more flowers (preferably native plants)
- Create habitat
 - Larval host plants
 - Nesting habitat (low/no till)
- IPM
 - Don't spray if you don't have to
 - Use the 'softest' pesticide you can
 - DO NOT SPRAY when plants are in bloom
 - Mow before you spray
- Participate in the WA Bee Atlas
- Avoid herbicide treatment during key blooms
- Plant more flowers! (Trees and shrubs count!)

To learn more about other pollinators and native plants for your area, check out:



- Xerces Society <https://www.xerces.org/>
- Audubon Society <https://www.audubon.org/>
- Pollinator Partnership <https://www.pollinator.org/>
- ➔ Native Plant Society <https://www.wnps.org/>
- Your local Conservation District <https://wadistricts.org/>
- Woodland Park Zoo <https://www.zoo.org/pollinator>
- Washington Butterfly Association <https://wabutterflyassoc.org/>
- Washington Native Bee Society <https://www.wanativebeesociety.org/>
- WSDA Pollinator Program <https://agr.wa.gov/pollinators>

Contact Us



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FACEBOOK

<http://tinyurl.com/WSDAFB>



PHONE

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YOUTUBE

[Youtube.com/user/WSDAgov](https://www.youtube.com/user/WSDAgov)

Thank You



...the legislature intends by this act to initiate a concerted effort to protect and expand the habitat upon which pollinators depend... promoting practices to ensure sustainable, healthy populations of managed and native pollinators.

Example 1
June 2019



Late
June
2019



June 2020



July 2020





June 2021





Example 2
November
2020





Fun times with a shovel

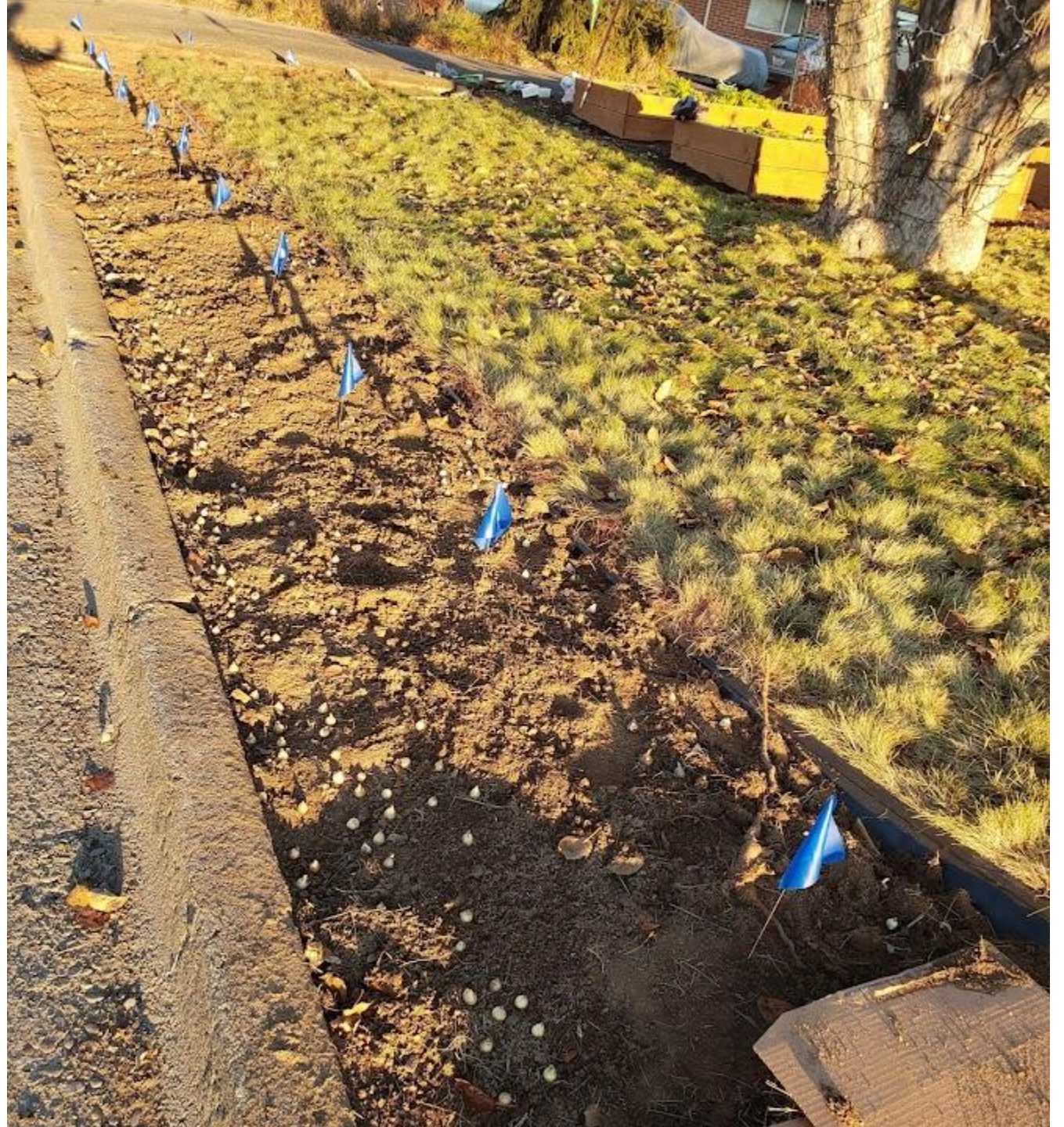






Planting bulbs

- Crocus
- Glory of the Snow
- Camas
- Blue flowering onion



Mulch!



Mulch!

December
2020



Starting seeds



March 2021



Crocuses and
Glory of the Snow
(non-natives)



June 2021
Allium and
Camas





July 2021



“Final”
planting at
the end of
July





Agastache "Rose Mint"



Fireweed



Black eyed Susan



Pearly Everlasting



Penstemon and Coreopsis



Blazing Star

