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# Ecological Environment Practices for Carbon Neutrality Multicultural Guide







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## "1 Million Hwaseong City", Created Together by All, Toward a Sustainable Future

A Carbon-Neutral City Built Together with Citizens: "1 Million Hwaseong City"

Hello, this is Jeong Myeong-Geun, Mayor of Hwaseong City, a place where imagination becomes reality.

Hwaseong City is a community where many multicultural families with diverse backgrounds and cultures live together. This guidebook was created to help multicultural families better understand and practice environmental protection, recycling, and waste separation.

Small actions, such as recycling, saving energy, and pursuing carbon neutrality, will have a significant impact on our environment and future generations. Protecting the environment is a crucial task in preserving the city we live in and the planet, and your participation can lead to even greater change.

Dear citizens, the vision of "1 Million Hwaseong City" is a city built together by everyone. Hwaseong City supports all citizens, including multicultural families, in coming together, respecting one another's cultures, and achieving sustainable development. We will continue to do our best to create an environment where multicultural families can live more happily and safely.

In this place where diverse cultures coexist, we hope to take meaningful steps together toward a sustainable future. Each and every small action by our citizens will contribute to making Hwaseong City an even cleaner, more beautiful special city.

We ask for your active interest and participation as we work together to build a Hwaseong City where nature and people coexist in harmony.

Thank you.

Mayor of Hwaseong City Jeong Myeong Geun

Hello, this is Seung-ho Jeong, CEO of the Hwaseong City Environmental Foundation.

The Hwaseong City Environmental Foundation is dedicated to promoting citizens' participation in carbon neutrality practices and enhancing environmental education to ensure a sustainable future for Hwaseong City. Under the vision of "1 Million Hwaseong City", the city is working hand in hand with its citizens to protect nature, raise awareness about environmental issues, and progress toward becoming a livable city.

This guidebook has been created to help multicultural families and foreign residents easily learn about environmental issues, which are closely tied to daily life yet often difficult to access accurate information about. Through this guidebook, we hope you will understand carbon neutrality practices and Hwaseong City's waste separation system while visiting the city's ecological landmarks with your family and friends.

The Hwaseong City Environmental Foundation will continue to support all citizens, including multicultural families, in participating more easily in environmental protection activities and contributing to the sustainable development of Hwaseong City through various programs and initiatives.

We kindly ask for your continued interest and active participation as we work together to create a carbon-neutral Hwaseong City.

Thank you.

CEO of Hwaseong City Environment Foundation

Jeong Seung Ho

## **Hwaseong City in Harmony with Ecology**



Hwaseong City, located in the western part of Gyeonggi-do, South Korea, covers a vast area of 844km² and is home to a population of approximately 1 million, making it one of the representative cities of Gyeonggi-do. Bordering the West Sea, Hwaseong City benefits from its geographical advantage of abundant marine resource utilization, as well as its proximity to the Seoul metropolitan area, which solidifies its role as a key transportation hub. With well-developed transportation networks such as the Gyeongbu Expressway, Seohaean Expressway, and Seohae Line Railway, Hwaseong City is rapidly emerging as a central hub for logistics and transportation.

Hwaseong City boasts a deep and rich history and culture. Yunggeolleung, constructed to reflect King Jeongjo's filial devotion, and Suwon Hwaseong Fortress, embodying his aspirations, are iconic cultural heritage sites, and Hwaseong City has preserved these historical assets while achieving modern development. Additionally, Hwaseong City is a multifaceted urban area where farmlands, fishing villages, and industrial zones coexist, fostering diverse economic activities throughout the region.

Hwaseong City, rich in natural and ecological resources, is particularly renowned for its well-preserved ecosystems and stunning landscapes at locations such as Jebu Island, Maehyang-ri Peace Ecological Park, and Bibong Wetland Park. These locations offer various ecological experiences and nature conservation activities, providing citizens and visitors with opportunities to relax in nature while learning and experiencing the importance of environmental preservation.

Hwaseong City is also emerging as a hub for advanced industries. Several major

corporations, including Samsung Electronics company, have established factories in Hwaseong City, positioning it as a leading city in industrial and technological advancement. Hwaseong City is growing into a well-balanced city where advanced industries, nature, and culture coexist in harmony, fostering sustainable development.

## Vision for "1 Million Hwaseong City"



Hwaseong City is working to realize the hopeful vision of becoming a "1 Million Hwaseong City", building on its ongoing growth. The "1 Million Hwaseong City" is a long-term plan designed to achieve sustainable urban development and create an environment where all citizens can enjoy happy and healthy lives. The core vision of the "1 Million Hwaseong City" focuses on environmental protection and sustainable development. Hwaseong City aims to become a carbon-neutral city by implementing various eco-friendly policies and actively promoting practices such as recycling, waste separation, and energy conservation that citizens can incorporate into their daily lives. Believing that small individual actions can collectively bring about significant change, Hwaseong City prioritizes environmental protection as its foremost task.

