

A-Team Meeting Minutes for 07/27/04 and 07/28/04

Location: Holiday Inn; Moline, IL

Meeting Attendees:

John Sullivan; WDNR	Janet Sternberg; MODOC	Marvin Hubbell; USACE
Chuck Theiling; USACE	Valerie A. Barko; MODOC	Jeff Houser; USGS
Rob Maher; ILDNR	Dan Kirby; IADNR	Tim Yager; USFWS
Brian Gray; USGS	Dave Moeller; IADNR	Barry Johnson; USGS
Walt Popp; MNDNR	Clint Beckert; USACE	Dan Wilcox; USACE
Kevin Stouffer; MNDNR	Tom Boland; IADNR	T. Miller; USACE
Mark Pegg; INHS	John Pitlo; IADNR	Yao Yin; USGS
John Chick; INHS	Linda Leake; USGS	Shirley Yuan; USGS
Mike Steuck; IADNR	Roger Perk; USACE	Jennie Sauer; USGS
Larry Robinson; USGS	Mike Caucutt; USGS	

07/27/04

Meeting called to order by John Sullivan at 12:47 p.m.

J. Sullivan provided a welcome and introductions took place.

The agenda was reviewed and minutes from the April meeting were reviewed.

Tom Boland: Made a motion to approve the April minutes.

John Chick: Seconded the motion.

Minutes were approved unanimously.

R. Perk provided a handout outlining tasks to be performed by the technical meeting, per the instructions of EMPCC from a meeting in LaCrosse on June 24 and 25, and outlined the assumptions for the tasks.

BASE ASSUMPTIONS—Roger expressed the desire to use a 5-year planning horizon for the LTRMP that will fit at a \$19M funding level for EMP over the next 5 years with 23% savings and slippage, and an inflation rate of 4.1%. The goal is to define what the program will consist of at \$3.5M firm (after S&S and inflation). This was termed the minimal sustainable program. If the group cannot reach consensus on what represents the minimal sustainable program the Corp will determine what represents the minimal sustainable program. The base program will consist of the minimal sustainable program (\$3.5M) with additional funds on a year-to-year basis for use on additional program elements.

J. Chick questioned what would happen if funding fell below \$19M for EMP

R. Perk stated that relatively speaking \$19M would sustain the program at \$3.5M, but major cuts in funding would have costs.

Additional base assumptions were that the Corp and USGS will continue as partners and roles will remain similar—there will be changes, but the basic structure will be maintained. Also, there will be a field station maintained in each state

H1

5 year LTRMP Strategic Plan

Results and Assignments from the June 24 and 25 Special EMP-CC Meeting

Program Management Assumptions:

- A. Five year planning horizon
- B. Level annual EMP appropriation of \$19 million for each of the next 5-years.
- C. Average fiscal year saving and slippage and Presidential rescission rate of 23%.
- D. Average annual rate of inflation of 4.1% during the entire 5 years.
- E. That the "minimal sustainable" program would be directly indexed to inflation in order to maintain a stable program for the entire 5 years.
- F. That the FY05 starting point for funding the "minimal sustainable" program should be \$3.5.
- G. That the Partnership would recommend a "minimal sustainable" program.
- H. That any funding available to LTRMP above that needed to fund the "minimal sustainable" program would be used to fund efforts contained in the LTRMP Operating Plan.
- I. That any changes to the program resulting from this effort should attempt to maintain as much of the existing scientific integrity of the LTRMP program as practical.

These Program Management Assumptions result in the following breakdown in funding for FY05.

Annual EMP Appropriation	\$19,000,000	
Saving and slippage (23%)		(\$ 4,370,000)
UMRBA		(\$ 28,000)
Independent Tech. Review Comm.		(\$ 50,000)
Public Involvement		(\$ 30,000)
Program Administration		(\$ 180,000)
Sub-total		(\$14,342,000)
HREP Allocation (68.6%)		\$ 9,838,612
LTRMP Allocation (31.4%)		\$ 4,503,338
COE LTRMP Management (MVR, MVS, MVP)		(\$ 140,000)
LTRMP Sub-total		\$ 4,363,338
"Minimal Sustainable" LTRMP		(\$ 3,500,000)
FY05 Funding available above "Min. Sus." \$		(\$ 863,338)

“Additional Program Elements”

“Minimal Sustainable” Program - means that portion of the LTRMP program that will remain in place during the 5-year planning period and will be annually indexed to inflation to cover cost increases. The exact program elements that will be included in the “minimal sustainable” program will be defined by this strategic planning process.

“Additional Program Elements” - refers to the additional increment of LTRMP work that can be done annually above and beyond the “minimal sustainable” program. Work in this category will be paid for by funds in excess of \$3.5 million (FY05 dollars) up to the annual LTRMP funding appropriation. EMP-CC did not make a formal recommendation on how to handle the SOW for items in this category. Option include:

1. *Work items in this category would require a separate annual Scope of Work (SOW), which would include milestones and products.*
2. *Items in this category would be outlined in a SOW for the entire 5 years of the planning period and would include milestones and products.*

Key to font types for this report:

Regular	Refers to those items for which the group reached consensus at the June 24 & 25 special EMP-CC meeting.
Bold	Refers to those items, which were referred to the ad hoc technical committee for further evaluation and recommendations.
<i>Italic</i>	<i>Refers to those items for which the EMP-CC will consider for final action but do not require additional input from the ad hoc technical committee.</i>
Underline	<u>Refers to items not addressed at the meeting but identified as possible “additional program elements”.</u>

Defining the “Minimal Sustainable” Program

The following is intended to help clearly define those portions of the LTRMP that are considered part of the “minimal sustainable” program.

In general the largest proportion of the “minimal sustainable” program is directly associated with component monitoring (fish, aquatic vegetation, water quality and macroinvertebrates). The following summarizes the actions taken at the June 24 and 25 meeting.

I. Component Monitoring portion of the “Minimal Sustainable” Program

A. Key Activities Associated with Component Monitoring.

The group agreed that the following are those activities associated with component monitoring that should be budgeted for as part of the “minimal sustainable” program. The intent is to include those activities that are associated with the collection, management, basic analysis and serving of component data. Any work item not specifically identified as being part of the key activities associated with component monitoring would be identified separately in the SOW and paid for from funds in excess of \$3.5 M (in FY05 \$). Key activities associated with component monitoring needs to be clearly defined, however the following is general guidance of what is included:

1. Data program
 - a. Field data collection.
 - b. WQ Lab
2. QA/QC of data.
3. Data management and serving (includes maintenance of existing capabilities)
4. Annual reports.
 - a. Annual component reports
 - b. Annual “running” analysis of data. (Needs to be defined)**
 - c. Internet posting of annual component data.
5. **Maintaining existing Internet Tools. (Needs to be defined)**
6. **Equipment Refreshment (Needs to be defined - % of budget or set amount)**
7. **Data Analysis beyond that identified in I. A. 4. b. (Needs to be defined)**

