

TIPS Steering Committee Meeting Minutes

Office of Surface Mining

July 16-17, 2002

Sheraton Station Square

7 Station Square Drive

Pittsburgh, PA

Began: Tuesday July 16 at 8:00 am

Concluded: Wednesday July 17, 5:00 pm

Note: Minutes follow the order of presentation, not the order of the agenda.

Attendees: Jeffery Jarrett – OSM Director, Brent Walquist, Al Klein, Bill Clark, Sara Donnelly, Carl Campbell, Billy Chovanec, John Craynon, Mike DiMatteo, Larry Evans, Willis Gainer, Greg Melton, Buck Miller, John Riley, Pete Rutledge, Mick Ahrens, Vann Weaver, Jerry Wilkinson, Lois Uranowski, Bob Welsh, Greg Morlock, Bill Joseph, Dan Hause, Mike Sharp, Thomas Mastrococco, Mary Greene, Kyle Bohnenstiehl, Mike Strager, George Popper, Susan Stoyek, and Lisa Kosareo.

Committee Executive Session

(Committee Members)

Introductions and Agenda Review - Brent Wahlquist, Chairman

Welcome to Pittsburgh and ARCC Comments - Al Klein, ARCC Regional Director, presented by Vann Weaver

TOPIC: Overview of TIPS Activities—Information and Decision Points – Bill Clark

TOPIC: On-line Discussion Forum –

Provide links between TIPS experts and TIPS users monitored daily by TIPS team members

DISCUSSION:

Needs to be monitored, immediate answers need to be provided – not a week later.

Start with programs most used – larger user base.

Allow questions on all topics; provide advertisement.

Allow cross-info between state users.

Allow information and sharing expert knowledge. Great learning avenue.

DECISION: On-line Discussion forum: Proceed – move ahead as resources allow.

TOPIC: TIPS Name Change –

DISCUSSION:

Technical Innovation and Professional Services or Start all over?

Likes "TIPS" – keep the name recognition and acronym – find a name to fit.

"Instruction" possibly, or change to technical.

DECISION: TIPS Name Change – Keep the acronym, find a name similar to Technical Innovation and Professional Services to fit the acronym to maintain customer recognition.

Presentations/Decisions To Committee

Training Program

TOPIC: Training Program - Welsh

Development of Courses—Information

Results of ESRI on-line Training—Information

TIPS for Managers Course to inform managers and make them aware of TIPS opportunities – decision

Presentation Summary:

Review of FY 01 and 02—Information

All course ratings for FY2002 are meeting the 2002 GPRA goal

Instructor 2 ratings have increased based on seasoning and adjustments of personnel.

e-Training Strategy question currently is– What tools should we use?

TIPS personnel will be attending a September e-learning conference.

DISCUSSION:

There is a good rate for completion of ESRI on-line courses – better than industry rating.

There is no human intervention component if students get hung up on a question – slow response from ESRI, 2-3 day response rate and there is no TIPS instructor contact.

It can be hard to complete the course for some people for various reasons including finding time to complete the modules.

Each session requires 2-3 hours to complete.

There is no money incentive (tuition) to complete the course as with industry or University courses.

Good topic for the on-line discussion topic

Currently there is no Instructor for the training, and no "student to student" interaction – a discussion group with Instructor monitoring could help supply these missing elements.

TIPS should inform the Manager/Supervisor that the student is taking the class and obtain managerial support. The ideal response would be to allow the student to go to a separate office to work on the course material and / or have designated time – "undisturbed with office work" and without interruptions to take the training.

Currently, a student is not registered for another class until first course is finished. There can be exceptions.

Future contacts suggestion: Bob Velcamp – DOI University contact – Skillssoft per Sarah Donnelly.

DECISIONS:

TIPS for Manager Course – as resources allow proceed as outlined.

e-Training Strategy - proceed as outlined.

TOPIC: Learning Management System—Information

Presentation Summary: A demonstration of how the TIPS course nomination process works on-line and how class registration works.

DISCUSSION: No travel is included in this process –this may be added in the future. The suggestion was made to include NTTP training in this system.

NTTP Coordination

TOPIC: NTTP Update and Briefing—Information

Less requests for courses indicates doing the right thing and getting people trained.

Airfare increases is a major impact on training costs and the number of students being trained.

DISCUSSION:

Committee Comments: Might expect increases due to retirements and hiring new people at entry levels. NTTTP tries to give priority to new employees and adding courses to meet the need to train new employees.

