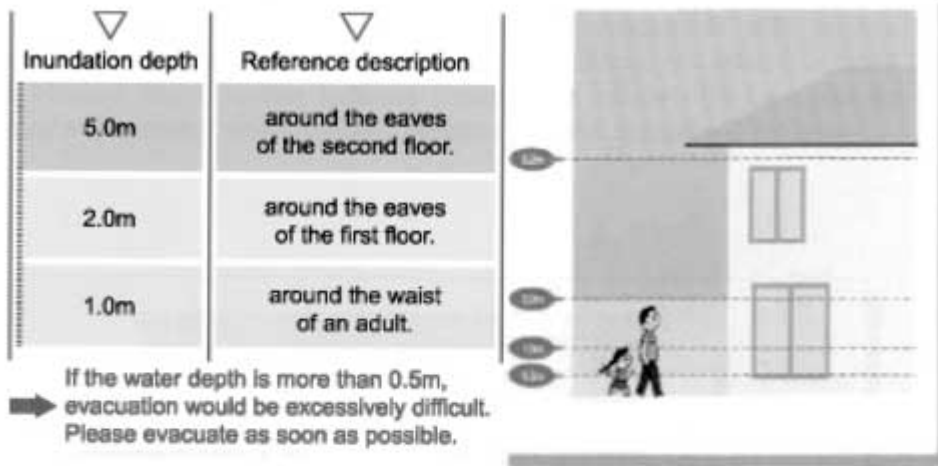


- Predicted Inundation Depth  
(The city of Koriyama)

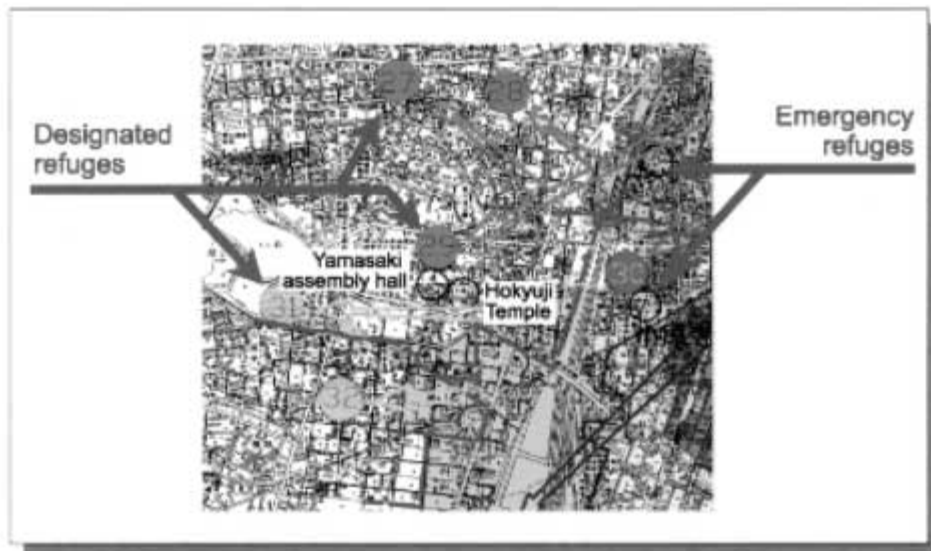


- Refugee  
(The city of Koriyama)

**Identify your refuge !**

Flood Hazard Maps designate proper refuges for respective town blocks, so that the evacuation time and distance would be minimized, and as well show the location of the refuges and the direction of evacuation with arrows. The names of refuges designated for respective town blocks are listed in a table.

Flood Hazard Maps further indicate Emergency refuges (to be used for emergency evacuation), when unable to evacuate to the designated refuges.