- B. *Field Station Network – The group considered the option of consolidating the two Illinois field station but continuing to monitor the La Grange trend pool. The estimated savings would be from \$205,000 to \$223,000 annually. The group expressed support for maintaining the existing network of six field stations however reserved the option of consolidating the two Illinois field stations (UMESC will coordinate with the state’s to refine details).*
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- C. *Macroinvertebrate Component* – The group did not want to direct this item to the ad hoc technical committee for additional input. However, they did identify several alternatives that would be considered based upon available funding. These options include:
1. Keep as is with no changes.
 2. Drop as a component of the “minimal sustainable” program.
 3. Sample at only a portion of the field stations.
 4. Evaluate change detection capabilities of this component. Including:
 - a. Trend detection
 - b. Quality control
 - c. Application to entire river.
- D. **Fish Component** – The group fully supported inclusion of this component in the “minimal sustainable” program. The group asked that the implications of a 25% and 50% sampling reduction be evaluated. To accomplish this several proposals to reduce costs and to possibly modify component monitoring procedures were considered. These included:
1. Monitoring period could be adjusted from being based on the calendar to being based upon water temperature ranges. This would not be a financial saving but may help to improve sampling effectiveness. The ad hoc technical team was asked to make a recommendation regarding this issue.
 2. Component management. Options discussed included:
 - a. No change
 - b. To fully implement this component with a corresponding reduction in the level of effort for other components.
 - c. Field stations take on additional responsibility related to data collection and analysis.
 - d. Creation of multi-disciplinary teams at field stations. This would result in a person taking on primary responsibility for more than one component and for field crews to collect data on more than one component when out sampling.
 3. Adjust sampling effort. Options included:
 - a. No change in existing procedures.
 - b. Continue sampling in all three periods but with fewer gears.
 - c. Sample in only two periods but with all gears. (See I. D. 1. for option)
 - d. Sample in only one period but with all gears. (See I. D. 1. for option)
 - e. Sample every other year but with all gears in all periods.
- E. **Aquatic Vegetation Component** - The group fully supported inclusion of this component in the “minimal sustainable” program. The group asked that the implications of a 25% and 50% sampling reduction be evaluated. To accomplish this several proposals to reduce costs and to possibly modify component monitoring procedures were considered. These included:
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1. To fully implement this component with a corresponding reduction in the level of effort for other components.
 2. Sample every other year.
 3. Develop an “event driven” monitoring plan for the lower pools, and implement as part of the “minimal sustainable” program. Monitoring would not occur in all pools.
- F. **Water Quality Component** - The group fully supported inclusion of this component in the “minimal sustainable” program. The group asked that the implications of a 25% and 50% funding reduction be evaluated. To accomplish this several proposals to reduce costs and to possibly modify component monitoring procedures were considered. These included:
1. To fully implement this component with a corresponding reduction in the level of effort for other components.
 2. Sample every other year.
 3. Sample only Stratified Random Sample (SRS) sites.
 4. Sample only Fixed sites.
 5. Uniformly reduce the sampling effort for both SRS and Fixed sites.
 6. Not all field stations would monitor at the same level of effort or with the same sampling method (SRS or Fixed).
 7. Reconsider the number of parameters being analyzed.
- G. **Data Management** – Data management refers to that portion of the UMESC staff directly involved in data handling and serving.
1. Per this effort the “minimal sustainable” portion includes data management, Quality Assurance and Quality Control (QA/QC) of data, and data serving. This represents 2.5 FTE’s worth of effort. UMESC is to look for efficiencies to reduce costs.
 2. *The level of existing effort for summarizing data and tool development is .6 FTE. It was unclear from the discussion whether this portion of the program should be included as part of the “minimal sustainable” program or be considered as a candidate for “additional program elements” and the exact definition of what would be done.*
- H. **Full Cost Accounting** – Full cost accounting is defined as the pro rata share of all sources of income being used to pay for facility, supplies and equipment cost. Under this proposal, field stations that receive non-LTRMP funding would include the proportional share of overhead costs within each of those budgets. Each field station will estimate the additional revenue this will generate at the beginning of each fiscal year and that amount will be subtracted from the LTRMP allocation to that field station. This will be adjusted for actual income throughout the fiscal year. UMESC was asked to coordinate with the states to collect this information.

II. Other activities included in the "Minimal Sustainable" Program

- A. *Land Use Land Cover (LU/LC)* The FY04 level of effort is 4.2 FTE's. The group felt that this effort should be modified so that a small portion of the existing effort was maintained in the "minimal sustainable" program. Agreed to at the meeting was that LU/LC for the entire UMR floodplain would be done on a 10-year cycle. LU/LC initiatives could be done with "additional program element" funding on an annual basis. The primary discussion was the level of effort that should be included in the "minimal sustainable" program to support GIS activities. These options included:
1. Drop completely.
 2. Maintain a basic amount of "corporate knowledge" at .4 FTE. This includes providing field station with basic GIS data support. However, specific outputs were not resolved and would be required before inclusion.
 3. Basic "corporate knowledge" plus. This would require 1.15 FTE's and would include II. A. 2. above, plus event driven photo purchase and interpretation and managing the "next steps" for future LU/LC updates.
- B. Science Management – Science management refers to the level of administrative oversight provided for LTRMP by both the Corps of Engineers and UMESC.

	<u>Fiscal Year</u>	<u>Funding Amount</u>
1. Corps of Engineers	FY04	\$123,000
	FY05	\$140,000
2. USGS	FY04	\$350,000
	FY05	\$286,000

- C. Bathymetry - The group valued the data provided by the bathymetry and agreed that collecting bathymetry data for the UMR was very important. However, actual collection of the data was not possible within the funding constraints of the "minimal sustainable" program. The following recommendations from the meeting:
1. The group recommended that .15 FTE be allocated to the "minimal sustainable" program. This would make some expertise available to the program and allow the program to work towards completing bathymetry coverage by seeking funding opportunities from outside the "minimal sustainable" program.
 2. Funding for actual bathymetry work may be included in the "additional program elements" or come from other sources.

“Additional Program Elements”

A. Statistical Support – The group discussed statistical support for the “minimal sustainable” program. However, they referred this item to the ad hoc technical team to evaluate and make a recommendation. Four options are to be evaluated:

- 1. Should it be included as part of the “minimal sustainable” program and at what level of support.**
- 2. Maintain at the FY04 level.**
- 3. Reduce funding by 50%. Or**
- 4. Drop completely.**

B. Development of new internet products/tools. (No guidance provided)

C. Bathymetry (No guidance provided).

D. Sampling in Pools 13 – 26. Each member of EMP-CC was asked to express an opinion as to whether the “minimal sustainable” program should include a 5-year sampling program in this portion of the river.

1. F&WS and USEPA felt that this was highly valued and should be included in the “minimal sustainable” program for the next 5 years.
2. The Corps, and states of IL, IA, MO, WI, and MN felt that it was valuable but should not be included in the “minimal sustainable” program.

Other Items Not Addressed but identified for possible inclusion as “additional program elements”.

G. Spend the first 6 months of FY05 to reduce staff levels. Use this time to complete task or “tie up” loose ends.

H. Status and Trends Report

I. Initiate Cross Component Analysis

J. Develop an “event driven” monitoring plan to address significant natural occurrences (e.g. drought, floods, spills) as funding becomes available.

K. Conduct an efficiency analysis similar to the fish analysis for WQ and aquatic vegetation.

L. Develop procedures to increase the use of existing calibrated and validated submersed plant growth models.

J. Sullivan asked if additional program elements (APE) decisions will be made by EMP-CC

R. Perk responded that yes, EMP-CC will evaluate the APE requests, similar to current scope of work planning.

J. Pitlo asked what the anticipated amount of APE money was.

R. Perk responded that at a \$19M funding level APE \$\$\$ would be about \$700,000 this year and about \$100,000 in year five

J. Sullivan asked what APE \$\$\$ would be available under a \$16M funding level.

R. Perk responded that he was not sure.

J. Pitlo asked, what you anticipated the APE's to be and done by.

R. Perk responded it could be anyone, but most likely states and UMESC.

L. Leake responded APE could be anything like bathymetry or land cover and there is already a list of program priorities.