TOPIC: TIPS Recognition Awards – Presented by Lois Uranowski and Bob Welsh to Mike DiMatteo & Mike Sharp.

TOPIC: Steering Committee Members—Constituent Reports

DISCUSSION:

Carl Campbell (KY) - Illinois, Indiana and Kentucky [IMCC]

IL – no response from inquiry.

IN – Scott Gamble – received an NT server early in the change over from Unix, he would like to know the plans for replacing – upgrading, etc the server.

KY – Appreciates TIPS very much – an honor to be on the TIPS and NTTTP committees. KY would not be able to provide the TIPS type training. They are expecting a large turnover in the next couple of years due to retirement and the influx of new staff. KY will have a continued need for TIPS and NTTTP training. KY is very happy with the TIPS training being received. Due to the Internet shutdown and subsequent disruption to KeyServer access, they would like to know if there is another way to serve the software independent of the Internet. They are interested in Galena Slope Stability Training. KY MSHA and OSM methodologies for the States to use for slurry structures are different. \$11,000 of software to be used in this area. There is a difference of opinion with MSHA over what is enough. They need guidance regarding what is enough and how to reconcile the OSM and MSHA differences. The OSM Training Needs survey is a problem. The current system requires preparation of the needs survey without knowing the time and date of training, employees can not plan training attendance around deer hunting, ball games, and concurrent course offerings. Also the lodging is required to be paid up front using the employee's personal credit card and is later reimbursed. This creates a financial hardship on some students.

Billy Chovanec (TX) - Louisiana, Mississippi and Texas [IMCC]

These are three diverse programs in terms of size.

MS - utilized a lot of training. Last year specifically requested on-line training. The jury is still out from all 3 states on the on-line training. Last year they bit off a larger bite of training, but did not get a fair shot at the on-line ESRI training due to the January DOI Internet shut-down. They are concerned about the learning curve for the on-line courses. However, they consider the on-line training to have had a highly successful start anyway.

LA – The same thing to say as MS. All 3 states share North American Coal as a customer.

All 3 states are more field oriented now. Primary use at this time is putting hardware towards field use daily. They still require the support of the technical users especially in GIS. Re-training is needed when the students do not have the opportunity to use it right away – especially in GPS. Refresher small classes and CD's would be useful. The program completes designs in house so there is a range in types of GPS units used. Inspector – 3 tools he can not live without: his GPS unit, digital camera and cell phone – sinking in the mud if he had a choice to make – the cell phone would bite the dust. Hardware – year-end money has been especially useful in providing hardware. The Service Managers deserve praise. Folks feel comfortable picking up the phone and calling whoever is appropriate.

TX – ALCOA CO is trying to open another mine. Most problems are specifically ground water related. The addition of water programs such as AQTESOLV, etc. have become very involved in the permitting activities and analyses and has made the State staff very good at addressing specific problems and becoming experts, including becoming instructors.

John Craynon (OSM) - OSM-HQ

Steve Parson's brings a TIPS presence into HQ. Last couple of years they have completed the installation of all TIPS software at HQ. They have begun an awareness program in HQ on TIPS software to allow the staff to become ambassadors for the use of the software. Major limitation is the HQ hardware compatibilities. Windows 98 is the standard OS at HQ currently and there is discussion of what OS to go to next. They are currently reviewing how to use the TIPS software to support the technical staff and represent what is happening in the field.

Mike DiMatteo (PA) - Maryland, Ohio, Pennsylvania and Virginia [IMCC]

Common Comments from all states: TIPS is doing a good job, they are happy with the training and support from Pittsburgh and from Mike Dunn, especially. TIPS needs to keep the license servers up. Especially in OH where the TIPS software is essential daily. TIPS must find a way to get the license servers available all the time – get the Servers outside the firewall or something.

The states like on-site training, and on-line training, they want more. Bill Winters is working with Ohio so TIPS should see an increase in Training requests.

MD – They are light users overall, but they are getting into GPS use more. When they want help, they get it when they ask for it. So they are happy.

VA – "Keep doing what you are doing – it is working". They want more forums and workshops demonstrating TIPS software uses. They want more on-site training, and they point out that it is more cost efficient.

PA – They lost their director to OSM (Jeffery Jarrett). The TIPS technical support is great. The Anthracite project included \$12,000 used aerial photography for full cost bonding on large strip mines to confirm cubic footage to correctly bond locations. It corrected company estimates.

