

Welcome to Lake Kasumigaura !

Geography

Lake Kasumigaura, located in south-eastern area of Ibaraki Prefecture, consist of three water areas, i.e. Lake Kasumigaura (Lake Nishiura), Lake Kitaura and Hitachi-tone River.
 Lake Kasumigaura is shallow, but Japan's second largest lake after Lake Biwa.
 56 rivers including the Sakura River are inflowing into the lake, and 960,000 people live in the watershed of the lake.

Cause : Coastal Lake
 Max. Depth : 7m
 Mean Depth : 4m
 Lake Area : 220km²
 Lakeshore Line : 252km
 Lake Capacity : 850 million m³
 Lake Type : Eutrophic, Freshwater lake
 Water Use : Drinking, Industrial, Agricultural, Fishing



Lake bathing (In the 1970's)

Water Quality

In the 1970's, water quality of Lake Kasumigaura worsened and its eutrophication progressed in the midst of the socioeconomic development in the surrounding region.
 As a result, Ibaraki Prefecture Government issued a water quality protection plan for preventing the eutrophication of the Lake and protecting its environment.

Kasumigaura Day : Sept. 1st

Ibaraki Prefectural Government designated the water-familiar summer season (from Marine Day : the third monday in July. 21st to Kasumigaura Day : Sept. 1st) as special monthly movement for the water purification of Lake Kasumigaura together with related organizations to perform various events intensively for raising the awareness.



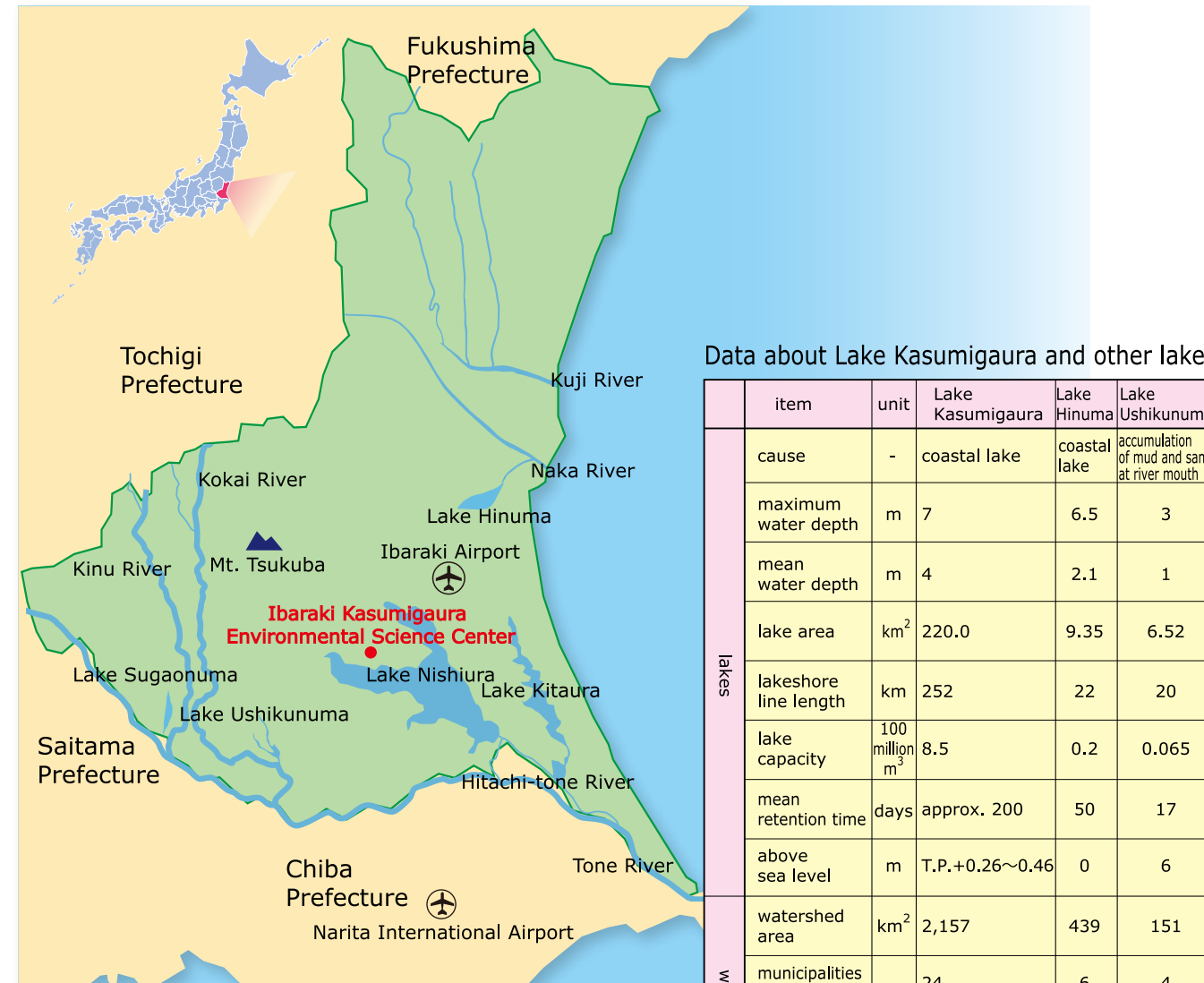
Water quality improvement projects on Kasumigaura Day (Sept. 1st)