R. Perk added that "Status and Trends" was near the top of his list and the CORP, USGS, and States would be involved in that.

J. Sullivan asked if R. Perk expected the group to use the base assumptions in making decisions about program elements during the meeting.

R. Perk responded that yes they were already adopted by EMP-CC.

L. Leake noted that EMP-CC has provided a specific list for the group and provided a overhead and poster board of the list

The items on the list that were referred to the AD HOC advisory board were as follows:

- 1) Equipment refreshment (needs to be defined as a percentage of the budget or set amount)
- 2) Fish Component: The group fully supported inclusion of this component in the "minimal sustainable" program. The group asked that the implications of a 25% and 50% sampling reduction be evaluated. Further details were provided in the handout.
- 3) Aquatic vegetation component: The group fully supported inclusion of the component in the "minimal sustainable" program. The group asked that the implications of a 25% and 50% sampling reduction be evaluated. Further details were provided in the handout.
- 4) Water quality component: The group fully supported inclusion of the component in the "minimal sustainable" program. The group asked that the implications of a 25% and 50% sampling reduction be evaluated. Further details were provided in the handout.
- 5) Statistical support: The group discussed statistical support for the "minimal sustainable" program. However, they referred this item to the ad hoc team to evaluate and make recommendations. Further details were provided in the handout.
- 6) Data analysis. Data analysis beyond that identified in I.A.4.b. (needs to be defined).
- 7) Graphical display tools (needs to be defined).

L. Leake stated that leads were assigned to each of the seven items to jump start discussion and to report on findings to help discussion

C. Beckert asked if it had already been decided that there will be sampling reduction.

L. Leake responded that it is a thread linking items together, doesn't have to be this or that, could go anyway, and doesn't assume cuts are as is—just a consistent framework for discussion. Each subgroup will lead discussion using the framework.

J. Chick presented results for the fish AD HOC analysis team, which consisted of himself, R. Maher, J. Pitlo, T. Miller, T. Boland, and D. Kirby. The fish analysis team concentrated on assessing the impacts of adjusting sampling effort, and noted that adjusting to a sampling period based on water temperature would be difficult (presents several logistic challenges and would represent a significant change from the current design) and may provide minimal cost savings.

Adjusting sampling effort concentrated on the following scenarios:

- 1) No change
- 2) Fewer gears
- 3) Sample only two periods—all gears
- 4) Sample only one period—all gears
- 5) Sample every other year—all gears

Chick noted that two published LTRMP reports Ickes and Burkhardt (2002) and Lubinski et al. (2001) have addressed several of the questions asked. A summary of the fish Ad Hoc findings (provided by J. Chick) and recommendations follow on the next 3 pages.

J. Chick redid community analysis already done for all periods and included only periods 1 and 3, and period 3 only. Several MDSS plots were presented that showed resolution with respect to spatial patterns was still okay with two periods, but when only third period was analyzed it became difficult to distinguish among study areas. With regard to temporal patterns, two periods reduced resolution. When only third period was analyzed, obvious temporal patterns (e.g., 1994 being an outlier year) were no longer present. Differences in CPUE standard error (SE) were presented for the three scenarios and it was noted that with 2 periods SE increased from 20-25% and with only one period the SE increased from 50-100%.

Plots showing the presence and impacts of year*period interaction, with respect to CPUE, were presented.

Plots showing a reduced ability to detect CPUE trends over time with only 2 periods or 1 period were presented.

It was noted that dropping one period caused an approximately 29% reduction in the total catch of stock-length fish for 12 common recreational or commercial species, and dropping to two periods caused a reduction of approximately 62%.

R. Perk asked if day electrofishing data correlates with other gears

V. Barko responded that each gear catches a component of the entire community

B. Johnson asked if it has been assessed what component of community structure EF picks up

J. Chick-day electrofishing is important and the other gears supplement

Fish Component Ad-Hoc Technical Team

As a result of the special EMPCC meeting, we were asked to address the following:

Fish Component – The group fully supported inclusion of this component in the “minimal sustainable” program. The group asked that the implications of a 25% and 50% sampling reduction be evaluated. To accomplish this several proposals to reduce costs and to possibly modify component monitoring procedures were considered. These included:

1. **Monitoring period** could be adjusted from being based on the calendar to being based upon water temperature ranges. This would not be a financial saving but may help to improve sampling effectiveness. The ad hoc technical team was asked to make a recommendation regarding this issue.
2. **Component management.** Options discussed included:
 - a. No change
 - b. To fully implement this component with a corresponding reduction in the level of effort for other components.
 - c. Field stations take on additional responsibility related to data collection and analysis.
 - d. Creation of multi-disciplinary teams at field stations. This would result in a person taking on primary responsibility for more than one component and for field crews to collect data on more than one component when out sampling.
3. **Adjust sampling effort.** Options included:
 - a. No change in existing procedures.
 - b. Continue sampling in all three periods but with fewer gears.
 - c. Sample in only two periods but with all gears. (See I. D. 1. for option)
 - d. Sample in only one period but with all gears. (See I. D. 1. for option)
 - e. Sample every other year but with all gears in all periods.

First, we note that two published LTRMP technical reports (Ickes and Burkhardt 2002 – Evaluation and proposed refinement of the sampling design for the Long Term Monitoring Program’s Fish Component; and Lubinski et al. 2001 – Initial analyses of change detection capabilities and data redundancies in the Long Term Resource Monitoring Program) have addressed several of the questions asked. To this end:

Continue sampling in all three periods but with fewer gears.

This wound up being the main issue addressed by the Ickes and Burkhardt 2002 technical report and a series of A-team discussion. As a result, several gear were eliminated from the program in 2002 to reduce cost and data redundancy. The ad-hoc committee did not feel adequate time was available to seriously consider further reductions beyond those adopted as a result of the effort outlined in Ickes and Burkhardt 2002.

Sample every other year but with all gears in all periods.

This option was also addressed by the Ickes and Burkhardt 2002 technical report and during A-team discussions. That report concluded: “. . .The negative consequences, as identified by the group, outweighed the positive consequences by a factor of three. This option would have resulted in a partial interruption of temporal continuity and delayed the time it would take to detect trends. The group seemed to view the rapid detection of trends as highly important and felt that this option could hamper those efforts. Thus, we did not consider [this option] as a viable option.”

The ad hoc committee chose not to address this option further.

Component management.

The ad hoc technical team felt that there was little technical information that could be brought to bear on these options and chose not to address them during ad hoc team meeting. Discussion on these topics needs to take place at the A-team meeting with the group at large.

Monitoring period could be adjusted from being based on the calendar to being based upon water temperature ranges. This would not be a financial saving but may help to improve sampling effectiveness. The ad hoc technical team was asked to make a recommendation regarding this issue.

The ad hoc technical team felt that there was a less urgent need to immediately address this option compared to others. Given that there are no financial savings and that there could be substantial consequences to linking with past data, the team elected to forego further considerations of this topic until a better concept of an overall future LTRMP fish component can be decided on.

The group asked that the implications of a 25% and 50% sampling reduction be evaluated.

The ad hoc technical team felt that the best way to evaluate the implications of these reductions was to concentrate on the following options:

- a. No change in existing procedures.
- b. Sample in only two periods but with all gears.
- c. Sample in only the third time period but with all gears.