They want to develop GPS for deep mine projects. They are involved in the Eastern remote sensing project with Kyle. Regarding TIPS Training accommodations, the Alton hotels are too far away, and a Denver hotel was too far away without transportation – rental cars for the students. Otherwise TIPS training is in great shape. Thanks to Service Manager, Lois Uranowski is doing a great job!!

Larry Evans (WV) - West Virginia [IMCC]

WV - Their server is Unix based, their desktops are Windows, the hold out is raster imagery and photogrammetry. No change is expected for a while. They are transitioning in remote sensing software from PCI to ERDAS require software and training. Active mining – permitting activities previously done remotely have been re-centralized into the Nitro office allowing support. They are moving ahead on WMCS support for the CHIA process in the agency. The director imposed e-permitting component. The CITRIX TIPS software distribution is estimated to be within 60 days of serving the TIPS software to all people and desktops. They compared LIDAR accuracy in three watersheds to survey grade GPS, the LIDAR was found to be extremely accurate.

WV - AML – TIPS training attended and liked. TIPS should see an increase in their FY03 requests. Yesterday there were three new users in the blasting group. Many people are beginning to use the software and an increase in training requests and license use should be expected.

Willis Gainer (OSM) - Indian Tribes and OSM-WRCC Field Offices

Crow Nation – There has been no TIPS related activity. There is only a minor interest in TIPS activities since they contract out their work

Hopi – They are very appreciative of the new plotter, they need paper.

Navajo – They have TIPS stations in all three offices, they are getting ready to tie in to the TIPS network, and future work will be diminished.

All three appreciate TIPS involvement

Casper FO – They have a limited need and use of TIPS activities. They have a GIS network for each mine and they are using IKONOS satellite imagery combined it with GIS data for analysis such as measuring the width of the coal pile, analysis of permit boundaries, etc. They have checked re-graded areas, topsoil replacement depths, and are tracking the status of reclamation. They have a training program for the Indian inspectors for using the equipment to enable them to one day proceed with their own fieldwork.

Rick Koehler (NM) - Western States [WIEB] – Presented by Billie Clark

NM has some state licenses but use TIPS licenses and want to keep the TIPS access. They recommend dropping StratiFact. They like the ESRI on-line courses. They want TIPS to focus on Field applications and mobile computing and Fujitsu and to continue with remote sensing. One issue of KeyServer incompatible software—TIPS team working with NM. Problem with paper work and tracking hardware—TIPS team has resolved.

Greg Melton (AR) - Alabama, Arkansas and Oklahoma

AL – Regulatory and OK AML have participated in TIPS courses. They use GIS with a database. Both programs indicate they do not have time to learn to use GIS software.

OK is interested in participating especially in fieldwork data. All programs are interested in using CAD programs. AL uses CAD programs. AR uses CAD to maximize reclamation.

AL-AML – is interested in water analysis especially using AquaChem. Neither of the others receives enough data to use software for analysis.

OK_AML is excited about AquaChem.

AL – uses a GPS Geoexplorer 3. AL-AML, OK-AML both use GPS. OK-regulatory and OK use GPS TIPS training is very beneficial; all should be done to maintain TIPS. They want to move towards e-permitting. The hardware they need includes: laptops and pocket PC, scanners, GPS digital cameras computers, and also general software including word processing and spreadsheet software. Arkansas intends to migrate toward Arcpad. Smaller programs are appreciative of all the help possible.

Buck Miller (OSM) - OSM-ARCC Field Offices

Use centers around GIS and GPS software on items like slurry impoundment investigations. Knoxville – GIS related activity includes expanding the GIS data base with reclamation activity, and building the water quality data base including input of historical data. Their plan for the next couple of years is to serve data via an interactive web site. They are participating in the remote sensing study with satellite imagery for permitting activities.

Roy Morrison (OSM) - OSM-HQ – Not present.

Loretta Reichert (MT) - Western States [WIEB] – Presented by Bill Clark

MT - All is going well in TIPS with AML – via Service Manager Lou Hamm.

WY - They are having turn over with the technical staff. Mary Greene – Service Manager is doing a fantastic job.

ND - All is well and Service Manager Mary Greene is doing a great job.

John Riley (CO) - Western States [WIEB]

UT - All is fine, there are no special requests. The greatest challenge is getting staff up to speed on software. They are very appreciative of TIPS.

