



DENVER
PUBLIC
SCHOOLS

Sustainability

Honey Bee Protocols

Requirements and Guidelines for Keeping Honey Bees on School Grounds



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I. Introduction

Schools have a growing interest in teaching students where their food comes from. To better educate students on the origins of what they eat and the science behind it, schools are opting to grow fruits and vegetables, build pollinator gardens, learn about the role of honey bees and even host beehives on school grounds for educational purposes. The following policy will outline the necessary procedures and protocols for installing and maintaining beehives at Denver Public Schools.

II. Getting Started

1. If your school is interested in having beehives on school grounds, please contact the Denver Public Schools (DPS) Department of Sustainability at 720-423-4171. Although DPS is willing to accommodate your efforts, the construction and maintenance of beehives and associated structures, and the care of the bees are the sole responsibility of the school. Failure to follow the guidelines below may result in the removal of bees and beehive(s). DPS staff will meet with you to help determine a suitable location for beehives and review your plans as you develop them.
2. Familiarize yourself with the City and County of Denver's zoning codes that concern keeping honey bees in the city:
[https://www.denvergov.org/content/dam/denvergov/Portals/646/documents/Zoning/DZC/Denver Zoning Code Article11 Use Limitations.pdf](https://www.denvergov.org/content/dam/denvergov/Portals/646/documents/Zoning/DZC/Denver_Zoning_Code_Article11_Use_Limitations.pdf)
3. Familiarize yourself with beehive placement and design (Section III).
4. Familiarize yourself with health and safety guidelines (Section IV).
5. Familiarize yourself with basic care of bees (Section V and resources) and it is highly recommended that the Beehive manager take a class in beekeeping (see resources for classes around Denver). It is also highly recommended that the school obtain a Master Beekeeper as a mentor.
6. Familiarize yourself with how to engage students (Section VI) and how to maintain good community relations (Section VII).
7. Complete a Beehive Management Plan and Agreement including hive siting and design schematics and submit to DPS Sustainability for approval in conjunction with the Grounds Department and the Planning, Construction and Design Department. Once approval is obtained, you may start your bee keeping endeavor.

III. Beehive Enclosure Design and Siting

1. No more than 2 beehives per school.
2. Beehive(s) must be located at least 5 feet and ideally 15 feet from school buildings, playgrounds, public sidewalks, and neighboring residences. It is best to place them in an area that is more shielded from public view to protect the bees.
3. To protect the hive, encourage the bees to fly up before flying out and prevent anyone from disturbing the hive, it must be fully enclosed by 6 foot fencing with a lockable entrance. Enclosure must be kept locked to prevent entrance of unauthorized persons. Copies of the key or combination will reside with the beehive manager, school office, building facility manager and the Department of Sustainability. Appropriate fencing includes wooden trellis, wood plank or chain link. Fencing posts must be securely anchored in the ground using a concrete foundation to a minimum depth of 3' 0" and diameter of 12". Before digging, any utility lines must be identified and marked.
4. The enclosure should be of adequate area to allow several people to be in the enclosure for training and care and contain watering and feeding stations.
5. Construct an enclosure that is as inconspicuous as possible. It is best for the bees that hives are not obviously there.
6. Consider prevailing winds, especially in winter, and how to protect the hives from wind.
7. Provide a secure place to store all related equipment safely. The honey bee team must have dedicated tools purchased by the school and onsite storage coordinated with the building Facility Manager.
8. Consider adding resources and nesting sites for our native bees. We have more than 900 species native to Colorado and the majority do not live in colonies. Many are suffering due to habitat loss, exposure to toxins and climate change. They are excellent pollinators for our food crops.

