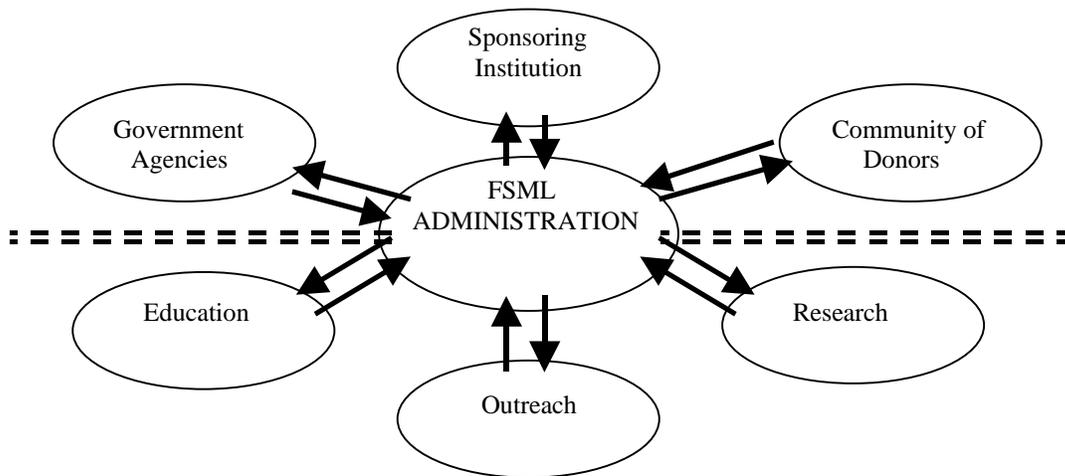


## II. Administration

### A. Guiding Principles

FSMLs are diverse institutions. However, as relatively remote sites for conducting field research, research training and science education FSMLs share some fundamental similarities. Effective administration of a FSML will take into consideration the following general principles:

1. All administrative activities should evolve from the FSML mission, through the program, facilities, master, business and strategic plans. The FSML mission statement should reflect the mission of the sponsoring institution, and justifies the activities of the FSML to the sponsoring institution. The purpose of FSML administration is to manage the execution of tasks which arise from FSML plans.
2. Administrative policies must be derived from the sponsoring institution's policies. Additional policies will be required to cover activities and needs peculiar to the FSML. Independent FSMLs should develop policies that reflect their governing Board's philosophy.
3. The level of reporting within the sponsoring institution should be concordant with the administrative level at which the categories of activities in which the FSML engages are integrated within the sponsoring institution. For example, if the FSML engages in both outreach and research, the FSML Director should report at an administrative level which includes both outreach and research in its responsibilities.
4. A FSML is essentially a remote campus. A fully developed FSML performs nearly all the functions of a campus on reduced scale.
5. External participation through advisory committees and periodic external reviews can greatly enhance the stability and resiliency of the FSML's administration.
6. FSML administration does not occur in a vacuum. The FSML is nested within a network of administrative relationships (see Figure II.A). For these relationships to be sustainable, there must be an exchange of benefits. Each partner supplies something of value to the other partner. In addition to the mutual provision of some need, there is also an exchange of reporting. The largest percentage of administrative efforts are best directed towards those groups below the dashed line in the figure, as well as toward the sponsoring institution. However, to achieve sustainable growth, the FSML administration should allocate administrative responsibility to maintaining the other relationships as well.
7. The nature of administrative relationships varies widely among FSMLs. Some FSMLs are independent nonprofit corporations and have no sponsoring institution. For independent FSMLs, a Board of Directors often fills some of the roles of both the sponsoring institution and the community of donors. Some FSMLs have many neighbors who can support their mission politically and financially, while others are located in remote areas with low human population density and perhaps a poorly educated surrounding community. Many FSMLs serve only one or two of the three programmatic groups (research, education and outreach).



**Figure II.A.** FSM relationships. Those below the double dashed lines are groups for whom the FSM either provides direct administration or facilitates the conduct of the group’s activities. Those above the dashed line are entities that function either above or outside the FSM’s administrative jurisdiction.

B. Statements of Mission, Vision, Goals and Objectives

1. Mission Statement

Effective administration evolves from a one-or-two-sentence mission statement that is general enough to apply in perpetuity. A mission statement that is appropriately constituted is essential for guiding FSM program development. Here are some nonidentifying examples of FSM mission statements:

*“The \_\_\_\_\_ is a living laboratory for the advancement of knowledge through ecological research, education, and stewardship of the natural world.”*

*“The mission of the \_\_\_\_\_ is to provide a site and facilities for ecological and environmental research and research training.”*

*“The mission of the \_\_\_\_\_ is to develop knowledge and promote an understanding of general ecology through a program supporting research in the \_\_\_\_\_ watershed.”*

*“The mission of the \_\_\_\_\_ is to increase, through field research, understanding of the \_\_\_\_\_ ecosystem, and to foster ecosystem stewardship through training, education and outreach.”*

*“The mission of the \_\_\_\_\_ is environmental research and education concerning the long-term dynamics of the barrier islands, lagoons, marshes and watersheds of the \_\_\_\_\_.”*

2. Vision Statement

A vision for a FSM is a more in-depth articulation of the mission and addresses a shorter time span. Each operational area of the FSM may have its own vision, goals and objectives to guide decisions and policies. Here is a vision statement that might evolve from one of the above mission statements:

*“To use the site and facility to promote the integration of environmental and ecological awareness into every aspect of undergraduate education.”*

There would be a similar vision statement addressing appropriate research for the FSML.

3. Goals

Programmatic goals evolve from components of the mission and vision, and are more specific. Here are two sets of goals that might evolve from the above FSML mission statements:

- a. *Provide a research climate that results in fundamental discoveries about ecological and environmental processes.*
  - b. *Ensure that faculty and students are the central element in fundamental field science investigations.*
  - c. *Promote participation in FSML programs by visiting researchers and students.*
  - d. *Establish a mechanism to communicate field science to the general public.*
- 

- a. *Through research we will understand the long-term dynamics of the coastal environment.*
- b. *Through education we will foster environmental literacy.*
- c. *Through research and education we will advance the conservation of one of America’s premier natural treasures.*

4. Objectives

Specific objectives set the programmatic goals into a timeline, such as for one-, five-, 10- and 20-years.

- a. *To become fiscally responsible, with a business plan that emphasizes financial self-sufficiency to a large degree, beyond a fundamental financial commitment from the university. (One-year objective)*
- b. *To provide a physical facility that supports and encourages accomplishment of the mission and goals. (Five-year objective)*
- c. *To achieve national prominence as a coastal research center. (10-year objective)*

See **Table II.B.4** for an example of objectives set into a timeline.

The sum of mission, vision, goals and objectives statements provides a powerful tool for planing and administering a FSML. Opportunities that arise, such as the donation of a piece of property that has specific management restrictions attached, can be evaluated in light of these statements of purpose. Some opportunities should be declined if they don’t fit the mission of the FSML. Other opportunities can be pursued because of the manner in which they would enhance the mission of the FSML. Ignoring the power of articulating these statements of purpose means that administration of the FSML takes place in an *ad hoc* manner, and risks the consequences of managing in a vacuum without firm guidance. A number of benefits to leadership that evolve from understanding the institutional mission are articulated in “Director’s Guide to Best Practices” (Byrd 2000).

C. Governance of the FSML

1. There are two distinct models for FSML governance:

- a. Model I: Governance by a sponsoring institution, which is usually a university, college, museum, or larger nonprofit corporation. As of January 2001 approximately 85% of OBFS member FSMLs were part of a larger institution.