Benefits of the Existing Procedures

The current procedures provide a tremendous amount of information on UMRS fish communities. Some effects we have found in analyses include:

- I. Community Structure Variation
 - A. Systemic level temporal trends, possibly associated with the 1993 flood.
 - B. Large scale differences among individual regional trend areas (RTA).
 - C. Differences among individual RTA
 - D. Correlations of fish community variation with environmental variation
 - E. The potential to combine information from multiple gears in novel ways

- II. Population Information
 - A. Temporal trends from analysis of catch per unit effort
 - B. Temporal and spatial trends from analysis of total catch for rare species
 - C. Information on year-class strength
 - D. Size structure information
 - E. Length and weight information
 - F. Growth of young-of-the-year fish

Effect of sampling in only the third time period with all gears:

In general, the ad hoc technical team was surprised at how severe the consequences of this restriction were to the quality of the information collected. Important community findings, including differences between Pools 4 and 13 as well as systemic temporal patterns possibly associated with the 1993 flood, would not be possible with this restriction. At the population level, several temporal trends of common species within individual RTA would not be detected. We would lose a substantial amount of information on rare species due to reductions in occurrence and total catch, and ~~15~~ ¹⁰ species would not have been detected by this program. Length frequency patterns would change, even for common species. Finally, this restriction would reduce the types of analyses that could be done, such as analyzing growth of young-of-the-year fishes and analyses that use time periods as replicates.

Potential savings compared to the full fish component have been estimated to be \$130,000. The overall conclusion of the ad hoc team was that this option has little potential to provide meaningful data on UMRS fish communities and may in fact provide misleading information in some cases. The ad hoc team would favor the termination of the fish component over this option.

Sample in only two periods but with all gears

Most of the major community patterns would still be detected, some finer differences might be obscured and there might be less opportunity for further hypothesis generation and analyses. Some trends in abundance of species may be undetectable or inaccurate – the number of species that this would be true for would be fewer than for dropping two time periods, but the ultimate number is unknowable. We would lose info on rare species and length frequency. As with dropping two time periods, this option would reduce the types of analyses that can be conducted.

Potential Savings estimated at \$60,000 when compared to the full component

J. Sternberg questioned if dollar savings were for sampling only or included other components of sampling.

L. Leake responded it is looking at the whole component.

J. Sternberg questioned if it is a 33% reduction to a \$1.4M fish component.
B. Johnson responded it would equate to roughly a 15% reduction.

Y. Yin presented findings for the vegetation ad hoc committee (Y. Yin, M. Pegg, D. Wilcox). Handout inserted below.

The vegetation committee had a 90-minute conference call concerning the issue of vegetation reductions. They went through three options provided from the June EMP-CC meeting notes.

C. Theiling asked if fish and water quality component vegetation information has been compared to the vegetation component vegetation information.

Y. Yin replied that it is much more qualitative and less precise because GPS coordinates are not taken at each site.

J. Sullivan- So is vegetation information from WQ a complete waste of time, has it been looked at?

Y. Yin- Distribution accuracy is low, individual species are not identified—I did not take analyses far after determining these discrepancies.

D. Wilcox-The water quality vegetation observations are there to help interpret WQ data

J. Sullivan- So that suggests that WQ and vegetation are tied together and important to each other.

J. Chick- All you get from fish or WQ components is presence or absence for vegetation.

C. Theiling- Will we be able to correlate WQ and Vegetation components—are these so different that correlations cannot be made.

Y. Yin- we have already done this to a certain extent—the upper end of pool turbidity is a good predictor, along with velocity, and stage.

D. Wilcox-Need to look at a large hydrological scale-to get more resolution would require a more intense sampling.

Y. Yin-We did not necessarily have consensus on the best option. We have presented information and leave it up to the A-team to decide.

D. Wilcox- seems to be some consensus. Sampling every other year is not that popular-lose detail-models could be used to predict vegetation in off years at less resolution.

Models could be used for growth, biomass, and reproduction.

J. Sullivan-Expressed concerns about the importance of models for monitoring.

D. Wilcox-Models are an inexpensive way to look at factors.

T. Yager-What are the cost savings?

L. Leake-Will work up

Vegetation committee handout follows for next 1.5 pages.

LTRMP Aquatic Vegetation ad hoc technical committee briefing

Terry Dukerschein – Wisconsin DNR Mark Pegg – Illinois DNR-INHS
Dan Wilcox – US Army Corps of Engineers Yao Yin – USGS

The ad hoc technical committee had a telephone conference from 10:00AM to 11:30AM, Tuesday, July 20, 2004. We evaluated the pros and cons of five restructuring options for the LTRMP aquatic vegetation component as described below. The first three options were stated in the EMP-CC June 24-25 meeting notes distributed by Linda Leake of USGS. The fourth and fifth options were put forward during the conference.

1. To fully implement this component with a corresponding reduction in the level of effort for other components.

The group believes across-the-board reductions of sampling effort by 25% or 50% would result in insignificant financial savings at the risk of a loss of statistical power and breach of data integrity.

Basically no to this approach

2. Sample every other year.

The group thinks this option requires another component to alternate with. The assumption is that the field station will not hire seasonal assistants for the two components (retaining both WQ and Vegetation specialists) to achieve an appreciable amount of savings. Vegetation growth models developed by Ellie Best and empirical model developed by Yao Yin could be used to give qualitative assessment of whether a non-sampling year was a 'good' or 'bad' year for submersed aquatic macrophytes. Cautions for this options includes: 1. availability of models is limited to 3 species; 2. the models have not been tested system-wide, 3. the qualitative nature of assessments is not compatible with LTRMP monitoring data.

3. Develop an "event driven" monitoring plan for the lower pools, and implement as part of the "minimal sustainable" program. Monitoring would not occur in all pools.

We believe this option is extremely difficult to plan on, plus criteria for "events" are lacking. An appreciable amount of savings could be achieved if only vegetation specialists in the lower pools could be assigned to other paid projects.

4. To sample Pools 4, 8, and 13 at 450 sites (per pool per year), lower Alton Pool at 200 sites, floodplain lakes in La Grange at 150 sites. Discontinue sampling in La Grange and Pool 26 in the usual strata that were sampled from 1998 and 2003.

This option discontinues the sampling in Pool 26 and La Grange as conducted from 1998 to 2003, initiates new sampling in floodplain lakes in La Grange, and reduces sampling effort in Pool 4, 8, and 13 by 25%. Statistical analyses conducted by Yao Yin reveal that the power to detect a 50% change in aquatic vegetation abundance would decrease from 95% to 80% in the northern three pools. The group thinks discontinuation of sampling in La Grange and Pool 26 would hinder the system perspective of design of the vegetation component. An appreciable amount of savings could be achieved by consolidating the sampling in La Grange and lower Alton into one crew. The estimated sample size-powers (for detecting 50% and 30% of vegetation abundance changes, respectively) are:

N	600	500	450
Powers(50% and 30% change, respectively), alpha=.05	.95/.90	.85/.80	.80/.70

5. **Combine Water Quality sampling and Aquatic Vegetation sampling to be conducted by one crew. Vegetation sampling effort will be at ~450 sites per pool.**

This option will require one crew to juggle the sampling of two components during June-August. The group thinks this is a possibility and an appreciable amount of savings could be achieved by not hiring seasonal assistants (retaining both WQ and Vegetation specialists). However, the group acknowledges that some modifications of WQ and Vegetation sampling designs will be required which, if we're not careful, could affect continuity/consistency with past data.

450 sites

Jeff Houser presented findings for the Water Quality Ad Hoc Committee (Jeff Houser, John Sullivan, Clint Beckert, Walt Popp)

The handout provided is pasted on the next page.