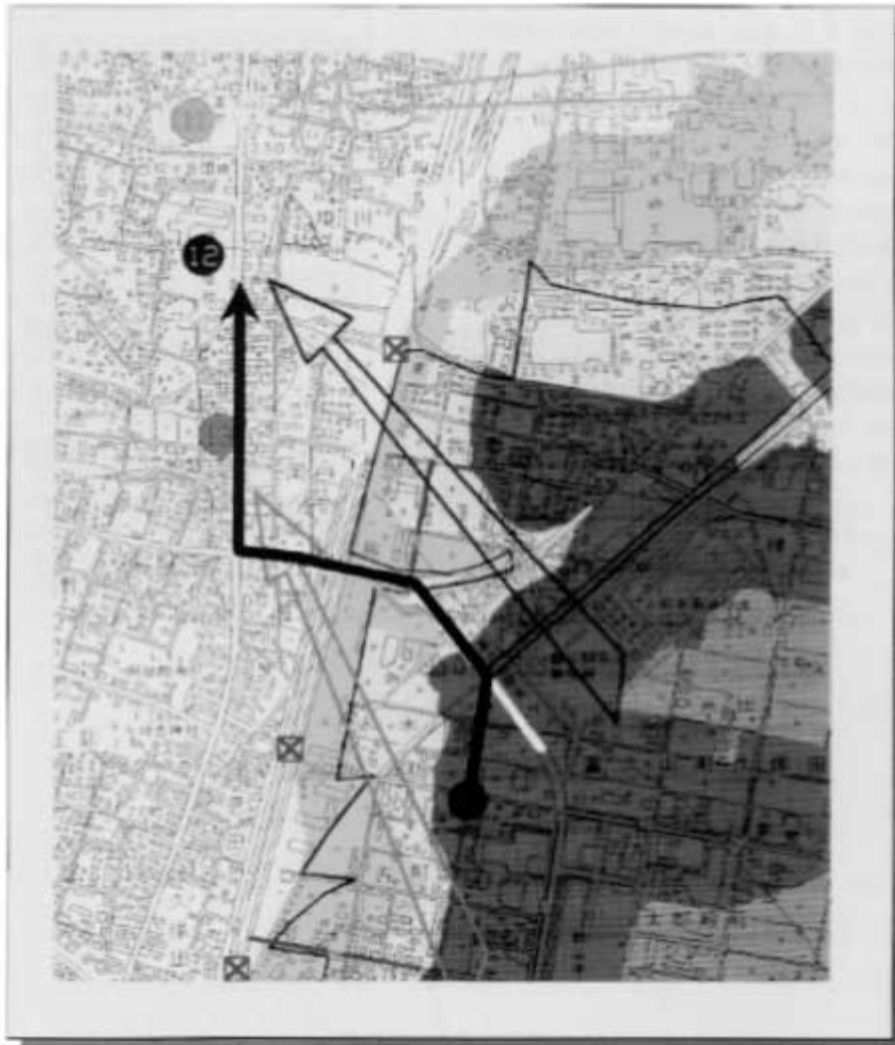


**Markings of Refuges**

Name of Town-blocks	Nos in Map	Name of refuges
高倉第一、二、三町内会 下萱沼町内会	①	高倉小学校
上萱沼町内会	②	上萱沼集会所
梅沢町内会	③	日和田公民館梅沢分館
	④	延命寺
鬼生田3、4区	⑤	鬼生田小学校
三町目平町内会、芹沢区	⑥	西田地区交流センター
八丁目町内会	⑦	日和田公民館八丁目分館
	⑧	花かつみ豊心園体育館
堂坂町内会	⑨	堂坂集会所











**Zoning and designation of refuges**

- Evacuation Route  
(The city of Koriyama)



Mark down evacuation route on the Map!

- Emergency Kits  
(The city of Koriyama)

Emergency Kit Checklist			
	Portable radio	<input type="checkbox"/>	<input type="checkbox"/>
	Flashlights	<input type="checkbox"/>	<input type="checkbox"/>
	First-aid kit	<input type="checkbox"/>	<input type="checkbox"/>
	Candles	<input type="checkbox"/>	<input type="checkbox"/>
	Emergency food	<input type="checkbox"/>	<input type="checkbox"/>
	Potable water	<input type="checkbox"/>	<input type="checkbox"/>
	Cash and valuables	<input type="checkbox"/>	<input type="checkbox"/>
	Ropes	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>

Portable radio : Make sure if it is well in order.  
Don't forget extra batteries.