CO – They are very appreciative of TIPS programs and the timeliness of consultations, the assistance on special projects, and the opportunity to utilize TIPS people expertise. A valuable resource is being provided in the engineering software. The software program, which streamlined the training program nomination process, is working better with the automation. CO is moving into increased GIS use. They plan to build it into their database system.

Other states expressed concern about KeyServer and the accessibility of the license servers.

Pete Rutledge (OSM) - OSM-WRCC

PSD has three branches including TIPS. They like having the access to TIPS to help on problems that occur. The office developed Mine Teams consisting of Inspectors, Permit folks, etc. There is heavy-duty work on GIS and imaging work, which have been used together. Applications include contemporaneous permitting uses, mass balances, slopes, and verification of bonding amounts. Advances in imaging include a first attempt to truth Color IR with field data. They recently acquired ground water data pump forecasting expertise.

Mick Ahrens (OSM) - OSM-MCRCC

"Go forth and do good". No responses therefore TIPS is doing good. Mid-continent supplies TIPS hydrology studies, trainers and developers. They purchased a new copier for producing manuals, 50,000 pages worth of training manuals have been produced – all with color enabling the screen

captures to be seen more easily. They recommend the Learning Management System be used throughout the agency – add NTTP and Technology Transfer world activities, MC and VISA for on-line registrations.

Vann Weaver (OSM) - OSM-ARCC

ARCC are heavy users of all TIPS software and provide TIPS support via Service Managers, trainers, etc. They recently provided two new Service Managers and trainers. All Appalachian states have a SM from the Appalachian region except Maryland. All personnel are pleased by how it is going. All users express the need for refresher type training to get back up to speed when the hardware or software has not been used for a while. A couple of personnel have attended vendor training and praised it. Provide vendor training for all instructors in the software. ARCC continues to improve the training facility. Most all of the grumbling with tighter security after 9/11 is working itself out.

Handout: (sent by Benny Wampler (VA)) – "Proposal for the demonstration of airborne technologies for the delineation of abandoned underground mines ..." this would be used for determining underground flow models, etc. It would involve low-level flights, remote sensing.

Proposed for end of the year money from OSM– not out of TIPS funds.

DISCUSSION: It would be a committee choice of where to spend the money on technology like this, or new plotters, etc. Kyle has reviewed the proposal; additional funds are required to complete the project. It is a thermal application. \$95,000 Demo to determine IF this will work. The same thing performed in a WV project identified the big problem was Geo-referencing. In this study, one could see ground water emerging to the surface on hillsides. TIPS team supports the project, but it needs funds. The committee is requested to let Vann know if they support the project.

DECISION:

The Steering Committee supports the "Demonstration of Airborne Technologies for the delineation of Abandoned Underground Mines in Wise County, Virginia" project. OSM should seek additional monetary support from MSHA. TIPS team will submit additional funds request to OSM Executive Council. (Vann will prepare a comment paper for Director Jarrett by the end of July.)

Steering Committee members should provide comments to Vann by the end of July. Committee members should report, yes or no to proceeding with the project and include any general comments.

Jerry Wilkinson (MO) - Iowa, Kansas and Missouri

IA – A small user of SurvCAD, SEDCAD, and ArcView, they were very impacted by the servers being down. Three people are taking ESRI on-line – traditionally it has been hard to get to central training.

The Alton TIPS training center is better for all three states training; the participants can drive.

Unsolicited praise for the Service Manager was volunteered.

KA – TIPS is working fine for them. Everyone is using GIS. Can expect more requests on the ESRI – on-line. They would like to have guidance from TIPS on what to concentrate on or what modules NOT to do on-line. This would be a good idea for the discussion groups on-line to compliment the on-line courses. They are getting into the remote sensing data. They need one GPS GeoExplorer III.

MO – In Missouri, other agencies that deal with EPA are jealous of the Training available from OSM. The OSM training is very appreciated. It is a model other agencies should be emulating instead of being jealous of OSM.

DISCUSSION: Billie Clark comments and feedback: Vendor training for instructors – we are doing it as well as sending TIPS and State staff to attend conferences like the ESRI conference and the CAD conference. E-learning: Bob and the course managers will be working on "knowledge nuggets" small 15 minute "how to's" on planimeter, volumetrics, etc – very short.

