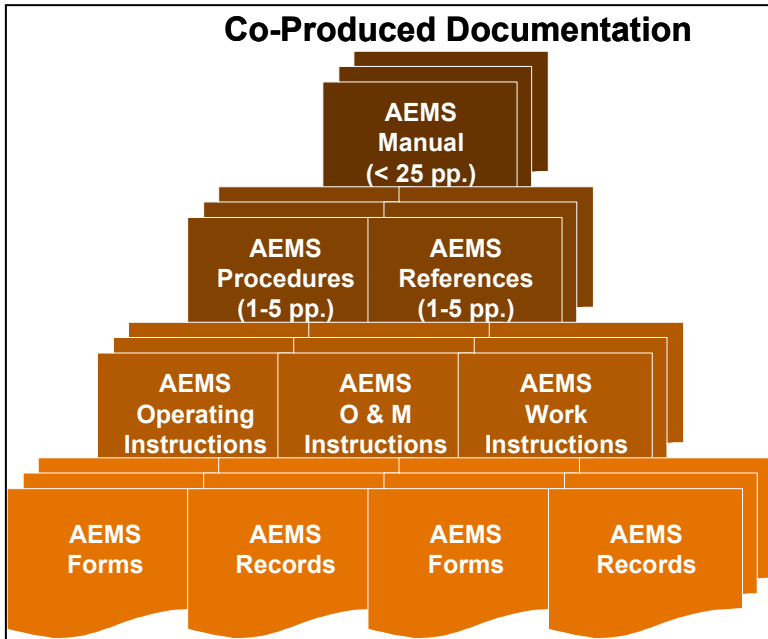


A reliable AEMS needs four document types, which include:

- AEMS manual;
- AEMS procedures;
- AEMS work instructions; and
- AEMS forms and records (Godfrey, 1996).



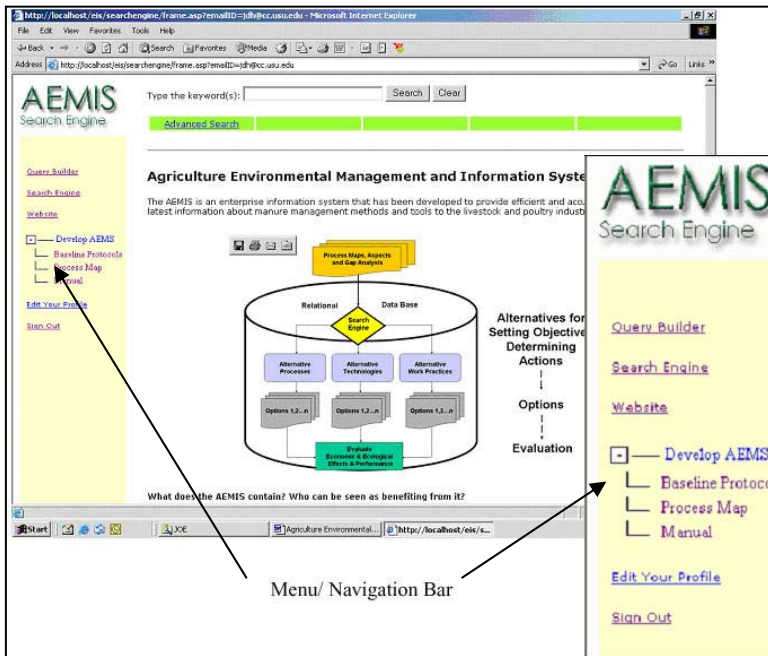
This fact sheet describes the development of the AEMS manual in detail; a basis on which producers can co-create their AEMS manual.

Purpose of the AEMS Manual

Cooperators co-produce their AEMS Manual unique to their farms to serve the following purposes:

- Provide an overview/map of the environmental management system they adopted;
- Document the rational behind their practices;
- Provide an outline of their broad policies and objectives; and
- Include references to the procedures used on their farms.

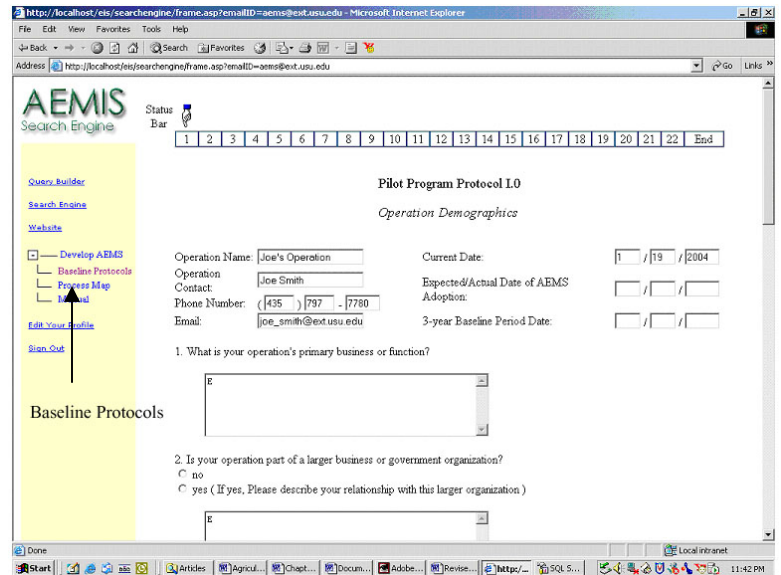
The AEMS Manual also serves as a control function for all other documentation associated with the Agriculture Environmental Management System. As such, the Manual will assist operators in meeting or exceeding the requirements of their UPDES permit and their CNMP.



