

# Modeling of Subsurface Structure for seismic Hazard Map around Lake Biwa

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## 1. introduction

Although there are a great number of literatures to research historical transition and paleo-environment on the ancient Lake Biwa, only a few geophysical data necessary to estimate a strong ground motion are existed. Then based on the geological information in terms of basement rock, subsurface ground model is made.

## 2. the procedure to make subsurface ground model

The procedure are carried out as follows:

- 1) to make isomap of basement rock.
- 2) to evaluate the thickness of weathered basement rock under the basin.
- 3) to model seismic velocity of the Kobiwako-group and the Osaka-group.
- 4) to evaluate the thickness of weathered zone in mountainous area.
- 5) to determine physical properties of the ground.

## 3. summary

In order to estimate strong ground motion, 3-dimensional subsurface structure can be modeled, based on geological information. After this, this model is expected to make further improvement using data from such geophysical investigation as seismic refraction and reflection method.