- b. Model II: Self-governance at an independent FSML, with no sponsoring institution. These FSMLs are usually nonprofit corporations with federal tax-exempt status. AS of January 2001 about 15% of OBFS member FSMLs were independent.

## 2. How is governance effected?

There are a number of questions associated with governance. Each should be answered in writing, and a process established for appropriate action.

- a. Who determines policy?
- b. Who hires and fires?
- c. Who evaluates the Director/Executive Director?
- d. Who controls the strategic plan, and other planning processes?
- e. Who approves the budget?

For Model I FSMLs, many of these functions are intrinsic to the FSML, although authority may lie with either the sponsoring institution. For Model II FSMLs, the Bylaws of the Board of Trustees dictate where authority rests. Some of the literature available from the National Center for Nonprofit Boards ([www.ncnb.org](http://www.ncnb.org)) can help a Model II FSML understand the national norms for nonprofit governance. Another resource is the "Trustee Handbook: A Guide to Effective Governance for Independent School Boards" (De Kuyper 1998), sponsored by the National Association of Independent Schools ([www.nais-schools.org](http://www.nais-schools.org)).

## 3. Advisory Committees and Other Groups

Many FSMLs have found tremendous benefits in using advisory committees. Most common is a Scientific Advisory Committee, composed of scientists who conduct research at the FSML as a minority of committee members, other national or international colleagues, and persons with special expertise such as high-level regulatory executives. These committees meet at least once a year and address policy issues related to the scientific content of research or educational programs at the FSML. To be most effective, their advice is solicited in a proactive fashion rather than in response to one or more emergencies. And most important, their advice is taken very seriously.

Other advisory groups can be constituted to deal with fundraising, finances, endowments, capital projects, or any number of topics. Not only do FSMLs benefit directly from expertise that might otherwise be available, but there are benefits to be gained from having powerful individuals from other professions knowledgeable about and vitally interested in the activities of the FSML.

## D. The Nature of the Directorship

### 1. The Qualities of a FSML Director

Directors of FSMLs are in unique positions within the sponsoring institution. Directors are often hired with a primary appointment as faculty or curator, and with a secondary administrative appointment. As a result, they have a large number of tasks to perform that are very different from people in the organization who have similar primary appointments (i.e., faculty colleagues). They may be expected to interact with the president of a university on one day, and to quickly repair a boat motor for a field class on the next.

In searching for the Director of a FSML, an organization should attempt to find candidates who have vision; administrative, supervisory, and fund raising experience; are interested in strategic planning and development of programs in education and research; and are broadly trained in the sciences. Specialized skills will include being an excellent communicator, being knowledgeable in database and information management, and having some experience in working effectively with the public, government organizations, non-government organizations and private foundations.

Successful directors are often personable, extroverted, high-energy people with well developed people skills. They will not be afraid to get their hands dirty during the operation of their FSML. Depending on the nature of the FSML, an effective Director doesn't necessarily need a Ph.D. A combination of experience, skills, knowledge and personality are often more important than academic credentials.

## 2. Managerial Responsibilities of a FSML Director

The managerial responsibilities of a Director will vary depending upon the scale of operations of a particular FSML. The range in scale of FSML operations is very great. Some FSMLs are complex, multi-million dollar operations employing dozens of people and having very large physical plants or large land holdings. At the opposite end of the spectrum are simple, low budget operations employing only one or two people that have limited physical plant and land holdings.

The most complex operations are for those FSMLs that mirror the mission and activities of their sponsoring institution and are located in remote locations. A good example might be a university-sponsored facility that is located far from urban centers but carries out most functions of the parent institution. This FSML would offer undergraduate or graduate instruction and curriculum development; would support housing and food services for faculty, students, and researchers; would equip and maintain laboratories, classrooms, and animal care facilities; and would provide informal educational and recreational activities for the residents of the facility. FSMLs such as this are, in fact, stand alone miniature university campuses that have all the managerial and administrative problems associated with a larger university campus.

In general, remote FSMLs will demand more resources and administrative effort to manage properly than comparable facilities located in close proximity to their home institution. The phrase "out of sight and out of mind" is particularly true for any remote FSML. Parent organizations must make greater commitments to remote FSMLs to ensure that they prosper. The Director is well advised to establish a strong presence within the sponsoring institution. One of the Director's critical tasks is to educate the administrator to whom he/she reports about the FSML. This education is most effective if it includes periodic visits to the FSML by the administrator to whom the Director reports. The Director should also consider visits from other key sponsoring institution personnel, so that they have a context for understanding the special challenges faced by the FSML staff with whom they interact. This can often lead to special funding allocations to address, for example, health and safety issues which arise during a tour of the FSML facilities by the sponsoring institution's health and safety director. The Director's efforts at establishing relationships with key administrators will with time lead to inclusion in the informal problem-solving and mutual support networks that, beyond the formal administrative structure, are usually the route by which needs are addressed and problems solved.

Since FSML Directors often have little or no prior administrative experience, the Director also needs to engage in self-education about the sponsoring institution's administrative structure and culture. Universities often offer workshops which can accomplish two goals: 1) rapid increase in understanding of administrative structure and procedures, and 2) a chance to establish a relationship with sponsoring institution unit administrators outside of the chain of command.

In most cases, the FSML Director will be a middle level manager within a larger organizational structure. The level of reporting within the sponsoring institution should be concordant with the

administrative level at which the categories of activities in which the FSML engages are integrated at the sponsoring institution. For example, if the FSML engages in both outreach and research, the FSML Director should report to the administrative level which includes both outreach and research in its responsibilities. In the case of a university-funded FSML, the Director should in general report to someone at the level of a Dean or above. In the case of an independent FSML, the Director will often report to a Board of Trustees or similar group.

The Director will have the following overall responsibilities at all FSMLs:

- a) integration of FSML activities both within the FSML and within the parent organization
- b) communication up and down lines of administration
- c) program planning

### 3. Models for the Directorship

The administrative activities at a FSML can be organized in a task tree as illustrated in Figure II.E.1. Depending upon the mission of the FSML and its scale, the proportion of these tasks which the Director executes vs. those which the Director delegates will decrease in proportion to FSML size and complexity. Regardless of size, the Director plays a critical role in the integration of tasks and information, in reporting to the sponsoring institution, and for budgetary and programmatic planning.

Many models currently exist for the directorship of FSMLs. The type of model often depends upon the size, location, financial health of the parent institution, and whether the FSML is public or private. FSML directorships include full-time appointments, partial appointments, rotating appointments, faculty who are tenured or tenure-track, or directors that are drawn from the business community because of their experience in the private sector.

It is a guiding principle that in *most* instances a FSML will only prosper if:

- a) The Director has a full-time appointment.
- b) The Director is a tenured faculty member (or equivalent) in the case of academic organizations.
- c) Every attempt is made to ensure that the Director is long-lived in the position in order to cultivate administrative and other beneficial relationships.
- d) The Director has business experience if the mission of the FSML demands a significant amount of interaction with the public or business community.

To reiterate, FSMLs will not prosper unless a Director can devote full and focused efforts toward development of their unit. We recognize that this is often not possible, and not desirable in some unusual instances, but then special attention must be paid to the establishment of an evaluation strategy and reward structure commensurate with the increased responsibilities of the Director of an FSML.

### 4. Evaluation of the Director

The parent institution should recognize the diversity of tasks and establish evaluation procedures that reflect that diversity. The Director may need release time from departmental teaching or committee responsibilities in order to achieve FSML administrative goals. Ideally, a percentage of effort to be allocated to research, administration, teaching and service would be part of both the Director's job description and the evaluation procedure. Most FSMLs could truly use a 100% administrative Director. If research is part of the Director's job description, then it should not exceed 25% of the Director's time in order for the FSML to be administered effectively. Teaching

and institutional service responsibilities should be minimal. This generalization doesn't apply to situations with enough financial resources to hire a multitude of assistants to the Director.