B. Johnson- What constituents are sampled in the scenarios?

J. Houser-In field, limited WQ "as is" current constituents. Cutting parameters does not seem a cost saving at this time. Some constituents have already been cut (e.g., metals).

D. Wilcox-Do we need and are we utilizing all the parameters

J. Houser-Hopes to look at additional parameters in the near future.

J. Chick-Where I am at the spring SRS event is important.

J. Houser-It is important to maintain seasons.

J. Chick-It may make more sense to drop spring in the upper 3 pools and winter in the 3 lower pools.

J. Houser- We can look at that

V. Barko- Can extra monies be used in other components to base decisions on more "real" numbers like Ickes and Burkhardt (2002) for fish.

J. Houser-Hope do that and already have started to some extent, constituents do not all behave the same.

J. Sauer- There is only one gear for vegetation and invertebrates so it is not the same as WQ and fish.

C. Theiling-Your perspective on field-based turbidity and nutrients.

J. Houser-Would affect accuracy.

C. Theiling-Are we using WQ nutrient information for vegetation models, if we are not using nutrient information in models why are we taking it.

D. Wilcox, J. Houser, and M. Steuck discussed multiple uses for WQ information.

D. Wilcox-discussed options for automated nutrient measurements.

J. Houser-There is not always a correlation between BWC & MCB.

D. Wilcox- Back to Chuck's question, perhaps measuring nutrients through the system can get to yield.

J. Chick- Is it not important to determine major changes in WQ.

C. Theiling-Is that not the EPA's job—to determine gross changes in WQ.

J. Sullivan-WQ is important to many river components BREAK from 2:47-3:00.

Summary of WQ sub-team discussion

H # 4

Continue sampling at SRS sites, some fixed sites, and some tributaries. SRS data provides information on spatial variability and unbiased strata means (important for describing general habitat conditions). Fixed site data provides greater temporal coverage, which is particularly informative during the growing season (e.g. 3 to 6 points in time during the summer instead of one). Tributary data are important for understanding the causes of water quality patterns in the UMRS.

Avoid reduction in summer and winter SRS coverage if possible. Reduce/eliminate other seasons first. Avoid reductions in backwater sampling; reductions in main channel and side channel areas are preferable.

Final decisions concerning distribution of sampling effort should be made after the amount of personnel time available for sampling and lab work is determined.

Maintaining some aspects of long term data string is critical.

Scenarios for Discussion

Scenario I:

Fixed sites and tributaries:

A. Discontinue sampling of small/ungaged tributaries, sites outside of study pools, and isolated backwaters. Number of tributaries sampled should be reduced to ~3 per study area. Only gaged tributaries that have significant impact on the UMRS should be monitored. Number of fixed sites reduced so that all sampling and field station lab work can be done in 2 days/episode (2 people). The following fixed sites are suggested as priorities for continued sampling:

1. Main channel fixed sites at the upper and lower end of the pools.
2. Fixed sites that are "representative" of large impounded or backwater areas.

B. Reduce sampling to every two months from November through March.

C. A modification of "I.A." that was discussed was to reduce the number of fixed sites such that they can be sampled in 1 day and to sample every two weeks from April through September. This would increase the temporal coverage during the growing season by two-fold, but reduce the number of sites sampled. The logistic feasibility of this is not clear.

SRS: As in 2002. The number of sites at which samples for nutrient analysis are collected has already been reduced by 1/2 (currently collected at 1/3 of SRS sites). Additional reductions in nutrient sampling are not advised. If reduction in SRS is also required, see scenarios II and III.

Scenario II:

Fixed sites: as in #1.

SRS: Discontinue spring SRS. Spring SRS data is the most variable as it occurs at different points on spring hydrograph in different years, and represents a transient state of the system that is less critical for habitat assessment than summer and winter. However, it is the season of maximum transport of nutrients and sediments.

Scenario III:

Fixed sites: as in #1.

SRS: Drop Spring and Fall SRS. The group felt that summer and winter SRS are the most critical for habitat assessment and that if additional reductions are needed that discontinuing Fall SRS was preferable to reducing summer or winter.

Statistical Support (B. Gray, M. Pegg, V. Barko, J. Houser)

What he does in a situation like this

1. To look at goals, white papers, validity
2. Consulting
3. Methods for analysis

Example-How to analyze count data-a bit like fish CPUE.

Ability to detect trends

Topic the group addressed

Priorities for analyses

1. Completion of the kinds of analysis (3 categories)
 - a. Means, SE, trend, multivariate, analogs (agreed important)
 - b. Within component more detailed analyses have been initiated, e.g. reliability of means, random error or sampling, temporal and spatial correlation
 - c. Cross-component models-habitat models-time consuming and complex
2. Components with least previous analyses
 - a. Fish a lot and invert to a lesser degree
 - b. Is there ability to shift resources to veg and wq?
3. Analyses at field station encouraged.

Data Analysis and Reporting (B. Johnson)

How much analysis should be included in minimum program?

How much have been done and what is out of the norm?

To the point where much of data collection is routine, for example, WQ has been streamlined allowing component to at least provide annual information-web-based updates.

Talked about identifying red flags. Was red flags defined?

Cross component analyses-how much is part of minimal sustainable?

M. Hubbell-struggling to define key elements from items defined.

J. Sullivan-as if there was a distinction between analyses or reporting?

B. Johnson-yes, need reporting for analyses, web-based formats are more summary and less analyses.

J. Sullivan-are web-based reports to replace annual reports?

B. Johnson-yes.

J. Sauer asked if he's seen the invert page? Others will be similar.

J. Sullivan- on the topic of more sophisticated analyses. Is this topic or part of previous?

B. Johnson-need to define that.

D. Wilcox said short-term web-based annual. More analyses would be like 10 year, more interpretation and analysis.

C. Theiling asked someone to define the LTRMP annual reports.

J. Sauer-like one from B. Gray's individual component reports as opposed to the overall summary of across all components.

M. Steuck asked what about annual updating of data via web of data already analyzed (for stuff ready to roll), a tool for "red-flagging"; update noteworthy reports?

J. Sullivan viewed status and trends as "what we have learned". Does everyone view this as this category?

D. Wilcox said 10-year reports more in depth.

M. Steuck said we need to define what reporting is minimal sustainable at 3.5M-not the above and beyond, as money comes then we can look at other questions.

B. Johnson said we are trying to look at a five-year chunk, perhaps not look at just annual, but may include a more in-depth report in year 4 or 5.

B. Gray said perhaps talking year 6.

J. Sullivan asked for clarification of point-A-team felt status and trends in '04, but that is not a charge from EMP-CC.

M. Hubbell depicted categories for reporting as follows:

Seven Categories (first 4 are potential BASE; last 3 are above and beyond)

1. Web based
2. Annual component (web and annual are same)
3. Running analysis
4. Annual synthesis report (cross-component and synthesis; overall summary again, as previous, unusual occurrence)
5. Status and Trend
6. Special reports
7. 5-10 year reports

D. Wilcox said Status and Trend is for a wider audience. Would think EMP-CC would want this as part of minimal sustainable program.

C. Theiling said we need to look at the audience the reports are for, as we consider these items.

Graphical Display Tools (Caucutt and M. Steuck)

Handouts were provided (2 critical pages are pasted below).

June 2004 stats for websites 3,000-6,000 visits per day.

Addresses of web-site viewers can be queried.

Talked about usage and hackers-process for security to prevent shutdown. Dept. of Interior also looks for holes, daily backup of data-a lot of effort for security reasons.