There is Something You Can Do

Household wastewater from residents living in Lake Kasumigaura basin is the largest cause of pollution. Let's work together to protect the lake staying beautiful. There is 10 ways to improve water quality!

- 1 Avoid flushing away cooking scraps or similar material to a drain by disposing them directly into a waste bin or installing a net in the corner or on the drain of the kitchen sink.
- 2 Promote cooking oil recycling from home, and use up all the cooking oil you have poured. If any is left-over, harden it and then dispose it as combustible garbage.
- 3 Use waste paper or similar material to scrape away leftover food and grime from dishes before washing.
- 4 Recycle raw garbage as fertilizer by using a garbage disposal unit.
- 5 Use leftover bath water for laundry.
- 6 Clean up canal and rain groove regularly.
- 7 Do not throw trash on lakeshore and rivers.
- 8 Do not use too much fertilizer and farm chemicals.
- 9 Connect to the sewage system or install a septic tank for high-capacity combined sewage treatment.
- 10 Check and clean up septic tank regularly.

Lakes and Rivers of Ibaraki Prefecture



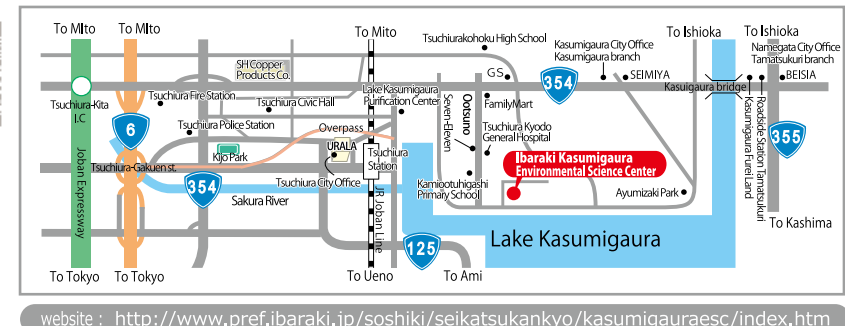
Data about Lake Kasumigaura and other lakes

	item	unit	Lake Kasumigaura	Lake Hinuma	Lake Ushikunuma
lakes	cause	-	coastal lake	coastal lake	accumulation of mud and sand at river mouth
	maximum water depth	m	7	6.5	3
	mean water depth	m	4	2.1	1
	lake area	km ²	220.0	9.35	6.52
	lakeshore line length	km	252	22	20
	lake capacity	100 million m ³	8.5	0.2	0.065
	mean retention time	days	approx. 200	50	17
watershed	above sea level	m	T.P.+0.26~0.46	0	6
	watershed area	km ²	2,157	439	151
	municipalities in watershed	-	24	6	4
	municipalities in lakeside	-	13	3	4
population	in watershed	10 thousand people	approx. 96	approx. 16	approx. 13