Annual performance evaluations of the Director can be difficult. For example, in many instances, a Director may be drawn from the faculty of a parent university. However, despite the multitude of tasks that a Director must perform, they are often simply evaluated along with their departmental counterparts with little attention being paid to their responsibilities as Director.

In the case of tenured faculty, evaluations of scholarly performance should be tempered by the fact that the Director has large temporal and professional commitments to the management of the FSML. These commitments are often far above and beyond the "normal" load of a colleague in one's own department, but are often ignored or perceived to be unimportant by an evaluating committee. A clear set of criteria must be developed for judging how well the Director has met the demands of FSML management, and rewards developed which compensate for the loss of research productivity associated with the unique job of being a Director.

As a principle, specialized evaluation procedures should be developed for the Directors of FSMLs. The annual review is an important process that not only aligns the priorities of the sponsoring institution with the FSML, but also aligns the performance of the Director with the mission, goals, and objectives of the FSML. Since no one at the sponsoring institution may have direct experience with FSML administration, it is highly desirable to establish periodic external reviews which include administrators from other FSMLs with established records of excellent administration. This recommendation is also important for stand-alone FSMLs, which often operate in administrative isolation from other similar institutions.

## E. Organization

### 1. Staffing and Responsibility Assignment

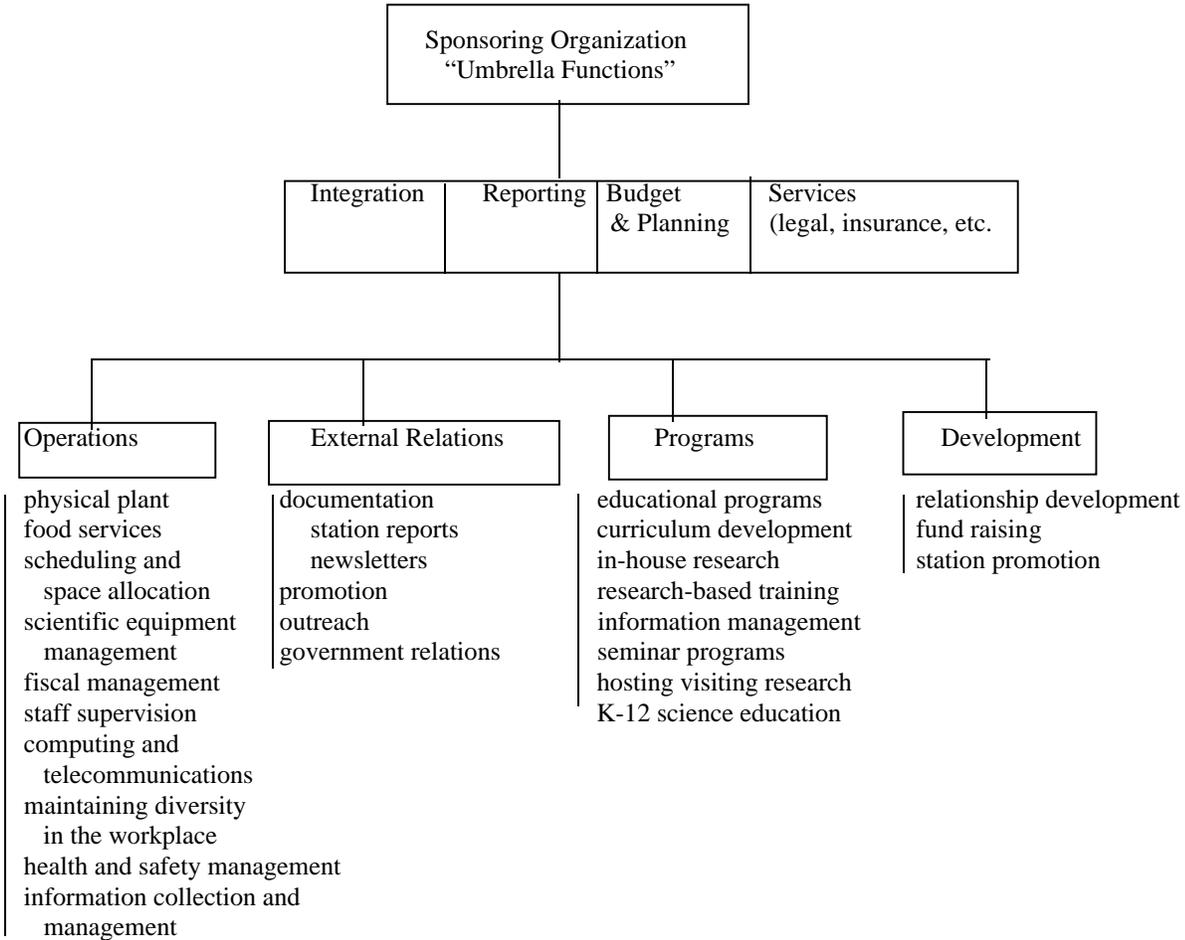
The administrative activities of a FSML can be organized in a task tree as illustrated in Figure II.E.1. The scale of the station's activities determines the level in the tree at which FTEs are assigned. For most FSMLs, the sponsoring institution provides a number of "umbrella functions". These might include ultimate fiscal responsibility, accounting and auditing, purchasing, risk management, human relations, legal services, and transportation services. However, the FSML, because of its remote location, often performs at least portions of these tasks or faces significant challenges in coordinating sponsoring institution functions with FSML on-site needs and functions. This situation creates inevitable dissonance in budget, reporting lines, and information flow. This dissonance leads to conflict, and can contribute to a 'them' vs. 'us' fingerpointing culture which greatly undermines effective administration. Understanding the source of the conflict in the manner described above can help to resolve these issues and find solutions.

In developing a task chart similar to Figure II.E.1 for a FSML, tasks not pertinent to the mission or situation should be removed and others unique to the facility should be added. For example, many nature reserves will not have dining services if they do not have a resident population of students or scientists.

Job titles at the FSML should describe the nature of the staff member's duties as closely as possible, while preserving future flexibility in responsibility assignments as the FSML and the staff member's capabilities grow. Official job titles with the sponsoring institution often will not match the FSML functional job titles, since the official job titles must be taken from the sponsoring institution's taxonomy of job titles. Due to differences in scale, the division of responsibilities among job titles will differ between the FSML and the sponsoring institution. This inevitably leads to substantial problems, including inappropriate actual activities in relation to job title, inappropriate pay scale associated with the level of responsibility and experience, inadequate

avenues for pay and position advancement. Ideally, the sponsoring institution will address this by adding a set of job titles specific to the FSML personnel.

**Figure II.E.1. Task Chart for FSML**



## 2. Organization Chart

Every FSML should develop an organization chart that links tasks that need to be performed to positions that people fill. There is no one typical organizational chart since FSMLs vary greatly in size of operation and number of personnel. See **Figure II.E.2** for a sample basic organizational chart for FSMLs.

The flow of information up the organizational chart to the sponsoring institution, and the flow of funds, expectations and information back to the FSML from the sponsoring institution, are critically important. Ideally, all information flow, budget lines, and reporting should be in parallel. When these lines are not parallel, administrators of units at the institution end up being

asked to fund staff or activities they do not ordinarily fund. For example, the Director of a moderately large field station reports to the Chair of Biological Sciences, and the operating budget of the field station is derived entirely through that department. This field station, like all field stations, requires custodial service. On campus, custodial service is performed through Facilities Management and is off-budget for the departments. The result is that custodial services are a source of constant conflict, with the Department believing that it is not their responsibility to fund custodial services, and Facilities Management seeing the field station as a remote outpost of the department, and not their responsibility.