Moreover, Hwaseong, a special self-governing city with a population of 1 million, is a city built collaboratively by diverse members of the community. Hwaseong strives to achieve balanced growth as a city where advanced industries and environmental conservation coexist in harmony, blending nature and culture. While pursuing economic growth, Hwaseong places great importance on environmental protection and aims to become a future-oriented city where citizens and nature can coexist through innovative technologies and sustainable development.



## Capther 1

# **Carbon Neutrality Practices**



# **Waste Disposal Process**







# Types of Hwaseong City \*\* **Volume-Based Bags**





# **How to Sort Recycling Waste**

Sort waste by type, place it in transparent bags, and tie it up for disposal.



#### **Paper**

Remove plastic, coating, springs before disposal



#### Glass

Completely remove bottle caps and foreign substances before disposal.



#### Cans

Empty contents, puncture gas canisters before disposal.



#### Plastic

Separate clear and other plastics for disposal.



#### Scrap Metal

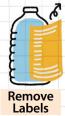
Remove foreign substances before disposal.



#### **Paper Cartons**

Place in dedicated carton collection bins (or with paper if unavailable).

How to Dispose of Clear Plastic **Bottles** 









Compress

and Collect

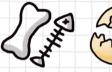
## **How to Dispose of Food Waste**

Remove foreign substances and excess water before placing in designated bags or containers.

**Note:** The followings are NOT considered food waste.



- Vegetable peels and roots
- Hard seeds





- Animal bones, fish bones
- Eggshells



- Sauces like Gochujang, Ssamjang, Doenjang



## How to Dispose of Oil and Butter

- Dispose of used cooking oil in designated waste oil collection containers.
- -Wipe residual oil with tissue and dispose of it properly.
- **X** Do not pour directly into drains **X**

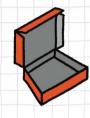


Dispose using RFID **Processors in apartments!** 

# Paper Waste Sorting \*\*



# **Cans and Scrap Metal Sorting**



#### **Food Packaging Containers**

Clean containers go with paper waste; contaminated containers go to incineration.



#### **Packaging Boxes**

Dispose in incineration bags due to plastic content.



#### **Notebooks**

Remove the spiral binding and recycle as paper waste.



#### **Delivery Boxes**

Remove tape and labels, flatten boxes before disposal.



## **Bottled Beverages**

Empty and rinse before disposal.



#### Oil and Sauce Bottles

Rinse with baking soda or water before disposal.



#### Glass Dishes

Wrap in newspaper and place in landfill bags.



#### Jam Jars

Empty the contents, rinse, and dispose of it properly.

# **Cans and Scrap Metal Sorting**



#### **Canned Goods**

Remove labels and foreign substances before disposal.



#### **Gas Containers**

Puncture in a ventilated area to release gas, then dispose with cans.



## **Frying Pans**

After cleaning the frying pan, dispose of it as scrap metal; separate the handle for disposal.



#### **Stainless Steel Tumblers**

Dispose as scrap metal.



## **Other Material Tumblers**

Dispose in incineration bags.

# How to Dispose of **Hazardous Waste**

Be aware that fluorescent bulbs contain mercury and can expose you to volatile mercury gas if they break.

## How to dispose of fluorescent lamps

Dispose in designated collection bins.

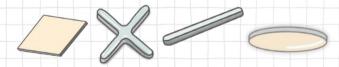
## If the fluorescent lamps were broken -

To protect the body from broken glass and residual mercury, wrap it with thick paper and place it in a designated incineration garbage bag for proper disposal.





LED Bulbs (Round, Straight) -Dispose in fluorescent lamp bins.



#### **LED Panels**

(Flat, Cross, Straight, Disc) - Dispose in incineration bags.

# **How to Dispose of Various Packaging Materials**



#### Stvrofoam

Remove tape and stickers before disposal.



#### Ice Packs

Drain water and dispose of it as plastic. Gel-type ice packs should be disposed of in incineration bags.



## **Cloth Items**

(e.g., wrappers, nonwoven bags)

Dispose in incineration bags.



#### **Plastic-coated Shopping Bags**

Compress and dispose in incineration bags.

# Disposal of Waste Medicine

Waste Medicine - Medications that are not used due to expiration dates or because the bottle is damaged

## Waste medicine disposed of improperly?

Drug glottis disrupts ecosystems and contributes to soil and water pollution.