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Traffic Access
 ・20 minutes drive from Joban Expressway Tsuchiura-Kita 1.C
 ・15 minutes drive from Tsuchiura Station East Exit
 ・25 minutes drive from Kasuigaura bridge
 ・25 minutes by Bus from JR Tsuchiura Station for Tsuchiura Kyodo General Hospital, get off at Tsuchiura Kyodo General Hospital Bus Stop and 20 minutes walk.



website : <http://www.pref.ibaraki.jp/soshiki/seikatsukankyo/kasumigauraesc/index.htm>

Toward the Coexistence of Humans and Nature



Concept of IKESC

Compliments

Ibaraki Kasumigaura Environmental Science Center (IKESC) was founded in 2005, after advocacy for its establishment at the 6th World Lake Conference held in 1995 in Tsukuba and Tsuchiura. IKESC aims to effectively perform its four functions - research and technical development, environmental education, cooperation with and support for citizens' activities, and information exchange. These functions performed through the partnership with citizens, researchers, business companies, and governments in order to tackle issues related to the conservation of lakes and rivers in Ibaraki Prefecture.

The Four Functions of IKESC

Research and Technical Development

Study and technical development for the conservation of lakes and rivers in Ibaraki Prefecture

- Studies on mechanisms of eutrophication of lakes in Ibaraki Prefecture.
- Studies on hazardous air pollutants
- Studies on noise, groundwater, and soils

Environmental Education

Provision of opportunities and spaces for environmental education

- Facilities for environmental education
 Exhibition Room : A comprehensive look at lakes and rivers in Ibaraki Prefecture
 Study Room : Observation, experiments, and workshop
 Wooded Plaza : Observation of living organisms and ecosystem in a natural environment
- Environmental education programs
 - Lectures and tutorials
 - School classes
 - Hands-on workshops
 - Visiting lecture

- Provision of a salon where citizens involved in environmental conservation can exchange information
- Direct participation of partners (volunteers) in the operation of the IKESC through assisting environmental education and working as staff at conservation events
- Lending equipment for environmental cleanup and education activities
- Provision of subsidies to citizens' groups involved conservation activities

- Spreading of information through IKESC's website
- Provision of a reference library open for everyone
- Hosting of exchange events and symposiums for citizens, researchers, business companies, and local governments

Places for environmental activities and support through the creation of a network of professionals and organizations
 Cooperation with and Support for citizens' activities

Collecting and sharing information about Kasumigaura
 Information Exchange



Research and Technical Development

Environmental Education

Provision of opportunities and spaces for environmental education



Cooperation with and Support for citizens' activities

Information Exchange




Research and Technical Development

Facility Map

Environmental Education

Water environment group

Study on water quality dynamics and technical development to keep the conditions of Lake Kasumigaura, other lakes and rivers in Ibaraki Prefecture in good states.




Subjects:

- Studies on water quality variation in Lake Kasumigaura
- Studies on the factors for the generation of water-bloom
- Studies on external loads from watersheds
- Studies on water environment in Lake Hinuma and Lake Ushikunuma