OSM Director Comments - Jeffery Jarrett, Director

Director Jarrett appreciates hearing all the reports. It is a tough job we are doing but worthwhile. It is a tough job selling all the TIPS activities and new technology to the managers back in the states. It all starts with good science. It is extremely important to the Department of the Interior these days. Science is important to all of us. He appreciates the cooperative nature between the states and OSM. Two of the most successful programs in OSM are TIPS and NTTP; they are the most responsible for building a better relationship between the states and OSM. A program like this is where we want to put our resources, however, it does not mean we will get more funds due to the homeland security initiative and western wildfires; there probably will not be a lot of year-end money. TIPS will be supported. There is new technology he would like to see pursued (not specified in this meeting). He came to say thank you for all our efforts. The response to the TIPS efforts is that "people are in awe of how TIPS delivers". TIPS is one of the few programs that has delivered from day-one in showing other people "how to do it."

Presentations/Decisions To Committee - continued

Software

TOPIC: Software Management and Usage—Information – Greene

Presentation Summary: Software use and license server access has increased since last year even with the down period from December to January due to the court ordered DOI Internet shutdown. Licensing is closely reviewed and we are legal. We are reviewing back-up plans for both KeyServer and FlexLM to keep the servers and software available to customers even with Internet shut downs.

DISCUSSION:

Accountability – it would be good to find a way to relate software use in state programs, by size. TIPS should investigate developing a quantitative analysis to count software uses and savings from individual purchases of the software for each customer. TIPS should investigate what it would cost for the customer to "do it themselves – software & training costs" if not using TIPS software – it might not get done or be done by "hand" increasing customer time and cost, etc.

Server back-up plans – TIPS should definitely proceed with developing and implementing a backup plan for both KeyServer and FlexLM. TIPS should investigate the possibility of housing servers outside of OSM – there is precedence for this procedure including – DOI University & QuickHire. TIPS should investigate the cost for housing servers in an independent location. A KeyServer back up plan involves placing shadow servers in multiple sites that is a compatible option allowed by the vendor and software. We currently utilize this procedure for both KeyServer and FlexLM, however, all of the servers are on our WAN. We would need a minimum of two back-up servers placed outside of our WAN so as not to be impacted by DOI Internet access. KeyServer can use the shadows for two months without direct communication to the main server.

FlexLM is not as friendly for back-up scenarios; servers need to be on the same LAN, which would not provide back-up if the Internet access was disrupted. The main FlexLM servers need to be in locations with the highest reliability for protection. ESRI – has helped provided us with a workable back-up scenario. However, if the main servers were located outside of the OSM LAN, then OSM personnel would have to rely on the Internet to access the licenses. If OSM access to the Internet was unavailable, then the state's personnel could access the software but OSM staff could not (the exact opposite to the recent situations we have experienced). Concerns for access through the State Firewalls exist for KeyServer, which will require tweaking to ensure access for all customers.

The re-distribution of Flex licenses with some inside and some outside OSM LAN can get complicated. TIPS must be careful not to have too many licenses available and thereby jeopardize the ability for the FlexLM servers to communicate with each other. Bill Clark reiterated establishing a back-up plan for the TIPS software servers is a top priority and the Team is working on solutions.

TOPIC: SDPS Status-Information - Uranowski

TOPIC: STABL slope stability software vs. Galena—Decision - Greene

DECISION: "Go forth and do the right thing" develop a back-up plan for the License Servers and implement as soon as practical. Ensure the plan will minimize impact to TIPS users.

DECISION: Remain with Galena; do not change to STABL.

GIS

TOPIC: Meatball GIS and the Mountain Top Mining EIS—Information - Thomas Mastrococco

Meatball taken from MASH (meatball surgery) do what you can with what you have.

DISCUSSION: Great presentation.

Software - continued

TOPIC: CAD Strategy—Decision - Joseph

DISCUSSION: Users have requested advanced courses but the team needs to shift some of the basic course load to e-learning. Past steering committee meetings have noted the need for advanced courses. This would require alternate basic and introductory material. Sarah said it

would be possible to send an additional supplemental survey regarding the future needs for advanced courses not just in CAD courses – it would need a short paragraph on the description of the courses. Estimated cost: \$4500 for the Fujitsu unit fully configured.

DECISION:

Explore the need for advanced course development in TIPS, perhaps to include a supplemental needs survey with NTTIP regarding the desire for advanced courses in appropriate subject areas (CAD & hydrology) that would include short descriptions of the proposed course content.