The Director is the primary conduit for reporting to the sponsoring institution. Typically and ideally, the Director is responsible for all aspects of FSML administration, and is formally responsible for all reporting and information flow. However, because the FSML benefits from a number of umbrella functions performed by various units within the sponsoring institution, substantial amounts of informal reporting and information are exchanged laterally between personnel FSML and sponsoring institution staff. This is a necessary evil, but can cause serious difficulties for the Director if he/she is not kept apprised of developing issues that involve the lateral interchanges with the institutional administrative units.

The Director is responsible for the execution of all aspects of administration, but delegates execution to one or more staff members. In large FSML operations, authority for day-to-day operations is delegated fully to an Associate Director. This is critical if the Director is to accomplish the complex planning, integration, recruiting, fund raising, reporting, and public relations activities which are the most critical and least effectively delegated of the Director's responsibilities.

## F. Staffing and Human Resources

### 1. Employee Handbook

An employee handbook is an essential item in a FSML's repertoire of administrative policies. It provides an important foundation of legal protection for not only the FSML but for its employees. An employee handbook describes some of the expectations that an FSML has for its employees. It also outlines the policies, programs, and benefits available to eligible employees. Once this document has been established, it is important to keep it up to date. Additionally, it is important that all employees are familiar with this handbook and have an individual copy for their reference.

#### a. Handbook basics

The establishment of an employee handbook can be a large task. However, software is available to make the task less daunting. Additionally, the available software provides valuable legal templates for many issues. A popular software package for employee handbooks is "Policies Now". It has a long-term track record, and is widely used by human resources professionals. As of the writing of this document, "Policies Now" can be purchased for under \$100. It can be found at [www.amazon.com](http://www.amazon.com). Additionally, "Policies Now" offers handbook updates as new legislation comes into play. This service provides a valuable resource for keeping employee policies and forms up-to-date.

#### b. Handbook sections

Software such as "Policies Now" will assist with the development of the sections listed below. These sections are crucial portions of any employee handbook.

##### i. Acknowledgment form

Employee handbooks should be given to each employee for their reference. "Policies Now" provides an acknowledgment form that employees must sign upon receipt of their

handbook. This provides a written record of an employee's receipt of the handbook. It is their responsibility to be familiar with its contents.

ii. Introduction

An employee handbook should begin by providing an introduction to the FSML. It should also include an introductory statement which defines the intended use of the handbook.

iii. Employment issues

General employment issues should be discussed in this section, such as the employment selection process and job posting. More detailed employment issues include:

- Equal Employment Opportunity
- business ethics
- immigration law compliance

iv. Employment status and records

This section may deal with items such as:

- the various classifications of employees
- personnel files
- reference checks
- probationary periods
- performance evaluations
- job descriptions
- salary administration
- promotions
- new hire/rehire policy

v. Employment benefits

Employees are usually keen on keeping informed of their benefits, and this section provides useful information for FSML staff. Issues discussed in this area can include:

- vacation, holidays
- sick leave
- health insurance
- any other applicable insurance coverage (life, disability)
- pension

vi. Timekeeping/Payroll

This section provides information on the specifics necessary for payroll timekeeping. It can include information on:

- timesheets
- paydays
- payroll termination
- severance pay
- deductions

vii. Issues of the workplace

There are many critical issues involved in the workplace, and they can be effectively addressed in this section. These issues would include:

- safety
- use of telecommunications systems
- smoking policy
- use of equipment and vehicles
- business travel expenses
- computer policy
- professional memberships

- viii. Leaves of absence  
The Family and Medical Leave Act (FMLA) is a federal law that is a requirement for certain employers. It provides for up to 12 weeks of unpaid leave during a 12-month period. To determine if a FSML is subject to the FMLA, please check the federal government's Department of Labor's website at [www.dol.gov](http://www.dol.gov). Additionally, if a FSML would like to provide any other types of leave, it may define those leaves in this section.
- ix. Employee conduct and disciplinary action  
It is critical to be able to provide written expectations of employee behavior and to spell out the steps involved in disciplinary action. Not only is it fair to provide employees with this information up front, it also provides a measure of legal protection for the FSML by making its policies clear and known. It is also crucial that all disciplinary actions be recorded in a written format, even if a verbal warning is given. A notation to the personnel file can be made. Again, this provides a measure of legal protection to the FSML, and it assures that everything is documented properly for the employee. Issues in this section include:
  - employee conduct
  - drug/alcohol use
  - sexual harassment
  - substance abuse policy
  - progressive discipline
- x. Miscellaneous  
Each FSML will have a variety of miscellaneous items that should be conveyed to its employees. Such items can include:
  - recycling
  - political activity policy
  - suggestion program
  - housing facilities

## 2. Staff Management

- a. Staff challenges  
There are a number of challenges that make managing staff at a FSML more difficult than in a more traditional institutional setting. These include:
  - i. All the tasks of a campus are being performed by a handful of staff.
  - ii. Staff easily feel overwhelmed by the number and kinds of tasks they must perform.
  - iii. Staff are simultaneously serving many of the groups represented by tasks in Figure II.E.1.
  - iv. Casual friendly atmosphere encourages direct interactions between users and staff.
- b. Factors limiting staff effectiveness  
The following factors should be thoroughly understood by FSML management. They serve to limit considerably the potential effectiveness of staff time and energy.
  - i. Prioritization is difficult.
  - ii. Frequent interruptions mean more time is needed to complete routine tasks.
  - iii. Personnel often feel as though everyone is their boss.
  - iv. The majority of time may be devoted to serving one group, but evaluation may be based on other criteria.
  - v. There is often friction between staff and users because nothing can be done "right" (perfectly) in a remote field setting.
  - vi. There is often a lack of self-esteem within a harried and demoralized staff.

- vii. There is a seemingly endless amount of work, making a sense of accomplishment impossible.
- c. Approaches to maximize staff performance and self-esteem  
Several approaches have proved effective at FSMLs for addressing some of these staffing issues.
- i. Each position should have a clearly written job description. Each employee should read and know their job description.
  - ii. Regular formal evaluations should be conducted, including:
    - Self-evaluation.
    - Open two-way discussion of problem areas.
    - Praise for areas of responsibility which have been well carried out.
    - Clearly stated areas in which improvement is warranted.
    - Clearly stated goals with a timeline and criteria for establishing whether or not goals are met.
    - Clear action items for the supervisor when a need for changes in supervisory approach arise.
  - iii. Regular group staff meetings, which include:
    - Some encouragement or 'cheerleading'.
    - Review of activities in recent past. Were goals achieved? If yes, praise. If no, what prevented them from succeeding?
    - Establishment of goals and priorities for upcoming time period, including:
      - Time lines for tasks.
      - Specific assignments of responsibility.
      - Review of necessary information to be communicated during and at completion of task.
      - What to do if things spin out of control.
    - Opportunity for conflict resolution.
  - iv. Protocol for user requests for staff service
    - Solicit input from users about the immediacy of need, but don't let users control priorities for staff.
    - Establish a 'nerve center' where requests are made. This would be a point person or request form.
    - Train staff to direct user to the appropriate protocol.
    - Back up the staff when user challenges the staff member's adherence to established priorities.
  - v. Providing opportunities for training and professional advancement.

## G. General Policy Development

It may be helpful to consider the following questions when developing any policy or guidelines.

- 1. Are there any laws that may affect the development and implementation of a policy?
  - a. Are there, for example, state laws that govern employment policies? Note that public FSMLs may be subject to more regulations than private FSMLs.