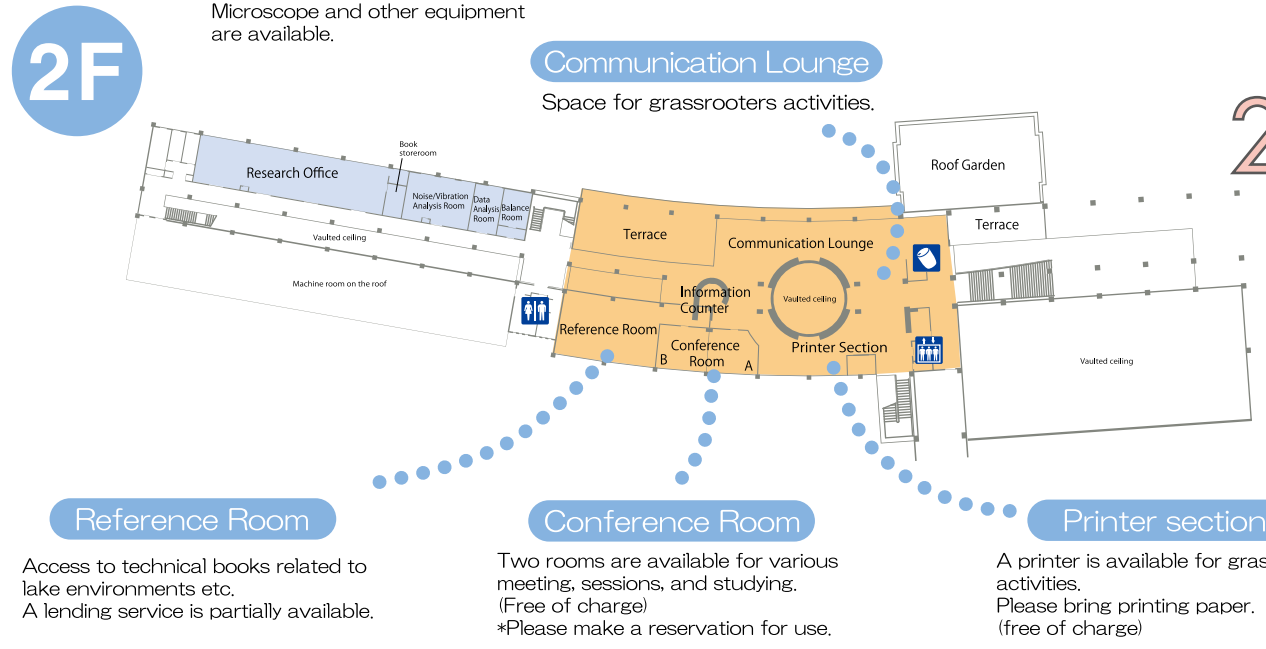
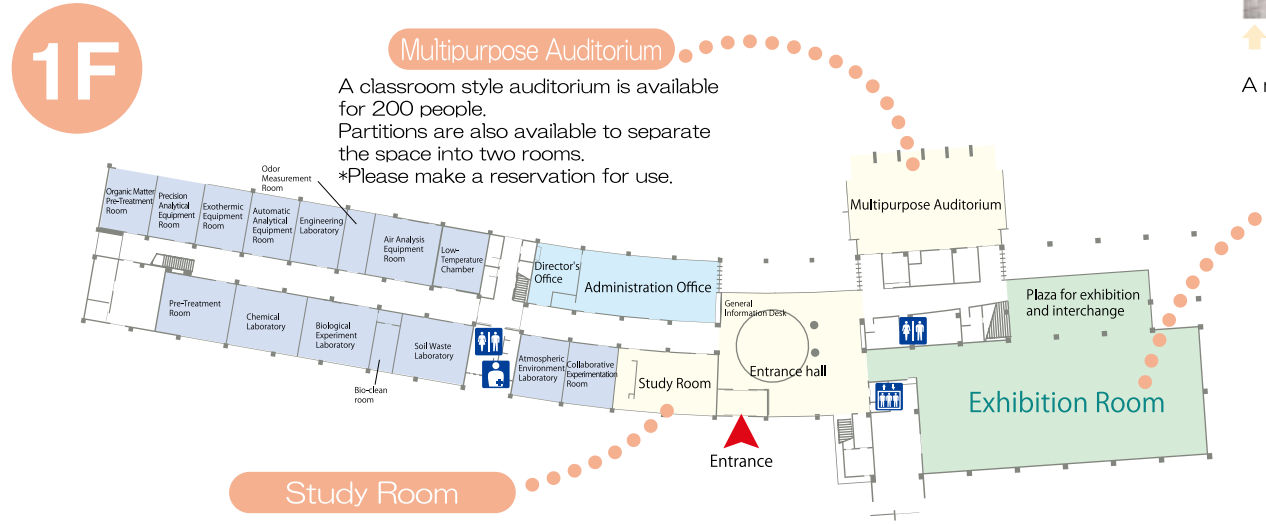