Mobile Computing

TOPIC: TIPS Report and GIS Applications in the Western Region— Information - Welsh

DISCUSSION: Cost - \$2500 – \$6000 depending on configuration.

TOPIC: CAD Applications R&D: AML Design and Construction using Carlson Tsunami Software with AutoDesk Map 5 and SurvCADD CES – Dan House

DISCUSSION: Has there been any comparisons with LIDAR and aerial data at the same time – not yet. Preparing a comparison test to obtain information on the cost and time comparisons. Cost: ranges, could be available for @ \$1,000. There is a quasi CE version – a little different but generally the same process. How does the tablet compare to the Toughbook? The tablet has a virtual keyboard. You can now plug in a full size keyboard and monitor but you would need an alternate power source. The tablet is lighter and easier to manage in the field.

TOPIC: West Virginia Projects Update – Larry Evans

DISCUSSION: CITRIX may meet some resistance by users who would prefer to have the software applications loaded on their individual desktops. CITRIX maintains a virtual computing environment. Cost: 2 high-end servers to allow high-end software use \$100,000.

Current configuration could support approximately 40 applications simultaneously, depending upon the software accessed. Licensing is not expected to be a problem as other organizations have agreements with Microsoft to use a CITRIX server. The desktops would still be independent units and could install their own computer programs and store specifically designed personal preferences for software.

TOPIC: Inventory of Tri-State Area and AML – Mike Sharp

DISCUSSION: The mines do not stop at the state boundaries. The old miners say they could drive 50 miles underground without coming up to the surface. Will need to determine what soil is contaminated.

TOPIC: Mobile Computing Strategy—Decision - Welsh

DISCUSSION: Would like TIPS to review the Fujitsu more before making a decision. TIPS would like to allow the user to decide what hardware to use and TIPS concentrate on the software. TIPS needs to go with the needs of the customer – we provide different options to support the customer's needs. TIPS should continue to review the options on the software side.

DECISION: Continue to explore the GIS and CAD options as stated in the presentation.

Continue pilot program working with OSM and States:

GIS software with WRCC, OSM-AFO, OK, WV.

CAD software with MCRCC, IN, TX.

Include more states/OSM offices in pilot program

Add ArcPAD6 and Terrasync software and GeoExplorerCE to the program

Provide an option to TIPS users to provide GeoExplorerCE devices as GPS upgrades

Report back to Steering Committee on the progress in the pilot program.

Consider using a "check-out" system for mobile devices similar to RTK unit and GeoChemist's Workbench.

TOPIC: Garmin GPS

DISCUSSION: Garmin product is simple to use and relatively cheap. PA is already developing some training for it and would be willing to work with TIPS to develop a short course. It is simple enough not to need training in its use and probable does not need TIPS training.

DECISION: TIPS will not develop a training course for Garmin or provide direct support. TIPS will disseminate training/information on the TIPS Web site if others develop it. For example, if PA develops an E-Training course TIPS will post the training class. In addition, a topic for Garmin will be added to the new TIPS discussion forum.

REMOTE SENSING

TOPIC: Eastern States Pilot, Western Region Initiatives and ERDAS Software - Kyle Bohnstiehl

DISCUSSION: RTK unit is available for check-out.

The training course pre-requisite CD should be finished and distributed prior to the 2003 course schedule. Training licenses will be the demo versions, active for 30 days with unlimited number of copies.

DECISIONS:

Prepare the DVD e-learning prerequisite.

Consider the need for a 3rd class in FY 03, consider the maximum number of students per training center is 12-15.

Add Virtual GIS to available modules as funds allow.

Monitor ERDAS software use, if the need arises, purchase additional licenses of the basic module (\$3,000) to enable multiple upper level modules to run simultaneously.

PA will develop a white paper on the anthracite project and provide it to OSM. TIPS will distribute the white paper via hard paper copy and on the web site.

ArcIMS will be done with a pilot project with Albuquerque.

Continue to generate the case study pamphlets.

TOPIC: Watershed Characterization and Modeling System: WV—Information - Mike Strager

Presentation Summary:

WQMS – Water Quality Modeling System – hard to distribute – mainframe

WCMS – Watershed Characterization Modeling System

CHIA extension – ArcView Avenue extension – can be used nationally to predict impacted area, which streams and where to sample, land cover change affect water quality, monthly, annual and mean flows. The program enables one to delineate watersheds from streams.