4. Are there other factors, such as highly sensitive and unique habitat, that may necessitate formal use restrictions? For example, is the habitat sufficiently sensitive and unique (i.e., pygmy forest) to warrant a ban on manipulative research? Perhaps conservation easements or other preservation tools would be appropriate for some FSML lands.
5. Have there been recent changes in federal or state law that may necessitate developing new policies or revising existing ones? For example, changes in state law governing the possession of firearms on certain remote university/college properties may require new signs or rules about firearms that are consistent with the new law.
6. Have there been recent developments related to research that may necessitate developing new policies or revising existing ones? For example, where there is growing concern about the introduction of non-native genotypes, it may be appropriate to review and update existing policy on research.

## H. Liability and Insurance

In our highly litigious society, institutions are concerned about liability issues. This concern may be heightened when the FSML sponsoring institution is either a large state university or is otherwise well endowed, because it can be viewed as having “deep pockets” by a potential plaintiff. In certain regions of the country where lawsuits are more prevalent, institutions are far more sensitive to this issue. Lack of institutional familiarity with the FSML program can sometimes lead to problems if administrators anxiously seek to curtail certain kinds of FSML activities in an effort to reduce exposure to liability. Even though the FSML Director should not be expected to understand the intricacies of tort law, nevertheless it may be instructive to understand how institutions seek to reduce liability risk, and to have a basic understanding of any laws that may provide tort immunity for the FSML. In addressing liability issues, keep in mind two key institutional resources: the risk manager and legal counsel.

### 1. Reducing liability risk

#### a. Development of safety protocols

The simplest way to minimize tort liability is to assess the particular risks at the FSML and develop appropriate safety guidelines or protocols. It is advisable to engage the institution’s risk manager in this process. That person could provide valuable assistance not just in the development of the safety rules but also in locating funds for necessary maintenance in the interest of reducing liability risk.

#### b. Use of waivers and releases

The use of releases or waivers for certain types of activities that are viewed as “high risk” is a common means of reducing liability risks and reducing legal costs that result from defending lawsuits, including frivolous lawsuits. These documents are intended to relieve the FSML and/or governing institution of liability for certain types of claims and lawsuits.

A signed liability release can assist with mitigating some of the risks associated with the remote sites and natural hazards that are part of most FSML experiences. Expert legal advice should be solicited in formulating a liability release. Every participant in FSML activities, including staff, visitors, researchers, family members, undergraduate or graduate students, field trip participants, and school children attending programs, should sign one.

### 2. Assessing Liability Immunities

Each state has a body of law relating to tort immunities. Sometimes these laws are focused on the immunities inherent in a nonprofit organization and sometimes the focus is the particular hazard, such as recreation, trails, natural features, etc. For example, usually the Board of Directors and administrative staff are indemnified from the consequences of decisions they make, except in cases of “gross *and* intentional negligence”. Every FSML Director should consult an attorney experienced with these issues to request a written opinion on the nature of tort immunities that might apply to the FSML activities. This written opinion will assist greatly in properly formulating policies, waivers, releases and other documents that seek to explain risk.

### 3. Insurance

Many FSMLs receive insurance and liability protection from their sponsoring institution. For those that have to purchase such policies themselves, they can be a massive annual expenditure. Independent field stations often pay in excess of \$25,000 each year for insurance policies that cover the liability of trustees, staff and other decision-makers for values up to \$5 million or more.

A number of universities are self-insured, and some field station consortiums have investigated this avenue. Those FSMLs that are covered by sponsoring institutions are more likely candidates than are independent FSMLs. The costs of just one nonfatal automobile accident involving students can rapidly exceed \$500,000.

## I. Consortiums and Other Formal Associations

FSMLs are generally embedded in a regional landscape of mixed ownership and usage. Some of the individuals and organizations share objectives with the FSML, and partnerships can often be productive for the FSML. These partnerships often start out informally, but as investment and dependence on the shared enterprise or resource grows, it becomes increasingly valuable to codify the relationship, making the mutual expectations and responsibilities legally explicit.

### 1. Kinds of agreements

#### a. Consortiums

A consortium in a FSML context is a formally constituted group of universities, colleges, or other entities that utilizes FSML facilities for teaching, research, and outreach activities. Some examples that may serve as guides to establishing a consortium include Au Sable Institute of Environmental Studies, Hancock Biological Station, Highlands Biological Station, Iowa Lakeside Laboratory, Malheur Field Station, Pymatuning Laboratory of Ecology, and Reis Biological Station. Each of these stations and others can be contacted to determine how their consortium was established, what are membership requirements, how much dues cost, and what their members are entitled to do at the host station. Some general aspects of a consortium are briefly mentioned below.

There is no single model under which consortiums operate. However, all FSML consortiums do have at least three goals in common:

- i. increasing visibility
- ii. increasing activity
- iii. providing a source of operating funds.

In establishing any consortium, the mission of the consortium first must be defined and should be consistent with the mission of the FSML and its home institution. A consortium that is not in line with the mission of the host institution runs a risk of failure either by not being supported by the higher administration or by overwhelming the primary mission of the

FSML. The consortium should have some implied or explicit mission for biological or ecological research, education or research training.

In the simplest form, consortium members are entitled to conduct field trips throughout the year, teach summer classes, and conduct research. In most consortiums, membership implies an annual fee or at least some type of financial support from member institutions. In the Pymatuning example, support comes in the staffing of summer courses paid for by the member institutions. In other consortiums, members pay a set fee. At Hancock there are several levels of membership: full research/teaching members (\$1000/yr), teaching members (\$500/yr), and junior college members (\$250/yr). Junior college members utilize the facility solely for field trips throughout the academic year. Teaching members (primarily undergraduate universities) have a say in the summer courses to be offered and provide the instructor for at least one of these. Research/teaching members also are part of the summer teaching program. Further, they have use of research boats, general laboratory facilities, and assist in the acquisition of specific research equipment. Research/teaching members include not only Ph.D. granting institutions but also government agencies such as Tennessee Valley Authority and Kentucky Division of Water.

Revenues derived from consortium dues should be designed to meet basic member expenses, but memberships should be kept affordable. The real revenue stream from consortiums comes not in the dues but in the money that is generated in tuition/course fees (assuming that students register for courses through the station) and in room and board fees. If it is an active, well planned consortium, these fees can be extensive.

Establishing and maintaining a consortium requires quite a bit of work and planning, particularly in the early years. If in doubt, start small. A consortium can begin with two or three members, with perhaps no fee or a greatly reduced fee in the first year or two. Use those initial members to plan how to proceed, to determine the goals and mission of the consortium, and to plan one or two consortium activities. Initial activities could be a joint summer course, a symposium, or anything that might increase the visibility and activity levels of the station and the consortium. Let the initial group determine the structure and bylaws of the consortium. Involve higher administration wherever possible along with the provosts, deans, and chairs of the consortium members. Keep in mind that the consortium links not only the FSML programs of the members, but also the universities as a whole. Further, most often it is the dean or provost who pays the consortium membership, and that person must select from a number of consortium opportunities open to a university.

b. Use agreements

Use agreements are legal contracts. These contracts insure the long-term viability of FSML use of adjacent real estate, and are entered into with private landowners or non-governmental and governmental agencies. Important considerations include:

- i. Limitations on acceptable uses.
- ii. Limitations on landowner's rights to engage in activities which compromise FSML activities.
- iii. Duration of agreement.
- iv. Liability issues.
- v. Exchange of information regarding use and management changes.
- vi. Access.
- vii. Built structures and permanent equipment installations.
- viii. FSML's stewardship responsibilities.

c. Other formal agreements

There are a number of types of formal agreements, often individually called a "Memorandum of Understanding" that can be executed between a FSML and other public or private entities.