Flashlights : Make sure if it is well in order.  
Don't forget extra batteries.

First-aid kit : Band-Aids, disinfectant, and other essential medicines.

Candles : Don't forget matches and lighters.

Emergency food : Choose food such as canned or instant food, easy-to-prepare and of no necessity of much water.

Potable water : Mineral water bottles.

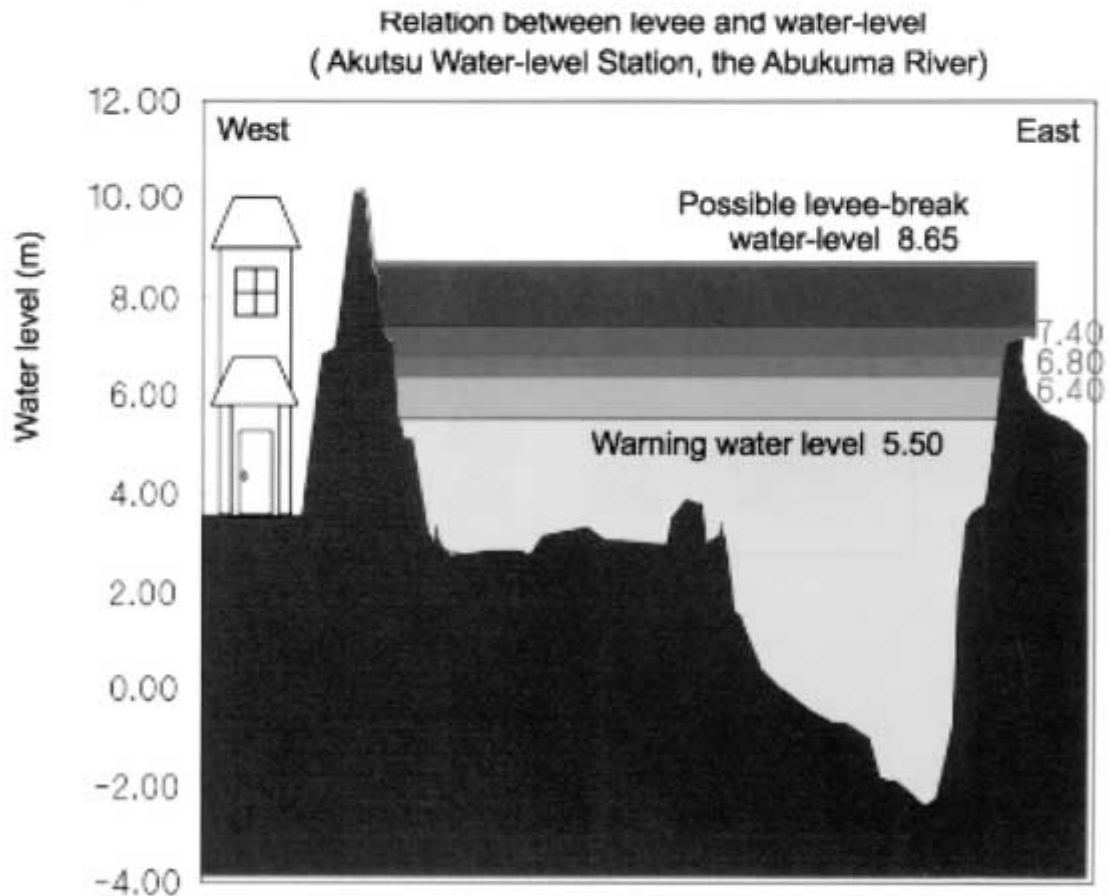
Cash and valuables : Keep in a fixed place so as to immediately carry them out in an emergency.