DISCUSSION:

Input 30 m DEM are hydrologically corrected to ensure flow in a downstream direction.

It is currently being used by WV permit personnel for small watersheds. This software is not being used by the entire WV staff. The program's largest use in the watershed delimitation, stream flow query, drainage paths, and use of the profile tool. Some water quality estimation is using the sample points. Users will want to be able to correlate water quality to the flow and flow to the water quality. Findings are for an average monthly flow. Future modifications will hopefully be able to predict water quality for a day. It is an ArcView 3.x extension . WV University expects to complete the transition to ArcGIS by the end of the year or beginning of the next year. Optimum watershed size – nothing under 6 sq mi to 150 acres. Input and analysis is currently limited to and based on the 30 meter DEM's. OSM has not committed to using this model. It is unknown if other states are using this model. WV is using EQUIS for water quality database. This system will have access to the water quality data. Mass Balance Model does not have the capability of modifying the flow for predictability. It is using static hydro grids and 30 year monthly averages of stream flow data matched with the same 30 years of precipitation data.

TOPIC: National Mine Map Repository—Information - George Popper

Presentation Summary: 90% of the maps and info are East of the Mississippi River. Information can be requested by county, USGS quad or county name. If any one is working on a project – it is best to inquire, they just might have useful data for the area under study. They are requesting donations of any resources found or offered. Research costs are free to the States and Federal Offices.

DISCUSSION: Great presentation. Very interesting to know. A little known treasure that should be used more.

TOPIC: Technology Transfer – ARCC - Vann Weaver

Presentation Summary: The Technology Transfer duties are absorbed within the region by general personnel – they do not have a separate office. OSM is represented at schools and trade shows, participation on national committees, and has sponsored a booth at Earth Day. ARCC held a technical meeting for all technical staff at the MSHA Academy. They shared knowledge and techniques, gained new knowledge, and presented technique papers. The meeting went very well. In the future, they would like to have state personnel participate also. This was the first time for a technical forum. Bill Clark and Sarah Donnelly represented TIPS and NTTTP.

DISCUSSION: People were really interested in the sessions and glad to be at the recent ARCC technical meeting in WV. Very positive feedback and the desire to do it again. It was good for the Field Office Directors to be exposed to the quality of the technical support available.

TOPIC: Technology Transfer – MCRCC - Mick Ahrens

Presentation Summary: Technology transfer – monthly update is printed and includes a TIPS report for every state. Training is tracked for NTTTP and TIPS courses with involvement as students, instructors, or hosting as well as other courses. The newsletter goes to all field offices in the region. Involved in forums, generally one a year, this past year they were involved in three. There is one person dedicated to working on the forums. They published a brochure for all forums hosted and it is on the web site. Registration is handled via Southern University of Illinois – Carbondale who has the ability to accept credit cards via the Internet. Forums: Bats, Coal Combustion By-Products, and Market-based approaches to mine land reclamation and re-forestation. MCRCC will produce a proceedings document for the first two forums. The files are converted into Acrobat PDF files and placed on the web site for delivery as well as via cd. The web site has obtained requests from around the world. Copied the Benchmarking Workshop on PHC / CHIA proceedings for Greg Conrad.

DISCUSSION: Great work.

TOPIC: Hydrology--Large Watershed Modeling Strategy—Decision

DISCUSSION: States are waiting to see from OSM what needs to be done. John Craynon's directive is to follow-up on the PHC/CHIA workshop. OSM will help facilitate the states' ability to do PHC/CHIA work. PA needs watershed-modeling software. It is important to determine the needs of the states and to identify software capable of addressing the needs.

DECISION: Brent will make the decision as to how to best proceed.

TOPIC: Wrap-up and Summary of Decisions - Brent Wahlquist

DISCUSSION: Key Points identified by committee members:

The License Servers need to be reliable and a back-up plan should be developed and implemented to ensure continuous access to TIPS software.

The Remote Sensing and Mobile Computing and E-learning (especially the knowledge nuggets) initiatives should continue.

Provide data for the decision items and provide the topics to the committee prior meeting so that committee members can obtain feedback.

Address the Large Watershed PHC / CHIA Software Review.

Training: Roll in the NTPP data collection with Greg's program and TIPS should adopt the NTPP format of the three-month follow-up to the student and the manager.

Provide a full review of the ESRI On-line classes after enough time has passed to fairly evaluate it.

The Service Manager concept is working very well.