

#### **Table IV.B. FSML Facility Suggestions**

*[The following suggestions are not in any order of priority, nor are they intended to cover everything a FSML should offer.]*

1. Nature center. It is important to provide some degree of physical separation of outreach activities from the ongoing research and teaching functions of the field station.
2. Roads. When planning, consider both ease of construction and also later routine access issues. Bury utilities along roads. For safety, provide two lanes, or regular pull-outs, or a one-way loop. Consider county road regulations.
3. Utilities. Need large-capacity electrical. Need telecommunications. Fiberoptic lines would be ideal, for voice and data transmission. If not, use T-1 lines or consider satellite connectivity.
4. Information accumulation and management. Need a centralized system with archiving efficiency and easy access. Building needs to be hardwired, preferably in conduits or cable trays. Could use floor chases. Do every room. Identify hubs for telecommunications and data storage, so extra conduit goes between these hubs. Need an office and computer room for multi-user equipment. Use building technology to piggy-back with baseline data accumulation and analysis (eg. logic controllers).
5. Field station library. Need a reading room and reference materials. Can use modern compressed shelving technologies to save space. Could call this an "Information Resource Center".
6. Animal care facility and committee. Must consider these needs when planning. Get most recent legal information about field studies and animals.
7. Storage facilities. Need space for field equipment, flammables storage, hazardous chemical cupboards.
8. Fire suppression system. This will influence siting, building design and many other construction features. Could combine exterior sprinkler system with manipulated research areas needed experimental water supplies and moisture regimes.
9. Safety shower requirements. Affects water supply, drain locations, needs for chemical holding tanks separate from septic systems.
10. Waste disposal. Investigate artificial wetlands, arrowhead systems, mound systems, contained vaults. Need to isolate grease, blackwater and graywater. Might need a lift station. Consider waste disposal of radioactive substances and hazardous chemicals. Don't service station vehicles on site and thereby avoid used motor oil. Consider trash service and storage, construction debris, recycling.
11. Shop buildings. Need covered boat storage, lockable private storage, maybe a large barn with both work space and storage. Need a warm and comfortable shop to work in, with a fabrication area and basic tools. Need a use policy, to decide who can use tools and when and how.
12. Cleaning. Need a cleaning supply closet in every building.
13. Water supply. No matter where water comes from, FSMLs will have to provide a water treatment system because service is provided to the general public.
14. Housing. Need a variety of options to be maximally appealing to potential users. Should have some family cabins with 2, 3, and 4 bedrooms plus kitchens. Need small student cabins that hold two people and don't have kitchens or bathrooms. Need a larger townhouse or apartment with shared walls and utilities, and shared kitchen and bathroom.
15. Bath house. Need a central shower/bathroom facility to serve those cabins without.

16. Dining hall. Most serve from 60 – 100 people. Keep separate from other use areas; this is a noisy function. Very hard to combine a dining hall with research, teaching, lecturing or sleeping.
17. Research lab space. Keep separate from teaching areas. Have some small private labs and some larger shared spaces. Consider whether need water to all labs.
18. Teaching labs. Need a large classroom with rolling lab tables. Need some small classrooms or teaching labs. Need to decide how many simultaneous classes. Might have some classrooms without full lab features.
19. Seminar room.
20. Lecture hall for 100-120 people. This is an important asset for a field station.
21. Lounge for recreation. It would be a huge mistake to leave this one out.
22. Recreation fields outdoors. Need volleyball as a minimum.
23. Small meeting areas scattered throughout.
24. Administrative offices. Director's office needs windows with a glorious view.
25. Reception area. This becomes the interface with the public and should be nice but reasonably separate from the hustle and bustle of daily activity.
26. Docks, boats and vessels. Need power to this site. Strongly recommend having the docks within 100' of the main facility to maximize research and teaching efficiency. Need storage, service areas, a crude wet lab, rooms on the dock itself. Gas tank and pump. Fire extinguishers. Will diving be a research activity? Need to move heavy gear to the dock site. Need good serviceable roads. Parking. Ramps. Boat storage. Need administrative systems to control and support these aquatic functions. Don't minimize the difficulties created by having the docks far from the main lab facility.
27. Trails. Need to define areas for walking, bikes, etc. so research plots aren't adversely affected.
28. Director's housing and resident manager's housing. Ideally both would be available and comfortable, with the ability to conduct all aspects of family daily life in the housing.
29. Vehicles on site for station use.