#### [Where to Dispose of Waste Medicine]

Town and village administrative welfare centers, public health centers, general social welfare centers, etc.



#### **Tablets**

Gather into one bag for disposal.



#### **Powdered Medicine**

Keep in original packaging and dispose.



#### **Ointments**

Dispose in original containers.



#### **Liquid Medicines**

Dispose of the medicine bottle as is

## **Customized Front-Door Collection Service**

(for Small Appliances)

A free collection service that retrieves items without reservation when disposed of at designated dates and locations

## **Disposal Process**

Dispose of old appliances at a designated location.

Or

2 Place in the bin corresponding to the appliance to be disposed of.

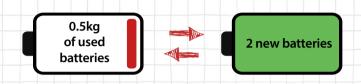
#### **Items Covered**

All small and medium-sized home appliances like mobile phones, fans, etc.

- **Temperature exchangers**
- Display devices
- Telecommunication office equipment

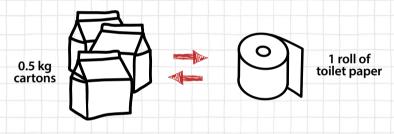


# Hwaseong City Recycling\* **Exchange Project**



Exchangeable Cylindrical, coin batteries, portable power banks

Not exchangeable car batteries, industrial, military batteries, etc.



Exchangeable Regular cartons (milk cartons), Sterilized cartons (soy milk, juice cartons)

> Wash, unfold, dry, and bundle cartons by type before disposing of them.

• Exchange period - February 2024 until supplies last

Note

- Exchange location Hwaseong City, Eup, Myeon, Dong District Administrative Welfare Center business hours
- Exchange limit 5kg per person per day, 10kg per month
- Inquiries Hwaseong City Resource Recycling Division (031-5189-6814)

# How to Dispose of Large \*\* **Household Appliances**

What are large household appliances? Refrigerators, washing machines, etc.



## 1. Request for Scheduled Collection

Online www.15990903.or.kr Schedule by phone 1599-0903

Step 1 Step 2 Step 3 Reservation Reception Dispose



#### Points to note when making a reservation

- Installed products such as wall-mounted TVs can be collected after removal.
- 2 Waste appliances cannot be returned after collection.

#### 2. Request via "Bbaegi" App

#### Notes when disposing

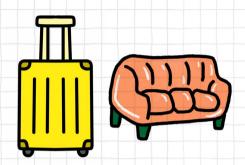
- 1 Please attach the reservation number to the item to be disposed of.
- 2 You will receive a text message with your application and reservation number.
- 2 Items will be collected within 3 to 5 business days after submitting your request.

## 3. Distributor (Delivery Installer)

When purchasing a new product, request a delivery driver to collect it.

# How to Dispose of \*\* **Bulky Waste**

What are large waste items? Examples include furniture, sofas, and suitcases.



1. Request via the "Bbaegi" App



## 2. If you purchase stickers at a convenience store or supermarket



Buy a waste sticker Apply for collection via phone (Contact by neighborhood: Check QR code) After attaching the sticker, place it at the designated location for collection.



# Hwaseong City 🔩 **Recycling Center**



(18316) 7, Sammaeul 1-gil, Bongdam-eup, Hwaseong City, Gyeonggi-do, Republic of Korea (Sangri 27-1) Bongdam-eup Administrative Welfare Center **Annex** 

## **Purpose of Establishment**

- 1 Promoting the exchange of used goods and reuse of large-sized waste
- 2 Establishing a circular system for resource recycling

#### Information

- ① Opening hours: 09:30~17:30
- 2 Inquiries: 031-298-9056~9037
- Closed: Every Sunday

#### **Main Businesses**

- ① Operating a used goods sales space
- Running a bicycle repair workshop
- Providing upcycling education for citizens
- **4** Operating used goods sharing market

#### Goals

- Promoting recycling
- Supporting sustainable education
- Oriving sustainable innovation
- 4 Enhancing community development
- Developing eco-friendly processes

## Capther 2

# **Ecological environment**







## Bibong Wetland Park

Bibong Wetland Park, located in Yupori and Samhwari of Bibong-myeon, Hwaseong City, is the first artificial wetland park in Korea. Established in 1994 following the completion of Siwaho Lake, it was created to improve water quality and restore the ecosystem. Completed in 2005 and renamed in 2015, this park serves as a vital ecological area, home to diverse plant and animal species.

#### **Main Facilities**

Observation Deck A three-story building featuring an ecological exhibition hall and relaxation areas. Offers a panoramic view of the park.