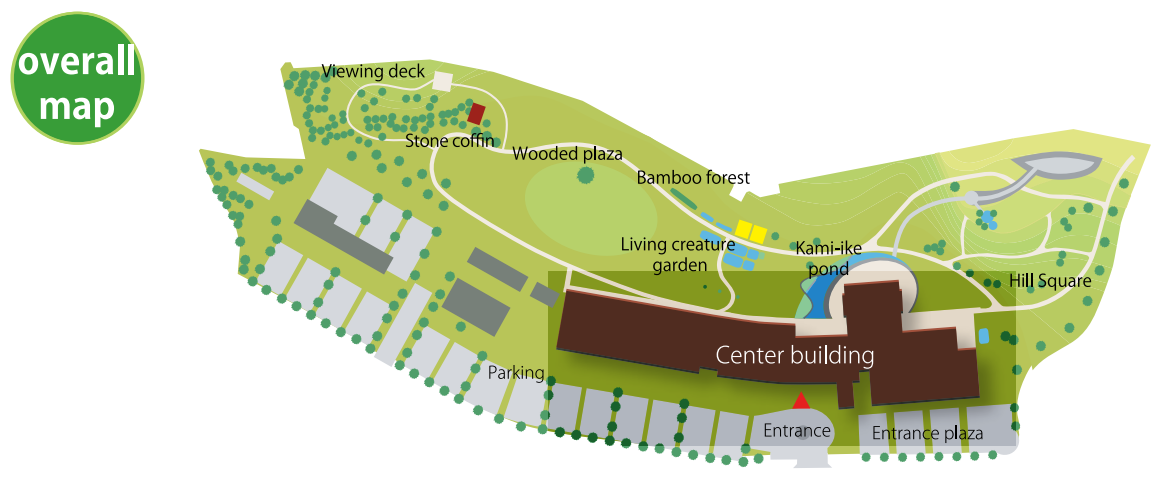
Air environment and chemical substance group

