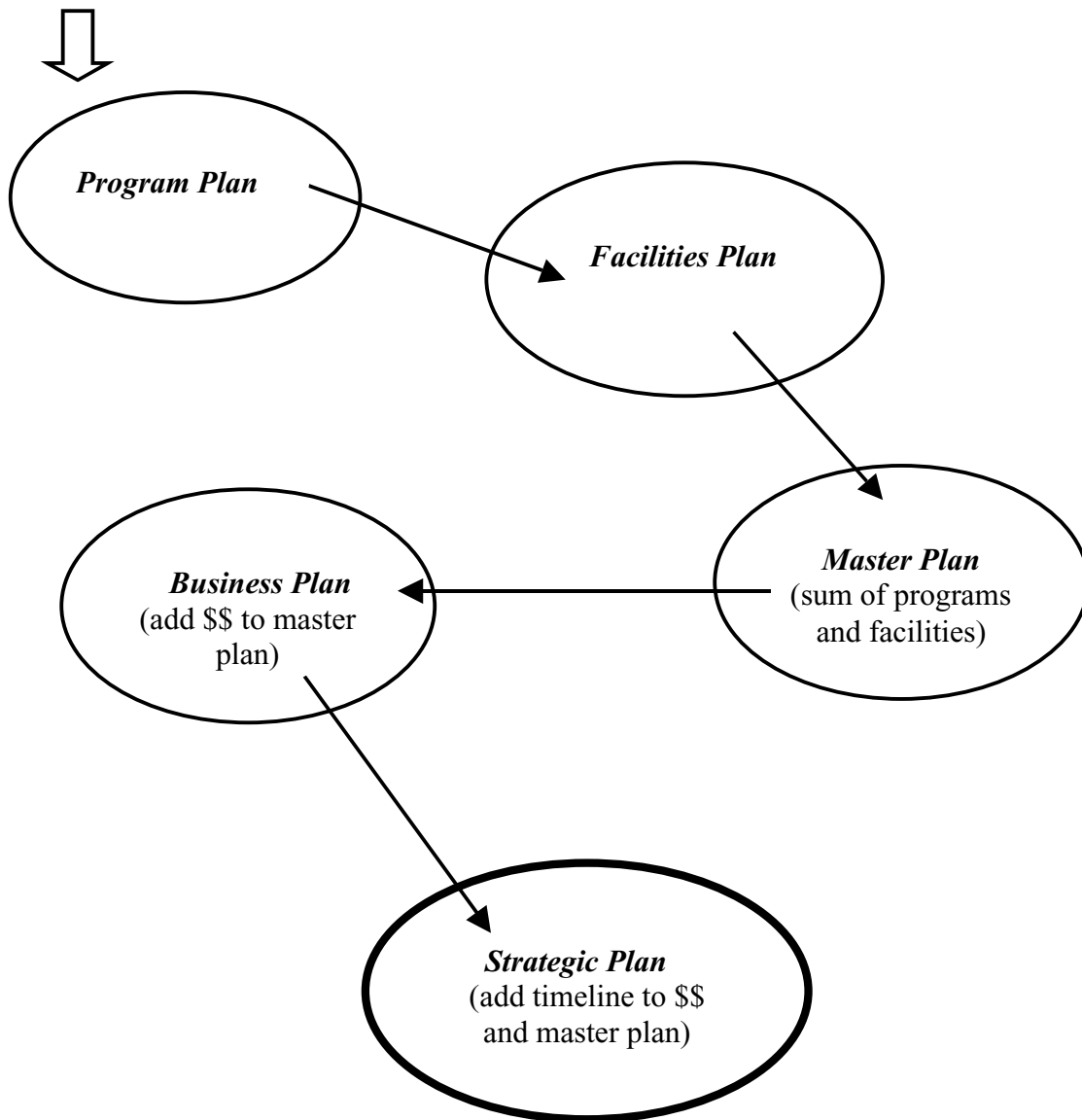**I.   Planning**

Good advance planning is essential to the success of a FSML. Some planning efforts should be obligatory and others are more *ad hoc*, depending on needs that arise over time. A basic planning principle is to include as many potential users or other interested parties as possible during the planning process. These parties are called stakeholders in planning jargon, and that is a good descriptive term because they have a stake or a vested interest in the success of the FSML.

The most important stakeholder is the governing institution or body, whether a university, museum or nonprofit board. The planning process should be sanctioned by the governing body. At least one representative from higher administration should be involved in the process, and preferably more.