Walking Trails Three courses measuring 1 km, 1.5 km, and 1.9 km, respectively. Equipped with rest areas and bird observation points.

Bird Observatory There is a bird observatory where you can observe various birds, including migratory birds.

Reed Forest and Trail There is a beautiful reed forest swaying in the wind and a trail where you can feel the natural atmosphere

#### **Ecological Education Programs**

A commentary program to learn the importance of ecosystems and animals and plants operates on weekdays and weekends, and a reservation for the Hwaseong City Integrated Reservation System is required in advance.





Jebu Island, located in Seosin-myeon, Hwaseong city, Gyeonggi-do, is about an hour and a half from Seoul, and is easily accessible by car and on foot, with a sea path that opens twice a day. You'll need to check the tide schedule to visit this unique sea path.

#### **Natural scenery**

Jebu Island is a popular spot for families, with its pristine sandy beaches and large expanses of tidal flats for swimming and tidal flats activities during the summer months. The lighthouse at the tip of Jebu Island offers an unforgettable view of the sunset over the West Sea.

#### Things to Do and See

Tidal flats activities You can experience ecology by collecting clams and observing various marine life.





Coastal promenade Enjoy a leisurely stroll along the coastal path, where you can experience the natural beauty of Jebu Island.

Marine Cable Car The 2.12-kilometer marine cable car connected to Jeongok Port offers a unique experience of viewing the West Sea from the sky. These nature experiences provide a special ecological touch for visitors to Jebu Island.



## Machyang-ri A space where peace and ecology coexist

Maehyang-ri in Ujeong-eup, Hwaseong city, Gyeonggi-do, was once an area that suffered from a US military firing range, but it has now been reborn as a place that symbolizes peace and ecology.

Maehyang-ri Peace and Ecology Park This park is a restored area that was used for military purposes for 54 years, and it has been transformed to recover nature and its ecosystem.

Completed in 2021, it offers a variety of natural environments, including trails, plum blossom forest, and wetlands, and is also used as a place for ecological education

Maehyang-ri Peace History Museum The history museum, established in 2007 with compensation funds for residents, commemorates the history of military damage and conveys the pain of the past and the significance of restoration by exhibiting relics and artworks symbolizing peace.

Maehyang-ri Ecotourism The Maehyang-ri tidal flats are home to diverse marine life and migratory birds, offering opportunities for nature observation and tidal flat activities, raising awareness about the importance of ecological and environmental conservation.

#### Symbol of Peace and Ecology

Maehyang-ri heals past wounds and promotes the values of ecology and peace for the future, offering visitors an opportunity to experience the significance of its history and natural beauty.



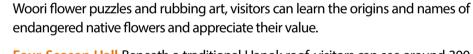


A Center for the Conservation and Research of Native Korean Plants

Located in Hantan-myeon, Hwaseong City, Gyeonggi-do, Woori Flower Botanical Garden spans approximately 128,312m<sup>2</sup> and was established to conserve native Korean plants. In the stone mountain area and Hanok-style four- season hall, as well as in various outdoor flower beds and walking trails, you can enjoy around 1,100 different plant species throughout the year

**Main Facilities** 

**Exhibition Hall** Through hands-on experiences like



Four-Season Hall Beneath a traditional Hanok roof, visitors can see around 300 species of Korean subtropical plants, including Ollemi pines, sweet olive, and fragrant olive trees.

#### **Program Information**

Interpretive Program It is open to elementary school students and older, requiring prior reservation. The number of sessions varies by season (summer and winter) and is provided free of charge.

Inquiries and Reservations Reservations can be made by phone, and it's recommended to book in advance to ensure availability. Woori Flower Botanical Garden offers a unique space where families and couples can enjoy and appreciate the importance of native Korean flora in nature.

## O Banseok Mountain Eco School

A venue for ecological and environmental education

#### **Location and Access**

Banseok Mountain Eco School, located in Hwaseong City, Gyeonggi-do, is an environmental education facility where students and the public can experience the importance of ecology and environmental conservation through spaces like forests, ponds, and ecological gardens.

#### **Main Exhibits and Programs**

**Forest Ecology Experience** This program allows participants to observe the diverse plants and animals of Banseok Mountain up close and experience the changes of the seasons.

**Environmental Education Program** Covering topics like climate change, energy conservation, and recycling, this program includes various hands-on activities that help children and teens understand and practice environmental protection easily.

**Exhibition Facilities** It consists of an ecological survey center on the first floor, an ecological research center on the second floor, and an outdoor play area and an exhibition and experience space.

