Swiss Federal Research Institute WSL
Eidg. Forschungsanstalt WSL
Institut fédéral de recherches WSL
Istituto federale di ricerca WSL

Long-term Forest Ecosystem Research LWF

Terms of Use

1. Purpose and Scope

These Terms of Use (ToU) regulate the access to and use of the Long-term Forest Ecosystem Research (LWF) Program Infrastructure, which comprises the Level I and Level II plots, installations, instruments, hardware and sensors belonging to the Swiss Federal Research Institute WSL (hereafter referred to as "LWF Infrastructure"). These ToU apply to all field activities on LWF plots.

The goals of these ToU are to:

- foster collaboration among WSL internal and external researchers;
- safeguard the integrity of the LWF Infrastructure and the forest ecosystems under investigation;
- enable an appropriate measurement design;
- ensure high scientific quality and prevent measurement conflicts.

The ToU consist of the following documents, which are an integral part of these ToU:

- the present document;
- the "*Safety Concept for LWF Infrastructure*" (Annex I);
- the mandatory "*Project Application Form*"

The use of collected datasets is regulated in the separate "*Agreement on Use of LWF Data*"[1].

2. Definitions

- **User**: Any individual conducting or supporting measurements and/or approved research activities at LWF plots (field campaigns) in accordance with these Terms of Use (ToU), either under the supervision of a Principal Investigator (PI) or acting as a PI themselves.
- **Principal Investigator (PI)**: The Principal Investigator is the lead researcher responsible for the measurement campaign, both scientifically, administratively and legally.
- **Owner**: The land and forest owner of the respective LWF plot.
- **Authorities**: Competent authorities such as forest and park services, communal, cantonal and federal authorities whose approval may be required (e.g. for permits, nature protection, etc.).
- **LWF Program Management (PM)**: The LWF Program Management includes the Programme Head, the Deputies and the Head of the WSL Research Unit Forest and Soil Ecology. It

[1] https://lwf.wsl.ch/fileadmin/user_upload/WSL/Microsite/LWF/LWF_AUD_20260220.pdf

supervises the LWF infrastructure and issues these terms of use (ToU), including Annex I for access to and use of the LWF Infrastructure (see section 7 below, "Communication and Contact"). The LWF Program Management acts as the final decision-making authority on behalf of WSL.

- **LWF Coordination Team (CT):** The LWF Coordination Team comprises the LWF Program Management and the scientific and technical LWF members. The team meets monthly and is responsible for evaluating, approving and supporting proposed measurements and research activities at LWF plots.
- **LWF Database Manager (DM):** The LWF Database Manager is responsible for the LWF database and is the contact person for setting-up a new project entries in the WSL-EnviDat repository for the Users.
- **LWF Webmaster (WM):** The LWF Webmaster is responsible for the LWF projects webpage and is the contact person for assisting the PI in setting up a project page.

3. Principles of Use

3.1 Ecosystem Integrity

All Users must protect the integrity of LWF forest ecosystems, including vegetation, trees, soil, and all installed research infrastructure.

All Users must comply with applicable communal, cantonal, and federal laws and regulations, as well as agreements with Owners, forest and park services, and the relevant authorities.

Any activity that may cause permanent or temporary damage to trees, soil, or the ecosystem functioning – including but not limited to cutting, coring, girdling, excavation, or extensive or repeated sampling – is prohibited unless explicitly approved in advance as part of the formal approval process by the LWF Coordination Team and confirmed in writing by the LWF Program Management.

Users must conduct all activities in a manner that avoids interference with existing long-term monitoring measurements and ongoing approved projects.

3.2 Infrastructure Protection

Users must respect the design, layout, and measurement protocols of the LWF plots, as defined in the LWF Manual (Brang et al. 1997[2]) and subsequent official updates. The intensively monitored area (IM) may only be accessed via the **designated access paths**.

The standard measurement zone at **1.3 m stem height** must remain free of any installations or attachments in order to protect diameter and girth band dendrometer measurements.

[2] https://www.dora.lib4ri.ch/wsl/islandora/object/wsl%3A42505

Prior to installation, all installations, instruments and sampling devices must be registered with the LWF Coordination Team. This must include information on the type of device, its installation date and its position within the LWF plot.

Upon completion of field activities, Users must remove all their installations and materials. All waste generated during field activities must be removed from the LWF plot by the Users.

3.3 Safety and Incident Reporting

All Users must comply with the applicable "*Safety Concept for LWF Infrastructure*" (Annex I) and any additional safety instructions for unexpected new events issued by the LWF Program Management.

Users must immediately report any detected risks, damages, or incidents affecting safety, infrastructure, or ongoing measurements (e.g., loose cables, hazardous trees and branches, damaged sensors) to the LWF Program Management.

