

## Inland Water Flooding Hazard Map Around Tatsuno High School

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### Abstract

As global warming progresses, the number of guerrilla downpour is increasing and the scale of damage is growing. In some of big cities, creating inland water flooding hazard map is progressing but Tatsuno city has not done so. Therefore, we decided to create the hazard map of Tatsuno city using by Geographic Information System. (GIS)

### Introduction

Recent years, both the number and the scale of inland water flooding are increasing. However, Tatsuno city has not created inland water flooding hazard map. Also, it coupled with ageing society, demand of the hazard map is being higher.

### Theory and Experiment

Using 1-meter mesh data that Hyogo Prefecture have published first in Japan, with open software QGIS 3.16 Hannover.

### Results

The areas where is risky, we predicted, have no errors. However, we didn't consider with the probability of flooding in flumes. And the time wasn't enough to create the hazard map of all over Tatsuno city.

### Discussion

From the figure 1, it became clear almost of Hiyama area has risks of inland water flooding. It led us to research about the evacuation routs from the risky area. We found that Hiyama-Yamashita and Hiyama-Kawara area don't have any shelter of flooding.

### Conclusion

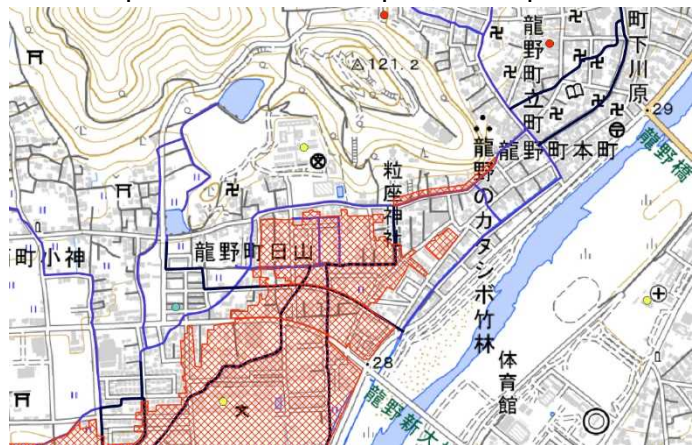
The three risky areas will have to discuss about the necessity of the shelter and where should it be opened.

### References

[Response to future research on GIS] Water Environment Conservation Team

### Keywords

inland water flooding, shelter, hazard map, GIS, flume



▲ Figure 1 Inland Water Flooding Hazard Map around Tatsuno High School