#### An Ecological Experience Space in Harmony with Nature

Banseok Mountain Eco School is an experiential space that goes beyond simple knowledge transfer, focusing on learning the connections between urban and natural environments, as well as between people and nature. Visitors can explore Hwaseong City's diverse nature through digital resources and models, and eco-education programs are available for children and adults. All programs are offered free of charge with advance reservations.









## Symbols of Clean Water and Ecological Restoration: The Rivers of Hwaseong City



Banwol Stream Banwol Stream flows through the western part of Hwaseong City, providing agricultural water and transforming through restoration into an ecological space with clean water and habitats for diverse species.

Osan Stream Osan Stream crosses Hwaseong and Osan cities, serving as a natural retreat with walking trails and wildlife habitats, and through water quality improvement projects, it offers a more pleasant environment for citizens.

#### Main Facilities near Namyang Stream

Namyang Sports Park Located along Namyang Stream, this venue offers spaces for sports and leisure activities, including a futsal field, artificial turf soccer field, and gateball court, as well as scenic trails for relaxing walks in nature.

Namyang Lake Known for its beautiful landscapes and role in providing agricultural water, Namyang Lake features walking and cycling paths, making it ideal for leisurely outings. It is also famous as a habitat for migratory birds, making it a popular spot for birdwatching.









# O Ueum Island A Special Place Where Nature and Dinosaur History Come Alive



Located near Siwha Lake in Hwaseong City, Gyeonggi-do, Ueum Island Ecological Park is an eco-tourism destination offering diverse ecological experiences within a natural environment of wetlands, tidal flats, and forests.

#### Main Experiences and Programs

Commentary Program Learn the importance of nature around migratory birds' habitats and tidal flat ecosystems. Advance reservations are required through the Hwaseong City Integrated Reservation System.

Tidal Flats and Wetland Exploration Visitors can connect with nature through ecological experiences in tidal flats and wetlands, home to various marine life and plants.

Ecological Trails Well-maintained trails along rivers and wetlands provide a relaxing way to enjoy the scenic beauty of nature.

# OGojung-ri Dinosaur Egg Fossil Site

A Unique Geological Heritage

The Gojingri Dinosaur Egg Fossil Site is a valuable fossil site that demonstrates the presence of dinosaurs during the Cretaceous period. It holds significant research value and offers a unique historical experience for family visitors.

#### **Nearby Attractions**

Ueum Island Ecological Park and the Gojung-ri Dinosaur Egg Fossil Site are close to other major tourist destinations, such as Siwha Lake and Songsan Green City Observatory, making it possible to enjoy a rich blend of ecological and historical experiences in a single day.







## Moobong Mountain Natural Recreation Forest



"A Healing Space for Relaxation in Nature"

The Mubongsan Natural Forest Retreat in Hwaseong City, Gyeonggi-do, is an ideal destination to relax and recharge, surrounded by clean forests and fresh air.

#### **Kev Facilities**

Walking Trails Trails of varying difficulty levels allow visitors to explore the forest while experiencing its serene beauty.

Accommodation Stay in eco-friendly lodgings, such as forest houses or campgrounds, for a comfortable experience immersed in nature.

Water Play Areas and Picnic Grounds Perfect for summer visits, offering places for water activities in streams and picnics.

## **Nature Experiences and Ecological Programs**

Educational opportunities abound, with forest guides and seasonal programs helping visitors learn about the flora and fauna of the forest while experiencing nature firsthand.

#### **Nearby Attractions**

Combine ecological exploration and relaxation by visiting nearby natural tourist spots such as Bibong Wetland Park, Jebudo Island, and Maehyang-ri Peace Ecological Park. Recharge your body and mind while appreciating the value of nature at the Mubongsan Natural Forest Retreat.

## **Hwaseong City Environmental Foundation**



**Zero Store Support** 

Support for sustainable consumption and ecofriendly products through Zeroway store to spread.

**Reusable Container Support Program** 

This initiative aims to create a resource-circulation culture by reducing the use of disposable products and promoting resource conservation.

**Carbon Neutral ESG Collaboration Project**  This initiative aims to strengthen the environmental management system to respond to the climate crisis and achieve carbon neutrality

**Visiting Climate Environment School**  Educate elementary and middle schools in the district on the importance of the climate crisis and carbon neutrality to provide action plans

**Upcycling Education at** the Recycling Center

This program promotes the importance of resource recycling and offers upcycling education at the recycling center.

**Environmental Sensitivity Programs** 

The program increases environmental awareness through resource recycling education and tours of the Hwaseong Green Environmental Center.

The Hwaseong City Environmental Foundation is working with citizens through various programs to create a sustainable ecological city.