



Environmental Analysis Program

Pomona College
Biogeochemistry Laboratory

SOP-L007

EA Program Equipment and Instrument Inventory

Standard Operating Procedure

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1. Purpose

This document is a living inventory of instruments, equipment, and major supplies maintained by the EA Program. It serves as the central reference for locating equipment, tracking ID numbers, and linking each item to its governing SOP. All personnel should consult this inventory before purchasing duplicate items and should update it whenever equipment is acquired, moved, or decommissioned.

2. Scope

- **Applies to:** All EA Program equipment in SGM 105, 106, 131, 132, 133, 134, and associated field storage
- **Does not apply to:** Consumable supplies (reagents, glassware under \$50 replacement cost), personal equipment, or equipment belonging to other departments
- **Maintained by:** Lab manager, with updates from all trained personnel

3. Definitions

- **Asset tag:** A numbered label affixed to a piece of equipment to uniquely identify it within the EA Program inventory; the number should match the ID# field in this document.
- **Decommissioned:** Status assigned to equipment that has been permanently removed from service (broken beyond repair, surplus, or disposed of); must be logged with the date and reason in the inventory and reported to the lab manager.
- **Equipment:** In this SOP, a durable item with a replacement value above approximately \$50 and an expected service life of more than one year; includes vehicles, instruments, balances, power tools, pumps, and major field gear.
- **ID# (inventory number):** A unique alphanumeric code assigned to each piece of equipment; the EA Program convention is EA-[CATEGORY]-[NNN] (e.g., EA-FLD-001 for field equipment, EA-LAB-001 for laboratory equipment, EA-INS-001 for analytical instruments); items marked *TBD* need numbers assigned at the next audit.
- **Related SOP:** The primary operating procedure associated with a piece of equipment; a dash (–) indicates no dedicated SOP exists yet.
- **TBD (to be determined):** Placeholder in the ID# or Location column indicating that the information needs to be confirmed during the next physical audit.

4. Responsibilities

Role	Responsibility
Lab Manager	Maintain this document; conduct annual audits; assign ID numbers
PI	Approve major equipment purchases; authorize surplus or disposal
All Lab Personnel	Report new acquisitions, moves, or damage to the lab manager promptly

5. How to Use This Inventory

- Items marked *TBD* in the ID# column need to be assigned an inventory number during the next audit.
- Items marked *TBD* in the Location column need to be physically located and recorded.
- The Related SOP column links to the operating procedure for that item; a dash indicates no dedicated SOP exists yet.
- Report discrepancies (missing items, wrong locations) to the lab manager immediately.

6. Vehicles

Item	ID#	Qty	Location	Related SOP
2016 Ford Explorer #1	<i>TBD</i>	1	Garage, EA Slot	F100
2016 Ford Explorer #2	<i>TBD</i>	1	Garage, EA Slot	F100

7. Field Equipment

Item	ID#	Qty	Location	Related SOP
Cooler #1	<i>TBD</i>	1	SGM 132	–
Cooler #2	<i>TBD</i>	1	SGM 132	–
TopCon AT-G4 Survey Scope w/ Tripod & Stadia	<i>TBD</i>	3	SGM 131	–
Meter Tape (10 m)	<i>TBD</i>	2	SGM 131	–
Meter Tape (25 m)	<i>TBD</i>	1	SGM 131	–
Meter Tape (100 m)	<i>TBD</i>	1	SGM 131	–
Infiltrometer	<i>TBD</i>	3	SGM 131	–
VanDorn Bottle (Horizontal)	<i>TBD</i>	1	SGM 133	F300
VanDorn Bottle (Vertical)	<i>TBD</i>	1	SGM 133	F300
LiCor Underwater PAR Sensor	<i>TBD</i>	1	SGM 133	–
Walkie Talkies	<i>TBD</i>	3	SGM 131	–
Honda Field Generator	<i>TBD</i>	1	SGM 132	F101
Ryobi Field Generator	<i>TBD</i>	1	SGM 132	F101
Eureka Manta2 WQ Sonde	<i>TBD</i>	2	<i>TBD</i>	F200
Pygmy Velocity Meter	<i>TBD</i>	1	<i>TBD</i>	F201
Type AA Velocity Meter	<i>TBD</i>	1	<i>TBD</i>	F201
Stop Watches	<i>TBD</i>	10	<i>TBD</i>	–
Alkalinity Test Kit	<i>TBD</i>	3	<i>TBD</i>	L301