Ropes : Quite useful for emergency escape or rescue.

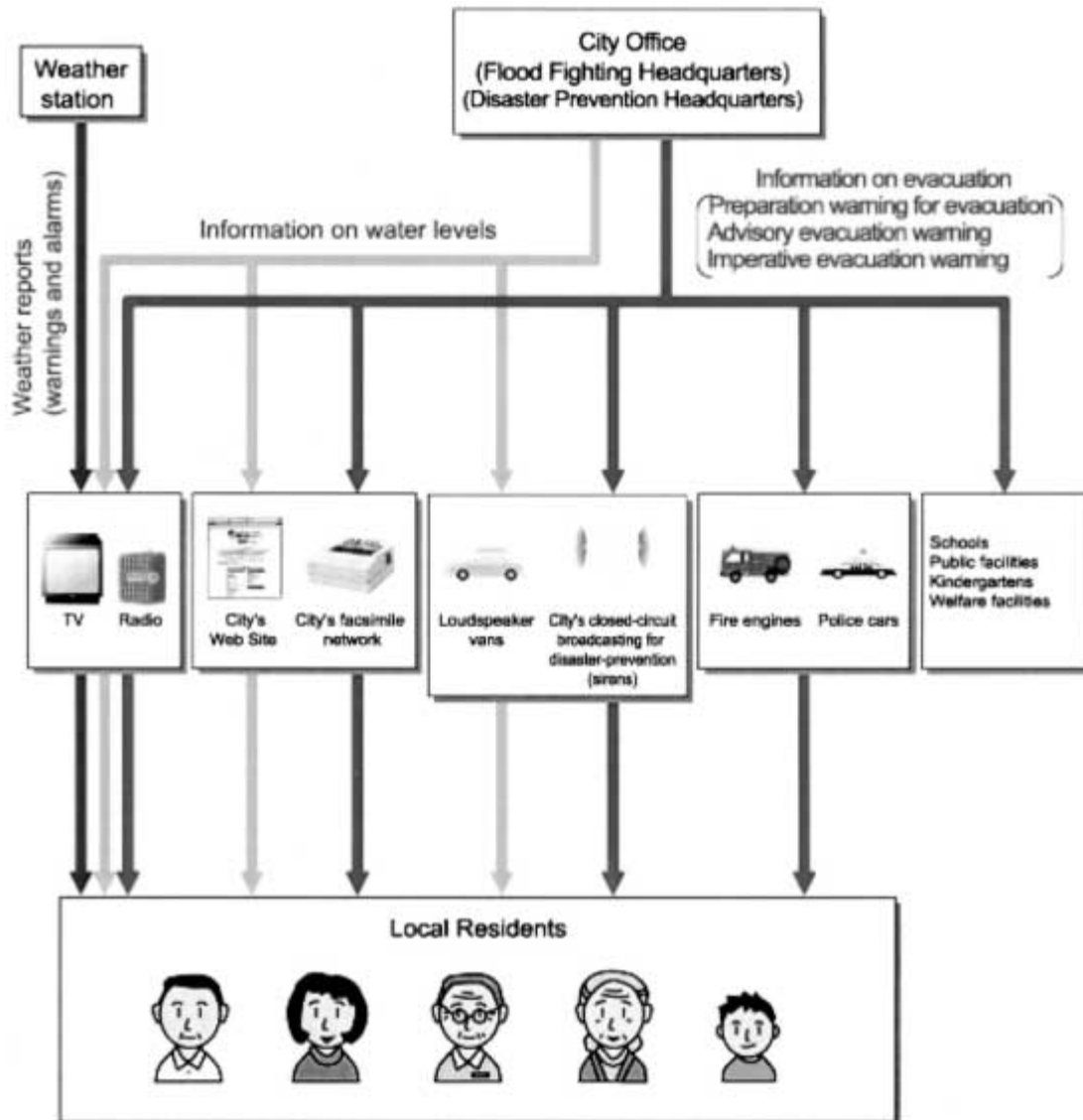
- Issuance Criteria for Evacuation  
(The city of Koriyama)