For example, The US Forest Service offers opportunities for such memoranda dealing with specific issues such as trails, research uses, etc. There are also “Special Use Permits” procedures for negotiating long-term research project rights on USFS lands. Similar opportunities exist with the US Fish and Wildlife Service and other state and federal agencies. Some activities in which FSMLs routinely engage are of great interest to public agencies, such as archiving and managing biological information. Providing archival resources for government agencies has given a number of FSMLs an advantage in dealing cooperatively with the government, especially for purposes of leasing research property.

## J. Personal Behavior

The control of personal behavior falls squarely on the shoulders of the FSML administration. Issues surrounding personal behavior can be rather complex because of the isolated nature of many FSMLs. People living or working at remote sites are often not subject to the same peer constraints as provided by daily life at home. Less direct supervision of people occurs at FSMLs. Field facilities often have higher populations of less responsible college age or younger people. FSMLs often promulgate an atmosphere of informality and friendliness. Enforcement of rules and regulations at FSMLs tends to be less stringent. Those in charge of enforcing rules and regulations are often not present for extended periods of time, especially at the most remote facilities.

Many policies need to be formulated for the unique situations encountered at FSMLs. The following list are those behaviors for which policies should be developed at nearly all FSMLs. This list is not exhaustive. Some policies governing personal behavior may have already been addressed in detail by the parent organization. Most FSML policies will be developed by facility staff, faculty, and users.

Policies governing personal behavior need to be widely circulated and discussed. Each person using FSML facilities should sign a statement indicating that they have read the appropriate policies and agree to abide by them. Specific sanctions for noncompliance, such as expulsion, revocation of certain privileges, cutting firewood for everyone, cleaning latrines with a toothbrush, etc., should be stated in writing. Enforcement of policies falls on all station personnel including the Director, staff, faculty, and other FSML users.

### 1. Alcohol and Drug Use

Alcohol and drug use often underlie many problems encountered with personal behavior at FSMLs. Drinking and driving is of special concern. Local, state and federal laws govern alcohol use by age, and prohibit drug use. Policies may have been developed by the parent organization that cover the same territory. Making all station personnel and users aware of drug and alcohol policies in addition to enforcing these policies rigorously will go a long way toward avoiding problems with personal behavior at FSMLs. It is tempting to be lenient with alcohol use by students, staff or visiting researchers because of the remote nature of many FSMLs. However, in most states legally the Director of the FSML is *in locus parentus* and bears the same responsibility as a bar or restaurant owner for serving alcohol to intoxicated or underage persons.

### 2. Pets

Individual FSML policies vary. Most commonly, however, but pets are not allowed at field facilities because they disturb wildlife, interfere with research project design by introducing variables, disturb other facility users, and raise health and safety issues (bites, allergies, etc.). Most FSMLs do not have proper facilities for the boarding of domestic pets.

### 3. Recreation

Many recreational opportunities are available at FSMLs. Policies must be written to control recreational activities, especially in sensitive ecological areas. These policies will be necessarily linked to health and safety issues at a particular FSML (camping on the premises, swimming, boating, diving, trail use, mountain biking, climbing, hiking in remote areas, wildlife attacks, etc.).

Another type of recreation endemic to FSMLs is casual sexual activity. Some FSMLs provide free condom machines in neutral locations. Such an amenity could be mentioned in a personnel handbook. Otherwise, it is difficult to develop any formal policies for dealing with the many problems that result from this pervasive aspect of life at a FSML. A list of local counselors might come in handy for the inevitable questions about sexually transmitted diseases, depression, unplanned pregnancy, etc.

4. Firearms

The possession of firearms at a FSML will often be governed by its own rules, rules of the parent organization, or by local, state and federal regulations. At some FSMLs hunting may be allowed on land under control of the FSML or on lands adjacent to the FSML. Firearms may also be present on the premises for legitimate purposes such as protection from wildlife attack or predator control. Examine all local regulations concerning gun laws carefully, with an eye toward safety of people at the facility.

5. Vehicle Usage and Permits

Many types of vehicles are brought to FSMLs by users. Policies need to be developed to address their improper use (e.g., driving on off-limit roads) and where they can be properly parked. Many FSMLs discourage unnecessary driving and provide central parking areas.

6. Quiet Hours

Work at FSMLs is often informal but very intense. It is advisable to have a strong policy governing noise and quiet hours for those who go to bed early and get up early.

7. Visitors

Policies should be developed for registering visitors and for controlling their behavior. Unruly visitors and guests, who either do not know about behavioral rules or feel as if they are not subject to them, are just as annoying and disruptive as unruly residents. Visitors must be informed that they are subject to the same rules and regulations as FSML users. Many FSMLs simply do not allow overnight visitors.

8. Sexual Harassment, Discrimination or Bullying

There are federal and state laws that can help with development of policies pertaining to these issues. Unfortunately, due to the often hierarchical nature of relationships within a research team, the opportunity for abuses of power exists at FSMLs. These issues require very careful consideration and the solicitation of legal advice. FSMLs with sponsoring institutions can often use the institutional resources available to them to address these matters. Independent FSMLs might solicit assistance from other FSMLs of similar scope and size.

9. Computer, Telephone and Internet Use

The need for policies governing these activities at FSMLs has escalated over the past few years. The best approach might be to solicit examples of policies from other FSMLs, because the variety is tremendous. Issues to consider include how residents will receive phone calls or emails, how messages are provided to them, what phones are available for calling out, whether long distance service is offered, sign-up sheets for email access, how to apportion fairly a limited number of phone lines, whether computers are available for games or social contacts, etc. These issues can rapidly become extremely contentious.

K. Safety

Every FSML should develop safety procedures and provide them in writing to all users of their facility. The goal shouldn't be to "cover your ---", but rather to do the right thing because it's ethical. Often on-site training will be required for certain safety issues. Among topics to be considered for a safety handbook are:

1. Security, trespass and law enforcement  
It is important to establish procedures for dealing with criminal activity before it happens. Calling “911”, having a “duty officer”, suggesting nonviolent confrontation techniques, etc. are all possibilities to be considered.
2. Fire safety  
There should be established procedures for reporting fires, spreading an alarm, evacuation, etc. Again, a “duty officer” or staff person in charge will need to be designated.
3. Hantavirus, Lyme disease, poison oak/ivy, snakes, etc.  
There are protocols recommended by the Centers for Disease Control for addressing hantavirus. Every FSML should post these protocols in every residence, and cite them in a safety handbook. Several hantavirus deaths have taken place at FSMLs in the past few years. Other safety precautions should be mentioned, and medical contacts listed.
4. Water treatment  
Many FSMLs find that they are classified by their state government as a municipality when it comes to water supply. This classification is usually based on the number of simultaneous residents, and having a seasonal operation rarely justifies an exemption. A number of regulations pertaining to water treatment result from the classification. Even if a FSML is exempt from regulation for the purpose of providing domestic water, it is nonetheless important to be as certain as possible that the water supply is safe and free from contaminants. Keeping a record of regular water tests and their results is the first step in minimizing risk.
5. Disposal of waste  
Sewage disposal is regulated locally. Many FSMLs use septic systems, and need to be sure they can locate the cleanouts and can show that there is no contamination from aging leach fields. Some FSMLs are experimenting with biological waste disposal. Other areas of concern are liquid laboratory waste, and hazardous materials disposal. A policy of “what comes in must leave with the researcher” is most common at FSMLs, but compliance is often poor. This issue must be specifically addressed in a researcher code or handbook, and enforcement must be strict. One FSML Director inherited a secret cupboard with ancient lab chemicals from seven decades of noncompliance, including a 5-lb. disintegrating box of cyanide from 1929. Disposal was a nightmare. After a highly dangerous four-hour drive on mountain roads, it was accepted by a sympathetic researcher who slipped it into her department’s official hazardous waste disposal process. This is not the recommend manner of handling hazardous waste disposal!
6. Scientific diving  
Scientific diving is a serious safety issue for freshwater and marine laboratories. Whether or not to offer a scientific diving program is an important administrative decision. Here is a brief overview of some of the issues to consider.
  - a. Criteria  
Scientific diving means diving performed solely as a necessary part of a scientific or educational activity by employees whose sole purpose for diving is to conduct scientific research tasks. Scientific diving does not include tasks associated with commercial diving, nor recreational diving outside the auspices of a scientific diving program. The Occupational Safety and Health Administration (OSHA) promulgated rules governing scientific diving (reference: Federal Register 47 FR 6335367 of 26 November 1982 and 50 FR 1046 of January 9, 1985). Federal law does not similarly govern recreational diving. To avail themselves of the exemption from the OSHA Commercial Diving Standards, scientific diving programs at