FSML Planning Sequence

Begin here

Program Plan

Facilities Plan

Master Plan
(sum of programs
and facilities)

Business Plan
(add $$ to master
plan)

Strategic Plan
(add timeline to $$
and master plan)

A. Essential Planning (in appropriate chronological order)

1. Program Plan
   This is the plan that provides academic content for FSML activities. It is sometimes called an academic plan. Types of programs to be considered include research activities, both visiting and in-house, educational activities, and outreach activities. A Program Plan should derive from a committee that is composed of all types of users of FSML programs. The committee should seek broader input during its deliberations.

2. Facilities Plan
   This plan supports the program plan and evolves from it. Once the Program Plan is written and approved, a facilities planning committee should convene to address the best manner of providing appropriate facilities for programs. All staff and users of the FSML should be well represented, as should maintenance personnel.

3. Master Plan
   This plan is a combination of the program plan and the facilities plan. Once facilities to be used, improved, or constructed are agreed upon, a committee should be formed to incorporate the facilities and programs into a single document. The Master Plan also includes an articulation of the mission, vision, goals and objectives of the FSML. All programs and facilities should fit within these overriding organizational guidelines.

4. Business Plan or Financial Plan
   This plan lays out a financial road map for addressing the costs of programs and facilities. Examples for presentation of a business plan can be found in business software, such as Powerpoint. Usually this plan articulates principles such as 1) that there will be an annual subsidy from the governing institution, 2) cost centers for each program will be developed and income/expenses determined for each cost center, and 3) whether or not financial self-sufficiency is a goal.

   Every FSML should develop a business plan that outlines responsible business practices for operating the facility and specifies the financial expectations for each contributing entity. Usually a step-wise procedure is used for creating a business plan that leads to cost-recovery for a field station. Here are some suggested steps to follow:

   a. Recognize and quantify the fundamental institutional obligation.
      There should always be a fundamental financial commitment to the FSML from the sponsoring institution. Such a commitment is expected by donors and by outside funding sources such as the National Science Foundation (NSF) and other granting agencies. This institutional obligation should be calculated and agreed upon early in the planning process. For example, this commitment might cover the provision of core staff and a maintenance budget. Other noncash institutional contributions may include insurance, legal assistance, development office assistance, physical plant personnel, and access to the many resources a university provides its various departments.

   b. Cost center all activities.
      Determine the full cost of providing research space, courses, housing, food service, annual utilities, maintenance and deferred maintenance, depreciation, etc. by assessing the expenses associated with each area. (See **Table I.A.4.b** for an example of an analysis of personnel costs over time.) Include opportunity costs also, such as giving housing to staff that might otherwise be occupied by a paying user. This process will enable the FSML to initiate a cost recovery system. The basic cost of providing the facility can be divided by the number of potential daily users to develop a station use fee. Eventually this fee will lead to reducing and

then minimizing the basic expense to the university for providing the FSML facility. Fees for use of specific FSML services such as courses or housing can be calculated by knowing the cost of providing those services. It is critical for the FSML to have the freedom to set usage fees and not be unnecessarily constrained therein by university policies.

    c.   Determine which programs can legitimately recover costs.
There are a number of policy decisions that must be made to determine how to charge for FSML facility use. Should university faculty be charged for lab rental? Can faculty expenses be charged back to departments? If faculty have research grants, then they definitely should be charged use fees. Once areas of subsidy are recognized and accepted, space allocations need to be made for each type of activity, to avoid having all the space at the FSML taken up by subsidized programs, leaving no room for income-producing users.

    d.   Develop programs that recover costs.
There are an almost infinite number of possible programs that will pay fees for use of the FSML, and will also generate revenue to offset the university s financial obligation. Some examples are summer courses for high school, undergraduate, graduate and professional scientists and students, intensive workshops, corporate training or retreats, conferences relating to science and policy, and sponsored research with grant and overhead income. Any proposed program should undergo an effort/return analysis, and decisions should tend to promote those programs that offer maximum financial return for minimum effort, as long as the mission of the FSML isn t violated. See **Figure I.A.4.d** for an example of an effort/return matrix.

    e.   Grants, donations and gifts should be targeted in a focused development program.
Although fundraising shouldn t provide the basic operational income for the FSML, it certainly can be a significant component of overall financial health. Any opportunity to generate an endowment should be taken. For example, ideally a portion of funding for capital improvements would be set aside in a maintenance endowment to provide future annual income toward the expense of staff and materials for facility upkeep. Development consultants at the university will be very helpful in outlining realistic approaches to the wide variety of fundraising options available. Planned or deferred giving (wills, trusts, etc.) should not be overlooked.