IV. Health and Safety Guidelines

1. Appropriate protective clothing must be worn by anyone working with the hive. At a minimum, a hat with a veil and gloves for each person. A ventilated protective vest or jacket or full protective suit is highly recommended.
2. Use of bee smokers is required anytime a hive is opened to calm the bees and reduce the chance of bees stinging to defend the hive.
3. All individuals working with the bees or observing in close proximity must have a signed Waiver and Release of Liability (Appendix A) on file with the school.
4. It is recommended that individuals with a known allergy to bee stings not be allowed to work directly with the bees.
5. Students that are severely allergic to bee stings must provide the school with an EpiPen that will be kept by the nurse or school office in an easily accessible location, regardless of whether they are working with the bees or not. Staff working with the hive must be trained in its use in the event that an allergic student is stung. Schools must maintain an up-to-date list of allergic students and ensure that they have provided an EpiPen. If any staff members have a history of anaphylaxis following a bee sting, they should also have an EpiPen with them.
6. Signs must be placed on the beehive enclosure that provides the following information:
 - Contact information for the Beehive manager and an alternate contact.
 - While honey bees are generally harmless and beneficial, bees will attack to defend their hive.
 - If a student or staff member that is allergic to bees is stung, get them to the office/nurse immediately to administer their epi-pen
 - If an allergic individual is stung, immediately call 911
7. Only children 5 and older may enter the enclosure.
8. Only individuals 8 and older may work with the beehives with supervision of a trained adult.
9. Only individuals 12 and older may work with the beehives unsupervised after proper training from the Beehive manager.
10. Obtain a queen from a lineage known for its gentleness and re-queen the hive if it becomes aggressive.

V. Basic Honey Bee Care

There is a lot to learn about keeping your hive healthy and productive. The points here are just a few important pieces to consider. To successfully care for your bees, there are many good print and internet resources as well as master Beekeepers from whom to learn.

1. Water will be provided as needed to promote honey bee health.
2. Provide sugar syrup or crystal sugar for your bees when necessary. This is especially important with climate change causing honey bees to become active earlier in the year before their food sources (flowers) are readily available.
3. Do not use insecticides in school gardens, especially neonicotinoids (neonics), which have been implicated in colony collapse disorder. You will need to discuss this with the building Facility Manager.
4. Monitor the hive for infection with Varroa mites.
5. Plant a pollinator garden with species of plants that attract honey bees and have a variety of blooming times so that there is food available for the entire time that the bees are active.

VI. Engaging Students

1. Begin each year by setting students' behavioral expectations. Create and agree on rules that students will hold themselves accountable for when working with bees and assign roles/ jobs that students will be expected to fill.
2. Teach students the differences between bees, wasps and hornets so that they have a proper appreciation of bees and understand that bees are typically very gentle, especially away from the hive.
3. Students must be taught how to work with bees before they can actively participate in bee keeping activities.
4. Students 12 and older that will be entrusted to work with the bees without supervision must be thoroughly trained by the beehive manager or a master beekeeper.
5. Bees can be used to teach all subjects and a wide range of topics. Use the resources section at the end of the document for ideas as well as the resources available to you on the internet and libraries. When at all possible, strive to use honey bees to create connections between subjects.
6. Strive to construct an enclosure that is inviting for students.

VII. Community Relations

1. Post a notice on the enclosure notifying the community that the beehives are the property of the school and that they are being cared for throughout the year, including school holidays. The notice must include contact information for the school beehive manager and an alternate so that community members can call with questions, concerns or to report a problem.
2. Notify parents/guardians about the plans to add beehives to campus.
3. Provide education seminars to parents/guardians and the surrounding communities to educate them about bees and how to help protect these important pollinators. Include general information about the more than 900 species of native bees in Colorado and how we can help them as well.
4. Complaints from the community will be responded to by the school within 24 hours and all formal complaints must also be shared with the DPS Sustainability Department

DPS Bee Hive Management Plan Form and Agreement

School Information

Name: _____

School Address: _____

Honey Bee Program Contact Information

Name: _____

Email: _____

Phone (accessible after school hours): _____

Affiliation with School: _____

Number of beehives on site: (1-2 hives) _____

To be considered schools must:

Provide a map showing where the beehives will be located on school grounds, clearly showing distances from public sidewalks, school buildings, school walkways, playgrounds and school gardens.

Provide detailed schematic drawings of the beehive enclosure design, indicating all dimensions of the enclosure and all materials used for enclosure.

Answer the following questions:

1. What training will the Beehive manager receive prior to establishing beehives on school property?
2. What procedures are in place to ensure staff, students and volunteers have been properly trained to enter the beehive enclosure?
3. What procedures are in place to ensure the hive is properly cared for over extended breaks of three or more days?

4. How will you care for the bees in the event of unplanned school closings or extreme weather?
5. How will you ensure that the beehive enclosure is secure?
6. Describe how bees will be provided with sufficient water and food (if necessary).
7. Describe how many individuals will be allowed within the enclosure at a time?
8. Describe the protective clothing that will be used and how many sets will be on hand.
9. Describe how you will maintain a list of individuals known to be at risk for anaphylaxis and your procedures in the event that a severely allergic student or staff member is stung.
10. Describe your plans for collecting, storing and using honey produced by your hives.
11. Describe your plans for holding informational meetings for the school community and surrounding community.
12. What is the exit plan for the beehive program if it is discontinued?