L. Leake said it takes time to query users, we don't go out and query this info often.

Explanation of Data Flow (see handout)

Last handout (primarily what he was tasked to look at for this meeting-FTE breakdown).

J. Sullivan asked what about WQ and Veg data browsers?

M. Caucutt said they are in review.

L. Leake said those tools that are being developed and are under review are "graphical display tools". These tools outlined by Mike would be additional. The question is do we want to maintain these tools?

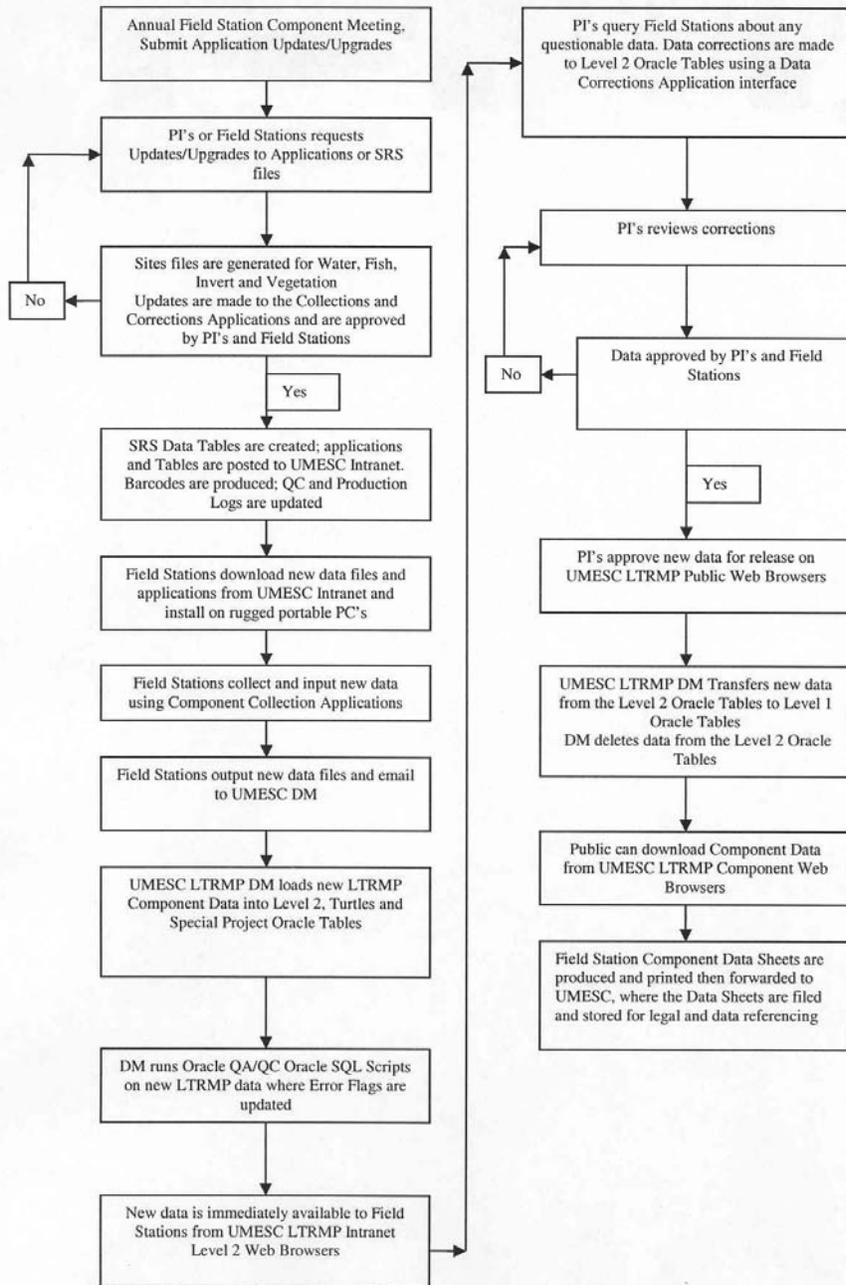
M. Steuck-so, if we decide "minimum sustainable", things like fish would stay but would not be updated?

L. Leake said yes, but development not included. If already developed, we are talking just maintenance-may not be able to afford development.

M. Caucutt said trying to lay out what are available. Critical tools are included as data management points 1 and 2.

UMESC LTRMP Data Management Component Data Flow FY 2003/2004

Mike C



Mike
host

LTRMP Data Collection, Delivery and Access Tools

One of the key goals of the LTRMP is to provide timely and useful information to natural resource decision makers in the Upper Mississippi River System (UMRS) basin. The following data delivery and access tools are in order of perceived importance to the user. Note that as you increase online data manipulation options for the users, you also increase the amount of effort required to develop and maintain.

Critical tools: "minimal sustainable"

These Data Management tools should be considered part of the collection and data delivery process.

- Updates to Data Collections and Corrections applications. These are the applications loaded on rugged notebook PCs used to collect the data and the applications downloaded from the UMESC Intranet used to make corrections to the Level 2 tables.
- The minimum data delivery and access tools needed for electronic delivery of LTRMP data would be the component database browsers. These allow users to query each component and select the download format the user needs. These are some of the most important web pages for LTRMP and they deliver over 1000 custom queries a year. (2.5 FTEs)

Graphical Display tools

- The Spatial Query tool is a stand alone application that packages the LTRMP component data in a spatial view. The tool is available by cd or downloadable from the web. Updates could be the addition of new data, small enhancements or a total re-vamped version. (1 additional FTE)
- The Graphical Database Browsers (currently only the Fish component is online) are online tools that query the LTRMP database and return the results to the user's browser in an online graphical application. Useful for quick snapshots of the component data. Efforts are underway to provide each component an online, specialized graphical display tool. (1 additional FTE)

Internet Mapping Application

- An effort is underway to provide an online application of the entire inventory of land Cover/Land Use layers. This will allow the user to select any portion of the Upper Mississippi River System and generate an online map with multiple year Land Cover/Land Use options. (1 additional FTE)

J. Sullivan asked with no additional data collection, what would be required to maintain data?

M. Caucutt and L. Leake said looking at about 2.5 FTE's basically same as "minimum sustainable".

J. Sullivan asked 3,000-6,000 hits a day, is that a lot and how does it compare?
Nobody had a definitive answer.

L. Leake said team includes M. Caucutt, R. Maloney, Bower, D. Hansen. Will sit down tonight and talk dollars.

Equipment Refreshment (L. Leake)

\$2M dollars of program equipment has been lax over past 2 years because of lack of dollars.

Have been trying to identify needs.

J. Sullivan asked are we talking about field stations only?

L. Leake said we are talking UMESC and field station equipment and are suggesting refreshment as a percentage of budget. We are presently looking at about \$250,000. Perhaps 1% on an annual basis—approximately \$57,000.

FWS asked so the \$250,000 represents defined needs?

L. Leake said yes, after that trying to maintain through % basis hoping to pursue equipment refreshment this year to jumpstart.

J. Sullivan asked have we defined items mandatory for sampling.

L. Leake said yes, couple of boats for safety, laptops, network servers, field data collection equipment, and field operations equipment. This is all based on what will the program be next year, safety first and field monitoring second.

J. Sullivan asked what costs are associated with implanting changes that change data entry applications?

L. Leake said costs are included on an annual basis as part of critical tools of data management. It is part of minimum data management.