  5.   Strategic Plan
This plan places the other plans in a timeline, so that anyone can pick a month in a given year and see what programs will be offered, what facilities will be needed for those programs, and what the financial picture will look like. This is the plan that prioritizes FSML activities. A strategic planning committee should create this plan by combining all other plans into a realistic schedule, usually monthly, that extends over at least a five-year period. The committee should have representatives from higher administration, FSML administrators, financial officers and program directors in order to generate the most realistic and achievable plan. The Strategic Plan becomes an operational road map. It is examined every year for accuracy, and adjusted as necessary so that a five-year timeline is always available for more specific operational planning. An excellent reference for FSML strategic planning is Director s Guide to Best Management Practices (Byrd 2000).

B.   Other Plans

  1.   Construction Project Planning Process
A construction project requires a very specific and focused planning process that evolves from the FSML program and facilities plans. A construction steering committee should be formed that will see the process through from beginning to end. The committee should have representatives of FSML administration, persons who will be using the facility, and physical plant personnel who

will be maintaining the facility once it is built. During active construction weekly meetings will be necessary, and committee members may need to be released from other duties in order to give the construction process enough time and attention.   See **Table I.B.1.a** for an example of a facility development process. See **Table I.B.1.b** for an example of tasks and personnel required for facility development.

2. Investment Plan
   This plan is usually developed within the policies of the governing institution, and applies to endowments, held funds for capital improvements, and other savings funds. For a stand alone FSML this plan will need to be articulated before fundraising is undertaken in order to appear fiscally responsible to funders.

3. Safety Plan
   In addition to a safety handbook that addresses specific issues, there should be a brief overall plan that articulates the FSML interest in addressing safety concerns, and states the principles that will be followed when a safety issue arises.

4. Emergency Plan
   What to do in various emergencies. This plan is usually part of a safety handbook.

5. Land Use Plan
   Often this plan is a unit within the Master Plan, but it should be developed as a stand-alone plan before being incorporated into the Master Plan. A Land Use Plan is a map with a narrative, and shows what activities are appropriate for what areas of the FSML property. Examples of uses to be considered for various locations include:

   a. Research — intensive, manipulated, experimental, observational? Lab buildings? Labs in cabins OK?
   b. Education — kids, visiting groups, college coursesclass research projects?
   c. Public Use — nature center, tours, special events?
   d. Residences — centralized or dispersed? Bathroom facilities?
   e. Administration — offices, library, collections room, computer facility
   f. Maintenance — centralized? Shop, metal work, vehicle maintenance?
   g. Parking — public, in front of cabins, near lecture halls?
   h. Trails — walking or driving?

6. Fundraising Plan
   This plan should show targeted donor audiences, funding goals from different sources, who does what regarding fundraising, annual campaign, capital campaign, etc. all set within a specific timeframe. See **Document I.B.6** for an example of a strategic fundraising plan.

C. Unintentional Consequences

One of the most common and insidious planning errors at FSMLs is an omission: not to plan for the long-term effects of a short-term program. Here are a few real-life examples of unintended consequences:

1. A limited term educational outreach program is very popular with the community around the FSML. When the program runs its intended duration and ends, the capacity to support the demand

is not there. Other examples include newsletters, open houses, annual reports, etc. that get started with best intentions, generate expectations, and then are terminated. Planning how to handle the consequences of program termination is important in order to minimize the adverse effects of disappointed users.

2. A three-year study that dramatically manipulates the land (adds nutrients, introduces non-native species/genes, etc.) can preclude future research opportunities, degrade natural habitat characteristics, or diminish the long-term ecological and research values of the research site.

3. The development of a computational networking environment or information management system without input from the users (i.e., the scientific community) can result in the need for a permanent full-time position (or more) to handle the resulting problems.

Tables, Figures and Documents for Section I — Planning
Table I.A.4.b — Personnel Costs Over Time *(Source: S. Lohr)*
Figure 1.A.4.d — Effort/Return Matrix *(Source: S. Lohr)*
Table I.B.1.a —Facility Development Process *(Source S. Lohr and P. Siri)*
Table I.B.1.b — Tasks and Personnel for Facility Development *(Source: S. Lohr)*

Examples (fill in list as examples are provided):

I.A.1 — Program or Academic Plans
I.A.2 — Facilities Plans
I.A.3 — Master Plans
I.A.4 — Business Plans
I.A.5 — Strategic Plans
I.B.1 — Construction Plans
I.B.2 — Investment Plans
I.B.3 — Safety Plans
I.B.4 — Emergency Plans
I.B.5 — Land Use Plans
I.B.6 — Fundraising Plans
       Strategic Fundraising Plan, Gunnison Ranchland Conservation Legacy *(S. Lohr)*