8. Remote Sensing and Drones

Item	ID#	Qty	Location	Related SOP
DJI Mavic 3 Pro	<i>TBD</i>	1	SGM 106	–
DJI Mavic 3 Batteries	<i>TBD</i>	3	SGM 106	–
DJI Matrice 100	<i>TBD</i>	1	SGM 210	–
DJI Matrice 100 Batteries	<i>TBD</i>	6	SGM 210	–

9. Raspberry Pi and Air Quality Sensors

Item	ID#	Qty	Location	Related SOP
Raspberry Pi Zero+	NA	16	SGM <i>TBD</i>	–
Raspberry Pi 3+	NA	2	SGM <i>TBD</i>	–
Raspberry Pi 4+	NA	2	SGM <i>TBD</i>	–

10. Analytical Instruments

Item	ID# / Serial	Qty	Location	Related SOP
Thermo Scientific Delta V IRMS	<i>TBD</i>	1	SGM 135	L208
Thermo Scientific Flash IRMS EA	<i>TBD</i>	1	SGM 135	L475
Thermo Scientific GasBench II	<i>TBD</i>	1	SGM 135	L415
PANalytical Axios XRF Spectrometer	<i>TBD</i>	1	SGM 135	L205
Shimadzu TOC-L w/ ASI-L Autosampler	<i>TBD</i>	1	SGM 133	L204 , L407
Shimadzu TNM-L TN Module	<i>TBD</i>	1	SGM 133	L204
Hach DR3900 Spectrophotometer	<i>TBD</i>	1	SGM 133	L303
Hach DR900 Portable Colorimeter	<i>TBD</i>	1	SGM 133	L303
Turner Designs Trilogy Fluorometer	<i>TBD</i>	1	SGM 133	L203
Bio-Rad QX200 ddPCR System	<i>TBD</i>	1	<i>TBD</i>	L701
Picarro G2508 CRDS Analyzer	S/N 2143-JFAADS2048	1	<i>TBD</i>	F504
Eosense eosMX-P Multiplexer	<i>TBD</i>	1	<i>TBD</i>	F504

11. Balances and Measurement

Item	ID# / Serial	Qty	Location	Related SOP
Mettler Toledo XPE205 Delta Range Microbalance	<i>TBD</i>	1	<i>TBD</i>	L102 , L200
Mettler Toledo Balance	<i>TBD</i>	3	<i>TBD</i>	L102
High Capacity Portable Scale (24 x 24 in)	<i>TBD</i>	1	<i>TBD</i>	–
Digital Calipers	<i>TBD</i>	7	<i>TBD</i>	–
Hydrometer	<i>TBD</i>	5	<i>TBD</i>	L401

12. Laboratory Equipment

Item	ID# / Serial	Qty	Location	Related SOP
MilliQ Elix Water Purification System	<i>TBD</i>	1	SGM 134	–

Item	ID# / Serial	Qty	Location	Related SOP
ESCO Laminar Flow Cabinet	<i>TBD</i>	1	SGM 134	L113
Drying Oven	<i>TBD</i>	1	SGM 134	L105
Thermo Fisher Sorvall ST 8R Centrifuge	<i>TBD</i>	1	SGM 133	L109
Thermo Fisher Legend Micro 21 Centrifuge	SN41972616	1	SGM 133	–
Fisher Isotemp Muffle Furnace	<i>TBD</i>	1	SGM 133	L111
WTW OxiTop BOD System	<i>TBD</i>	8	SGM 133	L306
Echo Labs Revolve Microscope	<i>TBD</i>	1	SGM 133	L211

13. Annual Audit Procedure

1. Walk through every room listed in this inventory (SGM 105, 106, 131, 132, 133, 134, 210) and physically verify the presence and condition of each item.
2. Assign an inventory ID number to any item currently marked *TBD*.
3. Update the Location column if any item has been moved.
4. Note any items that are missing, damaged, or decommissioned.
5. Add any newly acquired equipment.
6. Commit the updated file to the GitHub repository with a descriptive commit message.

14. References

This SOP is an internal administrative document. No peer-reviewed external references apply. For related guidance on laboratory inventory and chemical tracking, see [SOP-L005 Chemical Inventory](#).

15. Related SOPs

SOP	Title	Relationship
L005	Chemical Inventory	Companion inventory for reagents
F002	Field Equipment Checklist	Uses this inventory for storage locations
L801	RStudio and GitHub	Version control for this document

16. Training Record

All lab personnel should review this inventory document when joining the EA Program and whenever they are assigned responsibility for a new class of equipment. No formal sign-off is required for this SOP.