J. Sullivan asked would a merging of WQ and Veg require rewriting apps?

L. Leake said not necessarily, depended on change.

M. Steuck said the worst effort often comes when a single parameter is added.

B. Johnson said obviously, we are in emergency mode. Have we ever had a schedule for equipment?

L. Leake said no, have been replaced as needed.

A discussion commenced about the utility of scheduling equipment refreshment.

L. Leake said change is at hand. Is equipment refreshment a part of minimum sustainable program (MSP).

FWS asked if EMP-CC thought it should be part of a MSP?

L. Leake said that is what they were asking—if it should be.

D. Wilcox said didn't think we can maintain a program without equipment refreshment.

L. Leake said USGS put on an estimate of 1% as a way to get started.

J. Sullivan asked if it will be hard for the A-team to assess. He asked team leaders if \$40,000 gross would be enough?

L. Leake said let's look at it as a percentage of useable dollars. That represents a start for discussion. We can work that backwards. How many dollars do you want to be able to spend?

J. Sullivan asked if had enough for day and do we want to reconvene at 8:00am?

M. Steuck made motion to adjourn.

T. Boland seconded motion.

Motion passed unanimously at 4:15pm.

Meeting commenced at 8:07am on Thursday, July 29, 2004.

J. Sullivan presented Leake's full cost accounting as starting point. Today we will try to accomplish goals of 7 EMPCC questions to fit in a reduced budget. Items not agreed upon will be decided by EMPCC.

R. Maher questioned closing of 1 Illinois field station. Is it still on the table?

R. Perk said each state will remain a presence in the program. The combined two Illinois stations is on the table. That was not a question asked by EMPCC.

Sternberg stated that's correct. It would have to come up through the EMPCC Rep.

L. Leake said she had been working on the issue of accounting costs and savings by combining 2 field stations, haven't received answers to all the questions from the states. Sternberg said she would like to see in this meeting a cost accounting of field stations before and after.

J. Chick questioned if input from field stations would be needed.

L. Leake said we will do that once we have all the info.

L. Leake provided and explained graphics, graphics include full accounting-data management.

J. Chick, so we are not being asked to figure out a program of under 3.5M.

R. Perk said EMPCC asked us to answer specific questions, if they put together a program under a 3.5M budget.

L. Leake stated what she did was put together a guide to what costs are, so we can help put things into a 3.5M box.

J. Sullivan said so this is a breakdown of what it costs to get data to UMESC.

L. Leake said no it goes beyond data collection. Staff at UMESC and field, overhead, common services.

J. Sullivan asked what costs are not included?

L. Leake said Service Management is not included-let me show you... basically, 1.0 FTE of administration is not included.

C. Theiling asked why are these things not included?

R. Perk stated we wanted to provide EMPCC with the ability to work out components separate from each other.

Example (more numbers as provided to EMPCC):

1. Staffing comprised of multi discipline teams working across components.
2. Field staffing:
 - a. MN, WI, IA=3 permanent, 2 seasonal
 - b. IL combined=5 permanent, 2 seasonal
 - c. MO=2.5 permanent, 2 seasonal
 - d. UMESC=4.8 permanent, 2 lab (temp)
3. Fish: All pools and years; 3rd period \$840K
4. WQ: Fixed-in, out tributaries; biweekly/month SRS=All pools, all seasons 02 level \$1,300K
5. Veg: 25% reduction, P4, 8, 13; 50% reduction, P26; No sampling LaGrange or Open River \$520K
6. STAT Eval: 0.6 FTE \$110K
7. Data Management: 2.4 FTE \$280K; Go toward Licensing and Maintenance \$145K
8. Science Mngt. Support: 1.3 FTE \$200K
9. LC/LU: 1.0 FTE \$130K
10. Bathy: 0.15 FTE \$20K
11. Equipment refresh: 1% \$55K

Total 3,600K

There was much discussion about the numbers and what they mean

J. Chick said so I don't know what I am supposed to do today.

R. Perk asked John what he needed to make decisions. There was much discussion about logistics of combining Illinois field stations among Perk, Chick, Maher, and Pegg.

J. Chick questioned how we can make decisions today with the information provided?

Why are we provided budget \$\$\$?

R. Perk said we are charged with questions and to provide recommendations to EMPCC- the numbers are provided as guidelines.

J. Chick made a motion to include all 3 fish periods or no fish at all.

Discussion of if that is the way we want to go

J. Sauer, C. Theiling, R. Perk, Barko discussion of appropriate ways to assess the importance of components.

R. Perk said so if I come and said I have \$3.5M for a new program today, you couldn't tell me what you want?

J. Chick and Perk discussion of what tasks are required.

J. Sullivan said went through \$ provided by Leake to clarify what things are included in the costs presented in Table. Sullivan questions adding floodplain lakes newly to program when we are now cutting.

J. Pitlo questioned how many persons will be cut from each field station.

Team leaders- approx. 60% in IL, 40% in IA, 30% in MN, WI, MO

Additional discussion from Leake, Steuck on staff and \$\$\$'s showed why staffing is broken down the way it is.

J. Sullivan—shift direction from costs to a discussion of what dropping data from the program will cost in biological terms (provided overhead as below).

Station	Fish	WQ	Veg
4	Y	Y	Y
8	Y	?	Y
13	Y	?	Y
26	Y	?	N
OR	Y	?	N
LG	Y	Y	N

Basically Sullivan suggests that fish is the common thread. The importance of WQ and Veg depend on Study Area/Reach.

T. Boland agrees with changing direction. Reiterates our charge is technical input perhaps independent of \$\$\$\$. Proposed moving on recommendations independent of money.

Wilcox amazed that we're saying ALL FISH or NO FISH despite J. Chick's showing a lot would be learned from 2 periods. He complemented AD HOC committee leaders for providing technical input independent of emotion.

J. Sullivan asked if members are willing to go through questions? Lets start w/first on list; equipment refreshment. There are obviously needs in the way of equipment. Propose a shot in the arm from APE and the % each year after. Yager said first need to define if equipment refreshment is part of “minimal sustainable program.”

T. Boland made a motion to refresh essential equipment at 200K out of APE in 2005 with an additional refreshment at 1% of the budget in years 2005-2009.

Motion seconded by M. Steuck.

***Motion passed.**

J. Chick made a motion that we recommend that we do not drop the fish component to less than 2 periods with all gears and study areas as presently sampled.

Motion seconded by ?.

***Motion passed.**

Discussion of veg and potential for combining WQ/Veg or combining other crew members (Pitlo, Houser, Theiling).

J. Sullivan asked if it was necessary to continue sampling vegetation in the LaGrange Pool and Pool 26.

J. Chick questioned what else is to be learned from continuing to sample LaGrange.

Y. Yin said the relationships between veg and wq and fish (cross component).

Discussion continued among Sullivan, Yin and Chick about the importance of veg sampling in the LaGrange Pool.

Discussion of power and cost associated with vegetation scenarios and potential logistic issues (B. Johnson, Houser, Chick).

J. Sullivan makes a motion to drop vegetation sampling in the La Grange Pool, Pool 26 and Open River Study Area, and keep vegetation sampling in Pool 4, Pool 8 and Pool 13 at a minimum allocation of 450 sites.

T. Boland seconds.

***Motion passed.**

J. Chick suggested a friendly amendment that UMESC should continue to discuss the possibility of combining WQ and Veg components logistically.

No second, amendment not passed.

J. Sullivan said we can revisit amendment.

Break 10:10-10:22

J. Sullivan reconvenes beginning discussions with WQ issues.

Discussion of the importance of un-gauged tributaries because they provide no context for tributary influence (J. Sullivan and C. Theiling). J. Chick recommends that J. Houser look into adding gauge data to water quality.