Specified reference water-levels for issuance of evacuation warnings  
(Akutsu Water-level Station, the Abukuma River)

Types of Evacuation Warning	Specified Reference water-level
Preparation waarning for evacuation	6.40m
Advisory evacuation warning	6.80m
Imperative evacuation warning	7.40m



- Communication Channels and Systems  
for Evacuation Information  
(The city of Koriyama)





- Flooding Mechanism  
(The city of Koriyama)

# Let's Learn How Floods Occur

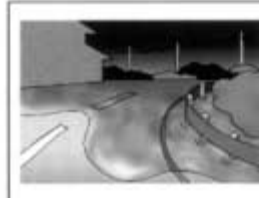
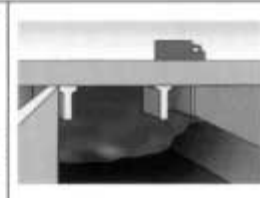
Mechanism of River Water Flood

	
Discharge and water-level in the river increase due to heavy rain or snowmelt.	Water level rises around the top of the levee, and hydraulic pressure definitely works on the earth bank.
	
Portions of the levee are starting to break, when the levee does no longer resist the pressure.	Flood flow vigorously attacks the dwelling houses, through the levee-break spots.
	
Flooding discharge would diffuse within the protected land behind the levees, with destroying and washing away the dwelling houses, or floating cars, which inundating level would rapidly increase and violently prevent from evacuating on foot.	

Mechanism of Inner-basin Flooding

	
Rainfall in a town is dewatered into rivers through drainage pump stations.	In case of heavy rain, the river water-level rises as much as to prevent the drainage pump stations from dewatering in the town, and accordingly the sewerage system is functionally disturbed.

Flooding due to other causes

	
Heavy rainfall may also cause inundation where street gutters are choked with debris or the street is in lowland.	

Source: Foundation of River & Basin Integrated Communications, Japan

- Flood Fighting Practice  
(Upper reaches of the Kitakami River)

**洪水から守ろう みんなの地域 5月は水防月間です。**

# 心あわせて 力あわせて Upper Kitakami River Flood - Fighting Practice

**Date : June 1, 2002, 9:00 a.m.**  
**Place : Immediate upstream of Higashi - Ohashi Bridge on the Iwai River, Kozenji Ichinosaki, Iwate Pref.**

**Five Features of the Upper Kitakami River Flood - Fighting Practice**

1. The largest flood - fighting practice in the Tohoku districts ever performed with the combined efforts of pertinent flood - fighting units. More than thousand flood - fighters participating from 23 municipalities on the River.
2. Practical and integrated practice in close touch with actual circumstances, to protect our area in united efforts against floods.
3. Collection and provision of information, using state - of - the - art information technology, more accurately and more quickly.
4. Support those vulnerable to flood, to ensure all residents' evacuation without trouble.
5. Efficient use of the Kitakami River Learning and Exchange Center, to know about and effectively use the new facilities.

**水防演習プログラム**

9:00 ○開会式

9:30 ○準備工、水出し工、シート張工、マット工、機組立演習、応急処置演習

○舟の組立、改修舟の組立、整備工、改良艇組立

○応急処置演習、内水排除演習、避難演習

○堰止め工、土留壁工、杭打ち機土留工、橋土留工、ホット工

○緊急輸送演習、応急処置、応急処置、応急処置

12:00 ○閉会式

12:30 ○終了

本場さながらの非常事態も みんなで見に来てお！ 演習 ★一日体験もありません！

写真 / 平成14年5月洪水

あの悲劇は繰り返さない。  
**2002.6.1**

You can watch the Flood-fighting Practice also on the Web site.  
<http://www.iwate.thr.mlit.go.jp>