4. Responsibilities

4.1. Responsibilities of Principal Investigators and Users

- The Principal Investigator (PI) is responsible for all approved measurements and research activities conducted under their project on LWF plots, both scientifically, administratively, and legally.
- The PI must ensure that all required approvals have been obtained prior to the start of any field activities and that all Users involved in the project are informed and comply with these ToU, including the "*Safety Concept for LWF Infrastructure*" (Annex I).
- The PI is responsible for ensuring that Users under their supervision comply with all obligations arising from these ToU.
- Users are responsible for the safe installation, operation, maintenance and removal of their own instruments and equipment. They are also liable for any damage caused to LWF infrastructure, including sensors, installations, plots or other approved projects.
- If genetic material from LWF plots is transferred abroad and subsequently used for research and development. Users must assess whether obligations under the Nagoya Protocol apply.

4.2. Responsibilities of the LWF Program Management

- The LWF Program Management (PM) is responsible for the strategic and operational supervision of the LWF Infrastructure.
- The LWF PM must provide authorised users with access to LWF plots, relevant safety instructions and guidance on field installations, measurement protocols and existing LWF datasets.
- In the event of non-compliance with these ToU, approved project conditions or safety requirements, the LWF PM may impose restrictions, suspend activities or revoke access to the LWF Infrastructure.

5. Planning and Approval of Measurements

5.1 Advance Notice and Submission of Request

Principal Investigators must inform the LWF Program Management and submit requests for any sampling, measurements, or installations, at least one month prior to any planned activities on the LWF plots. The use of the "*Project Application Form*" is mandatory for all requests.

5.2 Approval Process

The LWF Coordination Team will evaluate the proposed activities, taking into account:

- ecological impact,
- potential conflicts with ongoing measurements,
- compatibility with long-term monitoring protocols,
- local regulations and requirements (e.g. building application),
- safety considerations.

Based on this evaluation, the LWF Coordination Team may approve, request modifications, or reject proposed activities.

Long-term monitoring activities mandated within the LWF Program (e.g., national monitoring, drought manipulation studies) always have priority over external or temporary projects. In case of conflicts, affected projects may be required to adapt, suspend, or terminate activities as determined by the LWF Program Management.

6. Metadata, Documentation, and Data Storage

Information exchange between Users, the LWF Program Management, the LWF Coordination Team and the LWF Database Manager is structured according to the workflow outlined in Table 1: (1) Application, (2) Approval, (3) Agreement with ToU, (4) Submission of Metadata, and (5) Final deliverables.

Table 1. *Workflow between the User, the LWF Program Management (PM), the LWF Coordination Team (CT), the LWF Database Manager (DM), and the LWF Webmaster (WM) for project and data management.*

Stages	**Action / Materials**
1. Application	User reaches out to PM
2. Approval	User presents proposal to CT at monthly LWF meeting
3. Terms of Use	User signs ToU to be shared with PM
4. Metadata	User fills in mandatory "*Project Application Form*" DM creates entry at EnviDat repository WM assists User in setting up Project Webpage
5. Final deliverables	User provides publications, products, data to DM

Data- and metadata- submission and archiving are mandatory prerequisites for using the LWF infrastructure, and are separate from any right to use LWF data that may be granted. Use of the collected datasets is regulated by the separate "*Agreement on Use of LWF Data*[3]".

6.1 Metadata and Documentation Prior to Measurements

After receiving approval from the LWF Coordination Team and before starting field activities, Users must:

- mark, label and number all approved installations and sampling locations on the LWF plot.
- record the exact position of all installations and sampling locations using the method specified by the LWF Coordination Team.
- provide the LWF Database Manager and the LWF Webmaster with the required metadata via "*Project Application Form*"[4].

This information will form the basis of the evaluation and approval process, including obtaining any required permissions from the Owner, co-located partner networks (e.g. ICOS), the EnviDat entry, and the project webpage.

Based on this metadata, the LWF Database Manager will create a new project entry in the WSL-EnviDat repository[5] and link it to the LWF Program. WSL internal Users are asked to enter their project in the WSL project database[6] and to create a project webpage on the LWF website[7] with the assistance by the LWF Webmaster.

6.2 Data Submission and Archiving after Completion of Measurements

After completing the measurements, Users must:

- provide the LWF Database Manager with all respective datasets and associated scripts (if applicable) at least six months after the project's completion, including sampling locations, and coordinates.
- ensure that all datasets are documented according to the applicable formatting standards and data quality requirements.
- support the LWF Coordination Team in ensuring data comprehensibility and reproducibility.

The LWF Database Manager will upload all collected datasets, updating the associated metadata if necessary, to the designated WSL-EnviDat repository.

Both long-term and short-term or campaign-based monitoring datasets are subject to mandatory archiving and documentation. The applicable repository and data pathway will be defined during the approval process. Failure to provide required metadata or datasets may result in restrictions on future access to the LWF Infrastructure.