research institutions, state agencies, universities and colleges must fit the definition of scientific diving, have a diving program that includes a safety manual, and have a Diving Control Board with autonomous authority of the operational aspects of the diving program. Diving programs should be very criteria-oriented. Scientific divers, based on the nature of their activities, must use scientific expertise in studying the underwater environment and therefore are scientists or scientists-in-training. The purpose of a scientific dive project is the advancement of science, and thus information and data resulting from the project are non-proprietary.

b. Establishing a scientific diving program

To apply for Organizational Membership with the American Academy of Underwater Sciences (AAUS) a member organization scientific diving manual must be created. This manual will provide for the development and implementation of policies and procedures that will enable an organization to meet requirements of local environments and conditions, as well as to comply with the AAUS scientific diving manual. A member organization's scientific diving standards shall include, but not be limited to:

- i. The complete AAUS Standards for Scientific Diving Certification and Operation of Scientific diving programs (1990) or another member organization's manual which meets or exceeds this manual.
- ii. Provide documentation of the following topics for each diving mode utilized:
  - Safety procedures for the diving operation
  - Responsibilities of the dive team members
  - Equipment use and maintenance procedures
  - Emergency procedures
- iii. Establish a Diving Control (safety) Board, where the majority of its members being active divers, which shall have, at a minimum, the authority to:
  - approve and monitor diving projects
  - review and revise the diving safety manual
  - assure compliance with the manual
  - certify the depths to which a diver has been trained
  - take disciplinary action for unsafe practices
  - require the maintenance of a diving activity log for all qualified divers
  - assure adherence to the buddy system (a diver is accompanied by and is in continuous contact with another diver in the water) for SCUBA diving
- iv. All dive team members shall have experience or training in the use of tools, equipment and systems relevant to assigned tasks, techniques of the assigned diving mode, diving operations and emergency procedures.
- v. All dive team members shall be trained in CPR and first aid (American Red Cross standard course or equivalent).
- vi. Dive team members who are exposed to or control the exposure of others to hyperbaric conditions shall be trained in diving-related physics and physiology.
- vii. Each dive team member shall be assigned tasks in accordance with the employee's experience or training.
- viii. Each dive team shall have a designated person-in-charge who shall be at the dive location in charge of all aspects of the diving operation affecting the safety and health of all the dive team members. This person shall also have experience and training in the conduct of the assigned diving operation.

- ix. The designated person-in-charge will be responsible for implementing the Safe Practices Manual. This will include:
  - Safety procedures and checklists for diving operations
  - Assignments and responsibilities of the dive team members
  - Equipment procedures and checklists
  - Emergency procedures for fire, equipment failure, adverse environmental conditions, and medical illness and injury.
- x. The designated person-in-charge will also be responsible for pre-dive procedures, which include providing:
  - a list of emergency phone numbers for the closest decompression chamber
  - a list of accessible hospitals
  - a list of physicians available
  - notice of means of transportation and the nearest U.S. Coastguard Rescue Coordination Center
  - maintenance of first-aid supplies
  - the planning of a diving operation, which will include the assessment of surface and underwater conditions, thermal protection, dive team assignments, physical fitness of dive team members and repetitive dive designation or residual inert gas status of dive team members.
- xi. The designated person-in-charge will also conduct post-dive procedures which will include a check on the physical condition of the diver, instruct the diver to report any physical problems or adverse physiological effects and to warn the diver of the potential risks in flying after diving.

#### L. Legal Issues

Many sections of this handbook address legal requirements for a variety of FSML operations. When considering contracts, agreements, and other documents that obligate the FSML in a legal manner, it is important to understand the lines of authority within the FSML sponsoring institution or independent board of directors. It is also important to learn which administrator has the authority to approve and/or execute (sign) an agreement, and bind the institution under that agreement. The Director should learn what types of legal documents, MOUs, and other documents s/he may sign, and it is advisable to have that understanding in writing, in a letter of delegated authority. If a Director signs an agreement for which s/he has no the authority, the contract could, in certain cases, be held unenforceable.

#### M. Regulatory Environment

The regulatory environment at FSMLs is significant. Due to the health and safety requirements common to science instruction and the concomitant liability in dealing with students and the public in field environments, or where hazardous materials may exist, FSMLs are facing a growing number of new regulatory issues.

##### 1. Policies

FSMLs do not operate in a vacuum. Institutional policies and state and federal laws set limits on the development and operations of FSMLs. Within the limits of these externally imposed constraints a FSML must set its own policies to govern the behavior of users and the appropriate use of its facilities. Specific facility policies should address the following, as a minimum.

- a. Environmental health and safety
- b. Land use

- c. Equipment and vehicle use
- d. User behavior

## 2. Regulations

Regulatory issues will need to be considered during routine operations and also during planning processes at FSMLs. Some of the regulations to be addressed are:

- a. State and federal requirements relating to water supply and waste disposal, health, safety, labor, taxation, ADA compliance, personnel, and environmental quality.
- b. Special regulatory agencies, such as coastal commissions, conservation resource conservation districts, etc.
- c. Local regulatory issues such as water conservation, sewage disposal, weed control, zoning, building codes, and inspection procedures, licensing of vehicles and vessels, licensing of contractors.
- d. Fire safety regulations and the institutional, local and state levels.
- e. State, federal and local requirements relating to animal care and use of animals for research and teaching.
- f. Diving safety regulations from the American Academy of Underwater Sciences (AAUS).
- g. Vessel safety regulations from the U.S. Coast Guard.
- h. Licensing regulations for contractors.
- i. Licensing of vehicles and vessels at the local, county or state level
- j. Permits for research or educational activities on federal or state lands
- k. Miscellaneous scientific conduct permitting issues, such as bird-banding permit requirements, weed control regulations, trapping regulations, etc.

## N. Ecosystem Impacts

Many administrative decisions about programs and facilities, and especially policy formulation, can have both direct and cumulative impacts on the ecosystem of which the FSML is part. It is important to assess these impacts and decide which are acceptable and which are not. FSMLs usually are good about addressing the impacts of research activities on ecosystems, but typically ignore ecosystem issues stemming from educational, outreach and facilities management activities. Often the preparation of a land use or zoning plan brings impact issues to the forefront.

Policies to minimize damaging ecosystem impacts will need to be developed. Issues such as pets, exotic species introduction, foreign soils involved in landscaping or construction, trails and roads, transportation and deliveries, recreation, weed control, green architecture, etc. should be examined from an ecosystem impact perspective.