J. Houser said it is important to keep water quality in all pools if we wish to detect changes caused by management changes. Would be hesitant to drop water quality study areas.

J. Chick—doesn't seem that there are obvious reasons for dropping water quality from any of the study areas.

J. Sullivan questioned need for as many sites in OR study area. Wasn't there a Hrabik report discussing WQ procedure in the OR?

B. Johnson said it is not completed and will probably not be for a couple of months.

J. Chick said he would move that we follow Jeff's scenario's in order for recommending cuts.

V. Barko asked why don't we use APE money for continuing WQ monitoring to buy another year to finish analysis to provide more information for making cuts.

B. Gray agreed—is hesitant to drop an SRS event. Estimate can be made even with lower samples. Would argue for a small sample over no sample.

M. Steuck said so IA equates to what amount of reduction?

Houser said approx. 30-40% reduction in fixed sites. Steuck doesn't believe that scientist in here would have heartburn with scenarios for IA.

Houser suggested cuts in SRS made in spring first.

C. Beckert—appears that we have an outstanding WQ component in the way of procedures and validity, but there seems to be a lack of an objective for the WQ component. Scares me that over 1M is spent with no objective.

J. Houser answers that the WQ data is used to determine how parameters change from year to year, change due to large management action, detects change due to climate, provide info. for 303(d), 305(b) and TMDL.

C. Beckert asked is the WQ component is designed to answer these questions?

Y. Yin said if we find a change in biological indicators, we need to be able to access abiotic factors (e.g., water quality parameters).

C. Beckert said he would like that the objectives to be spelled out as that then.

J. Chick said he was sure a broad objective has been spelled out.

C. Beckert said for example, an attempt to determine the influence of a tributary on a BWC failed and probably due to insufficient data.

R. Perk said that is why we have this small box-to have APE money for focused questions.

Wilcox reiterated C. Beckert's points for a need for objectives-need to address the question what is the data needed for.

J. Houser said we chose generality over specificity for a reason to provide a "jack of all trades" type of wq component.

C. Theiling questioned the past.

B. Johnson said past is the past. Look to the future with people in place. WQ is typically \$1.2M-\$1.7M.

Sternberg suggests that we evaluate the cost of continuing water quality by doing an efficiency study using APE monies during '05.

R. Perk said there is potential, money dependant, that APE money could be used as a "glide-slope".

J. Sullivan would like to provide funds for sustaining wq in '05 and allow for additional efficiency analysis during the year.

J. Chick asked can't we, at this time, make some cuts at field stations in the way of fixed sites?

B. Johnson said water quality has been reduced (see Lubinski report) in 2000.

M. Steuck said so lets reduce fixed sited by 40-50% and maintain all 4 SRS events until further evaluation.

Sullivan and Johnson reiterate the importance of design efficiency.

Steuck motions to reduce fixed sites 40-50% and continue all 4 SRS events, as in option I.A, with an evaluation of water quality component using APE funds.

J. Chick seconded.

***Motion passed unanimously.**

Statistical Support

Steuck reiteration from B. Gray's talk currently 0.6 FTE @ \$110K. Can't field stations do 1 and 2?

1. Means, SE, trend, multivariate analysis
2. Within component more detailed analysis
3. Cross-component models/habitat models

Discussion about what is the base statistical support (Chick, Johnson, Brian).

B. Johnson said 0.25 FTE would get most of 1 and 2.

L. Leake had already dropped from 1.0 to 0.6 FTE.

J. Sullivan asked so what is the base?

M. Pegg made a motion to recommend dropping the statistical support to 0.25 FTE.

M. Steuck seconded motion.

Discussion commenced concerning statistical support needs.

B. Gray-I may be biased, but I think we need to maintain support.

Boland-I think we need to maintain

Sullivan-I agree

Motion did not pass: Five votes for the motion; ten votes against the motion.

Sullivan—support that statistical analysis be 0.5

Johnson—maintain at 0.5, but have no less than 0.25.

Perk and B. Gray discussion.

B. Johnson motioned that we recommend funding statistical support at 0.5 FTE, and at no less than 0.25 FTE.

T. Boland seconded.

***Motion passed**

Data Analysis

Web based annual reports

Summary reports (an observational web-based report)-done annually.

D. Wilcox valued a summary report.

Steuck asked what do we want for annual minimal sustainable reports?

Wilcox said there is value in providing narrative.

C. Theiling said seems we have defined these as part of component requirements.

L. Leake said let this program define the minimal sustainable.

M. Steuck offered up annual reports (pertaining to subjects approved or demanded by A-team or EMP-CC by field stations).

M. Pegg asked should these be a part of the program as freebies.

L. Leake suggested to consider independent of money.

M. Pegg motioned to recommend web-based annual updates and LTRMP summary reports as the minimal sustainable program and field station contribute reports pertaining to EMP on an annual basis as approved by A-team and EMP-CC.

J. Sternberg seconded the motion

Discussion of whether additional items/report should be part of minimal sustainable commitment of field station personnel to providing additional program products.

Discussion of the utilization of field expertise.

C. Theiling suggested Everglades and Chesapeake Bay as a model for web-based annual status and trends.

***Motion passed unanimously.**

Graphical Display Tools

M. Caucutt reviewed what graphical display tools were.

L. Leake asked should these things be continued?

Data delivery and correction and collection tools

CRITICAL TOOLS follows:

2.4 FTE @ 280K=get the below

Database/browser

Field Application of QA/QC

Data Management security

Software/license/IT maintenance=180K

extra spatial query tool updates; add data 1 FTE, improve data 2 FTE

Graphical display tools=1FTE=100K fish and veg

Internet mapping=1 FTE=100K

Wilcox suggests maintenance of graphical display tools and add as funding allows

C. Theiling suggested additional tools are not that useful.

L. Leake said actually 1 FTE could do Spatial Query Tool and Graphical Database Browser (100K)

J. Sullivan suggested that fish data browser move above line (i.e., become part of maintenance).

M. Caucutt said vegetation browser is 90% done

M. Pegg motioned that Database/browser, field application/QA/QC, security archival and backup, software license/IT maintenance and graphical database browsers are the base and Spatial Query Tools and internet mapping tools will be added as APE money allows. (Should =2.4 FTE and an additional 0.5 FTE.)

R. Maher seconded motion.

Motion passed.

New Business

L. Leake needs an FY04 and FY05 list of equipment needs from team leaders.

November 18th next EMP-CC meeting. J. Sullivan suggests next A-team meeting 1st week of November.

R. Maher made a motion that given the LTRMP was authorized as mitigation for expansion of L&D 26, and given the potential for negative impacts on the Illinois River, and given uncertainties surrounding efficiencies gained through collocating the Illinois field stations, we move that we not collocate the Illinois field stations. (This motion was put to the A-team membership only, not the Ad-hoc technical committee).

J. Sternberg seconded.

Discussion followed.

***Motion passed. FWS abstained and the USEPA was not present.**

J.Chick—If the program approves discontinuing vegetation monitoring at Pool 26 and LaGrange then I would like to see the public informed about the loss of this due to congressional appropriation changes.

J. Pitlo will replace T. Boland as Iowa's A-team representative (Boland retires July 31). M. Steuck will transfer to J. Pitlo's position (effective August 13). Dan Kirby will be the interim team-leader at the Bellevue LTRMP station.

T. Boland motion to adjourn.

J. Sternberg seconded.

Meeting adjourned at 12:43pm.