[3] https://lwf.wsl.ch/fileadmin/user_upload/WSL/Microsite/LWF/LWF_AUD_20260220.pdf
[4] https://webapps.wsl.ch/lwf-project-request-form/
[5] https://www.envidat.ch
[6] https://projektdb.wsl.ch
[7] https://lwf.wsl.ch/en/projects

Support for data analysis and interpretation may be provided by designated LWF scientific and technical experts.

7. Communication and Contact

For questions, planning, incident reporting, or clarifications, Users must contact the LWF Program Management via https://lwf.wsl.ch/en/#c1023462).

8. Signatures

LWF Program Management

valid without signature

Place and date: Birmensdorf, 27.05.2026

User / Principal Investigator

I confirm that I have read, understood, and accepted the present Terms of Use, including the "Safety Concept for LWF Infrastructure" (Annex I) and the mandatory "Template for Project Application on LWF Plots" (Annex II) and that I and the Users under my supervision comply with all terms.

Institution: ……

Name: ……..

Signature: ……

Place and date: ……

Annex I: Safety Concept for LWF Infrastructure

Preamble

The Safety Concept (SC) for the LWF Infrastructure clarifies the binding safety requirements and regulates the responsibilities of the Users for the access to and use of the the Long-term Forest Ecosystem Research (LWF) Program Infrastructure comprising the Level I and Level II plots, installations, instruments, hardware and sensors (hereinafter "LWF Infrastructure") of the Swiss Federal Research Institute WSL.

This regulation is based on the Safety Concepts of the Swiss Federal Research Institute WSL, available via WSL intranet[8] or handed out by the LWF Program Management to the Principal Investigator.

Definitions

- **User**: Any individual conducting or supporting measurements and/or approved research activities at LWF plots (field campaigns) in accordance with these ToU, either under the supervision of a Principal Investigator or acting as a Principal Investigator themselves.
- **LWF Program Management (PM):** The LWF Program Management supervises the LWF Infrastructure and issues these ToU, including this Safety Concept.
- **WSL**: WSL is the hosting institute of the LWF Program represented by the WSL office responsible for safety, Andreas Zurlinden.

Safety regulations

1. ***Compliance with the following safety regulations is mandatory for all Users of the LWF:*** These regulations apply to all field activities within the LWF Infrastructure.
2. *Hazardous branches and tree tops:* due to broken and hanging branches and tree tops, all Users of the LWF Infrastructure must pay particular attention to the tree tops.
3. *Risk assessment:* The following specific hazards must be considered when working on the forest plots of the LWF Infrastructure: falling from steep slopes or rocks, falling into soil profiles, unfavorable weather conditions, injuries caused by falling branches. Other less obvious potential hazards cannot be ruled out. The above list does not claim to be exhaustive.
4. *Access to the LWF plots:* The LWF plots are accessed frequently by any User, which has been authorized by the LWF Program Management (see ToU).
5. *Responsibilities:* ***WSL*** is responsible for compliance with the safety regulations concerning field work in the forest, on the LWF plots respectively. ***The WSL safety officer*** shall adapt the present regulations for use if necessary. The WSL officer responsible for safety is Andreas Zurlinden, WSL. andreas.zurlinden@wsl.ch, Tel. 044 739 22 33. ***The LWF Program***

[8] https://intra.wsl.ch/de/sicherheit-und-gesundheit/sicherheitsvorschriften/allgemeines

Management may impose restrictions or revoke access in case of non-compliance. The LWF Program Management is responsible of providing access to the plot, assisting the User in obtaining the needed permissions, and offering clarifications or support regarding field installations and the datasets.

6. *Maintenance:* The forest owner is responsible for the maintenance of the forest grown on the LWF plot. WSL, however, is responsible to inform the forest owner about potential hazardous objects.

7. *Installations:* Any installations of instruments and equipment on the LWF plots must be authorized and coordinated with the LWF Program Management (see ToU). The installation, operation and removal of the instruments shall be at the expense of the responsible User.

   If Users install or operate additional instruments or equipment on the LWF plots, they themselves are responsible for compliance with the safety regulations and for the maintenance of their own instruments and equipment. Any installations from Users, must not pose any risk to any infrastructure of safety of the Users.

8. *Reporting:* All Users are obliged to report any unsafe conditions immediately to the LWF Program Management.

9. *Unfavorable weather conditions:* The LWF plots must not be accessed in case of unfavorable weather conditions. This applies in particular for approaching thunderstorms, wind speeds higher than 75 km/h, during nightfall, risk of lightning and icing.

10. *Emergency organization:* In case of an accident or emergency, help must be organized immediately! Emergency number: 112

Birmensdorf, 28 January 2026

Andreas Zurlinden

Safety Officer of the WSL