We, the undersigned, attest that we have thoroughly reviewed the DPS Requirements and Guidelines for Keeping Honey Bees on School Grounds. We attest that we will properly care for bees under our care and that all staff, students and volunteers will be properly trained in proper care and safety and informed of the potential risks associated with keeping bees. Furthermore, we will obtain and keep on file a signed Waiver and Release of Liability for all staff, students and volunteers that will be involved in the care of bees and maintenance of the beehives. Finally, we recognize that the choice to keep honey bees on school grounds is entirely that of the school and that failure to comply with the management plan is grounds for the loss of the privilege to keep honey bees at the school.

_____	_____	_____	_____
School Principal	(Print Name)	Signature	Date

_____	_____	_____	_____
School Honey Bee Program Manager	(Print Name)	Signature	Date

_____	_____	_____	_____
DPS Sustainability Representative	(Print Name)	Signature	Date

_____	_____	_____	_____
DPS Grounds Representative	(Print Name)	Signature	Date

_____	_____	_____	_____
DPS Planning Representative	(Print Name)	Signature	Date

Resources

Useful Websites

Colorado State Beekeepers Association: <http://www.coloradobeekeepers.org/>

Dakota Bees (supplies): <http://dakotabees.com/>

Denver Bee Club (monthly meetings and lectures): <http://www.denverbee.org/>

Denver Urban Homesteading Organization:
<http://www.denverurbanhomesteading.com/>

Mile Hive Bee Club: <http://www.milehivebeeclub.org/>

Testing for mites:
http://caes2.caes.uga.edu/bees/disorders/documents/VarroaMites_155.pdf

To Bee or Not To Bee Colorado (supplies & classes):
<http://tobeeornottobee.us/shop/search/browse>

Yearly Calendar of Beekeeping Tasks:
<http://basicbeekeeping.blogspot.com/2007/12/beekeepers-calendar-of-important-events.html>

Creating Pollinator Habitat:
<http://extension.colostate.edu/topic-areas/insects/creating-pollinator-habitat-5-616/>

Books

The Backyard Beekeeper: An Absolute Beginner's Guide by Kim Flottum
Urban Beekeeping: A Guide to Keeping Bees in the City by Craig Hughes

Appendix A: Waiver and Release of Liability

In consideration of the desire to participate in the care of the school's bees, maintenance of beehives and enclosure and the collection and use of honey, all staff, students and volunteers must have a signed [DPS Waiver and Release of Liability](#) on file with the school for working with the bees, with the full understanding that working with bees has inherent risks despite the gentle nature of honey bees. Furthermore, it is recommended that individuals with a known allergy to bees not engage in direct care of the bees.

**Denver Public
Schools**

ENTERPRISE RISK
MANAGEMENT

Tel: 720-423-1300

<http://risk.dpsk12.org>

RiskManagement@dpsk12.org



Waiver and Release of Liability

In consideration of being allowed to participate in the **care and maintenance of school bees and their hive(s)** ("Activity"), to the extent permitted by law I hereby forever discharge, release, and hold harmless School District No. 1, in the City and County of Denver and State of Colorado (the "District"), and its employees, officers, directors, agents, representatives, and authorized volunteers (collectively, the "Releasees") from any and all liability, claims, demands, actions, and causes of action arising from or related to any loss, damage, or injury, including death, that may be sustained by me, or to any property belonging to me, while participating in the Activity.

I am fully aware of the potential risks and hazards and I hereby elect to voluntarily participate in the Activity. I knowingly and freely assume all potential risks, known and unknown, including those arising from the negligence of the Releasees.

I, for myself and on behalf of my heirs, assigns, personal representatives and next of kin, further agree to indemnify and hold harmless the Releasees from any loss, liability, damage or costs, including court costs and attorneys' fees, that Releasees may incur due to my participating in the Activity, including those caused by the negligence of the Releasees or otherwise.

I have read this Waiver and Release of Liability ("Agreement") and fully understand its terms. I also understand that I have given up substantial rights by signing it and sign it freely and voluntarily without any inducement. I am at least eighteen (18) years of age and fully competent to sign this Agreement.

Participant (Print Name)

Signature

Date

* Parent/Guardian (Print Name)
(* If Participant under 18 years of age)

Signature

Date