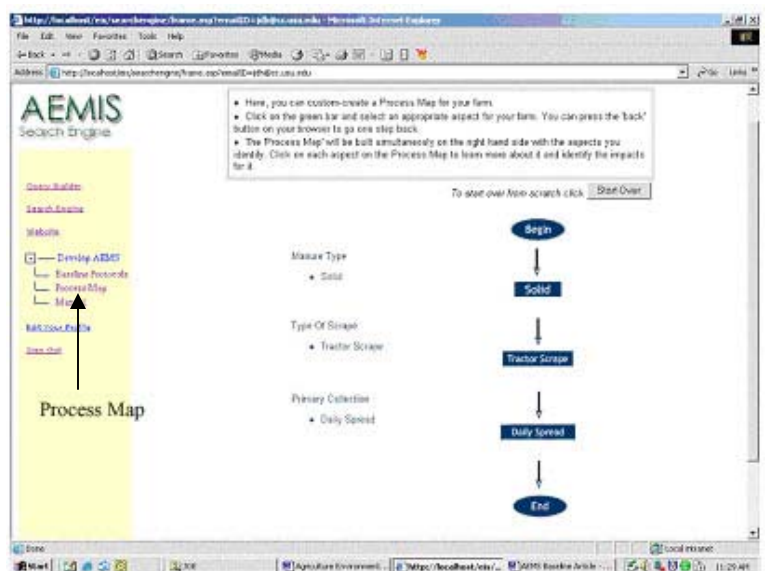
AEMS Manual Co-production

Co-production of an AEMS manual begins when a producer logs into the USU Agriculture Environmental Management Information System (AEMIS) on the USU AEMS website (<http://aems.aste.usu.edu>) as a guest or cooperator. Once in the system, the user can find all the capabilities associated with this very powerful tool. The figure on the left shows the user interface for AEMIS. The producer can then click on the link 'Develop AEMS' on the menu that appears on the left-hand side of the screen, which reveals a three-step process for developing an AEMS manual.

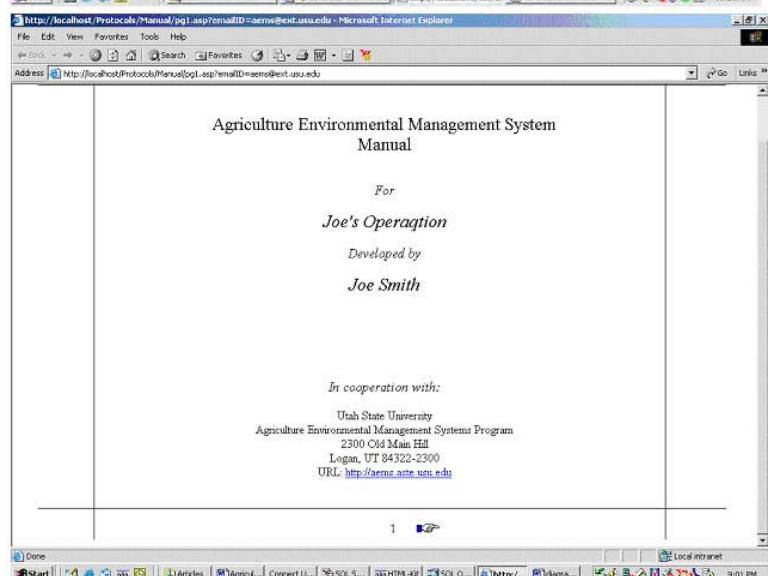
By clicking on the 'Baseline Protocols,' the producer begins the first step in developing the manual. The Demographics and Baseline Study pages are an electronic version of the National Database on Environmental Management Systems (Environmental Law Institute, 2000). Similar to the national study, Baseline Protocols are one-time studies, and as soon as an operation decides to participate in the system, data are collected. The data collected are used to assess how (if at all) the adoption of an AEMS affects an operation's performance, it is critical to measure a pre-AEMS baseline from which changes in performance can be measured. Also, recognition must be made of operations that have made substantial progress in implementing AEMS prior to joining, since it is likely that these operations will have already made environmental and economic performance advances in the past, and thus may show less significant improvements after joining. The figure on the right shows the first page of the baseline protocols, which is explained in detail in USU Extension Fact Sheet #AG/AEMS-07 entitled 'Agriculture Environmental Management Systems Baseline Protocols.'



In the second step, producers are able to tailor a 'Process Map' suited to their own farm that can be referred to at any time, once the user logs in. This method breaks the manure handling system into manageable portions by delineating every process and support activity on a process flow diagram. This feature makes this step the easiest and most comprehensive way of identifying environmental aspects. It is referred to as the 'Process Flow Approach.'



Each 'aspect' of the process map has various 'impacts' associated with it. The user can rate the impacts on a numeric level. Then each process and activity is individually examined to identify associated aspects. This approach expedites the identification of aspects in relation to those processes and activities. It has the added benefit of fulfilling the operational control condition to "identify those operations and activities that are associated with identified significant environmental aspects" (ASQ, 1996). The figure on the right shows a simple process map method that is more thoroughly discussed in USU Extension Fact Sheet #AG/AEMS-08 entitled 'Agriculture Environmental Management Systems Electronic Manure Handling Process Map.'



The final step is to create the AEMS manual itself. This initiates a database search for the data from the base-line protocols and the process mapping. Data are electronically inserted into the appropriate locations within the