## O. Land Management and Stewardship

Land ownership confers certain responsibilities on a FSML involving stewardship and management of land resources. Leases of land for research or educational programs may or may not involve stewardship and management obligations. Those FSMLs with significant acreage to manage find that monitoring the condition of the land and managing it to retain certain ecological values can be time consuming and expensive.

The Land Trust Alliance ([www.lta.org](http://www.lta.org)) offers a number of resources that can assist with designing stewardship and management plans. Also, baseline monitoring protocols have been developed by the Long-Term Ecological Research Program funded by NSF ([www.lternet.edu](http://www.lternet.edu)).

As is true with assessing ecosystem impacts, issues surrounding land stewardship are often ignored or given low priority. Unfortunately, inattention to stewardship can reduce significantly the research and

educational resource values of a FSML over time. Hopefully FSML planning processes will provide land management issues with the explicit visibility that is appropriate to the importance of carefully stewarded land resources.

#### P. Volunteer programs

Most FSMLs rely on volunteers in some fashion. Board members, committee members, friends of the FSML groups, teachers and parents who accompany field trips, formal docent programs, and research intern programs are examples of volunteer programs that have been successful at FSMLs.

Managing volunteers can be extremely staff-intensive. They need to be recruited, trained and encouraged. Certain tasks are not appropriate for volunteers because of the inherent unpredictability of most volunteers as far as always being able to give their time. Some FSMLs make extensive use of volunteers but also devote a staff position to their management.

At a minimum, a FSML can keep a list of task that need accomplishing to have handy when a volunteer appears. Examples of appropriate tasks include newsletter mailings, library journal reshelving, filing, moving offices or labs, monitoring stream quality, bird-banding, data entry, giving tours, etc.

An emerging area of volunteer use is with research interns. These are students who need a summer research experience and are willing to pay their expenses in order to volunteer as a member of a research team. Some FSMLs coordinate the selection of these interns in a competitive process, and match them with scientists conducted research at the FSML who need summer assistance.

#### Q. The FSML Network

The informal network of FSMLs across the country and around the world has always been useful to individual FSML Directors who need assistance with some aspect of administration. In recent years efforts are being made to formalize the network and make the connections among FSMLs explicit. A 1995 workshop attended by 33 FSML directors urged that a functioning network would provide tremendous benefit not only to FSMLs but to the nation's scientific agenda (Lohr et al. 1995). A 1999 workshop began the process of formalizing the network (Stanford and McKee 1999).

Numerous advantages accrue to individual FSMLs from being a functional node on the FSML network. Sharing of administrative information, such as this manual provides, is only one benefit. Data-sharing greatly increases the intellectual importance of the science being conducted at FSMLs. Visibility to funding agencies and politicians is enhanced. Legal and insurance issues can sometimes be resolved better as part of a larger network.

There are two organizations that facilitate the FSML network. These are the Organization of Biological Field Stations ([www.obfs.org](http://www.obfs.org)) and the National Association of Marine Laboratories ([www.naml.org](http://www.naml.org)). The LTER Network Office ([www.lternet.edu](http://www.lternet.edu)) is available to provide specific information on the hardware and software requirements for connectivity that permit maximum participation in a more formal network. The LTER Network Office staff are also accumulating information about policies and procedures that need to be developed in order to best utilize the power of the network.

#### R. Public Relations

An area of administrative effort that rarely receives the explicit attention it needs is public relations. An understanding of the larger community context in which a FSML is set can be critical to FSML survival. An investment in good public relations over time can be repaid hugely when there is a crisis

threatening the FSML. Additionally, ongoing good relationships with local and regional residence can help achieve a number of goals for a FSML, from permits for roads or buildings, to leveraging funding opportunities.

Few FSML Directors are skilled at public relations. Sponsoring organizations such as museums or universities have PR departments and officers, and these people can provide needed expertise. Independent FSMLs might have to contract for PR expertise, but a few hours invested in getting expert help reviewing PR opportunities and designing a few programs can be extremely beneficial.

#### S. Other Administrative Policies

There seem to be an infinite number of ways that time gets wasted at a FSML. One example is in responding to telephone or written inquiries about the facility, or to information requests such as “what is the recipe for hummingbird food?” Some of these situations need explicit administrative policies, but it can be tempting to go overboard and create a specific policy for every situation. Next the FSML will have to hire a “Policy Officer” just to keep track.

Experienced directors urge perspective regarding creating policies in response to routine situations. Often finding the right staff person can solve or minimize the problem. Also, judicious use of the internet can help greatly with processing some requests. Simply refer the questioner elsewhere...

#### T. Emerging Administrative Issues for FSMLs

There are a number of emerging issues that should be addressed by FSML administration. These topics are increasingly complex and require gathering a great deal of information before making administrative decisions about policies and procedures. The network of FSML colleagues can provide valuable information based on recent experiences with a number of these topics. Other scientific societies are also addressing these issues and have developed protocols and other archives of information.

The following list provides some examples of emerging issues. These are worthy of consideration for a variety of reasons, including increased regulatory compliance, liability concerns, safety issues, or rapidly advancing technology. Some of these topics are hot enough that there are new funding opportunities made available to FSMLs to address them.

1. Invasive species and control measures relating thereto.
2. Protected species.
3. Tissue repositories.
4. Emerging infectious disease and other pathogens.
5. Local and national resource management issues affecting land use or coastal planning.
6. Global change.
7. Environmental education and appropriate sites for conducting programs.
8. Long-term monitoring programs that generate increased information management requirements from the accumulation of massive amounts of data.
9. SCUBA compliance with AAUS.
10. Small boat procedures and regulation by the U.S. Coast Guard or other agencies.

#### U. Record-Keeping

Archiving administrative records should become an established routine for FSMLs. What to keep will depend on the nature of the FSML and whether there are responsibilities for generating academic transcripts. Long-term research records are especially important, as are lists of programs, person-days of attendance, and of course financial records. Some of the documents rarely considered but with

tremendous importance are road records, deeds, title insurance policies and any restrictions relating thereto, and easements. Every FSML should achieve the venerable age of 100 years, and old maps and field notes will be very important to future users. Each FSML needs to determine policies about record-keeping and maintaining archives.

### **Tables, Figures and Documents for Section II – Administration**

Table II.B.4 – Reasonable Objectives Over Time (*Source: S. Lohr*)

Figure II.E.2 – Basic Organizational Chart (*Source: S. Tonsor, D. Biesboer*)

Examples (fill in list as examples are provided):

- II. General Operations or Administrative Handbooks
  - University of Oklahoma Biological Station – Policies and Procedures (*Source: L. Weider, UOBS*)
- II.B. Mission Statements, Visions, Goals and Objectives
- II.C. Governance, Committees, Advisory Groups
- II.D. Directorship (Job Descriptions, Evaluations, etc.)
- II.E. Organization Charts
- II.F. Staff Structure, Employee Handbooks, Evaluations, Contracts
- II.G. Policy Compilations
- II.H. Liability Releases, Insurance Coverage.
- II.I. Consortium Agreements, Memoranda of Understanding, Special Use Permits, etc.
- II.J. Personal Behavior Policies (Alcohol, Pets, Recreation, Firearms, Vehicles, Visitors, Sexual Harassment, Computers, etc.)
- II.K. Safety Manuals, Hantavirus, Water Treatment, Diving, etc.
- II.L. Policies or Procedures Relating to Legal Authority Issues
- II.M. Regulatory Lists and Responses
- II.N. Ecosystem Impact Analyses
- II.O. Land Management and Stewardship Policies
- II.P. Volunteer Programs
- II.Q. FSML Network Requirements
- II.R. Public Relations Plans
- II.S. Other Administrative Policies