This group studies on atmosphere, soils, groundwater and noise.



Subjects:

- Studies on particulate matter (PM2.5)
- Studies on photochemical oxidant
- Studies on chemicals in the environment
- Studies on noise
- Studies on groundwater and soils



1 Welcome to Lake Kasumigaura

Let's start learning about Lake Kasumigaura with joy.



Entrance of exhibition facility



Rapid survey map of Kasumigaura
A map made in the Meiji era.

7 Think about the global environment

Expand your view and learn about global environmental problems

Environmental Wonder Adventure
Learn about global environmental problems with enjoying television pictures game




Plaza for exhibition and interchange
This is a space where citizens' groups, researchers, companies, and other entities can display exhibits and present the results and other aspects of environmental activities.




6 Trying for clear water

study the cause of water pollution and learn about what we can do

digital picture book theater
"The Trouble at Pure's Lake"



Hands-on quiz
"Think about household wastewater"
AR experience
"Our Lake Kasumigaura declaration"



2 History and life around Kasumigaura region

Follow the history and people's life of Lake Kasumigaura

Time capsule of Jomon people




Lake Kasumigaura's fishing
Lake Kasumigaura's unique fishing methods and sail-powered seine fishing



3 Creatures of Kasumigaura

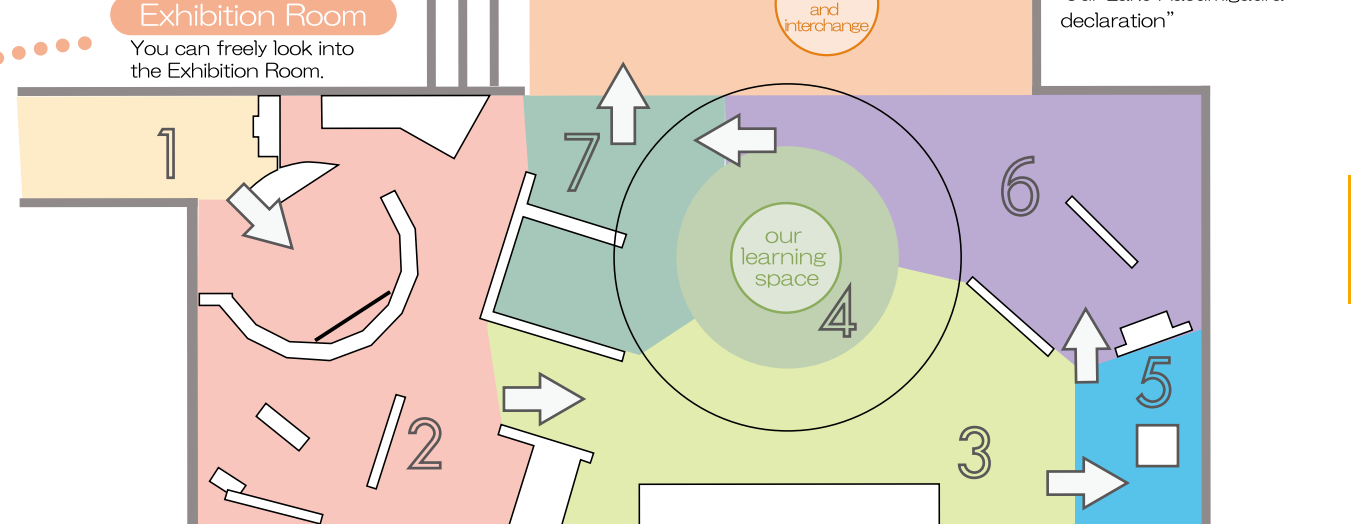
Learn about relationship between ecosystem and life, industry around Lake Kasumigaura the present

Organisms quiz in Lake
Quiz of living organisms in Lake Kasumigaura are ready on the wall



4 Our learning space

Learning about creatures and water quality from various points of view

Environmental education



Provides opportunities for environmental education and visiting lectures.

Poster competition lead to purification of Lake Kasumigaura

The contest was held to raise awareness of Lake Kasumigaura, for elementary and junior high school students.



Workshop etc.



Study tours of nature observation, fish, insects and wild-birds in Kasumigaura

Events at IKESC



Water environmental events are held during the water-familiar summer season

Cooperation with and Support for citizens' activities

Salon for citizens' interchange



Salon for citizens' interchange is an open space for public to interchange with each other through environmental conservation activities.

Subsidy to environmental conservation activities



Provides subsidies to citizen groups performing environmental activities and study.

Lend equipment



Lends equipment for environmental conservation activities to citizen groups.

Partners



Volunteers participating in the operation of the IKESC.

Information Exchange


Provision of Information

[official reports]

- a center catalogue (once a year)
- an annual report (once a year)
- announce information of events to supporters

[website]

- introduction of groups tackling environmental problems, information transmission of events
- information transmission of research accomplishments



Reference room

Access to technical book related to Lake Kasumigaura and environmental issues.



[lending service]
You need to register for supporter. (free of charge)
The number of materials you can borrow is five.
Lending period is within 14 days.

Promotion of interchange



Promotes a relationship between school students and citizens by giving opportunity.

Using of computer equipment

There are computers in communication lounge and reference room. You may reserve the information desk on the second floor.

- ※ Available time is 30 minutes.
- ※ Elementary student may use with a guardian
- ※ Show identification card or student card