

Plan Overview

A Data Management Plan created using DMPTool

Title: Determination of Soil Damping by Hydraulic Pendulum

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Determination of Soil Damping by Hydraulic Pendulum

Types of data produced

Types of data, samples, physical collections, software, curriculum materials, and other materials to be produced in the course of the project.

Types of data include:

- Digital signal recordings of pendulum motion
- Spread sheets recording details on soil tested, pendulum settings, frequencies tested.
- Text or PDF files providing observers logs of the experiments
- Spread sheets recording grain size testing and permeability testing.

Data and metadata standards

Standards to be used for data and metadata format and content (where existing standards are absent or deemed inadequate, this should be documented along with any proposed solutions or remedies).

- Digital signals will be in either *.wav format or binary integer format. In any case, PDF files specifying the data format details will be provided.
- Grain size testing will be spread sheet format (excel)
- Constant head permeability data will be in spread sheet format (excel)

Policies for access and sharing

Policies for access and sharing; Provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements.

- Initially, there will be a 1 year delay after data are completely collected. There are patent issues that may need to be resolved.
- Data will be hosted on Boise State servers. Access will be by email request to the PI or data manager. Email responding to the request will include instructions on how to download the

data.

- Intellectual property rights will be held by Boise State University. This only affects access to the data by a 1 year delay from the date the data have been completely collected.
- Access to data will require proper citations when publishing.

Policies for re-use, redistribution

Policies and provisions for re-use, re-distribution, and the production of derivatives.

- The data should not be re-released by 3rd parties. Access to the data should only be by email request to BSU so that Boise State University may maintain a record of those who have had access.
- Access will be permitted to anyone.
- Likely parties interested in the data would be engineers, attorneys, faculty, students.
- Likely use of the data would be in studies of soil dynamics, foundation engineering, geotechnical engineering, earthquake engineering, and claims for damages due to construction vibrations

Plans for archiving and preservation

Plans for archiving data, samples, and other research products, and for preservation of access to them.

- Since all the data will be in electronic format, storage will be on a computer server.
 - Initially, the server will be located at Boise State University. It may be at the Center for Geophysical Investigation of the Shallow Subsurface (CGISS). A final solution may include OpenStack or some 3rd party cloud service.
 - Meta data will be the spread sheets that capture the details of the testing, including frequency, masses of soil and water, porosity test results, permeability test results, configuration of the pendulum and weights.
 - The spread sheets for porosity and permeability testing will be self documenting and follow ASTM or other relevant standards.
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